CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

MMWR™

MORBIDITY AND MORTALITY WEEKLY REPORT

Published December 31, 1999,
for 1998 / Vol. 47 / No. 53

Summary of Notifiable Diseases, United States

1998

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control
and Prevention (CDC)
Atlanta, Georgia 30333

The statistical summary of notifiable diseases in the United States is published to accompany each volume of the *Morbidity and Mortality Weekly Report* by the Centers for Disease Control and Prevention (CDC), U.S. Department of Health and Human Services, Atlanta, GA 30333.

SUGGESTED CITATION
Centers for Disease Control and Prevention. *Summary of notifiable diseases, United States, 1998*. MMWR 1998;47(53): [inclusive page numbers].

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Preface

The *MMWR Summary of Notifiable Diseases, United States, 1998* contains summary tables of the official statistics for the reported occurrence of nationally notifiable diseases in the United States for 1998. These statistics are collected and compiled from reports to the National Notifiable Diseases Surveillance System (NNDSS), which is operated by CDC in collaboration with the Council of State and Territorial Epidemiologists (CSTE).

Because the dates of onset or diagnosis for notifiable diseases are not always reported, these surveillance data are presented by the week they were reported to CDC by public health officials in state and territorial health departments. These data are finalized and published each year in the *MMWR Summary of Notifiable Diseases, United States* for use by state and local health departments; schools of medicine and public health; communications media; local, state, and federal agencies; and other agencies or persons interested in following the trends of reportable diseases in the United States. This publication also documents which diseases are considered national priorities for notification and the annual number of cases of such diseases.

The Highlights section presents information on selected nationally notifiable and non-notifiable diseases to provide a context in which to interpret surveillance and disease-trend data and to provide further information on the epidemiology and prevention of selected diseases.

Part 1 contains tables that present morbidity for each of the diseases considered nationally notifiable during 1998.* The tables provide the number of cases of notifiable diseases reported to CDC for 1998, as well as the distribution of cases by month and geographic location and by patient's age, sex, race, and Hispanic ethnicity. The data are final totals as of August 13, 1999, unless otherwise noted. Nationally notifiable diseases that are reportable in fewer than 40 states also do not appear in these tables. In all tables, leprosy is listed as Hansen disease, and tickborne typhus fever is listed as Rocky Mountain spotted fever (RMSF).

Part 2 contains graphs and maps. These graphs and maps depict summary data for many of the notifiable diseases described in tabular form in Part 1.

Part 3 contains tables that list the number of cases of notifiable diseases reported to CDC since 1967. This section also includes a table enumerating deaths associated with specified notifiable diseases reported to the National Center for Health Statistics (NCHS), CDC, during 1988–1997.

The Bibliography section presents general and disease-specific references pertaining to the notifiable infectious diseases. These references provide additional information on surveillance and epidemiologic issues, diagnostic issues, or disease control activities.

*Because no cases of anthrax, western equine encephalitis, or yellow fever were reported in the United States during 1998, these diseases do not appear in the tables in Part 1.

Background

As of January 1, 1998, a total of 52 infectious diseases were designated as notifiable at the national level. A notifiable disease is one for which regular, frequent, and timely information regarding individual cases is considered necessary for the prevention and control of the disease. This section briefly summarizes the history of the reporting of nationally notifiable diseases in the United States.

In 1878, Congress authorized the U.S. Marine Hospital Service (i.e., the forerunner of the Public Health Service [PHS]) to collect morbidity reports regarding cholera, smallpox, plague, and yellow fever from U.S. consuls overseas. The intention was to use this information to institute quarantine measures to prevent the introduction and spread of these diseases into the United States. In 1879, a specific Congressional appropriation was made for the collection and publication of reports of these notifiable diseases. Congress expanded the authority for weekly reporting and publication of these reports in 1893 to include data from states and municipal authorities. To increase the uniformity of the data, Congress enacted a law in 1902 directing the Surgeon General to provide forms for the collection and compilation of data and for the publication of reports at the national level. In 1912, state and territorial health authorities — in conjunction with PHS — recommended immediate telegraphic reporting of five infectious diseases and the monthly reporting, by letter, of 10 additional diseases. The first annual summary of *The Notifiable Diseases* in 1912 included reports of 10 diseases from 19 states, the District of Columbia, and Hawaii. By 1928, all states, the District of Columbia, Hawaii, and Puerto Rico were participating in national reporting of 29 specified diseases. At their annual meeting in 1950, state and territorial health officers authorized the Council of State and Territorial Epidemiologists (CSTE) to determine which diseases should be reported to PHS. In 1961, CDC assumed responsibility for the collection and publication of data concerning nationally notifiable diseases.

The list of nationally notifiable diseases is revised periodically. For example, a disease might be added to the list as a new pathogen emerges, or a disease might be deleted as its incidence declines. Public health officials at state health departments and CDC continue to collaborate in determining which diseases should be nationally notifiable. CSTE, with input from CDC, makes recommendations annually for additions and deletions. However, state reporting of nationally notifiable diseases to CDC is voluntary. Reporting currently is mandated (i.e., by legislation or regulation) only at the state and local level. Thus, the list of diseases considered notifiable varies slightly by state. All states generally report the internationally quarantinable diseases (i.e., cholera, plague, and yellow fever) in compliance with the World Health Organization's International Health Regulations.

The list of 52 infectious diseases designated as notifiable at the national level during 1998 is as follows:

The 52 Infectious Diseases Designated as Notifiable at the National Level During 1998

- Acquired immunodeficiency syndrome (AIDS)
- Anthrax
- Botulism
- Brucellosis
- Chancroid
- *Chlamydia trachomatis*, genital infection
- Cholera
- Coccidioidomycosis*
- Congenital rubella syndrome
- Cryptosporidiosis
- Diphtheria
- Encephalitis, California serogroup viral
- Encephalitis, eastern equine
- Encephalitis, St. Louis
- Encephalitis, western equine
- *Escherichia coli* O157:H7
- Gonorrhea
- *Haemophilus influenzae*, invasive disease
- Hansen disease (leprosy)
- Hantavirus pulmonary syndrome
- Hemolytic uremic syndrome, postdiarrheal
- Hepatitis A
- Hepatitis B
- Hepatitis C; non-A, non-B
- HIV infection, pediatric
- Legionellosis
- Lyme disease
- Malaria
- Measles (rubeola)
- Meningococcal disease
- Mumps
- Pertussis (whooping cough)
- Plague
- Poliomyelitis, paralytic
- Psittacosis
- Rabies, animal
- Rabies, human
- Rocky Mountain spotted fever
- Rubella (German measles)
- Salmonellosis
- Shigellosis
- Streptococcal disease, invasive, group A
- *Streptococcus pneumoniae*, drug-resistant*
- Streptococcal toxic-shock syndrome
- Syphilis
- Syphilis, congenital
- Tetanus
- Toxic-shock syndrome
- Trichinosis
- Tuberculosis
- Typhoid fever
- Yellow fever

*Not currently published in *MMWR* weekly tables.

Note: Although varicella (chickenpox) is not a nationally notifiable disease, the Council of State and Territorial Epidemiologists recommends reporting cases of this disease to CDC.

Data Sources

Provisional data concerning the reported occurrence of notifiable diseases are published weekly in *MMWR*. After each reporting year, staff in state health departments finalize reports of cases for that year with local or county health departments and reconcile the data with reports previously sent to CDC throughout the year. These data are compiled in final form in the *MMWR Summary of Notifiable Diseases, United States*.

Notifiable disease reports are the authoritative and archival counts of cases. They must be approved by the appropriate epidemiologist from each submitting state or territory before being published in the *MMWR Summary of Notifiable Diseases, United States*. Although useful for detailed epidemiologic analyses, data published in *MMWR Surveillance Summaries* or other surveillance reports produced by CDC programs might not agree exactly with data reported in the annual summary because of differences in the timing of reports, the source of the data, and the case definitions.

Data in the *MMWR Summary of Notifiable Diseases, United States* were derived primarily from reports transmitted to the Division of Public Health Surveillance and Informatics, Epidemiology Program Office, CDC, from health departments in the 50 states, five territories, New York City, and the District of Columbia through the National Electronic Telecommunications System for Surveillance (NETSS). More information regarding NETSS and notifiable diseases, including case definitions for these conditions, is available on the Internet at <http://www.cdc.gov/epo/phs.htm>. Policies for reporting notifiable disease cases can vary by disease or reporting jurisdiction, depending on case status classification (i.e., confirmed, probable, or suspect).

Final data for selected diseases (presented in Parts 1, 2, and 3) are from the surveillance records of the CDC programs listed below. Requests for further information regarding these data should be directed to the appropriate program.

National Center for Health Statistics (NCHS)

Office of Vital and Health Statistics Systems (deaths from selected notifiable diseases).

National Center for Infectious Diseases (NCID)

Division of Bacterial and Mycotic Diseases (toxic-shock syndrome; Streptococcal disease, invasive, group A; Streptococcal toxic-shock syndrome; and laboratory data regarding botulism, *Escherichia coli* O157:H7, salmonellosis, and shigellosis).

Division of Vector-Borne Infectious Diseases (laboratory data regarding arboviral encephalitis).

Division of Viral and Rickettsial Diseases (animal rabies; Hantavirus pulmonary syndrome).

National Center for HIV, STD, and TB Prevention (NCHSTP)

Division of HIV/AIDS Prevention — Surveillance and Epidemiology (acquired immunodeficiency syndrome [AIDS]).

Division of Sexually Transmitted Diseases Prevention (chancroid, chlamydia, gonorrhea, and syphilis).

Division of Tuberculosis Elimination (tuberculosis).

National Immunization Program (NIP)

Epidemiology and Surveillance Division (poliomyelitis).

Disease totals for the United States, unless otherwise stated, do not include data for American Samoa, Guam, Puerto Rico, the Virgin Islands, or the Commonwealth of the Northern Mariana Islands (CNMI). Disease totals from American Samoa, CNMI, and the Virgin Islands were unavailable for 1998.

Population estimates for the states are from the July 1, 1998, estimates from the Bureau of the Census* (Internet release number ST-98-1. December 31, 1998). Population numbers for territories are 1997 estimates from the Bureau of the Census (Press release numbers CB98-54 and CB98-80). Population numbers used to calculate rates for age and sex are from July 1, 1998, estimates from the Bureau of Census (Internet release. June 15, 1999). More information regarding census estimates is available at <http://www.census.gov>. Rates in the *MMWR Summary of Notifiable Diseases, United States* are presented as incidence rates per 100,000 population, based on data for the U.S. total-resident population. However, population data from states in which diseases were not notifiable or disease data were not available were excluded from rate calculations.

Interpreting Data

The data reported in the *MMWR Summary of Notifiable Diseases, United States* are useful for analyzing disease trends and determining relative disease burdens. However, these data must be interpreted in light of reporting practices. Some diseases that cause severe clinical illness (e.g., plague and rabies) are most likely reported accurately, if they were diagnosed by a clinician. However, persons who have diseases that are clinically mild and infrequently associated with serious consequences (e.g., salmonellosis) might not seek medical care from a health-care provider. Even if these less severe diseases are diagnosed, they are less likely to be reported.

