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209 Imported Dracunculiasis — United States, 1995 and 1997
211 Update: HIV Counseling and Testing Using Rapid Tests — United States, 1995
215 Strategies for Providing Follow-Up and Treatment Services in the National Breast and Cervical Cancer Early Detection Program — United States, 1997
218 World Health Day — April 7, 1998
219 Notices to Readers

Imported Dracunculiasis — United States, 1995 and 1997

Dracunculiasis is a parasitic infection caused by a filarial worm (*Dracunculus medinensis* [i.e., Guinea worm]) that is transmitted through contaminated drinking water. Approximately 1 year after a person is infected, one or more meter-long adult female worms begin to emerge through the skin, often incapacitating the patient for ≥2 months. Despite a dramatic decrease in cases worldwide, dracunculiasis is still occasionally imported into the United States. Since 1995, two cases of dracunculiasis have been reported in the United States, both imported from Sudan. This report summarizes the investigation of these cases.

Patient 1. A 9-year-old girl residing in Tennessee had emigrated from Sudan in September 1995 (*1*). Before the girl left Sudan, a Guinea worm had emerged and had been extracted from her right lower leg. The lesion had healed when she arrived in the United States. After she had been in the United States for 3 weeks, another Guinea worm began to emerge from her left leg. Medical examination at a local health clinic revealed a string-like worm dangling from a lesion on her left leg, and she was referred to an infectious disease specialist. The leg was secondarily infected and swollen, and the girl was unable to walk. Despite antibiotic treatment, her cellulitis did not improve, and the lesion was surgically opened, drained, and debrided of pus, necrotic debris, and fragments of the Guinea worm. The patient was hospitalized for 2 weeks, requiring surgery to stretch a contracture of her ankle and to apply a skin graft to the wound. After outpatient physical therapy, she was able to walk without crutches.

Patient 2. A 31-year-old woman residing in Connecticut had emigrated from Sudan in January 1997. In April 1997, she was evaluated at a university clinic for possible tuberculosis (TB). A radiograph revealed lung lesions consistent with TB and a worm-like calcification in her left chest. Physical examination revealed multiple, indurated, oval lesions 4–8 cm in diameter on both lower legs. The patient reported the lesions had been present for 1 year and were intermittently painful. She recalled that a long string-like worm had emerged from her leg during the previous year. Biopsy of the leg lesions revealed erythema induratum, consistent with Bazin disease, a cutaneous manifestation of TB. The patient had evidence of a dead and calcified Guinea worm in her chest and a history suggesting a live Guinea worm had emerged from her leg before she arrived in the United States. She also had pulmonary TB with a cutaneous tuberculid skin manifestation. Treatment with isoniazid, rifampin, and pyrazinomide

Imported Dracunculiasis — Continued

resulted in elimination of acid-fast bacilli from sputum and resolution of cutaneous manifestations.

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Editorial Note: No case of dracunculiasis transmitted in the United States has ever been reported, and importations of dracunculiasis to the United States are infrequent. Although both cases in this report involved refugees from Sudan, they differ in clinical manifestations and epidemiologic significance.

The risk for transmission of dracunculiasis from active cases imported to the United States is low; transmission would require a person with an emerging worm to enter a stagnant, freshwater pond containing copepods, and persons to drink directly from the source ≥1 week after contamination. The disease can be completely prevented by keeping infected persons from entering and contaminating the water supply or by providing drinking water free of *Dracunculus* larvae. Humans are the only vertebrate host for *D. medinensis*. Only the worm that emerged from patient 1 could have posed any risk for contaminating a source of water in the United States. The calcified worm and the history of an emerging worm in patient 2 reflected previous infections without any possibility of transmission in the United States.

Although no drug aborts dracunculiasis infection or hastens expulsion of the adult worm, compounds that reduce inflammation and antibiotics to treat secondary infection facilitate extraction. Dracunculiasis treatment has included cleaning of the lesion and gentle traction to draw the long worm through the skin; the process may take several weeks. Care must be taken to avoid breaking the worm under the skin and subsequent allergic reaction to the internal components of the worm. Physicians who treat patients who have imported dracunculiasis can obtain treatment advice from CDC.

The global campaign to eradicate dracunculiasis began in 1986; the number of cases worldwide decreased by >95% (from approximately 3.2 million cases in 1986 to 152,805 in 1996). Ongoing transmission of dracunculiasis is limited to 16 countries in Africa (*2*). In Asia, the disease is still occurring in Yemen. In India, the only other Asian country not yet declared free of dracunculiasis, no cases have been reported since July 1996. Pakistan, which reported its last case in October 1993, was certified free of dracunculiasis by the World Health Organization in 1997 (*3*).

In comparison with the dramatic decrease in cases and in villages with endemic disease globally, the numbers of reported cases and villages with endemic disease in Sudan increased sharply from 1993 to 1996. The areas with the highest prevalence of dracunculiasis are in southern Sudan, where war hampered surveillance for cases and interventions. In 1996, the 64,608 cases reported from areas in Sudan where surveillance was possible accounted for 78% of all cases worldwide (*4*).

The detection and investigation of every active case brought to the United States enables identification of places where dracunculiasis may still be present and prevents establishment of a focus of transmission in the United States. CDC requests that medical practitioners report any cases of dracunculiasis in the United States since 1990. A brief description of the case, including where the patient may have acquired dracunculiasis, location of treatment, approximate date of worm emergence, and

Imported Dracunculiasis — Continued

clinical outcome should be reported to Guinea Worm Cases, Division of Parasitic Diseases, National Center for Infectious Diseases, CDC, Atlanta, GA 30333; telephone (770) 488-4531; or by e-mail: kdk1@cdc.gov.

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Update: HIV Counseling and Testing Using Rapid Tests — United States, 1995

Approximately 25 million persons each year in the United States are tested for antibody to human immunodeficiency virus (HIV). Publicly funded counseling and testing (CT) programs conduct approximately 2.5 million of these tests each year. CT can have important prevention benefits (*1*); however, in 1995, 25% of persons testing HIV-positive and 33% of persons testing HIV-negative at publicly funded clinics did not return for their test results (*2*). Rapid tests to detect HIV antibody can be performed in an average of 10 minutes (*3*), enabling health-care providers to supply definitive negative and preliminary positive results to patients at the time of testing, potentially increasing the overall effectiveness of CT. In comparison, results from enzyme immunoassays (EIAs) currently used for HIV screening often are not available for 1–2 weeks. To quantify the potential advantages and disadvantages of using rapid tests for CT, CDC estimated the potential impact on the number of persons who would learn their HIV-test results. This report summarizes the results of the analysis and provides the basis for changing the Public Health Service (PHS) recommendations for providing HIV-test results.*

A decision model was designed to compare the current HIV-CT procedure and a strategy using the commercially available rapid test (Single Use Diagnostic System [SUDS] HIV-1 Test, Murex Corporation, Norcross, Georgia†). The analysis was based on the number of tests performed and the HIV prevalence reported from publicly funded testing sites in the 1995 client record CT database (CDC, unpublished data, 1996). The number of persons who would learn their true HIV status under each strategy and the number who would receive a preliminary false-positive rapid-test result were calculated using the HIV prevalence at different types of testing sites, the percentage of those who received results at each site type (Table 1), and the published sensitivity and specificity of the EIA and the rapid test. The client record database was used to determine the proportion of persons who received their HIV test results under the current strategy. Data from clinical trials were used for the percentage of persons

*Single copies of this report will be available until March 27, 1999, from CDC's National AIDS Clearinghouse, P.O. Box 6003, Rockville, MD 20849-6003; telephone (800) 458-5231 or (301) 519-0459.

