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Self-Reported Increase in Asthma Severity After the September 11 Attacks on the World Trade Center — Manhattan, New York, 2001

Asthma is a chronic condition that affects approximately 14 million persons in the United States and is characterized by airway inflammation, reversible airway obstruction, and airway hyperresponsiveness to a variety of triggers (*1*). Both environmental and psychological factors can trigger asthma exacerbations (*2–4*), and a seasonal increase in asthma morbidity occurs in the fall (*5*). This report summarizes the results of a telephone survey conducted among Manhattan residents 5–9 weeks following the September 11, 2001, terrorist attacks on the World Trade Center (WTC) in lower Manhattan in New York City. The findings indicate that among the 13% of adult respondents with asthma, 27% reported experiencing more severe asthma symptoms after September 11. Although a normal seasonal increase in asthma severity was expected, increased severity was reported more commonly among asthmatics reporting psychological distress associated with the attacks and/or difficulty breathing because of smoke and debris during the attacks. Persons with asthma and their clinicians should be aware of the role environmental and psychological factors might play in worsening asthma after disasters.

The study data were collected as part of a survey focused primarily on the psychological impact of the attacks (*6*). Telephone interviews were conducted during October 16–November 15, through a random-digit–dialed sample of persons aged ≥18 years living south of 110th Street in Manhattan. Households were screened for geographic eligibility, and an adult with the most recent birthday was selected to be interviewed. Sample weights based on the number of telephones and adults in each household were applied to adjust for varying probabilities of being interviewed. The response rate was 64.3%. A total of 1,008 persons were interviewed, of whom 20 were excluded from the analysis because of missing weight variables. Psychological factors, including life-stressors*, depression, and risk for post-traumatic stress disorder (PTSD), were assessed by using questions documented previously (*7*).

Among participants, 134 (13.4%) reported having been told previously by a doctor that they had asthma; 75 (58.2%) of those with diagnosed asthma were women. The median age of the 134 participants with asthma was 36 years (range: 18–78 years); 86 (70.7%) were non-Hispanic whites, 66 (64.8%) had an annual household income of ≥$40,000, and 99 (72.2%) had a college or graduate degree. Of the 134 persons with asthma, 17 (12.1%) reported that they lived or were present south of Canal Street (i.e., 15 blocks north of the WTC site) at the time of the attacks.

Of the 134 respondents with diagnosed asthma, 34 (27.0%) reported worsening of asthma symptoms after the September 11 terrorist attacks, defined as having moderate to severe symptoms during the weeks since September 11 compared with having none to mild symptoms during the 4 weeks before

* Include death of a close family member; serious illness or injury; change in marital status, family, or work situation; or emotional problems.

INSIDE

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September 11. Persons with asthma reporting worsening symptoms were more likely than those not reporting worsening symptoms to report unscheduled visits to a health-care provider (28% versus 5%; p=0.02) for asthma after September 11.

Bivariate analyses showed that an increased severity of asthma symptoms since September 11 was significantly more likely to be reported by respondents who 1) had difficulty breathing because of smoke and debris during the attacks, 2) had two or more life stressors during the 12 months before the attacks, 3) experienced a peri-event panic attack (i.e., an event that occurred at the time of or shortly after the attacks), 4) had depression during the preceding month, or 5) had symptoms of PTSD related to the attacks during the preceding month (Table). Persons with asthma who lived or were present south of Canal Street on September 11 were more likely than others to report increased asthma symptoms; however, the association was not statistically significant.

Separate multivariate logistic regression models were used that included life stressors during the preceding 12 months, peri-event panic attack, PTSD, and depression and that controlled for age, sex, race/ethnicity, income, and difficulty breathing because of smoke and debris. Having two or more life stressors during the 12 months before the attacks (odds ratio [OR]=4.4; 95% confidence interval [CI]=1.4–14.2) remained significantly associated with an increase in asthma severity after September 11; difficulty breathing because of smoke and debris also was a significant predictor of worsening asthma after September 11 (OR=7.0; 95% CI=2.3–21.3). Although peri-event panic attack (OR=2.4; 95% CI=0.8–7.4), PTSD (OR=3.6; 95% CI=0.6–20.9), and depression (OR=2.9; 95% CI=0.9–9.8) also were associated with increased severity in asthma symptoms, the relation was not statistically significant.

Reported by: *J Fagan, PhD, S Galea, MD, J Ahern, MPH, S Bonner, PhD, D Vlahov, PhD, Center for Urban Epidemiologic Studies, New York Academy of Medicine, New York City. Div of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC.*

Editorial Note: Particulate matter and other constituents of smoke can trigger asthma (*8*). Persons with asthma who reported difficulty breathing because of smoke and debris during the September 11 attacks might have been particularly sensitive to smoke from the fires that burned at the WTC site for several weeks. Psychological stress also can worsen asthma (*2*), and PTSD has been associated with an increase in respiratory symptoms (*9*) and with asthma. Even accounting for the impact of smoke and debris on asthma symptoms, adults with asthma who had two or more life stressors before September 11 (a risk factor for PTSD) were more likely to experience worsening of asthma after the attacks.

TABLE. Number* of adults with asthma and percentage reporting increased symptom severity after the September 11 terrorist attacks on the World Trade Center (WTC), by demographic characteristics, difficulty breathing from dust and debris, and selected psychological factors — Manhattan, New York, 2001

Characteristic	No.	% reporting increased symptoms	OR†	(95% CI§)
Age group (yrs)				
18–54	104	22.5	1.0	—
≥55	29	43.7	2.7	(0.9– 7.6)
Sex				
Men	58	20.0	1.0	—
Women	75	31.3	1.8	(0.7– 4.7)
Race/Ethnicity				
White, non-Hispanic	86	26.7	1.0	—
Other¶	40	26.0	1.0	(0.4– 2.6)
Annual Income				
<$40,000	38	19.8	1.0	—
≥$40,000	66	33.1	2.0	(0.7– 5.6)
Education				
Graduate degree	39	22.5	1.0	—
College degree	60	27.3	1.3	(0.4– 4.0)
No college degree	33	31.6	1.6	(0.4– 5.8)
Lived/present south of Canal Street on September 11**				
No	97	24.3	1.0	—
Yes	17	34.9	1.7	(0.5– 5.7)
Difficulty breathing because of smoke/debris during the attacks				
No	104	18.8	1.0	—
Yes	30	51.3	4.6	(1.7–12.1)
Life stressors†† during 12 months before September 11				
0	62	21.4	1.0	—
1	37	20.1	0.9	(0.3– 3.0)
≥2	35	46.5	3.2	(1.1– 9.2)
Peri-event panic attack				
No	106	20.2	1.0	—
Yes	28	47.3	3.5	(1.3– 9.8)
Depression during the preceding month				
No	109	23.1	1.0	—
Yes	23	47.7	3.0	(1.0– 8.9)
Post-traumatic stress disorder during the preceding month, related to terrorist attacks				
No	120	23.8	1.0	—
Yes	14	53.1	3.6	(1.0–12.7)
Total	**134**	**27.0**		

* Number of respondents who had ever been told by a doctor that they had asthma. Numbers might not add up to 134 because of missing values. Sample weights based on number of telephones and adults in each household applied to adjust for varying probabilities of being interviewed.
† Odds ratio.
§ Confidence interval.
¶ Numbers for other racial/ethnic groups were too small for meaningful analysis.
** 15 blocks north of WTC site.
†† Include death of a close family member; serious illness or injury; change in marital status, family, or work situation; or emotional problems.

The findings in this report are subject to at least four limitations. First, no objective measures are available to validate the self-reported worsening of asthma symptoms in this population. Second, because of its cross-sectional design, this study could not establish a temporal or causal relation between worsening of asthma symptoms and psychological symptoms. Third, some selection bias cannot be ruled out; those with health problems might have been more or less likely to participate in the survey than others. Finally, because asthma severity usually increases in the fall (*5*), these data cannot be used to quantify the absolute impact on persons with asthma of environmental and psychological factors related to the September 11 terrorist attacks.

Despite these limitations, the survey data suggest that both the environmental and psychological sequelae of the September 11 attacks contributed to increasing symptoms experienced by some persons with asthma during the weeks following the attacks. Persons with asthma and their clinicians should be aware of the role these factors might play in worsening asthma after disasters.

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Psychological and Emotional Effects of the September 11 Attacks on the World Trade Center — Connecticut, New Jersey, and New York, 2001

To measure the psychological and emotional effects of the September 11, 2001, terrorist attacks on the World Trade Center (WTC), Connecticut, New Jersey, and New York added a terrorism module to their ongoing Behavioral Risk Factor Surveillance System (BRFSS). This report summarizes the results of the survey, which suggest widespread psychological and emotional effects in all segments of the three states' populations. The findings underscore the importance of collaboration among public health professionals to address the physical and emotional needs of persons affected by the September 11 attacks.

BRFSS is a random-digit–dialed telephone survey of the noninstitutionalized U.S. population aged ≥18 years (*1*,*2*). The terrorism module consisted of 17 questions which asked respondents whether they were victims of the terrorist attacks, attended a memorial or funeral service after the attacks, were employed or missed work after the attacks, increased their consumption of tobacco and/or alcohol following the attacks, or watched more media coverage following the attacks. The survey was conducted during October 11–December 31. A total of 3,512 respondents completed the module in the three states (1,774 in Connecticut, 638 in New Jersey, and 1,100 in New York). SAS and SUDAAN were used in the analyses to account for the complex sampling design.

Of the 3,512 participants, approximately 50% participated in religious or community memorial services, and 13% attended a funeral or a memorial service for an acquaintance, relative, or community member (Table). Three fourths (75%) of respondents reported having problems attributed to the attacks. Nearly half (48%) of respondents reported that they experienced anger after the attacks. Approximately 12% of respondents with problems reported getting help. Family members (36%) and friends or neighbors (31%) were the main source for help. Approximately 3% of alcohol drinkers reported increased alcohol consumption, 21% of smokers reported an increase in smoking, and 1% of nonsmokers reported that they started to smoke after the attacks.

The impact of the attacks varied by sex, age group, educational level, and race/ethnicity. Compared with men, women were more likely to have participated in a religious or community memorial service (55.1% [95% confidence interval (CI)=54.2%–55.9%] versus 43.0% [95% CI=41.7%–44.3%]) and to get help with the problems they experienced (15.3% [95% CI=13.0%–17.6%] versus 8.8% [95% CI=7.9%–9.6%]). Men were more likely than women to drink more alcohol (4.2% [95% CI=3.4%–4.9%] versus 2.4% [95% CI=2.1%–2.6%]), and women smokers were more likely than men to smoke more as a result of the attacks (27.1% [95% CI=23.9%–30.3%] versus 14.8% [95% CI=12.3%–17.3%]).

