CDC
CENTERS FOR DISEASE CONTROL

August 28, 1992 / Vol. 41 / No. 34

MMWR
MORBIDITY AND MORTALITY WEEKLY REPORT

Current Trends

Publicly Funded HIV Counseling and Testing — United States, 1991

Human immunodeficiency virus (HIV) counseling and testing (CT) services provided by health departments are a major component of the national HIV-prevention program. The purpose of HIV CT is to 1) reinforce perception of risk by those who are unaware or uninformed, 2) help uninfected persons initiate and sustain behavior changes that reduce their risk for becoming infected, and 3) identify HIV-infected persons who can be referred for early medical care and counseled to practice safer behaviors. The use of publicly funded HIV CT has steadily increased; in 1991, nearly 2,091,000 HIV-antibody tests were performed, compared with approximately 79,000 tests in 1985. CT services are provided by health departments in 65 HIV-prevention project areas including the 50 states, the District of Columbia, six cities, and eight territories.* Each calendar quarter, the programs report to CDC data regarding the number of pretest counseling sessions, HIV-antibody tests, positive tests, and posttest counseling sessions. Information is also provided on self-reported risk category, age group, sex, and race/ethnicity. This report summarizes data reported for 1991.†

The data presented here are collected by number of HIV-antibody tests, rather than number of persons tested. Because testing of some clients is repeated, the exact number of persons tested is not known.

Serologic Testing Results by Type of HIV CT Site

During 1991, 2,090,635 HIV-antibody tests were performed in the 65 project areas; 57,879 (2.8%) tests were positive (Table 1). Of these, freestanding HIV CT sites (sites that provide HIV CT services exclusively) and sexually transmitted disease (STD)

*Cities are Chicago, Houston, Los Angeles, New York City, Philadelphia, and San Francisco. Territories are American Samoa, Federated States of Micronesia, Guam, the Marshall Islands, the Northern Mariana Islands, Palau, Puerto Rico, and the Virgin Islands.

†Because several areas do not report all variables on each person tested (i.e., risk factor[s], sex, age, and race/ethnicity), the total number of tests presented in each table may differ.

HIV Counseling and Testing — Continued

clinics together accounted for 1,289,975 (61.7%) reported tests and 37,485 (64.8%) positive test results. Family-planning and prenatal/obstetric clinics accounted for 14.8% of reported tests and 3.2% of positive tests; drug abuse-treatment centers and prisons accounted for 9.1% of reported tests and 13.5% of positive tests.

Risk Category

Of 1,997,415 HIV tests for which self-reported risk information was available, the highest percentage of positive test results was among homosexual/bisexual male injecting-drug users (IDUs) (17.4%); for homosexual/bisexual males who were not IDUs, seroprevalence was 11.8%, and for heterosexual IDUs, 8.3% (Table 2). These three categories accounted for 15.9% of tests and 58.4% of positive results from persons who reported risk category.

"Heterosexual males and females with reported risk" (including heterosexuals whose sex partners are at risk for or are infected with HIV and heterosexuals with multiple sex partners) accounted for 489,014 (24.5%) tests and 9142 (16.2%) positive results. Persons categorized in "other/no acknowledged risk" accounted for 1,161,120 (58.1%) tests. This category is composed predominantly of self-reported heterosexual males and females who indicated no history of risk behavior or no partner(s) at risk for or infected with HIV, or persons for whom risk information is not specified.[§] Combined, these persons (heterosexual males and females with reported risk and those with other/no acknowledged risk) had a seropositivity rate of 1.4% but accounted for 40.5% of reported positive results.

[§]In the client record data, representing 60% of aggregate CT data, persons for whom risk information is not specified are 74.9% of the "other/no acknowledged risk" category.

TABLE 1. Number and percentage of HIV-antibody tests and positive tests at publicly funded sites reported to CDC, by type of HIV counseling and testing (CT) site — United States, 1991

Type of HIV CT site	No. tests	HIV positive No.	HIV positive (%)	% Total tests	% Total HIV positive
Freestanding site*	650,206	22,168	(3.4)	31.1	38.3
Sexually transmitted disease clinic	639,769	15,317	(2.4)	30.6	26.5
Family planning clinic	206,106	1,205	(0.6)	9.9	2.1
Prenatal/obstetrics clinic	102,044	625	(0.6)	4.9	1.1
Other public health department	101,565	4,053	(4.0)	4.9	7.0
Drug abuse-treatment center	97,929	3,821	(3.9)	4.7	6.6
Prison	91,143	4,003	(4.4)	4.4	6.9
Private physician's office/ clinic†	79,027	2,372	(3.0)	3.8	4.1
Tuberculosis clinic	12,060	374	(3.1)	0.6	0.6
Other	85,439	2,835	(3.3)	4.1	4.9
Unclassified	25,347	1,106	(4.4)	1.2	1.9
Total§	**2,090,635**	**57,879**	**(2.8)**	**100.0**	**100.0**

*Sites that provide HIV CT services exclusively.

†Some private physicians use state health department laboratories for testing persons at increased risk for HIV.

§In addition to the tests reported here, an unknown number of persons are tested for HIV antibody in hospitals, outpatient medical facilities, physicians' offices, blood-donation centers, military facilities, and other settings.

HIV Counseling and Testing — Continued

Demographic Categories

Of 1,993,353 tests for persons for whom demographic information was given, race/ethnicity was specified for 1,956,872 (98.2%). Of HIV tests performed, whites, blacks, and Hispanics accounted for 51.2%, 33.4%, and 11.7%, respectively, compared with their representation in the U.S. population of 75.7%, 11.8%, and 9.0%, respectively (*1*). The racial/ethnic distribution of those tested was similar to that of new reports of persons with AIDS in 1991, of whom 48.8% were white, 32.0% were black, and 18.0% were Hispanic (Table 3) (*2*). Whites, blacks, and Hispanics accounted for 34.4%, 43.3%, and 19.5%, respectively, of all positive tests (Table 3). Seropositivity was highest among Hispanics (4.6%), followed by blacks (3.6%).

Males accounted for 1,006,773 (50.5%) of the 1,993,353 tests and 42,527 (76.6%) of the 55,520 positive results. Seropositivity in males and females was 4.2% and 1.3%, respectively. Of persons for whom age was known, persons aged 20–29 years accounted for 42.7% of tests and 34.4% of positive results, and persons aged 30–39 years accounted for 27.3% of tests and 41.8% of positive results. Seropositivity rates for persons aged 20–29 and 30–39 years were 2.2% and 4.3%, respectively. For adolescents aged 13–19 years, 261,942 tests were performed; of these, 1242 (0.5%) were positive.

Posttest Counseling

Client record data, representing a 60% subset of the aggregate CT data and providing greater detail about persons receiving CT, indicated that at least 74.0% of persons with HIV-antibody–positive test results and 62.8% of those with negative test results completed posttest counseling (*3*). Overall, at least 63.1% of persons in the client record database received posttest counseling; however, the proportion of persons receiving posttest counseling was higher for freestanding test sites (81.2%) than for STD clinics (40.6%).

Reported by: HIV-prevention programs of state and local health departments. Program Development and Technical Support Section, Program Operations Br, Div of Sexually Transmitted Diseases and HIV Prevention, and Office of the Director, National Center for Prevention Svcs, CDC.

TABLE 2. Number and percentage of HIV-antibody tests and positive tests at publicly funded counseling and testing sites reported to CDC, by self-reported risk category — United States, 1991

Risk category	No. tests	HIV positive No.	HIV positive (%)	% Total tests	% Total HIV positive
Heterosexual males and females with reported risk*	489,014	9,142	(1.9)	24.5	16.2
Homosexual/bisexual males	162,833	19,174	(11.8)	8.2	33.9
Heterosexual IDUs†	141,756	11,755	(8.3)	7.1	20.8
Blood recipients, 1978–1985	30,495	621	(2.0)	1.5	1.1
Homosexual/bisexual male IDUs	12,197	2,117	(17.4)	0.6	3.7
Other risk§/No acknowledged risk	1,161,120	13,736	(1.2)	58.1	24.3
Total	**1,997,415**	**56,545**	**(2.8)**	**100.0**	**100.0**

*Heterosexual males and females whose sex partners are at risk for or are infected with HIV and heterosexuals with multiple sex partners.

†Injecting-drug users.

§Persons who indicated no history of risk behavior, no partner(s) at risk for or infected with HIV, or persons for whom risk information is not specified.

HIV Counseling and Testing — Continued

Editorial Note: Knowledge of HIV-infection status and client-centered counseling can increase self-perception of risk and assist persons in initiating changes in behavior that will reduce their risk for infecting others or for becoming infected (*4,5*). Successful HIV-prevention counseling involves four essential components: 1) personalized risk assessment to facilitate a realistic self-perception of risk; 2) identification and discussion of barriers to behavior change and reinforcement of positive behavior change already initiated by the client; 3) negotiation between the client and counselor of a realistic and incremental risk reduction plan; and 4) establishment of a specific plan to receive test results and posttest counseling (*6*). CT services include partner notification and referral for early intervention and other prevention services. Early intervention, including medical evaluation, antiretroviral therapy, and pharmacologic prophylaxis, can enhance and prolong the years of productive life for HIV-positive persons. A substantial proportion of persons infected with HIV have been diagnosed and have received services at publicly funded CT programs (*7*).

Because data presented in this report are for persons tested at public clinics, the findings are not representative of all persons tested in the United States. Most of these data were collected in service-delivery settings where risk behaviors are self-reported and not validated through epidemiologic or research investigations. An unknown number of persons are tested for HIV antibody in hospitals, outpatient medical facilities, physicians' offices, blood-donation centers, military facilities, and other settings (*8*). In addition, an unknown number of the tests presented in this report may represent retests; the client record data system began collecting data on repeat tests in January 1992.

One possible explanation for the difference in return rates for freestanding sites and STD clinics relates to the reason for client visit. In particular, persons attend freestanding sites specifically to obtain an HIV-antibody test and, therefore, are motivated to return for results; in comparison, persons attend STD clinics primarily for clinical care of an STD and are offered HIV CT as a supplemental component of that clinical care (*9*). Therefore, programmatic efforts have been directed toward increasing the proportion of persons who receive posttest counseling, including field

TABLE 3. Number and percentage of HIV-antibody tests and positive tests at publicly funded counseling and testing sites reported to CDC, by race/ethnicity, compared with percentage of racial/ethnic distribution of AIDS cases in 1991 and U.S. population — United States, 1991

Race/ Ethnicity	No. tests	HIV positive		% Total tests	% Total HIV positive	% AIDS cases 1991	% Total U.S. population
		No.	(%)				
White	1,020,231	19,123	(1.9)	51.2	34.4	48.8	75.7
Black	666,318	24,029	(3.6)	33.4	43.3	32.0	11.8
Hispanic	233,121	10,824	(4.6)	11.7	19.5	18.0	9.0
Asian/Pacific Islander	26,814	338	(1.3)	1.3	0.6	0.6	2.8
American Indian/ Alaskan Native	10,388	290	(2.8)	0.5	0.5	0.2	0.7
Total known*	1,956,872	54,604	(2.8)	98.2	98.4	99.6	
Unknown	36,481	916	(2.5)	1.8	1.6	0.4	
Total	**1,993,353**	**55,520**	**(2.8)**	**100.0**	**100.0**	**100.0**	**100.0**

*Number of tests for which some demographic information was given.

HIV Counseling and Testing — Continued

follow-up of persons who are HIV-positive or are HIV-negative but at high risk for HIV infection and who do not return for their results.

To ensure that persons with undetected HIV infection receive appropriate CT, public health priorities should focus on increasing testing of persons engaging in risk behaviors and increasing the number who receive the full range of recommended CT, referral, and partner-notification services. HIV-antibody–positive persons who are not tested anonymously and who do not return for posttest counseling should receive timely and effective follow-up to ensure provision of test results, posttest counseling, and appropriate referrals.

HIV CT services should continue to expand within settings such as tuberculosis, STD, and drug abuse-treatment clinics. In addition, recent reports indicate HIV-infected persons may be identified through hospital-based HIV CT programs (*10*). Public health programs should attempt to maximize the proportion of persons at risk who 1) are offered and receive pretest counseling, including risk assessment; 2) accept and receive HIV-antibody testing; 3) return for HIV-antibody test results; 4) are offered and receive posttest counseling; 5) if infected, participate in partner notification; and 6) if infected, are referred to and receive further medical and prevention services.

