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Cardiac Deaths After a Mass Smallpox Vaccination Campaign — New York City, 1947

During the first wave of the 2003 smallpox vaccination campaign, two ischemic cardiac deaths occurred in civilian vaccinees aged 55 and 57 years, and one occurred in a military vaccinee aged 55 years, 4–17 days after vaccination with the New York City Board of Health (NYCBOH) vaccinia strain (*1*–*3*). Whether these and 13 other recognized military and civilian nonfatal ischemic events among vaccinees were associated with smallpox vaccination is unclear. The same NYCBOH strain was used in 1947 to vaccinate approximately six million New York City (NYC) residents (80% of the population) during a 4-week period (April 4–May 2) after a smallpox outbreak (Figure 1). To determine whether smallpox vaccination increased the risk for cardiac death in 1947, the NYC Department of Health and Mental Hygiene (DOHMH) analyzed data from NYC death certificates during that period. This report summarizes the results of that analysis, which found no increases in cardiac, atherosclerotic, or all-cause deaths. The findings are consistent with a growing body of evidence suggesting that ischemic cardiac deaths observed after the 2003 campaign might have been unrelated to vaccine.

In April 2003, data were extracted from NYC death certificates filed during March–June 1947 and from the same period in 1946 and 1948 (N = 81,529). DOHMH estimated the relative risk for cardiac deaths in the period after vaccination compared with other periods, adjusting for secular trends. The number of adults vaccinated on each of the 29 days of the vaccination campaign was estimated by using DOHMH records and articles from local newspapers and magazines (*4*). Death certificates issued in NYC during March–June in 1946–1948 were obtained from the NYC Municipal Archives. Date of death, age of decedent, and primary and other cause-of-death data (classified according to the *International Classification of Diseases, Fifth Revision* [ICD-5] codes) were abstracted from all records. Causes of death were defined as cardiac if the ICD-5 codes for primary or other cause included pericarditis (090), acute endocarditis (091), chronic endocarditis (092), myocardial disease (093), coronary artery diseases (094), or other disease of the heart (095). Certificates with illegible primary cause-of-death codes (0.6% of records) were excluded.

FIGURE 1. New York City residents line up for vaccinations during a smallpox vaccination campaign — New York City, 1947

Photo/Associated Press

DEPARTMENT OF HEALTH AND HUMAN SERVICES
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Approximately 6.4 million NYC residents were vaccinated during April 4–May 2, 1947 (*4*) (Figure 2), including an estimated 500,000–1,000,000 persons each day during the peak 5 days of the vaccination campaign (April 17–21). The putative high-risk period for cardiac death was an estimated 4–17 days after vaccination, corresponding to the range of onset dates of cardiac events observed during the 2003 campaign. On the basis of these estimates, 2-week and 4-week risk periods were identified.

Daily mortality rates during the postvaccination risk periods were compared with rates during other periods. Counts of cardiac deaths were modeled by using Poisson regression analysis, adjusting for a long-term temporal trend during 1946–1948 and a seasonal trend during March–June each year.

Of the 81,010 legible records available, 39,150 (48%) listed cardiac disease and 9,112 (11%) specified coronary artery or atherosclerotic disease as a cause of death. Counts of cardiac deaths ranged from 72 to 149 deaths per day during the study period (Figure 3). The difference in the rate of cardiac deaths was not statistically significant during the 2-week risk period compared with other periods among persons aged 50–64 years (rate ratio: 1.05; 95% confidence interval [CI] = 0.95–1.15) or among all adults (rate ratio: 1.01; 95% CI = 0.95–1.07) (Table). Similarly, no statistically significant increases in risk were observed in all-cause deaths, atherosclerotic deaths, or deaths caused by myo/pericarditis during the 4-week risk period compared with other periods.

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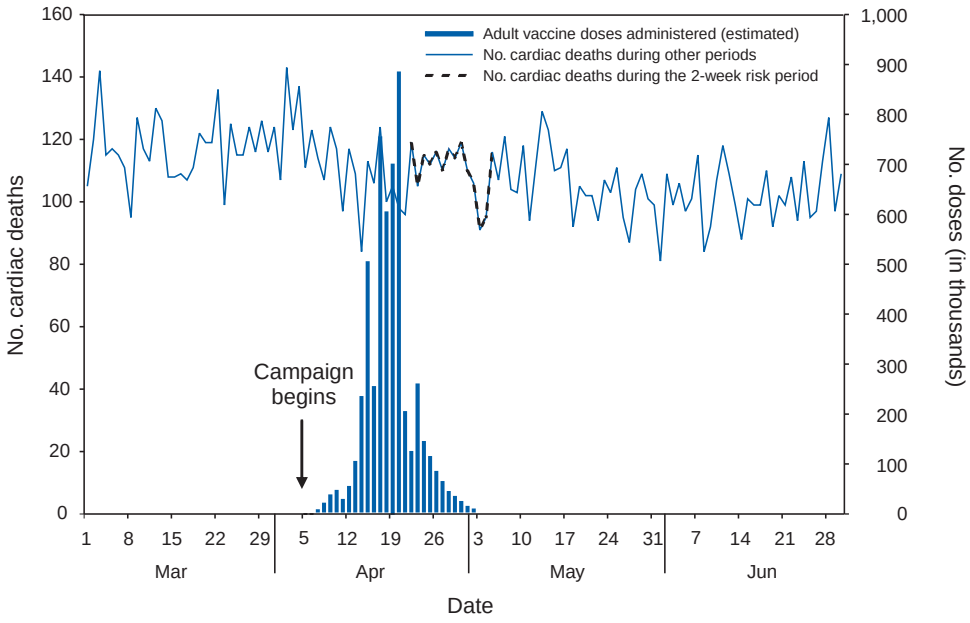
Editorial Note: The findings in this report indicate that incidence of cardiac deaths did not increase after the 1947 mass smallpox vaccination campaign in NYC. The large number and proportion of persons vaccinated in a short time permitted a focused assessment of cardiac deaths after vaccination. These results suggest that cardiac deaths observed in 2003 might have been unrelated to smallpox vaccination. However, factors that could limit the applicability of the 1947 study results to the 2003 vaccination campaign include 1) changes in characteristics or administration of the vaccine, 2) changes in population distribution of cardiac risk factors, and 3) differences in the vaccination and smallpox infection history (i.e., immunity status) of vaccine recipients in the two periods.

Both campaigns used the same NYCBOH vaccinia strain. Although long-term storage might have resulted in antigenic shift of the vaccine, DNA viruses such as vaccinia are not prone to antigenic variability (*5*). Both campaigns

FIGURE 2. Number of adult smallpox vaccination doses administered and number of cardiac deaths in estimated risk period for fatal cardiac adverse events — New York City, March–June 1947



administered the vaccine intradermally. In 1947, vaccinators used various multiple-pressure techniques; the 2003 technique involved multiple punctures with a bifurcated needle to administer the vaccine. Both campaigns used a vaccine that contained a mixture of lymph and other components. Before 1960, the vaccine consisted of wet glycerinated lymph (with a titer of $\geq 10^6$ plaque-forming units [pfu]/mL) composed of 50% glycerine and 50% calf lymph (*6*). Currently, lyophilized NYCBOH vaccinia containing calf lymph is mixed with a diluent containing polymixin B, streptomycin, chlortetracycline, and neomycin to a titer of $\geq 10^8$ pfu/mL. However, no evidence has been found to indicate that these changes would lead to increases in cardiac adverse events after vaccination.

Each of the 2003 vaccinees with cardiac fatalities had multiple risk factors for cardiac disease, including hypertension, hyperlipidemia, and smoking, and each had been vaccinated for smallpox in childhood. If risk factors for cardiac death were more prevalent in 2003 than in 1947, the number of cardiac-associated deaths probably would be greater among 2003 campaign vaccinees than among those in 1947. However, the prevalence of these three risk factors and cardiac mortality rates was substantially higher in 1947 than in 2003 (*7,8*). In addition, the 1947 vaccination campaign encouraged residents to participate regardless of health status, whereas the first wave of the 2003 campaign targeted only military, health-care, and emergency response professionals, all of whom were screened for noncardiac health problems and contraindications to vaccination.

If a greater proportion of those vaccinated in 1947 were revaccinees compared with those vaccinated in 2003, and if previous vaccination reduced the risk for subsequent cardiac mortality, the 1947 findings would underestimate the risk for cardiac death after vaccination in 2003. However, nearly all of the 2003 civilian vaccinees were born before 1971, when childhood smallpox vaccination was routine in the United States, and would have received the smallpox vaccine once during childhood.

This was an ecologic study; data about individual vaccination status for the 1947 population were unavailable. However, approximately 80% of the NYC population was vaccinated during the 1947 campaign. Although the 20% who were not vaccinated during the campaign might have differed systematically from the general population, any bias probably would not be substantial enough to alter the results of this study qualitatively.

Myo/pericarditis after smallpox vaccination has been described previously (*9*) and has been observed in both civilians and military personnel vaccinated during the 2003 campaign. However, autopsy findings indicate that the 2003 cardiac deaths were linked not to myo/pericarditis but directly to ischemic events (*2*). In contrast to studies of inflammatory complications, few data support the association of ischemic cardiac adverse events with smallpox vaccination. Only one case series was found describing the experience of eight French vaccinees (of 12 million) aged 53–83 years who experienced acute ischemic events after smallpox vaccination, five of whom died (*10*).

Smallpox vaccination is recommended for military personnel and civilian first responders without contraindications who are identified as part of terrorism preparedness and first-response teams. New screening guidelines have been instituted to minimize potential ischemic risks by excluding persons with known cardiac disease or three or more cardiac risk factors. Although this study casts doubt on the causal link between death caused by cardiac adverse events and smallpox vaccination, in the absence of a smallpox outbreak, all potential volunteers should be screened for risk factors, and those at high risk for adverse reactions to vaccination should be excluded.