Approximately 27% of respondents who were working at the time of the attacks missed work afterwards. The major reason for missing work was transportation problem (51%). Approximately 21% of workers had to be evacuated on the day of the attacks. Approximately 80% of respondents reported watching more media coverage than usual on television or through the Internet. Approximately 3% of respondents reported that they were victims of the attacks, 7% had relatives who were victims, and 14% had friends who were victims. In Connecticut, New Jersey, and New York, 4%, 17%, and 35% of the respondents, respectively, reported being in New York City during the attacks.

Reported by: *TA Melnik, DrPH, CT Baker, Bur of Chronic Disease Epidemiology and Surveillance, New York State Dept of Health. ML Adams, MPH, Connecticut Dept of Health. K O'Dowd, PhD, New Jersey Dept of Health and Senior Svcs. AH Mokdad, PhD, DW Brown, MSPH, W Murphy, WH Giles, MD, VS Bales, MPH, Div of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.*

TABLE. Percentage of persons who reported being affected by or experiencing problems as a result of the September 11 attacks on the World Trade Center, by type of impact or problem — Connecticut, New Jersey, and New York, Behavioral Risk Factor Surveillance System, 2001

Impact/Problem	Connecticut		New Jersey		New York		Total	
	%	(95% CI*)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Was a victim or knew a victim of the attacks	29.8	(27.3–32.4)	39.6	(34.6–44.6)	34.6	(31.4–37.9)	**34.7**	**(32.1–37.2)**
Participated in any religious or community memorial services	48.7	(45.9–51.5)	52.3	(47.2–57.5)	49.2	(45.7–52.6)	**49.5**	**(46.7–52.2)**
Attended any funeral or memorial services for friends, acquaintances, or community members killed in the attacks	8.2	(6.6– 9.9)	12.2	(9.1–15.4)	13.5	(11.2–15.7)	**12.7**	**(10.9–14.5)**
Anger	49.8	(47.0–52.5)	44.9	(40.1–49.7)	48.8	(45.4–52.1)	**48.4**	**(45.8–51.0)**
Nervousness	24.2	(21.9–26.5)	18.0	(14.6–21.4)	24.8	(22.0–27.6)	**23.9**	**(21.7–26.2)**
Worry	39.3	(36.6–41.9)	32.2	(27.7–36.7)	38.1	(34.8–41.3)	**37.5**	**(34.9–40.1)**
Sleep problems	14.5	(12.6–16.4)	10.0	(7.1–12.8)	14.9	(12.5–17.2)	**14.2**	**(12.4–16.1)**
Hopelessness	6.9	(5.5– 8.3)	4.4	(2.7– 6.0)	8.6	(6.7–10.4)	**7.9**	**(6.5– 9.3)**
Loss of control of external events	8.6	(7.0–10.1)	6.1	(4.2– 8.0)	9.3	(7.5–11.1)	**8.9**	**(7.4–10.3)**
Any problem	72.9	(70.5–75.4)	73.3	(68.9–77.7)	75.6	(72.7–78.5)	**75.0**	**(72.7–77.4)**
Received help with problems experienced since the attacks†	7.6	(5.9– 9.3)	10.7	(6.9–14.7)	13.3	(10.8–15.8)	**12.4**	**(10.4–14.4)**
Drank more alcoholic beverages since the attacks	2.4	(1.5– 3.4)	3.1	(1.6– 4.6)	3.3	(2.3– 4.4)	**3.2**	**(2.3– 4.0)**
Smoked more since the attacks§	15.6	(10.7–20.6)	17.1	(10.6–23.5)	22.5	(16.7–28.3)	**21.1**	**(16.5–25.6)**
Started smoking since the attacks¶	0.3	(-0.1– 0.6)	0.4	(-0.1– 0.8)	1.7	(0.4– 3.0)	**1.4**	**(0.4– 2.4)**

* Confidence interval.
† Percentage based on those who reported any problem.
§ Percentage based on those who were current smokers.
¶ Percentage based on those who were nonsmokers.

Editorial Note: The findings in this report document the widespread emotional and psychological effects among residents of three states following the September 11 attacks and indicate that some persons sought help to cope with the catastrophic events. Although this survey inquired about the short-term effects of the attacks, the findings suggest the need to consider the long-term emotional and psychological health of the affected population. The flexible design of BRFSS allows states to add questions to their ongoing surveys to address changing situations and crises, such as the WTC attacks.

The findings in this report are subject to at least four limitations. First, the survey design excluded persons without a telephone, which primarily includes persons of low socioeconomic status. Second, the survey excluded persons who were not yet able to discuss their emotional response to the attacks. Third, the survey did not measure the severity and duration of emotional and psychological problems of the respondents. Finally, the survey might have excluded persons who had moved from the area after the attacks.

Public health professionals should consider the emotional and psychological well-being of persons after traumatic events. The results of community-based surveys can help target programs designed to help residents deal with the aftermath of terrorist attacks. In response to national disasters, several programs have been implemented successfully to provide immediate medical care and to prevent the spread of infections and disease; however, the long-term emotional pain and suffering associated with disasters also needs to be considered in response planning. State and federal agencies should prepare programs to address the emotional and psychological health of persons, and these programs should be integrated with other disaster-preparedness plans.

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Notice to Readers

Occupational Health Guidelines for Remediation Workers at *Bacillus anthracis*-Contaminated Sites — United States, 2001–2002

Remediation workers involved in clean up and decontamination are potentially exposed to *Bacillus anthracis* spores while working in contaminated buildings along the paths of letters implicated in bioterrorism-related anthrax. Federal guidelines and Occupational Safety and Health Administration (OSHA) regulations for hazardous waste operations and hazardous material response workers (HAZWOPER) (*1,2*) provide information about surveillance for hazardous exposures, the use of personal protective equipment (PPE) and clothing, and a generic medical program but do not address anthrax specifically. CDC has developed the following guidelines to provide medical protection for current and future workers responsible for making *B. anthracis*-contaminated buildings safe for others to enter and occupy. This information will benefit medical directors and consultants who design and supervise medical components of the OSHA-required health and safety plan (HASP), health-care providers who implement these programs for onsite workers or who care for workers offsite, and site health and safety officers who coordinate onsite programs.

HAZWOPER Guidelines and Regulations

A medical program for remediation workers should be part of a site-specific HASP that also includes 1) environmental surveillance of health hazards; 2) engineering and administrative controls and use of PPE; 3) training about exposures, potential adverse health events, and preventive measures; and 4) an emergency response plan (*1,2*). The medical program should be designed and administered by a licensed physician in conjunction with the site health and safety officer. The administering physician should be knowledgeable about all of the relevant areas of occupational medicine (e.g., toxicology, industrial hygiene, medical screening, and occupational health surveillance) (*3*) and should be able to interpret information about potential exposures, PPE, work schedules, work practices, and relevant regulations. Because work sites might be remote from the home base, health-care providers implementing the program should be selected for accessibility to workers, access to diagnostic resources and a reliable system for hospital referral, and the ability to conduct around-the-clock coverage for work-related medical care. Baseline medical evaluations should identify pre-existing conditions affecting a worker's fitness for duty, ability to use PPE safely, and susceptibility to adverse work-related health outcomes. Periodic evaluations should be scheduled to detect symptoms and signs related to workplace exposures and to reassess fitness for duty. Active surveillance for exposure incidents (e.g., PPE breaches) and adverse health outcomes should determine the need for additional evaluations. Exit evaluations should identify changes from the person's baseline and any new risk factors.

Selection of specific PPE should be based on an assessment of potential exposures and activities; the highest level of protection (i.e., level A) might be required (*4*). Examining physicians should be familiar with the physical requirements and limitations imposed on workers by the selected PPE (e.g., water-impermeable, chemical-resistant suits prevent evaporative cooling and contribute to dehydration and heat stress; facepieces might aggravate claustrophobia; respirator air-flow resistance and the weight of self-contained breathing apparatuses [SCBAs] might aggravate respiratory and heart conditions; and PPE materials might contribute to skin problems).

When notifying the employer of a worker's fitness for duty, health-care providers should maintain confidentiality of medical information according to ethical and legal requirements. Workers should be notified of the results of their own evaluations.

Medical Measures to Prevent Anthrax

Despite the use of PPE, remediation workers are at risk for exposure to *B. anthracis* spores because spores might be reaerosolized (R. E. McCleer, CDC, personal communication, 2002), PPE is not 100% protective (*5*), individual work practices might lead to exposure (*5*), breaches in PPE and environmental controls might occur, and some breaches might go unrecognized. Neither the infective dose for development of inhalational anthrax nor the level of exposure to *B. anthracis* during remediation activities has been characterized adequately. Because of these uncertainties and because anthrax is potentially fatal, workers entering *B. anthracis*-contaminated sites should be vaccinated adequately with anthrax vaccine or protected with antibiotic prophylaxis. This recommendation also applies to workers entering areas that already have been remediated but have not yet been cleared

for general occupancy. The use of medical measures for preventing anthrax does not eliminate requirements for use of PPE when entering uncleared areas. The initial medical evaluation should screen for contraindications to anthrax vaccine or antibiotic use, and periodic evaluations should monitor for adverse effects (Table). Workers should be educated about possible adverse effects and antibiotic interactions with food and drugs.

To prevent anthrax, CDC has recommended 60 days of antibiotic prophylaxis after exposure to *B. anthracis* (*6*). Unvaccinated remediation workers should begin antibiotic prophylaxis at the time of their first entry and continue until at least 60 days after last entry into a contaminated area.

Remediation workers with repeated entries into contaminated sites over a prolonged period of time require antibiotic coverage for considerably longer than the 60 days recommended for persons with a one-time exposure. Some remediation workers have been treated with antibiotics for >6 months, and remediation projects are not yet complete. Prolonged antibiotic use might cause side effects (frequently mild but occasionally severe) and might also result in the development of resistant microorganisms. Although supplies for civilian use remain severely limited, CDC recommends anthrax vaccine adsorbed (BioThrax™, formerly known as AVA, BioPort Inc, Lansing, Michigan) for workers who will be making repeated entries into known contaminated areas and is making BioThrax™ available to workers meeting these criteria. This ultimately will reduce the need for antibiotic prophylaxis and associated side effects for vaccinated persons. The recommended pre-exposure course of BioThrax™ is 6 doses (at 0, 2, and 4 weeks and at 6, 12, and 18 months) with annual boosters (*7*). If BioThrax™ is administered while the risk for exposure continues, CDC recommends concomitant antibiotic prophylaxis throughout the period of risk for exposure and for 60 days after the risk for exposure has ended unless the 6-dose initial series has been completed and annual boosters are up to date.

