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Update: Outbreak of Influenza A Infection — Alaska and the Yukon Territory, July–August 1998

On July 26, 1998, CDC and Health Canada, in cooperation with local public health authorities, began investigating reports of febrile respiratory illnesses and associated pneumonia among summer land and sea travelers to Alaska and the Yukon Territory (*1*). Epidemiologic and laboratory evidence has implicated influenza A virus as the etiologic agent of the outbreak. From June 11 through August 22, completed viral cultures of 101 (48%) of 209 nasopharyngeal specimens have yielded 26 influenza A isolates, four other respiratory viruses, and 71 negative results; results are pending for 108 additional specimens. Of the 26 influenza A isolates, five have been characterized at CDC; all have been identified as influenza A/Sydney/5/97 (H3N2)-like viruses, a strain included in the 1998–99 influenza vaccine. This report presents updated information about the outbreak and includes recommendations for influenza A prevention and control in this setting.

On August 6, active prospective surveillance was implemented for acute respiratory illnesses (ARI), including influenza-like illness (ILI) and associated pneumonia, in 12 hospitals and clinics in Alaska and the Yukon Territory, a clinic in Seattle and a hospital in Vancouver, and 17 commercial cruise ships touring the region. Because influenza surveillance in North America normally is conducted from October through mid-May, baseline information on the incidence of influenza in Alaska during summer months is not available.

As of August 22, prospective surveillance and retrospective case-finding have identified 2199 cases of ARI occurring during May 1–August 22 (Figure 1). Among these illnesses, 766 (35%) cases in tourists and tourism workers in the region met the criteria for ILI (fever or feverishness with cough or sore throat), and an additional 71 (3.2%) cases were confirmed radiographically as pneumonia. Of the persons with pneumonia, 50 required hospitalization. The median age of all persons with ARI was 60 years (range: 1–91 years), and the median age of all persons with pneumonia was 72 years (range: 9–91 years).

Since May 1, two deaths have occurred among travelers with ARI to these areas. On May 22, a 79-year-old man developed ILI while on an overland tour and died on June 2. On July 27, a 79-year-old woman developed a respiratory illness the day she completed a 1-week cruise ship tour and died on August 3. Further investigation is under way to determine whether these deaths were associated with influenza A infection.

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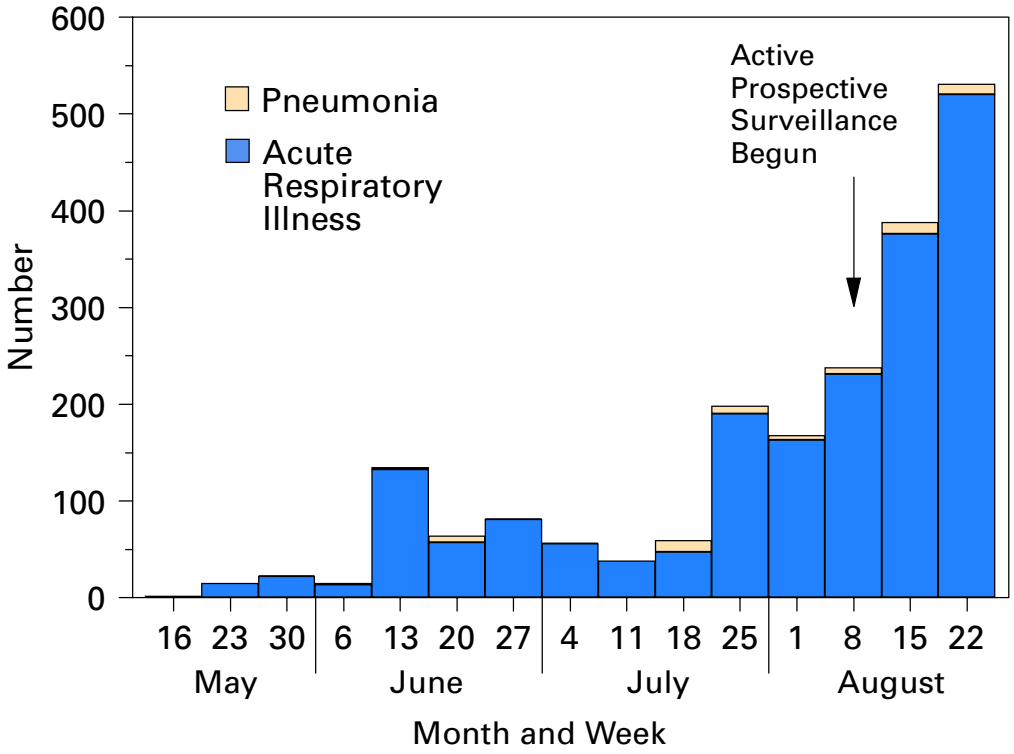
FIGURE 1. Number of cases of acute respiratory illness and pneumonia in tourists (n=1778), residents (n=46), and tourism workers (n=375), by week of presentation — Alaska and Yukon Territory, weeks ending May 16–August 22, 1998*



*Dates of presentation to a health-care provider were known for 1538 cases, were estimated for 475 cases based on dates of travel, and could not be estimated for 186 cases.

Prospective surveillance continues to identify cases of febrile respiratory illness, particularly among smaller groups of tourists sharing transportation and accommodations on overland tours, and among passengers and crew members on cruise ships. Several cruise lines have initiated active surveillance for respiratory illnesses, organized vaccination campaigns for crew members, and acquired stocks of influenza antiviral medications. As of August 22, active surveillance has identified few (n=46) cases and no outbreaks of influenza among residents in Alaska or the Yukon Territory.

Reported by: Special Investigation Team: Div of Public Health, Section of Epidemiology, and Section of Laboratories, Alaska Dept of Health and Social Svcs. Communicable Disease Control, Health and Social Svcs, Yukon Territorial Government; Communicable Disease Epidemiology Svcs and Provincial Laboratory, British Columbia Center for Disease Control Society; Bur of Infectious Diseases, Office of Special Health Initiatives, Field Epidemiology Training Program, and Field Epidemiology Training Program officers, Laboratory Center for Disease Control, Occupational Health and Safety Agency, Health Canada. National Institute for Occupational Safety and Health; National Immunization Program; Div of Applied Public Health Training, Epidemiology Program Office; Arctic Investigations Program, Influenza Br, Div of Viral and Rickettsial Diseases, and Surveillance and Epidemiology Br and Programs Operations Br, Div of Quarantine, National Center for Infectious Diseases; and EIS officers, CDC.

Editorial Note: Each week during May–September, approximately 60,000–70,0000 passengers travel over land and/or by cruise ship to Alaska and the Yukon Territory. Often these travelers use some combination of buses, trains, airplanes, automobiles, and

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ships for transportation, and many travel as part of large organized groups. Reports of summer outbreaks of influenza A are uncommon, but have been reported previously among groups of travelers in the United States and Canada (*2,3*). Large organized tour groups often include travelers from various regions of the world, including areas in which seasonal influenza is occurring, which potentially increases the risk for an off-season influenza outbreak among such tourist groups. For example, in August 1997, an influenza outbreak occurred on board a large cruise ship carrying an international group of tourists traveling along the eastern seaboard of the United States and Canada (*3*).

In the influenza outbreak described in this report, cases of respiratory illness have occurred among tourists during different tours managed by different companies. Preliminary evidence suggests that most illnesses appear to have developed during land-based travel. However, cases of illness consistent with influenza transmission on board cruise ships are being reported in passengers and crew members. ARI and ILI cases that occurred before active surveillance was implemented probably have been substantially underreported.

In response to the outbreak, CDC and Health Canada jointly used the following considerations to develop recommendations for travelers to the region: 1) new cases of ILI continue to occur among tourists in the region, 2) the tourist season will wane substantially during the next 2–3 weeks, and 3) influenza vaccine availability at this time of year is limited. No special prevention measures are recommended for travelers who are aged <65 years and in good health. These travelers are unlikely to develop a febrile respiratory illness during their travels, and the risk for serious complications from influenza is low in this group. Early general vaccination of the resident populations in Alaska and the Yukon Territory also is not recommended at this time.