References

1. Bureau of the Census. Data tape: state and metropolitan area—regions, divisions, and states. Washington, DC: US Department of Commerce, Bureau of the Census, 1990.
2. CDC. Update: acquired immunodeficiency syndrome—United States, 1991. MMWR 1992; 41:463–8.
3. CDC. CTS client record database: U.S. total, 1991 annual report. Atlanta: US Department of Health and Human Services, Public Health Service, 1992.
4. Cates W Jr, Handsfield HH. HIV counseling and testing: does it work? Am J Public Health 1988;78:1533–4.
5. Higgins DL, Galavotti C, O'Reilly KR, et al. Evidence for the effects of HIV antibody counseling and testing on risk behaviors. JAMA 1991;266:2419–29.
6. National Center for Prevention Services, CDC. Technical guidance on HIV counseling. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, February 1992.
7. Anderson JE, Hardy AM, Cahill K, Aral SO. HIV counseling and testing in the U.S.: who is being reached and who isn't? [Abstract]. Vol 1. VII International Conference on AIDS. Florence, Italy, June 16–21, 1991:383.
8. CDC. Testing for HIV in the public and private sectors—Oregon, 1988–1991. MMWR 1992:41;581–4.
9. Valdiserri RO, Moore M, Gerber AR, Campbell CH, Dillon B, West GR. Return rates for HIV posttest counseling: implications for program efficacy, United States, 1990 [Poster session]. Vol 2. VIII International Conference on AIDS/III STD World Congress. Amsterdam, July 19–24, 1992:C336.
10. Janssen RS, St Louis ME, Satten GA, et al. HIV infection among patients in U.S. acute care hospitals—strategies for the counseling and testing of hospital patients. N Engl J Med 1992;327: 445–52.

Effectiveness in Disease and Injury Prevention

Condom Use Among Male Injecting-Drug Users — New York City, 1987–1990

Heterosexual transmission of human immunodeficiency virus (HIV) continues to increase, especially among injecting-drug users (IDUs) and their sex partners (*1*). During 1991, 22% of women with acquired immunodeficiency syndrome (AIDS) in the

Condom Use — Continued

United States reported having had sex with a male IDU; this risk behavior was second to injecting-drug use (48%) as a transmission category for women. To better understand how to reduce heterosexual transmission of HIV, a study on condom use among male IDUs on the Lower East Side of Manhattan, New York City, was conducted as part of CDC AIDS Community Demonstration Projects (*2*). This report summarizes the results of that study.

From August 1987 through October 1990, 450 male IDUs were recruited to participate in the study by trained former IDU outreach workers operating from a research storefront located in the community. Participants were offered on-site confidential HIV counseling and antibody testing and were paid $20 per interview. Referrals for a variety of medical and social services were provided, including referral for drug abuse treatment, and participants were given "AIDS prevention kits" (i.e., bleach, a clean bottle cap, cotton and water, condoms, and AIDS pamphlets, including text and illustrated instructions about using condoms and cleaning needles).

Participants were asked about their injecting-drug behaviors, number of steady and casual sex partners, and frequency of condom use during the "typical" month of the year before interview.

Most (297 [66%]) participants reported having injected drugs for 14 or more years; 240 (53%) were aged 30–39 years, and 332 (74%) had less than a high school education. Participants were evenly distributed across racial/ethnic categories: white, 37%; black, 32%; and Hispanic, 31%. Nearly all participants (438 [97%]) reported sexual contact only with women. More than one third (165 [37%]) of participants consented to HIV testing; 85 (52%) were HIV seropositive.

Most (348 [77%]) male IDUs reported having "steady" female sex partners, 21 (5%) reported only "casual" partners, and 81 (18%) reported having both "steady" and "casual" partners (Table 1). The largest percentage of respondents (193 [43%]) reported never using condoms, 139 (31%) reported always using condoms, and 118 (26%) reported using condoms some of the time. Participants with both steady and

TABLE 1. Condom use among male injecting-drug users*, by type of sex partner, sexual risk-reduction behavior among their peers, and injecting-drug–related HIV risk-reduction behavior — Lower East Side, Manhattan, New York City

	Never		Sometimes		Always		Total	
Category	**No.**	**(%)**	**No.**	**(%)**	**No.**	**(%)**	**No.**	**(%)**
Type of sex partner†								
Steady	159	(46)	75	(21)	114	(33)	**348**	**(77)**
Casual	11	(52)	6	(29)	4	(19)	**21**	**(5)**
Steady and casual	23	(28)	37	(46)	21	(26)	**81**	**(18)**
Peers' sexual risk-reduction behavior§								
Yes	37	(26)	42	(29)	64	(45)	**143**	**(32)**
No	156	(51)	76	(25)	75	(24)	**307**	**(68)**
Injecting-drug–related HIV risk-reduction behavior¶								
Yes	145	(38)	109	(29)	123	(33)	**377**	**(84)**
No	48	(66)	9	(12)	16	(22)	**73**	**(16)**
Total	**193**	**(43)**	**118**	**(26)**	**139**	**(31)**	**450**	**(100)**

*Sample size = 450.
†Chi-square = 21.7 ($p<0.001$).
§Chi-square = 28 ($p<0.001$).
¶Chi-square = 19.3 ($p<0.001$).

Condom Use — Continued

casual sex partners were more likely to use condoms "some of the time" than were those with only steady or only casual sex partners. Among participants with both types of partners, using a condom all the time was more common with casual (58 [72%]) than with steady (24 [30%]) partners.

Individual condom use was strongly associated with having peers who engaged in some type of sexual risk reduction (i.e., condom use or restriction to safer sexual activities) (Table 1). Condom use was also associated with drug-injection HIV risk reduction (i.e., cleaning needles or restriction to new needles) (Table 1).

Reported by: S Tross, PhD, A Abdul-Quader, PhD, H Silvert, PhD, National Development and Research Institutes, Inc. D Des Jarlais, PhD, Beth Israel Medical Center, New York City. Behavioral and Prevention Research Br, Div of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Svcs, CDC.

Editorial Note: Because a substantial proportion (43%) of IDUs described in this report did not use condoms, the promotion of consistent condom use in this population remains an urgent priority for preventing sexual transmission of HIV. Findings from this study suggest the greater amenability of this population to risk reduction (i.e., sometimes using condoms) rather than risk elimination (abstinence or mutual monogamy among persons without HIV or other sexually transmitted diseases).

Despite a slightly higher percentage of white participants, the sample composition of this study is similar to those of other studies of IDUs in New York City. However, the findings in this report are subject to two limitations. First, because data were obtained from IDUs who volunteered for the program, findings cannot be generalized to IDUs unwilling or unable to participate. Second, the report includes male IDUs in a limited area, Manhattan, New York City, where HIV prevalence in IDUs has been 55% or higher for many years (*3*). Thus, these findings may not reflect HIV risk-reduction behaviors among at-risk groups in other locations.

The identification of barriers and promoters to consistent condom use has three direct implications for the development of content and methods for preventing sexual transmission of HIV among IDUs. First, among men with both steady and casual sex partners, lower rates of consistent condom use were observed with steady partners than with casual partners. The finding of lower rates of condom use within rather than outside a primary relationship has been reported in other studies of HIV sexual behavior both in IDUs (*4*) and in homosexual men (*5*). This suggests that condom use messages should target sexual behavior within primary relationships where partners do not know their HIV status, are discordant for HIV infection, or one or more partners are continuing activities that pose a risk for HIV infection (e.g., needle sharing and multiple sex partners).

Second, higher rates of consistent condom use were observed among men whose peers were also practicing safer sex. Previous studies have documented a positive effect of peer support on HIV risk-reduction behavior in both IDUs (*4*) and in homosexual men (*6*). This suggests that HIV-prevention programs should use peer outreach and group methods to maximize the impact of social influence on this behavior.

Finally, higher rates of consistent condom use were observed among men who were also practicing safer drug-injecting behaviors, indicating the need to develop comprehensive messages that link both drug injection-related and sexual modes of HIV prevention. Findings from this study are being used to guide community-level intervention projects in Denver; Long Beach, California; and New York City that target IDUs and their sex partners (*2,7*).

Condom Use – Continued

References
1. CDC. HIV/AIDS surveillance report. Atlanta: US Department of Health and Human Services, Public Health Service, January 1992.
2. CDC. NCPS AIDS Community Demonstration Projects: what have we learned, 1985–1990. Atlanta: US Department of Health and Human Services, Public Health Service, June 1992.
3. Des Jarlais DC, Friedman SR, Novick DM, et al. HIV-1 infection among intraveneous drug users in Manhattan, New York City, from 1977 through 1987. JAMA 1989;261:1008–12.
4. Abdul-Quader AS, Tross S, Friedman SR, et al. Street-recruited intravenous drug users and sexual risk reduction in New York City. AIDS 1990;4:1075–9.
5. Stall RD, Coates TJ, Hoff C. Behavioral risk reduction for HIV infection among gay and bisexual men: a review of results from the United States. Am Psychol 1988;43:878–85.
6. Joseph JG, Montgomery SB, Emmons CA, et al. Perceived risk of AIDS: assessing the behavioral and psychological consequences in a cohort of gay men. Journal of Applied Social Psychology 1987;17:231–50.
7. O'Reilly KR, Higgins DL. AIDS community demonstration projects for HIV prevention among hard-to-reach groups. Public Health Rep 1991;106:714–20.

Current Trends

Surveillance of Children's Blood Lead Levels – United States, 1991

Lead poisoning is one of the most common environmental pediatric health problems in the United States (*1*): in 1984, an estimated three to four million children had blood lead levels (BLLs) sufficiently high to adversely affect intelligence, behavior, and development (*2*). Because little is known about efforts to monitor BLLs among U.S. children, in 1991, the Council of State and Territorial Epidemiologists (CSTE) and CDC conducted a survey to characterize reporting requirements and data-collection activities for BLLs among U.S. children during 1989. This report summarizes the findings from that survey.

State and territorial health departments in the 50 states, the District of Columbia, American Samoa, the U.S. Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and the Commonwealth of Puerto Rico were mailed a questionnaire. Personnel in jurisdictions that did not respond were mailed another questionnaire and were contacted by telephone. The questionnaire addressed four areas: 1) reporting requirements (including laws and regulations), 2) data collected (e.g., age, BLLs, specimen type), 3) designated report sources, and 4) availability of data on elevated BLLs in children. Of the 56 jurisdictions surveyed, 47 states, the District of Columbia, the U.S. Virgin Islands, Guam, and the Northern Mariana Islands responded to the questionnaire, an overall response rate of 91%.

Of the 51 jurisdictions that responded, 28 states and the District of Columbia (57%) required reporting of BLLs in children (Figure 1). None of the territories had mandatory reporting requirements. Massachusetts and Maryland mandated reporting of all blood lead test results (Table 1). Seventeen states and the District of Columbia required reporting of BLLs $\geq$25 μg/dL, the level used to define lead poisoning at the time the survey was conducted (*3*). Of the 24 states specifying the ages for which reporting was required, 23 (96%) required reporting starting at birth.

Twenty-two (76%) of the 29 jurisdictions with reporting requirements mandated reporting from state laboratories, 24 (83%) from in-state private laboratories, and 13 (49%) from both in-state and out-of-state private laboratories. Three states with mandated reporting did not specifically require any laboratory reporting. Twenty-

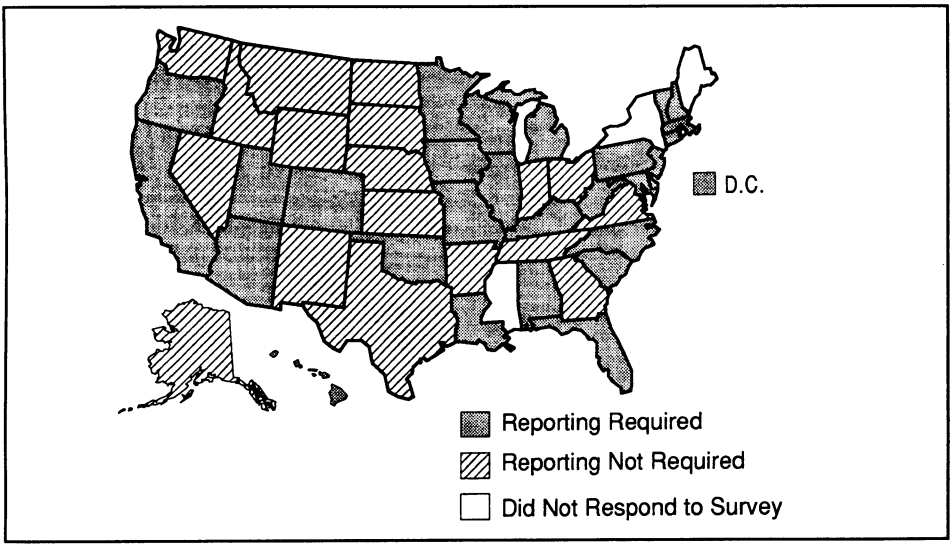
Blood Lead Levels — Continued

three (79%) of the 29 jurisdictions with mandated reporting required physicians to submit reports, 11 required reports from screening programs, and one required reports from school principals.