FIGURE 3. Number of daily cardiac deaths during risk periods compared with other periods — New York City, March–June 1946–1948

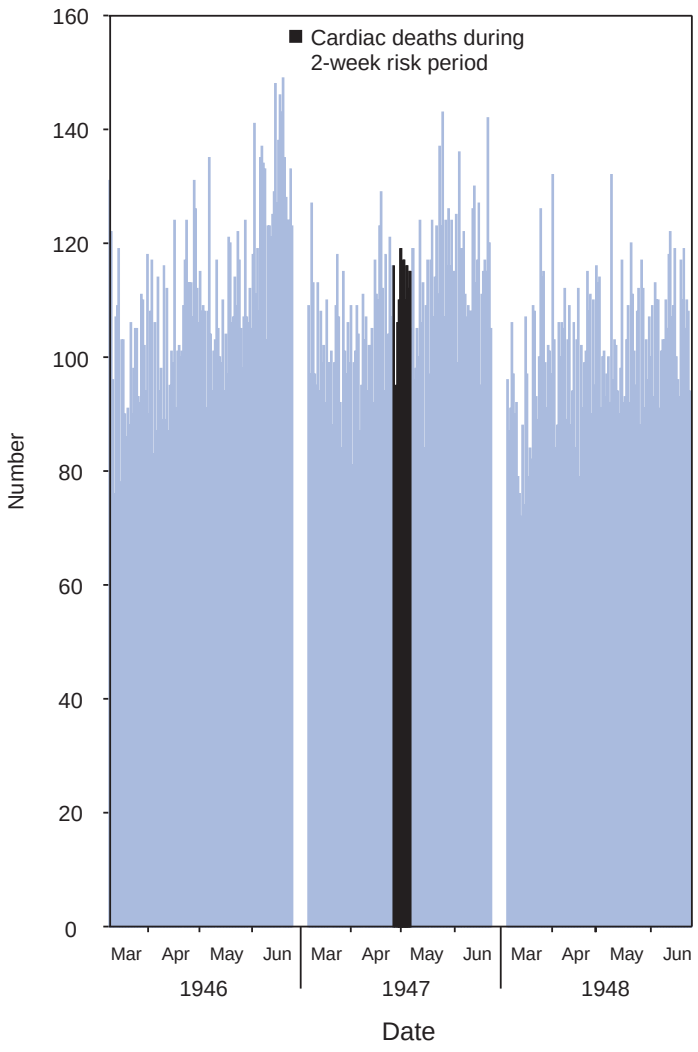


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TABLE. Rate ratios of cardiac deaths comparing postvaccination periods with reference periods*, by outcome — New York City, March–June 1946–1948

Outcome (ICD-5† code)	Postvaccination period	Rate ratio	(95% CI§)
All cardiac deaths (090–095)	April 22–May 5 (2-week)	1.01	(0.96–1.07)
Persons aged 50–64 years		*1.05*	(*0.95–1.15*)
Atherosclerotic cardiac deaths (094)	April 22–May 5 (2-week)	1.06	(0.97–1.16)
Persons aged 50–64 years		*1.00*	(*0.86–1.15*)
Myo/pericarditis deaths (090, 093)	April 22–May 5 (2-week)	1.00	(0.94–1.07)
All deaths	April 22–May 5 (2-week)	1.00	(0.97–1.04)
All cardiac deaths (090–095)	April 16–May 13 (4-week)	0.99	(0.95–1.04)

* All models are adjusted for long-term temporal and seasonal trends.
† *International Classification of Diseases, Fifth Revision.*
§ Confidence interval.

Follow-Up of Deaths Among U.S. Postal Service Workers Potentially Exposed to *Bacillus anthracis* — District of Columbia, 2001–2002

In October 2001, two letters contaminated with *Bacillus anthracis* spores were processed by mechanical and manual methods at the U.S. Postal Service (USPS) Brentwood Mail Processing and Distribution Center in the District of Columbia. Four postal workers at the Brentwood facility became ill with what was diagnosed eventually as inhalational anthrax; two died. The facility was closed on October 21, and postexposure prophylaxis was recommended for approximately 2,500 workers and business visitors (*1*). Subsequent reports of deaths of facility workers prompted concern about whether mortality was unusually high among workers, perhaps related to the anthrax attacks. To evaluate the rates and causes of death among workers at the Brentwood facility during October 12, 2001–October 11, 2002, CDC, in collaboration with state and local health departments, analyzed death certificate data. In addition, these data were compared with aggregate mortality data from the five USPS facilities contaminated with *B. anthracis* during the fall 2001 anthrax attacks. This report summarizes the results of that analysis, which indicate that rates and causes of death among Brentwood workers during the 12 months after the anthrax attacks of 2001 were not different from rates and causes of deaths that occurred during the preceding 5 years.

Deaths among Brentwood workers were identified through review of death certificates, which were obtained from the USPS Office of Personnel Management, the District of Columbia Health Department, and state health departments in Maryland and Virginia. Cause-specific deaths were compared with actuary/mortality tables from the National Center for Health Statistics. Aggregate mortality data for the five USPS facilities were obtained from the USPS Human Resources Management. Death rates for each USPS fiscal year were calculated by dividing the total number of deaths occurring at the respective facility by the number of USPS personnel assigned to that facility as of October 12, 2001. For each contaminated postal facility, a general linear model was used to compare death rates during the 5 years preceding the study period with the death rate during the study period.

During the study period, 2,646 persons were employed at the Brentwood facility; 2,434 (92%) were black, and 1,496 (57%) were male. A total of 11 deaths occurred among facility workers during this period, excluding the two deaths resulting from known inhalational anthrax (Table 1); deaths occurred during eight of 12 months. Of the 11 deaths, 10 (91%) were among blacks, and four (36%) were among female workers; these proportions were not statistically different from the expected proportion of deaths in this population. The median age of workers at death was 56 years (range: 43–65 years) for both males and females, compared with the median worker age of 52 years (range: 25–75 years). Six (55%) deaths resulted from heart disease, two (18%) from malignant neoplasm, two (18%) from liver disease, and one from septicemia after a prolonged coma resulting from a cerebrovascular accident. On the basis of comparisons with U.S. mortality data (*2*), the rates of these causes of death among Brentwood workers during the study period did not differ from the rates for expected causes of death for the U.S. population, adjusted for age and race. Although annual death rates for workers from the five contaminated USPS facilities varied, consistent with differences in demographics, no statistically significant differences were observed between death rates during the study period and those during the 5 years preceding the study period (Table 2).

TABLE 1. Age, sex, race, and cause of death of U.S. Postal Service workers* at the Brentwood Mail Processing and Distribution Center — District of Columbia, October 12, 2001–October 11, 2002

Age at death (yrs)	Sex	Race	Cause of death
43	Male	Black	Heart disease
51	Female	White	Cancer
53	Female	Black	Cancer
55	Male	Black	Heart disease
55	Male	Black	Heart disease
59	Female	Black	Heart disease
59	Male	Black	Heart disease
59	Male	Black	Heart disease
62	Male	Black	Liver disease
62	Female	Black	Liver disease
65	Male	Black	Septicemia

* N = 11; excludes two previously known deaths resulting from inhalational anthrax.

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Editorial Note: The findings in this report suggest that the rates and causes of death among workers of the Brentwood mail facility during the 12 months after the anthrax attacks of 2001 were not different from those expected for this population. Although death certificate data might be subject to misclassification (*3,4*), the listed causes of death for the 11 workers do not raise suspicion of anthrax or mortality caused by adverse drug reactions.

TABLE 2. Number* of U.S. Postal Service (USPS) workers and death rates†, by USPS facility and fiscal year§ — United States, 1997–2002

Facility	No.	1997	1998	1999	2000	2001	2002	p value
Brentwood P&DC¶, Washington, D.C.	2,646	4.54	6.80	3.78	4.54	2.65	4.16	0.86
Southern New Jersey P&DC, Bellmawr, New Jersey	714	7.00	5.60	4.20	7.00	4.20	2.80	0.14
Trenton P&DC, Trenton, New Jersey	963	3.12	2.08	4.15	2.08	3.12	4.15	0.26
Morgan P&DC, New York City, New York	4,662	3.70	3.04	2.83	1.96	2.83	2.39	0.52
Southern Connecticut P&DC, Wallingford, Connecticut	1,724	2.32	1.16	0.58	0	1.16	1.74	0.50

* As of October 2002.
† Per 1,000 workers.
§ USPS fiscal year is approximately October–September (varies slightly by year).
¶ Processing and distribution center.

If another anthrax attack were to occur, prevention of deaths would probably depend on heightened surveillance and rapid diagnostics to identify an attack and prompt prophylaxis with antibiotics and vaccination. Three types of surveillance are needed: 1) pre-event surveillance systems to detect the initial case of anthrax, which signals a new outbreak or release; 2) event surveillance to focus on continuous case-finding; and 3) postevent surveillance to identify any cases that might have been missed and morbidity and mortality associated with treatment or prophylaxis. In each stage of surveillance, the goals, priorities, and methods differ. Evaluation of unexplained deaths is an ongoing surveillance initiative that is part of CDC's Emerging Infections Program (*5*).

Monitoring of death rates among persons potentially exposed to *B. anthracis* spores during the anthrax attacks of 2001 continues; however, the onset of anthrax disease 2 years after the exposures is unlikely. Through December 2003, CDC, in collaboration with federal, state, and local partners, will continue to assess mortality among postal workers potentially exposed to *B. anthracis* at the USPS facilities and rates of adverse events among all 10,000 persons for whom ≥60 days of postexposure prophylaxis was recommended (*6*).

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Recognition of Illness Associated With Exposure to Chemical Agents — United States, 2003

Since September 11, 2001, concern has increased about potential terrorist attacks involving the use of chemical agents. In addition, recent cases involving intentional or inadvertent contamination of food with chemicals have highlighted the need for health-care providers and public health officials to be alert for patients in their communities who have signs and symptoms consistent with chemical exposures (*1–3*). For example, in February 2003, a Michigan supermarket worker was charged with intentionally contaminating 200 lbs. of meat with a nicotine-containing insecticide (*3*). Although intentional release of chemical agents might be an overt event (i.e., one whose nature reveals itself), such as release of a nerve agent in a subway or a large explosion of a chemical container, a chemical release might instead be a covert event (i.e., an unrecognized release in which the presence of ill persons might be the first sign of an exposure), such as deliberate contamination of food, water, or a consumer product. To increase the likelihood that health-care providers will recognize a chemical-release–related illness and that public health authorities will implement the appropriate emergency response and public health actions, CDC identified examples of chemical-induced illness (Table) and created appropriate guidance for health-care providers and public health personnel. This report summarizes the epidemiologic clues and clinical signs or patterns of illness that might suggest covert release of a chemical agent. CDC is working to develop national surveillance capabilities for detecting chemical-release–related illnesses.