The degree of completeness of data reporting also is influenced by the diagnostic facilities available; the control measures in effect; the public awareness of a specific disease; and the interests, resources, and the priorities of state and local officials responsible for disease control and public health surveillance. Finally, factors such as changes in the case definitions for public health surveillance, the introduction of new diagnostic tests, or the discovery of new disease entities can cause changes in disease reporting that are independent of the true incidence of disease.

Public health surveillance data are published for selected racial and ethnic population groups because these variables can be risk markers for certain notifiable diseases. Risk markers can identify potential risk factors for investigation in future studies. Race/ethnicity data also can be used to target populations for prevention efforts. However, caution must be used when drawing conclusions from reported race/ethnicity data. Certain races and ethnicities have differential patterns of access to health care, interest in seeking health care, and detection of disease, potentially resulting in data that are not representative of disease incidence in these populations.

In addition, not all race/ethnicity data are collected uniformly for all diseases. For example, in NCHSTP, the Division of HIV/AIDS Prevention — Surveillance and Epidemiology and the Division of Sexually Transmitted Diseases Prevention collect race/ethnicity data using a single variable. A person's race/ethnicity is reported as American Indian/Alaskan Native, Asian/Pacific Islander, black non-Hispanic, white non-Hispanic, or Hispanic. Additionally, although the recommended standard for classifying a person's race or ethnicity is based on self-reporting, this procedure might not always be followed.

*Population Distribution Branch, Population Division of the Bureau of Census, which is under the Economics and Statistics Administration, U.S. Department of Commerce.

Highlights for 1998

The Highlights section presents information on the public health importance of selected nationally notifiable and non-notifiable diseases, including a) domestic and international disease outbreaks, b) active surveillance findings, c) changes in data reporting practices, d) the impact of prevention programs, e) the emergence of antimicrobial resistance, and f) changes in immunization policies. This information is intended to provide a context in which to interpret surveillance and disease-trend data and to provide further information on the epidemiology and prevention of selected diseases.

Highlights for Selected Nationally Notifiable Diseases

Chancroid

In 1998, a total of 189 cases of chancroid were reported to CDC, for a rate of 0.07 cases/100,000 population. The number of cases reported in 1998 reflects a 23% decline from 1997 and a continuing decline since 1987. However, chancroid is difficult to culture and could be substantially underdiagnosed. Several studies that have used DNA amplification tests (which are not commercially available) have identified this infection in cities where it was previously undetected.

Chlamydia trachomatis, Genital Infection

In 1998, a total of 604,420 cases of genital chlamydial infection were reported to CDC, for a rate of 236.57 cases/100,000 population. This is the highest rate of chlamydial infection reported to CDC since cases were first voluntarily reported to the National Center for HIV, STD, and TB Prevention's Division of STD Prevention in the mid-1980s. It is also the highest rate since chlamydia became a nationally notifiable disease in 1995. This increase reflects the continued expansion of chlamydia screening programs and the increased use of more sensitive diagnostic tests for this condition. During the same period, data on chlamydia prevalence obtained by monitoring seropositivity rates of persons screened in different clinic settings have consistently documented declining levels of infection in many parts of the United States (*Sexually transmitted disease surveillance 1998*. US Department of Health and Human Services, CDC, September 1999).

Cryptosporidiosis

National reporting for cryptosporidiosis began in 1995. During 1995–1998, a total of 11,612 cases were reported from 47 states, with an annual median of 2,900 cases per year (range: 2,566–3,793). Because the diagnosis of cryptosporidiosis is often not considered, and because laboratories do not routinely test stool specimens for cryptosporidiosis infection, this disease continues to be underdiagnosed and underreported.

Diphtheria

One probable case of diphtheria was reported from Oregon in 1998. The case-patient had acute membranous pharyngitis. An oropharyngeal specimen was weakly positive for diphtheria toxin by polymerase chain reaction, but bacterial culture of the specimen was negative.

Outside the United States, more than 2,700 cases of diphtheria were reported in an epidemic in the Newly Independent States of the former Soviet Union (Dittmann S, Wharton M, Vitek C, et al. Successful control of epidemic diphtheria in the Newly Independent States of the Former Soviet Union: lessons learned in fighting public health emergencies. *J Infect Dis* 2000 [in press]). This epidemic has resulted in approximately 155,000 cases and 5,000 deaths since 1990. No importations into the United States were reported in 1998.

Gonorrhea

In 1998, a total of 355,642 cases of gonorrhea were reported to CDC, for a rate of 132.88/100,000 population. This was an 8.9% increase from the 1997 rate and the first increase since 1985. The 1998 increase was reported in all demographic groups defined by age, sex, and race/ethnicity, and it occurred in all major geographic regions except the Northeast. Possible reasons for this trend include expansion of screening programs (motivated by the availability of simultaneous testing for genital chlamydial infections), increased use of new diagnostic tests with improved sensitivity, improvements in surveillance systems, and true increases in morbidity.

Haemophilus influenzae, Invasive Disease

In 1998, a total of 255 cases of *Haemophilus influenzae* (Hi) invasive disease among children aged <5 years were reported (data were provided by the National Immunization Program and were based on date of onset, not *MMWR* week). Before a vaccine was introduced in 1987, approximately 20,000 cases of *H. influenzae* type b (Hib) invasive disease occurred among children annually (*JAMA* 1993;269:221–6). The sharp decline in the number of Hib cases is attributed to the widespread use of the Hib vaccine among preschool-aged children. Of the 255 cases reported in 1998, a total of 197 (74%) Hi isolates were serotyped, and 61 (31%) of these were type b. Among the 61 cases of Hib invasive disease reported in children aged <5 years, 25 (41%) were among children aged <6 months, which is too young to have completed a three-dose primary Hib vaccination. However, 22 (61%) of the 36 children who were old enough (i.e., aged ≥6 months) to have completed a three-dose primary series were incompletely vaccinated or their vaccination status was unknown. These cases might have been prevented with age-appropriate vaccination.

Hantavirus Pulmonary Syndrome

In 1998, a total of 30 cases of hantavirus pulmonary syndrome (HPS) reported from 12 states were confirmed by CDC. Nine (30%) cases were fatal. HPS is caused by several hantaviruses in the western hemisphere and has also been reported in Canada, Argentina, Paraguay, Brazil, Uruguay, Chile, and Bolivia. Most HPS in the United States is caused by Sin Nombre virus. Other hantaviruses associated with human disease in the United States include Bayou, Black Creek Canal, New York, and Monongahela. Most hantaviruses have specific rodent reservoirs of the family *Muridae*. The virus is shed in rodent urine, feces, and saliva, then transmitted via inhalation.

Hemolytic Uremic Syndrome, Postdiarrheal

Postdiarrheal hemolytic uremic syndrome (HUS) is a life-threatening illness characterized by hemolytic anemia, thrombocytopenia, and renal injury. In the United States, most cases are caused by infection with *Escherichia coli* O157:H7 or other *Shiga* toxin-producing *E. coli*. In 1998, the third year of national reporting, 17 states reported

90 cases of postdiarrheal HUS to CDC. By comparison, 20 states reported 93 cases in 1997, and 18 states reported 104 cases in 1996. The median age of patients was 5 years (range: <1–87 years), and 53% of patients were female. Illness was seasonal, with 59% of cases occurring during June through September.

Hepatitis A

In 1999, the Advisory Committee on Immunization Practices (ACIP) issued revised recommendations for the use of hepatitis A vaccine (HepA). Routine childhood HepA vaccination is recommended in states or counties/communities where the average annual hepatitis A virus (HAV) rate during 1987–1997 was approximately 20 cases/100,000 population (i.e., approximately twice the national average). In addition, routine childhood HepA vaccination can be considered in states or counties/ communities where the average rate during 1987–1997 was at least 10 cases/100,000 population.

Of the 23,229 cases of HAV reported in 1998, approximately 60% originated from the 17 states affected by the ACIP recommendations. Eleven of these states had average rates of approximately 20 cases/100,000 persons during 1987–1997, and six states had average rates of approximately 10/100,000 during this period. However, these 17 states account for only 34% of the U.S. population.

Hepatitis B

The number of reported acute hepatitis B cases has decreased by more than 50% during the past decade, from 21,102 cases in 1990 to 10,258 cases in 1998. This downward trend is expected to continue as a national strategy for eliminating hepatitis B virus (HBV) transmission is implemented. Components of this strategy include a) screening pregnant women for hepatitis B surface antigen (HBsAg) and providing postexposure immunoprophylaxis to infants of infected women; b) routinely vaccinating infants; c) providing catch-up vaccinations for children aged <19 years (particularly those aged 11–12 years); and d) targeting vaccinations to children, adolescents, and adults at increased risk for infection. Draft *Healthy People 2010* objectives emphasize the elimination of HBV transmission and include reducing the number of perinatal HBV infections to <400 and reducing the number of acute hepatitis B cases in persons aged 2–18 years to <10. Proposed age-specific target rates per 100,000 population for persons aged >18 years are as follows: 3.2 cases/100,000 for persons aged 19–24 years, 11.1/100,000 for persons aged 25–39 years, and 1.0/100,000 for persons aged ≥40 years.

Hepatitis C

Hepatitis C virus (HCV) infection is the most common chronic bloodborne infection in the United States (*MMWR* 1998;47[RR-19]). Based on data from CDC's sentinel counties viral hepatitis surveillance system, approximately 242,000 new HCV infections occurred each year during the 1980s. Since 1989, the annual number of new infections identified in the sentenial counties has declined by 80%. For reasons that are unclear, this dramatic decline correlates with a decrease in cases among injecting-drug users (*MMWR* 1998;47[RR-19]). But in 1996, data from the Third National Health and Nutrition Examination Survey (1988–1994) indicated that approximately 4 million Americans (1.8%) have been infected with HCV. Most are chronically infected, although the majority might be unaware of their infection because they are not clinically ill. Chronically infected persons can transmit the virus to others and are at risk for chronic liver disease, including cirrhosis and liver cancer.

CDC guidelines for prevention and control of HCV infection and HCV-related chronic disease were published in October 1998 (*MMWR* 1998;47[RR-19]). The U.S. Food and Drug Administration also issued guidance in 1998 requiring the notification of persons who received blood or blood products before July 1992 from donors subsequently found to be infected with HCV. In May 1999, a national campaign was initiated to educate the public about hepatitis C and the need for persons at increased risk to be tested. These recommendations and activities are expected to increase the number of HCV-infected persons identified and reported to state and local health departments.

HIV Infection, Pediatric

In 1998, reports based on acquired immunodeficiency syndrome (AIDS) surveillance data indicated continued, substantial declines in perinatally acquired AIDS, reflecting declining perinatal human immunodeficiency virus (HIV) transmission. HIV surveillance data indicated that the increasing use of zidovudine was temporally associated with this decline (*MMWR* 1997;46:1086–92 and CDC. HIV/AIDS surveillance report. Atlanta, GA: US Department of Health and Human Services, 1998:36. [Vol. 10, no. 2]). These data demonstrate success in nationwide efforts to implement Public Health Service (PHS) guidelines for routine, voluntary prenatal HIV testing (*MMWR* 1995;44[No. RR-7] and *MMWR* 1998;47:688–91 and *MMWR* 1999;48:401–4) and the use of zidovudine to reduce perinatal HIV transmission (*MMWR* 1994;43[No. RR-11] and *MMWR* 1998;47[No. RR-2]).