On the basis of these considerations, persons who are aged ≥65 years or who have certain underlying chronic medical conditions (e.g., pulmonary or cardiac disease) are recommended to consult their physicians before traveling to Alaska and the Yukon Territory this summer. This group is at increased risk for serious complications from influenza, including pneumonia, hospitalization, and death (*4*). These persons should receive information about the signs and symptoms of influenza and about the advisability of carrying rimantadine or amantadine, antiviral medications that can be used for the treatment or prophylaxis of influenza A infections (but not influenza B). Both antiviral medications can reduce the duration of influenza A illness and viral shedding if administered within 48 hours of onset of symptoms, but also may lead to central nervous system or gastrointestinal side effects and may require dosage adjustments in patients with underlying renal or hepatic disease. Physicians and other health-care providers in Alaska, in the Yukon Territory, and on board cruise ships who may provide care for persons with ILI should consider obtaining commercially available rapid antigen-detection kits for influenza and supplies of rimantadine or amantadine for the treatment of patients with febrile respiratory illness. All cruise lines and overland tour companies should implement active surveillance for ARI among travelers and employees for the remainder of the Alaska/Yukon tour season, which ends October 1, 1998. Tour companies that conduct combined land and sea tours in the region should offer vaccination with 1998–99 influenza vaccine to all of their staff who have direct contact with high-risk travelers in this area. Although vaccination of staff during the final 2 weeks of the Alaska tour season is unlikely to have a large effect in limiting the

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scope of disease in travelers during this outbreak, it will help to decrease the transmission of influenza to new groups of passengers after the ships depart Alaskan waters for other regions of the world.

Health-care providers evaluating patients with febrile respiratory illnesses or pneumonia should obtain a travel history and consider influenza A in the differential diagnosis for persons who have traveled recently to Alaska or the Yukon Territory. Information about the outbreak is available on the CDC World-Wide Web site, http://www.cdc.gov/travel/travel.html. Health-care providers may continue to report cases of illness to the Special Investigation Team, telephone (907) 729-3431, fax (907) 729-3429, or e-mail SITEAM@cdc.gov.

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Success in Implementing Public Health Service Guidelines to Reduce Perinatal Transmission of HIV — Louisiana, Michigan, New Jersey, and South Carolina, 1993, 1995, and 1996

In 1994, the Public Health Service (PHS) published guidelines for zidovudine (ZDV) use to reduce perinatal transmission of human immunodeficiency virus (HIV) (*1*), and in 1995 published guidelines for HIV counseling and voluntary testing of pregnant women (*2*). To directly assess the implementation of these guidelines and to identify barriers to the continued reduction of perinatal transmission, four states that conduct surveillance for HIV/acquired immunodeficiency syndrome (AIDS) (Louisiana, Michigan, New Jersey, and South Carolina) enhanced routine surveillance activities to conduct a population-based evaluation. This report summarizes the preliminary results of the evaluation, which identified 1) increases from 1993 to 1996 in the proportion of pregnant HIV-infected women in whom HIV infection was diagnosed before the birth of their child, 2) increases in the proportion of women offered ZDV and 3) lack of prenatal care as a critical obstacle to fully implementing the guidelines.*

HIV/AIDS registries in the four states were matched to birth registries for 1993 (used as a baseline year), 1995, and 1996 to identify all infants born to women who have been reported with HIV/AIDS and to determine the proportion of HIV-infected women who gave birth each year who had had HIV infection diagnosed before the birth. Data about HIV testing, ZDV receipt, and prenatal care were collected from medical records for the mother (prenatal and labor and delivery) and the infant (newborn and pediatric HIV clinic). A mother was considered to have had HIV infection diagnosed before delivery if her first HIV-positive test date preceded her infant's date of birth. The number of women giving birth who were identified from the surveillance and birth registry match and from routine HIV and AIDS case finding was compared

*Single copies of this report will be available free until August 28, 1999, from the National Prevention Information Network (operators of the National AIDS clearinghouse), P.O. Box 6003, Rockville, MD 20849-6003; telephone (800) 458-5231 or (301) 519-0459.

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with the total number of HIV-infected women giving birth that year or the most recent year available (determined from the Survey of Childbearing Women [SCBW] (*3*)[†]. In addition to mother-infant pairs identified through routine surveillance, the registry match identified an additional 10%–20% previously unreported perinatally exposed infants who were born to women in whom HIV infection had been diagnosed.

In the four states combined, the proportion of pregnant women in whom HIV infection was diagnosed before giving birth increased from 68% in 1993 to 81% in 1996 (Table 1). Among these women, 52% had positive HIV tests before the index pregnancy, and 48% had positive HIV tests during the index pregnancy. Charts were abstracted for 1038 mother-infant pairs in which HIV infection was diagnosed in the mother before delivery; these data represented approximately 80% of all women in whom HIV infection was diagnosed before delivery. From 1993 to 1996, the proportion offered prenatal ZDV increased from 27% to 85%, the proportion offered intrapartum ZDV increased from 5% to 75%, and the proportion offered neonatal ZDV increased

[†]SCBW is an anonymous population-based seroprevalence survey of routinely collected blood samples from newborns tested for maternal HIV antibody. For Louisiana, Michigan, and South Carolina, SCBW data from the corresponding year or from the most recent year available (1995) were used; in New Jersey, a linear extrapolation was used to estimate the number for 1996 because of steady decreases since 1991.

TABLE 1. Number of HIV-infected women tested for HIV before delivery, number of HIV-infected women giving birth and percentage tested before delivery*, and number of mother-infant pairs studied in which the mother was tested before delivery and percentage that did not receive prenatal care and that were offered zidovudine (ZDV), by year — Louisiana, Michigan, New Jersey, and South Carolina, 1993, 1995, and 1996

Category	1993	1995	1996
No. tested before delivery	534	536	508
No. HIV-infected women giving birth	724	677	628[†]
% Giving birth and tested before delivery	68%	79%	81%
Range	(63%–84%)	(75%–79%)	(75%–87%)
No. mother-infant pairs studied[§] (mother tested before delivery)	323	395	320
% Offered prenatal ZDV	27%	69%	85%
Range	(22%–38%)	(60%–97%)	(67%–91%)
% Offered intrapartum ZDV	5%	57%	75%
Range	(0–15%)	(53%–74%)	(53%–84%)
% Offered neonatal ZDV	5%	70%	76%
Range	(0–16%)	(64%–77%)	(64%–82%)
% Without prenatal care	15%	13%	12%
Range	(8%–24%)	(5%–25%)	(3%–27%)

*Pooled estimate and range among states.
[†]Estimate based on 1995 data for Louisiana and Michigan and 1996 data for South Carolina. For New Jersey, a linear extrapolation was used to estimate the number for 1996 because of steady decreases since 1991.
[§]In New Jersey, charts were abstracted in 1993 and 1996 for births in the second half of the year only. When taking this into account, >80% of charts of women diagnosed before delivery were abstracted overall.

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from 5% to 76% (Table 1). Less than 5% of women offered ZDV refused it. Among the women who were not offered prenatal ZDV in 1996, most (74%) had had no or limited prenatal care (zero to four visits). During the 3 years, 14% of women in whom HIV infection was diagnosed before delivery had had no prenatal care; 35% of women who used illicit drugs during pregnancy had had no prenatal care, compared with 6% of women who did not use illicit drugs. In 1996, a total of 62% of all women in whom HIV infection was diagnosed before delivery, and 83% of women who had five or more prenatal-care visits received prenatal ZDV and intrapartum ZDV, and their infants received neonatal ZDV.

Reported by: G Melvin, K Corson, MPH, Louisiana Dept of Health. H Malamud, MPH, L Scott, E Mokotoff, Detroit Health Dept. L Dimasi, MPA, J Beil, MPH, S Costa, MA, S Paul, MD, New Jersey Dept of Health and Senior Svcs. N Harris, MSPH, J Lafontaine, MPH, South Carolina Dept of Health and Environmental Control. Div of HIV/AIDS Prevention—Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, CDC.