A covert release of a chemical agent might not be identified easily for at least five reasons. First, symptoms of exposure to some chemical agents (e.g., ricin) might be similar to those of common diseases (e.g., gastroenteritis). Second, immediate symptoms of certain chemical exposures might be nonexistent or mild despite the risk for long-term effects (e.g.,

TABLE. Selected* clinical syndromes and potential chemical etiologies

Category	Clinical syndrome	Potential chemical etiology
Cholinergic crisis	• Salivation, diarrhea, lacrimation, bronchorrhea, diaphoresis, and/or urination • Miosis, fasciculations, weakness, bradycardia or tachycardia, hypotension or hypertension, altered mental status, and/or seizures	• Nicotine† • Organophosphate insecticides† — decreased acetylcholinesterase activity • Carbamate insecticides • Medicinal carbamates (e.g., physostigmine)
Generalized muscle rigidity	• Seizure-like, generalized muscle contractions or painful spasms (neck and limbs) and usually tachycardia and hypertension	• Strychnine — intact sensorium
Oropharyngeal pain and ulcerations	• Lip, mouth, and pharyngeal ulcerations and burning pain	• Paraquat† — dyspnea and hemoptysis secondary to pulmonary edema or hemorrhage; can progress to pulmonary fibrosis over days to weeks • Diquat • Caustics (i.e., acids and alkalis) • Inorganic mercuric salts • Mustards (e.g., sulfur)
Cellular hypoxia	• Mild: nausea, vomiting, and headache • Severe: altered mental status, dyspnea, hypotension, seizures, and metabolic acidosis	• Cyanide† (e.g., hydrogen cyanide gas or sodium cyanide) — bitter almond odor§ • Sodium monofluoroacetate (SMFA)† — hypocalcemia or hypokalemia • Carbon monoxide • Hydrogen sulfide • Sodium azide • Methemoglobin-causing agents
Peripheral neuropathy and/or neurocognitive effects	• Peripheral neuropathy signs and symptoms: muscle weakness and atrophy, "glove and stocking" sensory loss, and depressed or absent deep tendon reflexes • Neurocognitive effects: memory loss, delirium, ataxia, and/or encephalopathy	• Mercury (organic)† — visual disturbances, paresthesias, and/or ataxia • Arsenic (inorganic)† — delirium and/or peripheral neuropathy • Thallium — delirium and/or peripheral neuropathy • Lead — encephalopathy • Acrylamide — encephalopathy and/or peripheral neuropathy
Severe gastrointestinal illness, dehydration	• Abdominal pain, vomiting, profuse diarrhea (possibly bloody), and hypotension, possibly followed by multisystem organ failure	• Arsenic† • Ricin† — inhalation an additional route of exposure; severe respiratory illness possible • Colchicine • Barium — hypokalemia common

* Not intended as a complete differential diagnosis for each syndrome or a list of all chemicals that might be used in a covert chemical release.
† Potential agents for a covert chemical release based on historic use (i.e., intentional or inadvertent use), high toxicity, and/or ease of availability.
§ Unreliable sign.

neurocognitive impairment from dimethyl mercury, teratogenicity from isotretinoin, or cancer from aflatoxin). Third, exposure to contaminated food, water, or consumer products might result in reports of illness to health-care providers over a long period and in various locations. Fourth, persons exposed to two or more agents might have symptoms not suggestive of any one chemical agent (i.e., a mixed clinical presentation). Finally, health-care providers might be less familiar with clinical presentations suggesting exposure to chemical agents than they are with illnesses that are treated frequently.

Epidemiologic Clues Suggesting a Covert Chemical Release

Epidemiologic clues that might suggest the covert release of a chemical agent include 1) an unusual increase in the number of patients seeking care for potential chemical-release–related illness; 2) unexplained deaths among young or healthy persons; 3) emission of unexplained odors by patients; 4) clusters of illness in persons who have common characteristics, such as drinking water from the same source; 5) rapid onset of symptoms after an exposure to a potentially contaminated medium (e.g., paresthesias and vomiting within minutes of

eating a meal); 6) unexplained death of plants, fish, or animals (domestic or wild); and 7) a syndrome (i.e., a constellation of clinical signs and symptoms in patients) suggesting a disease associated commonly with a known chemical exposure (e.g., neurologic signs or pinpoint pupils in eyes of patients with a gastroenteritis-like syndrome or acidosis in patients with altered mental status).

Various chemical agents could be used as covert weapons, and the actual clinical syndrome will vary depending on the type of agent, the amount and concentration of the chemical, and the route of the exposure. However, certain clinical presentations might be more common with a covert chemical release. Certain syndromes are associated with groups of chemical agents with similar toxic properties that have been used previously, have high toxicity, or are easily available (Table) (*4–10*).

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Editorial Note: Health-care providers, public health agencies, and poison control centers might be the first to recognize illness, treat patients, and implement the appropriate emergency response to a chemical release. Familiarity with general characteristics of a covert chemical release and recognition of epidemiologic clues and syndromic presentations of chemical agent exposures could improve recognition of these releases and might reduce further morbidity and mortality.

Public health agencies and health-care providers might render the most appropriate, timely, and clinically relevant treatment possible by using treatment modalities based on syndromic categories (e.g., burns, respiratory depression, neurologic damage, and shock). Treating exposed persons by clinical syndrome rather than by specific agent probably is the most pragmatic approach to the treatment of illness caused by chemical exposures.

State and local health departments should educate health-care providers to recognize unusual illnesses that might indicate release of a chemical agent. Strategies for responding to intentional chemical releases include 1) providing information or reminders to health-care providers and clinical laboratories; 2) encouraging reporting of acute poisonings to local poison control centers, which can guide patient management and facilitate notification of the proper health agencies, and to the local or state health department; 3) initiating surveillance for incidents that potentially involve the covert release of a chemical agent; 4) implementing the capacity to receive and investigate any report of such an event; 5) implementing appropriate protocols, including potentially accessing the Laboratory Response Network for Bioterrorism, to collect and transport specimens and to store them appropriately before laboratory analysis; 6) reporting immediately to CDC and local law enforcement if the results of an investigation suggest the intentional release of a chemical agent; and 7) requesting CDC assistance when necessary.

To begin developing national surveillance capabilities for detecting chemical-release–related illnesses, CDC is collaborating with the American Association of Poison Control Centers to use its Toxic Exposure Surveillance System to identify index cases, evolving patterns, or emerging clusters of hazardous exposures. Identification of early markers for chemical releases (e.g., characteristic symptom complexes, temporal and regional increases in hospitalizations, or sudden increases in case frequency or severity) will enable public health authorities to respond quickly and appropriately to an intentional chemical release.

CDC materials for emergency and health-care personnel, including a list of chemical agents and biologic toxins and their expected clinical syndromes, are available at http://www.bt.cdc.gov/agent/agentlistchem.asp. Additional information about responding to chemical attacks is available from the U.S. Army Medical Research and Materiel Command at http://www.biomedtraining.org/progmat.htm, the U.S. Army Medical Research Institute of Chemical Defense at http://ccc.apgea.army.mil, and CDC and the Agency for Toxic Substances and Disease Registry at http://www.atsdr.cdc.gov/mhmi.html.

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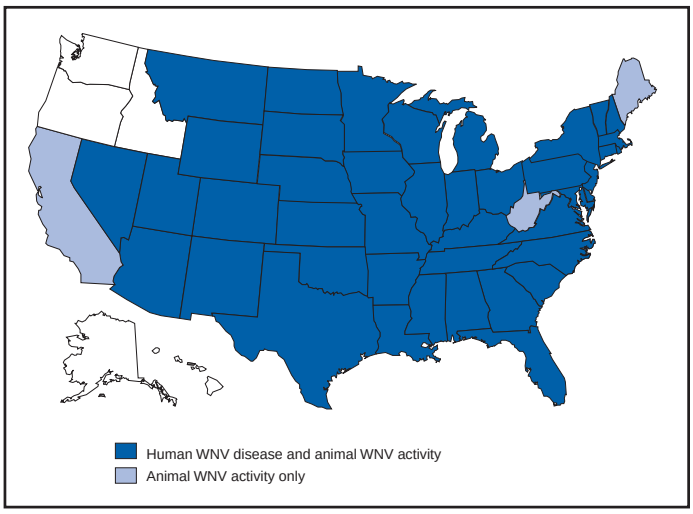
West Nile Virus Activity — United States, September 25–October 1, 2003

This report summarizes West Nile virus (WNV) surveillance data reported to CDC through ArboNET as of 3 a.m., Mountain Daylight Time, October 1, 2003.

During the reporting week of September 25–October 1, a total of 1,034 human cases of WNV infection were reported from 27 states (Colorado, Connecticut, Georgia, Illinois, Iowa, Kansas, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas, Vermont, Virginia, and Wyoming), including 22 fatal cases from 10 states (Colorado, Georgia, Maryland, Michigan, Montana, Nebraska, New York, Pennsylvania, Texas, and Wyoming). During the same period, WNV infections were reported in 692 mosquito pools, 549 dead birds, 306 horses, four squirrels, two unidentified animal species, and one dog.