Eight states required that laboratories be licensed to perform blood lead testing. Five states that did not mandate the reporting of elevated BLLs did require that laboratories be licensed to perform blood lead analyses.

Reports had to be submitted within 7 days after laboratory test completion in 21 (72%) of 29 jurisdictions with required reporting. Five states did not specify a time limit for the submission of reports.

FIGURE 1. Requirements for reporting of blood lead levels in children, by jurisdiction — United States, 1989*



*None of the responding U.S. territories had mandatory reporting requirements.

TABLE 1. Reportable children's blood lead levels (BLLs) in jurisdictions with mandatory reporting — United States, 1989*

BLL (μg/dL)	Jurisdictions
Unspecified	Michigan, Vermont
All	Maryland, Massachusetts
5	Minnesota
15	Alabama, Florida, Oregon
20	Colorado, Utah
25	Arizona, California, Connecticut, Delaware, District of Columbia, Hawaii, Illinois, Iowa, Kentucky, Louisiana, Missouri, New Hampshire, New Jersey, North Carolina, Oklahoma, Pennsylvania, South Carolina, Wisconsin
40	West Virginia

*None of the responding U.S. territories had mandatory reporting requirements.

Blood Lead Levels — Continued

Reported by: State and territorial health departments. DM Perrotta, PhD, Executive Committee, Council of State and Territorial Epidemiologists, Austin, Texas. Lead Poisoning Prevention Br, Div of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC.

Editorial Note: Although the results of national health and nutrition surveys provide information about the national and regional distribution of elevated BLLs (*1*), these data cannot be used to define the distribution of BLLs within state or local jurisdictions or to identify sources of exposure. In addition, adequate data do not exist to determine which communities need to institute childhood lead poisoning prevention programs. State-based surveillance can assist in identifying communities where lead poisoning is occurring; defining sources and pathways of exposure in the community; targeting appropriate activities for preventing childhood lead poisoning; and evaluating prevention programs.

In 1991, the U.S. Department of Health and Human Services released the *Strategic Plan for the Elimination of Childhood Lead Poisoning*, which described the first 5 years of a 20-year effort to eliminate childhood lead poisoning as a public health problem (*1*). This plan includes both a research and a program agenda. One of the four elements of the program agenda is national surveillance for elevated BLLs. A national surveillance system for reporting BLLs is considered essential for targeting environmental and treatment interventions and for monitoring progress in eliminating childhood lead poisoning (*1*).

Because data from a national surveillance system would provide an adequate foundation for policy decisions, resources for combatting childhood lead poisoning could be used more efficiently. Unlike most infectious diseases, lead poisoning usually causes no overt symptoms. Because lead poisoning is usually a laboratory diagnosis and does not require clinical judgment, laboratories are probably the best source of reports on BLLs and should form the basis of a surveillance system. For laboratory reporting to be most useful, jurisdictions must collect information from private as well as public laboratories and must receive reports on their own residents from laboratories in other jurisdictions.

During the 1992 fiscal year, as part of the effort to build a national surveillance system for monitoring children's BLLs, CDC will award funds for cooperative agreements between state and territorial health departments and CDC to establish or enhance childhood and adult blood lead surveillance. In addition, CDC will provide technical assistance to states and territories; work with states and territories to develop guidelines on surveillance; and manage, analyze, and provide feedback on data sent from the states and territories to CDC. Additional information on efforts to establish national BLL surveillance among children is available from the Lead Poisoning Prevention Branch, Division of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC, Mailstop F-28, 1600 Clifton Road, NE, Atlanta, GA 30333.

References

1. CDC. Strategic plan for the elimination of childhood lead poisoning. Atlanta: US Department of Health and Human Services, Public Health Service, 1991.
2. Agency for Toxic Substances and Disease Registry. The nature and extent of lead poisoning in children in the United States: a report to Congress. Atlanta: US Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 1988; DHHS publication no. 99-2966.
3. CDC. Preventing lead poisoning in young children: a statement by the Centers for Disease Control, January 1985. Atlanta: US Department of Health and Human Services, Public Health Service, 1985; DHHS publication no. 99-2230.

Surveillance Summaries

Publication of *CDC Surveillance Summaries*

Since 1983, CDC has published the *CDC Surveillance Summaries* under separate cover as part of the *MMWR* series. Each report published in the *CDC Surveillance Summaries* focuses on public health surveillance; surveillance findings are reported for a broad range of risk factors and health conditions.

Summaries for each of the reports published in the most recent issue (dated May 29, 1992) of the *CDC Surveillance Summaries* (*1*) are provided below. All subscribers to *MMWR* receive the *CDC Surveillance Summaries*, as well as the *MMWR Recommendations and Reports*, as part of their subscriptions.

HOMICIDE SURVEILLANCE — UNITED STATES, 1979–1988

From 1979 through 1988, 217,578 homicides occurred in the United States, an average of >21,000 per year. Homicide rates during this 10-year period were about 1.5 times higher than the rates during the 1950s. The national homicide rate of 10.7/100,000 in 1980 was the highest ever recorded. Homicide occurs disproportionately among young adults. Among the 15- to 34-year age group, homicide is the fourth most common cause of death among white females, the third most common cause among white males, and the most common cause among both black females and black males. In 1988, nearly two-thirds (61%) of homicide victims were killed with a firearm, 75% of these with a handgun. More than half (52%) of homicide victims were killed by a family member or acquaintance, and about one-third (35%) of homicides stemmed from a conflict not associated with another felony. The homicide mortality rate among young black males 15–24 years of age has risen 54% since 1985. Ninety-nine percent of the increase was accounted for by homicides in which the victim was killed with a firearm. The surveillance data summarized in this report should assist public health practitioners, researchers, and policymakers in addressing this important public health problem.

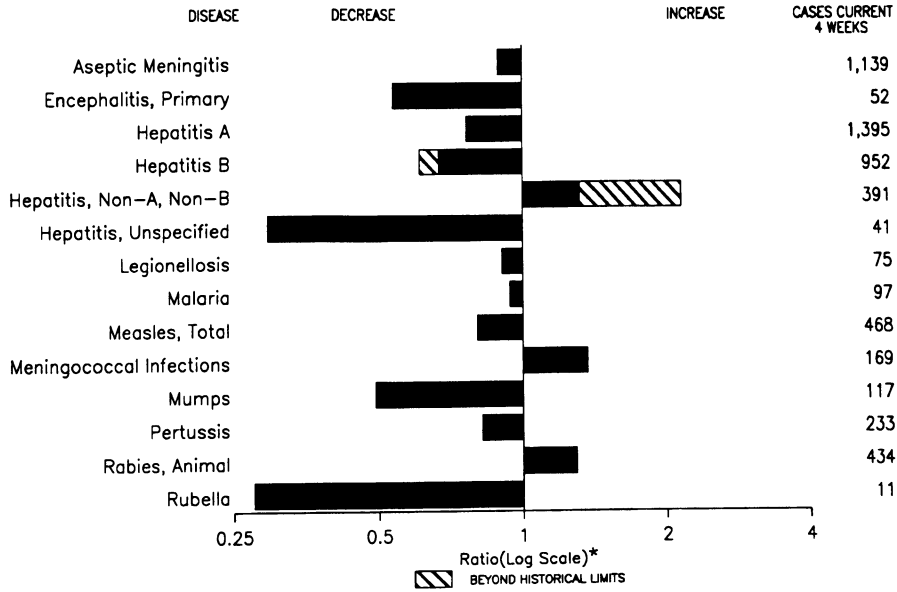
Authors: Marcella Hammett, M.P.H., Kenneth E. Powell, M.D., M.P.H., Patrick W. O'Carroll, M.D., M.P.H., Sharon T. Clanton, Division of Injury Control, National Center for Environmental Health and Injury Control, CDC.

INFLUENZA — UNITED STATES, 1989–90 AND 1990–91 SEASONS

During the 1989–90 influenza season, 98% of all influenza viruses isolated in the United States and reported to CDC were influenza A. Almost all those that were antigenically characterized were similar to influenza A/Shanghai/11/87(H3N2), a component of the 1989–90 influenza vaccine. Regional and widespread influenza activity began to be reported in late December 1989, peaked in mid-January 1990, and declined rapidly through early April 1990. Most of the outbreaks reported to CDC were among nursing-home residents. Considerable influenza-associated mortality was reflected in the percentage of deaths due to pneumonia and influenza (P&I) reported through the CDC 121 Cities Surveillance System from early January through early April. More than 80% of all reported P&I deaths were among persons ≥65 years of age. In contrast to the predominance of influenza A during 1989–90, during the 1990–91 influenza season 86% of all influenza virus isolations reported were influenza B. Widespread influenza activity was reported from mid-January through April 1991, with regional activity extending into May. Outbreaks were reported primarily among schoolchildren, and no evidence of excess influenza-associated mortality was found.

(Continued on page 629)

FIGURE I. Notifiable disease reports, comparison of 4-week totals ending August 22, 1992, with historical data — United States



*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 — cases of specified notifiable diseases, United States, cumulative, week ending August 22, 1992 (34th Week)

	Cum. 1992		Cum. 1992
AIDS*	27,377	Measles: imported	106
Anthrax	-	indigenous	1,735
Botulism: Foodborne	10	Plague	6
Infant	35	Poliomyelitis, Paralytic†	-
Other	2	Psittacosis	56
Brucellosis	47	Rabies, human	-
Cholera	94	Syphilis, primary & secondary	21,971
Congenital rubella syndrome	8	Syphilis, congenital, age < 1 year§	697
Diphtheria	3	Tetanus	13
Encephalitis, post-infectious	91	Toxic shock syndrome	160
Gonorrhea	314,390	Trichinosis	17
Haemophilus influenzae (invasive disease)	953	Tuberculosis	14,299
Hansen Disease	118	Tularemia	103
Leptospirosis	21	Typhoid fever	221
Lyme Disease	4,469	Typhus fever, tickborne (RMSF)	268

*Updated monthly; last update August 1, 1992.
†Two cases of suspected poliomyelitis have been reported in 1992; six of the nine suspected cases with onset in 1991 were confirmed and 5 of the 8 suspected cases with onset in 1990 were confirmed; all were vaccine associated.
§Updates for first quarter 1992.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending August 22, 1992, and August 24, 1991 (34th Week)

