



# **Morbidity and Mortality Weekly Report**

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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

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



Photo/Associated Press

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.

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Notifiable Disease Morbidity and 122 Cities Mortality Data

Robert F. Fagan Deborah A. Adams Felicia J. Connor Lateka Dammond Donna Edwards Patsy A. Hall Pearl C. Sharp 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.

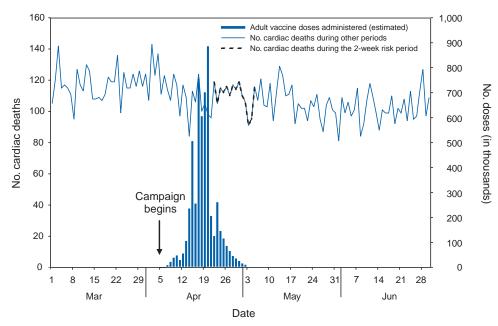
Of the 81,010 legible records available, 39,150 (48%) listed cardiac disease and 9,112 (11%) specified coronary artery or atherosclerotic disease as a cause of death. Counts of cardiac deaths ranged from 72 to 149 deaths per day during the study period (Figure 3). The difference in the rate of cardiac 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.

**Reported by:** T Frieden, F Mostashari, SP Schwartz, New York City Dept of Health and Mental Hygiene, New York. LE Thorpe, Div of Adult Community Health, National Center for Chronic Disease Prevention and Health Promotion; AM Karpati, Epidemiology Program Office; MA Marx, SE Manning, EIS officers, CDC.

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.

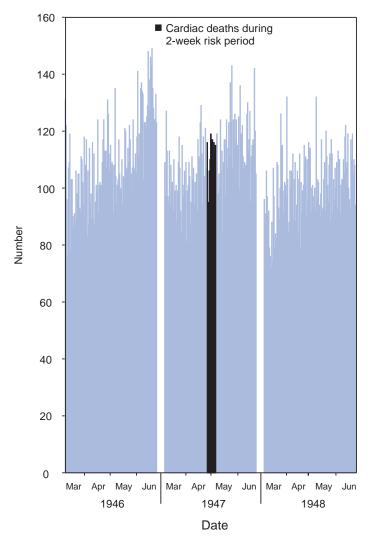
This was an ecologic study; data about individual vaccination status for the 1947 population were unavailable. However, approximately 80% of the NYC population was vaccinated during the 1947 campaign. Although the 20% who were not vaccinated during the campaign might have differed systematically from the general population, any bias prob-

ably 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 <sup>†</sup> code)	Postvaccination period	Rate ratio	(95% CI <sup>§</sup> )
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)

<sup>\*</sup> All models are adjusted for long-term temporal and seasonal trends.

International Classification of Diseases, Fifth Revision.

<sup>§</sup>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

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

<sup>\*</sup> N = 11; excludes two previously known deaths resulting from inhalational anthrax.

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).

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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<sup>†</sup>, 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

<sup>\*</sup> As of October 2002.

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  $\geq$ 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 chemicalinduced 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 chemicalrelease-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.,

Per 1,000 workers.

SUSPS fiscal year is approximately October-September (varies slightly by year).

Processing and distribution center.

TABLE. Selected\* clinical syndromes and potential chemical etiologies

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

<sup>\*</sup> 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.

§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

Potential agents for a covert chemical release based on historic use (i.e., intentional or inadvertent use), high toxicity, and/or ease of availability.

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). **Reported by:** M Patel, MD, J Schier, MD, M Belson, MD, C Rubin, DVM, P Garbe, DVM, Div of Environmental Hazards and Health Effects; J Osterloh, MD, Div of Laboratory Sciences, National Center for Environmental Health, CDC.

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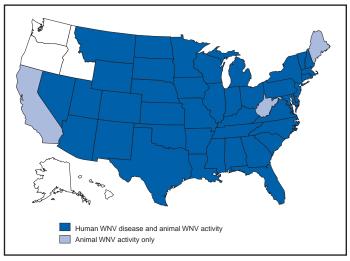
# West Nile Virus Activity — United States, September 25– October 1, 2003

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

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



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

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.

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 highrisk 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-ofhome 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 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.

# 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.

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# 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 plaqueforming units/mL).

<sup>\*</sup>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.

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

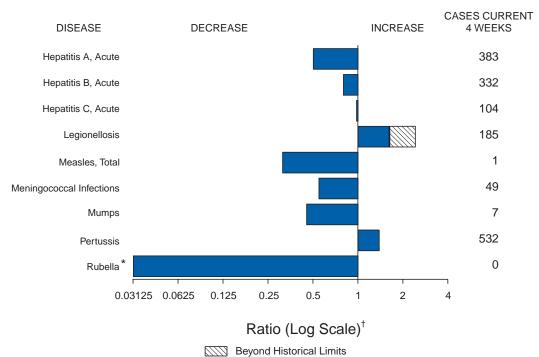


TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending September 27, 2003 (39th Week)\*

		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 <sup>†</sup>	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/M	leningitis:	-	-	Tetanus	11	17
	California serogroup viral†	49	96	Toxic-shock syndrome	99	82
	eastern equine <sup>†</sup>	7	2	Trichinosis	2	13
	Powassan <sup>†</sup>	-	1	Tularemia <sup>†</sup>	58	60
	St. Louis†	8	16	Yellow fever	-	-
	western equine <sup>†</sup>	-	-			

<sup>-:</sup> No reported cases.