During 2003, a total of 5,861 human cases of WNV infection have been reported from Colorado (n = 1,991), Nebraska (n = 999), South Dakota (n = 840), Texas (n = 335), Wyoming (n = 313), Montana (n = 207), New Mexico (n = 174), North Dakota (n = 148), Iowa (n = 98), Minnesota (n = 96), Pennsylvania (n = 91), Louisiana (n = 67), Ohio (n = 57), Mississippi (n = 51), New York (n = 45), Oklahoma (n = 40), Kansas (n = 40), Missouri (n = 38), Florida (n = 32), Alabama (n = 26), Illinois (n = 22), Maryland (n = 20), North Carolina (n = 19), New Jersey (n = 17), Georgia (n = 13), Arkansas (n = 11), Massachusetts (n = 10), Wisconsin (n = 10), Connecticut (n = nine), Tennessee (n = eight), Virginia (n = seven), Indiana (n = six), Kentucky (n = six), Delaware (n = four), Rhode Island (n = three), New Hampshire (n = two), Arizona (n = one), Michigan (n = one), Nevada (n = one), South Carolina (n = one), Utah (n = one), and Vermont (n = one) (Figure). Of 5,787 (99%) cases for which demographic data were available, 3,028 (52%) occurred among males; the median age was 47 years (range: 1 month–99 years), and the dates of illness onset ranged from March 28 to September 26. Of the 5,787 cases, 115 fatal cases were reported from Colorado (n = 36), Nebraska (n = 15), Texas (n = 11), South Dakota (n = eight), Wyoming (n = eight), New York (n = six), New Mexico (n = four), Alabama (n = three), Iowa (n = three), Minnesota (n = three), Ohio (n = three), Georgia (n = two), Maryland (n = two), Missouri (n = two), Montana (n = two), Kansas (n = one), Louisiana (n = one), Michigan (n = one), Mississippi (n = one), New Jersey (n = one), North Dakota (n = one), and Pennsylvania (n = one). A total of 617 presumptive West Nile viremic blood donors have been reported to ArboNET. Of these, 558 (90%) were reported from the following nine western and midwestern states: Colorado, Kansas, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, and Wyoming. Of the 489 donors for whom data was completely reported, four subsequently had meningoencephalitis, and 66 subsequently had West Nile fever. In addition, 8,955 dead birds with WNV infection were reported from 42 states, the District of Columbia, and New York City; 2,449 WNV infections in horses have been reported from 36 states, 19 infections in unidentified animal species, 13 infections in dogs, and nine infections in squirrels. During 2003, WNV seroconversions have been reported in 612 sentinel chicken flocks from 13 states. Of the eight seropositive sentinel horses reported, Minnesota reported four; South Dakota, three; and West Virginia, one. A total of 5,633 WNV-positive mosquito pools have been reported from 39 states and New York City.

FIGURE. Areas reporting West Nile virus (WNV) activity — United States, 2003*



* As of 3 a.m., Mountain Daylight Time, October 1, 2003.

Additional information about WNV activity is available from CDC at http://www.cdc.gov/ncidod/dvbid/westnile/index.htm and http://www.westnilemaps.usgs.gov.

Notice to Readers

SARS, Influenza, and Use of Influenza Vaccine

CDC supports and emphasizes the use of influenza vaccination for reducing influenza infections and their associated complications. CDC does not recommend influenza vaccination for the primary purpose of reducing the number of persons who might be evaluated for severe acute respiratory syndrome (SARS).

Influenza vaccine is effective only against influenza virus infection and is the best option for preventing influenza and its complications. These complications occur most often in children aged <24 months, persons aged ≥65 years, and those of any age who have certain medical conditions placing them at high-risk for having complications from influenza infection.* Annual vaccination is recommended for persons at high risk aged ≥6 months and for persons in other target groups, including family members and other close contacts of high-risk persons, those aged 50–64 years, and health-care workers. Vaccination is encouraged, when feasible, for children aged 6–23 months and for their household contacts and out-of-home caregivers. Influenza vaccination of health-care workers is especially important for reducing transmission of influenza viruses to patients with high-risk conditions in hospital and other health-care settings and for protecting the health-care workforce during the influenza season. Additional information about prevention and control of influenza is available at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5208a1.htm.

On a population level, widespread use of the influenza vaccine will reduce the number of influenza cases and might decrease the number of persons with a febrile respiratory illness who are evaluated for SARS. However, such secondary benefits cannot be reliably anticipated. For example, the overall decrease in febrile respiratory illnesses would be minimal if circulating levels of influenza viruses are low or if other respiratory pathogens are actively circulating in a community.

Persons vaccinated against influenza can still have a febrile respiratory illness because influenza vaccine will not prevent infection by noninfluenza agents and the effectiveness of influenza vaccine is <100%. Therefore, receipt of influenza vaccination in a person who subsequently experiences a febrile respiratory illness does not eliminate influenza as a possible cause nor necessarily increase the likelihood that the illness is SARS.

*Persons at high risk include residents of chronic care facilities, persons with chronic pulmonary or cardiovascular disorders (e.g., asthma, chronic metabolic diseases, renal dysfunction, hemoglobinopathies, or immunosuppression), children receiving long-term aspirin therapy, and women who will be in the second or third trimester of pregnancy during the influenza season.

Notice to Readers

Domestic Violence Awareness Month, October 2003

October is Domestic Violence Awareness Month (DVAM). Approximately 1.5 million U.S. women and 835,000 U.S. men are raped or physically assaulted by a current or former spouse, cohabitating partner, or date each year (*1*). The annual health-related costs of intimate partner violence in the United States is approximately $5.8 billion (*2*). During October, state and territorial domestic violence coalitions, corporations, health-care providers, faith-based groups, and CDC will highlight activities that increase awareness about intimate partner violence.

A packet of materials designed to help plan events, initiate outreach in communities, and generate public awareness about domestic violence during October and throughout the year is available from the National Resource Center on Domestic Violence, Domestic Violence Awareness Month Project, 6400 Flank Drive, Suite 1300, Harrisburg, PA 17112-2778, telephone 800-537-2238, and at http://dvam.vawnet.org. Additional information about DVAM is available from CDC at http://www.cdc.gov/injury.

References

1. Tjaden P, Thoennes N. Full report of the prevalence, incidence, and consequences of violence against women. Washington, DC: National Institute of Justice and CDC, 2000 (NCJ183781).
2. CDC. Costs of intimate partner violence against women in the United States. Atlanta, Georgia: U.S. Department of Health and Human Services, CDC, 2003. Available at http://www.cdc.gov/ncipc/pub-res/ipv_cost/ipv.htm.

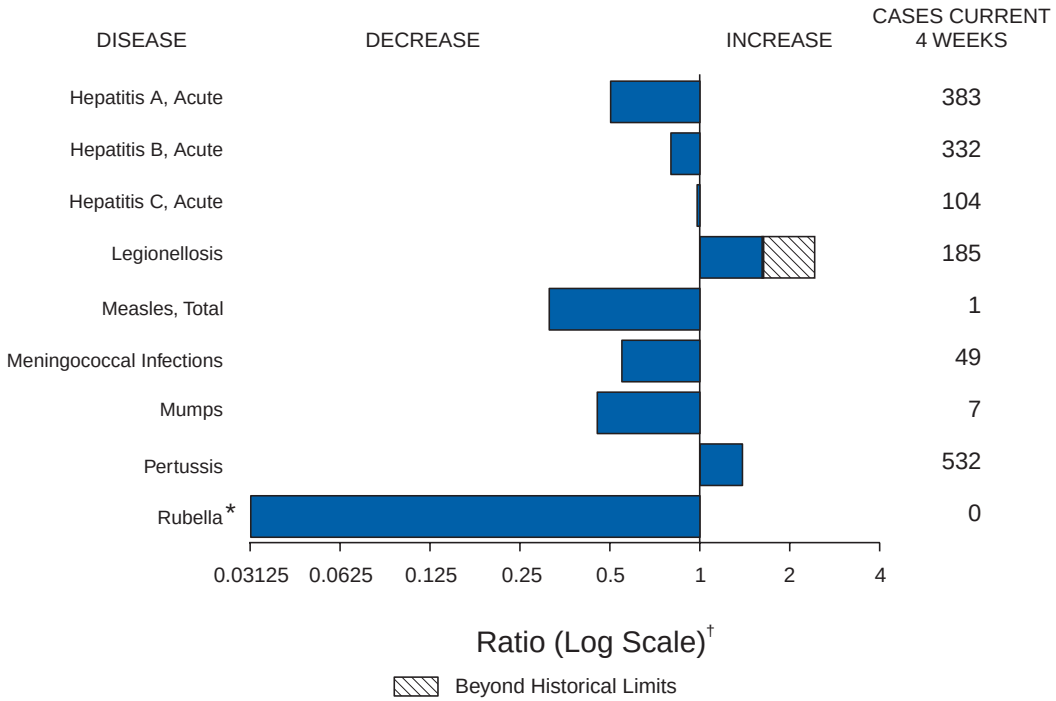
Erratum: Vol. 52, No. SS-9

In the Surveillance Summary, "Assisted Reproductive Technology Surveillance—United States, 2000," dated August 29, 2003, an error occurred on page 6, in the third paragraph of the Discussion section. The text should read, "This divergence is not surprising because Massachusetts had a statewide mandate for insurance coverage for ART procedures in 2000." Although a similar mandate was introduced in New Jersey in early 2000, it was not approved until August 2001 and did not take effect until January 1, 2002.

Erratum: Vol. 52, No. 38

In the article, "Update: Detection of West Nile Virus in Blood Donations United States, 2003," an error occurred on page 918 in the second sentence of the third full paragraph discussing Case 2. The sentence should read, "These 20 samples were tested by NAT at three different laboratories; one sample tested equivocal at one laboratory (Lab A), reactive in a second, and nonreactive in a third." This sample subsequently tested positive for West Nile virus RNA at a fourth laboratory and was reactive when retested at Lab A by using a larger extraction volume (estimated virus titer: 0.1 plaque-forming units/mL).