Anthrax-Related Medical Monitoring and Follow-up

No validated methods exist for monitoring a person's exposure to *B. anthracis*. Nasal swabs and serology might be useful as epidemiologic tools but are not appropriate for medical surveillance of potentially exposed individual workers. Results of these tests should not be used to assess individual exposure or to make decisions about antibiotic prophylaxis (*8*).

Inhalational exposure to a high dose of *B. anthracis* spores might result in rapid death. Therefore, in the absence of PPE, exposure to aerosolized powder known or strongly suspected to be contaminated with *B. anthracis* spores should be treated as a medical emergency (i.e., requiring prompt initiation of antibiotic prophylaxis). Fully vaccinated workers wearing appropriate PPE would not require antibiotic prophylaxis unless they had a breach in their PPE that allowed inhalation of ambient air, for example, a disruption of their respiratory protection. All workers should be trained to recognize and report exposure incidents and early symptoms and signs of anthrax, understand the importance of immediate medical attention, and know how to access emergency medical care. Medical follow-up should be provided as long as the risk for anthrax exists, whether the worker is onsite, off duty (including vacation or holiday), or no longer working at the remediation site. Because remediation work is transient and the workforce highly mobile, special arrangements are necessary for following workers after they leave the worksite.

Summary

Despite the apparently low disease rate from exposure, protection for remediation workers at *B. anthracis*-contaminated sites is warranted because inhalational anthrax is rapidly progressive and highly fatal, PPE does not guarantee 100% protection, and the risk for developing disease cannot be characterized adequately. The guidelines described here go beyond HAZWOPER requirements and include recommendations for treating inhalation exposure to *B. anthracis* spores as a medical emergency, medical follow-up as long as the risk for anthrax persists or a worker is receiving antibiotic prophylaxis, accommodation of a mobile workforce, and assurance that workers understand the need for immediate medical attention should symptoms of anthrax occur. Completion of the 6-dose series of anthrax vaccine followed by annual booster doses will decrease the reliance on antibiotics for the prevention of anthrax. Measures to protect workers must include both medical measures (i.e., vaccination, antibiotic prophylaxis, or a combination of both) and measures to prevent exposure (e.g., PPE and environmental controls).

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TABLE. Recommendations for medical program components to prevent anthrax among remediation workers*

Concern	Information needed by administering physician	Medical program components	Content	Time of evaluation
Anthrax	From site health-and-safety officer: • Site-specific characteristics about contamination and control measures, plans, practice, and effectiveness • Occupational health and safety program re: *B. anthracis* and anthrax	Targeted medical history about predisposing conditions	• Skin conditions • Immunodeficiency disorders	Before assignment
		Information dissemination and counseling	Worker knowledge and understanding of: • Characteristics of disease and diagnostic difficulties • Urgent need for medical attention as soon as symptoms begin	Before, during, and at end of assignment
Antibiotic prophylaxis	Antibiotic recommendations†§	Monitoring for disease	• Signs and symptoms of inhalational and cutaneous anthrax • Follow-up of absenteeism	Throughout assignment and ≥60 days afterward
		Targeted medical history	• Drug allergies, medication use, problems with prior use of antibiotics, pregnancy	Before assignment
		Information dissemination and counseling Administration of antibiotic prophylaxis Monitoring antibiotic use	• Informed consent • Risk for disease versus risk for adverse drug effects • Duration of antibiotic use, adverse effects, food and drug interactions • Monitoring compliance and adverse effects	While on medication
Anthrax vaccine	Vaccine recommendations¶	Targeted history	• Anthrax vaccine status • Pregnancy, contraindications	Before assignment
		Information dissemination and counseling Administration of vaccine Medical monitoring	• Informed consent • Risk of disease versus risk of adverse effects • Need for antibiotics during development of an immune response • Local side effects: pain and swelling at site of injection • Systemic side effects (rare)	Before and during administration of vaccine
Surveillance	From site health-and-safety officer: • Environmental monitoring results • Exposure incidents	Data collection and assessment of environmental and medical information	• Level of protection • Breaches of PPE and environmental controls • Offsite sources of contamination	Throughout assignment
	From health-care providers: • Reports of symptoms and other health outcomes		• Skin lesions, symptoms of inhalational anthrax • Adverse effects of antibiotic use or vaccine, compliance • Evaluation of trends in workforce (e.g., symptoms, absenteeism)	Throughout assignment and ≥60 days afterward
Logistics	From site health-and-safety officer: • Workforce characteristics (e.g., geographical considerations)	Provision of medical care and follow-up	Arrangements and agreements with health-care providers	Before and during assignment and ≥60 days afterward
		Information dissemination and counseling	Indications and procedures for accessing emergency and nonemergency medical care and follow-up	

* These recommendations are not exhaustive and might change as new information becomes available. See the CDC Public Health Emergency Preparedness and Response website (http://www.bt.cdc.gov/) or search *MMWR* (http://www.cdc.gov/mmwr/mmwrsrch.htm).
† CDC. Update: investigation of anthrax associated with intentional exposure and interim public health guidelines. MMWR 2001;50:889–93.
§ CDC. Investigation of bioterrorism-related anthrax and interim guidelines for exposure management and antimicrobial therapy. MMWR 2001;50:909–19.
¶ CDC. Use of anthrax vaccine in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(No. RR-15).

4. National Institute for Occupational Safety and Health, Occupational Safety and Health Administration, U.S. Coast Guard, and U.S. Environmental Protection Agency. Personal protective equipment. Table 8-6. Sample protective ensembles. In: Occupational safety and health guidance manual for hazardous waste site activities. Washington, DC: U.S. Department of Health and Human Services, CDC, National Institute for Occupational Safety and Health, 1985; DHHS publication no. NIOSH85-115.
5. Nicas M, Neuhaus H, Spear RC. Risk-based selection for respirators against infectious aerosols: application to anthrax spores. J Occup Environ Med 2000;42:737–48.
6. CDC. Update: investigation of bioterrorism-related anthrax and interim guidelines for exposure management and antimicrobial therapy. MMWR 2001;50:909–19.
7. CDC. Use of anthrax vaccine in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2000;49(No. RR-15).
8. CDC. Interim guidelines for investigation of and response to *Bacillus anthracis* exposures. MMWR 2001;50:987–90.

Notice to Readers

Protecting Building Environments from Airborne Chemical, Biologic, or Radiologic Attacks

In November 2001, following the discovery that letters containing *Bacillus anthracis* had been mailed to targeted locations in the United States, the Secretary of the U.S. Department of Health and Human Services requested site assessments of an array of public- and private-sector buildings by a team of engineers and scientists from CDC's National Institute for Occupational Safety and Health (NIOSH). In November 2001, this team assessed six buildings, including a large hospital and medical research facility, a museum, a transportation building, two large office buildings, and an office/laboratory building. In January 2002, additional building assessments were conducted at CDC campuses in Atlanta and, in April 2002, at a large, urban transportation facility. A total of 59 buildings were evaluated during this 5-month period.

The primary goal of these assessments was to determine the vulnerability of building air environments, including heating, ventilation, and air-conditioning (HVAC) systems, to a terrorist attack with chemical, biologic, and radiologic (CBR) agents and to develop cost-effective prevention and control strategies. At each facility, CDC investigators performed onsite evaluations to assess the building's vulnerability to CBR attack from internal and external sources. The investigators also reviewed security and safety plans at each facility. Facility owners received confidential reports identifying observed vulnerabilities and possible remedial options. Collectively, the field observations and prevention recommendations from the building assessments were combined with input from government and industry experts to identify general guidance that encourages building owners, facility managers, and engineers to review design, operational, and security procedures at their own facilities.

The recommendations include measures that can transform buildings into less attractive targets by increasing the difficulty of introducing a CBR agent, increasing the ability to detect terrorists before they carry out an intended release, and incorporating plans and procedures to mitigate the effects of a CBR release. These recommendations are presented in the recently completed NIOSH guidelines (*1*), which address physical security, airflow and filtration, maintenance, program administration, and staff training. The guidelines recommend that building owners and managers first understand their buildings' systems by conducting walk-through inspections of the HVAC, fire protection, life-safety, and other systems. Security measures should be adopted for air intakes and return-air grills, and access to building operation systems and building design information should be restricted. The guidelines also recommend that the emergency capabilities of the systems' operational controls should be assessed, filter efficiency should be evaluated closely, buildings' emergency plans should be updated, and preventive maintenance procedures should be adopted. The guidelines also caution against detrimental actions, such as permanently sealing outdoor air intakes.

The recommendations are intended for building owners, managers, and maintenance personnel responsible for public, private, and government buildings, including hospitals, laboratories, offices, retail facilities, schools, transportation facilities, and public venues. The recommendations do not address single-family or low-occupancy residences or higher-risk facilities such as industrial or military facilities, subway systems, or law-enforcement facilities. Copies of these recommendations are available at http://www.cdc.gov/niosh or by telephone, 800-356-4674.

References

1. National Institute for Occupational Safety and Health. Guidance for protecting building environments from airborne chemical, biological, or radiological attacks. Cincinnati, Ohio: U.S. Department of Health and Human Services, CDC, National Institute for Occupational Safety and Health, 2002; DHHS publication no. NIOSH2002-139.

Public Health Dispatch

West Nile Virus Infection in Organ Donor and Transplant Recipients — Georgia and Florida, 2002

On August 23, 2002, the Georgia Division of Public Health (GDPH) and CDC were notified of two cases of unexplained fever and encephalitis in recipients of organ transplants from a common donor. An investigation has identified illness in two other recipients from the same donor: one with encephalopathy and the other with febrile illness. CDC, the Food and Drug Administration, GDPH, and the Florida Department of Health are conducting the investigation. This cluster could possibly represent the first recognized transmission of West Nile virus (WNV) by organ donation.