Editorial Note: The population-based data described in this report demonstrate the rapid implementation of the PHS guidelines. Their effectiveness in reducing perinatal transmission is reflected in substantial reductions (43% from 1992 to 1996) in perinatally acquired AIDS, especially among recent birth cohorts (*4*). The data identify obstacles to maximum reduction of perinatal transmission (e.g., inadequate prenatal care among drug-using women), demonstrate the success of voluntary testing for HIV during pregnancy, and in these four states provide a timely statewide assessment of the impact of the guidelines.

Lack of access to prenatal care or inadequate use of care is a critical obstacle to maximum reduction of perinatal transmission, especially among women who use illicit drugs. Overall, up to 15% of women who had HIV infection diagnosed before they gave birth had no prenatal care, and preliminary results from chart reviews of women tested after giving birth suggest that approximately 50% of these women had had no prenatal care. In the general population, 4% of women giving birth have late or no prenatal care (*5*). Women who use illicit drugs in pregnancy are at particularly high risk for not receiving prenatal care because of social disruption, fear of criminalization, and lack of access to care. Efforts must be made to improve use of prenatal care among these women, to ensure receipt of care after HIV infection is diagnosed (both to prevent perinatal transmission and for their own care) and to improve access to substance-abuse treatment and prevention.

In the four states described in this report, counseling and voluntary HIV testing was successful in identifying a high proportion of HIV-infected pregnant women. Although lack of prenatal care may be the primary reason HIV-infected women are not tested before giving birth, not being offered the test or refusing it also are factors. Studies of the acceptance of HIV testing by pregnant women after counseling have shown consistently high acceptance rates (*2,6,7*). Surveys of providers, however, have shown that although they tend to agree that all women should be tested for HIV, in practice some providers tend to offer testing only to women whom they consider at risk for HIV infection (*8,9*). Risk-based testing identifies fewer HIV-infected women than routine voluntary testing of all pregnant women (*2,7*). Women are increasingly being infected through heterosexual contact and may not know their partner's risk for HIV infection (*2*), making risk-based testing increasingly less effective for women. Finally, although prenatal care is an important opportunity to offer testing to prevent perinatal transmission, ideally women should know their HIV status before becoming pregnant. Sites

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serving women of childbearing age should counsel and offer voluntary testing to all women, including adolescents—regardless of whether they are pregnant (*2*).

The decrease in the number of HIV-infected women giving birth in these four states primarily is due to decreases in New Jersey. The number of HIV-infected women giving birth has declined since 1989 in the Northeast, reflecting in part an older epidemic compared with other parts of the country (*10*).

In these four states, the proportion of women in whom HIV infection is diagnosed before giving birth is likely to be underestimated for four reasons. First, although evaluations have shown completeness of HIV reporting to be very high, HIV reporting is unlikely to be 100% complete, resulting in women who have tested positive for HIV infection not being listed in HIV/AIDS registries. Second, reporting delays likely affect the completeness of 1996 case ascertainment (the most recent year for which preliminary analyses of data are available). Third, a woman's first positive HIV test could be earlier than the date listed in the registry. Finally, records for women whose names have changed might fail to match records in other registries.

Reporting of HIV infection among adults and among perinatally exposed and perinatally infected children was critical to the states' ability to conduct timely evaluation of perinatal HIV-prevention activities. Because of the high level of completeness of case ascertainment compared with the SCBW, these methods can provide data to estimate trends in the number of HIV-infected childbearing women where states are unable to conduct this seroprevalence survey using local resources. The participating states will use their findings to target local HIV-prevention efforts (e.g., prenatal care outreach). Six states (Alabama, Colorado, Indiana, Missouri, Tennessee, and Virginia) have initiated similar evaluations. As additional states implement integrated HIV and AIDS surveillance, evaluations of recommendations for HIV prevention and treatment can be assessed more widely among pregnant women and other at-risk or infected populations.

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Ciguatera Fish Poisoning — Texas, 1997

On October 21, 1997, the Southeast Texas Poison Center was contacted by a local physician requesting information about treatment for crew members of a cargo ship docked in Freeport, Texas, who were ill with nausea, vomiting, diarrhea, and muscle weakness. This report summarizes an investigation of this outbreak by the Texas Department of Health (TDH), which indicated that 17 crew members experienced ciguatera fish poisoning resulting from eating a contaminated barracuda.

On October 12 and 13, gastrointestinal illness developed in crew members aboard a Norwegian cargo ship. After the ship had docked, on October 22 interviews were conducted with 23 (85%) of 27 crew members. A case was defined as ciguatera fish poisoning if there was a combination of gastrointestinal symptoms (i.e., nausea, vomiting, diarrhea, or abdominal cramps) and neurologic symptoms (i.e., muscle pain, weakness, dizziness, numbness or itching of the mouth, hands, or feet) in a crew member after eating fish on October 12. Of the 23 interviewed, 17 (74%) crew members reported the following symptoms: diarrhea (17 [100%]), abdominal cramps (14 [82%]), nausea (13 [76%]), and vomiting (13 [76%]). Symptoms occurred within 2–16 hours (median: 4.5 hours) after eating fish at approximately 7 p.m. on October 12. By October 14, all ill crew members had experienced neurologic symptoms characteristic of ciguatera poisoning: 15 (88%) reported muscle weakness and pain; 13 (76%), numbness or itching of the mouth; 11 (65%), pruritus of the feet and/or hands; 11 (65%), temperature sensation reversal; 10 (59%), dizziness; and eight (47%), aching or loose-feeling teeth.

On October 21, all 17 ill crew members sought medical care at a clinic. None of the crew members were hospitalized; treatment consisted of supportive measures to reduce discomfort from symptoms. All patients were men aged 23–46 years.

Based on food histories from the 23 crew members, TDH suspected consumption of a barracuda caught by crew members while fishing near the Cay Sal Bank of the Bahamas on October 11 as the source of illness. Seventeen crew members ate the barracuda, and all became ill. None of the eight crew members who did not eat barracuda became ill. Although crew members also ate red snapper and grouper at the same meal, neither of these fish were linked epidemiologically with illness.

Results of cultures of stool samples from 16 crew members were negative for *Salmonella*, *Shigella*, *Campylobacter*, *Yersinia*, and *Vibrio*. Three samples of leftover raw barracuda and red snapper that were caught simultaneously with the barracuda that was eaten were recovered from cold storage and then tested for ciguatoxin using an experimental membrane immunobead assay at the Department of Pathology, University of Hawaii. The samples from both fish tested positive for ciguatoxin.

Reported by: W Smith, MD, US Health Works, Freeport; B Lieber, Southeast Texas Poison Center, Galveston; DM Perrotta, PhD, Bur of Epidemiology, Texas Dept of Health. Y Hokama, Univ of Hawaii, Manoa. Foodborne and Diarrheal Diseases Br, Div of Bacterial and Mycotic Diseases, National Center for Infectious Diseases; Div of Applied Public Health Training, Epidemiology Program Office; and EIS officers, CDC.

Editorial Note: Ciguatera poisoning occurs throughout the Caribbean and tropical Pacific regions, where outbreaks have been reported among both residents and tourists. From 1983 through 1992 in the United States, 129 outbreaks of ciguatera poisoning involving 508 persons were reported to CDC; no ciguatera-related deaths were reported (*1,2*). Most outbreaks were reported from Hawaii (111) and Florida (10), al-

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though outbreaks and sporadic cases in California (two), Vermont (one), New York (one), and Illinois (one) also have been associated with consumption of fish imported from tropical waters (*3,4*). The outbreak described in this report was recognized in an area not typically associated with ciguatera intoxication and underscores that ciguatera poisoning can occur among travelers returning from areas where ciguatera is endemic or among persons consuming fish imported from those areas.

Ciguatera toxins are produced by dinoflagellates, which herbivorous fish consume. These fish are then eaten by large, predatory reef fish (e.g., barracuda, grouper, and amberjacks), which appear to be unharmed by the toxin; because the toxins are lipid-soluble, they accumulate through the food chain. The toxin may be most concentrated in the head, viscera, and roe. Ciguatoxin-containing fish may be highly localized; islands may have some reefs where the fish are inedible because of the toxin and other reefs where the fish are unaffected. No deep-sea fish (e.g., tuna, dolphin, or wahoo) have been found to carry ciguatoxin.

