

# MMWR<sup>TM</sup>

## MORBIDITY AND MORTALITY WEEKLY REPORT

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### Suspected Brucellosis Case Prompts Investigation of Possible Bioterrorism-Related Activity — New Hampshire and Massachusetts, 1999

*Brucella* species, particularly *B. melitensis* and *B. suis*, are potential agents of biological terrorism (1,2). This report describes the public health and law enforcement assessment of a suspected case of brucellosis in a woman, in which the atypical clinical presentation and suspicious circumstances surrounding the case raised the possibility of biological terrorism. Although the investigation did not identify evidence of biological terrorism, the safe resolution of the case illustrates the value of integrated clinical, public health, and law enforcement biological terrorism preparedness and response.

On March 25, 1999, a 38-year-old woman who resided in New Hampshire was admitted to hospital A in New Hampshire with fever, myalgia, and weakness, which progressed over 3 days to respiratory failure requiring mechanical ventilation. On day 22, after 3 weeks of intensive care, the patient was transferred to hospital B in Boston, Massachusetts. Paired serum specimens obtained on day 4 and day 22 showed a 16-fold rise in titer (from 1:20 to 1:320) for *Brucella* antibodies by slide agglutination testing at hospital B. Cultures of blood were negative for *Brucella* species.

Hospital personnel interviewed family members who reported no history of traditional risk factors for *Brucella* exposure (e.g., relevant food, infected animal contact, or travel history). Although the rapid respiratory decompensation was not typical for brucellosis infection, the serologic findings met the surveillance case definition for brucellosis (3). As a result, hospital B made a routine case report of brucellosis to the Boston Public Health Commission (BPHC) on day 23.

On day 24, the patient's family reported to hospital personnel that the patient's illness might have been caused by exposure to "laboratory flasks" and "cultures" kept in her apartment by her boyfriend. He was described as a foreign national studying marine biology who was formerly affiliated with a local university but recently had returned to his country of citizenship. On day 25, the patient's family brought laboratory flasks, petri dishes, and culture media to hospital B from the patient's apartment. Several contained an unidentified clear liquid, and some were marked with dates from the 1980s. Infection-control staff at hospital B were notified of the laboratory-like materials on day 27. The positive *Brucella* antibody serology in association with the unusual laboratory-like equipment in the patient's residence and the acknowledged potential for *Brucella* species to be used as a bioterrorist agents raised concerns among the infection-control staff that this case might be associated with a bioterrorist event or unintentional exposure to

*Suspected Brucellosis — Continued*

contaminated materials in the patient's home. Hospital B contacted local law enforcement in New Hampshire and BPHC. After discussion with BPHC, the hospital B laboratory retested the patient's paired serum specimens for both *Brucella* and *Francisella tularensis* antibodies. The specimens tested negative for tularemia but remained positive for *Brucella* antibodies. BPHC then notified the Massachusetts Department of Public Health (MDPH) and the Federal Bureau of Investigation about the unusual circumstances surrounding the case.

On day 28, CDC and the New Hampshire Department of Health and Human Services (NHDHHS) were notified. NHDHHS had received no reports of brucellosis through its passive surveillance system. In response to the case report, NHDHHS contacted hospital infection-control nurses, but identified no other cases of unusual febrile illness or brucellosis in southern New Hampshire during the preceding few weeks. In Massachusetts, public health authorities identified two additional cases of brucellosis during the previous 3 months, compared with an average state incidence of one to two cases per year. However, review of the cases revealed that both persons had consumed unpasteurized goat's milk or cheese during international travel.

On day 30, under the authority of state communicable disease statutes and in cooperation with the local police department, fire department, and hazardous materials unit, NHDHHS personnel entered the New Hampshire patient's apartment to assess any possibility of an ongoing public health hazard. No laboratory materials or biological hazards were found. Further epidemiologic investigation by federal and state public health authorities identified no common exposures among the three cases. The laboratory materials originally brought to hospital B by the family were cultured at MDPH and then sent to the Armed Forces Institute of Pathology for further testing, where they tested negative when screened for several potential bioterrorism agents, including *Brucella* species.

On day 33, tube agglutination testing on the patient's paired serum specimens from day 4 and day 22 was negative for *Brucella* antibodies at CDC. On the same day at hospital B, the patient died from adult respiratory distress syndrome. An autopsy was requested by public health authorities; however, the possibility of a biological terrorist threat created concern on the part of the hospital pathology staff and the autopsy was postponed. Further testing of the patient's tissue samples was conducted through the CDC Unexplained Deaths and Critical Illness Surveillance Project, including immunohistochemistry for *Brucella*; although no diagnosis has been confirmed, CDC testing results and the patient's prolonged antecedent medical history of multiple febrile illnesses over the past decade suggest an unspecified autoimmune process.

*Reported by: J Greenblatt, State Epidemiologist, New Hampshire Dept of Health and Human Svcs. C Hopkins, Massachusetts General Hospital, Boston; A Barry, Boston Public Health Commission; A DeMaria, State Epidemiologist, Massachusetts Dept of Public Health. Div of Applied Public Health Training, Epidemiology Program Office; Bioterrorism Preparedness and Response Program, and Meningitis and Special Pathogens Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; and EIS officers, CDC.*

**Editorial Note:** In this report, an initial serologic diagnosis of brucellosis was complicated by an unusual clinical presentation and other circumstances raising suspicion of a criminal act or possible biological terrorism (2-4). Although this case did not represent an actual biological crime or terrorism event, and brucellosis was ruled out as a cause of the patient's illness, this report highlights several key aspects of effective public health response to a possible biological terrorism crime or terrorism threat involving a biological

*Suspected Brucellosis — Continued*

agent or other unusual or unexplained illness. These aspects include 1) sensitive, specific, and rapid laboratory diagnosis of patients and characterization of biological agents; 2) early detection through improved surveillance; 3) effective communication; and 4) coordinated local, state, and federal response in the investigation of unusual events or unexplained illnesses.

Early detection is essential to ensure a prompt response to a biological terrorist event. Local public health authorities must rely on clinicians to recognize and report suspicious or unusual presentations of disease. However, correlating suspicious cases originating from diverse locations or discerning an increase in common presentations above the normal baseline is difficult. As in this case, public health practitioners coordinating disease surveillance may be able to receive reports of rare diseases and to determine whether they are occurring at a higher than normal rate in a large surveillance area.

CDC, in collaboration with local, state, and territorial health departments, is enhancing existing disease surveillance systems for specific diseases that are normally rare in the United States but thought to have a high potential for public health impact if used as biological terrorism agents (5,6). This is being accomplished by improving training of clinical, laboratory, and public health personnel in recognizing suspicious disease presentations and by expanding of existing, disease-specific surveillance infrastructure. In addition, surveillance is being improved for disease presentations such as acute respiratory distress, hemorrhagic, or meningeal symptoms normally caused by common infectious agents but that could indicate an increase in illnesses caused by a biological agent used in terrorism. Surveillance mechanisms to rapidly assess changes in rates of disease include monitoring of calls to local emergency medical systems, regularly reviewing emergency department discharge diagnoses, and linking infection control practitioner networks.

This report illustrates the dilemmas inherent in laboratory detection of potential agents of biological terrorism. Although the standard laboratory test for *Brucella* antibody is the tube agglutination test (7), the more rapid simple slide agglutination test is commonly used in commercial and hospital laboratories. The slide agglutination test is 97%–100% sensitive and may be as low as 88% specific (8). However, if used in a population with a low prevalence of disease, even a diagnostic test with 99% specificity will have a low positive predictive value. Because agents high on the list of possible biological terrorism have very low incidence of natural infection in the United States, the risk for a false-positive result is high. Therefore, diagnostic laboratory testing should be integrated with epidemiologic investigation when assessing potential covert biological terrorism events to rule out false-positive laboratory findings. To ensure that evaluation of materials from suspected biological terrorism events or threats is sensitive, specific, and rapid, CDC is working with its public health partners to improve laboratory diagnostic tests for many of the potential agents of biological terrorism and to transfer these diagnostic capabilities to state health department laboratories (6). CDC and other federal, state, and territorial public health laboratories are creating a multilevel Laboratory Response Network for Biological Terrorism that links state and local public health agencies to advanced capacity facilities that collectively maintain state-of-the-art capabilities for a wide range of biological agents.