On August 1, four organs were recovered from a single donor and subsequently transplanted into four persons. The donor had been previously healthy before a fatal injury. Before death, the organ donor received numerous transfusions of blood products. Testing performed at CDC with polymerase chain reaction (PCR) during this investigation revealed the presence of WNV in donor serum collected before organ procurement. Of the four organ recipients, three met the case definition for WNV encephalitis. Testing is pending on the fourth recipient.

A recipient of one of the donor kidneys developed a febrile illness 13 days after transplant which progressed to encephalitis requiring transient mechanical ventilation; the patient's clinical condition is improving. Cerebrospinal fluid (CSF) was positive for WNV IgM antibody. A second kidney recipient had a febrile illness 17 days after transplant progressing to fatal encephalitis. Brain tissues obtained at autopsy were strongly positive for WNV by quantitative PCR and also were positive by flavivirus specific immunohistochemical staining. A third patient who received a heart transplant had ataxia 8 days following transplant; the patient later became unresponsive and required mechanical ventilation. WNV IgM antibody testing of the patient's CSF and serum at the Florida Department of Health Bureau of Laboratories was strongly positive. This patient's mental status has improved, and the patient no longer requires ventilatory support. A fourth patient who underwent liver transplantation had fever, cough, and malaise 7 days following transplant; the patient had no clinical evidence of encephalitis. The patient's symptoms resolved, allowing discharge from the hospital. Laboratory evaluation of serum for WNV is in progress.

WNV infection in organ transplant recipients has not been reported previously, and the risk for transmission of WNV through donated organs is not known. Three of the four organ recipients had encephalitis; typically, one in 150 WNV infections results in encephalitis or meningitis. It is unknown whether immunosuppressed persons, such as organ transplant recipients, are at increased risk for severe WNV-related disease following infection. Similarly, it is unknown if the route of transmission increased the risk for encephalitis in these organ transplant recipients.

The organ donor might have become infected from a mosquito bite or from blood products received following the fatal injury. On the basis of preliminary results from this investigation, clinicians should be aware of the possibility of WNV infection in organ transplant recipients and patients receiving blood transfusions. Clinicians who suspect WNV infection can obtain rapid testing through state and local health departments. Public health officials have initiated precautionary measures including a withdrawal and testing of any remaining blood products from blood donors whose blood product was given to the organ donor. Donors of blood given to the organ donor and other recipients of blood from these donors are being contacted for West Nile virus testing. This is the first report of possible transmission of WNV by organ transplantation. Current data are insufficient to warrant changes to organ or blood donor screening and testing practices or the clinical use of donated organs and blood.

Reported by: *Florida Dept of Health. Georgia Div of Public Health. Center for Biologics Evaluation and Research, Food and Drug Administration. Div of Healthcare Quality Promotion, Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases, CDC.*

West Nile Virus Activity — United States, August 29–September 4, 2002

This report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET and by states and other jurisdictions as of 7:00 a.m. Mountain Daylight Time, September 4, 2002.

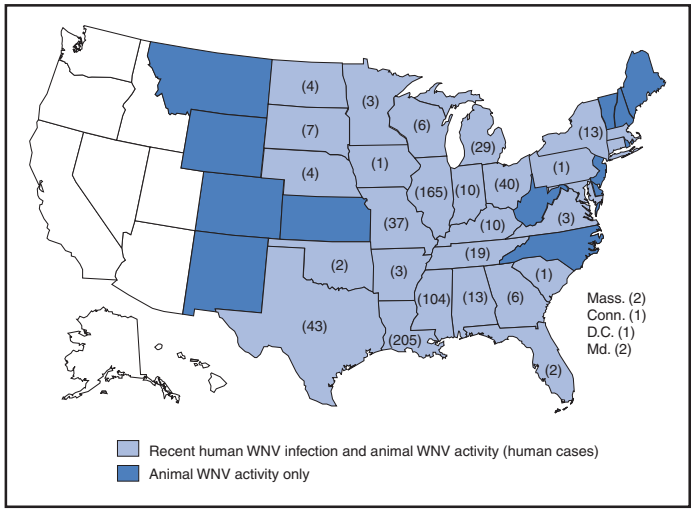
During the reporting period of August 29–September 4, a total of 257 laboratory-positive human cases of WNV-associated illness were reported from Illinois (n=94), Louisiana (n=34), Ohio (n=16), Tennessee (n=15), Michigan (n=14), Mississippi (n=13), Missouri (n=12), New York (n=eight), Kentucky (n=seven), Alabama (n=five), Texas (n=five), Indiana (n=four), North Dakota (n=four), South Dakota (n=four), Wisconsin (n=four), Arkansas (n= three), Minnesota (n= three), Nebraska (n=three), Virginia (n=two), Connecticut (n=one), Florida (n=one), Iowa (n=one), Maryland (n=one), Massachusetts (n=one), Pennsylvania (n=one), and South Carolina (n=one). During this period, Arkansas, Connecticut, Iowa, Minnesota,

North Dakota, Pennsylvania, and South Carolina reported their first human cases for 2002. During the same period, WNV infections were reported in 653 dead crows, 360 other dead birds, 322 horses, and 456 mosquito pools.

During 2002, a total of 737 human cases with laboratory evidence of recent WNV infection have been reported from Louisiana (n=205), Illinois (n=165), Mississippi (n=104), Texas (n=43), Ohio (n=40), Missouri (n=37), Michigan (n=29), Tennessee (n=19), Alabama (n=13), New York (n=13), Indiana (n=10), Kentucky (n=10), South Dakota (n=seven), Georgia (n=six), Wisconsin (n=six), Nebraska (n=four), North Dakota (n=four), Arkansas (n=three), Minnesota (n=three), Virginia (n=three), Florida (n=two), Maryland (n=two), Massachusetts (n=two), Oklahoma (n=two), Connecticut (n=one), the District of Columbia (n=one), Iowa (n=one), Pennsylvania (n=one), and South Carolina (n=one) (Figure). Among the patients with available data, the median age was 52 years (range: 9 months–98 years); 341 (57%) were male, and the dates of illness onset ranged from June 10 to August 28. A total of 35 human deaths have been reported. The median age of decedents was 76 years (range: 48–94 years); 20 (57%) deaths were among men. In addition, 3,243 dead crows and 2,232 other dead birds with WNV infection were reported from 39 states, New York City, and the District of Columbia; 1,159 WNV infections in mammals (all but one in horses) have been reported from 27 states (Alabama, Arkansas, Colorado, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Minnesota, Mississippi, Montana, Nebraska, New Mexico, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, Vermont, Virginia, and Wyoming). During 2002, WNV seroconversions have been reported in 99 sentinel chicken flocks from Florida, Nebraska, Pennsylvania, and New York City; 1,947 WNV-positive mosquito pools have been reported from 18 states (Alabama, Connecticut, Georgia, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Mississippi, Nebraska, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, South Dakota, Texas, and Virginia), New York City, and the District of Columbia.

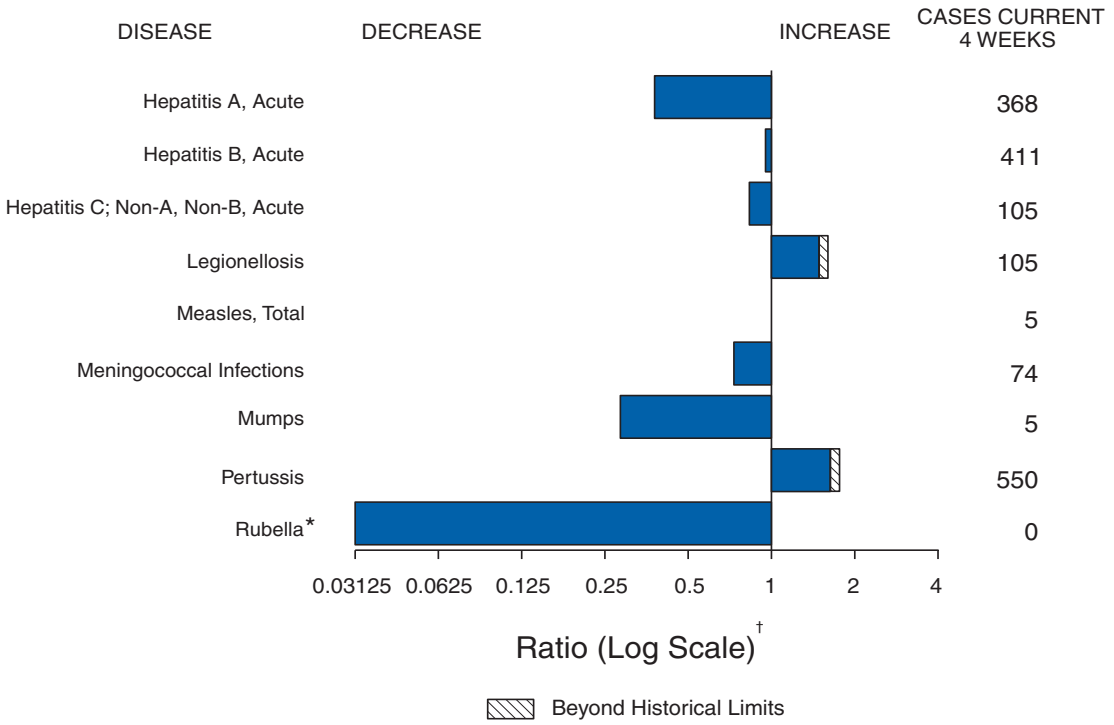
Additional information about WNV activity is available at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and http://www.cindi.usgs.gov/hazard/event/west_nile/west_nile.html.

FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2002*



* As of 7:00 a.m. Mountain Daylight Time, September 4, 2002.