†Use of trade names is for identification only and does not imply endorsement by CDC or the U.S. Department of Health and Human Services.

HIV Counseling and Testing — Continued

TABLE 1. Prevalence of HIV and receipt of test results, by testing site type — United States, 1995

Site type	HIV prevalence	Received results	
		HIV positive	HIV negative
HIV counseling and testing	1.9%	82.1%	84.3%
Sexually transmitted disease clinics	1.6%	67.8%	48.1%
Family planning programs	0.4%	76.9%	63.0%
Drug treatment programs	2.9%	73.6%	70.8%
Other testing sites*	2.1%	73.2%	64.6%

*Prenatal clinics, tuberculosis clinics, community health centers, jails, hospitals, field visits, and unspecified sites.

who learned their HIV status after the rapid test (*4*). The small number of tests that would yield indeterminate results were included as HIV-positive results by assuming that confirmatory tests performed after repeatedly reactive screening tests were 100% specific.

Using the rapid test, during 1995, a total of 697,495 more persons would have learned their HIV status, an increase of 29% for HIV-positive persons and of 50% for HIV-negative persons over the current CT procedure (Table 2). Approximately 2 million persons whose rapid-test results were negative would have learned their HIV status without a second clinic visit. An additional 8170 persons (22% of all positive tests performed in 1995) would have received confirmed positive results. An additional 1115 HIV-infected persons who did not return for confirmed results would have been given a reactive rapid-test result and received counseling about the likelihood of being infected and the need for behavioral changes. The benefits of using the rapid test were greatest at sites such as sexually transmitted disease (STD) clinics, where the lowest percentage of persons return for results. However, a substantial increase also was observed for voluntary HIV-CT sites, where >80% of persons return. Clinical trials suggest an additional benefit for confidential testing sites: the proportion of HIV-positive persons who received results only after outreach efforts declined from 34% under the current procedure to 3% with use of the rapid test (*4*).

Using the rapid test, 8301 HIV-negative persons would have received preliminary false-positive results after a reactive rapid test, representing 0.4% of the 2.1 million persons tested for HIV, but 18% of those who would have received an initial reactive result. Most (97%) would have returned to learn their confirmatory test result was negative. Because of the differences in HIV prevalence at different types of testing sites, the proportion of persons given a reactive rapid-test result who were truly positive ranged from 46% at family planning clinics to 88% at drug-treatment programs.

Reported by: Association of State and Territorial Public Health Laboratory Directors. Div of HIV/AIDS Prevention, Div of STD Prevention, National Center for HIV, STD and TB Prevention; Div of Environmental Health Laboratory Sciences, National Center for Environmental Health; Div of AIDS, STD, and TB Laboratory Research, National Center for Infectious Diseases; Div of Laboratory Systems, Public Health Practice Program Office, CDC.

Editorial Note: The findings in this report indicate that use of a rapid test with same-day results for HIV screening in clinical-care settings can substantially improve the delivery of CT services. Because most persons who are tested are not infected, they

HIV Counseling and Testing — Continued

TABLE 2. Number of persons who would have learned their HIV-test results at publicly funded counseling and testing sites using rapid test and current HIV-testing strategies, and percentage difference between the strategies, by testing site type — United States, 1995

Site (no. tests)*	Test results	Rapid test strategy	Current strategy	% Difference
HIV counseling and testing (692,646)	HIV positive	12,753	10,783	18%
	HIV negative	679,296	572,806	19%
	Initial false positive	2,718		
Sexually transmitted disease clinics (565,218)	HIV positive	9,014	6,291	43%
	HIV negative	555,760	267,279	108%
	Initial false positive	2,224		
Other clinics (504,932)	HIV positive	10,353	7,807	33%
	HIV negative	494,109	319,182	55%
	Initial false positive	1,977		
Family planning clinics (238,565)	HIV positive	811	643	26%
	HIV negative	237,662	149,681	59%
	Initial false positive	951		
Drug treatment centers (110,909)	HIV positive	3,151	2,388	32%
	HIV negative	107,627	76,181	41%
	Initial false positive	431		
Total (2,112,270)	**HIV positive**	**36,082**	**27,912**	**29%**
	HIV negative	**2,074,454**	**1,385,129**	**50%**
	Initial false positive	**8,301**		

*From the 1995 CDC client record counseling and testing database.

can receive counseling and learn their HIV status in a single visit. In addition, providing preliminary positive results also increases the number of infected persons who ultimately learn their infection status and can be referred for medical treatment and additional prevention services.

The sensitivity and specificity[§] of rapid assays are comparable to those of EIAs. Because HIV prevalence is low in most U.S. testing settings, the negative predictive value[¶] of a single rapid test is high. A negative rapid test does not require further testing, and negative results with result-specific counseling can be provided to most persons at the initial visit. However, because the predictive value varies with the prevalence of HIV infection in the population tested, the positive predictive value of a test will be low in populations with low prevalence (*3*). Therefore, a reactive rapid test must be confirmed by a supplemental test (*5*). In studies conducted outside the United States, specific combinations of two or more different rapid HIV assays have provided results as reliable as those from the EIA/Western blot combination that is in widespread use (*6*). However, only one rapid test approved by the Food and Drug Administration is commercially available in the United States. Therefore, persons whose rapid-test result is reactive can be counseled about their likelihood of being

[§]Sensitivity is the probability that the test result will be reactive if the specimen is a true positive; specificity is the probability that the test result will be nonreactive if the specimen is a true negative.

[¶]The predictive value of a screening test is the probability that the test accurately predicts the true infection status of the person tested.

HIV Counseling and Testing — Continued

infected with HIV, but they must return for definitive results. Using a rapid HIV test increases the number of HIV-infected persons who learn they are infected, because more persons return for confirmatory results and counseling when they receive a preliminary positive result than when no result is provided until after confirmatory testing (*4*).

CDC and the Association of State and Territorial Public Health Laboratory Directors (ASTPHLD) conducted a workshop in Atlanta on October 24, 1997, to discuss rapid HIV testing, the potential health benefits and risks of reporting provisional rapid-test results, and the feasibility of changing the recommendations of the PHS and ASTPHLD for reporting HIV-test results (*5*).** Workshop participants agreed that it is optimal to follow the 1989 PHS algorithm for HIV testing, which recommends confirmatory testing before reporting reactive HIV-test results to minimize the risk for reporting false-positive results (*5*). However, they agreed that exceptions are warranted when the health benefit of reporting HIV-rapid-test results offsets the potential risk for reporting false-positive rapid-test results (e.g., patients who fail to learn their HIV status because they do not return to receive their test results). Rapid HIV tests also can assist health-care providers who must make immediate decisions about initiating HIV prophylaxis (e.g., caring for health-care workers after occupational exposures and for pregnant women in labor who have not been tested or whose results are not available).

Health-care providers who choose to give patients test results from rapid HIV tests must ensure both high-quality testing and appropriate counseling. The laboratory must institute rigorous quality control and quality assurance plans, including participation in proficiency testing (*3,7*). All persons with a first-time positive HIV-test result also should have another specimen collected and tested according to the currently recommended algorithm (*5*).

Counseling clients about the likelihood that their result represents their true HIV-infection status is a critical adjunct to high-quality testing. Such counseling should emphasize the importance of confirmatory testing. When explaining a reactive HIV rapid test to patients, counselors have used phrases such as "a good chance of being infected" or "very likely infected" to communicate the probability of infection, and further qualified these phrases on the basis of an individual assessment during counseling of the client's risks (*4*). When conveying a reactive rapid-test result, counselors should consider both the HIV prevalence in their setting and an assessment of each client's individual risks.