Reporting Area	AIDS*	Aseptic Meningitis	Encephalitis		Gonorrhea		Hepatitis (Viral), by type				Legionellosis	Lyme Disease
			Primary	Post-infectious			A	B	NA,NB	Unspecified		
	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	27,377	4,869	371	91	314,390	380,976	12,848	10,142	4,671	442	821	4,469
NEW ENGLAND	906	187	20	-	6,717	9,313	368	374	61	17	42	1,151
Maine	35	20	2	-	56	111	24	19	5	-	1	4
N.H.	30	9	2	-	91	154	26	25	16	1	3	26
Vt.	13	9	3	-	17	37	5	10	9	-	2	3
Mass.	492	87	10	-	2,442	4,077	181	289	26	16	26	106
R.I.	67	62	3	-	479	741	94	18	5	-	10	179
Conn.	269	-	-	-	3,632	4,193	38	13	-	-	-	833
MID. ATLANTIC	6,806	482	17	8	33,891	46,394	1,010	1,305	241	15	231	2,400
Upstate N.Y.	752	230	-	-	6,510	8,047	229	327	145	7	90	1,401
N.Y. City	3,901	96	4	1	11,698	18,040	425	243	4	-	3	8
N.J.	1,362	-	-	-	4,859	7,754	159	318	67	-	27	427
Pa.	791	156	13	7	10,824	12,553	197	417	25	8	111	564
E.N. CENTRAL	2,520	686	100	27	58,850	70,887	1,822	1,521	867	26	203	92
Ohio	454	200	30	2	18,069	21,366	284	148	64	4	89	39
Ind.	262	111	10	11	5,701	7,150	542	523	421	9	28	27
Ill.	1,155	141	36	6	18,905	21,988	358	175	54	4	14	6
Mich.	500	225	22	8	13,718	15,296	93	389	282	9	46	20
Wis.	149	9	2	-	2,457	5,087	545	286	46	-	26	-
W.N. CENTRAL	762	258	22	6	14,290	18,713	1,559	430	179	25	51	183
Minn.	138	28	4	-	1,810	1,898	470	50	13	2	3	74
Iowa	54	35	-	3	973	1,253	27	25	5	3	14	14
Mo.	387	117	8	-	8,041	11,514	577	288	140	18	18	71
N. Dak.	8	1	2	-	46	48	77	1	3	1	2	1
S. Dak.	6	8	-	1	118	226	190	4	-	-	-	1
Nebr.	34	11	3	2	8	1,268	116	16	7	1	12	10
Kans.	135	58	5	-	3,294	2,506	102	46	11	-	2	12
S. ATLANTIC	6,452	885	77	37	97,838	115,515	798	1,672	637	65	115	349
Del.	79	33	6	-	1,140	1,753	30	155	139	1	17	129
Md.	757	104	11	-	10,113	11,724	147	253	25	5	20	85
D.C.	423	15	1	-	4,328	6,263	13	52	233	-	7	2
Va.	392	142	24	9	10,759	11,252	71	128	26	21	11	68
W. Va.	34	14	11	-	604	801	5	39	1	16	-	6
N.C.	436	114	20	-	16,241	23,349	71	283	62	-	22	38
S.C.	221	16	-	-	7,260	9,372	19	38	-	1	16	1
Ga.	842	109	2	-	29,315	27,703	108	179	58	-	5	2
Fla.	3,268	338	2	28	18,078	23,298	334	545	93	21	17	18
E.S. CENTRAL	860	280	15	-	29,530	37,375	195	857	1,375	2	45	48
Ky.	128	99	8	-	3,156	3,902	53	60	3	-	19	17
Tenn.	265	59	4	-	9,161	13,331	86	708	1,360	-	20	24
Ala.	313	69	2	-	9,695	10,822	32	85	11	1	6	7
Miss.	154	53	1	-	7,518	9,320	24	4	1	1	-	-
W.S. CENTRAL	2,566	615	39	5	35,905	41,563	1,278	1,288	86	100	14	87
Ark.	127	7	7	-	4,923	5,277	74	52	7	4	-	10
La.	466	43	5	1	10,109	9,765	156	121	39	2	2	5
Okla.	147	-	3	2	3,522	4,491	137	136	23	3	7	21
Tex.	1,826	565	24	2	17,351	22,030	911	979	17	91	5	51
MOUNTAIN	788	166	14	4	7,872	8,165	1,863	467	171	37	60	6
Mont.	14	4	1	1	67	70	57	26	26	-	9	-
Idaho	19	19	-	-	72	95	40	58	-	1	4	2
Wyo.	2	1	1	-	33	62	7	4	14	-	1	1
Colo.	264	59	7	1	2,868	2,395	540	77	62	19	11	-
N. Mex.	66	12	3	1	587	703	191	129	15	7	2	2
Ariz.	254	47	1	-	2,780	3,013	755	96	21	5	19	-
Utah	54	2	1	1	196	206	214	11	20	5	2	1
Nev.	115	22	-	-	1,269	1,621	59	66	13	-	12	-
PACIFIC	5,717	1,310	67	4	29,497	33,051	3,955	2,228	1,054	155	60	153
Wash.	314	-	1	-	2,421	2,960	505	224	95	7	8	7
Oreg.	161	-	-	-	1,122	1,297	243	190	52	8	-	-
Calif.	5,146	1,241	62	3	25,195	27,766	3,032	1,791	739	132	51	145
Alaska	11	10	4	-	458	530	37	11	2	1	-	-
Hawaii	85	59	-	1	301	498	138	12	166	7	1	1
Guam	-	2	-	-	48	12	5	1	-	6	-	1
P.R.	877	123	1	-	140	399	33	298	136	16	1	-
V.I.	2	-	-	-	69	269	2	6	-	-	-	-
Amer. Samoa	-	-	-	-	30	32	1	1	-	-	-	-
C.N.M.I.	-	-	-	-	56	48	1	-	-	-	-	-

N: Not notifiable U: Unavailable C.N.M.I.: Commonwealth of the Northern Mariana Islands
*Updated monthly; last update May 2, 1992.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending August 22, 1992, and August 24, 1991 (34th Week)

Reporting Area	Malaria	Measles (Rubeola)					Menin-gococcal Infections	Mumps		Pertussis			Rubella		
		Indigenous		Imported*		Total									
	Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	Cum. 1992	1992	Cum. 1992	1992	Cum. 1992	Cum. 1991	1992	Cum. 1992	Cum. 1991
UNITED STATES	596	78	1,735	3	106	8,334	1,554	10	1,782	34	1,254	1,593	4	130	1,090
NEW ENGLAND	32	-	51	-	8	67	93	-	12	9	111	218	-	6	4
Maine	1	-	2	-	1	2	8	-	-	1	5	48	-	1	-
N.H.	3	-	15	-	-	-	5	-	3	-	28	17	-	-	1
Vt.	-	-	-	-	-	5	4	-	1	1	3	4	-	-	-
Mass.	17	-	11	-	3	32	40	-	2	7	52	127	-	-	2
R.I.	4	-	23	-	-	2	1	-	-	-	-	-	-	4	-
Conn.	7	-	-	-	4	26	35	-	6	-	23	22	-	1	1
MID. ATLANTIC	160	1	172	-	13	4,549	168	-	113	-	95	157	-	16	563
Upstate N.Y.	24	1	80	-	4	397	83	-	52	-	30	81	-	11	537
N.Y. City	90	-	42	-	8	1,675	14	-	12	-	9	20	-	-	2
N.J.	24	-	45	-	1	1,021	25	-	9	-	16	13	-	2	2
Pa.	22	-	5	-	-	1,456	46	-	40	-	40	43	-	3	22
E.N. CENTRAL	37	-	23	-	14	81	230	-	237	-	120	316	-	7	182
Ohio	6	-	-	-	6	3	61	-	89	-	47	78	-	-	147
Ind.	11	-	20	-	-	2	36	-	7	-	19	58	-	-	2
Ill.	9	-	1	-	4	26	59	-	76	-	14	58	-	7	7
Mich.	9	-	2	-	2	41	57	-	57	-	8	24	-	-	25
Wis.	2	-	-	-	2	9	17	-	8	-	32	98	-	-	1
W.N. CENTRAL	31	-	6	-	8	44	69	-	60	8	116	117	1	5	16
Minn.	13	-	5	-	5	14	9	-	19	-	32	48	-	-	6
Iowa	2	-	-	-	3	15	7	-	10	-	3	13	1	1	5
Mo.	10	-	-	-	-	1	23	-	23	4	46	40	-	-	5
N. Dak.	1	-	-	-	-	-	1	-	2	-	12	2	-	-	-
S. Dak.	1	-	-	-	-	-	1	-	-	1	6	3	-	-	-
Nebr.	-	-	-	-	-	1	14	-	4	-	8	5	-	-	-
Kans.	4	-	1	-	-	13	14	-	2	3	9	6	-	4	-
S. ATLANTIC	114	2	120	-	11	451	318	2	683	4	101	163	-	15	8
Del.	5	-	3	-	-	21	2	1	5	1	4	-	-	-	-
Md.	31	-	9	-	7	174	27	-	60	3	19	41	-	6	1
D.C.	7	-	-	-	-	-	3	-	5	-	1	-	-	1	1
Va.	26	-	10	-	4	29	46	-	38	-	6	18	-	-	-
W. Va.	1	-	-	-	-	-	14	-	22	-	7	8	-	1	-
N.C.	8	-	25	-	-	39	100	-	181	-	21	23	-	-	2
S.C.	-	-	29	-	-	13	19	-	48	-	11	10	-	2	-
Ga.	5	-	-	-	-	15	40	-	56	-	8	29	-	-	-
Fla.	31	2	44	-	-	160	67	1	268	-	24	34	-	5	4
E.S. CENTRAL	14	-	445	-	18	4	97	-	45	2	23	50	-	1	100
Ky.	1	-	444	-	2	1	28	-	-	1	1	-	-	-	-
Tenn.	9	-	-	-	-	3	29	-	14	-	5	16	-	1	100
Ala.	4	-	-	-	-	-	29	-	10	-	14	30	-	-	-
Miss.	-	-	1	-	16	-	11	-	21	1	3	4	-	-	-
W.S. CENTRAL	18	75	804	1	1	162	116	3	301	1	43	42	-	-	5
Ark.	-	-	-	-	-	5	10	-	6	-	11	4	-	-	1
La.	1	-	-	-	-	-	24	-	19	1	5	11	-	-	-
Okla.	5	-	11	-	-	-	13	-	15	-	27	21	-	-	-
Tex.	12	75	793	1§	1	157	69	3	261	-	-	6	-	-	4
MOUNTAIN	23	-	13	-	8	985	76	1	104	1	229	173	1	6	7
Mont.	-	-	-	-	-	-	14	-	2	-	3	2	-	-	-
Idaho	1	-	-	-	-	410	8	-	3	-	27	23	-	1	-
Wyo.	-	-	1	-	-	3	2	-	-	-	-	3	-	-	-
Colo.	5	-	9	-	7	6	13	1	15	-	26	89	1	1	2
N. Mex.	4	-	1	-	1	98	8	N	N	1	54	23	-	-	1
Ariz.	8	-	2	-	-	312	18	-	59	-	94	8	-	2	-
Utah	4	-	-	-	-	137	4	-	18	-	24	23	-	1	-
Nev.	1	-	-	-	-	19	9	-	7	-	1	2	-	1	4
PACIFIC	167	-	101	2	25	1,991	387	4	227	9	416	357	2	74	205
Wash.	10	-	-	-	10	61	67	-	9	-	123	86	-	6	8
Oreg.	11	-	4	-	1	68	53	N	N	1	24	47	1	3	2
Calif.	138	-	56	-	3	1,835	256	4	199	6	248	171	1	44	185
Alaska	1	-	8	-	1	3	6	-	1	-	5	12	-	-	1
Hawaii	7	-	33	2†	10	24	5	-	18	2	16	41	-	21	9
Guam	1	U	10	U	-	-	-	U	8	U	-	-	U	1	-
P.R.	-	27	320	-	-	94	3	-	1	1	9	34	-	-	1
V.I.	-	-	-	-	-	2	-	-	17	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	24	-	-	-	-	6	-	-	-	-
C.N.M.I.	-	U	1	U	1	-	-	U	-	U	1	-	U	-	-

*For measles only, imported cases includes both out-of-state and international importations.
N: Not notifiable U: Unavailable †International §Out-of-state

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending August 22, 1992, and August 24, 1991 (34th Week)

Reporting Area	Syphilis (Primary & Secondary)		Toxic-shock Syndrome	Tuberculosis		Tula-remia	Typhoid Fever	Typhus Fever (Tick-borne) (RMSF)	Rabies, Animal
	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1991	Cum. 1992	Cum. 1992	Cum. 1992	Cum. 1992
UNITED STATES	21,971	27,234	160	14,299	14,395	103	221	268	5,235
NEW ENGLAND	442	705	10	276	385	1	23	7	466
Maine	2	-	-	18	30	-	-	-	-
N.H.	38	12	6	3	5	-	1	-	2
Vt.	1	1	-	4	4	-	-	-	19
Mass.	218	339	3	128	179	1	14	3	6
R.I.	21	37	1	34	49	-	-	2	-
Conn.	162	316	-	89	118	-	8	2	439
MID. ATLANTIC	3,286	4,798	19	3,320	3,373	-	55	21	1,623
Upstate N.Y.	212	440	8	239	325	-	7	7	910
N.Y. City	1,788	2,400	-	2,069	2,055	-	24	3	5
N.J.	415	821	-	595	559	-	16	4	497
Pa.	871	1,137	11	417	434	-	8	7	211
E.N. CENTRAL	3,205	3,215	42	1,424	1,468	1	22	22	88
Ohio	514	442	14	218	212	-	3	12	9
Ind.	189	104	9	108	128	-	1	4	12
Ill.	1,429	1,519	5	724	788	1	15	2	13
Mich.	637	776	14	317	274	-	2	1	9
Wis.	436	374	-	57	66	-	1	3	45
W.N. CENTRAL	807	470	28	331	339	45	5	22	839
Minn.	54	47	6	86	66	-	2	-	137
Iowa	32	40	5	23	50	-	1	-	138
Mo.	626	335	5	155	143	33	1	17	11
N. Dak.	1	1	2	2	6	-	-	-	117
S. Dak.	-	1	-	15	26	8	-	1	95
Nebr.	1	11	3	16	13	2	1	-	8
Kans.	93	35	7	34	35	2	-	4	333
S. ATLANTIC	6,112	8,139	17	2,639	2,758	4	16	72	1,171
Del.	139	104	3	31	18	-	-	4	139
Md.	436	643	2	207	258	1	3	11	350
D.C.	285	506	-	84	126	-	1	1	13
Va.	452	625	2	169	225	2	1	10	206
W. Va.	11	21	1	63	45	-	1	3	27
N.C.	1,603	1,279	3	336	368	1	-	30	19
S.C.	850	1,026	1	267	266	-	1	5	105
Ga.	1,220	2,004	3	588	544	-	-	6	242
Fla.	1,116	1,931	2	894	908	-	9	2	70
E.S. CENTRAL	2,760	3,042	1	935	945	5	3	46	128
Ky.	96	62	-	259	230	1	-	6	53
Tenn.	736	1,005	1	245	257	4	-	37	29
Ala.	1,006	1,154	-	262	261	-	-	3	46
Miss.	922	821	-	169	197	-	3	-	-
W.S. CENTRAL	4,013	4,755	2	1,605	1,704	23	7	66	498
Ark.	540	478	-	114	149	15	-	9	29
La.	1,643	1,612	-	139	143	-	1	-	6
Okla.	195	128	1	110	112	8	-	57	237
Tex.	1,635	2,537	1	1,242	1,300	-	6	-	226
MOUNTAIN	243	377	14	363	397	20	2	7	112
Mont.	7	6	1	-	6	12	-	3	14
Idaho	1	3	1	15	4	-	1	1	-
Wyo.	3	5	-	-	3	1	-	1	23
Colo.	34	59	4	30	35	3	1	-	12
N. Mex.	27	21	2	52	55	4	-	1	5
Ariz.	123	247	2	172	219	-	-	-	52
Utah	7	5	4	52	30	-	-	1	1
Nev.	41	31	-	42	45	-	-	-	5
PACIFIC	1,103	1,733	27	3,406	3,026	4	88	5	310
Wash.	58	123	-	200	190	2	5	-	-
Oreg.	28	51	1	87	69	-	-	2	2
Calif.	1,008	1,551	26	2,924	2,584	1	79	3	295
Alaska	4	4	-	38	51	1	-	-	13
Hawaii	5	4	-	157	132	-	4	-	-
Guam	2	1	-	34	6	-	3	-	-
P.R.	209	306	-	135	157	-	1	-	31
V.I.	45	77	-	3	2	-	-	-	-
Amer. Samoa	-	-	-	-	2	-	1	-	-
C.N.M.I.	5	3	-	42	10	-	1	-	-