*Suspected Brucellosis — Continued**References*

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### **Adoption of Protective Behaviors Among Persons With Recent HIV Infection and Diagnosis — Alabama, New Jersey, and Tennessee, 1997–1998**

A comprehensive human immunodeficiency virus (HIV) prevention strategy includes knowledge of HIV status, counseling to reduce high-risk behavior, and referral for appropriate care (1). After diagnosis, a substantial percentage of HIV-infected persons reduce their high-risk sexual behaviors (2–4). This report presents data characterizing the sexual practices of persons with newly diagnosed HIV infection who have evidence of recently acquired infection. Characterizing these persons may assist in the development of risk-reduction efforts for HIV-infected populations to prevent further HIV transmission.

To examine risk behaviors (e.g., condom use and number of sex partners) after HIV diagnosis, CDC analyzed data on HIV testing history and sexual behavior of persons who may have recently acquired HIV infection as part of a CDC-sponsored study in Alabama, New Jersey, and Tennessee. For purposes of this study, criteria for recent HIV infection included persons with diagnosed and reported HIV infection with CD4 T-lymphocyte counts >700 cells/ $\mu$ L or percentage >36, documented HIV seroconversion within 18 months of confirmed HIV infection diagnosis, or persons aged 13–24 years when diagnosed (5). Respondents were told that questions about behaviors before they learned of their HIV status concerned sexual activities after 1977 but before the first time respondents were told they were HIV-positive. Questions about behaviors since they learned of their HIV status concerned the period after a doctor, health-care provider, or counselor informed respondents that they were HIV-positive.

During January 1997–September 1998, 615 persons with HIV infection diagnosed and reported met the criteria for the study; these persons represented 15% of all persons with HIV infection diagnosed and reported during this period from Alabama, New Jersey, and Tennessee. Of the 543 persons determined eligible after follow-up by state health departments, 180 (33%) completed interviews, 127 (23%) refused to be interviewed, and

*Adoption of Protective Behaviors — Continued*

235 (43%) could not be located. Among persons with known dates, 148 (86%) of 173 were interviewed within 12 months of the self-reported date they learned they were HIV-infected (median: 6 months).

Among the 180 persons interviewed, 99 (55%) were female; 96 (53%) were age <25 years; and 105 (58%) were non-Hispanic black, 49 (27%) were non-Hispanic white, 24 (13%) were Hispanic, and two (1%) were self-reported as "other." These demographic characteristics were similar for persons not interviewed. Twenty-three (28%) of 81 males and 69 (70%) of 99 females could not be classified as having recognized transmission risk or as having sexual contact with an HIV-infected partner or one with a documented transmission risk. All except one of these persons reported heterosexual activity but was unaware of the partner's HIV status or risk for HIV infection.

Among 68 males stating a primary reason for being tested, the leading reasons were because a doctor or friend told them to be tested (28%) and because they were worried they might be infected even though they were not sick (22%). Among 90 females stating a primary reason for testing, the leading reasons were because of pregnancy care (33%) and because a doctor or friend told them to be tested (18%). Of 180 persons interviewed, 162 (90%) responded that they had changed their sexual behavior since learning of their HIV infection. Among these persons, 97 (60%) stated they used condoms more often, 80 (49%) did not have sex as often, 58 (36%) had not had sex, 16 (10%) had sex with persons they knew were infected, and eight (5%) had only oral sex. No differences were reported in these behavior changes by sex, except having only oral sex (9% among males and 1% among females).

Among 97 females reporting vaginal sex with males and among 45 males reporting anal sex with males, 25%, 69%, and 6% reported using condoms before diagnosis never, sometimes, and always, respectively. After diagnosis, 30% reported not having sex, and 6%, 11%, and 47% reported never, sometimes, and always using condoms, respectively. Self-reported condom use after learning of HIV infection among a subset of these persons who reported some unprotected sex before HIV diagnosis indicated that a high proportion of males and females adopted protective behaviors (Figure 1).

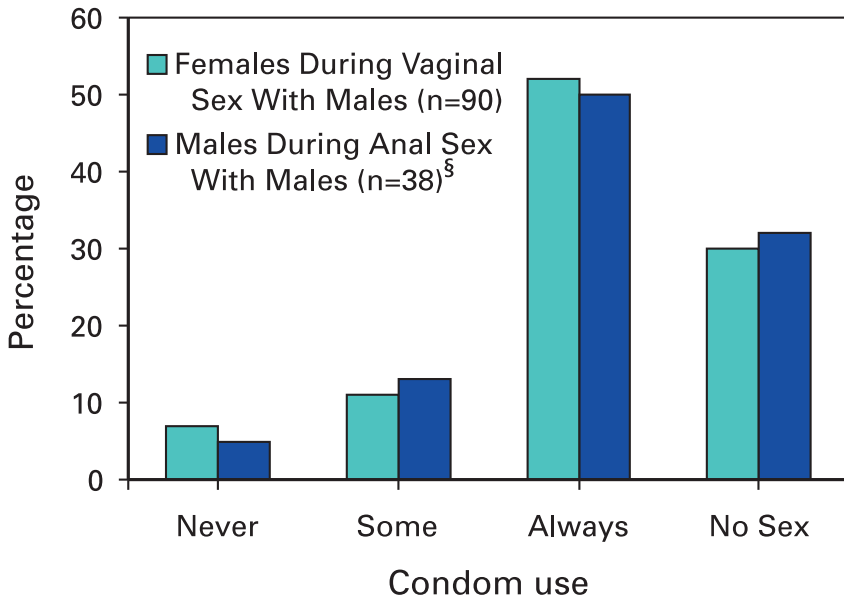
Fifty-two (79%) of 66 females having vaginal sex with men after diagnosis reported having one partner since learning of their HIV infection; 15 (50%) of 30 men having anal sex with men since diagnosis reported having one partner. Among males and females interviewed within 6 months of diagnosis, 41 (44%) of 94 reported not having sex; among males and females interviewed more than 6 months after diagnosis, 14 (18%) of 79 reported not having sex.

Of 180 persons interviewed, 151 (84%) reported receiving medical care for HIV infection since diagnosis. Among the 27 persons who responded that they had not received medical care for their HIV infection since diagnosis, 13 (48%) reported feeling well and not thinking it was important to seek medical care right away, and 12 (44%) reported not wanting to think about being HIV-positive as reasons for postponing seeking health care right away. Twenty-two (81%) of 27 respondents not receiving medical care reported changing their sexual behavior since learning of their HIV infection compared with 139 (93%) of 149 respondents receiving medical care.

*Reported by: S Higginbotham, R Holmes, MPH, Alabama Dept of Public Health. H Stone, MSSW, Tennessee Dept of Health. J Beil, MPH, GB Datu, S Costa, MA, S Paul, MD, New Jersey Dept of Health and Senior Svcs. Div of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, CDC.*

*Adoption of Protective Behaviors — Continued*

**FIGURE 1. Condom use after learning of HIV infection among persons who may have recently\* acquired HIV infection and who reported having had unprotected sex before HIV diagnosis† — Alabama, New Jersey, and Tennessee, 1997–1998**



\*Diagnosed and reported with HIV with CD4 T-lymphocyte counts >700 cells/ $\mu$ L or percentage >36, documented HIV seroconversion within 18 months of confirmed HIV infection diagnosis, or persons aged 13–24 years when diagnosed.

† Two females and four males had missing information or refused information on condom use after learning of HIV infection and were excluded from the totals.

§ Includes males indicating some condom use by a partner during receptive sex before they knew of their HIV infection.

**Editorial Note:** The findings in this study suggest that a high proportion of infected persons adopted safer sexual behaviors following diagnosis of HIV infection and are consistent with other studies showing adoption of safer behaviors after diagnosis in some groups (2–4). The findings also are consistent with a report describing an increase in reported safe behaviors 6 months after beginning HIV-related primary care (6). Because persons who have not had sex since their diagnosis may become sexually active later, sustained interventions must be available for maintenance and adoption of safe behaviors.

In this and other studies (7), most persons report receiving HIV-related medical care within 1 year of learning of their positive HIV status. These encounters provide an opportunity for behavioral risk-reduction counseling and intervention. Health-care providers should emphasize the need to sustain safe behaviors, especially because persons benefiting from antiretroviral therapy may be living longer, healthier lives and, therefore, may engage in risky sexual activity over time.

The findings in this report are subject to at least five limitations. First, the findings may be biased toward persons receiving medical treatment because this group was easier to

*Adoption of Protective Behaviors — Continued*

locate and interview than those not in treatment. Second, face-to-face interviews about sexual behavior may bias results toward socially desirable responses. Third, although this study included many young persons, some older persons may have been sexually active for many years and this analysis did not control for variation in length of time persons had been sexually active before diagnosis. Fourth, although knowledge of laws related to HIV is limited (8), local laws related to knowingly exposing persons may have influenced candid replies to condom-use questions. Finally, this study was conducted as a pilot project in only three states and these findings may not be generalizable.