Decisions about whether to use rapid tests should be based on a combination of the prevalence of HIV in a community and return rates for test results. For example, in settings of high prevalence where a low percentage of persons return for their results (e.g., STD clinics), use of rapid tests will be most beneficial. In comparison, rapid tests may be less beneficial in settings of low prevalence where return can be ensured (e.g., most practitioners' offices). Other settings require individual consideration. CDC, in collaboration with its prevention partners, is developing guidelines on the implementation and quality assurance of rapid HIV testing.

On the basis of the findings in this report and from the workshop, the PHS recommends an alternative approach to HIV testing: health-care providers should provide preliminary positive test results before confirmatory results are available in situations where tested persons benefit. This recommendation is based on research demonstrat-

** Names of workshop participants are available from CDC's National AIDS Clearinghouse.

HIV Counseling and Testing — Continued

ing that persons who receive preliminary results understand the meaning of the result and prefer rapid testing (*4*). When additional rapid tests become available for use in the United States, the PHS will re-evaluate algorithms using specific combinations of two or more rapid tests for screening and confirming HIV infection.

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Strategies for Providing Follow-Up and Treatment Services in the National Breast and Cervical Cancer Early Detection Program — United States, 1997

The Breast and Cervical Cancer Mortality Prevention Act of 1990* authorized CDC to establish the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) to increase screening services for women at low income levels who are uninsured or underinsured (*1*). Although the NBCCEDP covers most diagnostic services that women need after receiving an abnormal mammography or Papanicolaou (Pap) test result, the program does not reimburse for breast biopsies. In addition, the Act prohibits the use of NBCCEDP funds for cancer treatment. Participating health agencies must ensure that NBCCEDP clients receive timely, appropriate diagnostic and treatment services. In 1996, CDC began a case study to determine how early detection programs in seven participating states (California, Michigan, Minnesota, New Mexico, New York, North Carolina, and Texas) identified resources and obtained diagnostic and treatment services. This report summarizes the results of the study (*2*), which indicate that respondents in these states reported that treatment had been initiated for almost all NBCCEDP clients in whom cancer was diagnosed. However, respondents also considered the strategies used to obtain these services as short-term solutions that were labor-intensive and diverted resources away from screening activities.

In the seven states, NBCCEDP-sponsored screening services had been provided for ≥3 years, and breast cancer had been diagnosed in ≥60 women. The states were se-

*Public Law 101-354.

National Breast and Cervical Cancer Early Detection Program — Continued

lected to provide a range of geographic locations, a combination of urban and rural populations, and racial/ethnic diversity among program clients. Researchers conducted semi-structured interviews with 192 persons affiliated with the seven state programs. Of these interviewees, 120 (63%) were providers of screening, diagnostic, and/or treatment services; 58 (30%) were state program staff; and 14 (7%) were coalition members. Interviews included topics such as guidelines related to diagnostic and treatment services, strategies used to obtain and pay for services, level of effort required to secure these services, and changes in strategies over time. Each interview was tape recorded and transcribed. Using a systematic scheme derived from the research questions, three researchers coded the same transcripts until an inter-rater agreement of 80% was reached. Thereafter, all transcripts were coded independently. Coding results were entered into text analysis software that sorts text from transcripts into sets of information, themes, and evidence relevant to the specific research questions (*3*). The results reflect a synthesis of the interviewees' responses.

Respondents described several strategies used to ensure necessary diagnostic and treatment services for women screened through the NBCCEDP. State-level strategies in all states included 1) computerized tracking and follow-up systems that used program surveillance data to identify and manage clients in need of diagnostic and treatment services; 2) provisions in contracts requiring screening providers to arrange for diagnostic follow-up and treatment before screening women; and 3) arrangements with provider groups and state professional associations for free or reduced-cost services for NBCCEDP clients. All states also had access to public or private funds to help support services not covered by the program; such revenue sources included state appropriations from general or tobacco tax revenues or funds from private foundations. These funds were available primarily for breast diagnostic services.

Local strategies tailored to the needs of individual clients were used to obtain diagnostic and treatment services. Common strategies reported by respondents included the following: providers billed public or private insurance plans; providers or local health departments helped clients apply for public assistance programs; providers referred clients to public hospitals; county indigent-care funds and hospital community-benefit programs financed services; clients received services through individually negotiated payment plans; and clients paid reduced or full fees for services.

Respondents strongly supported the continued growth of NBCCEDP and its goals but expressed several concerns. First, considerable time and effort were involved in developing and maintaining systems for diagnostic follow-up and treatment. Second, the process of identifying available resources within states for diagnostic and treatment services was considered labor-intensive. Third, the lack of coverage for diagnostic and treatment services negatively affected recruitment of providers and restricted the number of women screened. Fourth, respondents believed that an increasing number of physicians will not have the autonomy, because of changes in the health-care system, to offer free or reduced-fee services to NBCCEDP clients.

Respondents reported that arrangements for treatment were made for almost all NBCCEDP clients who received a diagnosis of breast cancer or invasive cervical cancer. Respondents stated that some women experienced time delays between screening, definitive diagnosis, and initiation of treatment. State program officials reported that, according to 1992–1996 surveillance data, small numbers of clients in whom cancer was diagnosed (i.e., from three to 13 women in each state) subsequently refused

National Breast and Cervical Cancer Early Detection Program — Continued

treatment. Because these clients were not interviewed, it could not be determined whether financial barriers contributed to their decisions to refuse treatment or their loss to follow-up.

Respondents were concerned that the NBCCEDP did not provide funding for all diagnostic procedures and treatment for the diseases for which clients were being screened; approaches for delivering services were fragmented; and the process of obtaining resources required substantial effort at the state, local, and provider levels. Respondents reported that the continuation of every strategy for diagnostic and treatment services beyond the next few years is uncertain.

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Editorial Note: During July 1991–March 1997, the NBCCEDP provided 576,408 mammograms to women aged ≥40 years, and 3409 cases of breast cancer were diagnosed. During this same period, the program provided 732,754 Pap tests; 23,782 cases of cervical intraepithelial neoplasia and 303 cases of invasive cervical cancer were diagnosed. These totals included women referred to the program for diagnostic evaluation of an abnormal screening result. The NBCCEDP internal estimates suggested that during this period only 12%–15% of uninsured women aged 40–64 years in the United States had been screened by the program (CDC, unpublished data, 1997).

Screening alone does not prevent cancer deaths; it must be coupled with timely and appropriate diagnostic and treatment services. The Congressional mandate for NBCCEDP requires grantees to take all appropriate measures to ensure provision of services required by women who have abnormal screening results. CDC provides funds for case management to help these women access health-care services. To increase the comprehensive nature of the program, CDC recently approved the use of NBCCEDP funds for breast biopsies.

The results of this study indicate that state health departments and their partners in the seven states had developed a wide range of strategies for diagnostic and treatment services in the absence of program resources. However, the time and effort required to arrange and maintain these services diverted resources away from screening activities.

This study was subject to at least two limitations. First, the results were based solely on the experience and opinions of informed professionals affiliated with the program and did not include the perspectives of NBCCEDP clients. Second, the results may not reflect the program experiences in other states. Case-study methods, however, are an appropriate and well-accepted approach to gaining in-depth understanding of complex programs in real-life situations (*4*). The validity of the findings was enhanced by developing standard instruments to guide the semi-structured interviews, protecting the confidentiality of respondents' remarks, using interview transcripts for data analysis rather than relying on interviewer notes, and obtaining feedback concerning state summary reports from respondents.

As more women are screened by the NBCCEDP, a greater burden will be placed on participating health agencies, providers, and other partners to obtain resources for breast and cervical cancer treatment. Case-management services will continue to be essential in helping underserved women overcome financial, logistical, and other bar-

National Breast and Cervical Cancer Early Detection Program — Continued

riers to receiving these services. Other long-term solutions to ensure that women in the program receive necessary treatment services are being pursued.