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending August 31, 2002, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 35 of zero (0).
† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending August 31, 2002 (35th Week)*

		Cum. 2002	Cum. 2001		Cum. 2002	Cum. 2001
Anthrax		2	1	Encephalitis: West Nile†	83	19
Botulism:	foodborne	10	30	Hansen disease (leprosy)†	53	48
	infant	39	64	Hantavirus pulmonary syndrome†	10	6
	other (wound & unspecified)	13	12	Hemolytic uremic syndrome, postdiarrheal†	116	95
Brucellosis†		47	87	HIV infection, pediatric†§	116	127
Chancroid		47	24	Plague	-	2
Cholera		6	3	Poliomyelitis, paralytic	-	-
Cyclosporiasis†		144	99	Psittacosis†	17	9
Diphtheria		1	2	Q fever†	24	17
Ehrlichiosis:	human granulocytic (HGE)†	195	142	Rabies, human	1	1
	human monocytic (HME)†	84	80	Streptococcal toxic-shock syndrome†	61	58
	other and unspecified	5	4	Tetanus	18	26
Encephalitis:	California serogroup viral†	37	39	Toxic-shock syndrome	79	83
	eastern equine†	1	5	Trichinosis	12	13
	Powassan†	-	-	Tularemia†	45	97
	St. Louis†	-	51	Yellow fever	1	-
	western equine†	-	-			

-: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 July 28, 2002.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending August 31, 2002, and September 1, 2001 (35th 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	24,713	26,945	497,015	513,892	1,544	2,283	1,902	1,856	90	87
NEW ENGLAND	1,011	981	17,644	15,970	105	96	166	173	27	29
Maine	23	26	1,090	867	9	11	25	21	5	-
N.H.	20	23	1,054	928	21	4	18	22	-	3
Vt.	8	11	591	402	19	26	5	11	1	1
Mass.	519	532	7,221	6,807	31	42	75	85	8	9
R.I.	71	70	1,789	1,942	13	3	9	9	-	-
Conn.	370	319	5,899	5,024	12	10	34	25	13	16
MID. ATLANTIC	5,619	6,909	54,943	56,280	173	202	143	133	-	-
Upstate N.Y.	404	1,042	10,876	8,837	61	61	108	80	-	-
N.Y. City	3,210	3,732	18,880	20,345	73	82	8	13	-	-
N.J.	925	1,153	6,598	10,001	8	11	27	40	-	-
Pa.	1,080	982	18,589	17,097	31	48	N	N	-	-
E.N. CENTRAL	2,494	1,909	84,314	94,360	390	1,115	413	489	10	6
Ohio	453	360	20,831	24,153	86	102	90	97	8	4
Ind.	347	223	10,632	10,290	26	54	34	56	-	-
Ill.	1,170	879	21,432	28,726	48	435	104	127	-	-
Mich.	398	328	21,323	20,349	71	113	84	62	2	2
Wis.	126	119	10,096	10,842	159	411	101	147	-	-
W.N. CENTRAL	421	572	28,231	26,072	228	238	312	270	15	19
Minn.	90	101	6,299	5,320	110	99	101	106	12	17
Iowa	54	65	3,143	3,052	22	53	72	47	-	-
Mo.	189	263	10,031	9,424	24	32	43	36	N	N
N. Dak.	1	2	610	683	6	7	3	12	-	-
S. Dak.	3	19	1,432	1,194	17	6	31	18	1	1
Nebr.	43	58	2,263	2,282	39	40	38	35	2	1
Kans.	41	64	4,453	4,117	10	1	24	16	-	-
S. ATLANTIC	7,537	8,169	94,469	99,116	225	238	168	144	22	17
Del.	131	184	1,753	1,912	2	2	4	3	-	-
Md.	1,066	1,083	10,157	9,965	17	28	16	13	-	-
D.C.	371	586	2,171	2,141	4	10	-	-	-	-
Va.	538	714	9,894	12,536	9	15	32	38	2	2
W. Va.	58	56	1,579	1,574	2	1	3	5	-	-
N.C.	555	549	16,195	15,008	25	19	28	30	-	-
S.C.	547	489	8,091	10,431	4	6	3	12	-	-
Ga.	1,160	930	18,506	21,043	100	102	47	23	10	8
Fla.	3,111	3,578	26,123	24,506	62	55	35	20	10	7
E.S. CENTRAL	1,128	1,257	33,536	33,155	90	32	70	97	-	-
Ky.	173	244	5,607	5,999	3	3	19	52	-	-
Tenn.	483	390	10,811	10,112	46	8	30	25	-	-
Ala.	197	308	9,998	8,899	37	11	14	12	-	-
Miss.	275	315	7,120	8,145	4	10	7	8	-	-
W.S. CENTRAL	2,696	2,782	70,970	71,993	24	79	40	139	-	-
Ark.	163	141	4,417	5,010	7	5	5	7	-	-
La.	693	588	13,218	12,171	4	7	1	7	-	-
Okla.	133	170	7,197	7,119	8	8	16	19	-	-
Tex.	1,707	1,883	46,138	47,693	5	59	18	106	-	-
MOUNTAIN	790	960	30,334	30,517	110	108	199	175	11	10
Mont.	8	14	1,387	1,322	4	8	15	10	-	-
Idaho	18	17	1,599	1,243	19	12	27	29	4	2
Wyo.	6	2	612	562	7	4	6	5	1	-
Colo.	157	211	9,048	8,758	41	29	56	69	2	5
N. Mex.	53	88	3,990	4,156	15	18	4	10	3	3
Ariz.	327	383	9,664	9,718	12	6	23	19	1	-
Utah	43	82	1,637	1,369	9	26	48	22	-	-
Nev.	178	163	2,397	3,389	3	5	20	11	-	-
PACIFIC	3,017	3,406	82,574	86,429	199	175	391	236	5	6
Wash.	302	361	9,403	9,110	37	U	97	59	-	-
Oreg.	216	134	4,630	4,950	27	25	130	34	5	6
Calif.	2,416	2,857	63,343	67,950	134	146	125	129	-	-
Alaska	17	16	2,365	1,801	-	1	6	3	-	-
Hawaii	66	38	2,833	2,618	1	3	33	11	-	-
Guam	2	9	-	274	-	-	N	N	-	-
P.R.	668	815	1,695	1,754	-	-	-	1	-	-
V.I.	66	2	98	118	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	132	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 July 28, 2002.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 31, 2002, and September 1, 2001 (35th Week)*

Reporting Area	*Escherichia coli* Shiga Toxin Positive, Not Serogrouped		Giardiasis	Gonorrhea		*Haemophilus influenzae*, Invasive			
						All Ages, All Serotypes		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	32	8	9,957	210,125	236,746	1,072	1,046	17	19
NEW ENGLAND	-	1	1,040	4,939	4,413	75	78	-	1
Maine	-	-	129	87	95	1	1	-	-
N.H.	-	-	29	79	117	6	4	-	-
Vt.	-	1	84	70	48	6	3	-	-
Mass.	-	-	516	2,198	2,080	37	37	-	1
R.I.	-	-	93	556	500	10	3	-	-
Conn.	-	-	189	1,949	1,573	15	30	-	-
MID. ATLANTIC	-	1	2,069	24,849	27,725	185	150	3	3
Upstate N.Y.	-	-	708	5,501	5,449	81	50	2	-
N.Y. City	-	-	815	7,666	8,482	45	39	-	-
N.J.	-	-	183	3,907	5,242	39	34	-	-
Pa.	-	1	363	7,775	8,552	20	27	1	3
E.N. CENTRAL	12	2	1,820	40,714	49,105	170	192	2	2
Ohio	11	2	572	11,456	13,238	63	52	-	1
Ind.	-	-	-	4,589	4,392	35	36	1	-
Ill.	-	-	410	11,538	15,872	56	68	-	-
Mich.	1	-	542	9,486	11,645	9	12	1	-
Wis.	-	-	296	3,645	3,958	7	24	-	1
W.N. CENTRAL	-	2	1,201	11,064	11,127	43	50	1	1
Minn.	-	-	430	1,875	1,688	30	25	1	-
Iowa	-	-	185	736	882	1	-	-	-
Mo.	N	N	311	5,707	5,729	9	16	-	-
N. Dak.	-	2	11	31	23	-	6	-	-
S. Dak.	-	-	48	168	187	-	-	-	-
Nebr.	-	-	116	707	803	-	2	-	1
Kans.	-	-	100	1,840	1,815	3	1	-	-
S. ATLANTIC	-	-	1,855	54,163	61,454	279	253	4	1
Del.	-	-	30	1,067	1,122	-	-	-	-
Md.	-	-	70	5,580	5,893	65	63	2	-
D.C.	-	-	29	1,797	1,944	-	-	-	-
Va.	-	-	174	5,617	7,523	22	19	-	-
W. Va.	-	-	32	646	432	12	10	-	1
N.C.	-	-	-	10,753	11,551	26	40	-	-
S.C.	-	-	61	4,912	7,526	9	4	-	-
Ga.	-	-	597	10,208	11,543	74	65	-	-
Fla.	-	-	862	13,583	13,920	71	52	2	-
E.S. CENTRAL	7	1	221	19,316	21,530	47	61	1	-
Ky.	7	1	-	2,318	2,371	4	2	-	-
Tenn.	-	-	99	6,220	6,769	24	31	-	-
Ala.	-	-	122	6,509	7,028	14	26	1	-
Miss.	-	-	-	4,269	5,362	5	2	-	-
W.S. CENTRAL	-	-	142	31,466	35,508	42	40	2	1
Ark.	-	-	96	2,539	3,132	2	-	-	-
La.	-	-	2	8,116	8,454	3	6	-	-
Okla.	-	-	44	3,059	3,294	32	33	-	-
Tex.	-	-	-	17,752	20,628	5	1	2	1
MOUNTAIN	13	1	977	6,442	6,963	132	115	2	6
Mont.	-	-	60	60	78	-	-	-	-
Idaho	-	-	70	58	55	2	1	-	-
Wyo.	-	-	20	43	44	1	1	-	-
Colo.	13	1	323	2,201	2,120	26	32	-	-
N. Mex.	-	-	114	821	655	19	16	-	1
Ariz.	-	-	125	2,371	2,676	63	49	1	3
Utah	-	-	182	159	109	15	5	-	-
Nev.	-	-	83	729	1,226	6	11	1	2
PACIFIC	-	-	632	17,172	18,921	99	107	2	4
Wash.	-	-	239	1,836	2,020	2	2	1	-
Oreg.	-	-	266	579	777	47	31	-	-
Calif.	-	-	-	13,943	15,431	22	47	1	4
Alaska	-	-	60	390	266	1	6	-	-
Hawaii	-	-	67	424	427	27	21	-	-
Guam	-	-	-	-	32	-	-	-	-
P.R.	-	-	19	250	397	1	1	-	-
V.I.	-	-	-	25	20	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	1	13	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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 31, 2002, and September 1, 2001 (35th Week)*