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals September 27, 2003, with historical data



* No rubella cases were reported for the current 4-week period yielding a ratio for week 39 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 September 27, 2003 (39th Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	2	Hansen disease (leprosy)†	43	67
Botulism:	-	-	Hantavirus pulmonary syndrome†	15	15
foodborne	9	23	Hemolytic uremic syndrome, postdiarrheal†	103	158
infant	40	51	HIV infection, pediatric†§	151	120
other (wound & unspecified)	22	12	Measles, total	37¶	26**
Brucellosis†	53	89	Mumps	142	208
Chancroid	33	54	Plague	1	-
Cholera	1	1	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	54	146	Psittacosis†	12	13
Diphtheria	-	1	Q fever†	52	43
Ehrlichiosis:	-	-	Rabies, human	-	2
human granulocytic (HGE)†	236	220	Rubella	7	11
human monocytic (HME)†	118	148	Rubella, congenital	-	1
other and unspecified	20	16	Streptococcal toxic-shock syndrome†	121	90
Encephalitis/Meningitis:	-	-	Tetanus	11	17
California serogroup viral†	49	96	Toxic-shock syndrome	99	82
eastern equine†	7	2	Trichinosis	2	13
Powassan†	-	1	Tularemia†	58	60
St. Louis†	8	16	Yellow fever	-	-
western equine†	-	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update August 24, 2003.
¶ Of 37 cases reported, 29 were indigenous, and eight were imported from another country.
** Of 26 cases reported, 13 were indigenous, and 13 were imported from another country.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending September 27, 2003, and September 28, 2002 (39th Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	30,269	29,547	606,232	615,449	2,820	3,369	2,104	2,232	812	1,877
NEW ENGLAND	989	1,225	20,219	20,367	-	-	125	152	-	23
Maine	49	27	1,439	1,227	N	N	16	9	-	-
N.H.	24	25	1,023	1,169	-	-	11	25	-	-
Vt.	13	12	752	672	-	-	26	26	-	-
Mass.	408	629	8,285	8,156	-	-	48	63	-	16
R.I.	79	74	2,183	2,043	-	-	12	16	-	-
Conn.	416	458	6,537	7,100	N	N	12	13	-	7
MID. ATLANTIC	6,726	6,786	81,771	68,999	-	-	265	286	52	72
Upstate N.Y.	693	522	14,548	12,396	N	N	88	84	-	21
N.Y. City	3,390	3,943	23,888	22,807	-	-	62	113	-	26
N.J.	1,159	1,075	9,670	10,513	-	-	4	15	2	21
Pa.	1,484	1,246	33,665	23,283	N	N	111	74	50	4
E.N. CENTRAL	2,925	2,916	99,963	112,994	7	20	536	767	52	1,077
Ohio	555	513	24,261	28,335	-	-	97	98	52	137
Ind.	378	397	12,362	12,713	N	N	69	33	-	17
Ill.	1,348	1,359	29,711	35,986	-	2	56	101	-	547
Mich.	506	502	22,468	23,249	7	18	99	91	-	335
Wis.	138	145	11,161	12,711	-	-	215	444	-	41
W.N. CENTRAL	563	487	34,269	34,872	1	1	408	305	208	53
Minn.	110	106	7,479	7,803	N	N	114	154	27	-
Iowa	63	58	2,676	4,073	N	N	76	37	33	-
Mo.	266	224	13,033	11,767	-	-	31	29	20	24
N. Dak.	2	1	700	910	N	N	12	10	5	-
S. Dak.	9	3	1,956	1,606	-	-	31	18	38	14
Nebr.¶	39	44	3,269	3,570	1	1	15	43	32	11
Kans.	74	51	5,156	5,143	N	N	129	14	53	4
S. ATLANTIC	8,582	8,879	116,625	115,897	3	3	258	226	65	44
Del.	176	155	2,239	1,966	N	N	3	2	2	-
Md.	994	1,399	12,201	11,971	3	3	17	16	13	17
D.C.	765	399	2,101	2,423	-	-	12	4	-	-
Va.	655	607	12,536	13,056	-	-	35	12	6	-
W. Va.	61	67	1,916	1,836	N	N	4	2	-	-
N.C.	869	760	19,337	18,486	N	N	34	28	-	-
S.C.¶	551	608	11,795	10,848	-	-	3	6	1	1
Ga.	1,369	1,236	24,292	23,747	-	-	79	90	15	19
Fla.	3,142	3,648	30,208	31,564	N	N	71	66	28	7
E.S. CENTRAL	1,306	1,384	39,076	39,667	N	N	97	104	20	237
Ky.	111	222	5,934	6,582	N	N	21	4	4	30
Tenn.	575	566	15,051	12,106	N	N	32	50	6	1
Ala.	308	298	9,097	12,228	-	-	35	43	10	23
Miss.	312	298	8,994	8,751	N	N	9	7	-	183
W.S. CENTRAL	3,128	3,308	74,155	81,671	-	10	46	51	166	370
Ark.	127	190	5,754	5,699	-	-	13	7	11	8
La.	414	808	12,610	14,584	N	N	2	9	2	191
Okla.	154	155	6,828	8,520	N	N	10	11	13	-
Tex.	2,433	2,155	48,963	52,868	-	10	21	24	140	171
MOUNTAIN	1,152	1,025	34,244	38,090	1,957	2,142	104	125	245	1
Mont.	11	9	1,325	1,614	N	N	17	4	200	-
Idaho	17	24	1,860	1,832	N	N	20	23	-	1
Wyo.	6	8	739	692	1	-	4	9	41	-
Colo.	296	211	8,147	10,519	N	N	27	45	-	-
N. Mex.	92	65	5,052	5,620	5	7	8	18	2	-
Ariz.	490	432	9,880	11,147	1,914	2,093	5	11	-	-
Utah	47	49	3,114	2,182	9	11	16	11	1	-
Nev.	193	227	4,127	4,484	28	31	7	4	1	-
PACIFIC	4,898	3,537	105,910	102,892	851	1,192	265	216	4	-
Wash.	311	336	12,264	10,875	N	N	25	22	-	-
Oreg.	184	234	4,709	5,033	-	-	33	33	4	-
Calif.	4,319	2,858	83,679	80,929	851	1,192	206	159	-	-
Alaska	13	22	2,693	2,727	-	-	1	-	-	-
Hawaii	71	87	2,565	3,328	-	-	-	2	-	-
Guam	6	1	-	481	-	-	-	-	-	-
P.R.	787	798	1,391	1,917	N	N	N	N	-	-
V.I.	25	63	142	125	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Incidence data for reporting years 2002 and 2003 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 August 31, 2003.

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

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 27, 2003, and September 28, 2002 (39th Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,682	2,728	167	147	105	34	12,601	15,017	230,483	262,380
NEW ENGLAND	107	203	27	39	13	4	892	1,351	5,316	5,710
Maine	8	24	-	6	-	-	123	155	146	101
N.H.	11	26	2	-	-	-	21	33	76	94
Vt.	13	8	-	1	-	-	90	99	61	78
Mass.	45	98	3	17	13	4	399	728	2,197	2,472
R.I.	1	10	-	1	-	-	84	119	734	645
Conn.	29	37	22	14	-	-	175	217	2,102	2,320
MID. ATLANTIC	179	296	11	1	24	6	2,475	3,059	31,427	31,590
Upstate N.Y.	72	128	7	-	11	-	730	866	5,738	6,415
N.Y. City	4	13	-	-	-	-	814	1,116	9,422	9,466
N.J.	13	50	-	-	-	1	241	357	5,744	5,792
Pa.	90	105	4	1	13	5	690	720	10,523	9,917
E.N. CENTRAL	381	674	18	28	16	4	2,037	2,611	45,025	55,048
Ohio	76	115	13	9	15	3	653	668	13,147	16,076
Ind.	71	47	-	1	-	-	-	-	4,838	5,448
Ill.	73	158	-	6	-	-	527	739	13,456	18,166
Mich.	61	109	-	3	-	1	532	682	9,809	10,767
Wis.	100	245	5	9	1	-	325	522	3,775	4,591
W.N. CENTRAL	291	385	29	26	22	4	1,419	1,486	12,138	13,438
Minn.	101	134	16	22	1	-	546	568	2,075	2,349
Iowa	63	95	-	-	-	-	204	233	607	932
Mo.	64	51	8	-	1	-	361	361	6,246	6,658
N. Dak.	8	4	-	-	9	-	24	14	30	55
S. Dak.	21	33	4	1	-	-	57	51	167	193
Nebr.	15	45	1	3	-	-	89	123	1,083	1,155
Kans.	19	23	-	-	11	4	138	136	1,930	2,096
S. ATLANTIC	110	215	55	27	7	-	1,967	2,199	57,875	66,789
Del.	4	8	N	N	N	N	34	41	868	1,191
Md.	7	22	-	-	-	-	82	95	5,892	6,721
D.C.	1	-	-	-	-	-	37	32	1,672	1,980
Va.	32	49	8	7	-	-	250	215	5,824	7,751
W. Va.	3	6	-	-	-	-	33	44	655	735
N.C.	4	36	21	-	-	-	N	N	11,086	12,117
S.C.	-	5	-	-	-	-	82	106	6,424	6,948
Ga.	23	38	3	7	-	-	667	701	12,118	13,062
Fla.	36	51	23	13	7	-	782	965	13,336	16,284
E.S. CENTRAL	62	88	3	-	6	9	257	289	19,131	22,843
Ky.	22	25	3	-	6	9	N	N	2,627	2,796
Tenn.	24	38	-	-	-	-	121	128	6,231	7,042
Ala.	13	17	-	-	-	-	136	161	5,736	7,822
Miss.	3	8	-	-	-	-	-	-	4,537	5,183
W.S. CENTRAL	65	95	1	-	12	3	215	181	30,635	36,661
Ark.	8	9	-	-	-	-	109	124	2,994	3,561
La.	3	4	-	-	-	-	5	4	7,645	9,030
Okla.	21	19	-	-	-	-	101	51	2,691	3,620
Tex.	33	63	1	-	12	3	-	2	17,305	20,450
MOUNTAIN	215	268	21	20	5	4	1,156	1,190	7,378	8,267
Mont.	12	25	-	-	-	-	77	72	73	70
Idaho	46	36	14	10	-	-	137	89	57	66
Wyo.	2	11	-	2	-	-	17	23	33	44
Colo.	54	80	3	5	5	4	329	391	1,942	2,614
N. Mex.	7	6	3	3	-	-	36	119	819	1,108
Ariz.	25	31	N	N	N	N	202	150	2,702	2,738
Utah	51	56	-	-	-	-	266	237	303	213
Nev.	18	23	1	-	-	-	92	109	1,449	1,414
PACIFIC	272	504	2	6	-	-	2,183	2,651	21,558	22,034
Wash.	76	112	1	-	-	-	223	303	2,057	2,157
Oreg.	71	174	1	6	-	-	298	324	659	636
Calif.	116	179	-	-	-	-	1,540	1,878	17,851	18,280
Alaska	3	6	-	-	-	-	59	76	393	451
Hawaii	6	33	-	-	-	-	63	70	598	510
Guam	N	N	-	-	-	-	-	7	-	37
P.R.	-	1	-	-	-	-	35	66	151	276
V.I.	-	-	-	-	-	-	-	-	36	31
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 27, 2003, and September 28, 2002 (39th Week)*