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Notice to Readers

World Health Day — April 7, 1998

"Invest in the Future: Support Safe Motherhood" is the theme in the United States for World Health Day, April 7, 1998. In the United States, this day will focus on the continued importance of maternal health and opportunities to improve this aspect of women's health. Although the risk for women dying from pregnancy has decreased substantially during the past 50 years, the maternal mortality ratio for the nation has not decreased since 1982 (*1*). Approximately 50% of pregnancy-related deaths remain preventable (*2*), and the extent of morbidity associated with pregnancy is often unrecognized.

Safe motherhood begins before pregnancy with healthy lifestyles that include good nutrition, physical activity, preconception care, and avoidance of harmful substances. Safe motherhood continues with planned pregnancies; early, quality prenatal care; knowledge of warning signs of problems; and the delivery of a healthy, full-term baby with the minimum of necessary interventions. Postpartum support for women and their families in a positive, nurturing environment also is important.

In 1998, in the United States, women can plan, carry, and deliver a pregnancy more safely than in the past. However, additional efforts need to be taken to make safe motherhood a reality for all women. Improved public health surveillance, prevention research, and prevention programs are needed to continue improving the health of women before, during, and after pregnancy and delivery. Examples include new surveillance methods to monitor and understand pregnancy complications; prevention research on the essential content of prenatal care; and prevention programs to ensure the adequate intake of folic acid by women of reproductive age to prevent neural tube defects (*3*).

The World Health Day Advisory Committee of the American Association for World Health coordinates World Health Day activities in the United States. Additional information about special events and resource materials about World Health Day 1998 are available from the American Association for World Health, 1825 K Street, N.W., Suite 1208, Washington, DC 20006; e-mail: AAWHstaff@aol.com; or from the World-Wide Web site: http://www.aawhworldhealth.org.

Notices to Readers — Continued

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Notice to Readers

Satellite Broadcast on Epidemiology and Prevention of Vaccine-Preventable Diseases

Epidemiology and Prevention of Vaccine-Preventable Diseases, a live satellite broadcast, will be held April 9, 16, 23, and 30, 1998, from noon to 3:30 p.m. eastern daylight time. Cosponsors are CDC and the Public Health Training Network. This broadcast is designed for physicians (particularly pediatricians and family practice specialists), nurses, nurse practitioners, physician assistants, residents, and their colleagues who either give vaccinations or set policy in their workplace.

The program will provide information in the constantly changing field of immunization. Session one will discuss principles of vaccination, general recommendations on immunization, and the Childhood Immunization Initiative; session two will cover diphtheria, tetanus, pertussis, and poliomyelitis; session three will emphasize measles, mumps, rubella, and varicella; and session four will focus on hepatitis B, *Haemophilus influenzae* type b, influenza, and pneumococcal disease. Participants will be able to interact with the instructors through toll-free telephone, fax, and TTY lines. Continuing education credits for various professions will be offered on the basis of 14 hours of instruction.

Additional information and registration are available from state or county health department immunization programs. A list of state immunization coordinators is available from the World-Wide Web site: http://www.cdc.gov/nip.

Notice to Readers

Course on Hospital Epidemiology

CDC and the Society for Healthcare Epidemiology of America (SHEA) will cosponsor a hospital epidemiology training course during May 16–19, 1998, in Baltimore. The course is designed for infectious disease fellows, hospital epidemiologists, and infection-control practitioners. The course will provide hands-on exercises to improve skills in detection, investigation, and control of epidemiologic problems encountered in the hospital setting and lectures and seminars on fundamental aspects of hospital epidemiology.

Additional information is available from SHEA Meetings Department, 19 Mantua Road, Mount Royal, NJ 08061; telephone (609) 423-7222; fax (609) 423-3420.

Notice to Readers

Satellite Broadcast on HIV Prevention

"HIV Prevention Update," a satellite broadcast, will be held Friday, May 8, 1998, from 1 p.m. to 3:30 p.m. eastern daylight time. Cosponsors are CDC and the Public Health Training Network. This forum, the third in the *"HIV Prevention Update"* series, will focus on two topics: surveillance of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and prevention among injecting-drug users.

This broadcast is designed for staff and volunteers working in HIV or sexually transmitted disease prevention at health departments, community-based organizations, and community-planning groups, including substance-abuse prevention and treatment, case surveillance, education, and administration.

Experts in HIV/AIDS surveillance will discuss topics such as current trends, community concerns, and upcoming program guidance for expanded case surveillance. Other topics include the epidemiology of HIV/AIDS associated with injecting-drug use in the United States; how preparing and injecting illicit drugs can transmit HIV; medical and behavioral advice for injecting-drug users; and a comprehensive approach to prevent HIV among persons who inject illicit drugs. Viewers are invited to submit questions before, during, or after the program.

Additional information is available through CDC's fax information system, telephone (888) 232-3299 (CDC-FAXX), by requesting document number 130017. Information about registration and a related reading list is available at the World-Wide Web site: http://www.cdcnac.org/broadcast.

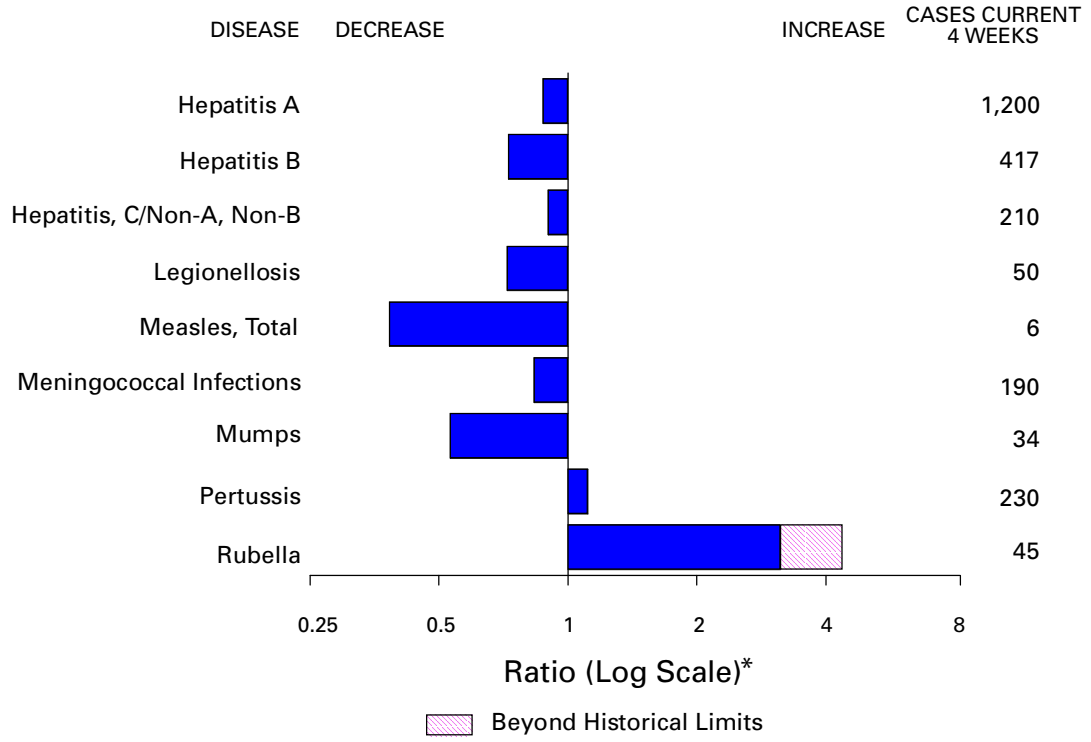
Erratum: Vol. 47, No. 1

In the article, "Recommended Childhood Immunization Schedule—United States, 1998," on page 11 the asterisk (*) and dagger (†) footnotes of the table were incorrect. The third sentence of the asterisk footnote should read "Combination vaccines may be used whenever any components of the combination are indicated and its other components are not contraindicated." The sixth sentence of the dagger footnote should read "The second dose of vaccine is recommended at age *1–2* months and the third dose at age 6 months."