Reporting Area	*Haemophilus influenzae*, Invasive, Age <5 Years, Non-Serotype B		*Haemophilus influenzae*, Invasive, Age <5 Years, Unknown Serotype		Hepatitis (Viral, Acute), By Type, A		Hepatitis (Viral, Acute), By Type, B		Hepatitis (Viral, Acute), By Type, 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	170	175	15	22	5,565	6,428	4,542	4,742	4,142	2,756
NEW ENGLAND	7	13	-	-	212	398	162	88	20	30
Maine	-	-	-	-	7	8	6	5	-	-
N.H.	-	1	-	-	11	11	13	10	-	-
Vt.	-	-	-	-	1	8	3	5	12	6
Mass.	4	7	-	-	96	174	83	17	8	24
R.I.	-	-	-	-	29	26	21	17	-	-
Conn.	3	5	-	-	68	171	36	34	-	-
MID. ATLANTIC	23	23	-	3	648	831	938	921	1,093	865
Upstate N.Y.	9	7	-	1	131	171	91	82	40	19
N.Y. City	7	6	-	-	264	296	469	428	-	-
N.J.	4	3	-	-	88	207	224	203	1,031	799
Pa.	3	7	-	2	165	157	154	208	22	47
E.N. CENTRAL	27	32	1	2	764	801	570	631	69	125
Ohio	7	9	1	-	243	162	77	78	6	8
Ind.	7	6	-	1	35	63	31	36	-	1
Ill.	11	11	-	-	196	291	80	98	9	9
Mich.	1	-	-	1	166	231	382	392	54	107
Wis.	1	6	-	-	124	54	-	27	-	-
W.N. CENTRAL	2	2	3	6	235	264	144	138	625	822
Minn.	2	1	1	2	32	24	13	12	13	7
Iowa	-	-	-	-	60	26	12	16	1	-
Mo.	-	-	2	4	65	59	81	78	599	805
N. Dak.	-	1	-	-	1	2	4	-	-	-
S. Dak.	-	-	-	-	3	1	1	1	1	-
Nebr.	-	-	-	-	16	29	20	20	9	4
Kans.	-	-	-	-	58	123	13	11	2	6
S. ATLANTIC	39	36	2	5	1,726	1,292	1,194	902	121	50
Del.	-	-	-	-	9	9	7	21	5	2
Md.	3	5	-	1	203	165	87	96	10	5
D.C.	-	-	-	-	56	33	14	11	-	-
Va.	3	5	-	-	72	89	136	101	2	-
W. Va.	-	1	1	-	14	8	18	20	2	9
N.C.	3	2	-	4	158	124	175	133	19	16
S.C.	2	1	-	-	48	59	66	24	4	5
Ga.	16	14	-	-	371	652	338	271	29	-
Fla.	12	8	1	-	795	153	353	225	50	13
E.S. CENTRAL	10	12	1	2	176	275	228	320	136	164
Ky.	1	-	-	1	40	87	38	36	3	6
Tenn.	6	6	-	-	69	104	82	157	26	54
Ala.	3	5	1	1	25	64	50	64	4	2
Miss.	-	1	-	-	42	20	58	63	103	102
W.S. CENTRAL	10	5	-	-	251	660	353	559	1,932	556
Ark.	1	-	-	-	29	54	63	66	5	6
La.	1	-	-	-	22	73	31	86	16	117
Okla.	6	5	-	-	39	92	24	77	4	4
Tex.	2	-	-	-	161	441	235	330	1,907	429
MOUNTAIN	29	19	7	1	406	539	420	337	67	43
Mont.	-	-	-	-	11	9	4	2	-	1
Idaho	1	-	-	-	23	48	6	10	-	2
Wyo.	-	-	-	-	2	6	14	1	5	5
Colo.	2	2	-	-	71	60	61	74	30	6
N. Mex.	4	7	1	1	14	28	107	93	1	11
Ariz.	15	8	5	-	211	277	159	105	4	9
Utah	5	2	-	-	39	57	31	18	4	2
Nev.	2	-	1	-	35	54	38	34	23	7
PACIFIC	23	33	1	3	1,147	1,368	533	846	79	101
Wash.	1	1	-	1	119	92	48	89	16	16
Oreg.	5	5	-	-	50	84	91	115	15	12
Calif.	13	25	1	1	970	1,164	385	620	48	73
Alaska	1	1	-	-	7	14	3	7	-	-
Hawaii	3	1	-	1	1	14	6	15	-	-
Guam	-	-	-	-	-	1	-	-	-	-
P.R.	-	1	-	-	73	135	63	183	-	1
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	37	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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 31, 2002, and September 1, 2001 (35th 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	618	654	315	385	7,666	9,999	794	1,007	18†	97§
NEW ENGLAND	55	38	40	34	1,456	2,930	43	63	-	5
Maine	2	4	4	-	53	-	3	4	-	-
N.H.	4	7	4	2	162	48	6	2	-	-
Vt.	21	4	2	2	17	9	2	-	-	1
Mass.	19	12	20	18	665	922	15	34	-	3
R.I.	1	2	1	1	173	233	3	3	-	-
Conn.	8	9	9	11	386	1,718	14	20	-	1
MID. ATLANTIC	143	148	62	65	5,021	5,293	177	293	5	18
Upstate N.Y.	48	40	30	20	3,082	1,879	30	43	-	4
N.Y. City	26	25	13	15	82	57	109	171	5	6
N.J.	18	13	7	12	339	1,796	20	46	-	1
Pa.	51	70	12	18	1,518	1,561	18	33	-	7
E.N. CENTRAL	156	176	38	59	57	603	95	126	3	10
Ohio	67	80	15	10	45	20	16	20	1	3
Ind.	12	13	6	5	12	18	8	14	2	4
Ill.	-	19	1	21	-	29	23	56	-	3
Mich.	54	32	13	18	-	5	37	22	-	-
Wis.	23	32	3	5	U	531	11	14	-	-
W.N. CENTRAL	35	40	9	10	178	255	46	29	3	4
Minn.	7	9	-	-	111	202	16	6	1	2
Iowa	7	6	1	-	28	22	2	5	-	-
Mo.	10	16	5	6	28	25	13	10	2	2
N. Dak.	-	1	1	-	-	-	1	-	-	-
S. Dak.	2	3	-	-	1	-	-	-	-	-
Nebr.	9	4	1	1	5	4	5	2	-	-
Kans.	-	1	1	3	5	2	9	6	-	-
S. ATLANTIC	122	112	55	49	800	725	235	211	1	5
Del.	7	3	-	2	105	115	2	1	-	-
Md.	20	27	11	9	469	451	75	89	-	3
D.C.	5	7	-	-	17	8	14	13	-	-
Va.	13	18	3	9	67	100	17	40	-	1
W. Va.	N	N	-	5	9	10	3	1	-	-
N.C.	7	7	4	2	77	27	14	9	-	-
S.C.	5	6	8	4	10	3	6	5	-	-
Ga.	10	9	13	9	1	-	59	37	-	1
Fla.	55	35	16	9	45	11	45	16	1	-
E.S. CENTRAL	23	47	9	16	34	41	13	23	-	2
Ky.	9	11	2	4	13	18	5	8	-	2
Tenn.	8	21	4	7	14	11	3	8	-	-
Ala.	6	11	3	5	7	6	3	4	-	-
Miss.	-	4	-	-	-	6	2	3	-	-
W.S. CENTRAL	8	17	11	29	16	67	10	69	1	1
Ark.	-	-	-	1	2	-	1	3	-	-
La.	1	6	-	-	1	4	3	5	-	-
Okla.	3	3	6	2	-	-	6	2	-	-
Tex.	4	8	5	26	13	63	-	59	1	1
MOUNTAIN	28	33	21	29	18	7	35	37	1	1
Mont.	3	-	-	-	-	-	1	2	-	-
Idaho	-	2	2	1	3	4	-	3	-	1
Wyo.	1	2	-	1	1	1	-	-	-	-
Colo.	6	11	4	8	6	-	19	20	-	-
N. Mex.	1	2	2	6	1	-	2	3	-	-
Ariz.	7	8	9	6	2	-	6	3	-	-
Utah	8	5	3	1	4	-	4	2	-	-
Nev.	2	3	1	6	1	2	3	4	1	-
PACIFIC	48	43	70	94	86	78	140	156	4	51
Wash.	5	6	8	6	7	5	14	4	-	15
Oreg.	N	N	8	6	12	8	7	12	-	2
Calif.	43	32	48	78	65	63	111	129	3	27
Alaska	-	1	-	-	2	2	2	1	-	-
Hawaii	-	4	6	4	N	N	6	10	1	7
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	2	1	-	N	N	-	3	-	-
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 18 cases reported, eight were indigenous and ten were imported from another country.

§ Of 97 cases reported, 46 were indigenous and 51 were imported from another country.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 31, 2002, and September 1, 2001 (35th Week)*