<sup>\*</sup> 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.

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

Not notifiable in all states.

<sup>§</sup> 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.

<sup>\*\*</sup> 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)\*

	AII	os	Chla	mydia†	Coccidio	domycosis	Cryptosp	oridiosis		is/Meningitis st Nile
Reporting area	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
JNITED 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
∕laine ∖.H.	49 24	27 25	1,439 1,023	1,227 1,169	N -	N -	16 11	9 25	-	-
′t.	13	12	752	672	-	-	26	26	-	-
∕lass. ≀.l.	408 79	629 74	8,285 2,183	8,156 2,043	-	-	48 12	63 16	-	16
Conn.	416	458	6,537	7,100	N	N	12	13	-	7
IID. ATLANTIC	6,726	6,786	81,771	68,999	-		265	286	52	72
Jpstate N.Y. I.Y. City	693 3,390	522 3,943	14,548 23,888	12,396 22,807	N	N	88 62	84 113	-	21 26
l.J.	1,159	1,075	9,670	10,513	-		4	15	2	21
a.	1,484	1,246	33,665	23,283	N -	N	111	74	50	4
.N. CENTRAL Dhio	2,925 555	2,916 513	99,963 24,261	112,994 28,335	7	20	536 97	767 98	52 52	1,077 137
nd.	378	397	12,362	12,713	N	N	69	33	-	17
I. ⁄lich.	1,348 506	1,359 502	29,711 22,468	35,986 23,249	7	2 18	56 99	101 91	-	547 335
Vis.	138	145	11,161	12,711	-	-	215	444	-	41
V.N. CENTRAL	563	487	34,269	34,872	1	1	408	305	208	53
⁄linn. owa	110 63	106 58	7,479 2,676	7,803 4,073	N N	N N	114 76	154 37	27 33	-
Лo.	266	224	13,033	11,767	-	-	31	29	20	24
I. Dak. S. Dak.	2 9	1 3	700 1,956	910 1,606	N	N	12 31	10 18	5 38	- 14
lebr.¶	39	44	3,269	3,570	1	1	15	43	32	11
ans.	74	51	5,156	5,143	N	N	129	14	53	4
. ATLANTIC el.	8,582 176	8,879 155	116,625 2,239	115,897 1,966	3 N	3 N	258 3	226 2	65 2	44
ld.	994	1,399	12,201	11,971	3	3	17	16	13	17
).C. ⁄a.	765 655	399 607	2,101	2,423	-	-	12	4 12	6	-
v. Va.	61	67	12,536 1,916	13,056 1,836	N	N	35 4	2	-	-
I.C.	869	760	19,337	18,486	N	N	34	28	-	-
S.C.¶ Ga.	551 1,369	608 1,236	11,795 24,292	10,848 23,747	-	-	3 79	6 90	1 15	1 19
la.	3,142	3,648	30,208	31,564	N	N	71	66	28	7
S. CENTRAL	1,306	1,384	39,076	39,667	N	N	97	104	20	237
íy. enn.	111 575	222 566	5,934 15,051	6,582 12,106	N N	N N	21 32	4 50	4 6	30 1
la.	308	298	9,097	12,228	-	-	35	43	10	23
liss.	312	298	8,994	8,751	N	N	9	7	-	183
/.S. CENTRAL .rk.	3,128 127	3,308 190	74,155 5,754	81,671 5,699	-	10	46 13	51 7	166 11	370 8
a.	414	808	12,610	14,584	N	N	2	9	2	191
Okla. ex.	154 2,433	155 2,155	6,828 48,963	8,520 52,868	N -	N 10	10 21	11 24	13 140	171
OUNTAIN	1,152	1,025	34,244	38,090	1,957	2,142	104	125	245	1
lont.	11	9	1,325	1,614	N	N	17	4	200	-
laho √yo.	17 6	24 8	1,860 739	1,832 692	N 1	N -	20 4	23 9	41	1 -
ólo.	296	211	8,147	10,519	N	N	27	45	-	-
l. Mex. riz.	92 490	65 432	5,052 9,880	5,620 11,147	5 1,914	7 2,093	8 5	18 11	2	-
ltah	47	49	3,114	2,182	9	11	16	11	1	-
lev.	193	227	4,127	4,484	28	31	7	4	1	-
ACIFIC /ash.	4,898 311	3,537 336	105,910 12,264	102,892 10,875	851 N	1,192 N	265 25	216 22	4	-
reg.	184	234	4,709	5,033	-	-	33	33	4	-
Calif. Jaska	4,319 13	2,858 22	83,679 2,693	80,929 2,727	851 -	1,192	206 1	159 -	-	-
lawaii	71	87	2,565	3,328	-	-	-	2	-	-
uam	6	_ 1		481	-				-	-
R. II.	787 25	798 63	1,391 142	1,917 125	N -	N	N -	N -	-	-
mer. Samoa	U	U	U	U	U	Ü	U	U	U	Ü
C.N.M.I.	2	U	-	U	-	U	-	U	-	U

N: Not notifiable.