Erratum: Vol. 47, No. 10

In the article, "Update: Influenza Activity—United States, 1997–98 Season," on page 199, the first sentence under the subhead "Military Base" should read "On January 15, 1998, an outbreak of ILI was reported among members of a Navy squadron in Hawaii."

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending March 21, 1998, 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 — provisional cases of selected notifiable diseases, United States, cumulative, week ending March 21, 1998 (11th Week)

	Cum. 1998		Cum. 1998
Anthrax	-	Plague	-
Brucellosis	3	Poliomyelitis, paralytic¶	-
Cholera	-	Psittacosis	7
Congenital rubella syndrome	-	Rabies, human	-
Cryptosporidiosis*	352	Rocky Mountain spotted fever (RMSF)	12
Diphtheria	-	Streptococcal disease, invasive Group A	410
Encephalitis: California*	-	Streptococcal toxic-shock syndrome*	15
eastern equine*	-	Syphilis, congenital**	10
St. Louis*	-	Tetanus	2
western equine*	-	Toxic-shock syndrome	24
Hansen Disease	24	Trichinosis	1
Hantavirus pulmonary syndrome*†	-	Typhoid fever	51
Hemolytic uremic syndrome, post-diarrheal*	3	Yellow fever	-
HIV infection, pediatric*§	39		

-:no reported cases
*Not notifiable in all states.
† Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§ Updated monthly to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update February 22, 1998.
¶ One suspected case of polio with onset in 1998 has also been reported to date.
**Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending March 21, 1998, and March 15, 1997 (11th Week)

Reporting Area	AIDS		Chlamydia		*Escherichia coli* O157:H7		Gonorrhea		Hepatitis C/NA,NB	
					NETSS†	PHLIS§				
	Cum. 1998*	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1998	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997
UNITED STATES	7,421	11,596	91,091	91,927	158	57	57,916	58,999	603	573
NEW ENGLAND	202	259	3,928	3,725	21	10	1,095	1,293	8	13
Maine	4	16	195	180	-	-	9	8	-	-
N.H.	11	2	178	171	5	2	24	40	-	2
Vt.	8	10	66	91	-	-	1	13	-	-
Mass.	73	122	1,803	1,551	10	8	465	494	8	11
R.I.	21	29	526	443	3	-	71	120	-	-
Conn.	85	80	1,160	1,289	3	-	525	618	-	-
MID. ATLANTIC	2,112	3,617	13,323	11,667	10	1	7,727	7,419	71	50
Upstate N.Y.	299	541	N	N	10	-	870	1,200	64	34
N.Y. City	1,160	1,785	7,594	6,332	-	1	3,534	3,095	-	-
N.J.	287	856	1,561	2,216	-	-	1,326	1,536	-	-
Pa.	366	435	4,168	3,119	N	-	1,997	1,588	7	16
E.N. CENTRAL	512	727	18,030	14,614	26	7	12,866	9,194	92	149
Ohio	93	167	5,232	4,618	8	-	3,231	3,043	5	5
Ind.	81	87	1,970	1,848	5	3	1,293	1,307	2	1
Ill.	249	250	4,798	2,370	9	-	3,953	1,243	5	22
Mich.	57	178	5,044	3,414	4	-	3,997	2,627	80	121
Wis.	32	45	986	2,364	N	4	392	974	-	-
W.N. CENTRAL	152	264	6,517	6,628	13	8	2,807	2,793	76	31
Minn.	22	38	1,134	1,572	4	4	404	508	-	-
Iowa	9	45	763	1,046	1	-	206	264	6	6
Mo.	76	140	2,418	2,365	2	3	1,406	1,451	68	19
N. Dak.	3	2	163	203	1	1	15	15	-	2
S. Dak.	5	2	338	211	-	-	59	28	-	-
Nebr.	15	20	558	289	3	-	195	95	-	-
Kans.	22	17	1,143	942	2	-	522	432	2	4
S. ATLANTIC	1,890	3,065	21,450	17,056	22	7	17,740	17,635	37	43
Del.	36	38	512	-	-	-	309	228	-	-
Md.	239	316	1,600	1,318	9	4	1,618	2,686	2	5
D.C.	192	192	N	N	-	-	746	938	-	-
Va.	114	246	2,478	2,354	N	3	1,495	1,899	1	4
W. Va.	19	17	630	711	N	-	169	224	2	1
N.C.	107	153	4,597	3,656	6	-	4,058	3,255	7	16
S.C.	129	156	3,711	2,648	1	-	2,508	2,522	-	12
Ga.	229	374	4,420	1,455	2	-	4,005	2,348	8	-
Fla.	825	1,573	3,502	4,914	4	-	2,832	3,535	17	5
E.S. CENTRAL	291	360	7,280	6,811	11	3	7,074	7,173	24	65
Ky.	39	32	1,294	1,365	2	-	788	921	-	2
Tenn.	107	177	2,818	2,443	6	3	2,437	2,165	21	30
Ala.	86	89	2,235	1,691	3	-	2,803	2,432	3	4
Miss.	59	62	933	1,312	-	-	1,046	1,655	-	29
W.S. CENTRAL	896	994	5,352	10,138	2	-	4,499	7,753	8	47
Ark.	33	57	717	1,074	1	-	1,184	1,857	-	1
La.	153	205	2,611	1,326	-	-	2,257	1,326	-	33
Okla.	52	47	2,024	1,291	1	-	1,058	947	-	-
Tex.	658	685	-	6,447	-	-	-	3,623	8	13
MOUNTAIN	205	383	3,632	4,794	14	7	1,403	1,621	151	62
Mont.	9	12	175	137	-	-	8	10	4	3
Idaho	5	4	352	317	2	-	30	23	38	13
Wyo.	-	9	167	100	-	-	10	12	72	20
Colo.	39	127	-	564	2	1	556	436	8	7
N. Mex.	38	26	869	877	4	2	164	300	12	10
Ariz.	60	71	1,710	1,914	N	2	562	640	-	5
Utah	26	23	219	292	4	-	25	36	8	1
Nev.	28	111	140	593	2	2	48	164	9	3
PACIFIC	1,161	1,927	11,579	16,494	39	14	2,705	4,118	136	113
Wash.	77	174	2,301	1,935	10	3	405	463	2	5
Oreg.	31	74	534	1,010	9	7	101	147	2	1
Calif.	1,038	1,653	8,009	12,956	20	3	2,067	3,307	97	70
Alaska	-	16	399	283	-	-	61	115	1	-
Hawaii	15	10	336	310	N	1	71	86	34	37
Guam	-	-	8	86	N	-	2	9	-	-
P.R.	273	264	U	U	1	U	81	129	1	13
V.I.	8	11	N	N	N	U	-	-	-	-
Amer. Samoa	-	-	-	-	N	U	-	-	-	-
C.N.M.I.	-	-	N	N	N	U	7	8	-	2

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

*Updated monthly to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update February 22, 1998.

†National Electronic Telecommunications System for Surveillance.