Young persons and others with evidence of recent HIV infection can provide insights into prevention needs and failures. Areas conducting HIV and AIDS surveillance can characterize persons with recently acquired infection and therefore can describe recent patterns of transmission and risk behaviors. CDC recommends that all states adopt HIV case surveillance to assist in monitoring the epidemic (5).

Of the estimated 800,000–900,000 persons infected in the United States, approximately one third have yet to be diagnosed (5). Most women were unaware of their partner's HIV status and a high percentage were tested related to pregnancy. HIV testing and counseling programs should encourage persons at high risk for HIV infection to seek knowledge of their status and should facilitate referrals to ongoing care and prevention services for persons found to be infected (9). Increasing the availability and improving access to testing in public and private settings early in the course of disease will increase opportunities for sustained prevention and treatment for all HIV-infected persons.

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## Occupational Fatalities Associated With 2,4-Dichlorophenol (2,4-DCP) Exposure, 1980–1998

2,4-Dichlorophenol (2,4-DCP) is a feedstock chemical primarily used to produce the herbicide 2,4-dichlorophenoxyacetic acid (2,4-D). In October 1998, the U.S. Environmental Protection Agency (EPA) was notified of the death of a worker acutely exposed to 2,4-DCP. Follow-up investigation by EPA, the Occupational Safety and Health Administration (OSHA), and CDC's National Institute for Occupational Safety and Health (NIOSH) identified four earlier deaths associated with acute 2,4-DCP exposure, which occurred during 1980–1992. All of these incidents resulted in rapid death after dermal exposure to the heated liquid form of the chemical. This report describes the five deaths associated with 2,4-DCP exposure (presented in the order in which they were identified) and provides recommendations for preventing additional deaths.

### Case Reports

**Case 1.** On October 12, 1998, a 29-year-old man employed at a Michigan chemical company producing 2,4-D was sprayed with 2,4-DCP from a leak in tubing while he was using steam to clear a blocked pump. The worker bypassed the nearest safety shower and used a locker room shower, where he became unconscious. Resuscitation attempts were unsuccessful, and the worker was pronounced dead at a hospital 1 hour after exposure. Skin surfaces exposed to 2,4-DCP included his forearms, right knee, right thigh, and face. Except for chemical burns on his face and extremities and pulmonary edema, the autopsy findings were unremarkable. 2,4-DCP was found in his blood (7.2 mg/L free 2,4-DCP, 13.1 mg/L total 2,4-DCP) and urine (4.8 mg/L free 2,4-DCP, 6.2 mg/L total 2,4-DCP). Death was attributed to acute dichlorophenol intoxication.

**Case 2.** In 1991, a 33-year-old man working at a factory in France was splattered over portions of his right thigh and arm with pure liquid 2,4-DCP while disposing of industrial waste (1). He walked away from the scene and washed himself with water without undressing. He experienced a seizure, collapsed within 20 minutes of exposure, and died after unsuccessful attempts at resuscitation. 2,4-DCP was found in his blood (24.3 mg/L), urine (5.3 mg/L), bile (18.7 mg/L), and stomach (1.2 mg/L).

**Case 3.** In September 1980, a 45-year-old man working at the same facility as the decedent in case 1 sustained skin and upper-airway exposure after being sprayed by steam containing 2,4-DCP. The worker bypassed the nearest safety shower, started decontamination using an unalarmed shower in a dressing area, and then moved to an alarmed shower, which automatically notified emergency personnel and summoned an ambulance. He sustained thermal burns to his skin, mouth, and upper airway, lost consciousness, and died despite resuscitation attempts. An autopsy revealed cutaneous burns on his neck, upper chest, back, and thighs; pulmonary congestion with alveolar hemorrhage; and moderately severe hepatocellular fatty change. His larynx was congested in a manner consistent with a steam/chemical burn, but the trachea was unremarkable, suggesting only upper airway exposure to the steam and 2,4-DCP. No reliable data on 2,4-DCP concentration in biologic fluids were available.\* The final pathologic diagnosis was "acute steam and dichlorophenol exposure."

\*Analytic methods used to measure 2,4-DCP in biologic fluids were developed after 1980.



*2,4-DCP Exposure — Continued*

**Case 4.** In April 1992, a 64-year-old man at a chemical facility in England was using steam to unblock a clogged pump carrying 2,4-DCP (2,3). A pump seal failure allowed steam and 2,4-DCP to spurt onto his face and neck. Death occurred 20 minutes after exposure.

**Case 5.** In April 1985, a 33-year-old man working at an Arkansas manufacturing facility was splashed with a solution containing 51% 2,4-DCP<sup>†</sup> while moving a hose used to transfer the material. The solution covered 60%–65% of his body surface area (head, chest, neck, abdomen, arms, and thighs). When paramedics arrived, he was unconscious and convulsing on the shower room floor. He was transported to a hospital and pronounced dead approximately 90 minutes after exposure. An autopsy revealed first-degree chemical burns on exposed skin surfaces; swollen, red, sloughed mucosa of the larynx, trachea, and bronchi; focal hemorrhage and considerable hemorrhagic frothy fluid in the lungs (with fluid extruding through his mouth and nostrils); blue/tan swollen esophageal mucosa; and reddened mucosa and turbid hemorrhagic fluid in the stomach. Microsections of the brain revealed intense congestion and petechial hemorrhages. Serum total dichlorophenol concentration at postmortem was 67 mg/L. The final pathologic diagnosis was "acute chlorinated phenolic exposure and 60% chemical burns."

*Reported by: Office of Pollution Prevention and Toxics, US Environmental Protection Agency, Occupational Safety and Health Administration, Div of Surveillance, Hazard Evaluations, and Field Studies, National Institute for Occupational Safety and Health, CDC.*

**Editorial Note:** 2,4-DCP is a white solid at room temperature, but liquifies at 111 F–116 F (43 C–45 C). The liquid is rapidly absorbed through the skin. 2,4-DCP is not believed to be used outside the chemical industry, although small amounts may be present in drinking water when chlorination converts other phenolic compounds into this chemical (4). An estimated 200 U.S. workers are potentially exposed to 2,4-DCP. As of 1998, at least eight U.S. facilities were known to use or handle 2,4-DCP. Annual worldwide production is estimated at 88 million pounds (5). No OSHA, NIOSH, or American Conference of Governmental Industrial Hygienists exposure limits exist for 2,4-DCP.

The mechanism by which 2,4-DCP causes death is uncertain, but this and other chlorinated phenols are known to uncouple oxidative phosphorylation (6). Most production of adenosine triphosphate, the carrier of free energy in cells, occurs through oxidative phosphorylation. Uncoupling oxidative phosphorylation at the mitochondrial level leads to profound disturbance of energy production and may have caused the rapid deaths described in this report. A characteristic sequence of signs in animals given lethal doses of solid 2,4-DCP is consistent with the clinical progression noted in these cases and includes tremors, muscle weakness, loss of coordination, clonic convulsions, dyspnea, coma, and respiratory arrest (4). Although three of the decedents in this report also were exposed to steam, the reported symptoms and autopsy findings suggest that steam exposure did not play a substantial role in these deaths. Finally, postmortem drug screens were negative in all five cases, which excludes interaction with a drug or medication as a potential explanation for the deaths.

Potentially exposed workers, their supervisors, and health and safety staff should be aware of the hazards associated with exposure to 2,4-DCP, especially when the chemical is in the liquid state. In an April 1999 letter and a February 2000 chemical advisory (7),

<sup>†</sup>This solution also contained (in order of diminishing proportion) parachlorophenol, orthochlorophenol, monochloroacetic acid, 2,6-dichlorophenol, phenol, and 2,4,6-trichlorophenol.

*2,4-DCP Exposure — Continued*

EPA and OSHA notified facilities believed to use 2,4-DCP of these fatalities and provided recommendations to prevent additional morbidity and mortality. Standard safe work procedures should be developed and disseminated to workers involved in tasks having potential 2,4-DCP exposure. Engineering controls and source reduction methods should be adopted to eliminate the potential for exposure. Detailed recommendations for appropriate protective clothing for dermal protection and respirators for inhalation protection were specified in the EPA/OSHA chemical advisory (7). Health and safety staff decontaminating exposed workers should wear appropriate personal protective equipment and should participate in drills to ensure proficiency while wearing this gear.