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)\*

(39th Week)*		Escher	richia coli, Ente	rohemorrhagio	(EHEC)					
			Shiga toxi	n positive,	Shiga toxi	n positive,				
		7:H7	<del></del>	non-O157	not sero	<u> </u>		rdiasis	+	orrhea
Reporting area	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 N.H.	8 11	24 26	2	6	-	-	123 21	155 33	146 76	101 94
Vt.	13	8	-	1	-	-	90	99	61	78
Mass. R.I.	45 1	98 10	3 -	17 1	13 -	4 -	399 84	728 119	2,197 734	2,472 645
Conn.	29	37	22	14	-	-	175	217	2,102	2,320
MID. ATLANTIC Upstate N.Y.	179 72	296 128	11 7	1 -	24 11	6	2,475 730	3,059 866	31,427 5,738	31,590 6,415
N.Y. City	4	13	-	-	-	-	814	1,116	9,422	9,466
N.J. Pa.	13 90	50 105	4	1	13	1 5	241 690	357 720	5,744 10,523	5,792 9,917
E.N. CENTRAL	381	674	18	28	16	4	2,037	2,611	45,025	55,048
Ohio Ind.	76 71	115 47	13	9 1	15 -	3 -	653 -	668	13,147 4,838	16,076 5,448
III.	73	158	-	6	-	-	527	739	13,456	18,166
Mich. Wis.	61 100	109 245	5	3 9	1	1 -	532 325	682 522	9,809 3,775	10,767 4,591
W.N. CENTRAL	291	385	29	26	22	4	1,419	1,486	12,138	13,438
Minn. Iowa	101 63	134 95	16	22	1 -	-	546 204	568 233	2,075 607	2,349 932
Mo. N. Dak.	64 8	51 4	8	-	1 9	-	361 24	361 14	6,246 30	6,658 55
S. Dak.	21	33	4	1	-	-	57	51	167	193
Nebr. Kans.	15 19	45 23	1 -	3 -	- 11	4	89 138	123 136	1,083 1,930	1,155 2,096
S. ATLANTIC	110	215	55	27	7	-	1,967	2,199	57,875	66,789
Del. Md.	4 7	8 22	N	N	N	N	34 82	41 95	868 5,892	1,191 6,721
D.C.	1	-	-	-	-	-	37	32	1,672	1,980
Va. W. Va.	32 3	49 6	8 -	7	-	-	250 33	215 44	5,824 655	7,751 735
N.C. S.C.	4	36 5	21	-	-	-	N 82	N 106	11,086 6,424	12,117 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 Ky.	62 22	88 25	3 3	-	6 6	9 9	257 N	289 N	19,131 2,627	22,843 2,796
Tenn. Ala.	24 13	38 17	-	-	-	-	121 136	128 161	6,231 5,736	7,042 7,822
Miss.	3	8	-	-	-	-	-	-	4,537	5,183
W.S. CENTRAL	65	95	1	-	12	3	215	181	30,635	36,661
Ark. La.	8 3	9 4	-	-	-	-	109 5	124 4	2,994 7,645	3,561 9,030
Okla. Tex.	21 33	19 63	- 1	-	- 12	3	101	51 2	2,691 17,305	3,620 20,450
MOUNTAIN	215	268	21	20	5	4	1,156	1,190	7,378	8,267
Mont. Idaho	12 46	25 36	- 14	- 10	-	-	77 137	72 89	73 57	70 66
Wyo.	2	11	-	2	-	-	17	23	33	44
Colo. N. Mex.	54 7	80 6	3 3	5 3	5 -	4	329 36	391 119	1,942 819	2,614 1,108
Ariz.	25	31	N	N	N	N	202	150	2,702	2,738
Utah Nev.	51 18	56 23	1	-	-	-	266 92	237 109	303 1,449	213 1,414
PACIFIC	272	504	2	6	-	-	2,183	2,651	21,558	22,034
Wash. Oreg.	76 71	112 174	1 1	6	-	-	223 298	303 324	2,057 659	2,157 636
Calif. Alaska	116 3	179 6	-	-	-	-	1,540 59	1,878 76	17,851 393	18,280 451
Hawaii	6	33	-	-	-	-	63	70	598	510
Guam	N	N	-	-	-	-	- 25	7	- 151	37
P.R. V.I.	-	1 -	-	-	-	-	35	66 -	151 36	276 31
Amer. Samoa C.N.M.I.	U	U U	U	U U	U	U U	U	U U	U -	U U
O.1 4.1VI.1.	=		-	<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)\*