States that conduct surveillance of perinatally exposed and infected children aged <13 years can evaluate the impact of the guidelines and document resources needed to care for perinatally exposed infants. In 1998, a total of 32 states conducted surveillance of HIV infection among children, reporting 309 HIV-infected children whose infection had not progressed to AIDS and 143 children who had AIDS. These states also received 2,433 new reports of perinatally exposed children who required follow up with health-care providers to determine their HIV infection status.

Lyme Disease

In 1998, a total of 16,801 cases of Lyme disease were reported, the highest number ever reported. This increase could be caused by an increase in human contact with infected ticks and enhanced reporting of cases. Lyme disease occurs primarily in the northeastern and northcentral United States. The following nine states had incidence rates higher than the annual national average of 6.39 cases/100,000 population and accounted for 93.0% of reported cases: Connecticut (105.0/100,000), Rhode Island (79.6), New York (25.5), New Jersey (24.0), Pennsylvania (22.9), Maryland (13.1), Massachusetts (11.5), Wisconsin (12.8), and Delaware (10.7).

In December 1998, a new Lyme disease vaccine was approved by the U.S. Food and Drug Administration. The Advisory Committee on Immunization Practices issued recommendations for use of this vaccine in June 1999 (*MMWR* 1999;48 [No. RR-7]). These recommendations emphasize that the decision to vaccinate should be based on both geographic risk and individual exposure to tick-infested habitats. Because the Lyme disease vaccine is not 100% effective and does not protect against transmission of other tickborne diseases, vaccinated persons should continue to practice personal protective measures against ticks and seek early diagnosis and treatment of suspected tickborne infections.

Pertussis

On July 29, 1998, the fourth diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) was licensed for use in children aged 6 weeks–6 years. This vaccine is called Certiva,™ and it is manufactured by North American Vaccine, Inc. Other DTaP vaccines licensed since 1996 include Tripedia® (Connaught Laboratories, Inc.), ACEL-IMUNE® (Lederle Laboratories Division of American Cyanamid Company), and Infanrix® (SmithKline Beecham Pharmaceuticals). The Advisory Committee on Immunization Practices recommends DTaP vaccines for all five doses in the childhood vaccination schedule.

Since 1980, the number of reported cases of pertussis has increased in the United States. The reasons for this rise are unknown, but could include increased awareness of pertussis among health-care providers, increased use of more sensitive diagnostic tests, and better reporting of cases to health departments. In 1998, a total of 24% of 7,405 reported cases occurred among children aged <7 months, who were too young to have received the recommended three doses of pertussis vaccine. Thirteen percent of cases were among preschool-aged children (i.e., those aged 1–4 years). Since 1995, the coverage rate with at least three doses of pertussis vaccine has been 95% among U.S. children aged 19–35 months. Twenty-six percent of cases were reported among children aged 10–19 years. Because vaccine-induced immunity wanes approximately 5–10 years after pertussis vaccination, adolescents can become susceptible to disease. Since 1990, the incidence among preschool-aged children has not changed, but the incidence among adolescents has increased in some states (Clin Inf Dis 1999;28:1230–7).

Plague

In 1998, nine cases of plague among humans were reported in the United States (six cases in New Mexico, one in Arizona, one in California, and one in Colorado). None were fatal. Of the 360 cases that occurred during 1970–1998, approximately 80% were reported from the southwestern states of New Mexico, Arizona, and Colorado. Nine percent occurred in California, and limited numbers of cases were reported from nine other western states. *Yersinia pestis* was recently designated as a potential agent of biological terrorism (see page xvi). In recognition of this potential threat, CDC is collaborating with other public health and federal agencies to develop guidelines for responding to bioterrorism events involving *Y. pestis*. Also in 1998, CDC was informed that Greer Laboratories, Inc., was ceasing production of the only plague vaccine commercially available in the United States. This vaccine has a limited shelf life, and no remaining stockpiles exist.

Poliomyelitis, Paralytic

As of January 1999, the Advisory Committee on Immunization Practices recommends only inactivated polio vaccine (IPV) for the first two doses of the polio vaccination series. Distribution of IPV as a proportion of overall polio vaccine use has increased from 6% in 1996 to 29% in 1997 to 34% in 1998. All six cases of vaccine-associated polio reported in the United States since January 1997 (including the single case reported in 1998) were associated with receipt of trivalent oral polio vaccine (OPV) for the first or second dose in an all-OPV schedule. An all-IPV schedule is recommended for routine childhood vaccination beginning January 1, 2000.

St. Louis Encephalitis

A summertime epidemic of St. Louis encephalitis in southern Louisiana accounted for 18 of the 24 cases reported nationally. No cases were fatal. *Culex pipiens quinquefasciatus* was presumed to be the primary mosquito vector. The last major epidemic of St. Louis encephalitis in the United States (223 cases and 11 deaths) occurred in Florida in 1990. This disease occurs in portions of both the eastern and western United States.

Streptococcal Disease, Invasive, Group A

Nationally, approximately 10,200 cases of invasive group A streptococcal disease and 1,300 deaths occurred in 1998, according to reports from the Active Bacterial Core Surveillance (ABCS) project under CDC's Emerging Infectious Diseases Program, which operates in seven states (California, Connecticut, Georgia, Maryland, Minnesota, New York, and Oregon). The incidence of this disease during 1998 was 3.8 cases/ 100,000 population. Rates were highest among children aged <1 year (7.5 cases/100,000) and adults aged ≥65 years (10.0/100,000). Streptococcal toxic shock syndrome and necrotizing fasciitis each accounted for approximately 5.1% of invasive cases. The overall case-fatality rate among patients with invasive group A streptococcal disease was 12.2%.

Streptococcus pneumoniae, Drug-Resistant

During 1998, the Active Bacterial Core Surveillance (ABCS) project of CDC's Emerging Infectious Diseases Program collected information on invasive pneumococcal disease, including drug-resistant *Streptococcus pneumoniae*, in eight states — California, Connecticut, Georgia, Maryland, Minnesota, New York, Oregon, and Tennessee. Of 3,335 *S. pneumoniae* isolates collected during 1998, a total of 10.2% exhibited intermediate penicillin resistance (minimum inhibitory concentration [MIC] 0.1–1 ug/mL), and 13.6% were resistant (MIC ≥2 ug/mL). For cefotaxime, 7.7% of all isolates had intermediate resistance (MIC 1 ug/mL), and 6.1% were resistant (MIC ≥2 ug/mL). The proportion of isolates resistant to erythromycin was 14.7% (MIC ≥2 ug/mL). The overall proportions of isolates that were not susceptible to these three drugs were not substantially different compared with 1997 data. However, the proportions that were resistant varied widely among surveillance sites in 1998, and an increase in the prevalence of resistant strains, compared with earlier years, was reported from some states (data available at <http://www.cdc.gov/ncidod/dbmd/abcs/survreports.htm>).

Syphilis, Congenital

In 1998, a total of 801 cases of congenital syphilis were reported to CDC, for a rate of 20.6/100,000 live births. Like primary and secondary syphilis, the rate of congenital syphilis has declined sharply in recent years, from a peak of 107.3 cases/100,000 live births in 1991. Congenital syphilis persists in the United States because of the substantial number of women who do not receive syphilis serologic testing during pregnancy or who receive this testing too late in their pregnancy. This lack of screening is often related to a lack of prenatal care or late prenatal care (*Am J Public Health* 1999;89: 557–60).

Syphilis, Primary and Secondary

In 1998, a total of 6,993 primary and secondary syphilis cases were reported to CDC. During 1990–1998, the primary and secondary syphilis rate declined 86%, from 20.3 cases/100,000 population to 2.6/100,000 — the lowest level since reporting began in 1941. Although syphilis has declined in all regions of the United States and in all racial/ethnic groups, rates remain disproportionately high in the South and among non-Hispanic blacks, and focal outbreaks continue to occur.

Tetanus

The first case of neonatal tetanus reported in the United States since 1995 was reported from Montana in 1998. The case occurred in an infant born to a mother who was not immunized because of her philosophic beliefs and who used a nonsterile bentonite clay recommended by a lay midwife for the care of the baby's umbilical cord. The infant recovered after a 3-week hospitalization, including 12 days of mechanical ventilation. Of the 41 cases of tetanus that occurred in 1998, a total of 16 (39%) were among persons aged ≥60 years, and 16 (39%) were among persons aged 20–59 years.

Highlights for Selected Non-Notifiable Diseases

Cyclosporiasis

In recent years, multiple foodborne outbreaks of cyclosporiasis linked to various types of fresh produce (i.e., mesclun lettuce, basil, and Guatemalan raspberries) have occurred in the United States. In Spring 1998, Canada allowed importation of fresh Guatemalan raspberries, which resulted in a cyclosporiasis outbreak. The United States did not allow importation and thus, did not have an outbreak associated with raspberries (*MMWR* 1998;47:806–9).

Dengue

In 1998, a total of 90 confirmed or probable cases of dengue were imported into the United States and diagnosed in CDC's Dengue Branch. One case in a man aged 65 years was fatal. The number of cases reported in 1998 is higher than the 56 confirmed or probable cases reported in 1997. No indigenous cases were reported in the United States.

Also in 1998, the preliminary number of dengue and dengue hemorrhagic fever (DHF) cases reported by Pan American Health Organization member countries (741,794, of which 535,388 were reported by Brazil) was more than twice the total for 1997 (364,945). In addition, cases of dengue-3 were reported from islands in the Caribbean for the first time after a 20-year absence. Hurricanes Georges (September 1998) and Mitch (October–November 1998) did not cause acute changes in dengue incidence in the affected areas, except for brief interruptions in disease surveillance systems.

HIV Infection in Adults

In June 1997, reporting of human immunodeficiency virus (HIV) infection among adults (i.e., persons aged ≥13 years) was added to the list of nationally notifiable diseases at the annual Council of State and Territorial Epidemiologists (CSTE) meeting. The revised surveillance case definition and associated recommendations become effective January 1, 2000 (*MMWR* 1999;48[RR-13]). As of December 31, 1998, a total of 29 states and the Virgin Islands had implemented confidential reporting of HIV among adolescents and adults as an extension of current surveillance for acquired immunodeficiency syndrome (AIDS).

During 1998, reports based on AIDS data continued to highlight substantial declines in AIDS incidence and deaths. As a result of improvements in treatment and care of persons infected with HIV, surveillance of AIDS alone no longer accurately reflects the magnitude of the epidemic or trends in HIV transmission. Data concerning persons in whom HIV infection is diagnosed before AIDS is diagnosed are needed to determine populations that could benefit from prevention and treatment services. In its June 1997 statement, CSTE recommended that all states and territories implement confidential HIV infection reporting based on methods that provide accurate and representative data for all persons diagnosed confidentially.

Streptococcal Disease, Invasive, Group B

Efforts to prevent neonatal group B streptococcal (GBS) infections, a leading cause of bacterial disease and death among newborns in the United States, were supported by a 1996 release of consensus guidelines for the prevention of perinatal GBS disease.