Any skin contact with liquid 2,4-DCP should be considered a life-threatening medical emergency. Safety showers should be located in the immediate vicinity of work areas having potential for 2,4-DCP exposure. These showers should be alarmed so that assistance is summoned promptly. Exposed skin should be flushed for at least 15 minutes, and contaminated clothing must be removed. Because 2,4-DCP is lipophilic and has relatively low water solubility (7), the use of water for skin flushing may lead to a protracted decontamination process. Additional research is needed to identify more effective agents for skin decontamination. Treatment for 2,4-DCP intoxication is supportive, and there is no known antidote.

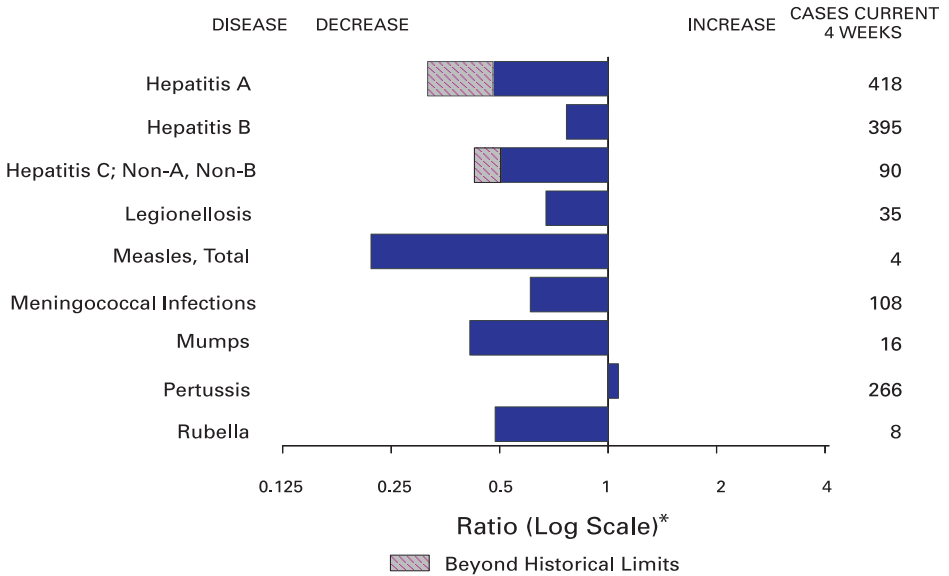
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**Erratum: Vol. 49, No. 17**

In the article, “Morbidity and Mortality Associated With Hurricane Floyd—North Carolina, September–October 1999,” on page 371, a name was misspelled in the “Reported by” section: J Dolzinger, MD, Pitt Memorial Hospital, Greenville, North Carolina, should be J Dolezal. Also, a credit was missing: S Lynn, North Carolina Dept of Health and Human Svcs.

**FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending June 10, 2000, with historical data**



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

**TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending June 10, 2000 (23rd Week)**

	Cum. 2000		Cum. 2000
Anthrax	-	HIV infection, pediatric <sup>§</sup>	85
Brucellosis*	21	Plague	3
Cholera	-	Poliomyelitis, paralytic	-
Congenital rubella syndrome	4	Psittacosis*	7
Cyclosporiasis*	10	Rabies, human	-
Diphtheria	1	Rocky Mountain spotted fever (RMSF)	72
Encephalitis: California serogroup viral*	2	Streptococcal disease, invasive, group A	1,429
eastern equine*	-	Streptococcal toxic-shock syndrome*	48
St. Louis*	-	Syphilis, congenital <sup>¶</sup>	45
western equine*	-	Tetanus	11
Ehrlichiosis human granulocytic (HGE)*	32	Toxic-shock syndrome	70
human monocytic (HME)*	9	Trichinosis	4
Hansen Disease (leprosy)*	18	Typhoid fever	122
Hantavirus pulmonary syndrome* <sup>†</sup>	9	Yellow fever	-
Hemolytic uremic syndrome, postdiarrheal*	35		

-: No reported cases.

\*Not notifiable in all states.

<sup>†</sup> Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

<sup>§</sup> Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update April 30, 2000.

<sup>¶</sup> Updated from reports to the Division of STD Prevention, NCHSTP.

**TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending June 10, 2000, and June 12, 1999 (23rd Week)**

Reporting Area	AIDS		Chlamydia <sup>†</sup>		Cryptosporidiosis		<i>Escherichia coli</i> O157:H7*			
	Cum. 2000 <sup>‡</sup>	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	NETSS		PHLIS	
							Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	13,355	18,500	245,865	300,192	522	760	758	602	428	546
NEW ENGLAND	802	940	9,038	9,262	29	36	85	90	65	87
Maine	14	22	595	394	8	7	6	5	6	-
N.H.	11	25	445	450	2	5	6	10	4	13
Vt.	2	6	237	223	11	6	3	9	3	2
Mass.	535	614	4,375	3,930	6	15	39	41	28	42
R.I.	34	61	1,065	1,042	2	-	4	4	-	6
Conn.	206	212	2,321	3,223	-	3	27	21	24	24
MID. ATLANTIC	3,280	4,449	15,263	33,963	51	163	92	39	57	38
Upstate N.Y.	186	529	N	N	35	47	85	27	38	-
N.Y. City	1,943	2,109	3,078	16,503	6	94	4	2	3	3
N.J.	703	957	2,636	5,483	1	14	3	10	8	34
Pa.	448	854	9,549	11,977	9	8	N	N	8	1
E.N. CENTRAL	1,310	1,280	40,420	51,193	109	120	131	113	44	94
Ohio	194	211	9,626	11,878	21	16	26	41	13	29
Ind.	100	167	5,250	5,197	10	8	23	15	9	13
Ill.	809	590	11,456	13,963	7	18	34	37	-	17
Mich.	153	248	10,133	9,868	20	17	27	20	14	22
Wis.	54	64	3,955	10,287	51	61	21	N	8	13
W.N. CENTRAL	299	389	14,506	16,652	48	40	131	101	86	113
Minn.	55	69	2,766	3,398	11	13	40	25	31	36
Iowa	26	46	1,995	1,934	13	8	21	14	9	10
Mo.	139	155	5,076	5,988	8	5	40	10	24	14
N. Dak.	-	4	282	388	3	4	7	3	6	2
S. Dak.	3	11	751	726	5	2	3	3	3	7
Nebr.	20	32	1,366	1,534	6	7	11	37	9	45
Kans.	56	72	2,270	2,684	2	1	9	9	4	-
S. ATLANTIC	3,641	5,168	50,741	61,942	100	136	61	73	39	50
Del.	65	72	1,305	1,242	3	-	-	3	-	-
Md.	392	561	5,372	5,762	7	6	9	6	1	-
D.C.	264	207	1,477	N	2	6	-	-	U	U
Va.	278	263	6,607	6,588	4	8	13	20	13	18
W. Va.	21	25	753	799	3	-	3	4	3	1
N.C.	195	358	9,144	9,961	9	3	9	15	3	16
S.C.	294	482	3,722	8,266	-	-	4	8	2	6
Ga.	357	827	9,524	15,708	54	75	8	5	8	9
Fla.	1,775	2,373	12,837	13,616	18	38	15	12	9	U
E.S. CENTRAL	639	840	20,911	19,297	20	8	36	48	22	32
Ky.	80	128	3,519	3,416	1	2	12	11	9	8
Tenn.	287	337	6,243	6,265	4	4	15	21	11	13
Ala.	169	212	6,715	4,261	9	1	3	11	-	10
Miss.	103	163	4,434	5,355	6	1	6	5	2	1
W.S. CENTRAL	1,128	2,077	40,032	39,550	21	39	34	27	4	36
Ark.	69	70	2,211	2,525	1	-	15	5	3	4
La.	232	409	8,368	6,804	5	21	-	4	13	5
Okla.	65	55	3,685	3,451	2	1	7	6	3	5
Tex.	762	1,543	25,768	26,770	13	17	12	12	25	22
MOUNTAIN	477	717	14,930	21,015	34	33	75	42	25	31
Mont.	6	4	684	654	4	4	10	3	-	-
Idaho	9	11	765	768	3	2	9	1	-	3
Wyo.	2	3	316	338	2	-	3	3	2	4
Colo.	99	143	3,437	3,847	9	4	30	17	7	10
N. Mex.	50	37	1,752	2,247	2	14	4	2	2	1
Ariz.	165	352	5,668	10,874	3	7	17	7	13	4
Utah	52	70	1,080	916	9	N	1	7	1	7
Nev.	94	97	1,228	1,371	2	2	1	2	-	2
PACIFIC	1,779	2,640	40,024	47,318	110	185	113	69	46	65
Wash.	202	151	5,601	5,293	N	N	32	23	22	27
Oreg.	47	63	2,247	2,813	5	72	15	15	18	12
Calif.	1,476	2,378	30,429	36,959	105	113	59	29	-	25
Alaska	5	6	1,078	855	-	-	1	-	-	-
Hawaii	49	42	669	1,398	-	-	6	2	6	1
Guam	13	1	-	199	-	-	N	N	U	U
P.R.	284	627	142	U	-	-	2	10	U	U
V.I.	18	13	-	U	-	-	U	U	U	U
Amer. Samoa	-	-	-	U	-	-	U	U	U	U
C.N.M.I.	-	-	-	U	-	-	U	U	U	U

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

\* Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

<sup>†</sup> Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of STD Prevention, NCHSTP.