§Public Health Laboratory Information System.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending March 21, 1998, and March 15, 1997 (11th Week)

Reporting Area	Legionellosis		Lyme Disease		Malaria		Syphilis (Primary & Secondary)		Tuberculosis		Rabies, Animal
	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998*	Cum. 1997	Cum. 1998
UNITED STATES	196	187	683	646	187	267	1,332	1,874	1,026	2,791	1,285
NEW ENGLAND	10	14	111	134	8	9	16	32	49	69	235
Maine	1	1	-	-	1	-	-	-	U	5	32
N.H.	1	2	4	4	-	1	-	-	2	1	23
Vt.	-	2	-	2	-	-	-	-	1	-	10
Mass.	4	6	25	25	7	7	14	16	38	34	68
R.I.	4	-	14	15	-	1	-	-	8	5	20
Conn.	-	3	68	88	-	-	2	16	U	24	82
MID. ATLANTIC	41	32	423	423	53	67	48	80	75	432	316
Upstate N.Y.	11	6	210	34	18	8	2	12	U	48	207
N.Y. City	6	1	-	24	28	40	9	15	U	224	U
N.J.	-	5	-	105	-	15	10	37	75	92	41
Pa.	24	20	213	260	7	4	27	16	U	68	68
E.N. CENTRAL	63	78	20	5	13	25	198	166	50	352	8
Ohio	27	39	19	1	1	1	42	56	5	84	8
Ind.	13	9	1	3	1	2	39	36	U	28	-
Ill.	5	4	-	1	5	11	70	16	45	187	-
Mich.	14	21	-	-	6	9	38	22	U	33	-
Wis.	4	5	U	U	-	2	9	36	U	20	-
W.N. CENTRAL	13	15	4	1	4	5	36	42	43	81	99
Minn.	-	-	-	-	1	1	-	11	U	24	19
Iowa	-	1	4	-	1	1	-	1	U	10	23
Mo.	7	5	-	-	1	3	26	19	38	30	6
N. Dak.	-	1	-	-	-	-	-	-	U	2	22
S. Dak.	-	1	-	-	-	-	-	-	4	2	14
Nebr.	5	5	-	1	-	-	4	-	-	-	-
Kans.	1	2	-	-	1	-	6	11	U	13	15
S. ATLANTIC	38	20	91	62	55	55	579	744	201	397	505
Del.	4	2	-	11	1	2	6	4	-	7	-
Md.	7	10	83	42	21	19	121	209	53	32	119
D.C.	2	1	3	4	3	4	19	30	23	16	-
Va.	4	1	-	-	5	13	44	54	30	40	137
W. Va.	N	N	-	-	-	-	-	-	16	9	12
N.C.	4	3	-	2	6	3	170	166	79	54	128
S.C.	3	1	-	1	-	3	73	96	U	40	23
Ga.	-	-	2	1	10	9	96	133	U	75	36
Fla.	14	2	3	1	9	2	50	52	U	124	50
E.S. CENTRAL	2	7	10	14	4	6	257	407	-	210	47
Ky.	-	-	-	1	-	1	32	27	U	31	11
Tenn.	2	2	5	2	3	1	141	171	U	67	22
Ala.	-	2	5	-	1	1	60	98	U	79	14
Miss.	-	3	-	11	-	3	24	111	U	33	-
W.S. CENTRAL	-	1	-	1	3	3	116	298	16	410	37
Ark.	-	-	-	-	-	1	29	62	16	23	1
La.	-	-	-	-	3	2	77	106	-	19	-
Okla.	-	1	-	-	-	-	10	28	U	34	36
Tex.	-	-	-	1	-	-	-	102	U	334	-
MOUNTAIN	14	12	1	-	12	14	40	34	48	79	21
Mont.	1	-	-	-	-	1	-	-	2	2	7
Idaho	-	-	-	-	1	-	-	-	1	-	-
Wyo.	-	1	-	-	-	1	-	-	1	1	14
Colo.	4	3	-	-	4	7	3	-	U	17	-
N. Mex.	1	-	-	-	4	2	-	-	7	2	-
Ariz.	1	3	-	-	2	-	34	29	26	37	-
Utah	6	4	-	-	1	-	2	1	11	1	-
Nev.	1	1	1	-	-	3	1	4	U	19	-
PACIFIC	15	8	23	6	35	83	42	71	544	761	17
Wash.	-	1	-	-	-	-	4	3	U	55	-
Oreg.	-	-	-	2	6	5	1	1	U	23	-
Calif.	15	6	23	4	29	78	37	66	517	620	11
Alaska	-	-	-	-	-	-	-	-	8	22	6
Hawaii	-	1	-	-	-	-	-	1	19	41	-
Guam	-	-	-	-	-	-	-	2	-	13	-
P.R.	-	-	-	-	-	2	63	48	-	-	15
V.I.	-	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	1	2	8	-	-

N: Not notifiable U: Unavailable -: no reported cases

*Additional information about areas displaying "U" (e.g., Tuberculosis) can be found in Notices to Readers, *MMWR* Vol. 47, No. 2, p. 39.

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 21, 1998, and March 15, 1997 (11th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported†		Total	
	Cum. 1998*	Cum. 1997	Cum. 1998	Cum. 1997	Cum. 1998	Cum. 1997	1998	Cum. 1998	1998	Cum. 1998	Cum. 1998	Cum. 1997
UNITED STATES	217	258	3,470	5,408	1,313	1,656	1	1	1	6	7	15
NEW ENGLAND	13	14	69	121	10	39	-	-	-	1	1	-
Maine	2	2	9	3	-	3	-	-	-	-	-	-
N.H.	1	2	4	6	3	2	-	-	-	-	-	-
Vt.	1	-	4	4	-	1	-	-	-	-	-	-
Mass.	9	9	12	69	4	23	-	-	-	1	1	-
R.I.	-	1	5	4	3	2	-	-	-	-	-	-
Conn.	-	-	35	35	-	8	-	-	-	-	-	-
MID. ATLANTIC	29	35	179	477	180	292	-	-	-	-	-	5
Upstate N.Y.	12	1	73	27	63	35	-	-	-	-	-	3
N.Y. City	5	17	46	262	42	130	-	-	-	-	-	1
N.J.	12	11	2	74	-	58	-	-	-	-	-	1
Pa.	-	6	58	114	75	69	-	-	-	-	-	-
E.N. CENTRAL	32	42	506	598	165	270	-	-	-	1	1	4
Ohio	18	20	85	106	19	20	-	-	-	-	-	-
Ind.	2	4	56	58	14	25	U	-	U	-	-	-
Ill.	11	12	59	207	15	80	-	-	-	-	-	3
Mich.	-	5	288	183	113	128	-	-	-	1	1	1
Wis.	1	1	18	44	4	17	-	-	-	-	-	-
W.N. CENTRAL	6	8	364	367	84	121	-	-	-	-	-	-
Minn.	-	2	9	6	5	2	-	-	-	-	-	-
Iowa	1	2	152	49	12	6	-	-	-	-	-	-
Mo.	1	2	163	230	57	102	-	-	-	-	-	-
N. Dak.	-	-	1	4	1	-	-	-	-	-	-	-
S. Dak.	-	1	1	5	1	-	-	-	-	-	-	-
Nebr.	-	-	8	14	2	4	-	-	-	-	-	-
Kans.	4	1	30	59	6	7	-	-	-	-	-	-
S. ATLANTIC	66	52	377	324	204	180	1	1	1	4	5	-
Del.	-	-	-	7	-	1	-	-	-	-	-	-
Md.	15	20	81	89	31	38	-	-	-	1	1	-
D.C.	-	-	12	10	3	13	-	-	-	-	-	-
Va.	6	2	50	39	16	16	-	-	-	2	2	-
W. Va.	2	2	-	3	1	4	-	-	-	-	-	-
N.C.	8	7	20	51	49	46	-	-	-	-	-	-
S.C.	1	3	8	21	-	11	-	-	-	-	-	-
Ga.	17	15	96	38	47	13	-	-	1	1	1	-
Fla.	17	3	110	66	57	38	1	1	-	-	1	-
E.S. CENTRAL	10	11	92	132	107	129	-	-	-	-	-	1
Ky.	-	1	-	22	-	7	-	-	-	-	-	-
Tenn.	10	10	64	59	86	86	-	-	-	-	-	-
Ala.	-	-	28	30	21	15	-	-	-	-	-	1
Miss.	-	-	-	21	-	21	U	-	U	-	-	-
W.S. CENTRAL	12	10	205	812	66	98	-	-	-	-	-	-
Ark.	-	1	11	44	17	14	-	-	-	-	-	-
La.	5	1	4	44	4	16	-	-	-	-	-	-
Okla.	6	7	92	360	7	4	-	-	-	-	-	-
Tex.	1	1	98	364	38	64	-	-	-	-	-	-
MOUNTAIN	33	28	701	846	168	174	-	-	-	-	-	-
Mont.	-	-	7	30	2	1	-	-	-	-	-	-
Idaho	-	-	44	38	5	6	-	-	-	-	-	-
Wyo.	-	-	12	9	3	5	-	-	-	-	-	-
Colo.	6	5	56	109	21	43	-	-	-	-	-	-
N. Mex.	-	1	41	61	65	58	-	-	-	-	-	-
Ariz.	21	9	457	342	41	32	-	-	-	-	-	-
Utah	3	3	42	188	16	17	-	-	-	-	-	-
Nev.	3	10	42	69	15	12	-	-	-	-	-	-
PACIFIC	16	58	977	1,731	329	353	-	-	-	-	-	5
Wash.	1	-	134	106	28	11	-	-	-	-	-	-
Oreg.	13	11	71	101	23	27	-	-	-	-	-	-
Calif.	-	44	764	1,478	273	306	-	-	-	-	-	2
Alaska	1	1	1	8	2	5	-	-	-	-	-	-
Hawaii	1	2	7	38	3	4	U	-	U	-	-	3
Guam	-	-	-	-	-	1	U	-	U	-	-	-
P.R.	-	-	6	76	103	216	-	-	-	-	-	-
V.I.	-	-	-	-	-	-	U	-	U	-	-	-
Amer. Samoa	-	-	-	-	-	-	U	-	U	-	-	-
C.N.M.I.	-	3	-	1	7	13	U	-	U	-	-	1