Adoption of a prevention policy at one hospital correlated with declines in neonatal GBS incidence (Am J Obstet Gynecol 1998:179:1568–71). In addition, surveillance areas with a high proportion of hospitals with GBS-prevention policies have a lower incidence of neonatal GBS disease (*MMWR* 1998;47:665–70). A recent multistate evaluation demonstrated that the proportion of hospitals with prevention policies increased from 39% in 1994 to 58% in 1997. Active surveillance during 1993–1995 in four U.S. areas (i.e., Maryland and select counties in California, Georgia, and Tennessee) demonstrated an overall 24% decline in newborn GBS disease, from 1.7 cases/1,000 live-born infants in 1993 to 1.3/1,000 in 1995. Surveillance data from these same sites in 1998 revealed a further decline of 54%, to 0.6 cases/1,000 live-born infants (*MMWR* 1997;46:473–7).

Tularemia

The reported incidence of tularemia in the United States continues to be low. Sporadic cases are primarily associated with handling infected animals or exposure to infected arthropods. Because of concerns that *Francisella tularensis* could be a potential bioterrrorist agent, tularemia will be reinstated as a nationally notifiable disease, effective January 2000 (see page xvi).

Vancomycin-Resistant Enterococci

Data regarding the magnitude and impact of vancomycin-resistant enterococci (VRE) in the United States are collected by CDC's National Nosocomial Infections Surveillance (NNIS) system, which includes more than 280 U.S. hospitals. During 1989–1998, the percentage of VRE isolated from patients with nosocomial infections in hospital intensive care units increased from 0.4% to 22.6%. The percentage of VRE isolated from patients with nosocomial infections in nonintensive care units increased from 0.3% to 21.2%. Although the differences between VRE rates by health-care setting have diminished, the overall rates of resistance for many nosocomial pathogens continue to rise and are highest among patients in intensive care units. Additional data are available at <http://www.cdc.gov/ncidod/hip/SURVEILL/NNIS.HTM>.

TABLE: Percentage of nosocomial enterococci reported as resistant to vancomycin, by health-care setting and year*

Year	Intensive care unit (ICU)†	Non-ICU†
1989	0.4	0.3
1990	1.5	0.8
1991	5.3	2.9
1992	7.1	2.9
1993	11.6	4.8
1994	13.6	9.0
1995	12.8	12.0
1996	16.6	11.6
1997	23.2	15.4
1998	22.6	21.2

*N>2000 isolates for each year.
†P<0.0001, chi-square for linear trend.

Source: National Nosocomial Infections Surveillance (NNIS) system, Hospital Infections Program, National Center for Infectious Diseases, CDC

Varicella

Although varicella (chickenpox) deaths did not become nationally notifiable until January 1, 1999, some states began reporting varicella deaths to CDC during the second half of 1998. These data highlighted that both children and adults are continuing to die from a disease that is now vaccine-preventable. During 1998, national coverage for varicella vaccine among children aged 19–35 months was 43%. Efforts to increase vaccination of susceptible children, adolescents, and adults should include educating health-care providers that deaths and severe morbidity from varicella are preventable.

Surveillance for Potential Bioterrorism Agents

CDC established the Bioterrorism Preparedness and Response Program in January 1999 to improve the public health capability to detect and respond to biological and chemical terrorism. Members of this program are working with the FBI and other federal agencies to develop an organized and tiered response to suspect and confirmed biological events. The program focuses on state-level preparedness for early clinical and laboratory detection, which is essential to ensure a prompt response to a bioterrorist attack (e.g., providing prophylactic medicines or vaccines). Initial activities target critical agents that a) are associated with high case-fatality, b) can be disseminated to a large population, c) can cause social disruption because of public perception, and d) require special preparedness needs. These critical agents and their associated diseases include variola major (smallpox), *Bacillus anthracis* (anthrax), *Yersinia pestis* (plague), *Francisella tularensis* (tularemia), *Clostridium botulinum* (botulism), and the viral hemorrhagic fevers (e.g., arenaviruses and filoviruses).

Several other agents have been identified but require less broad-based preparedness efforts, including ones that cause foodborne and waterborne diseases. A critical element for preparedness is defining the natural epidemiology of diseases that can be caused by critical agents, including anthrax and plague, which are nationally notifiable diseases. The last case of naturally occurring anthrax in the United States was reported in 1992. In 1998, a total of 9 cases of plague among humans were reported in the United States.

PART 1:

Summaries of Notifiable Diseases in the United States, 1998

EXPLANATION OF SYMBOLS USED IN TABLES, GRAPHS, AND MAPS

Data not available.....NA
Report of disease is not required in that jurisdiction (not notifiable) .....NN
No reported cases .....—

NOTIFIABLE DISEASES — Summary of reported cases, by month, United States, 1998

Disease	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
AIDS*	46,521	3,144	4,236	4,723	4,023	3,924	3,924	3,522	4,112	3,992	3,475	3,673	3,773
Botulism, total	116	5	5	4	9	13	10	9	14	11	13	4	19
Brucellosis	79	1	1	—	4	7	6	8	8	6	7	2	29
Chancroid†	189		53			58			37			41	
Chlamydia†§	604,420		136,428			146,994			152,886			168,112	
Cholera	17	1	—	—	—	1	2	1	1	2	3	2	4
Cryptosporidiosis	3,793	124	170	246	152	182	173	262	1,158	424	365	218	319
Diphtheria	1	—	—	—	—	1	—	—	—	—	—	—	—
Encephalitis, California serogroup viral	97	—	—	—	—	—	—	8	38	22	15	3	11
Eastern equine	4	—	—	—	—	—	—	1	—	1	—	1	1
St. Louis	24	—	—	—	—	—	—	—	2	1	17	1	3
Escherichia coli O157:H7	3,161	62	59	66	67	183	291	421	577	421	355	235	424
Gonorrhea†	355,642		80,036			82,229			96,129			97,248	
Haemophilus influenzae, invasive disease	1,194	89	93	104	98	110	92	82	93	57	84	71	221
Hansen disease (leprosy)	108	5	12	7	17	4	12	8	10	4	9	12	8
Hepatitis A	23,229	1,232	1,474	1,676	2,259	2,327	2,001	1,489	2,280	1,766	2,044	1,659	3,022
Hepatitis B	10,258	547	621	699	832	974	902	805	995	747	865	669	1,602
Hepatitis C; non-A, non-B	3,518	155	232	279	362	304	293	182	317	239	355	318	482
Legionellosis	1,355	67	108	95	73	92	85	140	185	97	143	96	174
Lyme disease	16,801	200	249	440	380	572	1,306	2,824	3,458	2,504	1,855	888	2,125
Malaria	1,611	96	77	81	96	102	111	130	202	178	167	100	271
Measles (rubeola)	100	1	2	6	9	11	10	5	6	19	10	10	11
Meningococcal disease	2,725	256	288	251	259	242	236	144	192	140	199	179	339
Mumps	666	20	37	47	200	54	39	33	46	46	38	37	69
Pertussis (whooping cough)	7,405	263	313	410	330	513	521	526	854	774	905	749	1,247
Plague	9	—	—	—	—	—	3	2	2	—	1	—	1
Poliomyelitis, paralytic	1	—	—	—	—	—	—	—	—	1	—	—	—
Psittacosis	47	6	1	2	3	3	6	5	—	3	5	11	2
Rabies, animal	7,259	443	452	646	631	710	633	564	854	683	654	447	542
Rabies, human	1	—	—	—	—	—	—	—	—	—	—	—	1
Rocky Mountain spotted fever	365	2	5	6	9	22	45	50	69	53	33	18	53
Rubella (German measles)	364	12	23	70	63	69	47	26	19	4	12	4	15
Rubella, congenital syndrome	7	—	1	—	1	—	1	—	1	—	—	—	3
Salmonellosis	43,694	1,840	1,743	1,861	2,179	3,213	3,485	4,323	6,034	4,985	5,592	3,276	5,163
Shigellosis	23,626	1,064	1,155	1,146	1,416	1,712	1,752	1,640	2,656	2,365	2,935	2,170	3,615
Syphilis, total (all stages)†	37,977		9,473			9,879			9,244			9,381	
Primary and secondary†	6,993		1,685			1,693			1,845			1,770	
Congenital (age <1 yr)†	801		231			186			215			169	
Tetanus	41	1	1	1	4	4	1	6	6	3	5	1	8
Toxic-shock syndrome	138	9	9	12	15	11	14	8	12	5	14	13	16
Trichinosis	19	—	1	—	2	2	1	—	3	—	1	—	9
Tuberculosis¶	18,361	685	1,035	1,328	1,293	1,413	1,707	1,737	1,492	1,441	1,740	1,514	2,976
Typhoid fever	375	24	25	24	35	24	25	28	45	53	36	18	38
Varicella (chickenpox)**	82,455	8,849	10,830	11,129	11,199	12,119	5,342	2,254	690	1,539	2,721	4,169	11,614

*Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), as of December 31, 1998.

†Cases were updated through the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.

§Chlamydia refers to genital infections caused by *C. trachomatis*.

¶Cases were updated through the Division of Tuberculosis Elimination, NCHSTP, as of June 3, 1999.

**Not nationally notifiable.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998

Area	Total resident population (in thousands)	AIDS*	Botulism		Brucellosis	Chancroid†
			Foodborne	Infant		
United States	**270,296**	**46,521§**	**22**	**65**	**79**	**189**
New England	**13,429**	**1,811**	**—**	**—**	**—**	**2**
Maine	1,244	31	—	—	—	—
N.H.	1,185	42	—	—	—	—
Vt.	591	20	—	—	—	—
Mass.	6,147	924	—	—	—	—
R.I.	988	128	—	—	—	—
Conn.	3,274	666	—	—	—	2
Mid. Atlantic	**38,291**	**12,588**	**2**	**15**	**2**	**82**
Upstate N.Y.	10,850	1,581	—	3	1	—
N.Y. City	7,325	7,133	—	1	1	82
N.J.	8,115	2,134	2	9	—	—
Pa.	12,001	1,740	—	2	—	—
E.N. Central	**44,194**	**3,390**	**—**	**8**	**9**	**6**
Ohio	11,209	685	—	4	1	3
Ind.	5,899	484	—	—	—	1
Ill.	12,045	1,304	—	3	5	—
Mich.	9,817	714	—	—	3	—
Wis.	5,224	203	—	1	—	2
W.N. Central	**18,694**	**927**	**—**	**—**	**5**	**1**
Minn.	4,725	190	—	—	1	—
Iowa	2,862	75	—	NN	1	—
Mo.	5,439	443	—	—	3	—
N. Dak.	638	6	—	—	NN	NN
S. Dak.	738	15	—	—	—	—
Nebr.	1,663	72	—	—	—	—
Kans.	2,629	126	—	—	—	1
S. Atlantic	**48,944**	**12,194**	**1**	**3**	**9**	**40**
Del.	744	174	—	—	1	—
Md.	5,135	1,639	—	1	1	—
D.C.	523	989	—	—	—	—
Va.	6,791	998	1	—	1	7
W. Va.	1,811	86	—	—	—	—
N.C.	7,546	788	—	2	1	9
S.C.	3,836	777	—	—	NN	19
Ga.	7,642	1,295	—	—	2	2
Fla.	14,916	5,448	—	—	3	3
E.S. Central	**16,471**	**1,874**	**—**	**4**	**5**	**4**
Ky.	3,936	280	—	3	1	—
Tenn.	5,431	695	—	1	2	—
Ala.	4,352	484	—	—	1	1
Miss.	2,752	415	—	—	1	3
W.S. Central	**30,014**	**5,406**	**—**	**5**	**29**	**42**
Ark.	2,538	203	—	—	2	7
La.	4,369	951	—	—	1	1
Okla.	3,347	285	—	—	—	—
Tex.	19,760	3,967	—	5	26	34
Mountain	**16,814**	**1,632**	**1**	**7**	**3**	**3**
Mont.	880	29	1	—	—	—
Idaho	1,229	32	—	1	1	—
Wyo.	481	6	—	—	—	1
Colo.	3,971	314	—	2	1	—
N. Mex.	1,737	209	—	—	—	—
Ariz.	4,669	645	—	—	1	2
Utah	2,100	139	—	1	—	—
Nev.	1,747	258	—	3	—	—
Pacific	**43,445**	**6,489**	**18**	**23**	**17**	**9**
Wash.	5,689	441	6	—	3	1
Oreg.	3,282	204	—	4	—	—
Calif.	32,667	5,654	4	19	12	8
Alaska	614	29	8	—	2	—
Hawaii	1,193	161	—	—	—	—
Guam	145	2	—	—	—	—
P.R.	3,860	1,711	—	—	—	2
V.I.	114	35	NN	NN	NN	—
American Samoa	60	—	NA	NA	NA	NA
C.N.M.I.	63	—	NA	NA	NA	NA

*Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), through December 31, 1998.
†Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.
§Total includes 210 cases among persons with unknown state of residence.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 — Continued

Area	Chlamydia*	Cholera	Cryptosporidiosis	Diphtheria	Encephalitis: California serogroup viral	Encephalitis: Eastern equine
United States	**604,420**	**17**	**3,793**	**1**	**97**	**4**
New England	**20,093**	**1**	**152**	**—**	**—**	**1**
Maine	1,073	—	33	—	—	—
N.H.	960	—	18	—	—	—
Vt.	413	—	26	—	—	—
Mass.	8,363	—	68	—	—	—
R.I.	2,307	—	7	—	—	1
Conn.	6,977	1	NA	—	—	—
Mid. Atlantic	**62,533**	**1**	**580**	**—**	**—**	**—**
Upstate N.Y.	NN	—	343	—	—	—
N.Y. City	26,218	1	208	—	—	—
N.J.	11,686	—	29	—	—	—
Pa.	24,629	—	NN	—	—	—
E.N. Central	**100,984**	**—**	**737**	**—**	**24**	**1**
Ohio	27,786	—	75	—	11	—
Ind.	10,801	—	63	—	1	1
Ill.	26,363	—	84	—	4	—
Mich.	22,156	—	39	—	—	—
Wis.	13,878	—	476	—	8	—
W.N. Central	**35,920**	**—**	**374**	**—**	**6**	**—**
Minn.	6,970	—	173	—	4	—
Iowa	5,174	—	66	—	2	—
Mo.	12,670	—	29	—	—	—
N. Dak.	1,036	—	34	—	—	—
S. Dak.	1,572	—	25	—	—	—
Nebr.	2,911	—	36	—	—	—
Kans.	5,587	—	11	—	—	—
S. Atlantic	**122,963**	**—**	**430**	**—**	**53**	**1**
Del.	2,608	—	3	—	—	—
Md.	13,097	—	21	—	—	—
D.C.	NN	—	25	—	—	—
Va.	13,561	—	22	—	3	1
W. Va.	2,791	—	3	—	46	—
N.C.	22,197	—	NN	—	4	—
S.C.	18,510	—	—	—	—	—
Ga.	25,250	—	152	—	—	—
Fla.	24,949	—	204	—	—	—
E.S. Central	**40,837**	**—**	**27**	**—**	**14**	**—**
Ky.	6,441	—	10	—	4	—
Tenn.	13,717	—	11	—	10	—
Ala.	10,065	—	NN	—	—	—
Miss.	10,614	—	6	—	—	—
W.S. Central	**89,140**	**3**	**932**	**—**	**—**	**1**
Ark.	4,123	—	6	—	—	—
La.	15,188	3	20	—	—	1
Okla.	9,393	—	NN	—	—	—
Tex.	60,436	—	906	—	—	—
Mountain	**34,096**	**2**	**124**	**—**	**—**	**—**
Mont.	1,412	—	10	—	—	—
Idaho	2,035	—	17	—	—	—
Wyo.	725	—	2	—	—	—
Colo.	9,113	1	19	—	—	—
N. Mex.	3,793	—	48	—	—	—
Ariz.	11,489	—	19	—	—	—
Utah	2,209	—	NN	—	—	—
Nev.	3,320	1	9	—	—	—
Pacific	**97,854**	**10**	**437**	**1**	**—**	**—**
Wash.	10,998	—	NN	—	NN	NN
Oreg.	5,855	—	70	1	NN	NN
Calif.	76,490	9	363	—	—	—
Alaska	1,907	1	1	—	NN	NN
Hawaii	2,604	—	3	—	NN	NN
Guam	410	2	—	—	—	—
P.R.	1,685	—	NN	—	—	—
V.I.	10	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Chlamydia refers to genital infections caused by *C. trachomatis*. Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 — Continued

Area	Encephalitis St. Louis	*Escherichia coli* O157:H7 NETSS*	*Escherichia coli* O157:H7 PHLIS†	Gonorrhea§	*Haemophilus influenzae*, invasive disease
United States	**24**	**3,161**	**2,172**	**355,642**	**1,194**
New England	**—**	**340**	**286**	**6,061**	**108**
Maine	—	37	—	67	5
N.H.	—	48	47	91	10
Vt.	—	21	18	38	9
Mass.	—	153	164	2,258	42
R.I.	—	14	1	430	9
Conn.	NN	67	56	3,177	33
Mid. Atlantic	**—**	**312**	**87**	**38,639**	**196**
Upstate N.Y.	—	231	—	6,965	81
N.Y. City	—	14	13	12,097	50
N.J.	—	67	53	7,858	53
Pa.	—	NN	21	11,719	12
E.N. Central	**—**	**464**	**374**	**69,027**	**186**
Ohio	—	128	77	18,275	48
Ind.	—	106	54	6,307	51
Ill.	—	113	81	21,735	67
Mich.	—	117	74	16,359	13
Wis.	—	NN	88	6,351	7
W.N. Central	**—**	**499**	**408**	**17,914**	**104**
Minn.	—	209	215	2,708	77
Iowa	—	93	60	1,616	5
Mo.	—	55	64	9,463	12
N. Dak.	—	12	15	80	1
S. Dak.	—	37	40	221	1
Nebr.	—	57	—	1,204	2
Kans.	—	36	14	2,622	6
S. Atlantic	**2**	**404**	**179**	**98,054**	**224**
Del.	—	—	2	1,556	1
Md.	—	43	15	11,254	57
D.C.	—	1	NA	4,508	—
Va.	—	NN	55	9,265	19
W. Va.	—	14	10	920	7
N.C.	—	186	47	19,230	24
S.C.	—	15	12	11,575	3
Ga.	—	84	—	20,666	69
Fla.	2	61	38	19,080	44
E.S. Central	**—**	**120**	**67**	**39,079**	**64**
Ky.	—	36	—	3,813	7
Tenn.	—	54	41	11,840	38
Ala.	—	24	20	12,737	16
Miss.	—	6	6	10,689	3
W.S. Central	**22**	**137**	**108**	**54,528**	**68**
Ark.	—	12	10	3,953	—
La.	18	14	7	12,499	29
Okla.	—	26	9	5,243	36
Tex.	4	85	82	32,833	3
Mountain	**—**	**367**	**249**	**9,157**	**127**
Mont.	—	17	5	55	—
Idaho	—	43	25	182	2
Wyo.	—	53	55	36	1
Colo.	—	90	69	2,033	21
N. Mex.	—	19	20	957	8
Ariz.	—	46	29	4,213	69
Utah	—	75	22	236	7
Nev.	—	24	24	1,445	19
Pacific	**—**	**518**	**414**	**23,183**	**117**
Wash.	—	143	131	1,948	11
Oreg.	NN	107	102	880	42
Calif.	—	261	165	19,518	50
Alaska	NN	7	—	331	4
Hawaii	NN	—	16	506	10
Guam	—	NN	NA	72	—
P.R.	—	5	NA	400	2
V.I.	NA	NA	NA	39	NA
American Samoa	NA	NN	NA	NA	NA
C.N.M.I.	NA	NN	NA	NA	NA

*National Electronic Telecommunications System for Surveillance.
†Public Health Laboratory Information System. Totals reported to the National Center for Infectious Diseases as of August 26, 1999.
§Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 — Continued

Area	Hansen disease (leprosy)	Hepatitis			Legionellosis	Lyme disease
		A	B	C; non-A, non-B		
United States	**108**	**23,229**	**10,258**	**3,518**	**1,355**	**16,801**
New England	**1**	**299**	**230**	**61**	**98**	**5,056**
Maine	NN	20	5	—	1	78
N.H.	—	19	21	—	7	45
Vt.	NN	17	10	6	7	11
Mass.	—	126	81	51	34	699
R.I.	1	18	75	4	26	789
Conn.	—	99	38	—	23	3,434
Mid. Atlantic	**7**	**1,726**	**1,249**	**246**	**332**	**9,311**
Upstate N.Y.	3	376	262	124	113	4,409
N.Y. City	4	591	423	—	37	231
N.J.	—	343	205	NA	18	1,911
Pa.	NN	416	359	122	164	2,760
E.N. Central	**—**	**3,715**	**1,414**	**673**	**420**	**774**
Ohio	—	398	77	8	133	47
Ind.	—	174	117	6	83	39
Ill.	—	821	230	41	54	14
Mich.	—	2,135	476	470	82	17
Wis.	NN	187	514	148	68	657
W.N. Central	**4**	**1,362**	**438**	**52**	**80**	**317**
Minn.	—	145	71	20	12	261
Iowa	1	400	55	8	11	27
Mo.	—	637	252	15	18	12
N. Dak.	NN	4	4	—	—	—
S. Dak.	1	40	4	—	7	—
Nebr.	2	27	24	5	21	4
Kans.	—	109	28	4	11	13
S. Atlantic	**6**	**2,395**	**1,323**	**197**	**170**	**977**
Del.	—	6	4	—	13	77
Md.	—	416	143	23	38	659
D.C.	—	66	19	—	9	8
Va.	—	226	109	13	27	73
W. Va.	NN	9	14	9	NN	13
N.C.	2	128	243	26	14	63
S.C.	—	54	65	20	12	8
Ga.	NN	879	209	9	8	5
Fla.	4	611	517	97	49	71
E.S. Central	**1**	**416**	**512**	**284**	**66**	**115**
Ky.	—	32	49	23	27	27
Tenn.	1	234	294	173	23	47
Ala.	—	81	75	5	9	24
Miss.	—	69	94	83	7	17
W.S. Central	**28**	**4,461**	**2,466**	**655**	**42**	**68**
Ark.	—	82	115	30	2	8
La.	—	174	219	137	6	15
Okla.	NN	667	172	25	17	13
Tex.	28	3,538	1,960	463	17	32
Mountain	**—**	**3,134**	**813**	**387**	**78**	**19**
Mont.	—	96	8	8	2	—
Idaho	—	235	49	87	3	7
Wyo.	—	37	11	102	1	1
Colo.	—	345	102	32	20	—
N. Mex.	—	155	311	97	2	4
Ariz.	—	1,843	185	19	21	1
Utah	—	196	66	22	21	—
Nev.	—	227	81	20	8	6
Pacific	**61**	**5,721**	**1,813**	**963**	**69**	**164**
Wash.	—	1,037	136	29	15	7
Oreg.	4	435	201	21	NN	21
Calif.	38	4,178	1,445	859	52	135
Alaska	—	17	13	—	1	1
Hawaii	19	54	18	54	1	NN
Guam	3	1	2	1	2	1
P.R.	—	94	276	—	—	NN
V.I.	NA	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 — Continued