<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 April 30, 2000.

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending June 10, 2000, and June 12, 1999 (23rd Week)**

Reporting Area	Gonorrhea		Hepatitis C; Non-A, Non-B		Legionellosis		Lyme Disease	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	127,899	156,420	1,097	1,665	286	367	1,644	2,610
NEW ENGLAND	2,393	2,833	24	9	20	22	270	610
Maine	34	22	-	1	2	3	-	1
N.H.	44	36	-	-	2	3	30	-
Vt.	29	26	3	3	1	3	1	1
Mass.	1,116	1,114	18	2	9	5	143	184
R.I.	269	257	3	3	3	2	-	22
Conn.	901	1,378	-	-	3	6	96	402
MID. ATLANTIC	9,893	18,303	25	62	57	97	1,028	1,422
Upstate N.Y.	2,699	2,635	25	30	24	25	430	548
N.Y. City	1,177	6,977	-	-	-	12	4	38
N.J.	1,405	3,182	-	-	2	8	114	283
Pa.	4,612	5,509	-	32	31	52	480	553
E.N. CENTRAL	24,722	30,490	102	944	73	114	26	151
Ohio	5,582	7,358	3	-	34	31	17	18
Ind.	2,364	2,816	1	-	13	14	6	7
Ill.	8,143	9,327	7	25	6	16	1	7
Mich.	7,053	6,901	91	339	14	31	-	1
Wis.	1,580	4,088	-	580	6	22	2	118
W.N. CENTRAL	6,066	6,931	294	71	23	18	60	57
Minn.	1,139	1,255	4	2	1	1	15	13
Iowa	400	419	1	-	3	6	2	5
Mo.	2,971	3,357	263	67	14	8	12	26
N. Dak.	6	38	-	-	-	-	-	1
S. Dak.	112	68	-	-	1	1	-	-
Nebr.	498	696	3	2	-	2	-	7
Kans.	940	1,098	23	-	4	-	31	5
S. ATLANTIC	36,670	44,850	42	97	56	41	213	267
Del.	731	731	-	-	4	4	28	16
Md.	3,608	5,206	5	24	17	4	128	194
D.C.	1,029	1,503	1	-	1	-	-	1
Va.	4,071	4,318	1	9	3	11	28	17
W. Va.	227	265	5	12	N	N	8	7
N.C.	8,069	8,542	12	22	7	8	8	28
S.C.	4,071	4,453	-	12	2	6	2	2
Ga.	5,971	10,278	1	1	4	-	-	-
Fla.	8,893	9,554	17	17	18	8	11	2
E.S. CENTRAL	14,938	14,937	174	124	8	20	6	32
Ky.	1,475	1,495	16	6	5	9	1	4
Tenn.	4,811	4,842	43	43	1	9	4	14
Ala.	5,172	3,917	6	1	2	2	1	6
Miss.	3,480	4,683	109	74	-	-	-	8
W.S. CENTRAL	20,868	22,412	271	209	9	1	1	6
Ark.	1,210	1,213	3	12	-	-	-	-
La.	5,905	5,773	168	143	7	1	1	3
Okla.	1,620	1,760	2	3	1	-	-	2
Tex.	12,133	13,666	98	51	1	-	-	1
MOUNTAIN	4,354	6,185	97	87	17	23	1	3
Mont.	22	21	2	4	-	-	-	-
Idaho	36	36	2	4	3	-	-	-
Wyo.	28	11	58	32	1	-	-	1
Colo.	1,395	1,042	13	11	7	4	1	-
N. Mex.	371	408	6	15	1	1	-	1
Ariz.	1,864	4,045	12	16	2	3	-	-
Utah	110	85	-	2	3	9	-	-
Nev.	528	537	4	3	-	6	-	1
PACIFIC	7,995	9,479	68	62	23	31	39	62
Wash.	977	940	9	7	9	8	-	1
Oreg.	284	403	16	7	N	N	2	4
Calif.	6,511	7,805	43	48	14	22	37	57
Alaska	140	142	-	-	-	1	-	-
Hawaii	83	189	-	-	-	-	N	N
Guam	-	28	-	-	-	-	-	-
P.R.	242	152	1	-	-	-	N	N
V.I.	-	U	-	U	-	U	-	U
Amer. Samoa	-	U	-	U	-	U	-	U
C.N.M.I.	-	U	-	U	-	U	-	U

N: Not notifiable.

U: Unavailable.

- : No reported cases.

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending June 10, 2000, and June 12, 1999 (23rd Week)**

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	NETSS		PHLIS	
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999
UNITED STATES	397	501	2,244	2,558	11,105	11,898	7,342	11,199
NEW ENGLAND	17	17	281	380	674	705	631	736
Maine	3	1	64	71	54	47	33	37
N.H.	1	-	4	25	51	38	45	41
Vt.	2	1	27	56	50	26	50	28
Mass.	6	7	99	83	385	415	340	417
R.I.	3	-	6	45	26	38	36	59
Conn.	2	8	81	100	108	141	127	154
MID. ATLANTIC	62	145	422	469	1,490	1,657	1,427	1,471
Upstate N.Y.	19	31	300	321	418	374	378	425
N.Y. City	21	67	U	U	313	490	455	511
N.J.	7	31	68	91	408	376	215	380
Pa.	15	16	54	57	351	417	379	155
E. N. CENTRAL	42	62	18	32	1,700	1,829	946	1,639
Ohio	6	8	5	10	444	338	307	324
Ind.	3	8	-	-	197	158	150	157
Ill.	15	30	-	-	504	613	1	601
Mich.	13	12	13	22	341	384	375	383
Wis.	5	4	-	-	214	336	113	174
W. N. CENTRAL	19	19	216	346	720	742	790	834
Minn.	7	5	33	46	115	195	215	256
Iowa	-	5	33	50	108	75	84	69
Mo.	2	8	8	12	269	233	293	289
N. Dak.	2	-	63	76	15	15	28	24
S. Dak.	-	-	40	102	33	37	36	50
Nebr.	2	-	-	2	57	80	44	65
Kans.	6	1	39	58	123	107	90	81
S. ATLANTIC	109	122	999	915	2,128	2,279	1,283	2,099
Del.	3	1	18	27	36	50	30	55
Md.	38	38	185	204	312	296	271	331
D.C.	5	9	-	-	23	38	U	U
Va.	26	22	253	223	289	298	227	401
W. Va.	-	1	55	52	59	41	50	41
N.C.	10	10	249	191	288	366	171	398
S.C.	1	1	58	71	180	132	116	133
Ga.	4	12	123	73	380	389	372	531
Fla.	22	28	58	74	561	669	46	209
E. S. CENTRAL	17	10	78	125	523	647	368	455
Ky.	3	2	11	20	126	152	76	109
Tenn.	5	4	42	44	135	165	165	181
Ala.	8	3	25	61	166	187	111	142
Miss.	1	1	-	-	96	143	16	23
W. S. CENTRAL	4	10	31	55	871	1,014	819	913
Ark.	1	2	-	-	136	128	66	76
La.	2	7	-	-	105	179	118	207
Okla.	1	1	31	55	123	129	88	92
Tex.	-	-	-	-	507	578	547	538
MOUNTAIN	19	21	97	82	1,069	1,037	679	990
Mont.	1	3	26	31	48	21	-	1
Idaho	-	1	1	-	53	38	-	38
Wyo.	-	1	25	27	20	16	14	20
Colo.	10	8	-	1	331	339	250	350
N. Mex.	-	2	7	2	87	120	59	116
Ariz.	2	3	37	21	283	284	220	254
Utah	3	2	1	-	146	148	136	158
Nev.	3	1	-	-	101	71	-	53
PACIFIC	108	95	102	154	1,930	1,988	399	2,062
Wash.	8	5	-	-	175	174	157	299
Oreg.	22	11	-	1	138	157	165	194
Calif.	76	74	83	147	1,523	1,480	-	1,435
Alaska	-	-	19	6	25	17	18	10
Hawaii	2	5	-	-	69	160	59	124
Guam	-	-	-	-	-	20	U	U
P.R.	-	-	23	41	84	219	U	U
V.I.	-	U	-	U	-	U	U	U
Amer. Samoa	-	U	-	U	-	U	U	U
C.N.M.I.	-	U	-	U	-	U	U	U