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

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         2003         2002         2003         2002         2003         2002         2003           UNITED STATES         4,494         5,463         1,213         1,420         1,416         837         436           NEW ENGLAND         180         212         3         18         64         74         35           Maine         1         8         -         -         2         2         6           N.H.         11         15         -         -         6         4         3           Vt.         2         4         3         12         5         31         -           Mass.         147         118         -         6         22         28         13           R.I.         11         21         -         -         13         1         -           Conn.         8         46         U         U         16         8         13	5 Cum. 2002 456 51 5 4 3 27 1 11 134 42 31 27 34	Lyme d Cum. 2003  12,515  2,193 161 87 32 487 434 992 8,430 3,481 5	Cum. 2002 15,259 4,298 49 189 30 1,666 252 2,112 8,255
Reporting area         2003         2002         2003         2002         2003         2002         2003           UNITED STATES         4,494         5,463         1,213         1,420         1,416         837         436           NEW ENGLAND         180         212         3         18         64         74         35           Maine         1         8         -         -         2         2         6           N.H.         11         15         -         -         6         4         3           Vt.         2         4         3         12         5         31         -           Mass.         147         118         -         6         22         28         13           R.I.         11         21         -         -         13         1         -           Conn.         8         46         U         U         16         8         13	2002   456   51   5   4   3   27   1   11   134   42   31   27	2003 12,515 2,193 161 87 32 487 434 992 8,430 3,481	2002 15,259 4,298 49 189 30 1,666 252 2,112
UNITED STATES         4,494         5,463         1,213         1,420         1,416         837         436           NEW ENGLAND         180         212         3         18         64         74         35           Maine         1         8         -         -         2         2         6           N.H.         11         15         -         -         6         4         3           Vt.         2         4         3         12         5         31         -           Mass.         147         118         -         6         22         28         13           R.I.         11         21         -         -         13         1         -           Conn.         8         46         U         U         16         8         13	456 51 5 4 3 27 1 11 134 42 31 27	12,515 2,193 161 87 32 487 434 992 8,430 3,481	15,259 4,298 49 189 30 1,666 252 2,112
Maine     1     8     -     -     2     2     6       N.H.     11     15     -     -     6     4     3       Vt.     2     4     3     12     5     31     -       Mass.     147     118     -     6     22     28     13       R.I.     11     21     -     -     13     1     -       Conn.     8     46     U     U     16     8     13	5 4 3 27 1 11 134 42 31 27	161 87 32 487 434 992 8,430 3,481	49 189 30 1,666 252 2,112
Vt.     2     4     3     12     5     31     -       Mass.     147     118     -     6     22     28     13       R.I.     11     21     -     -     13     1     -       Conn.     8     46     U     U     16     8     13	3 27 1 11 134 42 31 27	32 487 434 992 8,430 3,481	30 1,666 252 2,112
Mass.     147     118     -     6     22     28     13       R.I.     11     21     -     -     13     1     -       Conn.     8     46     U     U     16     8     13	27 1 11 134 42 31 27	487 434 992 8,430 3,481	1,666 252 2,112
Conn. 8 46 U U 16 8 13	11 134 42 31 27	992 8,430 3,481	2,112
MID. ATLANTIC 720 1.158 124 80 398 233 85	42 31 27	3,481	8,255
	31 27		
Upstate N.Y. 90 91 36 35 118 61 24 N.Y. City 254 575 - 32 50 14		0	3,611 56
N.J. 165 233 - 4 34 27 11 Pa. 211 259 88 41 214 95 36	J <del>-1</del>	1,372 3,572	1,991 2,597
E.N. CENTRAL 293 501 129 81 278 217 52	59	592	1,131
Ohio 108 70 7 - 175 85 18	15 6	57 17	49 18
III. 1 115 14 18 3 21 7	15	-	46
Mich. 133 235 101 60 67 65 17 Wis. 23 43 - 3 13 32 5	15 8	7 511	25 993
W.N. CENTRAL 237 168 183 605 52 43 16	12	269	193
Minn. 29 20 7 2 3 10 8 lowa 8 13 1 1 9 10 -	1 1	196 29	112 32
Mo. 165 88 174 591 24 11 5	7	33	36
S. Dak. 2 1 - 1 2 2 -	1 -	1	1
Nebr. 18 22 1 10 4 10 3 Kans. 13 20 9	1 1	2 8	6 6
S. ATLANTIC 1,389 1,290 126 159 397 142 94	58	848	1,098
Del. 5 13 21 7 N Md. 98 97 13 9 98 28 14	N 14	137 486	153 619
D.C. 9 15 13 5 - Va. 137 152 7 9 72 17 9	- 4	6 66	18 123
W. Va. 25 18 1 2 15 - 6	-	17	12
N.C. 111 174 11 22 30 9 15 S.C. 110 90 24 4 5 6 2	5 8	77 3	101 13
Ga. 409 333 3 61 24 13 25 Fla. 485 398 67 52 119 57 23	9 18	12 44	2 57
E.S. CENTRAL 303 284 64 104 79 26 23	13	43	56
Ky. 50 47 10 4 35 10 5 Tenn. 147 106 18 22 28 10 5	2 7	11 12	19 20
Ala. 47 59 6 6 13 6 11	4	5	8
Miss. 59 72 30 72 3 - 2 W.S. CENTRAL 225 753 456 239 36 25 21	- 27	15 38	9 124
Ark. 38 94 3 10 2 - 1	-	-	2
La. 46 102 46 76 - 4 1 Okla. 31 52 2 5 6 3 2	2 7	3	3
Tex. 110 505 405 148 28 18 17	18	35	119
MOUNTAIN 472 482 41 45 50 33 28 Mont. 13 7 1 - 3 3 2	25	15 -	13
Idaho - 6 3 1 2 Wyo. 27 15 - 5 2 2 -	2	3	3
Cólo. 63 61 12 6 11 7 10	6	4	1
N. Mex. 27 137 - 2 2 2 2 Ariz. 234 176 7 4 9 7 9	2 11	- 1	1 2
Utah     49     33     -     4     15     8     -       Nev.     59     47     21     24     5     3     3	3 1	3	4
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           Calif.         509         443         58         61         54         41         70	8 53	16 65	11 68
Alaska 8 6 1 Hawaii 20 8 2 1 4	8	3 N	3 N
Guam	- 2	- N	- N
V.I	-	-	-
Amer. Samoa         U         U         U         U         U         U         U         U         U         U         U         U         -         U         -         U         -         U         -         U         -         U         -         U         -         U         -         U         -         U         -         U         -         U         -         U         -         U         -         U         -         -         U         -         U         -         -         U         -         -         U         - <th< td=""><td>U U</td><td>U -</td><td>U U</td></th<>	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)\*