As in this outbreak, ciguatera fish poisoning is diagnosed by the characteristic combination of acute gastrointestinal symptoms (developing within 3–6 hours after ingestion of contaminated fish; watery diarrhea, nausea, and abdominal pain occur and typically lasting approximately 12 hours) and neurologic symptoms (circumoral and extremity paresthesia, severe pruritus, and hot-cold temperature reversal) in persons who eat large, predatory reef fish. Neurologic symptoms may be worsened by alcohol consumption, exercise, sexual intercourse, or changes in dietary behavior, such as dieting or high-protein meals (*5* ; R.W. Dickey, Ph.D., Center for Food Safety and Applied Nutrition, Food and Drug Administration, personal communication, 1998). Occasionally, hypotension, respiratory depression, and coma develop in patients. Mean duration of acute illness is typically 8.5 days, although neurologic symptoms may last for months (*6*). Because there is no approved human assay for ciguatoxin, the diagnosis is based on clinical findings and by the detection of toxin in samples of fish. No known antidote for ciguatoxin poisoning has been proven, and treatment is primarily for relief of symptoms. Intravenous mannitol may be effective early in the course of illness, but the results of a randomized, placebo-controlled trial of mannitol therapy have not been reported (*7–9*).

Ciguatoxins are odorless, colorless, tasteless, and unaffected by either cooking or freezing; therefore, persons living in or traveling to areas where ciguatera toxin is endemic should follow these general precautions: 1) avoid consuming large, predatory reef fish, especially barracuda; 2) avoid eating the head, viscera, or roe of any reef fish; and 3) avoid eating fish caught at sites with known ciguatera toxins. Persons traveling to areas where ciguatera is endemic should contact local health officials for more specific recommendations pertaining to that area. Fishermen should avoid known ciguatera-contaminated areas, and vendors should not sell fish caught in those areas.

Ill persons with suspected ciguatera poisoning should promptly seek medical care and save any uneaten portions of fish in a freezer. Suspected cases should be reported to state or local public health officials to assist with the investigation and control of a possible outbreak. Additional information is available about ciguatoxin testing of implicated fish from the Gulf Coast Seafood Laboratory of the Food and Drug Administration (FDA) in Dauphin Island, Alabama, telephone (334) 694-4480, or the University of Hawaii, Honolulu, telephone (808) 956-8682. For general information about seafood safety, call FDA's Seafood Hotline, telephone (800) 332-4010.

Ciguatera Fish Poisoning — Continued

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Recruiting Black Men to a Clinical Trial to Evaluate Prostate Cancer Screening — Detroit, Michigan, 1998

In 1998, an estimated 184,500 cases of prostate cancer will be diagnosed and approximately 39,200 men will die from this disease (*1*). Black men have higher prostate cancer incidence and mortality rates than white men (*2*). Representation of blacks in clinical trials that investigate the treatment of cancer is proportional to the burden of this disease in the black population (*3*). However, blacks have generally been underrepresented in clinical trials of preventive interventions (*4*). To determine the effect of socioeconomic status (SES) on the enrollment of black men in a trial that includes screening for prostate cancer, the African American Men (AAMEN) project in Detroit, Michigan, analyzed data from local recruitment efforts. This report summarizes preliminary results of this analysis, which indicate that SES was not an important factor in refusal to participate in the screening trial.

The Prostate, Lung, Colorectal, and Ovarian Cancer Screening (PLCO) Trial, sponsored by the National Cancer Institute (NCI), is a 16-year, multisite, randomized trial initiated in 1993 to determine whether screening and early detection of these four cancers decrease mortality among healthy, asymptomatic adults aged 55–74 years (*5*). The trial includes annual screening with prostate-specific antigen (PSA) and a digital rectal examination. Potential participants are ineligible for the study if they have received more than one of the screening tests being evaluated in the trial, have been diagnosed with or are being treated for any of the PLCO trial cancers, or if they have been prescribed finasteride.

The AAMEN project was initiated in October 1996 at the Henry Ford Health System, Detroit, Michigan, as a supplement to the PLCO trial. The AAMEN project, a collaborative effort between CDC and NCI, was designed to evaluate the effectiveness of strategies aimed at increasing recruitment of black men into clinical trials of preventive services. Potential study participants were identified by using commercial and public mailing lists containing the names and addresses of black men aged 55–74 years who lived in metropolitan Detroit.

The enhanced recruitment strategies being evaluated in this study include a direct-mail recruitment packet that contains the picture and signature of a prominent black

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sports celebrity, a community leader, and a successful Detroit businessman who is approximately the same age as the men targeted for recruitment. Other strategies include follow-up telephone calls by trained black interviewers to determine eligibility to participate in the PLCO trial and recruitment sessions held at local black churches.

The study population was assigned SES codes using census block group information (*6*). Low and moderate-to-high SES levels were based on annual income and federal poverty guidelines adjusted for household size.* Of the 31,954 potential participants in AAMEN, final recruitment determinations were completed for 19,862 (62.2%). Of the participants who completed the recruitment process, 3691 (18.5%) could not be contacted, resulting in 16,171 potential participants available for analysis.

Through July 1998, the proportion of black men from moderate-to-high SES areas who refused to participate was similar to the proportion from low SES areas. However, a greater proportion of black men from moderate-to-high SES areas were ineligible than were those from low SES areas ($p<0.01$) (Table 1). Comprehensive data about reasons for ineligibility were available only for 2047 (39.4%) of the 5190 ineligible men. Of these, 47% percent were ineligible because of having received more than one PSA test during the preceding 3 years.

Reported by: ME Ford, PhD, S Havstad, MS, Henry Ford Health System, Detroit, Michigan. Epidemiology and Health Svcs Research Br, Div of Cancer Prevention and Control, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The goal of clinical trials is to provide science-based information that can be used by health-care providers in making treatment decisions and by policy makers in setting health-care policy. For clinical trials to achieve this goal, persons participating in trials should reflect the diverse composition of the population in which trial results will be applied. The factors that influence blacks to participate in clinical trials are complex and are affected by publicity surrounding ethical abuses in past studies, cultural differences in perceptions about health care, and disparities in access to quality health care (*7*). These barriers to study participation by black men must be addressed because the incidence of prostate cancer and associated mortality among black men is high and the onset is unusually early compared with the overall U.S. population; such differences cannot be adequately evaluated without sufficient enrollment of blacks in the trial.

*Low SES was defined as an annual income <1.5 times the poverty level, and moderate-to-high SES was defined as an annual income ≥1.5 times the poverty level.

TABLE 1. Number and percentage of recruitment and eligibility status of black men in the Prostate, Lung, Colorectal, and Ovarian Cancer Screening Trial, by socioeconomic status (SES)* — Detroit, Michigan, 1996–1998

	Refused		Ineligible		Deceased		Eligible and interested		Total	
SES category	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Low SES	2,707	(46.7)	1,597	(27.6)	806	(13.9)	676	(11.7)	5,786	(100.0)
Moderate-to-high SES	4,880	(47.0)	3,593	(34.5)	1,039	(10.0)	873	(8.4)	10,385	(100.0)
Total	**7,587**	**(46.9)**	**5,190**	**(32.1)**	**1,845**	**(11.4)**	**1,549**	**(9.6)**	**16,171**	**(100.0)**

*Low SES was defined as an annual income <1.5 times the poverty level, and moderate-to-high SES was defined as an annual income ≥1.5 times the poverty level.

Prostate Cancer Screening — Continued

The findings of this analysis suggest that when special efforts are made, including use of culturally appropriate approaches, SES status does not influence the willingness of black men to participate in clinical trials. The data also show that many black men were ineligible for the trial because of a high prevalence of prior PSA testing. A recent assessment by the U.S. Preventive Services Task Force recommended against the use of this test for screening because treatment of early stage prostate cancer can have deleterious side-effects, and the impact of screening and treatment on mortality has not been demonstrated definitively (*8*). However, the American Cancer Society (ACS) recommends that both the PSA test and the digital rectal examination be offered annually, beginning at age 50, to men who have a life expectancy of at least 10 additional years and to younger men who are at high risk for prostate cancer (e.g., men aged 45 years with a strong family history of prostate cancer or who are black) (*1*). ACS guidelines also emphasize the need to provide patients information about the risks and benefits of screening.