U: Unavailable

TABLE III. Deaths in 121 U.S. cities,* week ending August 22, 1992 (34th Week)

Reporting Area	All Causes, By Age (Years)						P&I†
	All Ages	≥65	45-64	25-44	1-24	<1	Total
NEW ENGLAND	572	396	101	44	13	18	34
Boston, Mass.	181	109	32	23	7	10	17
Bridgeport, Conn.	37	26	8	1	-	2	-
Cambridge, Mass.	16	11	5	-	-	-	1
Fall River, Mass.	22	18	2	2	-	-	-
Hartford, Conn.	43	30	8	5	-	-	2
Lowell, Mass.	24	16	8	-	-	-	3
Lynn, Mass.	19	14	1	4	-	-	-
New Bedford, Mass.	23	17	4	2	-	-	2
New Haven, Conn.	54	44	4	1	3	2	3
Providence, R.I.	31	25	3	2	1	-	-
Somerville, Mass.	3	2	1	-	-	-	-
Springfield, Mass.	34	24	6	2	-	2	1
Waterbury, Conn.	26	20	6	-	-	-	3
Worcester, Mass.	59	40	13	2	2	2	2
MID. ATLANTIC	2,608	1,621	491	324	82	86	107
Albany, N.Y.	51	36	9	1	1	4	3
Allentown, Pa.	22	16	4	1	1	-	-
Buffalo, N.Y.	100	73	20	2	1	4	4
Camden, N.J.	34	20	7	4	2	1	2
Elizabeth, N.J.	34	19	10	5	-	-	5
Erie, Pa.§	36	28	7	1	-	-	-
Jersey City, N.J.	60	34	10	11	3	2	3
New York City, N.Y.	1,336	844	255	174	38	25	38
Newark, N.J.	67	27	21	12	1	6	4
Paterson, N.J.	21	11	3	3	-	1	-
Philadelphia, Pa.	420	200	77	82	27	33	23
Pittsburgh, Pa.§	95	73	9	7	3	3	5
Reading, Pa.	23	15	6	-	1	1	2
Rochester, N.Y.	142	103	28	6	2	3	10
Schenectady, N.Y.	U	U	U	U	U	U	U
Scranton, Pa.§	24	22	1	1	-	-	1
Syracuse, N.Y.	80	58	12	8	2	-	6
Trenton, N.J.	21	12	3	3	-	3	-
Utica, N.Y.	18	12	5	1	-	-	-
Yonkers, N.Y.	24	18	4	2	-	-	1
E.N. CENTRAL	1,838	1,211	327	185	64	50	100
Akron, Ohio	64	41	10	5	1	7	2
Canton, Ohio	27	22	1	3	-	1	1
Chicago, Ill.	236	109	46	44	30	7	17
Cincinnati, Ohio	124	92	22	5	2	3	10
Cleveland, Ohio	143	85	32	18	4	4	4
Columbus, Ohio	112	71	26	7	4	4	6
Dayton, Ohio	95	69	18	6	-	2	6
Detroit, Mich.	220	130	45	32	8	4	2
Evansville, Ind.	41	36	4	1	-	-	4
Fort Wayne, Ind.	45	37	4	2	-	2	3
Gary, Ind.	13	6	3	3	1	-	-
Grand Rapids, Mich.	54	37	10	4	3	-	5
Indianapolis, Ind.	175	112	35	20	5	3	9
Madison, Wis.	42	30	6	6	-	-	3
Milwaukee, Wis.	131	97	19	10	2	3	10
Peoria, Ill.	48	35	9	1	-	3	3
Rockford, Ill.	58	44	10	3	1	-	4
South Bend, Ind.	45	31	7	2	1	4	1
Toledo, Ohio	116	88	16	10	1	1	9
Youngstown, Ohio	49	39	4	3	1	2	1
W.N. CENTRAL	778	529	121	80	23	25	37
Des Moines, Iowa	97	65	22	6	3	1	1
Duluth, Minn.	30	26	1	3	-	-	1
Kansas City, Kans.	29	24	3	-	2	-	1
Kansas City, Mo.	107	66	17	19	2	3	8
Lincoln, Nebr.	23	21	1	1	-	-	1
Minneapolis, Minn.	172	118	20	20	2	12	16
Omaha, Nebr.	73	46	13	9	3	2	4
St. Louis, Mo.	135	94	17	15	4	5	1
St. Paul, Minn.	67	39	17	5	4	2	2
Wichita, Kans.	45	30	10	2	3	-	2
S. ATLANTIC	908	558	176	101	31	41	39
Atlanta, Ga.	159	80	35	24	11	9	4
Baltimore, Md.	140	75	34	22	4	5	10
Charlotte, N.C.	97	68	16	9	3	1	6
Jacksonville, Fla.	105	74	20	11	-	-	4
Miami, Fla.	U	U	U	U	U	U	U
Norfolk, Va.	59	29	9	8	5	8	2
Richmond, Va.	73	37	22	5	1	7	-
Savannah, Ga.	55	38	10	2	-	5	4
St. Petersburg, Fla.	55	42	5	3	1	4	1
Tampa, Fla.	149	106	21	15	6	1	8
Washington, D.C.	U	U	U	U	U	U	U
Wilmington, Del.	16	9	4	2	-	1	-
E.S. CENTRAL	722	467	144	51	32	28	42
Birmingham, Ala.	121	74	33	5	6	3	3
Chattanooga, Tenn.	50	37	5	4	4	-	3
Knoxville, Tenn.	95	56	25	9	3	2	11
Lexington, Ky.	62	38	14	7	-	3	2
Memphis, Tenn.	204	130	31	14	12	17	16
Mobile, Ala.	43	29	7	3	3	1	2
Montgomery, Ala.	38	28	8	1	1	-	-
Nashville, Tenn.	109	75	21	8	3	2	5
W.S. CENTRAL	1,251	769	237	152	62	31	69
Austin, Tex.	87	55	16	10	4	2	5
Baton Rouge, La.	22	14	5	3	-	-	2
Corpus Christi, Tex.	41	30	5	4	2	-	-
Dallas, Tex.	182	103	40	24	11	4	2
El Paso, Tex.	73	48	11	5	4	5	9
Ft. Worth, Tex.	89	59	14	10	4	2	4
Houston, Tex.	353	191	79	59	14	10	22
Little Rock, Ark.	57	37	13	5	-	2	6
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	194	127	30	21	14	2	10
Shreveport, La.	52	40	5	5	2	-	4
Tulsa, Okla.	101	65	19	6	7	4	5
MOUNTAIN	781	491	152	88	29	21	46
Albuquerque, N.M.	79	49	9	15	5	1	1
Colo. Springs, Colo.	54	39	10	3	2	-	5
Denver, Colo.	106	65	19	17	4	1	5
Las Vegas, Nev.	162	82	44	24	7	5	7
Ogden, Utah	24	13	5	3	-	3	2
Phoenix, Ariz.	153	95	34	12	7	5	14
Pueblo, Colo.	15	13	1	1	-	-	2
Salt Lake City, Utah	75	55	12	5	2	1	6
Tucson, Ariz.	113	80	18	8	2	5	4
PACIFIC	1,765	1,150	331	188	52	36	101
Berkeley, Calif.	13	5	5	1	-	2	1
Fresno, Calif.	81	57	9	9	4	2	8
Glendale, Calif.	27	19	6	2	-	-	-
Honolulu, Hawaii	56	36	16	1	2	1	3
Long Beach, Calif.	77	50	19	5	2	1	14
Los Angeles, Calif.	440	274	81	60	15	4	17
Pasadena, Calif.	31	23	4	2	1	1	4
Portland, Oreg.	133	94	23	9	2	5	2
Sacramento, Calif.	150	92	28	16	7	6	15
San Diego, Calif.	165	119	20	16	4	5	13
San Francisco, Calif.	149	80	41	25	2	1	-
San Jose, Calif.	175	117	37	16	2	3	18
Santa Cruz, Calif.	15	9	3	2	1	-	2
Seattle, Wash.	128	84	17	17	5	5	1
Spokane, Wash.	53	43	5	3	2	-	1
Tacoma, Wash.	72	48	17	4	3	-	2
TOTAL	11,223¶	7,192	2,080	1,213	388	336	575

*Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. 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 these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

U: Unavailable

Surveillance Summaries — *Continued*

Almost all the influenza B isolates tested were related to influenza B/Yamagata/16/88, a component of the 1990–91 influenza vaccine, but were antigenically closer to B/Panama/45/90, a minor variant.

Authors: Louisa E. Chapman, M.D., M.S.P.H., Margaret A. Tipple, M.D., Leone M. Schmeltz, Susan E. Good, B.S.R.N., Helen L. Regnery, Ph.D., Alan P. Kendal, Ph.D., Howard E. Gary, Jr., Ph.D., Nancy J. Cox, Ph.D., Lawrence B. Schonberger, M.D., M.P.H., Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

LABORATORY-BASED SURVEILLANCE FOR ROTAVIRUS — UNITED STATES, JANUARY 1989–MAY 1991

Geographic and temporal trends of rotavirus detections in the United States for the period January 1989–May 1991 were determined by analyzing data reported monthly by 47 virology laboratories participating in the North American Rotavirus Surveillance System. Reports included complete information on the number of specimens tested, the number of test results positive for rotavirus, and the method used to detect rotavirus. Consistent trends in regional and geographic area were identified, with distinctly different peaks of rotavirus activity in the western and eastern states. Each year in the western states, rotavirus activity began in November and peaked in December–January, whereas in the eastern states activity began in January and peaked in February–March. These differences do not correlate with obvious trends in strain variation of rotavirus and remain unexplained. Unexpected reporting of summer rotavirus activity by some laboratories in 1989 was traced to the use of a single diagnostic kit and to two questionable laboratory practices: having more than six medical technologists perform the test and failure to use controls with the test. Laboratory-based surveillance of rotavirus activity has proven to be useful in identifying and correcting problems in laboratory methods for detecting rotavirus and will be a sensitive means for monitoring coverage of the rotavirus vaccine now being developed.

Authors: Donna Ing, B.S.N., M.P.H., Roger I. Glass, M.D., Ph.D., Charles W. LeBaron, M.D., Judy F. Lew, M.D., Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

CHANCROID IN THE UNITED STATES, 1981–1990: EVIDENCE FOR UNDERREPORTING OF CASES

Chancroid, a bacterial sexually transmitted disease (STD) characterized by genital ulceration, has reemerged in the United States during the last decade. From 1950 to 1980, cases were infrequently reported. After an epidemic in California in 1981, however, the numbers of cases increased, peaking in 1987 at 5035. Despite a subsequent decline in numbers of reported cases to 4223 in 1990, new areas continue to report outbreaks. Interpreting chancroid surveillance data is difficult because confirmatory culture media are not commercially available. In addition, states may not require that unconfirmed or even confirmed cases be reported. To determine if chancroid is more widely distributed than surveillance figures indicate, CDC contacted STD clinics in 115 health departments, located in 32 states, the District of Columbia, and Puerto Rico—areas chosen because they had reported five or more cases of chancroid in any single year during 1986–1990—to determine if cases might be occurring but not reported. Only 16 of the 115 clinics had culture media available for *Haemophilus ducreyi*, and only nine had laboratory facilities complete enough to definitively diagnose chancroid, syphilis, or genital herpes, the most common STDs characterized by genital ulcers. Five or more clinically likely cases occurring in 1990 were identified in 24 states, seven more than surveillance figures indicated. Surveil-

Surveillance Summaries — *Continued*

lance can be improved if 1) states utilize the definitions for chancroid cases adopted for use in 1990 and 2) microbiology laboratories utilize enhanced diagnostic methods.