(39th Week)*	<u> </u>		Mening	gococcal	Т				Rocky N	lountain
	Mal	•	dis	ease		tussis		s, animal	spotte	d fever
Reporting area	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 Maine	29 3	63 5	57 5	78 4	507 12	543 12	431 47	707 45	-	6
N.H.	2	7	3	11	57	11	13	38	-	-
Vt. Mass.	1 6	2 26	2 36	4 41	55 365	101 379	28 160	82 222	-	3
R.I.	2	5	2	5	16	13	50	59	-	3
Conn.	15	18	9	13	2	27	133	261	-	-
MID. ATLANTIC Upstate N.Y.	189 47	291 32	145 36	172 38	533 308	314 215	681 318	963 546	31 2	47
N.Y. City N.J.	87 25	188 38	28 19	32 26	39	15	5 62	10 138	10 10	9 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 Ind.	15 2	16 12	47 39	63 24	192 50	339 91	46 22	31 30	10 1	10 3
III.	23	58	38	44	-	111	19	30	-	11
Mich. Wis.	23 9	42 11	34 17	33 38	80 111	41 124	39 7	41 14	2	2
W.N. CENTRAL	41	52	112	119	306	516	473	386	57	99
Minn. Iowa	21 5	16 4	22 18	29 19	120 78	241 108	27 95	35 62	1 2	3
Mo.	5	14	54	39	66	105	42	44	45	91
N. Dak. S. Dak.	1 2	1 1	1 1	2	4 3	5 6	45 67	32 76	4	1
Nebr.	- 7	5	7	23	5	7	58	-	3	4
Kans. S. ATLANTIC	236	11 256	9 223	7 228	30 470	44 345	139 1,954	137 2,059	2 353	- 361
Del.	3	3	7	7	1	2	43	24	1	1
Md. D.C.	59 9	88 18	24	7	60 1	55 1	246	307	86	33
Va.	28	22	20	34	83	117	412	459	23	27
W. Va. N.C.	4 19	3 19	4 30	4 29	14 99	30 36	70 601	144 551	5 173	1 226
S.C. Ga.	3 47	7 43	20 28	23 25	90 30	36 24	172 286	104 328	14 42	45 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. Tenn.	6 4	6 3	15 16	12 31	41 57	81 76	30 86	21 108	1 52	5 63
Ala. Miss.	3	4 5	15 16	19 16	15	30	26	60 4	12	11 25
W.S. CENTRAL	22	61	132	173	6 429	8 1,369	180	932	8 41	115
Ark.	4	2	12	22	30	470	25	3	-	42
La. Okla.	3 4	4 8	25 14	35 17	6 12	7 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. Idaho	1	1 -	3 6	2 3	4 62	5 56	20 14	16 32	1 2	1 -
Wyo. Colo.	1 16	- 21	2 18	23	123 254	10 283	6 34	18 56	2 2	4 2
N. Mex.	1	2	7	4	50	156	5	10	-	1
Ariz. Utah	12 4	6 5	15 1	23 4	126 101	109 62	52 10	116 10	1 1	-
Nev.	1	3	8	18	25	44	3	4	-	5
PACIFIC Wash	137	167 16	257	275	1,573	1,306	165	248	1	3
Wash. Oreg.	21 10	16 9	25 44	51 39	490 366	364 162	6	14	-	2
Calif. Alaska	100	134 2	176 3	175 4	705 1	749 4	152 7	208 26	1	1
Hawaii	6	6	9	6	11	27	-	-	-	-
Guam	<del>-</del>	-	-	1	-	2	-	-	-	-
P.R. V.I.	1 -	1 -	2	6	-	2	59 -	66	N -	N -
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	- LI: Unavailable		norted cases	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)\*