Reporting Area	Meningococcal Disease		Mumps		Pertussis		Rabies, Animal	
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	1,197	1,693	181	167	4,857	3,457	3,961	4,837
NEW ENGLAND	73	78	7	1	400	303	604	488
Maine	7	1	-	-	5	-	38	47
N.H.	9	9	4	-	8	14	29	15
Vt.	4	5	-	-	81	25	77	47
Mass.	35	46	2	1	277	242	194	180
R.I.	5	2	-	-	10	5	47	44
Conn.	13	15	1	-	19	17	219	155
MID. ATLANTIC	118	185	17	20	211	238	747	865
Upstate N.Y.	35	50	2	3	152	112	473	541
N.Y. City	19	29	1	11	8	37	10	22
N.J.	23	31	1	2	3	13	108	141
Pa.	41	75	13	4	48	76	156	161
E.N. CENTRAL	160	253	18	20	584	504	98	101
Ohio	61	69	3	1	297	215	20	33
Ind.	25	29	2	1	61	46	26	1
Ill.	31	62	6	15	94	50	20	19
Mich.	31	56	6	2	38	45	32	35
Wis.	12	37	1	1	94	148	-	13
W.N. CENTRAL	109	105	13	7	454	170	287	264
Minn.	24	15	3	3	197	58	30	29
Iowa	14	21	1	-	124	16	57	59
Mo.	39	39	3	-	87	73	36	32
N. Dak.	-	5	1	-	-	-	12	29
S. Dak.	2	4	-	-	5	3	47	40
Nebr.	24	11	-	1	4	4	-	4
Kans.	6	10	5	3	37	16	105	71
S. ATLANTIC	213	262	21	26	287	169	1,660	1,654
Del.	6	3	-	-	2	-	24	30
Md.	7	35	4	4	46	27	168	331
D.C.	-	-	-	-	1	1	-	-
Va.	29	31	3	6	104	30	321	292
W. Va.	3	11	-	-	26	2	131	102
N.C.	24	58	1	3	28	51	482	401
S.C.	19	29	2	2	30	25	79	83
Ga.	29	36	4	8	17	17	284	284
Fla.	96	59	7	3	33	16	171	131
E.S. CENTRAL	69	108	12	6	148	89	118	172
Ky.	11	19	4	1	57	20	18	17
Tenn.	28	44	2	-	57	38	63	106
Ala.	18	30	3	-	27	27	37	47
Miss.	12	15	3	5	7	4	-	2
W.S. CENTRAL	139	260	16	9	1,284	331	84	825
Ark.	20	18	-	-	429	15	2	-
La.	23	63	1	2	4	5	-	7
Okla.	17	24	-	-	65	12	82	48
Tex.	79	155	15	7	786	299	-	770
MOUNTAIN	73	75	13	12	622	1,062	192	199
Mont.	2	3	-	1	4	20	10	31
Idaho	3	7	1	1	51	166	22	13
Wyo.	-	4	-	1	10	1	14	26
Colo.	23	29	2	3	245	226	35	-
N. Mex.	3	9	1	2	128	88	5	12
Ariz.	23	11	1	1	105	489	98	109
Utah	4	7	5	1	43	59	5	7
Nev.	15	5	3	2	36	13	3	1
PACIFIC	243	367	64	66	867	591	171	269
Wash.	50	52	-	1	324	102	-	-
Oreg.	34	46	N	N	143	39	3	1
Calif.	151	257	52	29	383	418	144	230
Alaska	2	2	-	1	4	3	24	38
Hawaii	6	10	12	35	13	29	-	-
Guam	-	-	-	-	-	-	-	-
P.R.	3	5	-	-	2	-	49	69
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	1	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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 31, 2002, and September 1, 2001 (35th Week)*

Reporting Area	Rocky Mountain Spotted Fever		Rubella				Salmonellosis	
			Rubella		Congenital Rubella			
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	600	364	9	16	2	-	23,524	24,965
NEW ENGLAND	-	3	-	-	-	-	1,362	1,693
Maine	-	-	-	-	-	-	96	140
N.H.	-	1	-	-	-	-	84	127
Vt.	-	-	-	-	-	-	47	54
Mass.	-	2	-	-	-	-	757	987
R.I.	-	-	-	-	-	-	101	80
Conn.	-	-	-	-	-	-	277	305
MID. ATLANTIC	36	16	4	7	-	-	2,776	3,351
Upstate N.Y.	8	-	2	1	-	-	920	772
N.Y. City	8	1	-	5	-	-	839	843
N.J.	9	5	2	1	-	-	346	850
Pa.	11	10	-	-	-	-	671	886
E.N. CENTRAL	14	15	-	2	-	-	3,479	3,489
Ohio	10	1	-	-	-	-	903	932
Ind.	2	1	-	-	-	-	308	358
Ill.	-	12	-	2	-	-	1,104	1,015
Mich.	2	1	-	-	-	-	616	606
Wis.	-	-	-	-	-	-	548	578
W.N. CENTRAL	79	54	-	3	-	-	1,655	1,472
Minn.	-	-	-	-	-	-	395	422
Iowa	2	2	-	1	-	-	275	213
Mo.	72	50	-	1	-	-	576	385
N. Dak.	-	-	-	-	-	-	25	43
S. Dak.	-	2	-	-	-	-	70	110
Nebr.	4	-	-	-	-	-	116	111
Kans.	1	-	-	1	-	-	198	188
S. ATLANTIC	308	170	-	3	-	-	6,307	5,572
Del.	2	3	-	-	-	-	51	60
Md.	41	32	-	-	-	-	628	542
D.C.	-	-	-	-	-	-	50	57
Va.	21	16	-	-	-	-	651	926
W. Va.	1	-	-	-	-	-	88	80
N.C.	176	90	-	-	-	-	844	759
S.C.	42	17	-	2	-	-	394	554
Ga.	18	8	-	-	-	-	1,126	1,049
Fla.	7	4	-	1	-	-	2,475	1,545
E.S. CENTRAL	61	74	-	-	1	-	1,650	1,560
Ky.	3	2	-	-	-	-	216	241
Tenn.	44	50	-	-	1	-	440	390
Ala.	14	12	-	-	-	-	470	425
Miss.	-	10	-	-	-	-	524	504
W.S. CENTRAL	85	23	2	-	-	-	1,694	3,024
Ark.	24	5	-	-	-	-	562	479
La.	-	2	-	-	-	-	196	526
Okla.	61	16	-	-	-	-	301	279
Tex.	-	-	2	-	-	-	635	1,740
MOUNTAIN	12	9	-	-	-	-	1,344	1,443
Mont.	1	1	-	-	-	-	64	50
Idaho	-	1	-	-	-	-	89	95
Wyo.	3	2	-	-	-	-	40	48
Colo.	2	1	-	-	-	-	312	402
N. Mex.	1	1	-	-	-	-	190	175
Ariz.	-	-	-	-	-	-	385	406
Utah	-	3	-	-	-	-	130	145
Nev.	5	-	-	-	-	-	134	122
PACIFIC	5	-	3	1	1	-	3,257	3,361
Wash.	-	-	-	-	-	-	311	336
Oreg.	2	-	-	-	-	-	241	197
Calif.	3	-	3	-	-	-	2,474	2,565
Alaska	-	-	-	-	-	-	42	28
Hawaii	-	-	-	1	1	-	189	235
Guam	-	-	-	-	-	-	-	19
P.R.	-	-	-	3	-	-	131	659
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	25	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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 31, 2002, and September 1, 2001 (35th 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	10,212	12,097	3,054	2,691	1,523	1,990	163	306
NEW ENGLAND	202	211	146	170	12	94	2	32
Maine	3	6	20	10	-	-	-	-
N.H.	8	4	27	N	-	-	N	N
Vt.	-	7	9	9	4	7	1	-
Mass.	128	145	76	54	N	N	N	N
R.I.	8	15	14	8	8	3	1	3
Conn.	55	34	-	89	-	84	-	29
MID. ATLANTIC	713	1,053	500	499	82	131	49	78
Upstate N.Y.	180	370	231	209	72	125	49	78
N.Y. City	258	291	125	141	U	U	U	U
N.J.	148	208	102	98	N	N	N	N
Pa.	127	184	42	51	10	6	-	-
E.N. CENTRAL	1,089	2,923	547	632	162	134	68	83
Ohio	445	1,935	174	162	31	-	1	-
Ind.	63	157	40	49	126	134	42	39
Ill.	366	399	105	208	2	-	-	44
Mich.	115	207	228	162	3	-	N	N
Wis.	100	225	-	51	N	N	25	-
W.N. CENTRAL	760	1,086	186	273	159	107	36	48
Minn.	155	320	96	120	48	49	36	40
Iowa	94	312	-	-	N	N	N	N
Mo.	120	198	37	56	6	9	-	-
N. Dak.	15	20	-	11	1	5	-	8
S. Dak.	150	122	11	9	1	3	-	-
Nebr.	161	56	16	32	26	13	N	N
Kans.	65	58	26	45	77	28	N	N
S. ATLANTIC	3,964	1,615	602	455	939	1,068	3	4
Del.	57	7	2	2	3	3	N	N
Md.	774	105	98	N	N	N	N	N
D.C.	40	43	6	15	48	5	1	3
Va.	619	199	57	62	N	N	N	N
W. Va.	7	8	16	18	34	37	2	1
N.C.	235	245	103	120	N	N	U	U
S.C.	67	202	27	9	139	218	N	N
Ga.	1,032	211	137	147	257	306	N	N
Fla.	1,133	595	156	82	458	499	N	N
E.S. CENTRAL	845	1,047	74	82	103	195	-	-
Ky.	88	408	13	29	12	23	N	N
Tenn.	44	66	61	53	91	171	N	N
Ala.	450	176	-	-	-	1	N	N
Miss.	263	397	-	-	-	-	-	-
W.S. CENTRAL	764	1,943	101	241	37	227	3	61
Ark.	148	434	5	-	6	14	-	-
La.	100	171	-	1	31	213	1	61
Okla.	319	32	35	35	N	N	2	-
Tex.	197	1,306	61	205	N	N	-	-
MOUNTAIN	455	641	491	283	29	32	2	-
Mont.	3	2	-	-	-	-	-	-
Idaho	5	25	6	7	N	N	N	N
Wyo.	6	3	7	7	9	5	-	-
Colo.	87	160	164	120	-	-	-	-
N. Mex.	88	78	77	60	19	25	-	-
Ariz.	208	272	209	86	-	-	N	N
Utah	26	44	28	3	1	-	2	-
Nev.	32	57	-	-	-	2	-	-
PACIFIC	1,420	1,578	407	56	-	2	-	-
Wash.	101	138	65	-	-	-	N	N
Oreg.	73	79	N	N	N	N	N	N
Calif.	1,206	1,313	289	-	N	N	N	N
Alaska	3	4	-	-	-	-	N	N
Hawaii	37	44	53	56	-	2	-	-
Guam	-	36	-	1	-	-	-	-
P.R.	5	15	N	N	-	-	N	N
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	-	-	U	U
C.N.M.I.	17	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. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending August 31, 2002, and September 1, 2001 (35th Week)*