The data presented in this report may not be generalizable to black men residing in other areas of the country. In particular, the high rate of ineligibility attributable to having received a recent PSA test may be secondary to a local community effort (the Detroit Education and Early Detection program) that provides information about prostate cancer and early detection and offers PSA tests and prostate examinations to black men in metropolitan Detroit.

This study underscores that involvement of minority and underserved populations in studies of cancer prevention and control interventions requires state and federal agencies and professional and community groups to 1) support recruitment of blacks and other minority groups into clinical trials; 2) support capacity building necessary for conducting clinical trials at institutions accessible to and trusted by targeted minority populations; and 3) ensure greater involvement of study staff with culture, attitudes, beliefs, and experiences similar to those of populations targeted for clinical trial enrollment.

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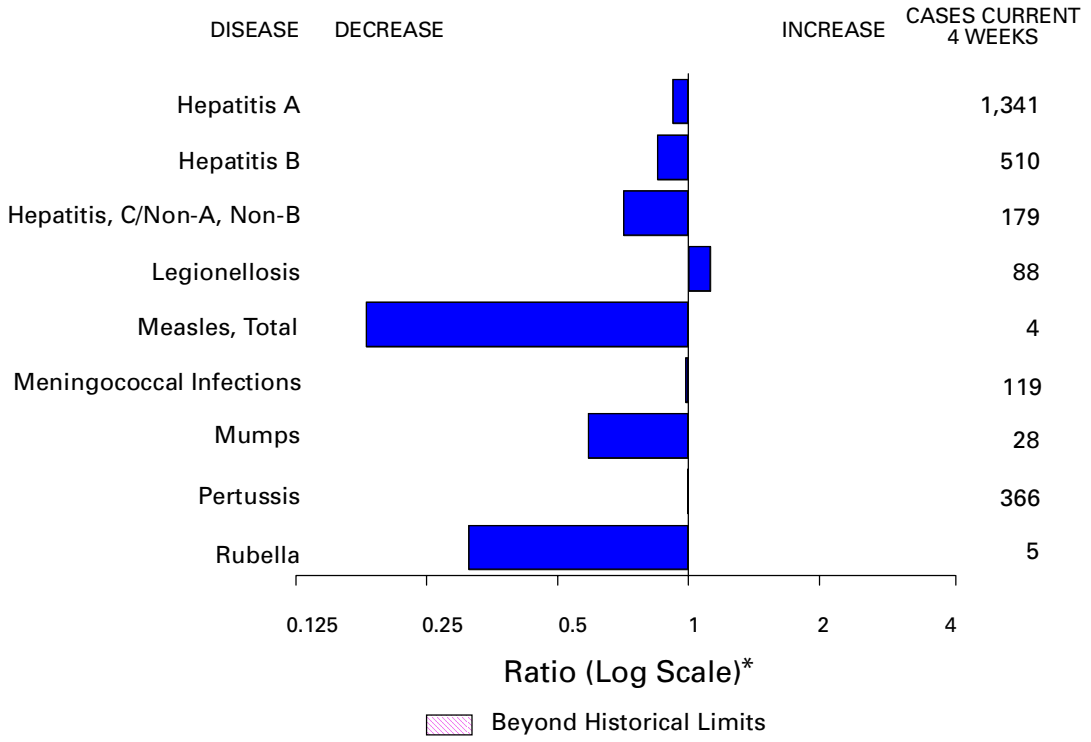
FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending August 22, 1998, with historical data — United States



*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 August 22, 1998 (33rd Week)

	Cum. 1998		Cum. 1998
Anthrax	-	Plague	6
Brucellosis	50	Poliomyelitis, paralytic	1
Cholera	6	Psittacosis	27
Congenital rubella syndrome	3	Rabies, human	-
Cryptosporidiosis*	1,351	Rocky Mountain spotted fever (RMSF)	176
Diphtheria	1	Streptococcal disease, invasive Group A	1,515
Encephalitis: California*	23	Streptococcal toxic-shock syndrome*	39
eastern equine*	2	Syphilis, congenital¶	185
St. Louis*	2	Tetanus	25
western equine*	-	Toxic-shock syndrome	80
Hansen Disease	72	Trichinosis	9
Hantavirus pulmonary syndrome*†	19	Typhoid fever	197
Hemolytic uremic syndrome, post-diarrheal*	40	Yellow fever	-
HIV infection, pediatric*§	145		