							Stre	ptococcus pne	umoniae, inv	asive
	Salmo	nellosis	Shige	llosis	Streptococo invasive,		Drug re all a		Age <5 years	
Reporting area	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	-	-	- NI	- N
N.H. Vt.	94 52	106 66	5 6	9 1	21 18	31 9	6	4	N 3	N 1
Mass.	944	941	157	163	159	94	N	N	N	N
R.I. Conn.	107 302	122 324	14 48	12 66	11 102	14 106	10 24	12 73	3 U	1 U
MID. ATLANTIC								88		60
Upstate N.Y.	3,270 856	4,202 1,131	1,690 325	1,288 208	765 305	583 235	100 55	75	75 58	49
N.Y. City	876	1,065	287	360	101	133	U	U	U	U
N.J. Pa.	358 1,180	816 1,190	206 872	476 244	130 229	124 91	N 45	N 13	N 17	N 11
E.N. CENTRAL Ohio	4,080 1,091	4,322 1,021	1,319 254	1,609 480	900 255	783 174	337 219	166 33	134 77	97 5
Ind.	461	408	125	79	94	41	118	131	35	46
III.	1,289	1,458	642	773	181	227	- NI	2	- NI	- N
Mich. Wis.	612 627	699 736	198 100	136 141	308 62	246 95	N N	N N	N 22	N 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
lowa	276	325	54	99	N	N	N	Ñ	N	N
Mo. N. Dak.	752 28	641 24	302 3	126 16	57 11	41	9 3	5 1	2 4	1 3
S. Dak.	90	83	13	151	19	12	1	1	-	-
Nebr.	113	135	95 68	173	21	18	110	25	N	N
Kans.	218	262	68	70	26	31	118	81	N	N
S. ATLANTIC Del.	7,571 61	7,794 71	5,699 148	4,507 139	743 6	603 2	847 1	865 3	16 N	25 N
Md.	641	727	502	863	220	93	-	-	-	19
D.C.	35	57	60	48	12	6	2	-	6	3
Va. W. Va.	809 107	846 98	322	721 9	90 31	66 16	N 57	N 36	N 10	N 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. Fla.	1,431 3,056	1,443 2,958	1,359 2,188	1,030 1,328	93 167	115 166	197 473	219 457	N N	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. Ala.	557 406	592 598	245 198	77 538	128	72 -	94	102	N N	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. Okla.	258 350	585 379	144 633	352 402	1 69	1 37	25 N	152 N	10 27	6 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	75 405	2	3	2	-	- N.I.	- N.I	- NI	- N
Idaho Wyo.	135 69	105 58	24 6	7 7	18 2	9 7	N 4	N 11	N -	N -
Colo.	379	469	209	134	111	90	-	-	-	-
N. Mex.	174	229	154	120	90	85	16	31	- N	- N
Ariz. Utah	514 170	433 130	390 39	272 22	135 9	213 28	-	-	4	4
Nev.	127	165	53	44	2	-	-	-	-	-
PACIFIC	3,711	3,923	1,835	1,970	468	445	3	-	-	-
Wash.	392 309	382 273	119	117 76	38 N	46 N	- N	- N	N	N
Oreg. Calif.	2,801	3,015	184 1,489	76 1,726	N 344	343	N N	N N	N N	N N
Alaska	55	46	7	4	-	-	-	-	N	N
Hawaii	154	207	36	47	86	56	3	-	-	-
Guam P.R.	- 177	37 385	3	27	- N	- N	- N	4 N	- N	- N
v.i.	-	385	3 -	28	IN -	IN -	- IN	IN -	- N	- IN
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)\*