Authors: Joann M. Schulte, D.O., Frederick A. Martich, George P. Schmid, M.D., Division of Sexually Transmitted Diseases and HIV Prevention, National Center for Prevention Services, CDC.

Reference

1. CDC. CDC surveillance summaries. MMWR 1992;41(no. SS-3).

Notices to Readers

Food and Drug Administration Approval of a Second Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine

The Advisory Committee for Immunization Practices (ACIP) and the Committee on Infectious Diseases, American Academy of Pediatrics (AAP), recommend that children routinely receive a series of five doses of vaccine against diphtheria, tetanus, and pertussis before age 7 years (*1,2*). On December 17, 1991, the Food and Drug Administration (FDA) approved a diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) prepared and distributed by Lederle Laboratories (Pearl River, New York) as ACEL-IMUNE™* (*3*). On February 7, 1992, ACIP issued a supplementary statement on the use of DTaP (*4*), and the AAP did so on April 15 (*5*).

On August 21, 1992, the FDA approved licensure of a second DTaP product, prepared and distributed as Tripedia™ by Connaught Laboratories, Inc. (Swiftwater, Pennsylvania). **As with ACEL-IMUNE™, Tripedia™ is licensed *only* for use as the fourth and/or fifth dose(s) for children aged 15 months through 6 years (i.e., before the seventh birthday) who have previously been vaccinated against diphtheria, tetanus, and pertussis with three doses of whole-cell diphtheria and tetanus toxoids and pertussis vaccine (DTP) and is not licensed for the initial three-dose series in infants and children; whole-cell DTP should continue to be used for these initial doses.** Whole-cell DTP continues to be an acceptable alternative for the fourth and/or fifth dose(s).

The following evidence supports the use of Tripedia™ after the initial three-dose series of whole-cell DTP in infants:

1. The immunogenicity of the antigens that make up Tripedia™ when used for the fourth and fifth doses is comparable to that of whole-cell DTP (unpublished manufacturer's data).
2. A randomized, placebo-controlled clinical efficacy trial in Sweden in 1985–1987 demonstrated efficacy when two doses of a pertussis vaccine similar to the formulation in Tripedia™ were given to children starting at ages 5–11 months (an age older than that recommended for initiating whole-cell DTP vaccination in the United States) (*6*).
3. The rates of local reactions, fever, and other common systemic symptoms following receipt of Tripedia™ inoculations when used for the fourth and fifth doses are lower than those following whole-cell DTP vaccination (unpublished manufacturer's data).

An updated statement from ACIP will be issued as an *MMWR Recommendations and Reports* (*7*).

*Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

Notices to Readers — Continued

Reported by: Center for Biologics Evaluation and Research, Food and Drug Administration. National Center for Prevention Svcs, CDC.

References

1. ACIP. Diphtheria, tetanus, and pertussis: recommendations for vaccine use and other preventive measures—recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(no. RR-10).
2. American Academy of Pediatrics. Report of the Committee on Infectious Diseases. Elk Grove Village, Illinois: American Academy of Pediatrics, Committee on Infectious Diseases, 1991.
3. CDC. Food and Drug Administration approval of use of diphtheria and tetanus toxoids and acellular pertussis vaccine. MMWR 1991;40:881–2.
4. ACIP. Pertussis vaccination: acellular pertussis vaccine for reinforcing and booster use—supplementary ACIP statement: recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1992;41(no. RR-1).
5. Committee on Infectious Diseases, American Academy of Pediatrics. Acellular pertussis vaccines: recommendations for use as the fourth and fifth doses. Pediatrics 1992;90:121–3.
6. Ad Hoc Group for the Study of Pertussis Vaccines. Placebo-controlled trial of two acellular pertussis vaccines in Sweden—protective efficacy and adverse events. Lancet 1988;1:955–60.
7. ACIP. Pertussis vaccination: acellular pertussis vaccine for the fourth and fifth doses of the DTP series—update to supplementary ACIP statement: recommendations of the Advisory Committee for Immunization Practices (ACIP). MMWR 1992 (in press).

Final 1991 Reports of Notifiable Diseases

The notifiable diseases table on pages 633–638 summarizes final data from 1991, which will be published in more detail in the *MMWR Summary of Notifiable Diseases, United States, 1991.*

Population estimates for the states are from the July 1, 1991, estimates by the U.S. Bureau of the Census, Population Division, Population Estimates Branch, Press Release CB91-346. Population estimates for territories are from the 1990 Census, U.S. Bureau of the Census, Press Releases CB91-142, 242, 243, 263, and 276.

Publication of Inventory of Pain Data

CDC's National Center for Health Statistics has released a new report presenting detailed summaries of pain data. Data elements are also presented by survey collection system.

Copies of the report, *Inventory of Pain Data from the National Center for Health Statistics* (*1*), are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783–3238; stock no. 017–022–01158–1; price $4.50.

Reference

1. NCHS. Inventory of pain data from the National Center for Health Statistics. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, CDC. (Vital and health statistics; series 1, no. 26).

Annual Report on Hospital Use for 1990

CDC's National Center for Health Statistics (NCHS) has released an update of statistics on in-patient hospital use during 1990. NCHS's National Hospital Discharge Survey, a continuous survey conducted since 1965, abstracts data from approxi-

Notices to Readers — Continued

mately 266,000 medical records from 474 short-stay, nonfederal U.S. hospitals. The number, rate, and average length of stay of patients discharged are shown by age, geographic region, and sex. Use by diagnosis and surgical procedures is also included.

Copies of the report, *1990 Summary: National Hospital Discharge Survey* (*1*), are available free of charge from the Scientific and Technical Information Branch, Division of Data Services, NCHS, CDC, Room 1064, 6525 Belcrest Road, Hyattsville, MD 20782; telephone (301) 436–8500.

Reference

1. NCHS. 1990 Summary: National Hospital Discharge Survey. Hyattsville, Maryland: US Department of Health and Human Services, Public Health Service, CDC, 1992. (Advance data no. 210).

Erratum: Vol. 41, No. RR-2

In the *MMWR Recommendations and Reports* (no. RR-2), "Regulations for Implementing the Clinical Laboratory Improvement Amendments of 1988: A Summary," Table 5 on page 10 contained errors. The corrected table is printed below.

TABLE 5. Quality control implementation stages as specified in the regulations for implementing the Clinical Laboratory Improvement Amendments of 1988

Date	Requirements
Effective date of the regulation (September 1, 1992)	• Moderate-complexity tests cleared by FDA* for in vitro diagnostic use: – Follow manufacturer's instructions – Prepare procedure manual – Calibrate at least once every 6 months – Perform two levels of control daily – *Perform applicable specialty/subspecialty QC*† – *Perform and document remedial actions* – *Document all QC activities* • Moderate-complexity tests developed in-house or cleared by FDA for in vitro diagnostic use that have been modified by the laboratory: follow all applicable QC rules • *High-complexity tests: follow all applicable QC rules*
Two years after the effective date (September 1, 1994)	• Moderate- and high-complexity tests cleared by FDA as meeting CLIA QC requirements: – Follow manufacturer's QC instructions – Meet regulatory QC requirements that are not met by manufacturer's instructions • All other tests: follow all applicable QC rules

*FDA = Food and Drug Administration
†QC = quality control

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1991

Area	Total resident population (in thousands)	AIDS	Amebiasis	Aseptic meningitis	Botulism			Brucellosis
					Foodborne	Infant	Other	
United States	**252,177**	**43,672***	**2,989**	**14,526**	**27**	**81**	**6†**	**104**
New England	**13,197**	**1,744**	**122**	**1,526**	**–**	**1**	**–**	**2**
Maine	1,235	49	21	160	–	–	–	–
N.H.	1,105	51	5	161	–	–	–	–
Vt.	567	17	1	230	–	–	–	–
Mass.	5,996	970	66	528	–	1	–	–
R.I.	1,004	93	–	447	–	–	–	1
Conn.	3,291	564	29	NN	–	–	–	1
Mid. Atlantic	**37,779**	**11,691**	**567**	**2,770**	**–**	**11**	**1**	**3**
N.Y.(excl.NYC)§	18,058	1,525	69	1,383	–	1	–	2
N.Y.C.	NA	6,639	438	426	–	2	1	–
N.J.	7,760	2,305	32	NN	–	2	–	1
Pa.	11,961	1,222	28	961	–	6	–	–
E.N. Central	**42,414**	**3,304**	**178**	**2,855**	**2**	**1**	**1**	**9**
Ohio	10,939	600	24	1,000	–	1	1	–
Ind.	5,610	315	16	250	–	–	–	–
Ill.	11,543	1,591	36	599	1	–	–	8
Mich.	9,368	584	38	850	–	–	–	–
Wis.	4,955	214	64	156	1	–	–	1
W.N. Central	**17,811**	**1,124**	**122**	**719**	**–**	**–**	**1**	**4**
Minn.	4,432	216	64	142	–	–	–	–
Iowa	2,795	82	28	172	–	–	–	1
Mo.	5,158	655	25	277	–	–	–	3
N. Dak.	635	4	1	12	–	–	–	–
S. Dak.	703	3	NN	12	–	–	–	–
Nebr.	1,593	63	3	31	–	–	–	–
Kans.	2,495	101	1	73	–	–	1	–
S. Atlantic	**44,421**	**10,440**	**173**	**2,656**	**–**	**2**	**1**	**12**
Del.	680	88	–	73	–	–	–	–
Md.	4,860	977	12	331	–	–	–	–
D.C.	598	727	1	78	–	–	–	–
Va.	6,286	680	31	463	–	1	–	2
W. Va.	1,801	62	2	57	–	–	–	–
N.C.	6,737	590	16	341	–	–	–	5
S.C.	3,560	331	NN	41	–	–	–	1
Ga.	6,623	1,434	99	349	–	1	–	2
Fla.	13,277	5,551	12	923	–	–	1	2
E.S. Central	**15,347**	**1,089**	**35**	**843**	**1**	**3**	**–**	**–**
Ky.	3,713	166	11	200	–	–	–	–
Tenn.	4,953	350	NN	264	1	2	–	–
Ala.	4,089	374	12	279	–	–	–	–
Miss.	2,592	199	12	100	–	1	–	–
W.S. Central	**27,147**	**4,232**	**102**	**1,471**	**–**	**5**	**–**	**40**
Ark.	2,372	196	2	45	–	–	–	2
La.	4,252	757	1	141	–	–	–	–
Okla.	3,175	192	13	10	–	1	–	2
Tex.	17,349	3,087	86	1,275	–	4	–	36
Mountain	**14,035**	**1,307**	**131**	**278**	**2**	**2**	**–**	**3**
Mont.	808	30	1	18	–	–	–	–
Idaho	1,039	32	7	NN	–	–	–	–
Wyo.	460	17	1	1	–	–	–	–
Colo.	3,377	435	31	117	2	–	–	2
N. Mex.	1,548	111	15	20	–	–	–	–
Ariz.	3,750	283	67	73	–	–	–	–
Utah	1,770	135	2	13	–	1	–	–
Nev.	1,284	264	7	36	–	1	–	1
Pacific	**40,025**	**8,741**	**1,559**	**1,408**	**22**	**56**	**2**	**31**
Wash.	5,018	556	36	NN	–	3	–	3
Oreg.	2,922	257	91	NN	–	4	–	1
Calif.	30,380	7,709	1,419	1,301	1	49	2	27
Alaska	570	19	7	47	21	–	–	–
Hawaii	1,135	200	6	60	–	–	–	–
Guam	133	3	1	5	–	–	–	–
P.R.	3,522	1,810	2	292	–	–	–	2
V.I.	102	21	–	–	–	–	–	–
C.N.M.I.	43	–	31	–	–	–	–	–
American Samoa	47	–	–	–	–	–	–	–

NOTE: No cases of anthrax were reported for 1991.
*Total reported through December 31, 1991.
†Includes wound and unspecified botulism.
§NY population estimate includes NYC.