Area	Malaria	Measles		Meningo-coccal disease	Mumps	Pertussis
		Indigenous	Imported*			
United States	**1,611**	**74**	**26**	**2,725**	**666**	**7,405**
New England	**98**	**1**	**2**	**123**	**10**	**1,114**
Maine	5	—	—	8	—	5
N.H.	6	—	—	13	—	149
Vt.	2	—	1	5	—	80
Mass.	27	1	1	59	6	805
R.I.	15	—	—	8	1	21
Conn.	43	—	—	30	3	54
Mid. Atlantic	**426**	**11**	**5**	**295**	**207**	**695**
Upstate N.Y.	93	3	1	84	14	352
N.Y. City	240	—	—	35	167	54
N.J.	58	7	1	60	6	29
Pa.	35	1	3	116	20	260
E.N. Central	**147**	**12**	**4**	**399**	**82**	**919**
Ohio	15	—	1	143	29	299
Ind.	11	2	1	74	7	185
Ill.	59	1	—	104	10	173
Mich.	50	9	1	44	33	71
Wis.	12	—	1	34	3	191
W.N. Central	**110**	**—**	**—**	**231**	**34**	**756**
Minn.	71	—	—	37	13	439
Iowa	8	—	—	46	11	78
Mo.	15	—	—	80	4	59
N. Dak.	3	—	—	5	2	46
S. Dak.	1	—	—	9	—	8
Nebr.	2	—	—	17	—	21
Kans.	10	—	—	37	4	105
S. Atlantic	**349**	**4**	**5**	**482**	**57**	**380**
Del.	3	—	1	2	—	5
Md.	89	—	1	35	—	66
D.C.	19	—	—	4	—	1
Va.	61	—	2	49	13	56
W. Va.	2	—	—	19	—	7
N.C.	30	1	—	59	12	112
S.C.	6	—	—	57	8	29
Ga.	43	1	1	102	2	38
Fla.	96	2	—	155	22	66
E.S. Central	**35**	**—**	**2**	**205**	**19**	**168**
Ky.	7	—	—	38	1	95
Tenn.	17	—	1	75	2	40
Ala.	6	—	1	55	9	27
Miss.	5	—	—	37	7	6
W.S. Central	**101**	**—**	**—**	**338**	**67**	**427**
Ark.	2	—	—	31	13	93
La.	17	—	—	69	8	13
Okla.	4	—	—	44	4	33
Tex.	78	—	—	194	42	288
Mountain	**68**	**9**	**2**	**157**	**40**	**1,324**
Mont.	1	—	—	5	—	17
Idaho	8	—	—	14	7	263
Wyo.	—	—	—	8	1	8
Colo.	18	—	—	31	7	357
N. Mex.	12	—	—	26	NN	100
Ariz.	15	9	2	48	6	241
Utah	2	—	—	15	5	297
Nev.	12	—	—	10	14	41
Pacific	**277**	**37**	**6**	**495**	**150**	**1,622**
Wash.	30	—	1	77	11	407
Oreg.	17	—	—	91	NN	89
Calif.	217	5	4	319	110	1,085
Alaska	4	32	1	3	3	15
Hawaii	9	—	—	5	26	26
Guam	2	—	—	2	5	1
P.R.	1	—	—	11	7	10
V.I.	NA	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Imported cases include only those resulting from importation from other countries.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 — Continued

Area	Plague	Poliomyelitis, paralytic	Psittacosis	Rabies		RMSF*
				Animal	Human	
United States	**9**	**1**	**47**	**7,259**	**1**	**365**
New England	**—**	**—**	**1**	**1,452**	**—**	**2**
Maine	—	—	—	241	—	—
N.H.	—	—	1	83	—	—
Vt.	—	—	—	72	—	—
Mass.	—	—	—	498	—	—
R.I.	—	—	—	103	—	—
Conn.	—	—	NN	455	—	2
Mid. Atlantic	**—**	**—**	**18**	**1,609**	**—**	**38**
Upstate N.Y.	—	—	5	1,095	—	11
N.Y. City	—	—	—	NA	—	2
N.J.	—	—	—	224	—	12
Pa.	—	—	13	290	—	13
E.N. Central	**—**	**1**	**6**	**127**	**—**	**22**
Ohio	—	—	—	59	—	12
Ind.	—	1	2	12	—	6
Ill.	—	—	1	NN	—	1
Mich.	—	—	3	37	—	3
Wis.	NN	NN	—	19	—	—
W.N. Central	**—**	**—**	**2**	**741**	**—**	**16**
Minn.	—	—	2	119	—	1
Iowa	—	—	—	153	—	2
Mo.	—	—	—	42	—	5
N. Dak.	—	—	—	155	—	2
S. Dak.	—	—	—	166	—	—
Nebr.	—	—	—	7	—	3
Kans.	—	—	—	99	—	3
S. Atlantic	**—**	**—**	**4**	**2,350**	**1**	**148**
Del.	—	—	—	49	—	—
Md.	—	—	—	439	—	18
D.C.	—	—	—	10	—	—
Va.	—	—	1	549	1	14
W. Va.	—	—	—	77	—	4
N.C.	—	—	—	555	—	71
S.C.	—	—	—	147	—	34
Ga.	—	—	—	309	—	4
Fla.	—	—	3	215	—	3
E.S. Central	**—**	**—**	**—**	**278**	**—**	**58**
Ky.	—	—	—	32	NN	6
Tenn.	—	—	—	142	—	27
Ala.	NN	—	—	102	—	11
Miss.	—	—	—	2	—	14
W.S. Central	**—**	**—**	**—**	**35**	**—**	**72**
Ark.	—	—	—	35	—	23
La.	—	—	—	—	—	5
Okla.	—	—	NN	NN	—	41
Tex.	—	—	NN	—	—	3
Mountain	**8**	**—**	**7**	**251**	**—**	**8**
Mont.	—	—	—	56	—	1
Idaho	—	—	4	NN	—	1
Wyo.	—	—	1	66	—	—
Colo.	1	—	2	42	—	2
N. Mex.	6	—	—	6	—	2
Ariz.	1	—	—	48	—	—
Utah	—	—	—	27	—	1
Nev.	—	—	—	6	—	1
Pacific	**1**	**—**	**9**	**416**	**—**	**1**
Wash.	—	—	3	—	—	—
Oreg.	—	—	—	7	—	—
Calif.	1	—	6	384	—	1
Alaska	—	—	—	25	—	NN
Hawaii	—	—	—	—	—	NN
Guam	—	—	—	—	—	—
P.R.	—	—	—	52	—	NN
V.I.	NA	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Rocky Mountain spotted fever.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 — Continued

Area	Rubella		Salmonellosis	Shigellosis	Syphilis*	
	Congenital syndrome	Rubella			Congenital (age <1 yr)	Primary & secondary
United States	**7**	**364**	**43,694**	**23,626**	**801**	**6,993**
New England	**—**	**38**	**2,508**	**413**	**2**	**80**
Maine	—	—	165	14	—	1
N.H.	—	—	187	18	—	2
Vt.	NN	—	144	7	—	4
Mass.	—	8	1,312	266	2	46
R.I.	—	1	159	37	—	1
Conn.	—	29	541	71	—	26
Mid. Atlantic	**3**	**150**	**6,767**	**2,412**	**163**	**324**
Upstate N.Y.	—	114	1,680	678	13	38
N. Y. City	3	20	1,895	710	43	81
N.J.	—	14	1,476	662	86	107
Pa.	—	2	1,716	362	21	98
E.N. Central	**—**	**2**	**6,279**	**3,037**	**97**	**1,044**
Ohio	—	—	1,491	566	4	134
Ind.	—	—	685	180	—	215
Ill.	—	1	1,921	1,573	71	424
Mich.	—	1	1,169	279	16	211
Wis.	NN	—	1,013	439	6	60
W.N. Central	**—**	**41**	**2,361**	**1,119**	**15**	**146**
Minn.	—	—	601	331	—	9
Iowa	—	—	375	69	—	5
Mo.	—	2	632	221	15	109
N. Dak.	—	—	68	11	—	—
S. Dak.	—	—	132	33	—	1
Nebr.	—	—	190	372	—	8
Kans.	—	39	363	82	—	14
S. Atlantic	**1**	**22**	**9,326**	**4,727**	**184**	**2,523**
Del.	—	—	79	46	—	21
Md.	—	1	931	202	44	648
D.C.	—	—	84	37	8	81
Va.	—	1	1,135	200	4	149
W. Va.	—	—	181	11	—	3
N.C.	—	16	1,309	372	24	723
S.C.	1	—	667	198	19	271
Ga.	—	—	1,839	1,138	14	333
Fla.	—	4	3,101	2,523	71	294
E.S. Central	**—**	**2**	**2,363**	**1,734**	**38**	**1,208**
Ky.	—	—	364	158	5	106
Tenn.	—	2	624	1,062	9	567
Ala.	—	—	695	459	9	274
Miss.	—	NN	680	55	15	261
W.S. Central	**3**	**90**	**5,381**	**5,295**	**155**	**1,079**
Ark.	—	—	616	211	30	108
La.	—	1	863	384	8	430
Okla.	—	—	501	712	15	98
Tex.	3	89	3,401	3,988	102	443
Mountain	**—**	**6**	**2,601**	**1,323**	**27**	**231**
Mont.	—	—	79	8	—	—
Idaho	—	—	122	20	—	2
Wyo.	—	—	70	4	—	1
Colo.	—	—	539	229	1	10
N. Mex.	—	1	306	306	—	14
Ariz.	—	2	885	643	25	185
Utah	—	2	355	48	1	4
Nev.	—	1	245	65	—	15
Pacific	**—**	**13**	**6,108**	**3,566**	**120**	**358**
Wash.	—	8	703	277	1	44
Oreg.	—	—	329	194	—	6
Calif.	—	3	4,724	3,033	119	303
Alaska	NN	—	57	11	—	1
Hawaii	—	2	295	51	—	4
Guam	—	—	46	39	—	—
P.R.	—	14	901	69	27	177
V.I.	NA	NA	NA	NA	—	7
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.