(39th Week)*		Syp	hilie						Varicella
	Primary &		Cong	enital	Tuber	culosis	Typho	id fever	(Chickenpox)
Reporting area	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 N.H.	6	2 2	1	-	5 7	10 10	2	-	640
Vt.	13	1	-	-	3	4	-	-	518
Mass.	101	75	-	-	146	156	11	7	136
R.I. Conn.	15 15	6 22	-	-	27 33	41 75	2 6	4	3 -
MID. ATLANTIC	610	529	50	49	1,562	1,633	33	62	26
Upstate N.Y.	32	23	17	1	210	235	8	7 31	N
N.Y. City N.J.	340 115	313 111	25 8	21 26	847 294	783 373	13 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 Ind.	164 34	117 48	3 7	2 2	152 94	152 83	2 3	6 2	947
III.	254	355	15	33	391	457	1	10	-
Mich. Wis.	198 11	385 19	25	7	151 36	203 54	10	3 4	2,408 595
W.N. CENTRAL	100	93	4	1	344	408	4	9	39
Minn.	34	43	-	1	138	172	-	3	N
lowa	4	2	4	-	17 91	24 110	2 1	2	N
Mo. N. Dak.	36	26	-	-	91	4	-	-	39
S. Dak.	1	-	-	-	16	10	-	-	-
Nebr. Kans.	4 21	5 17	-	-	10 72	20 68	1 -	4	-
S. ATLANTIC	1,326	1,245	48	69	1,584	1,948	40	30	1,655
Del.	4	10	-	-	· -	13	-	-	21
Md. D.C.	220 38	149 41	8 -	13 1	172	217	8 -	7	22
Va.	63	53	1	1	186	204	11	3	466
W. Va. N.C.	2 122	2 219	- 16	- 17	12 231	26 242	7	- 1	967 N
S.C.	81	94	4	9	120	135	-	-	179
Ga. Fla.	321 475	272 405	5 14	13 15	250 613	393 718	7 7	5 14	N
E.S. CENTRAL	233	372	12	21	472	571	4	4	-
Ky.	29	73	1	3	89	99	-	4	N
Tenn. Ala.	96 90	135 130	5 4	7 7	157 159	223 157	2 2	-	N -
Miss.	18	34	2	4	67	92	-	-	-
W.S. CENTRAL	677	642	49	68	1,077	1,434	15	24	1,839
Ark. La.	41 103	27 117	-	7	69	98	-	-	4
Okla.	34	51	.1	_2	90	123			N
Tex.	499	447	48	59	918	1,213	15	24	1,835
MOUNTAIN Mont.	218	239	21	13 -	291 5	303 6	5	9	432 N
Idaho	5	1	-	-	5	11	-	-	N
Wyo. Colo.	- 19	50	3	2	3 62	2 64	3	4	44
N. Mex.	38	26	-	-	6	29	-	1	-
Ariz. Utah	143 4	148 5	18	11	159 29	156 21	2	2	4 384
Nev.	9	9	-	-	22	14	-	2	-
PACIFIC	1,001	816	33	42	1,597	1,920	79	62	-
Wash. Oreg.	58 32	44 12	-	1	187 83	182 88	3 4	4 2	-
Calif.	909	753	33	40	1,238	1,497	71	53	-
Alaska Hawaii	2	7	-	- 1	43 46	39 114	- 1	3	-
	2	6	-	ı	40	55	1	3	-
Guam P.R.	152	193	1	21	- 75	86	-	-	288
V.I. Amer. Samoa	1 U	1 U	- U						
C.N.M.I.	-	Ü	-	U	-	Ü	-	Ü	-

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)