NN: Not notifiable
NA: Not available

NOTIFIABLE DISEASES – Reported cases, by geographic division and area, United States, 1991 (continued)

Area	Chancroid	Cholera	Diphtheria	Encephalitis: Primary infections	Encephalitis: Post-infectious	Gonorrhea	Granuloma inguinale	*Haemophilus influenzae*	Hansen disease*
United States	**3,476**†	**26**	**5**	**1,021**	**82**	**620,478**†	**29**†	**2,764**	**154**
New England	**5**	–	–	**37**	**2**	**14,467**	–	**116**	**6**
Maine	–	–	–	3	–	164	–	5	–
N.H.	–	–	–	9	–	324	–	8	–
Vt.	–	–	–	5	–	54	–	8	–
Mass.	2	–	–	17	2	6,013	–	73	5
R.I.	–	–	–	1	–	1,305	–	4	–
Conn.	3	–	–	2	–	6,607	–	18	1
Mid. Atlantic	**1,231**	**15**	–	**74**	**14**	**78,805**	**1**	**205**	**18**
N.Y.(excl.NYC)	7	–	–	38	7	14,699	–	80	–
N.Y.C.	1,220	5	–	3	3	29,209	1	54	16
N.J.	4	10	–	–	–	10,576	–	38	2
Pa.	–	–	–	33	4	24,321	–	33	–
E.N. Central	**31**	–	–	**284**	**7**	**114,520**	**2**	**502**	**6**
Ohio	7	–	–	88	2	35,468	–	255	1
Ind.	2	–	–	20	–	11,387	–	48	–
Ill.	22	–	–	103	5	33,993	–	97	5
Mich.	–	–	–	60	–	26,559	2	73	–
Wis.	–	–	–	13	–	7,113	–	29	–
W.N. Central	**27**	**1**	–	**71**	**8**	**29,424**	**1**	**203**	–
Minn.	–	1	–	39	–	3,097	–	63	–
Iowa	–	–	–	–	4	1,962	–	–	–
Mo.	22	–	–	18	4	17,518	1	81	–
N. Dak.	–	–	–	2	–	83	–	7	–
S. Dak.	–	–	–	4	–	349	–	8	–
Nebr.	–	–	–	2	–	1,777	–	18	–
Kans.	5	–	–	6	–	4,638	–	26	–
S. Atlantic	**541**	**6**	–	**181**	**38**	**180,818**	**2**	**636**	**13**
Del.	3	–	–	5	–	3,065	–	3	–
Md.	1	4	–	25	1	21,831	–	40	5
D.C.	1	–	–	2	–	9,794	1	5	–
Va.	17	–	–	48	3	18,171	–	62	–
W. Va.	–	–	–	34	–	1,245	–	21	–
N.C.	25	–	–	35	–	34,005	–	168	–
S.C.	–	–	–	–	–	14,232	–	77	–
Ga.	76	1	–	10	–	43,075	–	137	–
Fla.	418	1	–	22	34	35,400	1	123	8
E.S. Central	**72**	–	–	**50**	–	**62,593**	–	**149**	–
Ky.	2	–	–	16	–	5,917	–	47	–
Tenn.	70	–	–	22	–	21,212	–	36	–
Ala.	–	–	–	11	–	20,878	–	38	–
Miss.	–	–	–	1	–	14,586	–	28	–
W.S. Central	**1,508**	**1**	–	**181**	**4**	**73,118**	**19**	**267**	**39**
Ark.	–	–	–	38	–	7,262	–	16	–
La.	235	–	–	18	–	14,751	2	22	1
Okla.	–	–	–	6	2	6,924	–	77	–
Tex.	1,273	1	–	119	2	44,181	17	152	38
Mountain	**8**	–	**1**	**21**	**3**	**13,195**	**1**	**154**	**4**
Mont.	–	–	–	1	–	122	1	7	–
Idaho	–	–	–	–	–	173	–	10	–
Wyo.	–	–	–	–	–	87	–	18	1
Colo.	–	–	–	8	1	3,900	–	26	–
N. Mex.	–	–	1	1	–	1,120	–	25	–
Ariz.	8	–	–	11	2	4,867	–	26	2
Utah	–	–	–	–	–	335	–	20	–
Nev.	–	–	–	–	–	2,591	–	22	1
Pacific	**53**	**3**	**4**	**122**	**6**	**53,538**	**3**	**532**	**68**
Wash.	3	–	–	11	1	4,763	2	51	6
Oreg.	–	–	–	–	–	2,172	–	–	–
Calif.	50	1	4	108	5	44,883	1	454	48
Alaska	–	–	–	2	–	895	–	10	–
Hawaii	–	2	–	1	–	825	–	17	14
Guam	1	–	–	–	–	214	–	–	5
P.R.	4	–	–	2	4	688	–	15	3
V.I.	14	–	–	–	–	311	–	–	1
C.N.M.I.	–	–	–	–	–	–	–	–	2
American Samoa	–	–	–	–	–	–	–	–	2

*Leprosy.
†Cases updated through February 28, 1992.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1991 (continued)

Area	Hepatitis A	Hepatitis B	Hepatitis non-A, non-B	Hepatitis unsp.	Legionel-losis	Lepto-spirosis	Lyme disease	Lympho-granuloma venereum	Malaria
United States	**24,378**	**18,003**	**3,582**	**1,260**	**1,317**	**58**	**9,469**	**471***	**1,278**
New England	**591**	**847**	**66**	**31**	**87**	**2**	**1,659**	**11**	**78**
Maine	24	31	5	–	6	1	15	–	1
N.H.	26	36	8	–	10	–	38	–	2
Vt.	24	19	7	1	4	–	7	–	4
Mass.	288	544	31	28	61	–	265	11	33
R.I.	107	27	12	2	6	–	142	–	9
Conn.	122	190	3	–	NN	1	1,192	–	29
Mid. Atlantic	**2,934**	**1,986**	**396**	**19**	**362**	**2**	**5,577**	**123**	**269**
N.Y.(excl.NYC)	919	602	228	7	133	2	3,807	–	60
N.Y.C.	1,283	440	20	2	82	–	137	120	133
N.J.	309	446	104	–	36	–	915	3	61
Pa.	423	498	44	10	111	–	718	–	15
E.N. Central	**3,281**	**2,147**	**532**	**108**	**291**	**8**	**649**	**33**	**104**
Ohio	363	405	168	20	125	1	112	17	20
Ind.	446	233	17	2	22	–	16	7	5
Ill.	1,404	418	102	17	36	6	51	5	43
Mich.	287	613	145	69	51	1	46	4	29
Wis.	781	478	100	–	57	–	424	–	7
W.N. Central	**2,423**	**801**	**84**	**26**	**59**	**5**	**363**	**2**	**46**
Minn.	482	101	16	1	14	–	84	–	17
Iowa	48	42	10	4	12	–	22	–	7
Mo.	653	549	31	15	15	4	207	2	9
N. Dak.	66	2	5	2	1	–	2	–	2
S. Dak.	837	9	1	–	2	–	1	–	2
Nebr.	247	40	1	–	11	–	25	–	1
Kans.	90	58	20	4	4	1	22	–	8
S. Atlantic	**1,874**	**3,657**	**672**	**239**	**201**	**2**	**697**	**225**	**237**
Del.	14	57	5	2	3	–	73	1	3
Md.	273	388	49	18	34	–	282	6	62
D.C.	77	157	242	1	10	–	5	22	14
Va.	191	220	37	138	17	–	151	83	52
W. Va.	22	65	4	23	4	–	43	1	3
N.C.	163	562	114	–	27	–	73	4	15
S.C.	41	667	26	4	39	1	10	–	10
Ga.	243	590	102	1	24	–	25	52	24
Fla.	850	951	93	52	43	1	35	56	54
E.S. Central	**301**	**1,482**	**556**	**4**	**58**	**3**	**100**	**16**	**20**
Ky.	71	194	7	2	18	–	44	–	2
Tenn.	153	1,043	512	–	19	2	35	16	11
Ala.	44	170	26	1	17	–	13	–	7
Miss.	33	75	11	1	4	1	8	–	–
W.S. Central	**3,344**	**2,676**	**298**	**295**	**66**	**1**	**123**	**28**	**111**
Ark.	259	154	8	9	11	–	31	–	11
La.	138	361	100	10	10	1	6	12	17
Okla.	284	203	46	16	22	–	29	–	8
Tex.	2,663	1,958	144	260	23	–	57	16	75
Mountain	**3,392**	**939**	**243**	**141**	**88**	**–**	**25**	**7**	**47**
Mont.	82	70	33	4	7	–	–	–	1
Idaho	99	74	8	2	5	–	2	–	3
Wyo.	135	33	19	–	1	–	11	–	–
Colo.	679	143	86	29	18	–	1	–	15
N. Mex.	687	203	22	29	3	–	3	–	5
Ariz.	1,109	178	20	60	32	–	1	6	16
Utah	290	45	25	16	11	–	2	1	5
Nev.	311	193	30	1	11	–	5	–	2
Pacific	**6,238**	**3,468**	**735**	**397**	**105**	**35**	**276**	**26**	**366**
Wash.	608	470	165	21	15	–	7	2	29
Oreg.	449	308	132	16	3	1	NN	1	12
Calif.	5,016	2,615	409	359	84	1	269	23	321
Alaska	96	41	13	1	–	–	–	–	–
Hawaii	69	34	16	–	3	33	–	–	4
Guam	6	3	–	4	–	–	–	–	3
P.R.	137	580	352	27	–	3	–	–	3
V.I.	2	8	1	–	–	–	–	–	2
C.N.M.I.	7	7	–	1	–	–	–	–	1
American Samoa	6	–	–	2	–	1	–	–	–

*Cases updated through February 28, 1992.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1991 (continued)

Area	Measles		Meningococcal infections	Mumps	Murine typhus fever	Pertussis	Plague	Poliomyelitis, paralytic
	Indigenous	Imported						
United States	**9,411**	**232***	**2,130**	**4,264**	**43**	**2,719**	**11**	**6†**
New England	**71**	**17**	**161**	**31**	**–**	**308**	**–**	**–**
Maine	6	1	14	–	–	54	–	–
N.H.	–	–	12	6	–	17	–	–
Vt.	5	–	16	4	–	5	–	–
Mass.	32	11	89	3	–	207	–	–
R.I.	4	–	4	4	–	–	–	–
Conn.	24	5	26	14	–	25	–	–
Mid. Atlantic	**4,858**	**14**	**224**	**300**	**2**	**280**	**–**	**–**
N.Y.(excl.NYC)	393	4	113	111	2	177	–	–
N.Y.C.	1,904	5	30	14	–	22	–	–
N.J.	1,116	2	43	43	–	15	–	–
Pa.	1,445	3	38	132	–	66	–	–
E.N. Central	**76**	**21**	**354**	**439**	**4**	**406**	**–**	**2**
Ohio	4	7	101	112	2	106	–	–
Ind.	1	5	39	7	1	66	–	1
Ill.	26	2	102	166	1	74	–	–
Mich.	43	–	76	121	–	37	–	–
Wis.	2	7	36	33	–	123	–	1
W.N. Central	**42**	**17**	**120**	**129**	**–**	**234**	**–**	**1**
Minn.	11	16	27	21	–	96	–	–
Iowa	17	–	15	24	–	26	–	1
Mo.	–	1	37	40	–	83	–	–
N. Dak.	–	–	2	2	–	4	–	–
S. Dak.	–	–	3	2	–	4	–	–
Nebr.	1	–	10	9	–	9	–	–
Kans.	13	–	26	31	–	12	–	–
S. Atlantic	**712**	**26**	**383**	**1,638**	**3**	**267**	**–**	**1**
Del.	19	–	5	7	–	–	–	–
Md.	174	4	35	249	–	61	–	1
D.C.	–	–	18	24	–	2	–	–
Va.	25	5	39	70	1	24	–	–
W. Va.	–	–	14	30	–	9	–	–
N.C.	40	4	58	269	–	41	–	–
S.C.	13	–	32	402	–	15	–	–
Ga.	10	5	91	87	2	56	–	–
Fla.	431	8	91	500	–	59	–	–
E.S. Central	**70**	**4**	**142**	**227**	**1**	**93**	**–**	**–**
Ky.	64	1	49	–	–	–	–	–
Tenn.	5	1	43	189	1	38	–	–
Ala.	1	2	40	15	–	49	–	–
Miss.	–	–	10	23	–	6	–	–
W.S. Central	**284**	**15**	**172**	**462**	**22**	**223**	**1**	**–**
Ark.	–	5	25	46	–	17	–	–
La.	–	–	34	37	–	14	–	–
Okla.	–	–	13	16	–	49	1	–
Tex.	284	10	100	363	22	143	–	–
Mountain	**1,253**	**27**	**92**	**312**	**–**	**356**	**10**	**1**
Mont.	–	–	10	–	–	6	–	–
Idaho	463	2	8	13	–	29	1	1
Wyo.	1	3	3	5	–	3	–	–
Colo.	1	12	24	136	–	148	3	–
N. Mex.	109	5	7	NN	–	47	4	–
Ariz.	441	–	24	123	–	77	1	–
Utah	220	4	10	16	–	45	1	–
Nev.	18	1	6	19	–	1	–	–
Pacific	**2,045**	**91**	**482**	**726**	**11**	**552**	**–**	**1**
Wash.	48	19	75	178	1	149	–	1
Oreg.	51	42	61	NN	–	68	–	–
Calif.	1,942	17	322	500	10	259	–	–
Alaska	2	3	10	18	–	15	–	–
Hawaii	2	10	14	30	–	61	–	–
Guam	62	–	3	7	–	–	–	–
P.R.	92	–	20	13	–	57	–	–
V.I.	–	2	–	9	–	–	–	–
C.N.M.I.	–	–	–	–	–	–	–	–
American Samoa	19	–	–	7	–	–	–	–