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

\* Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

**TABLE II. (Cont'd) Provisional cases of selected notifiable diseases, United States, weeks ending June 10, 2000, and June 12, 1999 (23rd Week)**

Reporting Area	Shigellosis*				Syphilis (Primary & Secondary)		Tuberculosis	
	NETSS		PHLIS		Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999†
	Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999				
UNITED STATES	6,886	5,591	3,208	3,194	2,631	2,990	4,220	6,268
NEW ENGLAND	122	144	94	130	32	27	147	163
Maine	5	2	-	-	-	-	2	8
N.H.	1	7	4	6	-	-	3	3
Vt.	1	4	-	3	-	1	-	-
Mass.	85	91	62	84	27	17	95	87
R.I.	10	14	8	9	2	1	17	18
Conn.	20	26	20	28	3	8	30	47
MID. ATLANTIC	854	400	570	226	88	124	968	1,011
Upstate N.Y.	375	91	137	30	7	11	106	126
N.Y. City	329	137	296	108	28	49	541	524
N.J.	75	111	61	80	15	30	223	203
Pa.	75	61	76	8	38	34	98	158
E.N. CENTRAL	1,436	958	404	478	556	502	507	624
Ohio	103	240	58	47	33	41	114	81
Ind.	568	38	33	13	200	156	25	46
Ill.	324	371	2	302	167	187	274	327
Mich.	333	144	283	96	136	95	57	131
Wis.	108	165	28	20	20	23	37	39
W.N. CENTRAL	674	459	470	314	34	64	202	211
Minn.	128	65	138	76	3	7	72	83
Iowa	180	6	124	9	10	4	19	19
Mo.	280	334	169	194	16	45	79	79
N. Dak.	2	2	3	2	-	-	-	2
S. Dak.	2	8	1	5	-	-	9	3
Nebr.	25	24	9	14	2	4	8	10
Kans.	57	20	26	14	3	4	15	15
S. ATLANTIC	918	935	242	242	878	992	820	1,233
Del.	7	8	4	2	4	4	-	12
Md.	42	56	12	15	128	205	105	109
D.C.	11	27	U	U	24	21	2	2
Va.	114	32	86	13	54	69	57	104
W. Va.	3	5	3	2	1	2	15	19
N.C.	51	84	22	53	274	232	127	173
S.C.	50	42	34	17	90	125	35	143
Ga.	111	97	32	33	148	186	181	254
Fla.	529	585	49	107	155	148	298	397
E.S. CENTRAL	350	553	226	359	399	525	292	392
Ky.	87	94	36	56	46	47	47	77
Tenn.	181	372	176	277	250	280	114	121
Ala.	21	54	11	25	47	125	131	133
Miss.	61	43	3	1	56	73	-	61
W.S. CENTRAL	828	987	741	402	364	445	135	921
Ark.	91	44	24	21	44	27	81	70
La.	69	76	53	49	84	116	1	U
Okla.	48	259	15	75	71	98	53	55
Tex.	620	608	649	257	165	204	-	796
MOUNTAIN	414	291	171	183	96	167	190	177
Mont.	3	6	-	-	-	-	6	5
Idaho	29	5	-	3	-	-	5	-
Wyo.	1	2	2	1	1	-	1	1
Colo.	71	48	30	37	2	1	24	U
N. Mex.	45	37	20	22	11	6	23	21
Ariz.	164	151	83	92	80	156	75	100
Utah	33	21	36	22	-	2	20	18
Nev.	68	21	-	6	2	2	36	32
PACIFIC	1,290	864	290	860	184	144	959	1,536
Wash.	297	43	222	51	28	28	89	71
Oreg.	91	33	54	29	4	2	8	49
Calif.	876	766	-	761	152	112	770	1,320
Alaska	7	-	3	-	-	1	40	29
Hawaii	19	22	11	19	-	1	52	67
Guam	-	7	U	U	-	1	-	-
P.R.	1	35	U	U	57	82	-	73
V.I.	-	U	U	U	-	U	-	U
Amer. Samoa	-	U	U	U	-	U	-	U
C.N.M.I.	-	U	U	U	-	U	-	U

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

\*Individual cases can be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).

**TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending June 10, 2000, and June 12, 1999 (23rd Week)**

Reporting Area	<i>H. influenzae</i> , Invasive		Hepatitis (Viral), By Type				Measles (Rubeola)					
	Cum. 2000 <sup>1</sup>	Cum. 1999	A		B		Indigenous		Imported*		Total	
			Cum. 2000	Cum. 1999	Cum. 2000	Cum. 1999	2000	Cum. 2000	2000	Cum. 2000	Cum. 2000	Cum. 1999
UNITED STATES	544	544	4,799	8,520	2,572	2,947	2	16	-	5	21	55
NEW ENGLAND	36	41	109	95	30	67	-	-	-	-	-	9
Maine	1	5	7	2	5	-	-	-	-	-	-	-
N.H.	6	7	11	7	9	6	-	-	-	-	-	1
Vt.	2	4	3	1	3	1	-	-	-	-	-	-
Mass.	20	17	49	34	4	27	-	-	-	-	-	6
R.I.	1	-	6	9	9	14	-	-	-	-	-	-
Conn.	6	8	33	42	-	19	U	-	U	-	-	2
MID. ATLANTIC	80	87	205	546	266	432	-	-	-	-	-	5
Upstate N.Y.	36	32	99	108	58	90	-	-	-	-	-	2
N.Y. City	18	30	106	142	177	130	-	-	-	-	-	3
N.J.	20	23	-	71	31	65	-	-	-	-	-	-
Pa.	6	2	-	225	-	147	-	-	-	-	-	-
E.N. CENTRAL	70	85	599	1,471	292	269	1	4	-	-	4	1
Ohio	28	32	135	337	56	43	-	2	-	-	2	-
Ind.	10	12	25	53	26	23	-	-	-	-	-	1
Ill.	27	34	212	295	46	-	1	1	-	-	1	-
Mich.	5	7	214	744	163	182	-	1	-	-	1	-
Wis.	-	-	13	42	1	21	-	-	-	-	-	-
W.N. CENTRAL	31	22	551	344	243	131	1	3	-	-	3	-
Minn.	16	12	120	33	16	19	1	1	-	-	1	-
Iowa	-	1	45	71	20	22	-	1	-	-	1	-
Mo.	5	2	262	199	163	75	-	-	-	-	-	-
N. Dak.	1	-	-	1	2	-	-	-	-	-	-	-
S. Dak.	-	1	-	8	-	1	-	-	-	-	-	-
Nebr.	3	3	18	24	18	11	-	-	-	-	-	-
Kans.	6	3	106	8	24	3	-	1	-	-	1	-
S. ATLANTIC	149	120	574	777	512	447	-	-	-	-	-	4
Del.	-	-	-	2	-	-	-	-	-	-	-	-
Md.	34	30	74	151	61	82	-	-	-	-	-	-
D.C.	-	3	7	33	14	11	-	-	-	-	-	-
Va.	28	10	65	63	68	41	-	-	-	-	-	3
W. Va.	5	4	38	15	5	11	-	-	-	-	-	-
N.C.	13	21	85	57	123	100	-	-	-	-	-	-
S.C.	7	2	22	17	3	37	-	-	-	-	-	-
Ga.	42	31	80	229	84	52	-	-	-	-	-	-
Fla.	20	19	203	210	154	113	U	-	U	-	-	1
E.S. CENTRAL	28	39	203	209	192	201	-	-	-	-	-	2
Ky.	11	5	21	39	39	16	-	-	-	-	-	2
Tenn.	14	20	80	86	85	87	-	-	-	-	-	-
Ala.	3	12	28	35	25	49	-	-	-	-	-	-
Miss.	-	2	74	49	43	49	-	-	-	-	-	-
W.S. CENTRAL	29	37	831	2,494	304	505	-	-	-	-	-	3
Ark.	-	1	81	23	43	36	-	-	-	-	-	-
La.	6	10	28	74	50	96	-	-	-	-	-	-
Okla.	21	24	138	266	63	59	-	-	-	-	-	-
Tex.	2	2	584	2,131	148	314	-	-	-	-	-	3
MOUNTAIN	61	52	406	642	208	273	-	8	-	1	9	1
Mont.	-	1	1	12	3	15	-	-	-	-	-	-
Idaho	2	1	15	26	4	15	-	-	-	-	-	-
Wyo.	-	1	6	4	1	5	-	-	-	-	-	-
N. Mex.	11	7	81	116	45	40	-	1	-	1	2	-
Ariz.	13	11	38	22	50	89	-	-	-	-	-	-
Utah	30	27	204	381	76	68	-	-	-	-	-	1
Nev.	4	2	30	23	12	14	U	3	U	-	3	-
	1	2	31	58	17	27	-	4	-	-	4	-
PACIFIC	60	61	1,321	1,942	525	622	-	1	-	4	5	30
Wash.	3	1	129	129	28	30	-	-	-	-	-	5
Oreg.	18	22	106	133	42	54	-	-	-	-	-	10
Calif.	24	31	1,080	1,666	446	522	-	-	-	3	3	15
Alaska	2	5	6	4	4	10	-	1	-	-	1	-
Hawaii	13	2	-	10	5	6	-	-	-	1	1	-
Guam	-	-	-	2	-	2	U	-	U	-	-	1
P.R.	-	1	51	134	41	123	-	-	-	-	-	-
V.I.	-	U	-	U	-	U	U	-	U	-	-	U
Amer. Samoa	-	U	-	U	-	U	U	-	U	-	-	U
C.N.M.I.	-	U	-	U	-	U	U	-	U	-	-	U