TABLE III. Deaths	in 122 U. 			ending S by age (ye		ber 2	7, 2003 ( l	(39th Week)	All causes, by age (years)						г
	All					P&I <sup>†</sup>		All All					P&I <sup>†</sup>		
Reporting Area	Ages	<u>&gt;</u> 65	45-64	25-44	1-24	<1	Total	Reporting Area	Ages	<u>&gt;</u> 65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	554	366	123	34	12	19	44	S. ATLANTIC	1,134	704	264	98	33	35	48
Boston, Mass. Bridgeport, Conn.	149 48	88 35	33 12	19	5	4 1	13 3	Atlanta, Ga. Baltimore, Md.	146 140	89 79	38 40	9 14	6 3	4 4	3 12
Cambridge, Mass.	14	11	2	_	_	1	4	Charlotte, N.C.	85	46	23	11	4	1	1
Fall River, Mass.	27	16	9	-	2	-	3	Jacksonville, Fla.	131	92	25	7	3	4	6
Hartford, Conn.	47	25	12	2	1	7	4	Miami, Fla.	113	75	23	10	2	3	4
Lowell, Mass.	17	12	3	2	-	-	-	Norfolk, Va.	67	37	13	8	4	5	3
Lynn, Mass. New Bedford, Mass.	13 31	8 23	5 3	4	-	1	- 1	Richmond, Va. Savannah, Ga.	45 55	23 36	12 14	6 3	3	1 2	1 1
New Haven, Conn.	34	24	8	1	1		4	St. Petersburg, Fla.	68	41	16	6	2	3	3
Providence, R.I.	47	32	13	-	1	1	4	Tampa, Fla.	160	111	27	14	1	7	8
Somerville, Mass.	4	3	-	-	1	-	-	Washington, D.C.	101	59	29	7	5	1	3
Springfield, Mass.	45	32	7	2	1	3	1	Wilmington, Del.	23	16	4	3	-	-	3
Waterbury, Conn. Worcester, Mass.	32 46	26 31	6 10	4	-	- 1	2 5	E.S. CENTRAL	772	478	188	62	26	17	52
								Birmingham, Ala.	165	112	29	13	7	3	14
MID. ATLANTIC	1,987	1,361	402	150	36	28	95	Chattanooga, Tenn.	68	46	13	7	2	-	3
Albany, N.Y. Allentown, Pa.	55 18	40 12	7 1	6 5	2	-	5 1	Knoxville, Tenn. Lexington, Ky.	92 69	59 41	23 20	4 3	5 1	1 4	1 7
Buffalo, N.Y.	82	58	16	5	-	3	10	Memphis, Tenn.	116	70	32	10	1	3	9
Camden, N.J.	26	16	7	2	1	-	4	Mobile, Ala.	60	37	14	5	3	1	4
Elizabeth, N.J.	10	6	3	1	-	-	-	Montgomery, Ala.	49	27	15	5	2	-	4
Erie, Pa.	47	34	9	4	-	-	3	Nashville, Tenn.	153	86	42	15	5	5	10
Jersey City, N.J. New York City, N.Y.	55	40 703	9	4 76	- 15	2 15	39	W.S. CENTRAL	1,423	890	302	123	69	39	65
Newark, N.J.	1,026 50	27	207 15	3	4	1	7	Austin, Tex.	73	49	21	1	-	2	5
Paterson, N.J.	13	6	5	1	1		-	Baton Rouge, La.	U	U	U	ñ	U	U	U
Philadelphia, Pa.	212	125	54	25	7	1	7	Corpus Christi, Tex. Dallas, Tex.	72 207	51 137	14 36	5 24	1 6	1 4	10
Pittsburgh, Pa.§	30	22	5	1	2	-	2	El Paso, Tex.	86	68	14	24	2	-	10
Reading, Pa.	25	19	4	-	-	2	-	Ft. Worth, Tex.	104	62	31	9	2	-	4
Rochester, N.Y. Schenectady, N.Y.	143 11	109 9	23 2	8	2	1	11 2	Houston, Tex.	439	236	91	48	45	19	23
Scranton, Pa.	25	20	5	_	_	_	-	Little Rock, Ark.	69	51	11	2	3	2	1
Syracuse, N.Y.	99	74	15	5	2	3	4	New Orleans, La.	41	23	15	3	-	7	-
Trenton, N.J.	48	31	13	4	-	-	-	San Antonio, Tex. Shreveport, La.	194 47	121 29	40 11	17 5	9	2	11 9
Utica, N.Y.	12	10	2					Tulsa, Okla.	91	63	18	7	1	2	1
Yonkers, N.Y.	U	U	U	U	U	U	U	MOUNTAIN	898	555	159	55	25	19	48
E.N. CENTRAL	2,036	1,336	441	132	51	70	116	Albuquerque, N.M.	55	40	10	3	2	-	2
Akron, Ohio	57 33	38 26	15 5	3 1	1 1	-	5 2	Boise, Idaho	42	32	7	-	2	1	4
Canton, Ohio Chicago, III.	367	219	94	28	11	9	20	Colo. Springs, Colo.	80	48	16	13	3	-	3
Cincinnati, Ohio	82	54	16	9	1	2	5	Denver, Colo.	106	67	22	7	2	8	8
Cleveland, Ohio	122	77	26	9	3	7	7	Las Vegas, Nev. Ogden, Utah	236 33	157 25	53 6	16 2	2	8	11
Columbus, Ohio	216	142	46	12	5	11	15	Phoenix, Ariz.	90	4	-	1	-		7
Dayton, Ohio	98	70	18	4	5	1	4	Pueblo, Colo.	25	19	4	2	-	-	-
Detroit, Mich. Evansville, Ind.	222 49	129 30	63 10	19 5	3 4	8	15 3	Salt Lake City, Utah	97	65	14	7	9	2	5
Fort Wayne, Ind.	80	63	13	2	-	2	5	Tucson, Ariz.	134	98	27	4	5	-	8
Gary, Ind.	17	9	6	-	-	2	1	PACIFIC	1,447	1,011	289	84	39	24	108
Grand Rapids, Mich.	36	25	5	3	1	2	5	Berkeley, Calif.	12	8	1	1	1	1	2
Indianapolis, Ind.	230	147	47	16	10	10	12	Fresno, Calif.	163	115	31	12	5	-	15
Lansing, Mich. Milwaukee, Wis.	45 109	30 69	9 28	5 6	1 2	4	1 5	Glendale, Calif. Honolulu, Hawaii	17 80	15 60	2 15	3	1	1	8
Peoria, III.	31	25	1	1	-	4	2	Long Beach, Calif.	82	60	17	2	2	1	5
Rockford, III.	55	43	7	1	-	4	3	Los Angeles, Calif.	276	199	51	12	6	8	17
South Bend, Ind.	43	34	5	2	-	2	1	Pasadena, Calif.	U	U	U	U	U	U	U
Toledo, Ohio	85	58	17	6	3	1	5	Portland, Oreg.	214	139	51	14	4	6	14
Youngstown, Ohio	59	48	10	-	-	1	-	Sacramento, Calif.	U 176	U 122	U	U	U 7	U	U 17
W.N. CENTRAL	541	378	106	36	12	9	28	San Diego, Calif. San Francisco, Calif.	176 U	122 U	39 U	7 U	Ú	1 U	17 U
Des Moines, Iowa	126	80	34	8	3	1	4	San Jose, Calif.	143	95	26	16	4	2	17
Duluth, Minn.	23	18	3	2	- 1	-	1	Santa Cruz, Calif.	29	23	6	-	-	-	1
Kansas City, Kans. Kansas City, Mo.	21 105	13 78	5 19	2 4	1 4	-	2 6	Seattle, Wash.	109	73	22	9	4	1	5
Lincoln, Nebr.	35	29	5	1	-	-	2	Spokane, Wash.	47	32	9	3	2	1	3
Minneapolis, Minn.	75	43	19	7	2	4	2	Tacoma, Wash.	99	70	19	5	3	2	4
Omaha, Nebr.	59	45	8	4	1	1	4	TOTAL	10,792¶	7,079	2,274	774	303	260	604
St. Louis, Mo.	U	U	U	Ū	U	U	Ū								
St. Paul, Minn.	56 41	41 31	6	7	- 4	2	5 2								
Wichita, Kans.	41	31	7	1	1	1		l .							

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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