NOTIFIABLE DISEASES — Reported cases, by geographic division and area, United States, 1998 — Continued

Area	Syphilis* All stages	Tetanus	Toxic-shock syndrome	Trichinosis	Tuberculosis†	Typhoid fever
United States	**37,977**	**41**	**138**	**19**	**18,361**	**375**
New England	**824**	**—**	**2**	**1**	**505**	**24**
Maine	4	—	—	—	13	—
N.H.	14	—	—	—	14	1
Vt.	6	—	2	1	5	—
Mass.	568	—	—	—	282	15
R.I.	55	—	—	—	63	—
Conn.	177	—	NN	—	128	8
Mid. Atlantic	**6,881**	**1**	**17**	**—**	**3,088**	**90**
Upstate N.Y.	495	—	10	—	442	17
N.Y. City	4,650	—	—	—	1,558	52
N.J.	826	—	—	—	640	16
Pa.	910	1	7	—	448	5
E.N. Central	**3,905**	**12**	**30**	**9**	**1,762**	**56**
Ohio	474	3	1	7	230	9
Ind.	509	1	6	—	188	2
Ill.	2,028	5	7	2	850	38
Mich.	686	2	14	—	385	6
Wis.	208	1	2	—	109	1
W.N. Central	**645**	**2**	**23**	**—**	**520**	**7**
Minn.	74	—	5	—	161	3
Iowa	48	1	4	—	55	—
Mo.	375	—	6	—	184	4
N. Dak.	—	—	1	—	10	—
S. Dak.	2	1	—	—	23	—
Nebr.	33	—	3	—	31	—
Kans.	113	—	4	—	56	—
S. Atlantic	**10,946**	**9**	**16**	**—**	**3,565**	**49**
Del.	114	—	4	—	36	3
Md.	2,156	1	NN	—	324	11
D.C.	579	—	—	—	107	—
Va.	707	1	—	—	339	7
W. Va.	11	3	—	—	42	1
N.C.	2,133	1	2	—	498	1
S.C.	871	—	4	—	286	—
Ga.	1,836	—	3	—	631	10
Fla.	2,539	3	3	—	1,302	16
E.S. Central	**4,383**	**1**	**7**	**4**	**1,224**	**10**
Ky.	339	—	1	NN	179	2
Tenn.	1,750	1	5	3	439	2
Ala.	1,133	—	1	—	381	4
Miss.	1,161	—	NN	1	225	2
W.S. Central	**6,475**	**6**	**6**	**—**	**2,569**	**31**
Ark.	506	—	2	NN	171	—
La.	1,651	2	NN	—	380	1
Okla.	363	—	4	NN	198	1
Tex.	3,955	4	NN	—	1,820	29
Mountain	**1,099**	**2**	**10**	**2**	**619**	**12**
Mont.	—	1	—	2	20	—
Idaho	15	—	1	NN	14	1
Wyo.	2	—	—	—	4	—
Colo.	118	—	4	—	79	1
N. Mex.	76	—	—	—	68	2
Ariz.	697	1	1	—	254	5
Utah	55	—	2	—	52	—
Nev.	136	—	2	—	128	3
Pacific	**2,819**	**8**	**27**	**3**	**4,509**	**96**
Wash.	141	—	6	—	265	8
Oreg.	32	—	NN	—	156	1
Calif.	2,618	8	21	3	3,852	83
Alaska	13	—	NN	—	55	—
Hawaii	15	—	NN	—	181	4
Guam	3	—	—	—	89	—
P.R.	1,460	1	NN	—	201	2
V.I.	35	NA	NA	NA	NA	NA
American Samoa	NA	NA	NA	NA	NA	NA
C.N.M.I.	NA	NA	NA	NA	NA	NA

*Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.
†Totals reported to the Division of Tuberculosis Elimination, NCHSTP, as of June 3, 1999.

NOTIFIABLE DISEASES — Summary of reported cases, by age group, United States, 1998

Disease	Total	<1 No.	<1 (Rate)	1–4 No.	1–4 (Rate)	5–14 No.	5–14 (Rate)	15–24 No.	15–24 (Rate)	25–39 No.	25–39 (Rate)	40–64 No.	40–64 (Rate)	≥65 No.	≥65 (Rate)	Age not stated
AIDS*	46,521	93	(2.46)	133	(0.88)	199	(0.51)	1,667	(4.48)	24,689	(40.21)	19,008	(24.01)	732	(2.13)	—
Botulism, total	116	66	(1.76)	3	(0.02)	—	(—)	3	(0.01)	14	(0.02)	25	(0.03)	5	(0.01)	—
Brucellosis	79	—	(—)	10	(0.07)	10	(0.03)	9	(0.02)	18	(0.03)	23	(0.03)	9	(0.03)	—
Chlamydia†§	604,023	NA	(NA)	NA	(NA)	NA	(NA)	441,225	(1,259.62)	124,556	(209.45)	11,397	(15.59)	1,226	(3.78)	9,629
Cholera	17	—	(—)	—	(—)	—	(—)	—	(0.00)	8	(0.01)	6	(0.01)	3	(0.01)	—
Cryptosporidiosis	3,793	93	(2.81)	674	(5.07)	629	(1.84)	328	(1.01)	1,056	(1.97)	741	(1.08)	209	(0.70)	63
Diphtheria	1	—	(—)	—	(—)	—	(—)	1	(0.00)	—	(—)	—	(—)	—	(—)	—
Encephalitis, California serogroup viral	97	4	(0.11)	23	(0.16)	65	(0.17)	1	(0.00)	1	(0.00)	1	(0.00)	1	(0.00)	1
Eastern equine	4	—	(—)	—	(—)	—	(—)	—	(—)	1	(0.00)	1	(0.00)	2	(0.01)	—
St. Louis	24	1	(0.03)	—	(—)	—	(—)	2	(0.01)	6	(0.01)	10	(0.01)	5	(0.02)	—
Escherichia coli O157:H7	3,161	70	(2.01)	639	(4.57)	655	(1.83)	392	(1.15)	341	(0.61)	583	(0.81)	366	(1.18)	115
Gonorrhea§	355,627	NA	(NA)	NA	(NA)	NA	(NA)	209,036	(571.45)	109,680	(176.24)	24,257	(31.58)	1,199	(3.52)	4,252
Haemophilus influenzae, invasive disease	1,194	157	(4.16)	96	(0.63)	63	(0.16)	55	(0.15)	107	(0.17)	256	(0.32)	452	(1.31)	8
Hansen disease (leprosy)	108	2	(0.06)	—	(—)	2	(0.01)	11	(0.03)	32	(0.06)	27	(0.04)	14	(0.05)	20
Hepatitis A	23,229	122	(3.23)	1,154	(7.60)	4,739	(12.10)	3,718	(9.99)	7,589	(12.36)	4,560	(5.76)	1,056	(3.07)	291
Hepatitis B	10,258	67	(1.77)	54	(0.36)	161	(0.41)	1,757	(4.72)	4,357	(7.10)	3,117	(3.94)	525	(1.53)	220
Hepatitis C; non-A, non-B	3,518	21	(0.56)	7	(0.05)	16	(0.04)	166	(0.45)	1,101	(1.79)	1,619	(2.05)	145	(0.42)	443
Legionellosis	1,355	4	(0.11)	2	(0.01)	4	(0.01)	17	(0.05)	136	(0.23)	609	(0.79)	569	(1.69)	14
Lyme disease	16,801	70	(1.86)	923	(6.10)	3,193	(8.19)	1,396	(3.77)	2,875	(4.70)	5,857	(7.43)	2,332	(6.81)	155
Malaria	1,611	10	(0.26)	70	(0.46)	180	(0.46)	299	(0.80)	507	(0.83)	438	(0.55)	65	(0.19)	42
Measles (rubeola)	100	15	(0.40)	15	(0.10)	12	(0.03)	29	(0.08)	24	(0.04)	5	(0.01)	—	(—)	—
Meningococcal disease	2,725	433	(11.47)	417	(2.75)	354	(0.90)	471	(1.27)	249	(0.41)	386	(0.49)	390	(1.13)	25
Mumps	666	7	(0.19)	120	(0.80)	289	(0.75)	88	(0.24)	99	(0.16)	54	(0.07)	—	(—)	9
Pertussis (whooping cough)	7,405	2,134	(56.51)	953	(6.27)	2,016	(5.15)	890	(2.39)	634	(1.03)	675	(0.85)	56	(0.16)	47
Plague	9	—	(—)	—	(—)	1	(0.00)	—	(—)	2	(0.00)	6	(0.01)	—	(—)	—
Poliomyelitis, paralytic	1	1	(0.03)	—	(—)	—	(—)	—	(—)	—	(—)	—	(—)	—	(—)	—
Psittacosis	47	2	(0.06)	2	(0.01)	2	(0.01)	3	(0.01)	11	(0.02)	19	(0.03)	7	(0.02)	1
Rabies, human	1	—	(—)	—	(—)	—	(—)	—	(—)	1	(0.00)	—	(—)	—	(—)	—
Rocky Mountain spotted fever	365	2	(0.05)	25	(0.17)	58	(0.15)	34	(0.09)	86	(0.14)	118	(0.15)	39	(0.11)	3
Rubella (German measles)	364	16	(0.42)	12	(0.08)	19	(0.05)	147	(0.40)	122	(0.20)	47	(0.06)	—	(—)	1
Salmonellosis	43,694	5,517	(146.09)	6,975	(45.92)	5,348	(13.66)	3,622	(9.73)	5,944	(9.68)	6,475	(8.18)	3,954	(11.49)	5,859
Shigellosis	23,626	513	(13.58)	6,399	(42.13)	6,134	(15.66)	1,653	(4.44)	3,209	(5.23)	1,818	(2.30)	436	(1.27)	3,464
Syphilis§ Primary and secondary	6,995	NA	(NA)	NA	(NA)	NA	(NA)	1,626	(4.45)	3,368	(5.41)	1,833	(2.39)	103	(0.30)	18
Tetanus	41	1	(0.03)	—	(—)	2	(0.01)	6	(0.02)	8	(0.01)	10	(0.01)	14	(0.04)	—
Toxic-shock syndrome	138	2	(0.06)	3	(0.02)	20	(0.06)	23	(0.07)	42	(0.08)	40	(0.06)	7	(0.02)	1
Trichinosis	19	—	(—)	1	(0.01)	—	(—)	2	(0.01)	7	(0.01)	7	(0.01)	1	(0.00)	1
Tuberculosis¶	18,361	108	(2.86)	533	(3.51)	441	(1.13)	1,548	(4.16)	4,585	(7.47)	6,753	(8.53)	4,393	(12.77)	—
Typhoid fever	375	8	(0.21)	47	(0.31)	63	(0.16)	86	(0.23)	105	(0.17)	51	(0.06)	12	(0.03)	3

*Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), as of December 31, 1998.

†Chlamydia refers to genital infections caused by *C. trachomatis*.

§Age-related data are collected on aggregate forms different from those used for the number of reported cases. Therefore, the total cases reported on this table can differ slightly from other tables. Cases among persons aged <15 years are not shown because some of these might not be caused by sexual transmission; these cases are, however, included in the totals. Cases and rates were updated through the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999. Age-related data for 1998 are unavailable for chancroid.

¶Cases were updated through the Division of Tuberculosis Elimination, NCHSTP, as of June 3, 1999.

Note: Incidence rates per 100,000 population. Rates <0.01 after rounding are listed as 0.00.