-: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 July 26, 1998.
¶ Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending August 22, 1998, and August 16, 1997 (33rd 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	27,399	35,833	340,096	282,823	1,570	817	204,112	177,621	2,394	2,241
NEW ENGLAND	1,025	1,549	12,238	10,890	194	135	3,462	3,658	32	43
Maine	21	36	632	636	21	-	43	36	-	-
N.H.	26	19	588	496	30	32	57	65	-	-
Vt.	14	24	263	245	10	7	24	35	-	2
Mass.	522	597	5,002	4,477	92	80	1,228	1,366	29	34
R.I.	78	107	1,481	1,226	8	1	230	284	3	7
Conn.	364	766	4,272	3,810	33	15	1,880	1,872	-	-
MID. ATLANTIC	7,578	11,189	40,732	35,376	165	36	23,123	22,812	265	208
Upstate N.Y.	961	1,728	N	N	116	-	3,749	3,972	203	152
N.Y. City	4,074	5,736	21,717	16,877	4	7	9,498	8,346	-	-
N.J.	1,475	2,347	6,641	6,229	45	28	4,045	4,625	-	-
Pa.	1,068	1,378	12,374	12,270	N	1	5,831	5,869	62	56
E.N. CENTRAL	2,078	2,556	56,466	37,772	251	149	39,208	24,204	332	393
Ohio	430	561	16,032	13,874	70	22	10,171	8,959	7	12
Ind.	355	394	3,906	5,500	61	28	2,523	3,632	4	11
Ill.	825	892	16,784	U	60	14	13,676	U	20	68
Mich.	353	545	13,448	11,582	60	35	10,230	8,727	301	281
Wis.	115	164	6,296	6,816	N	50	2,608	2,886	-	21
W.N. CENTRAL	532	696	19,299	19,762	225	165	9,570	8,707	114	43
Minn.	104	128	3,836	4,126	86	78	1,402	1,439	7	3
Iowa	49	74	2,063	2,858	69	32	660	756	6	21
Mo.	244	331	7,451	7,467	15	29	5,396	4,668	96	7
N. Dak.	4	7	330	520	6	11	30	34	-	2
S. Dak.	11	3	1,010	779	15	10	158	88	-	-
Nebr.	48	65	1,385	1,174	19	-	497	442	2	2
Kans.	72	88	3,224	2,838	15	5	1,427	1,280	3	8
S. ATLANTIC	6,869	8,751	69,329	59,011	141	79	57,408	57,667	128	149
Del.	91	159	1,569	-	-	1	868	745	-	-
Md.	826	1,078	5,160	4,488	19	9	6,038	7,319	6	4
D.C.	567	658	N	N	1	-	2,229	2,783	-	-
Va.	502	748	7,577	7,408	N	25	4,966	5,079	10	18
W. Va.	59	60	1,686	1,826	7	3	479	603	4	13
N.C.	456	503	14,099	10,788	34	31	12,137	10,525	15	38
S.C.	452	498	11,734	7,568	5	2	7,485	6,802	3	27
Ga.	725	1,071	14,759	10,908	47	-	12,947	12,530	9	-
Fla.	3,191	3,976	12,745	16,025	28	8	10,259	11,281	81	49
E.S. CENTRAL	1,084	1,220	24,845	21,661	74	27	24,203	21,677	109	238
Ky.	156	211	3,981	4,117	19	-	2,296	2,607	16	11
Tenn.	378	527	8,225	8,034	32	24	7,182	6,761	88	155
Ala.	330	287	6,492	5,193	20	2	8,311	7,350	5	6
Miss.	220	195	6,147	4,317	U	1	6,414	4,959	U	66
W.S. CENTRAL	3,328	3,684	51,031	36,234	87	12	29,682	23,847	587	296
Ark.	123	159	2,250	1,880	7	6	1,230	3,077	5	9
La.	586	665	9,379	5,849	3	2	8,139	5,438	21	136
Okla.	183	216	6,339	4,731	11	4	3,470	2,998	8	6
Tex.	2,436	2,644	33,063	23,774	66	-	16,843	12,334	553	145
MOUNTAIN	967	1,054	13,832	18,154	212	87	5,219	4,921	263	190
Mont.	18	26	783	661	10	-	28	27	7	15
Idaho	19	34	1,083	946	25	7	107	73	86	37
Wyo.	1	13	399	371	49	-	18	36	46	45
Colo.	186	264	10	4,186	43	33	1,418	1,312	19	21
N. Mex.	153	105	2,282	2,399	16	11	560	538	67	33
Ariz.	377	247	7,184	6,726	21	13	2,622	2,206	3	24
Utah	70	86	1,448	990	42	15	156	145	21	3
Nev.	143	279	643	1,875	6	8	310	584	14	12
PACIFIC	3,938	5,134	52,324	43,963	221	127	12,237	10,128	564	681
Wash.	270	417	6,708	5,706	37	22	1,143	1,195	13	20
Oreg.	116	188	3,574	3,041	65	61	516	471	4	2
Calif.	3,439	4,450	39,488	33,205	116	35	10,085	7,893	492	548
Alaska	17	42	1,189	927	3	-	207	247	1	-
Hawaii	96	37	1,365	1,084	N	9	286	322	54	111
Guam	-	2	8	193	N	-	2	27	-	-
P.R.	1,141	1,199	U	U	2	U	262	395	-	-
V.I.	18	70	N	N	N	U	U	U	U	U
Amer. Samoa	-	-	U	U	N	U	U	U	U	U
C.N.M.I.	-	1	N	N	N	U	14	17	-	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 July 26, 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 August 22, 1998, and August 16, 1997 (33rd 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	748	555	6,398	6,124	767	1,105	4,576	5,295	8,441	11,071	4,381
NEW ENGLAND	38	44	1,876	1,741	40	48	42	102	256	271	858
Maine	1	2	6	8	4	1	1	-	5	16	128
N.H.	3	4	27	9	3	2	1	-	6	10	43
Vt.	4	9	6	6	-	2	4	-	1	4	40
Mass.	13	13	406	236	13	24	25	48	135	151	281
R.I.	8	5	266	219	2	5	1	2	34	20	57
Conn.	9	11	1,165	1,263	18	14	10	52	75	70	309
MID. ATLANTIC	188	104	3,737	3,319	188	339	169	257	1,748	2,002	1,031
Upstate N.Y.	60	29	2,185	1,391	54	48	23	24	215	268	725
N.Y. City	23	12	12	135	82	211	36	57	907	1,020	U
N.J.	8	15	649	1,054	30	60	55	105	369	404	125
Pa.	97	48	891	739	22	20	55	71	257	310	181
E.N. CENTRAL	227	182	67	322	69	106	647	405	703	1,124	93
Ohio	96	78	48	22	6	13	82	135	53	176	43
Ind.	43	29	13	18	7	10	154	99	76	91	7
Ill.	16	13	5	9	22	44	238	U	399	594	9
Mich.	49	40	1	20	32	27	130	93	172	187	26
Wis.	23	22	U	253	2	12	43	78	3	76	8
W.N. CENTRAL	48	35	122	57	56	32	87	116	248	354	480
Minn.	3	1	98	32	29	10	6	14	96	92	84
Iowa	7	9	18	4	7	8	-	6	20	41	112
Mo.	14	5	1	15	10	7	68	70	86	138	19
N. Dak.	-	2	-	-	2	2	-	-	3	8	98
S. Dak.	3	2	-	1	-	-	1	-	14	7	90
Nebr.	15	12	3	2	1	1	4	2	11	14	5
Kans.	6	4	2	3	7	4	8	24	18	54	72
S. ATLANTIC	91	73	429	472	175	191	1,884	2,168	1,294	1,998	1,295
Del.	8	7	12	94	1	3	16	16	U	20	17
Md.	20	14	284	298	53	58	411	593	186	195	328
D.C.	6	3	4	7	12	10	49	77	67	60	-
Va.	15	15	42	29	35	48	102	158	174	194	387
W. Va.	N	N	8	3	1	-	2	3	29	40	59
N.C.	7	10	38	23	13	10	473	526	265	251	136
S.C.	7	3	3	1	4	10	179	237	190	216	98
Ga.	4	-	5	1	21	23	506	348	313	376	135
Fla.	23	21	33	16	35	29	146	210	70	646	135
E.S. CENTRAL	43	38	54	57	19	23	758	1,163	636	837	192
Ky.	19	7	13	12	3	6	72	92	115	116	27
Tenn.	12	22	29	24	10	6	362	503	223	309	103
Ala.	5	2	12	4	4	8	174	286	162	257	60
Miss.	U	7	U	17	U	3	150	282	136	155	U
W.S. CENTRAL	20	12	20	55	22	16	635	760	951	1,640	121
Ark.	-	1	6	15	1	4	75	114	75	124	27
La.	2	2	3	2	6	8	265	234	73	145	-
Okla.	8	1	2	11	3	4	42	77	107	142	94
Tex.	10	8	9	27	12	-	253	335	696	1,229	-
MOUNTAIN	44	35	10	7	36	51	144	104	255	359	124
Mont.	2	1	-	-	-	2	-	-	16	6	35
Idaho	2	2	3	2	7	-	-	-	8	7	-
Wyo.	1	1	-	1	-	2	1	-	3	2	47
Colo.	10	11	3	-	11	25	8	9	U	61	19
N. Mex.	2	2	2	1	11	7	19	4	34	35	3
Ariz.	10	8	-	1	6	7	110	79	124	167	12
Utah	16	6	-	-	1	3	3	4	36	14	8
Nev.	1	4	2	2	-	5	3	8	34	67	-
PACIFIC	49	32	83	94	162	299	210	220	2,350	2,486	187
Wash.	9	6	5	5	15	13	23	7	148	200	-
Oreg.	-	-	10	12	13	15	4	5	83	106	1
Calif.	38	25	67	77	130	263	182	206	1,985	2,003	164
Alaska	1	-	1	-	1	3	-	1	31	55	22
Hawaii	1	1	-	-	3	5	1	1	103	122	-
Guam	-	-	-	-	-	-	-	3	-	13	-
P.R.	-	-	-	-	-	5	133	161	46	129	33
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	-	-	-	-	98	9	54	2	-

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

*Additional information about areas displaying "U" for cumulative 1998 Tuberculosis cases can be found in Notice to Readers, *MMWR* Vol. 47, No. 2, p. 39.