N: Not notifiable U: Unavailable -: no reported cases

*Of 45 cases among children aged <5 years, serotype was reported for 15 and of those, 8 were type b.

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

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending March 21, 1998, and March 15, 1997 (11th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1998	Cum. 1997	1998	Cum. 1998	Cum. 1997	1998	Cum. 1998	Cum. 1997	1998	Cum. 1998	Cum. 1997
UNITED STATES	650	918	9	84	119	58	689	992	15	72	7
NEW ENGLAND	43	55	-	-	6	2	138	306	-	9	-
Maine	3	5	-	-	-	-	4	6	-	-	-
N.H.	1	5	-	-	-	1	15	34	-	-	-
Vt.	1	2	-	-	-	-	21	101	-	-	-
Mass.	19	36	-	-	1	1	95	155	-	-	-
R.I.	3	1	-	-	4	-	-	9	-	-	-
Conn.	16	6	-	-	1	-	3	1	-	9	-
MID. ATLANTIC	46	80	-	2	15	5	59	76	12	51	3
Upstate N.Y.	19	17	-	2	2	5	59	35	12	51	1
N.Y. City	8	16	-	-	1	-	-	15	-	-	2
N.J.	19	16	-	-	2	-	-	6	-	-	-
Pa.	-	31	-	-	10	-	-	20	-	-	-
E.N. CENTRAL	107	115	2	12	15	4	69	108	-	-	3
Ohio	47	43	-	7	3	1	34	45	-	-	-
Ind.	19	12	U	-	3	U	8	8	U	-	-
Ill.	18	36	-	-	5	2	5	16	-	-	-
Mich.	12	9	2	5	3	1	12	19	-	-	-
Wis.	11	15	-	-	1	-	10	20	-	-	3
W.N. CENTRAL	48	73	-	8	5	12	61	49	-	-	-
Minn.	-	2	-	4	3	11	39	31	-	-	-
Iowa	9	16	-	2	2	1	12	6	-	-	-
Mo.	23	40	-	1	-	-	8	-	-	-	-
N. Dak.	-	-	-	1	-	-	-	1	-	-	-
S. Dak.	4	3	-	-	-	-	-	1	-	-	-
Nebr.	1	3	-	-	-	-	2	2	-	-	-
Kans.	11	9	-	-	-	-	-	8	-	-	-
S. ATLANTIC	135	172	1	16	15	6	60	86	-	2	-
Del.	1	3	-	-	-	-	-	-	-	-	-
Md.	14	19	-	2	1	-	10	47	-	-	-
D.C.	-	4	-	-	-	-	-	2	-	-	-
Va.	12	10	-	2	1	-	-	13	-	-	-
W. Va.	3	5	-	-	-	-	-	3	-	-	-
N.C.	19	36	-	5	5	-	30	11	-	1	-
S.C.	14	31	-	3	1	-	5	4	-	1	-
Ga.	36	26	-	-	2	-	-	2	-	-	-
Fla.	36	38	1	4	5	6	15	4	-	-	-
E.S. CENTRAL	23	70	-	-	9	-	13	26	-	-	-
Ky.	-	16	-	-	-	-	-	9	-	-	-
Tenn.	23	26	-	-	3	-	4	5	-	-	-
Ala.	-	21	-	-	3	-	9	7	-	-	-
Miss.	-	7	U	-	3	U	-	5	U	-	-
W.S. CENTRAL	36	67	2	16	11	13	28	17	3	5	-
Ark.	7	15	-	-	-	-	4	2	-	-	-
La.	12	15	-	-	2	-	-	2	-	-	-
Okla.	17	10	-	-	-	6	6	-	-	-	-
Tex.	-	27	2	16	9	7	18	13	3	5	-
MOUNTAIN	47	61	1	5	6	9	191	172	-	5	-
Mont.	2	4	-	-	-	-	1	2	-	-	-
Idaho	2	4	-	-	1	-	103	99	-	-	-
Wyo.	3	-	-	1	-	-	-	3	-	-	-
Colo.	11	14	1	1	2	5	25	52	-	-	-
N. Mex.	7	12	N	N	N	4	45	8	-	1	-
Ariz.	17	12	-	1	-	-	9	7	-	1	-
Utah	4	7	-	-	1	-	5	-	-	2	-
Nev.	1	8	-	2	2	-	3	1	-	1	-
PACIFIC	165	225	3	25	37	7	70	152	-	-	1
Wash.	21	21	2	4	3	7	61	58	-	-	-
Oreg.	35	54	N	N	N	-	8	5	-	-	-
Calif.	106	147	1	13	27	-	-	83	-	-	1
Alaska	1	1	-	2	2	-	-	2	-	-	-
Hawaii	2	2	U	6	5	U	1	4	U	-	-
Guam	-	1	U	-	1	U	-	-	U	-	-
P.R.	-	5	1	2	4	-	2	-	-	-	-
V.I.	-	-	U	-	-	U	-	-	U	-	-
Amer. Samoa	-	-	U	-	-	U	-	-	U	-	-
C.N.M.I.	-	-	U	-	-	U	-	-	U	-	-