Reporting area	*Haemophilus influenzae*, invasive†								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype b		Non-serotype b		Unknown serotype		A	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	1,292	1,266	15	25	72	102	135	116	4,444	6,894
NEW ENGLAND	103	85	1	-	6	8	5	2	232	243
Maine	4	1	-	-	-	-	1	-	9	8
N.H.	11	7	1	-	-	-	-	-	11	11
Vt.	7	6	-	-	-	-	-	-	6	1
Mass.	47	40	-	-	6	4	3	2	133	110
R.I.	6	10	-	-	-	-	1	-	12	30
Conn.	28	21	-	-	-	4	-	-	61	83
MID. ATLANTIC	296	234	-	2	1	14	38	20	892	882
Upstate N.Y.	110	91	-	2	1	4	11	6	94	141
N.Y. City	47	55	-	-	-	-	10	9	324	340
N.J.	52	46	-	-	-	-	6	5	103	149
Pa.	87	42	-	-	-	10	11	-	371	252
E.N. CENTRAL	183	248	4	3	7	9	28	32	476	861
Ohio	58	63	-	-	-	1	10	7	84	241
Ind.	37	35	1	1	4	7	-	-	58	38
Ill.	58	97	-	-	-	-	14	17	146	233
Mich.	19	11	3	2	3	1	1	-	150	179
Wis.	11	42	-	-	-	-	3	8	38	170
W.N. CENTRAL	92	56	1	1	7	2	12	4	145	243
Minn.	36	36	1	1	7	2	2	2	37	36
Iowa	-	1	-	-	-	-	-	-	25	54
Mo.	36	11	-	-	-	-	10	2	51	73
N. Dak.	1	4	-	-	-	-	-	-	-	1
S. Dak.	1	1	-	-	-	-	-	-	-	3
Nebr.	2	-	-	-	-	-	-	-	8	16
Kans.	16	3	-	-	-	-	-	-	24	60
S. ATLANTIC	302	288	1	5	12	15	14	22	1,067	1,900
Del.	-	-	-	-	-	-	-	-	4	11
Md.	67	72	-	2	5	3	-	1	110	243
D.C.	-	-	-	-	-	-	-	-	30	65
Va.	41	25	-	-	-	-	5	4	69	97
W. Va.	14	16	-	-	-	1	-	1	14	15
N.C.	35	30	-	-	3	3	1	-	72	182
S.C.	3	11	-	-	-	-	-	2	26	54
Ga.	54	61	-	-	-	-	5	10	408	367
Fla.	88	73	1	3	4	8	3	4	334	866
E.S. CENTRAL	59	54	1	1	-	4	8	10	158	206
Ky.	4	4	-	-	-	1	-	-	25	41
Tenn.	33	27	-	-	-	-	4	7	105	83
Ala.	20	14	1	1	-	3	3	1	14	32
Miss.	2	9	-	-	-	-	1	2	14	50
W.S. CENTRAL	52	46	1	2	7	8	3	2	201	809
Ark.	7	1	-	-	1	-	-	-	17	45
La.	7	6	-	-	-	-	2	2	38	64
Okla.	35	37	-	-	6	8	1	-	10	39
Tex.	3	2	1	2	-	-	-	-	136	661
MOUNTAIN	128	139	4	4	18	25	17	13	364	439
Mont.	-	-	-	-	-	-	-	-	7	12
Idaho	4	2	-	-	-	-	1	1	-	24
Wyo.	1	2	-	-	-	-	-	-	1	2
Colo.	26	26	-	-	-	-	5	2	56	67
N. Mex.	14	22	-	-	4	6	1	1	15	20
Ariz.	64	62	4	2	6	14	8	6	209	237
Utah	11	14	-	1	5	3	2	-	34	39
Nev.	8	11	-	1	3	2	-	3	42	38
PACIFIC	77	116	2	7	14	17	10	11	909	1,311
Wash.	9	2	-	1	6	1	2	-	42	134
Oreg.	37	44	-	-	-	-	3	3	46	50
Calif.	17	39	2	6	8	16	4	4	806	1,096
Alaska	-	1	-	-	-	-	-	1	8	8
Hawaii	14	30	-	-	-	-	1	3	7	23
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	1	-	-	-	-	-	-	26	177
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

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

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Non-serotype b: nontypeable and type other than b; Unknown serotype: type unknown or not reported. Previously, cases reported without type information were counted as non-serotype b.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 27, 2003, and September 28, 2002 (39th Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	4,494	5,463	1,213	1,420	1,416	837	436	456	12,515	15,259
NEW ENGLAND	180	212	3	18	64	74	35	51	2,193	4,298
Maine	1	8	-	-	2	2	6	5	161	49
N.H.	11	15	-	-	6	4	3	4	87	189
Vt.	2	4	3	12	5	31	-	3	32	30
Mass.	147	118	-	6	22	28	13	27	487	1,666
R.I.	11	21	-	-	13	1	-	1	434	252
Conn.	8	46	U	U	16	8	13	11	992	2,112
MID. ATLANTIC	720	1,158	124	80	398	233	85	134	8,430	8,255
Upstate N.Y.	90	91	36	35	118	61	24	42	3,481	3,611
N.Y. City	254	575	-	-	32	50	14	31	5	56
N.J.	165	233	-	4	34	27	11	27	1,372	1,991
Pa.	211	259	88	41	214	95	36	34	3,572	2,597
E.N. CENTRAL	293	501	129	81	278	217	52	59	592	1,131
Ohio	108	70	7	-	175	85	18	15	57	49
Ind.	28	38	7	-	20	14	5	6	17	18
Ill.	1	115	14	18	3	21	7	15	-	46
Mich.	133	235	101	60	67	65	17	15	7	25
Wis.	23	43	-	3	13	32	5	8	511	993
W.N. CENTRAL	237	168	183	605	52	43	16	12	269	193
Minn.	29	20	7	2	3	10	8	1	196	112
Iowa	8	13	1	1	9	10	-	1	29	32
Mo.	165	88	174	591	24	11	5	7	33	36
N. Dak.	2	4	-	-	1	-	-	1	-	-
S. Dak.	2	1	-	1	2	2	-	-	1	1
Nebr.	18	22	1	10	4	10	3	1	2	6
Kans.	13	20	-	-	9	-	-	1	8	6
S. ATLANTIC	1,389	1,290	126	159	397	142	94	58	848	1,098
Del.	5	13	-	-	21	7	N	N	137	153
Md.	98	97	13	9	98	28	14	14	486	619
D.C.	9	15	-	-	13	5	-	-	6	18
Va.	137	152	7	9	72	17	9	4	66	123
W. Va.	25	18	1	2	15	-	6	-	17	12
N.C.	111	174	11	22	30	9	15	5	77	101
S.C.	110	90	24	4	5	6	2	8	3	13
Ga.	409	333	3	61	24	13	25	9	12	2
Fla.	485	398	67	52	119	57	23	18	44	57
E.S. CENTRAL	303	284	64	104	79	26	23	13	43	56
Ky.	50	47	10	4	35	10	5	2	11	19
Tenn.	147	106	18	22	28	10	5	7	12	20
Ala.	47	59	6	6	13	6	11	4	5	8
Miss.	59	72	30	72	3	-	2	-	15	9
W.S. CENTRAL	225	753	456	239	36	25	21	27	38	124
Ark.	38	94	3	10	2	-	1	-	-	2
La.	46	102	46	76	-	4	1	2	3	3
Okla.	31	52	2	5	6	3	2	7	-	-
Tex.	110	505	405	148	28	18	17	18	35	119
MOUNTAIN	472	482	41	45	50	33	28	25	15	13
Mont.	13	7	1	-	3	3	2	-	-	-
Idaho	-	6	-	-	3	1	2	2	3	3
Wyo.	27	15	-	5	2	2	-	-	1	1
Colo.	63	61	12	6	11	7	10	6	4	1
N. Mex.	27	137	-	2	2	2	2	2	-	1
Ariz.	234	176	7	4	9	7	9	11	1	2
Utah	49	33	-	4	15	8	-	3	3	4
Nev.	59	47	21	24	5	3	3	1	3	1
PACIFIC	675	615	87	89	62	44	82	77	87	91
Wash.	54	56	14	17	8	3	3	8	3	9
Oreg.	84	102	12	10	N	N	5	8	16	11
Calif.	509	443	58	61	54	41	70	53	65	68
Alaska	8	6	1	-	-	-	-	-	3	3
Hawaii	20	8	2	1	-	-	4	8	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	41	144	-	-	-	-	-	2	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 27, 2003, and September 28, 2002 (39th Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	775	1,085	1,223	1,402	5,115	6,019	4,303	5,896	578	774
NEW ENGLAND	29	63	57	78	507	543	431	707	-	6
Maine	3	5	5	4	12	12	47	45	-	-
N.H.	2	7	3	11	57	11	13	38	-	-
Vt.	1	2	2	4	55	101	28	82	-	-
Mass.	6	26	36	41	365	379	160	222	-	3
R.I.	2	5	2	5	16	13	50	59	-	3
Conn.	15	18	9	13	2	27	133	261	-	-
MID. ATLANTIC	189	291	145	172	533	314	681	963	31	47
Upstate N.Y.	47	32	36	38	308	215	318	546	2	-
N.Y. City	87	188	28	32	-	15	5	10	10	9
N.J.	25	38	19	26	39	-	62	138	10	16
Pa.	30	33	62	76	186	84	296	269	9	22
E.N. CENTRAL	72	139	175	202	433	706	133	146	13	26
Ohio	15	16	47	63	192	339	46	31	10	10
Ind.	2	12	39	24	50	91	22	30	1	3
Ill.	23	58	38	44	-	111	19	30	-	11
Mich.	23	42	34	33	80	41	39	41	2	2
Wis.	9	11	17	38	111	124	7	14	-	-
W.N. CENTRAL	41	52	112	119	306	516	473	386	57	99
Minn.	21	16	22	29	120	241	27	35	1	-
Iowa	5	4	18	19	78	108	95	62	2	3
Mo.	5	14	54	39	66	105	42	44	45	91
N. Dak.	1	1	1	-	4	5	45	32	-	-
S. Dak.	2	1	1	2	3	6	67	76	4	1
Nebr.	-	5	7	23	5	7	58	-	3	4
Kans.	7	11	9	7	30	44	139	137	2	-
S. ATLANTIC	236	256	223	228	470	345	1,954	2,059	353	361
Del.	3	3	7	7	1	2	43	24	1	1
Md.	59	88	24	7	60	55	246	307	86	33
D.C.	9	18	-	-	1	1	-	-	-	-
Va.	28	22	20	34	83	117	412	459	23	27
W. Va.	4	3	4	4	14	30	70	144	5	1
N.C.	19	19	30	29	99	36	601	551	173	226
S.C.	3	7	20	23	90	36	172	104	14	45
Ga.	47	43	28	25	30	24	286	328	42	19
Fla.	64	53	90	99	92	44	124	142	9	9
E.S. CENTRAL	13	18	62	78	119	195	142	193	73	104
Ky.	6	6	15	12	41	81	30	21	1	5
Tenn.	4	3	16	31	57	76	86	108	52	63
Ala.	3	4	15	19	15	30	26	60	12	11
Miss.	-	5	16	16	6	8	-	4	8	25
W.S. CENTRAL	22	61	132	173	429	1,369	180	932	41	115
Ark.	4	2	12	22	30	470	25	3	-	42
La.	3	4	25	35	6	7	-	-	-	-
Okla.	4	8	14	17	12	35	155	97	40	61
Tex.	11	47	81	99	381	857	-	832	1	12
MOUNTAIN	36	38	60	77	745	725	144	262	9	13
Mont.	-	1	3	2	4	5	20	16	1	1
Idaho	1	-	6	3	62	56	14	32	2	-
Wyo.	1	-	2	-	123	10	6	18	2	4
Colo.	16	21	18	23	254	283	34	56	2	2
N. Mex.	1	2	7	4	50	156	5	10	-	1
Ariz.	12	6	15	23	126	109	52	116	1	-
Utah	4	5	1	4	101	62	10	10	1	-
Nev.	1	3	8	18	25	44	3	4	-	5
PACIFIC	137	167	257	275	1,573	1,306	165	248	1	3
Wash.	21	16	25	51	490	364	-	-	-	-
Oreg.	10	9	44	39	366	162	6	14	-	2
Calif.	100	134	176	175	705	749	152	208	1	1
Alaska	-	2	3	4	1	4	7	26	-	-
Hawaii	6	6	9	6	11	27	-	-	-	-
Guam	-	-	-	1	-	2	-	-	-	-
P.R.	1	1	2	6	-	2	59	66	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 27, 2003, and September 28, 2002 (39th Week)*