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 22, 1998, and August 16, 1997 (33rd 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	696	729	13,914	17,537	5,197	5,918	1	28	-	18	46	105
NEW ENGLAND	38	40	159	448	107	109	-	1	-	2	3	19
Maine	2	3	15	46	2	6	-	-	-	-	-	1
N.H.	7	6	8	21	11	7	-	-	-	-	-	1
Vt.	4	3	13	8	3	5	-	-	-	1	1	-
Mass.	22	24	46	190	22	48	U	1	U	1	2	16
R.I.	2	2	11	101	51	11	-	-	-	-	-	-
Conn.	1	2	66	82	18	32	-	-	-	-	-	1
MID. ATLANTIC	96	109	937	1,379	729	859	-	9	-	4	13	23
Upstate N.Y.	38	30	224	203	192	177	-	2	-	-	2	5
N.Y. City	19	30	231	618	191	325	U	-	U	-	-	7
N.J.	34	34	218	200	135	159	-	7	-	1	8	3
Pa.	5	15	264	358	211	198	-	-	-	3	3	8
E.N. CENTRAL	116	120	1,943	1,798	529	966	-	11	-	3	14	9
Ohio	42	68	221	221	52	57	-	-	-	1	1	-
Ind.	27	11	110	191	67	72	-	2	-	1	3	-
Ill.	40	27	314	485	102	183	-	-	-	-	-	7
Mich.	3	14	1,178	769	285	283	-	9	-	1	10	2
Wis.	4	-	120	132	23	371	-	-	-	-	-	-
W.N. CENTRAL	64	37	980	1,330	255	316	-	-	-	-	-	12
Minn.	49	27	89	111	27	23	-	-	-	-	-	3
Iowa	2	4	375	253	45	24	-	-	-	-	-	-
Mo.	8	3	391	689	151	232	U	-	U	-	-	1
N. Dak.	-	-	3	10	4	4	-	-	-	-	-	-
S. Dak.	-	2	21	17	1	1	-	-	-	-	-	8
Nebr.	-	1	24	55	9	9	-	-	-	-	-	-
Kans.	5	-	77	195	18	23	-	-	-	-	-	-
S. ATLANTIC	146	115	1,193	1,059	774	764	1	3	-	5	8	10
Del.	-	-	3	23	-	4	-	-	-	1	1	-
Md.	41	44	198	133	100	109	-	-	-	1	1	2
D.C.	-	-	36	17	8	25	U	-	U	-	-	1
Va.	13	10	150	139	69	79	-	-	-	2	2	1
W. Va.	4	3	1	8	4	9	-	-	-	-	-	-
N.C.	21	17	72	123	150	162	-	-	-	-	-	1
S.C.	3	3	21	72	23	62	-	-	-	-	-	1
Ga.	32	22	360	234	124	87	-	1	-	1	2	1
Fla.	32	16	352	310	296	227	1	2	-	-	2	3
E.S. CENTRAL	40	40	263	418	252	446	-	-	-	1	1	1
Ky.	6	6	15	51	28	27	-	-	-	-	-	-
Tenn.	22	24	153	260	175	287	-	-	-	-	-	-
Ala.	10	8	52	58	49	43	-	-	-	1	1	1
Miss.	U	2	U	49	U	89	U	U	U	U	U	-
W.S. CENTRAL	42	33	2,708	3,612	882	747	-	-	-	-	-	7
Ark.	-	2	68	148	56	56	-	-	-	-	-	-
La.	19	7	51	139	64	93	-	-	-	-	-	-
Okla.	20	22	381	1,017	58	26	-	-	-	-	-	-
Tex.	3	2	2,208	2,308	704	572	-	-	-	-	-	7
MOUNTAIN	73	68	2,134	2,730	548	557	-	-	-	-	-	7
Mont.	-	-	69	57	5	6	-	-	-	-	-	-
Idaho	-	1	180	96	22	18	-	-	-	-	-	-
Wyo.	1	2	26	24	2	17	-	-	-	-	-	-
Colo.	15	12	180	285	71	102	-	-	-	-	-	-
N. Mex.	5	7	104	216	228	179	-	-	-	-	-	-
Ariz.	41	28	1,352	1,352	138	128	-	-	-	-	-	5
Utah	4	3	138	414	51	65	-	-	-	-	-	-
Nev.	7	15	85	286	31	42	U	-	U	-	-	2
PACIFIC	81	167	3,597	4,763	1,121	1,154	-	4	-	3	7	17
Wash.	7	3	698	335	71	51	-	-	-	1	1	1
Oreg.	34	26	247	244	72	70	-	-	-	-	-	-
Calif.	32	129	2,606	4,064	964	1,014	-	4	-	2	6	12
Alaska	1	2	15	25	9	11	-	-	-	-	-	-
Hawaii	7	7	31	95	5	8	-	-	-	-	-	4
Guam	-	-	-	-	-	3	U	-	U	-	-	-
P.R.	2	-	39	206	271	481	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	6	1	1	28	34	U	-	U	-	-	1

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

*Of 160 cases among children aged <5 years, serotype was reported for 89 and of those, 35 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 August 22, 1998, and August 16, 1997 (33rd 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	1,830	2,292	12	322	405	94	3,074	3,360	2	297	129
NEW ENGLAND	74	139	-	2	8	1	509	634	-	36	1
Maine	5	15	-	-	-	-	5	7	-	-	-
N.H.	4	12	-	-	-	-	45	75	-	-	-
Vt.	1	3	-	-	-	-	57	183	-	-	-
Mass.	36	71	U	1	2	U	367	343	U	6	1
R.I.	3	12	-	-	5	-	7	12	-	1	-
Conn.	25	26	-	1	1	1	28	14	-	29	-
MID. ATLANTIC	171	243	-	18	45	29	343	248	-	124	30
Upstate N.Y.	44	67	-	3	10	21	183	95	-	110	4
N.Y. City	18	42	U	4	3	U	9	57	U	9	26
N.J.	46	45	-	2	7	-	5	11	-	4	-
Pa.	63	89	-	9	25	8	146	85	-	1	-
E.N. CENTRAL	285	334	-	57	50	13	306	349	-	-	5
Ohio	107	123	-	21	18	10	137	100	-	-	-
Ind.	51	37	-	6	6	-	68	35	-	-	-
Ill.	66	97	-	10	8	3	43	45	-	-	1
Mich.	35	48	-	20	15	-	41	43	-	-	-
Wis.	26	29	-	-	3	-	17	126	-	-	4
W.N. CENTRAL	149	166	-	21	12	-	256	203	-	28	-
Minn.	25	29	-	10	5	-	159	134	-	-	-
Iowa	29	38	-	7	6	-	52	11	-	-	-
Mo.	53	72	U	3	-	U	16	33	U	2	-
N. Dak.	2	1	-	1	-	-	2	1	-	-	-
S. Dak.	6	4	-	-	-	-	7	3	-	-	-
Nebr.	7	6	-	-	1	-	8	4	-	-	-
Kans.	27	16	-	-	-	-	12	17	-	26	-
S. ATLANTIC	322	390	-	39	48	8	187	299	1	10	59
Del.	1	5	-	-	-	1	3	1	-	-	-
Md.	24	36	-	-	1	-	31	95	1	1	-
D.C.	-	7	U	-	-	U	1	3	U	-	-
Va.	26	38	-	5	9	1	9	34	-	-	1
W. Va.	12	14	-	-	-	-	1	5	-	-	-
N.C.	47	75	-	9	8	1	69	85	-	6	51
S.C.	44	42	-	5	10	-	22	14	-	-	6
Ga.	68	77	-	1	6	-	10	8	-	-	-
Fla.	100	96	-	19	14	5	41	54	-	3	1
E.S. CENTRAL	156	173	-	11	22	-	71	85	1	2	1
Ky.	19	38	-	-	3	-	22	34	-	-	-
Tenn.	50	61	-	1	3	-	24	26	1	1	-
Ala.	66	53	-	6	6	-	22	16	-	1	1
Miss.	U	21	U	U	10	U	U	9	U	U	-
W.S. CENTRAL	205	217	7	47	44	12	222	141	-	79	4
Ark.	26	25	7	7	1	9	38	12	-	-	-
La.	46	46	-	8	11	-	2	13	-	-	-
Okla.	31	24	-	-	-	-	18	17	-	-	-
Tex.	102	122	-	32	32	3	164	99	-	79	4
MOUNTAIN	103	133	2	28	49	10	623	836	-	5	6
Mont.	3	7	-	-	-	1	4	15	-	-	-
Idaho	7	8	1	4	2	-	196	479	-	-	2
Wyo.	6	1	-	1	1	-	8	6	-	-	-
Colo.	21	35	-	7	3	1	134	227	-	-	-
N. Mex.	17	23	N	N	N	-	74	60	-	1	-
Ariz.	34	35	-	5	31	-	139	24	-	1	4
Utah	11	11	1	4	6	8	45	12	-	2	-
Nev.	4	13	U	7	6	U	23	13	U	1	-
PACIFIC	365	497	3	99	127	21	557	565	-	13	23
Wash.	50	63	-	7	14	3	196	230	-	9	5
Oreg.	62	95	N	N	N	13	57	25	-	-	-
Calif.	247	332	3	73	89	5	291	279	-	2	10
Alaska	2	2	-	2	6	-	7	16	-	-	-
Hawaii	4	5	-	17	18	-	6	15	-	2	8
Guam	-	1	U	-	1	U	-	-	U	-	-
P.R.	6	8	-	1	5	1	3	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	2	4	U	1	-	U	-	-