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

\*For imported measles, cases include only those resulting from importation from other countries.

<sup>1</sup>Of 122 cases among children aged <5 years, serotype was reported for 53 and of those, 13 were type b.



**TABLE III. (Cont'd) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending June 10, 2000, and June 12, 1999 (23rd Week)**

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999	2000	Cum. 2000	Cum. 1999
UNITED STATES	1,089	1,261	2	171	183	64	2,072	2,631	-	54	125
NEW ENGLAND	60	64	-	2	3	11	520	269	-	5	7
Maine	5	4	-	-	-	2	14	-	-	-	-
N.H.	4	9	-	-	1	-	59	53	-	1	-
Vt.	2	4	-	-	-	-	111	9	-	-	-
Mass.	39	38	-	-	2	9	311	195	-	3	7
R.I.	3	2	-	1	-	-	7	3	-	-	-
Conn.	7	7	U	1	-	U	18	9	U	1	-
MID. ATLANTIC	105	122	-	9	24	14	169	562	-	2	15
Upstate N.Y.	30	32	-	6	5	10	97	485	-	2	10
N.Y. City	24	39	-	-	6	-	-	13	-	-	1
N.J.	21	23	-	-	1	-	-	15	-	-	1
Pa.	30	28	-	3	12	4	72	49	-	-	3
E.N. CENTRAL	194	215	-	18	24	2	252	207	-	-	-
Ohio	42	78	-	7	6	1	161	103	-	-	-
Ind.	27	29	-	-	2	-	22	10	-	-	-
Ill.	46	57	-	4	7	-	20	44	-	-	-
Mich.	60	27	-	7	8	1	18	19	-	-	-
Wis.	19	24	-	-	1	-	31	31	-	-	-
W.N. CENTRAL	91	127	-	12	7	3	102	81	-	1	61
Minn.	7	27	-	-	1	-	53	25	-	-	-
Iowa	16	24	-	5	3	1	17	16	-	-	17
Mo.	54	46	-	1	1	1	16	19	-	-	-
N. Dak.	2	3	-	-	-	-	1	-	-	-	-
S. Dak.	4	6	-	-	-	1	2	2	-	-	-
Nebr.	3	8	-	2	-	-	3	1	-	-	44
Kans.	5	13	-	4	2	-	10	18	-	1	-
S. ATLANTIC	179	196	2	30	31	7	170	125	-	32	17
Del.	-	3	-	-	-	-	4	-	-	-	-
Md.	16	32	-	6	4	-	40	39	-	-	1
D.C.	-	1	-	-	2	-	-	-	-	-	-
Va.	29	25	1	5	8	2	17	13	-	-	-
W. Va.	7	4	-	-	-	-	-	1	-	-	-
N.C.	29	25	-	4	5	5	49	28	-	23	16
S.C.	12	24	1	9	3	-	16	7	-	7	-
Ga.	32	36	-	2	1	-	20	16	-	-	-
Fla.	54	46	U	4	8	U	24	21	U	2	-
E.S. CENTRAL	79	95	-	5	3	1	34	51	-	4	2
Ky.	17	18	-	-	-	-	16	12	-	1	-
Tenn.	35	34	-	2	-	1	9	25	-	-	-
Ala.	23	26	-	2	1	-	8	12	-	3	2
Miss.	4	17	-	1	2	-	1	2	-	-	-
W.S. CENTRAL	83	122	-	18	23	1	68	71	-	4	4
Ark.	7	22	-	1	-	-	9	5	-	-	-
La.	25	41	-	3	4	-	3	3	-	-	-
Okla.	21	19	-	-	1	-	6	8	-	-	-
Tex.	30	40	-	14	18	1	50	55	-	4	4
MOUNTAIN	62	85	-	14	9	12	374	289	-	1	15
Mont.	1	2	-	1	-	-	7	2	-	-	-
Idaho	6	8	-	-	1	1	42	93	-	-	-
Wyo.	-	3	-	1	-	-	-	2	-	-	-
Colo.	20	23	-	1	3	7	208	83	-	1	-
N. Mex.	7	10	-	1	N	4	67	18	-	-	-
Ariz.	18	28	-	3	-	-	38	59	-	-	13
Utah	7	6	U	4	2	U	8	30	U	-	1
Nev.	3	5	-	3	3	-	4	2	-	-	-
PACIFIC	236	235	-	63	59	13	383	976	-	5	4
Wash.	24	35	-	3	2	12	133	477	-	-	-
Oreg.	31	40	N	N	N	-	42	19	-	-	-
Calif.	172	150	-	55	51	1	197	458	-	5	4
Alaska	3	6	-	4	1	-	7	3	-	-	-
Hawaii	6	4	-	1	5	-	4	19	-	-	-
Guam	-	1	U	-	1	U	-	1	U	-	-
P.R.	4	10	-	-	-	-	-	8	-	-	-
V.I.	-	U	U	-	U	U	-	U	U	-	U
Amer. Samoa	-	U	U	-	U	U	-	U	U	-	U
C.N.M.I.	-	U	U	-	U	U	-	U	U	-	U

N: Not notifiable.

U: Unavailable.

-: No reported cases.