N: Not notifiable U: Unavailable -: no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending March 21, 1998 (11th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	561	401	99	30	15	16	44
Boston, Mass.	170	113	28	12	5	12	17
Bridgeport, Conn.	U	U	U	U	U	U	U
Cambridge, Mass.	14	13	1	-	-	-	1
Fall River, Mass.	37	30	5	2	-	-	-
Hartford, Conn.	51	32	13	5	1	-	2
Lowell, Mass.	19	16	3	-	-	-	3
Lynn, Mass.	8	5	2	-	1	-	1
New Bedford, Mass.	33	26	5	2	-	-	1
New Haven, Conn.	44	29	9	3	1	2	2
Providence, R.I.	57	44	7	2	2	2	4
Somerville, Mass.	5	2	3	-	-	-	-
Springfield, Mass.	44	29	9	3	3	-	4
Waterbury, Conn.	26	21	4	-	1	-	-
Worcester, Mass.	53	41	10	1	1	-	9
MID. ATLANTIC	2,346	1,705	397	157	41	46	137
Albany, N.Y.	43	37	6	-	-	-	2
Allentown, Pa.	17	14	3	-	-	-	2
Buffalo, N.Y.	U	U	U	U	U	U	U
Camden, N.J.	34	23	4	2	-	5	7
Elizabeth, N.J.	16	14	-	2	-	-	-
Erie, Pa.	59	53	4	1	-	1	3
Jersey City, N.J.	40	24	9	3	1	3	1
New York City, N.Y.	1,206	844	241	88	16	17	53
Newark, N.J.	60	33	8	12	5	2	3
Paterson, N.J.	44	31	5	5	1	2	-
Philadelphia, Pa.	300	223	50	15	7	5	25
Pittsburgh, Pa.§	97	63	17	10	2	5	4
Reading, Pa.	25	19	2	3	-	1	2
Rochester, N.Y.	138	110	18	4	2	4	13
Schenectady, N.Y.	24	21	3	-	-	-	2
Scranton, Pa.	33	30	2	1	-	-	1
Syracuse, N.Y.	100	84	12	2	2	-	13
Trenton, N.J.	88	66	8	8	5	1	5
Utica, N.Y.	22	16	5	1	-	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	2,289	1,615	416	155	46	56	138
Akron, Ohio	56	41	10	3	-	2	-
Canton, Ohio	29	24	2	2	-	1	3
Chicago, Ill.	462	294	98	45	12	12	36
Cincinnati, Ohio	101	75	20	4	1	1	6
Cleveland, Ohio	147	100	32	10	1	4	7
Columbus, Ohio	269	194	47	16	4	8	23
Dayton, Ohio	151	118	23	6	4	-	11
Detroit, Mich.	241	154	55	16	7	9	4
Evansville, Ind.	42	31	7	4	-	-	1
Fort Wayne, Ind.	68	56	8	3	1	-	8
Gary, Ind.	23	12	7	1	1	2	1
Grand Rapids, Mich.	54	46	7	-	-	1	6
Indianapolis, Ind.	192	125	34	23	3	7	-
Lansing, Mich.	69	48	9	7	3	2	7
Milwaukee, Wis.	102	69	22	6	2	3	6
Peoria, Ill.	42	36	5	-	1	-	4
Rockford, Ill.	46	36	5	3	1	1	3
South Bend, Ind.	46	36	9	-	1	-	3
Toledo, Ohio	91	71	12	6	1	1	7
Youngstown, Ohio	58	49	4	-	3	2	2
W.N. CENTRAL	853	619	140	46	15	16	81
Des Moines, Iowa	U	U	U	U	U	U	U
Duluth, Minn.	34	27	7	-	-	-	5
Kansas City, Kans.	39	23	8	6	2	-	1
Kansas City, Mo.	119	74	22	4	1	1	9
Lincoln, Nebr.	52	41	7	3	-	1	4
Minneapolis, Minn.	235	189	23	12	4	7	20
Omaha, Nebr.	117	80	25	6	3	3	21
St. Louis, Mo.	94	69	16	7	2	-	12
St. Paul, Minn.	87	61	17	7	-	2	6
Wichita, Kans.	76	55	15	1	3	2	3
S. ATLANTIC	1,099	737	218	91	22	27	65
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	220	129	54	26	8	3	23
Charlotte, N.C.	85	60	17	4	1	3	8
Jacksonville, Fla.	127	93	17	11	2	3	5
Miami, Fla.	108	82	17	7	1	1	-
Norfolk, Va.	52	39	10	3	-	-	3
Richmond, Va.	76	48	19	5	4	-	5
Savannah, Ga.	59	43	10	4	-	2	-
St. Petersburg, Fla.	65	55	8	-	-	2	4
Tampa, Fla.	182	132	32	10	4	4	15
Washington, D.C.	97	46	22	15	2	9	2
Wilmington, Del.	28	10	12	6	-	-	-
E.S. CENTRAL	945	662	186	65	18	12	78
Birmingham, Ala.	184	137	35	7	2	1	22
Chattanooga, Tenn.	86	62	18	4	1	1	5
Knoxville, Tenn.	89	63	17	7	2	-	10
Lexington, Ky.	109	76	20	9	2	2	12
Memphis, Tenn.	185	130	31	17	5	2	22
Mobile, Ala.	107	73	20	8	1	5	1
Montgomery, Ala.	49	33	10	4	2	-	4
Nashville, Tenn.	136	88	35	9	3	1	2
W.S. CENTRAL	1,613	1,049	340	130	49	45	96
Austin, Tex.	79	51	12	5	4	7	5
Baton Rouge, La.	48	25	13	7	3	-	2
Corpus Christi, Tex.	75	56	10	5	1	3	7
Dallas, Tex.	202	129	42	19	8	4	6
El Paso, Tex.	95	66	20	4	4	1	10
Ft. Worth, Tex.	137	97	21	13	2	4	4
Houston, Tex.	392	224	111	33	13	11	29
Little Rock, Ark.	97	69	17	7	1	3	4
New Orleans, La.	127	78	29	13	5	2	-
San Antonio, Tex.	205	139	43	15	2	6	12
Shreveport, La.	57	43	8	2	-	4	6
Tulsa, Okla.	99	72	14	7	6	-	11
MOUNTAIN	954	669	157	73	25	23	79
Albuquerque, N.M.	121	84	17	14	4	2	4
Boise, Idaho	44	34	6	1	1	2	7
Colo. Springs, Colo.	50	37	6	6	1	-	3
Denver, Colo.	129	93	21	7	2	6	17
Las Vegas, Nev.	180	116	40	14	7	3	10
Ogden, Utah	36	32	3	1	-	-	8
Phoenix, Ariz.	87	49	16	8	3	5	6
Pueblo, Colo.	27	21	4	2	-	-	2
Salt Lake City, Utah	111	78	17	7	5	4	8
Tucson, Ariz.	169	125	27	13	2	1	14
PACIFIC	1,950	1,452	318	106	38	36	190
Berkeley, Calif.	16	11	4	-	-	1	-
Fresno, Calif.	103	76	13	9	3	2	6
Glendale, Calif.	31	28	1	1	1	-	3
Honolulu, Hawaii	82	55	13	7	2	5	8
Long Beach, Calif.	92	66	14	7	3	2	19
Los Angeles, Calif.	589	451	94	30	7	7	63
Pasadena, Calif.	26	16	7	3	-	-	3
Portland, Oreg.	133	95	22	11	2	3	6
Sacramento, Calif.	199	143	39	10	5	2	27
San Diego, Calif.	145	109	24	6	2	4	15
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	207	154	34	8	7	4	14
Santa Cruz, Calif.	28	23	4	1	-	-	3
Seattle, Wash.	127	91	23	6	4	3	5
Spokane, Wash.	57	42	7	6	2	-	6
Tacoma, Wash.	115	92	19	1	-	3	12
TOTAL	12,610¶	8,909	2,271	853	269	277	908

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 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 this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

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