Reporting area	Salmonellosis		Shigellosis		Streptococcal disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	28,208	31,144	15,835	14,264	4,201	3,656	1,620	1,859	327	248
NEW ENGLAND	1,598	1,667	236	255	333	274	40	89	6	2
Maine	99	108	6	4	22	20	-	-	-	-
N.H.	94	106	5	9	21	31	-	-	N	N
Vt.	52	66	6	1	18	9	6	4	3	1
Mass.	944	941	157	163	159	94	N	N	N	N
R.I.	107	122	14	12	11	14	10	12	3	1
Conn.	302	324	48	66	102	106	24	73	U	U
MID. ATLANTIC	3,270	4,202	1,690	1,288	765	583	100	88	75	60
Upstate N.Y.	856	1,131	325	208	305	235	55	75	58	49
N.Y. City	876	1,065	287	360	101	133	U	U	U	U
N.J.	358	816	206	476	130	124	N	N	N	N
Pa.	1,180	1,190	872	244	229	91	45	13	17	11
E.N. CENTRAL	4,080	4,322	1,319	1,609	900	783	337	166	134	97
Ohio	1,091	1,021	254	480	255	174	219	33	77	5
Ind.	461	408	125	79	94	41	118	131	35	46
Ill.	1,289	1,458	642	773	181	227	-	2	-	-
Mich.	612	699	198	136	308	246	N	N	N	N
Wis.	627	736	100	141	62	95	N	N	22	46
W.N. CENTRAL	1,880	1,902	613	800	269	202	131	333	45	41
Minn.	403	432	78	165	135	100	-	220	39	37
Iowa	276	325	54	99	N	N	N	N	N	N
Mo.	752	641	302	126	57	41	9	5	2	1
N. Dak.	28	24	3	16	11	-	3	1	4	3
S. Dak.	90	83	13	151	19	12	1	1	-	-
Nebr.	113	135	95	173	21	18	-	25	N	N
Kans.	218	262	68	70	26	31	118	81	N	N
S. ATLANTIC	7,571	7,794	5,699	4,507	743	603	847	865	16	25
Del.	61	71	148	139	6	2	1	3	N	N
Md.	641	727	502	863	220	93	-	-	-	19
D.C.	35	57	60	48	12	6	2	-	6	3
Va.	809	846	322	721	90	66	N	N	N	N
W. Va.	107	98	-	9	31	16	57	36	10	3
N.C.	959	1,042	815	278	92	107	N	N	U	U
S.C.	472	552	305	91	32	32	117	150	N	N
Ga.	1,431	1,443	1,359	1,030	93	115	197	219	N	N
Fla.	3,056	2,958	2,188	1,328	167	166	473	457	N	N
E.S. CENTRAL	1,864	2,318	669	1,028	165	90	109	115	-	-
Ky.	316	265	91	113	37	18	15	13	N	N
Tenn.	557	592	245	77	128	72	94	102	N	N
Ala.	406	598	198	538	-	-	-	-	N	N
Miss.	585	863	135	300	-	-	-	-	-	-
W.S. CENTRAL	2,588	3,352	2,897	2,198	189	244	33	161	47	19
Ark.	568	727	79	152	5	6	8	6	-	-
La.	258	585	144	352	1	1	25	152	10	6
Okla.	350	379	633	402	69	37	N	N	27	2
Tex.	1,412	1,661	2,041	1,292	114	200	N	N	10	11
MOUNTAIN	1,646	1,664	877	609	369	432	20	42	4	4
Mont.	78	75	2	3	2	-	-	-	-	-
Idaho	135	105	24	7	18	9	N	N	N	N
Wyo.	69	58	6	7	2	7	4	11	-	-
Colo.	379	469	209	134	111	90	-	-	-	-
N. Mex.	174	229	154	120	90	85	16	31	-	-
Ariz.	514	433	390	272	135	213	-	-	N	N
Utah	170	130	39	22	9	28	-	-	4	4
Nev.	127	165	53	44	2	-	-	-	-	-
PACIFIC	3,711	3,923	1,835	1,970	468	445	3	-	-	-
Wash.	392	382	119	117	38	46	-	-	N	N
Oreg.	309	273	184	76	N	N	N	N	N	N
Calif.	2,801	3,015	1,489	1,726	344	343	N	N	N	N
Alaska	55	46	7	4	-	-	-	-	N	N
Hawaii	154	207	36	47	86	56	3	-	-	-
Guam	-	37	-	27	-	-	-	4	-	-
P.R.	177	385	3	28	N	N	N	N	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending September 27, 2003, and September 28, 2002 (39th Week)*