**TABLE IV. Deaths in 122 U.S. cities,\* week ending  
June 10, 2000 (23rd Week)**

Reporting Area	All Causes, By Age (Years)						P&I <sup>†</sup> Total	Reporting Area	All Causes, By Age (Years)						P&I <sup>†</sup> Total
	All Ages	≥65	45-64	25-44	1-24	<1			All Ages	≥65	45-64	25-44	1-24	<1	
<b>NEW ENGLAND</b>	543	395	92	28	16	12	45	<b>S. ATLANTIC</b>	1,159	726	263	109	38	21	77
Boston, Mass.	131	84	27	7	5	8	9	Atlanta, Ga.	U	U	U	U	U	U	U
Bridgeport, Conn.	33	25	4	2	-	2	2	Baltimore, Md.	264	148	74	27	11	4	14
Cambridge, Mass.	13	10	3	-	-	-	2	Charlotte, N.C.	98	63	22	7	2	4	7
Fall River, Mass.	37	35	2	-	-	-	4	Jacksonville, Fla.	153	93	38	16	3	3	10
Hartford, Conn.	42	27	8	3	3	1	4	Miami, Fla.	115	66	29	12	4	2	11
Lowell, Mass.	40	27	9	4	-	-	4	Norfolk, Va.	44	27	7	6	3	1	3
Lynn, Mass.	16	12	3	1	-	-	2	Richmond, Va.	69	39	17	8	4	1	6
New Bedford, Mass.	26	22	2	2	-	-	2	Savannah, Ga.	53	32	12	7	1	1	6
New Haven, Conn.	38	26	8	2	2	-	2	St. Petersburg, Fla.	65	56	7	2	-	-	9
Providence, R.I.	52	33	12	3	3	1	1	Tampa, Fla.	185	136	27	14	6	2	10
Somerville, Mass.	7	6	1	-	-	-	1	Washington, D.C.	104	64	23	10	4	3	1
Springfield, Mass.	29	25	1	2	1	-	3	Wilmington, Del.	9	2	7	-	-	-	-
Waterbury, Conn.	24	20	4	-	-	-	6	<b>E.S. CENTRAL</b>	825	552	170	62	21	20	52
Worcester, Mass.	55	43	8	2	2	-	7	Birmingham, Ala.	202	140	37	12	6	7	13
<b>MID. ATLANTIC</b>	2,198	1,529	407	176	43	39	98	Chattanooga, Tenn.	52	32	13	5	1	1	1
Albany, N.Y.	35	24	5	2	1	3	2	Knoxville, Tenn.	114	82	23	6	2	1	7
Allentown, Pa.	U	U	U	U	U	U	U	Lexington, Ky.	40	29	7	2	2	-	-
Buffalo, N.Y.	93	65	19	3	4	2	4	Memphis, Tenn.	154	94	32	17	6	5	10
Camden, N.J.	26	12	4	8	1	1	1	Mobile, Ala.	88	64	14	6	2	2	5
Elizabeth, N.J.	7	5	1	1	-	-	1	Montgomery, Ala.	31	20	5	4	1	1	1
Erie, Pa.§	43	32	9	-	1	1	2	Nashville, Tenn.	144	91	39	10	1	3	15
Jersey City, N.J.	46	31	6	8	1	-	-	<b>W.S. CENTRAL</b>	1,500	978	306	130	61	23	97
New York City, N.Y.	1,118	779	217	91	16	11	29	Austin, Tex.	85	60	16	4	2	3	5
Newark, N.J.	71	29	13	15	8	6	2	Baton Rouge, La.	71	56	10	2	2	1	-
Paterson, N.J.	34	20	6	6	1	1	-	Corpus Christi, Tex.	45	32	9	4	-	-	7
Philadelphia, Pa.	356	248	73	20	7	8	24	Dallas, Tex.	226	133	55	19	11	8	13
Pittsburgh, Pa.§	56	38	10	6	-	2	1	El Paso, Tex.	103	76	18	6	3	-	4
Reading, Pa.	24	19	3	2	-	-	2	Ft. Worth, Tex.	102	71	25	3	1	2	15
Rochester, N.Y.	113	88	15	8	1	1	10	Houston, Tex.	307	192	56	43	13	3	23
Schenectady, N.Y.	24	18	4	2	-	-	2	Little Rock, Ark.	68	44	17	2	4	1	2
Scranton, Pa.§	37	31	5	1	-	-	7	New Orleans, La.	84	36	21	9	15	1	7
Syracuse, N.Y.	86	66	13	3	1	3	6	San Antonio, Tex.	258	177	51	22	7	1	14
Trenton, N.J.	11	9	1	-	1	-	3	Shreveport, La.	37	25	7	3	1	1	1
Utica, N.Y.	18	15	3	-	-	-	2	Tulsa, Okla.	114	76	21	13	2	2	6
Yonkers, N.Y.	U	U	U	U	U	U	U	<b>MOUNTAIN</b>	900	600	190	69	26	15	63
<b>E.N. CENTRAL</b>	2,042	1,390	415	143	48	45	135	Albuquerque, N.M.	107	73	19	8	4	3	4
Akron, Ohio	51	40	10	-	1	-	3	Boise, Idaho	42	28	10	3	-	1	2
Canton, Ohio	35	25	8	2	-	-	4	Colo. Springs, Colo.	50	30	12	5	2	1	2
Chicago, Ill.	394	249	93	33	11	7	45	Denver, Colo.	115	79	28	3	4	1	15
Cincinnati, Ohio	90	62	17	7	-	4	4	Las Vegas, Nev.	162	109	31	15	4	3	10
Cleveland, Ohio	132	76	33	10	6	7	3	Ogden, Utah	27	18	3	4	2	-	1
Columbus, Ohio	197	150	31	10	4	2	10	Phoenix, Ariz.	154	97	32	16	7	2	12
Dayton, Ohio	113	78	21	8	4	2	8	Pueblo, Colo.	23	16	6	1	-	-	1
Detroit, Mich.	189	114	46	21	4	4	15	Salt Lake City, Utah	97	66	22	7	-	3	8
Evansville, Ind.	48	37	10	1	-	-	2	Tucson, Ariz.	123	85	27	7	3	1	8
Fort Wayne, Ind.	51	35	13	3	-	-	4	<b>PACIFIC</b>	1,627	1,179	264	105	42	35	133
Gary, Ind.	22	13	4	1	2	2	1	Berkeley, Calif.	25	18	2	4	-	1	1
Grand Rapids, Mich.	61	47	6	4	4	-	6	Fresno, Calif.	89	63	15	6	4	1	2
Indianapolis, Ind.	205	139	42	9	8	7	9	Glendale, Calif.	36	28	7	1	-	-	5
Lansing, Mich.	49	28	13	7	-	1	2	Honolulu, Hawaii	85	60	14	4	4	3	8
Milwaukee, Wis.	120	86	21	9	-	4	10	Long Beach, Calif.	89	69	10	5	1	4	11
Peoria, Ill.	43	31	8	2	-	2	1	Los Angeles, Calif.	484	354	74	28	19	9	42
Rockford, Ill.	38	28	6	2	2	-	2	Pasadena, Calif.	31	23	4	4	-	-	2
South Bend, Ind.	60	47	8	4	1	-	2	Portland, Oreg.	131	101	19	5	2	3	9
Toledo, Ohio	84	60	18	6	-	-	2	Sacramento, Calif.	U	U	U	U	U	U	U
Youngstown, Ohio	60	45	7	4	1	3	2	San Diego, Calif.	177	133	25	13	2	4	12
<b>W.N. CENTRAL</b>	1,282	898	230	91	35	28	88	San Francisco, Calif.	U	U	U	U	U	U	U
Des Moines, Iowa	U	U	U	U	U	U	U	San Jose, Calif.	158	109	35	12	1	1	6
Duluth, Minn.	32	24	7	1	-	-	-	Santa Cruz, Calif.	24	14	8	1	1	-	2
Kansas City, Kans.	195	119	50	18	5	3	17	Seattle, Wash.	132	89	29	8	2	4	16
Kansas City, Mo.	65	41	18	3	2	1	4	Spokane, Wash.	63	46	6	6	3	2	3
Lincoln, Nebr.	25	20	3	2	-	-	1	Tacoma, Wash.	103	72	16	8	3	3	4
Minneapolis, Minn.	182	142	23	12	3	2	7	<b>TOTAL</b>	12,076 <sup>†</sup>	8,247	2,337	913	330	238	788
Omaha, Nebr.	70	55	5	3	3	4	3								
St. Louis, Mo.	104	79	13	5	1	6	3								
St. Paul, Minn.	60	50	5	3	2	-	1								
Wichita, Kans.	549	368	106	44	19	12	52								

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.

**Contributors to the Production of the *MMWR* (Weekly)**

**Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data**

Samuel L. Groseclose, D.V.M., M.P.H.

***State Support Team***

Robert Fagan  
Jose Aponte  
Paul Gangarosa, M.P.H.  
Gerald Jones  
David Nitschke  
Scott Noldy

***CDC Operations Team***

Carol M. Knowles  
Deborah A. Adams  
Willie J. Anderson  
Patsy A. Hall  
Pearl Sharp  
Carol A. Worsham

**Informatics**

T. Demetri Vacalis, Ph.D.

Michele D. Renshaw

Erica R. Shaver

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Director, Centers for Disease Control and Prevention Jeffrey P. Koplan, M.D., M.P.H.	Acting Director, Epidemiology Program Office Barbara R. Holloway, M.P.H.	Acting Managing Editor, <i>MMWR</i> (Weekly) Caran R. Wilbanks
Acting Deputy Director for Science and Public Health, Centers for Disease Control and Prevention Walter W. Williams, M.D., M.P.H.	Editor, <i>MMWR</i> Series John W. Ward, M.D.	Writers-Editors, <i>MMWR</i> (Weekly) Jill Crane David C. Johnson Teresa F. Rutledge
	Acting Editor, <i>MMWR</i> Series Susan Y. Chu, Ph.D., M.S.P.H.	Desktop Publishing Lynda G. Cupell Morie M. Higgins

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Acting Deputy Director for Science and Public Health, Centers for Disease Control and Prevention Walter W. Williams, M.D., M.P.H.	Editor, <i>MMWR</i> Series John W. Ward, M.D.	Writers-Editors, <i>MMWR</i> (Weekly) Jill Crane David C. Johnson Teresa F. Rutledge
	Acting Editor, <i>MMWR</i> Series Susan Y. Chu, Ph.D., M.S.P.H.	Desktop Publishing Lynda G. Cupell Morie M. Higgins

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Permit No. G-26