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

TABLE IV. Deaths in 122 U.S. cities,* week ending August 22, 1998 (33rd Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	457	305	93	40	9	10	34
Boston, Mass.	134	80	34	12	1	7	12
Bridgeport, Conn.	34	22	8	3	1	-	-
Cambridge, Mass.	16	13	2	1	-	-	1
Fall River, Mass.	28	19	8	-	1	-	-
Hartford, Conn.	44	27	7	7	2	1	2
Lowell, Mass.	27	21	2	3	1	-	4
Lynn, Mass.	9	7	1	1	-	-	1
New Bedford, Mass.	24	17	5	1	-	1	-
New Haven, Conn.	32	26	3	2	-	1	2
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	2	1	-	1	-	-	-
Springfield, Mass.	31	21	7	2	1	-	2
Waterbury, Conn.	28	22	4	2	-	-	2
Worcester, Mass.	48	29	12	5	2	-	8
MID. ATLANTIC	2,221	1,484	447	186	49	54	96
Albany, N.Y.	51	38	9	2	2	-	1
Allentown, Pa.	18	14	1	3	-	-	-
Buffalo, N.Y.	91	70	15	3	1	2	7
Camden, N.J.	39	20	6	6	3	4	-
Elizabeth, N.J.	12	11	-	-	-	1	-
Erie, Pa.	37	32	2	3	-	-	2
Jersey City, N.J.	31	21	6	2	2	-	-
New York City, N.Y.	1,076	714	241	83	28	10	34
Newark, N.J.	84	37	22	12	2	11	9
Paterson, N.J.	19	17	2	-	-	-	-
Philadelphia, Pa.	400	240	84	52	9	14	23
Pittsburgh, Pa.§	71	47	15	3	-	6	5
Reading, Pa.	27	25	-	2	-	-	2
Rochester, N.Y.	100	78	16	3	-	3	5
Schenectady, N.Y.	21	16	4	1	-	-	1
Scranton, Pa.	28	24	2	2	-	-	-
Syracuse, N.Y.	77	52	16	6	-	3	7
Trenton, N.J.	27	19	4	3	1	-	-
Utica, N.Y.	12	9	2	-	1	-	-
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	1,515	1,036	288	114	36	41	87
Akron, Ohio	45	28	10	4	1	2	-
Canton, Ohio	36	28	7	-	-	1	1
Chicago, Ill.	U	U	U	U	U	U	U
Cincinnati, Ohio	70	46	12	6	2	4	4
Cleveland, Ohio	127	78	28	15	2	4	3
Columbus, Ohio	189	119	45	10	3	12	21
Dayton, Ohio	115	85	18	8	3	1	4
Detroit, Mich.	219	126	55	30	5	3	7
Evansville, Ind.	42	33	8	-	-	1	3
Fort Wayne, Ind.	63	51	8	3	1	-	3
Gary, Ind.	11	4	5	1	1	-	-
Grand Rapids, Mich.	64	48	10	4	1	1	8
Indianapolis, Ind.	163	103	27	14	11	8	-
Lansing, Mich.	22	19	1	1	1	-	6
Milwaukee, Wis.	102	79	13	5	2	3	13
Peoria, Ill.	45	37	4	3	1	-	1
Rockford, Ill.	37	27	6	3	1	-	3
South Bend, Ind.	28	22	4	2	-	-	1
Toledo, Ohio	76	57	14	3	1	1	5
Youngstown, Ohio	61	46	13	2	-	-	4
W.N. CENTRAL	454	329	67	32	11	12	24
Des Moines, Iowa	U	U	U	U	U	U	U
Duluth, Minn.	15	11	2	1	-	1	-
Kansas City, Kans.	U	U	U	U	U	U	U
Kansas City, Mo.	98	68	7	12	3	5	6
Lincoln, Nebr.	42	29	8	4	1	-	3
Minneapolis, Minn.	153	118	23	7	4	1	8
Omaha, Nebr.	71	44	14	7	2	4	4
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	75	59	13	1	1	1	3
Wichita, Kans.	U	U	U	U	U	U	U
S. ATLANTIC	1,145	722	238	129	31	24	52
Atlanta, Ga.	176	99	44	19	3	11	5
Baltimore, Md.	193	109	43	33	7	-	12
Charlotte, N.C.	104	71	18	10	3	2	17
Jacksonville, Fla.	97	64	22	8	2	1	2
Miami, Fla.	114	71	23	13	4	3	-
Norfolk, Va.	49	26	14	5	1	3	3
Richmond, Va.	59	38	12	6	2	1	-
Savannah, Ga.	48	36	8	3	1	-	1
St. Petersburg, Fla.	73	58	6	5	4	-	2
Tampa, Fla.	161	112	33	13	2	1	10
Washington, D.C.	71	38	15	14	2	2	-
Wilmington, Del.	U	U	U	U	U	U	U
E.S. CENTRAL	812	534	159	75	22	21	35
Birmingham, Ala.	172	125	29	13	3	1	8
Chattanooga, Tenn.	63	40	9	11	2	1	3
Knoxville, Tenn.	59	35	12	8	2	2	2
Lexington, Ky.	60	36	13	6	3	2	4
Memphis, Tenn.	211	132	52	18	5	4	13
Mobile, Ala.	59	43	5	8	1	2	2
Montgomery, Ala.	47	31	9	2	2	3	2
Nashville, Tenn.	141	92	30	9	4	6	1
W.S. CENTRAL	1,505	966	311	136	49	43	76
Austin, Tex.	89	55	12	12	6	4	1
Baton Rouge, La.	21	17	3	1	-	-	-
Corpus Christi, Tex.	69	50	12	6	-	1	6
Dallas, Tex.	223	136	51	23	4	9	6
El Paso, Tex.	91	58	20	8	4	1	6
Ft. Worth, Tex.	106	68	27	5	4	2	5
Houston, Tex.	396	248	84	42	14	8	28
Little Rock, Ark.	65	36	18	5	1	5	2
New Orleans, La.	88	49	23	11	1	4	-
San Antonio, Tex.	175	125	25	9	10	6	12
Shreveport, La.	43	23	10	5	2	3	1
Tulsa, Okla.	139	101	26	9	3	-	9
MOUNTAIN	860	572	149	77	29	33	61
Albuquerque, N.M.	95	70	13	5	5	2	4
Boise, Idaho	32	21	6	2	2	1	2
Colo. Springs, Colo.	61	44	9	4	1	3	4
Denver, Colo.	87	52	10	12	5	8	5
Las Vegas, Nev.	184	122	35	18	6	3	8
Ogden, Utah	29	22	6	1	-	-	2
Phoenix, Ariz.	153	93	29	13	8	10	14
Pueblo, Colo.	27	20	3	4	-	-	1
Salt Lake City, Utah	90	55	20	7	2	6	10
Tucson, Ariz.	102	73	18	11	-	-	11
PACIFIC	1,754	1,226	328	115	49	36	144
Berkeley, Calif.	12	6	6	-	-	-	1
Fresno, Calif.	124	80	20	12	10	2	5
Glendale, Calif.	U	U	U	U	U	U	U
Honolulu, Hawaii	60	44	12	2	2	-	4
Long Beach, Calif.	84	60	18	4	1	1	15
Los Angeles, Calif.	462	325	88	36	8	5	21
Pasadena, Calif.	21	15	5	-	1	-	4
Portland, Oreg.	108	80	20	3	3	2	11
Sacramento, Calif.	170	114	39	8	8	1	22
San Diego, Calif.	152	106	26	12	4	4	16
San Francisco, Calif.	106	77	18	9	-	2	9
San Jose, Calif.	168	125	27	10	3	3	17
Santa Cruz, Calif.	18	12	3	3	-	-	2
Seattle, Wash.	126	82	27	11	3	3	3
Spokane, Wash.	51	38	7	3	3	-	6
Tacoma, Wash.	92	62	12	2	3	13	8
TOTAL	10,723¶	7,174	2,080	904	285	274	609

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.

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

Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data

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

State Support Team

Robert Fagan
Karl A. Brendel
Harry Holden
Gerald Jones
Felicia Perry
Carol A. Worsham

CDC Operations Team

Carol M. Knowles
Deborah A. Adams
Willie J. Anderson
Patsy A. Hall
Amy K. Henion
Myra A. Montalbano
Angela Trosclair, M.S.

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