*For measles only, imported includes both out-of-state and international importations.
†Subject to change due to retrospective case evaluations or late reports.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1991 (continued)

Area	Psitta-cosis	Rabies		Rheumatic fever, acute	RMSF*	Rubella		Salmonel-losis	Shigel-losis
		Animal	Human			Rubella	Cong. syndrome		
United States	**94**	**6,910**	**3**	**127**	**628**	**1,401**	**47**	**48,154**	**23,548**
New England	**11**	**224**	**–**	**4**	**5**	**4**	**–**	**3,835**	**1,889**
Maine	5	5	–	2	–	–	–	203	19
N.H.	–	4	–	NN	–	1	–	226	38
Vt.	2	1	–	–	–	–	–	97	4
Mass.	3	14	–	NN	4	2	–	1,974	1,496
R.I.	–	–	–	1	–	–	–	272	199
Conn.	1	200	–	1	1	1	–	1,063	133
Mid. Atlantic	**10**	**2,387**	**–**	**–**	**25**	**605**	**27**	**8,445**	**2,344**
N.Y.(excl.NYC)	5	1,030	–	NN	14	539	–	2,137	762
N.Y.C.	–	–	–	NN	1	2	–	1,706	428
N.J.	4	994	–	NN	6	4	–	2,069	388
Pa.	1	363	–	NN	4	60	27	2,533	766
E.N. Central	**16**	**196**	**–**	**41**	**40**	**319**	**–**	**6,787**	**2,307**
Ohio	6	20	–	24	19	283	–	1,535	448
Ind.	1	29	–	–	11	1	–	652	338
Ill.	2	36	–	3	5	9	–	2,368	995
Mich.	6	36	–	9	3	25	–	1,144	237
Wis.	1	75	–	5	2	1	–	1,088	289
W.N. Central	**3**	**861**	**–**	**13**	**38**	**19**	**1**	**2,235**	**587**
Minn.	–	310	–	3	–	6	1	645	77
Iowa	3	156	–	7	1	6	–	303	33
Mo.	–	28	–	NN	25	5	–	616	259
N. Dak.	–	106	–	NN	–	1	–	117	23
S. Dak.	–	181	–	1	1	–	–	131	74
Nebr.	–	17	–	NN	5	–	–	174	40
Kans.	–	63	–	2	6	1	–	249	81
S. Atlantic	**15**	**1,574**	**1**	**–**	**292**	**13**	**1**	**10,875**	**3,292**
Del.	–	197	–	NN	–	–	–	374	20
Md.	5	579	–	NN	24	1	–	1,273	253
D.C.	–	24	–	NN	–	1	–	180	90
Va.	5	253	–	NN	21	–	–	1,312	384
W. Va.	–	47	–	–	4	–	1	188	32
N.C.	2	24	–	NN	159	2	–	1,100	374
S.C.	–	117	–	NN	37	–	–	809	174
Ga.	–	255	1	NN	41	–	–	1,846	556
Fla.	3	78	–	NN	6	9	–	3,793	1,409
E.S. Central	**2**	**178**	**–**	**–**	**111**	**100**	**–**	**2,583**	**1,373**
Ky.	–	50	–	NN	31	–	–	487	414
Tenn.	2	45	–	NN	58	100	–	594	164
Ala.	–	79	–	NN	14	–	–	739	548
Miss.	–	4	–	–	8	–	–	763	247
W.S. Central	**4**	**675**	**2**	**–**	**109**	**19**	**3**	**3,972**	**2,841**
Ark.	–	48	1	–	36	1	–	410	265
La.	–	7	–	NN	–	–	–	769	206
Okla.	–	173	–	NN	71	2	–	476	192
Tex.	4	447	1	NN	2	16	3	2,317	2,178
Mountain	**14**	**276**	**–**	**56**	**7**	**32**	**2**	**2,155**	**3,202**
Mont.	1	41	–	NN	5	11	–	148	136
Idaho	1	6	–	NN	–	–	–	110	35
Wyo.	–	110	–	5	–	–	–	32	12
Colo.	6	28	–	5	2	3	1	600	217
N. Mex.	1	6	–	1	–	–	–	305	495
Ariz.	–	56	–	NN	–	2	–	629	1,083
Utah	–	18	–	45	–	11	–	203	1,167
Nev.	5	11	–	–	–	5	1	128	57
Pacific	**19**	**539**	**–**	**13**	**1**	**290**	**13**	**7,267**	**5,713**
Wash.	6	9	–	NN	1	8	1	791	406
Oreg.	2	7	–	NN	–	5	–	368	712
Calif.	10	510	–	12	–	267	12	5,626	4,496
Alaska	1	12	–	1	–	1	–	108	27
Hawaii	–	1†	–	NN	–	9	–	374	72
Guam	–	–	–	–	–	–	–	87	76
P.R.	–	62	–	–	–	–	–	906	130
V.I.	–	–	–	–	–	–	–	9	4
C.N.M.I.	–	–	–	2	–	–	–	24	50
American Samoa	–	–	–	–	–	–	–	22	2

*Rocky Mountain spotted fever.
†Imported case.

NOTIFIABLE DISEASES – Reported cases, by geographic division and area, United States, 1991 (continued)

Area	Syphilis: Primary & secondary	Syphilis: Cong. (<1 yr.)	Syphilis: All stages	Tetanus	Toxic shock syndrome	Trich-inosis	Tuber-culosis	Tularemia	Typhoid fever	Varicella (chicken-pox)
United States	**42,935***	**4,322***	**128,569***	**57**	**280**	**62**	**26,283**	**193**	**501**	**147,076**
New Egland	**1,031**	**30**	**3,043**	**5**	**14**	–	**712**	**5**	**32**	**14,740**
Maine	5	–	12	2	4	–	33	–	1	1,259
N.H.	20	–	38	1	4	–	11	–	1	3,593
Vt.	2	–	6	–	–	–	12	–	–	NN
Mass.	492	5	1,403	2	5	–	437	5	26	7,774
R.I.	57	–	239	–	1	–	71	–	–	2,114
Conn.	455	25	1,345	–	–	–	148	–	4	NN
Mid. Atlantic	**6,647**	**1,421**	**28,127**	**3**	**39**	**5**	**6,195**	**2**	**136**	**4,971**
N.Y.(excl.NYC)	693	95	2,478	–	20	3	748	1	28	NN
N.Y.C.	3,138	978	15,912	–	2	1	3,682	–	79	4,971
N.J.	1,085	41	3,650	1	–	1	983	1	19	NN
Pa.	1,731	307	6,087	2	17	–	782	–	10	NN
E.N. Central	**5,243**	**492**	**12,371**	**8**	**52**	**47**	**2,395**	**11**	**50**	**65,585**
Ohio	657	51	1,467	3	21	–	378	1	4	5,437
Ind.	196	–	466	2	–	–	263	1	–	NN
Ill.	2,446	299	5,910	1	19	7	1,192	5	29	24,034
Mich.	1,303	113	3,513	2	12	2	451	2	12	36,114
Wis.	641	29	1,015	–	–	38	111	2	5	NA
W.N. Central	**929**	**16**	**1,768**	**3**	**41**	**2**	**561**	**55**	**7**	**16,254**
Minn.	68	–	208	2	10	2	102	1	2	NN
Iowa	68	–	161	–	7	–	71	–	–	4,203
Mo.	572	15	952	1	12	–	254	44	2	7,678
N. Dak.	–	–	2	–	–	–	9	–	–	614
S. Dak.	1	–	10	–	1	–	35	5	–	346
Nebr.	18	1	62	–	2	–	28	1	3	46
Kans.	202	–	373	–	9	–	62	4	–	3,367
S. Atlantic	**12,080**	**1,221**	**35,072**	**8**	**28**	–	**4,751**	**4**	**69**	**11,472**
Del.	194	7	364	–	1	–	37	–	–	40
Md.	1,013	54	3,093	–	2	–	451	–	8	NN
D.C.	764	246	2,888	1	1	–	175	–	3	53
Va.	871	51	2,751	1	5	–	379	–	11	2,942
W. Va.	29	1	366	–	–	–	64	–	1	7,557
N.C.	2,006	45	3,926	1	11	–	624	1	4	NN
S.C.	1,526	70	3,296	1	2	–	410	1	4	880
Ga.	2,954	139	8,005	–	2	–	909	1	6	NN
Fla.	2,723	608	10,383	4	4	–	1,702	1	32	NN
E.S. Central	**4,447**	**115**	**10,396**	**8**	**12**	–	**1,650**	**20**	**3**	**4,583**
Ky.	112	6	319	1	5	–	347	5	2	2,378
Tenn.	1,507	69	3,779	3	5	–	573	14	1	2,205
Ala.	1,594	21	3,478	3	2	–	430	1	–	NN
Miss.	1,234	19	2,820	1	–	–	300	–	–	NN
W.S. Central	**9,070**	**330**	**22,380**	**12**	**22**	**1**	**3,381**	**59**	**39**	**19,409**
Ark.	895	28	1,929	2	4	–	282	48	–	NN
La.	2,955	30	6,497	–	–	–	368	–	5	NN
Okla.	215	12	613	–	4	–	206	8	3	NN
Tex.	5,005	260	13,341	10	14	1	2,525	3	31	19,409
Mountain	**537**	**40**	**1,692**	**3**	**35**	–	**641**	**31**	**12**	**9,222**
Mont.	6	–	13	–	1	–	19	9	–	190
Idaho	7	–	36	1	1	–	15	–	–	NN
Wyo.	6	–	14	–	–	–	6	1	–	NN
Colo.	80	–	227	2	8	–	87	10	2	NN
N. Mex.	31	5	185	–	5	–	79	2	2	NN
Ariz.	334	21	830	–	5	–	323	3	7	8,913
Utah	10	–	82	–	15	–	46	6	–	119
Nev.	63	14	305	–	–	–	66	–	1	NN
Pacific	**2,951**	**657**	**13,720**	**7**	**37**	**7**	**5,997**	**6**	**153**	**840**
Wash.	185	9	570	1	6	–	309	2	10	NN
Oreg.	89	1	277	1	–	–	144	2	6	NN
Calif.	2,660	647	12,800	5	31	–	5,273	2	127	NN
Alaska	7	–	31	–	–	7	70	–	–	NN
Hawaii	10	–	42	–	–	–	201	–	10	840
Guam	–	–	17	–	–	–	NA	–	–	506
P.R.	485	28	1,940	1	–	–	241	–	6	2,509
V.I.	65	–	122	–	–	–	4	–	–	139
C.N.M.I	–	–	–	–	–	–	65	–	–	357
American Samoa	–	–	–	–	–	–	NA	–	–	116

*Cases updated through February 28, 1992.

The *Morbidity and Mortality Weekly Report* (*MMWR*) Series is prepared by the Centers for Disease Control and is available on a paid subscription basis from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

The data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the succeeding Friday. Inquiries about the *MMWR* Series, including material to be considered for publication, should be directed to: Editor, *MMWR* Series, Mailstop C-08, Centers for Disease Control, Atlanta, GA 30333; telephone (404) 332-4555.

Director, Centers for Disease Control
William L. Roper, M.D., M.P.H.

Deputy Director, Centers for Disease Control
Walter R. Dowdle, Ph.D.

Director, Epidemiology Program Office
Stephen B. Thacker, M.D., M.Sc.

Editor, *MMWR* Series
Richard A. Goodman, M.D., M.P.H.

Managing Editor, *MMWR* (weekly)
Karen L. Foster, M.A.

Writers-Editors, *MMWR* (weekly)
David C. Johnson
Barbara J. Reynolds, M.A.
Caran R. Wilbanks

Editorial Assistant, *MMWR* (weekly)
Darlene D. Rumph

☆U.S. Government Printing Office: 1992-631-123/67025 Region IV

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
Atlanta, Georgia 30333

Official Business
Penalty for Private Use $300

FIRST-CLASS MAIL
POSTAGE & FEES PAID
PHS/CDC
Permit No. G-284

HHS Publication No. (CDC) 92-8017

Redistribution using permit imprint is illegal.