Reporting area	Syphilis: Primary & secondary		Syphilis: Congenital		Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003
UNITED STATES	4,976	4,968	268	307	7,972	9,462	217	236	9,238
NEW ENGLAND	150	108	1	-	221	296	21	11	1,297
Maine	6	2	1	-	5	10	-	-	640
N.H.	13	2	-	-	7	10	2	-	-
Vt.	-	1	-	-	3	4	-	-	518
Mass.	101	75	-	-	146	156	11	7	136
R.I.	15	6	-	-	27	41	2	-	3
Conn.	15	22	-	-	33	75	6	4	-
MID. ATLANTIC	610	529	50	49	1,562	1,633	33	62	26
Upstate N.Y.	32	23	17	1	210	235	8	7	N
N.Y. City	340	313	25	21	847	783	13	31	-
N.J.	115	111	8	26	294	373	9	16	-
Pa.	123	82	-	1	211	242	3	8	26
E.N. CENTRAL	661	924	50	44	824	949	16	25	3,950
Ohio	164	117	3	2	152	152	2	6	947
Ind.	34	48	7	2	94	83	3	2	-
Ill.	254	355	15	33	391	457	1	10	-
Mich.	198	385	25	7	151	203	10	3	2,408
Wis.	11	19	-	-	36	54	-	4	595
W.N. CENTRAL	100	93	4	1	344	408	4	9	39
Minn.	34	43	-	1	138	172	-	3	N
Iowa	4	2	-	-	17	24	2	-	N
Mo.	36	26	4	-	91	110	1	2	-
N. Dak.	-	-	-	-	-	4	-	-	39
S. Dak.	1	-	-	-	16	10	-	-	-
Nebr.	4	5	-	-	10	20	1	4	-
Kans.	21	17	-	-	72	68	-	-	-
S. ATLANTIC	1,326	1,245	48	69	1,584	1,948	40	30	1,655
Del.	4	10	-	-	-	13	-	-	21
Md.	220	149	8	13	172	217	8	7	-
D.C.	38	41	-	1	-	-	-	-	22
Va.	63	53	1	1	186	204	11	3	466
W. Va.	2	2	-	-	12	26	-	-	967
N.C.	122	219	16	17	231	242	7	1	N
S.C.	81	94	4	9	120	135	-	-	179
Ga.	321	272	5	13	250	393	7	5	-
Fla.	475	405	14	15	613	718	7	14	N
E.S. CENTRAL	233	372	12	21	472	571	4	4	-
Ky.	29	73	1	3	89	99	-	4	N
Tenn.	96	135	5	7	157	223	2	-	N
Ala.	90	130	4	7	159	157	2	-	-
Miss.	18	34	2	4	67	92	-	-	-
W.S. CENTRAL	677	642	49	68	1,077	1,434	15	24	1,839
Ark.	41	27	-	7	69	98	-	-	-
La.	103	117	-	-	-	-	-	-	4
Okla.	34	51	1	2	90	123	-	-	N
Tex.	499	447	48	59	918	1,213	15	24	1,835
MOUNTAIN	218	239	21	13	291	303	5	9	432
Mont.	-	-	-	-	5	6	-	-	N
Idaho	5	1	-	-	5	11	-	-	N
Wyo.	-	-	-	-	3	2	-	-	44
Colo.	19	50	3	2	62	64	3	4	-
N. Mex.	38	26	-	-	6	29	-	1	-
Ariz.	143	148	18	11	159	156	2	-	4
Utah	4	5	-	-	29	21	-	2	384
Nev.	9	9	-	-	22	14	-	2	-
PACIFIC	1,001	816	33	42	1,597	1,920	79	62	-
Wash.	58	44	-	1	187	182	3	4	-
Oreg.	32	12	-	-	83	88	4	2	-
Calif.	909	753	33	40	1,238	1,497	71	53	-
Alaska	-	-	-	-	43	39	-	-	-
Hawaii	2	7	-	1	46	114	1	3	-
Guam	-	6	-	-	-	55	-	-	-
P.R.	152	193	1	21	75	86	-	-	288
V.I.	1	1	-	-	-	-	-	-	-
Amer. Samoa	U	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 years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending September 27, 2003 (39th Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	554	366	123	34	12	19	44
Boston, Mass.	149	88	33	19	5	4	13
Bridgeport, Conn.	48	35	12	-	-	1	3
Cambridge, Mass.	14	11	2	-	-	1	4
Fall River, Mass.	27	16	9	-	2	-	3
Hartford, Conn.	47	25	12	2	1	7	4
Lowell, Mass.	17	12	3	2	-	-	-
Lynn, Mass.	13	8	5	-	-	-	-
New Bedford, Mass.	31	23	3	4	-	1	1
New Haven, Conn.	34	24	8	1	1	-	4
Providence, R.I.	47	32	13	-	1	1	4
Somerville, Mass.	4	3	-	-	1	-	-
Springfield, Mass.	45	32	7	2	1	3	1
Waterbury, Conn.	32	26	6	-	-	-	2
Worcester, Mass.	46	31	10	4	-	1	5
MID. ATLANTIC	1,987	1,361	402	150	36	28	95
Albany, N.Y.	55	40	7	6	2	-	5
Allentown, Pa.	18	12	1	5	-	-	1
Buffalo, N.Y.	82	58	16	5	-	3	10
Camden, N.J.	26	16	7	2	1	-	4
Elizabeth, N.J.	10	6	3	1	-	-	-
Erie, Pa.	47	34	9	4	-	-	3
Jersey City, N.J.	55	40	9	4	-	2	-
New York City, N.Y.	1,026	703	207	76	15	15	39
Newark, N.J.	50	27	15	3	4	1	7
Paterson, N.J.	13	6	5	1	1	-	-
Philadelphia, Pa.	212	125	54	25	7	1	7
Pittsburgh, Pa.§	30	22	5	1	2	-	2
Reading, Pa.	25	19	4	-	-	2	-
Rochester, N.Y.	143	109	23	8	2	1	11
Schenectady, N.Y.	11	9	2	-	-	-	2
Scranton, Pa.	25	20	5	-	-	-	-
Syracuse, N.Y.	99	74	15	5	2	3	4
Trenton, N.J.	48	31	13	4	-	-	-
Utica, N.Y.	12	10	2	-	-	-	-
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,036	1,336	441	132	51	70	116
Akron, Ohio	57	38	15	3	1	-	5
Canton, Ohio	33	26	5	1	1	-	2
Chicago, Ill.	367	219	94	28	11	9	20
Cincinnati, Ohio	82	54	16	9	1	2	5
Cleveland, Ohio	122	77	26	9	3	7	7
Columbus, Ohio	216	142	46	12	5	11	15
Dayton, Ohio	98	70	18	4	5	1	4
Detroit, Mich.	222	129	63	19	3	8	15
Evansville, Ind.	49	30	10	5	4	-	3
Fort Wayne, Ind.	80	63	13	2	-	2	5
Gary, Ind.	17	9	6	-	-	2	1
Grand Rapids, Mich.	36	25	5	3	1	2	5
Indianapolis, Ind.	230	147	47	16	10	10	12
Lansing, Mich.	45	30	9	5	1	-	1
Milwaukee, Wis.	109	69	28	6	2	4	5
Peoria, Ill.	31	25	1	1	-	4	2
Rockford, Ill.	55	43	7	1	-	4	3
South Bend, Ind.	43	34	5	2	-	2	1
Toledo, Ohio	85	58	17	6	3	1	5
Youngstown, Ohio	59	48	10	-	-	1	-
W.N. CENTRAL	541	378	106	36	12	9	28
Des Moines, Iowa	126	80	34	8	3	1	4
Duluth, Minn.	23	18	3	2	-	-	1
Kansas City, Kans.	21	13	5	2	1	-	2
Kansas City, Mo.	105	78	19	4	4	-	6
Lincoln, Nebr.	35	29	5	1	-	-	2
Minneapolis, Minn.	75	43	19	7	2	4	2
Omaha, Nebr.	59	45	8	4	1	1	4
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	56	41	6	7	-	2	5
Wichita, Kans.	41	31	7	1	1	1	2
S. ATLANTIC	1,134	704	264	98	33	35	48
Atlanta, Ga.	146	89	38	9	6	4	3
Baltimore, Md.	140	79	40	14	3	4	12
Charlotte, N.C.	85	46	23	11	4	1	1
Jacksonville, Fla.	131	92	25	7	3	4	6
Miami, Fla.	113	75	23	10	2	3	4
Norfolk, Va.	67	37	13	8	4	5	3
Richmond, Va.	45	23	12	6	3	1	1
Savannah, Ga.	55	36	14	3	-	2	1
St. Petersburg, Fla.	68	41	16	6	2	3	3
Tampa, Fla.	160	111	27	14	1	7	8
Washington, D.C.	101	59	29	7	5	1	3
Wilmington, Del.	23	16	4	3	-	-	3
E.S. CENTRAL	772	478	188	62	26	17	52
Birmingham, Ala.	165	112	29	13	7	3	14
Chattanooga, Tenn.	68	46	13	7	2	-	3
Knoxville, Tenn.	92	59	23	4	5	1	1
Lexington, Ky.	69	41	20	3	1	4	7
Memphis, Tenn.	116	70	32	10	1	3	9
Mobile, Ala.	60	37	14	5	3	1	4
Montgomery, Ala.	49	27	15	5	2	-	4
Nashville, Tenn.	153	86	42	15	5	5	10
W.S. CENTRAL	1,423	890	302	123	69	39	65
Austin, Tex.	73	49	21	1	-	2	5
Baton Rouge, La.	U	U	U	U	U	U	U
Corpus Christi, Tex.	72	51	14	5	1	1	-
Dallas, Tex.	207	137	36	24	6	4	10
El Paso, Tex.	86	68	14	2	2	-	1
Ft. Worth, Tex.	104	62	31	9	2	-	4
Houston, Tex.	439	236	91	48	45	19	23
Little Rock, Ark.	69	51	11	2	3	2	1
New Orleans, La.	41	23	15	3	-	-	-
San Antonio, Tex.	194	121	40	17	9	7	11
Shreveport, La.	47	29	11	5	-	2	9
Tulsa, Okla.	91	63	18	7	1	2	1
MOUNTAIN	898	555	159	55	25	19	48
Albuquerque, N.M.	55	40	10	3	2	-	2
Boise, Idaho	42	32	7	-	2	1	4
Colo. Springs, Colo.	80	48	16	13	3	-	3
Denver, Colo.	106	67	22	7	2	8	8
Las Vegas, Nev.	236	157	53	16	2	8	11
Ogden, Utah	33	25	6	2	-	-	-
Phoenix, Ariz.	90	4	-	1	-	-	7
Pueblo, Colo.	25	19	4	2	-	-	-
Salt Lake City, Utah	97	65	14	7	9	2	5
Tucson, Ariz.	134	98	27	4	5	-	8
PACIFIC	1,447	1,011	289	84	39	24	108
Berkeley, Calif.	12	8	1	1	1	1	2
Fresno, Calif.	163	115	31	12	5	-	15
Glendale, Calif.	17	15	2	-	-	-	-
Honolulu, Hawaii	80	60	15	3	1	1	8
Long Beach, Calif.	82	60	17	2	2	1	5
Los Angeles, Calif.	276	199	51	12	6	8	17
Pasadena, Calif.	U	U	U	U	U	U	U
Portland, Oreg.	214	139	51	14	4	6	14
Sacramento, Calif.	U	U	U	U	U	U	U
San Diego, Calif.	176	122	39	7	7	1	17
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	143	95	26	16	4	2	17
Santa Cruz, Calif.	29	23	6	-	-	-	1
Seattle, Wash.	109	73	22	9	4	1	5
Spokane, Wash.	47	32	9	3	2	1	3
Tacoma, Wash.	99	70	19	5	3	2	4
TOTAL	10,792¶	7,079	2,274	774	303	260	604

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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