Reporting Area	Syphilis				Tuberculosis		Typhoid Fever	
	Primary & Secondary		Congenital					
	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001	Cum. 2002	Cum. 2001
UNITED STATES	4,080	3,961	211	343	7,587	9,091	160	228
NEW ENGLAND	93	36	-	3	255	313	11	11
Maine	2	-	-	-	10	12	-	1
N.H.	4	1	-	-	9	11	-	1
Vt.	1	2	-	-	-	4	-	-
Mass.	63	18	-	2	141	163	8	8
R.I.	5	7	-	-	25	42	-	-
Conn.	18	8	-	1	70	81	3	1
MID. ATLANTIC	449	336	37	52	1,438	1,525	40	75
Upstate N.Y.	24	15	4	3	215	233	5	14
N.Y. City	268	186	15	27	738	770	20	30
N.J.	85	75	17	22	326	338	12	27
Pa.	72	60	1	-	159	184	3	4
E.N. CENTRAL	680	697	28	51	786	921	15	29
Ohio	95	58	1	2	122	179	5	3
Ind.	46	114	-	8	76	67	2	2
Ill.	177	229	20	32	384	432	1	16
Mich.	348	278	7	5	163	195	3	5
Wis.	14	18	-	4	41	48	4	3
W.N. CENTRAL	70	63	-	9	356	356	7	8
Minn.	33	26	-	2	148	157	3	4
Iowa	2	4	-	-	17	18	-	-
Mo.	18	13	-	5	101	91	1	4
N. Dak.	-	-	-	-	1	3	-	-
S. Dak.	-	-	-	-	9	8	-	-
Nebr.	3	2	-	-	17	25	3	-
Kans.	14	18	-	2	63	54	-	-
S. ATLANTIC	1,095	1,372	50	80	1,536	1,716	27	27
Del.	9	10	-	-	13	9	-	-
Md.	132	172	8	3	185	146	5	8
D.C.	58	22	1	2	-	51	-	-
Va.	45	75	1	4	116	168	1	8
W. Va.	2	-	-	-	24	21	-	-
N.C.	202	312	17	8	217	232	1	2
S.C.	80	180	5	18	116	130	-	-
Ga.	222	250	6	18	282	300	8	6
Fla.	345	351	12	27	583	659	12	3
E.S. CENTRAL	343	421	13	24	484	547	4	1
Ky.	65	30	2	-	92	82	4	-
Tenn.	126	221	3	14	195	205	-	1
Ala.	118	84	6	4	132	170	-	-
Miss.	34	86	2	6	65	90	-	-
W.S. CENTRAL	576	485	46	60	1,010	1,402	4	13
Ark.	19	28	1	6	81	100	-	-
La.	98	105	-	-	-	85	-	-
Okla.	43	45	2	5	84	99	-	-
Tex.	416	307	43	49	845	1,118	4	13
MOUNTAIN	183	155	11	20	222	362	9	8
Mont.	-	-	-	-	6	6	-	1
Idaho	1	1	1	-	8	7	-	-
Wyo.	-	1	-	-	2	3	-	-
Colo.	27	18	1	1	31	88	5	1
N. Mex.	21	13	-	2	21	44	-	-
Ariz.	124	111	9	17	123	132	-	1
Utah	5	7	-	-	18	24	2	1
Nev.	5	4	-	-	13	58	2	4
PACIFIC	591	396	26	44	1,500	1,949	43	56
Wash.	37	37	1	-	155	167	4	3
Oreg.	11	11	1	-	68	74	2	4
Calif.	536	338	23	44	1,137	1,579	36	46
Alaska	-	-	-	-	33	35	-	1
Hawaii	7	10	1	-	107	94	1	2
Guam	-	2	-	1	-	47	-	2
P.R.	155	187	12	7	33	95	-	-
V.I.	1	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	15	U	-	U	29	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 III. Deaths in 122 U.S. cities,* week ending August 31, 2002 (35th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	529	364	106	37	12	10	44
Boston, Mass.	135	84	29	11	7	4	16
Bridgeport, Conn.	30	20	6	3	-	1	-
Cambridge, Mass.	16	10	4	2	-	-	-
Fall River, Mass.	21	17	3	1	-	-	1
Hartford, Conn.	46	33	9	3	-	1	1
Lowell, Mass.	21	13	8	-	-	-	3
Lynn, Mass.	10	6	2	2	-	-	1
New Bedford, Mass.	22	19	2	1	-	-	5
New Haven, Conn.	40	27	8	4	1	-	4
Providence, R.I.	53	36	11	4	1	1	-
Somerville, Mass.	8	3	2	2	1	-	-
Springfield, Mass.	41	27	10	1	-	3	6
Waterbury, Conn.	26	23	2	1	-	-	2
Worcester, Mass.	60	46	10	2	2	-	5
MID. ATLANTIC	1,983	1,387	394	131	44	27	43
Albany, N.Y.	40	32	4	2	1	1	4
Allentown, Pa.	11	10	1	-	-	-	-
Buffalo, N.Y.	63	42	14	5	1	1	6
Camden, N.J.	U	U	U	U	U	U	U
Elizabeth, N.J.	24	18	2	4	-	-	-
Erie, Pa.	36	21	12	1	1	1	1
Jersey City, N.J.	53	36	14	2	1	-	-
New York City, N.Y.	1,072	730	230	81	20	11	-
Newark, N.J.	36	21	12	1	1	1	1
Paterson, N.J.	20	14	5	-	-	1	1
Philadelphia, Pa.	255	170	53	20	9	3	7
Pittsburgh, Pa.§	27	18	5	-	2	2	2
Reading, Pa.	17	14	1	1	-	1	-
Rochester, N.Y.	122	100	11	6	3	2	13
Schenectady, N.Y.	18	14	3	-	1	-	-
Scranton, Pa.	36	28	6	1	1	-	1
Syracuse, N.Y.	87	71	11	1	1	3	4
Trenton, N.J.	24	16	3	4	1	-	-
Utica, N.Y.	18	13	4	1	-	-	1
Yonkers, N.Y.	24	19	3	1	1	-	2
E.N. CENTRAL	1,429	993	282	85	32	37	64
Akron, Ohio	45	30	7	3	3	2	5
Canton, Ohio	37	26	6	3	2	-	3
Chicago, Ill.	U	U	U	U	U	U	U
Cincinnati, Ohio	90	67	14	4	-	5	6
Cleveland, Ohio	105	68	23	10	-	4	6
Columbus, Ohio	205	138	52	9	6	-	6
Dayton, Ohio	U	U	U	U	U	U	U
Detroit, Mich.	145	81	37	19	3	5	8
Evansville, Ind.	40	28	9	1	2	-	2
Fort Wayne, Ind.	59	43	10	-	4	2	4
Gary, Ind.	17	11	3	1	1	1	-
Grand Rapids, Mich.	45	31	7	2	-	5	2
Indianapolis, Ind.	161	98	40	14	4	5	5
Lansing, Mich.	36	29	3	2	1	1	1
Milwaukee, Wis.	105	76	19	8	1	1	8
Peoria, Ill.	48	39	5	3	-	1	4
Rockford, Ill.	52	39	10	1	-	2	-
South Bend, Ind.	49	39	5	1	3	1	-
Toledo, Ohio	96	70	20	3	2	1	3
Youngstown, Ohio	94	80	12	1	-	1	1
W.N. CENTRAL	496	334	93	38	16	15	40
Des Moines, Iowa	43	38	5	-	-	-	4
Duluth, Minn.	26	18	5	3	-	-	6
Kansas City, Kans.	33	21	7	3	1	1	2
Kansas City, Mo.	71	44	15	8	1	3	7
Lincoln, Nebr.	38	28	4	3	2	1	2
Minneapolis, Minn.	95	59	20	6	6	4	11
Omaha, Nebr.	62	48	8	3	2	1	2
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	56	37	12	3	2	2	4
Wichita, Kans.	72	41	17	9	2	3	2
S. ATLANTIC	1,175	733	279	101	41	21	72
Atlanta, Ga.	198	112	43	24	9	10	2
Baltimore, Md.	188	98	58	22	7	3	19
Charlotte, N.C.	111	72	22	10	5	2	16
Jacksonville, Fla.	142	94	33	10	5	-	15
Miami, Fla.	85	61	16	3	4	1	1
Norfolk, Va.	51	36	11	2	1	1	-
Richmond, Va.	78	50	20	6	1	1	5
Savannah, Ga.	U	U	U	U	U	U	U
St. Petersburg, Fla.	56	48	6	1	1	-	4
Tampa, Fla.	154	94	45	12	3	-	5
Washington, D.C.	100	56	25	11	5	3	5
Wilmington, Del.	12	12	-	-	-	-	-
E.S. CENTRAL	837	536	176	80	23	22	58
Birmingham, Ala.	195	122	43	19	6	5	11
Chattanooga, Tenn.	54	41	9	1	2	1	6
Knoxville, Tenn.	99	65	17	11	2	4	-
Lexington, Ky.	U	U	U	U	U	U	U
Memphis, Tenn.	191	117	41	17	7	9	18
Mobile, Ala.	82	53	20	7	2	-	8
Montgomery, Ala.	39	24	10	5	-	-	5
Nashville, Tenn.	177	114	36	20	4	3	10
W.S. CENTRAL	941	604	213	62	31	30	41
Austin, Tex.	71	39	18	9	4	1	3
Baton Rouge, La.	21	13	4	3	1	-	-
Corpus Christi, Tex.	64	45	14	3	2	-	2
Dallas, Tex.	202	113	51	18	10	10	7
El Paso, Tex.	77	54	17	3	2	1	6
Ft. Worth, Tex.	111	71	28	5	1	6	5
Houston, Tex.	U	U	U	U	U	U	U
Little Rock, Ark.	76	52	16	2	4	2	1
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	202	146	36	8	6	5	11
Shreveport, La.	U	U	U	U	U	U	U
Tulsa, Okla.	117	71	29	11	1	5	6
MOUNTAIN	785	508	164	68	30	15	49
Albuquerque, N.M.	132	80	31	17	4	-	8
Boise, Idaho	38	25	9	2	1	1	-
Colo. Springs, Colo.	53	30	14	4	5	-	2
Denver, Colo.	79	42	18	6	6	7	6
Las Vegas, Nev.	151	105	31	10	4	1	5
Ogden, Utah	35	27	5	2	1	-	3
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	34	23	6	5	-	-	2
Salt Lake City, Utah	140	94	24	12	7	3	15
Tucson, Ariz.	123	82	26	10	2	3	8
PACIFIC	1,062	740	208	64	21	29	92
Berkeley, Calif.	12	8	4	-	-	-	2
Fresno, Calif.	103	72	19	6	3	3	7
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	99	62	21	8	5	3	6
Long Beach, Calif.	80	57	10	7	2	4	4
Los Angeles, Calif.	U	U	U	U	U	U	U
Pasadena, Calif.	25	18	5	-	-	2	4
Portland, Oreg.	U	U	U	U	U	U	U
Sacramento, Calif.	174	115	39	13	3	4	21
San Diego, Calif.	158	110	30	11	2	5	18
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	142	96	33	6	3	4	13
Santa Cruz, Calif.	U	U	U	U	U	U	U
Seattle, Wash.	103	69	23	7	1	3	8
Spokane, Wash.	57	49	5	1	2	-	6
Tacoma, Wash.	109	84	19	5	-	1	3
TOTAL	9,237¶	6,199	1,915	666	250	206	503

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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