NOTIFIABLE DISEASES — Summary of reported cases, by sex, United States, 1998

Disease	Total	Male No.	Male (Rate)	Female No.	Female (Rate)	Sex not stated
AIDS*	46,521	35,776	(27.09)	10,742	(7.77)	3
Botulism, total	116	62	(0.05)	52	(0.04)	2
Brucellosis	79	39	(0.03)	39	(0.03)	1
Chancroid†	189	112	(0.09)	76	(0.06)	1
Chlamydia†§	604,420	NA	(NA)	498,406	(382.24)	—
Cholera	17	10	(0.01)	6	(0.00)	1
Cryptosporidiosis	3,793	1,907	(1.66)	1,822	(1.52)	64
Diphtheria	1	NA	(NA)	1	(0.00)	—
Encephalitis, California serogroup viral	97	61	(0.05)	35	(0.03)	1
Eastern equine	4	2	(0.00)	2	(0.00)	—
St. Louis	24	13	(0.01)	11	(0.01)	—
Escherichia coli O157:H7	3,161	1,405	(1.17)	1,563	(1.24)	193
Gonorrhea†	355,642	175,233	(133.75)	179,651	(131.50)	758
Haemophilus influenzae, invasive disease	1,194	517	(0.39)	578	(0.42)	99
Hansen disease (leprosy)	108	53	(0.05)	35	(0.03)	20
Hepatitis A	23,229	12,656	(9.58)	8,358	(6.05)	2,215
Hepatitis B	10,258	5,929	(4.49)	3,887	(2.81)	442
Hepatitis C; non-A, non-B	3,518	2,171	(1.64)	1,272	(0.92)	75
Legionellosis	1,355	806	(0.62)	509	(0.38)	40
Lyme disease	16,801	8,820	(6.71)	7,948	(5.77)	33
Malaria	1,611	996	(0.75)	553	(0.40)	62
Measles (rubeola)	100	45	(0.03)	43	(0.03)	12
Meningococcal disease	2,725	1,329	(1.01)	1,318	(0.95)	78
Mumps	666	370	(0.29)	267	(0.20)	29
Pertussis (whooping cough)	7,405	3,285	(2.49)	3,816	(2.76)	304
Plague	9	3	(0.00)	5	(0.00)	1
Poliomyelitis, paralytic	1	1	(0.00)	—	(—)	—
Psittacosis	47	12	(0.01)	34	(0.03)	1
Rabies, human	1	1	(0.00)	—	(—)	—
Rocky Mountain spotted fever	365	222	(0.17)	141	(0.10)	2
Rubella (German measles)	364	238	(0.18)	123	(0.09)	3
Salmonellosis	43,694	17,942	(13.59)	19,035	(13.77)	6,717
Shigellosis	23,626	8,786	(6.65)	10,667	(7.72)	4,173
Syphilis, primary and secondary†	6,993	3,902	(2.98)	3,089	(2.26)	2
Tetanus	41	22	(0.02)	18	(.01)	1
Toxic-shock syndrome	138	30	(0.03)	103	(0.09)	5
Trichinosis	19	10	(0.01)	9	(0.01)	—
Tuberculosis¶	18,361	11,413	(8.64)	6,935	(5.02)	13
Typhoid fever	375	196	(0.15)	161	(0.12)	18

*Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), as of December 31, 1998.

†Cases and rates were updated through the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.

§Chlamydia refers to genital infections caused by *C. trachomatis*. The rates for men are not presented because reporting for men is more limited than for women.

¶Cases were updated through the Division of Tuberculosis Elimination, NCHSTP, as of June 3, 1999.

Note: Incidence rates per 100,000 population. Rates <0.01 after rounding are listed as 0.00.

NOTIFIABLE DISEASES — Summary of reported cases, by race, United States, 1998

Disease	Total	American Indian or Alaskan Native		Asian or Pacific Islander		Black		White		Other		Race not stated	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
AIDS*	46,521	148	(<1)	388	(1)	21,728	(47)	16,115	(35)	—	(—)	8,142†	(18)
Botulism, total	116	8	(7)	3	(3)	7	(6)	58	(50)	1	(1)	39	(34)
Brucellosis	79	1	(1)	—	(—)	—	(—)	49	(62)	—	(—)	29	(37)
Chlamydia§¶	604,023	8,466	(1)	7,483	(1)	203,013	(34)	124,323	(21)	—	(—)	260,738†	(43)
Cholera	17	—	(—)	4	(24)	—	(7)	10	(59)	—	(—)	3	(18)
Cryptosporidiosis	3,793	312	(8)	58	(2)	278	(7)	1,967	(52)	9	(<1)	1,169	(31)
Diphtheria	1	—	(—)	—	(—)	—	(—)	1	(100)	—	(—)	—	(—)
Encephalitis, California serogroup viral	97	1	(1)	—	(—)	1	(1)	87	(90)	—	(—)	8	(8)
Eastern equine	4	—	(—)	—	(—)	—	(—)	4	(100)	—	(—)	—	(—)
St. Louis	24	—	(—)	—	(—)	6	(25)	18	(75)	—	(—)	—	(—)
Escherichia coli O157:H7	3,161	6	(<1)	28	(1)	93	(3)	1,999	(63)	5	(<1)	1,030	(33)
Gonorrhea¶	355,627	1,790	(1)	1,481	(<1)	217,360	(61)	40,220	(11)	—	(—)	94,776†	(27)
Haemophilus influenzae, invasive disease	1,194	22	(2)	19	(2)	159	(13)	711	(60)	2	(<1)	281	(24)
Hansen disease (leprosy)	108	1	(1)	31	(29)	6	(6)	28	(26)	—	(—)	42	(39)
Hepatitis A	23,229	236	(1)	349	(2)	2,689	(12)	12,229	(53)	48	(<1)	7,678	(33)
Hepatitis B	10,258	80	(1)	683	(7)	1,855	(18)	3,958	(39)	25	(<1)	3,657	(36)
Hepatitis C; non-A, non-B	3,518	46	(1)	33	(1)	468	(13)	1,921	(55)	7	(<1)	1,043	(30)
Legionellosis	1,355	3	(<1)	8	(1)	135	(10)	913	(67)	—	(—)	296	(22)
Lyme disease	16,801	44	(<1)	102	(1)	205	(1)	12,833	(76)	41	(<1)	3,576	(21)
Malaria	1,611	4	(<1)	160	(10)	613	(38)	404	(25)	14	(1)	416	(26)
Measles (rubeola)	100	1	(1)	5	(5)	7	(7)	47	(47)	—	(—)	40	(40)
Meningococcal disease	2,725	30	(1)	34	(1)	405	(15)	1,716	(63)	4	(<1)	536	(20)
Mumps	666	3	(<1)	53	(8)	35	(5)	412	(62)	2	(<1)	161	(24)
Pertussis (whooping cough)	7,405	89	(1)	130	(2)	438	(6)	5,270	(71)	10	(<1)	1,468	(20)
Plague	9	3	(33)	—	(—)	—	(—)	6	(67)	—	(—)	—	(—)
Poliomyelitis, paralytic	1	—	(—)	—	(—)	—	(—)	1	(100)	—	(—)	—	(—)
Psittacosis	47	1	(2)	—	(—)	4	(9)	31	(66)	—	(—)	11	(23)
Rabies, human	1	—	(—)	—	(—)	1	(100)	—	(—)	—	(—)	—	(—)
Rocky Mountain spotted fever	365	5	(1)	3	(1)	18	(5)	280	(77)	—	(—)	59	(16)
Rubella (German measles)	364	4	(1)	3	(1)	3	(1)	238	(65)	26	(7)	90	(25)
Rubella, congenital syndrome	7	—	(—)	—	(—)	1	(14)	3	(43)	—	(—)	3	(43)
Salmonellosis	43,694	338	(1)	554	(1)	3,247	(7)	19,658	(45)	25	(<1)	19,872	(45)
Shigellosis	23,626	411	(2)	147	(1)	3,483	(15)	9,430	(40)	15	(<1)	10,140	(43)
Syphilis, primary and secondary¶	6,995	55	(1)	36	(1)	5,398	(77)	912	(13)	—	(—)	594†	(8)
Tetanus	41	1	(2)	1	(2)	6	(15)	29	(71)	—	(—)	4	(10)
Toxic-shock syndrome	138	—	(—)	3	(2)	11	(8)	106	(77)	—	(—)	18	(13)
Trichinosis	19	1	(5)	1	(5)	1	(5)	12	(63)	—	(—)	4	(21)
Tuberculosis**	18,361	264	(1)	3,668	(20)	5,980	(33)	8,408	(46)	—	(—)	41	(<1)
Typhoid fever	375	1	(<1)	105	(28)	19	(5)	65	(17)	13	(3)	172	(46)

*Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), as of December 31, 1998.

† Includes the following cases originally reported as Hispanic: 7,931 for AIDS; 70,240 for chlamydia; 16,269 for gonorrhea; and 441 for syphilis, primary and secondary.

§ Chlamydia refers to genital infections caused by *C. trachomatis*.

¶ In addition to data collected through the National Electronic Telecommunications System for Surveillance (NETSS), some data concerning race are collected on aggregate forms different from those used for numbers of reported cases. Thus, the total number of cases reported on this table can differ slightly from other tables. Cases were updated through the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999. Data regarding race for 1998 are unavailable for chancroid.

**Cases were updated through the Division of Tuberculosis Elimination, NCHSTP as of June 3, 1999.

NOTIFIABLE DISEASES — Summary of reported cases, by ethnicity, United States, 1998

Disease	Total	Hispanic No.	Hispanic (%)	Non-Hispanic No.	Non-Hispanic (%)	Ethnicity not stated No.	Ethnicity not stated (%)
AIDS*	46,521	7,931	(17)	37,843	(81)	747†	(2)
Botulism, total	116	24	(21)	59	(51)	33	(28)
Brucellosis	79	47	(59)	14	(18)	18	(23)
Chlamydia§¶	604,023	70,240	(12)	327,336	(54)	206,447†	(34)
Cholera	17	1	(6)	13	(76)	3	(18)
Cryptosporidiosis	3,793	237	(6)	1,600	(42)	1,956	(52)
Diphtheria	1	—	(—)	—	(—)	1	(100)
Encephalitis, California serogroup viral	97	2	(2)	33	(34)	62	(64)
Eastern equine	4	—	(—)	2	(50)	2	(50)
St. Louis	24	—	(—)	13	(54)	11	(46)
Escherichia coli O157:H7	3,161	86	(3)	1,698	(54)	1,377	(44)
Gonorrhea¶	355,627	16,269	(5)	257,580	(72)	81,778†	(23)
Haemophilus influenzae, invasive disease	1,194	78	(7)	611	(51)	505	(42)
Hansen disease (leprosy)	108	32	(30)	52	(48)	24	(22)
Hepatitis A	23,229	4,137	(18)	9,884	(43)	9,208	(40)
Hepatitis B	10,258	850	(8)	4,786	(47)	4,622	(45)
Hepatitis C; non-A, non-B	3,518	392	(11)	1,741	(49)	1,385	(39)
Legionellosis	1,355	26	(2)	773	(57)	556	(41)
Lyme disease	16,801	172	(1)	7,780	(46)	8,849	(53)
Malaria	1,611	167	(10)	873	(54)	571	(35)
Measles (rubeola)	100	10	(10)	44	(44)	46	(46)
Meningococcal disease	2,725	263	(10)	1,530	(56)	932	(34)
Mumps	666	115	(17)	221	(33)	330	(50)
Pertussis (whooping cough)	7,405	813	(11)	4,866	(66)	1,726	(23)
Plague	9	1	(11)	8	(89)	—	(—)
Poliomyelitis, paralytic	1	—	(—)	1	(100)	—	(—)
Psittacosis	47	5	(11)	26	(55)	16	(34)
Rabies, human	1	—	(—)	—	(—)	1	(100)
Rocky Mountain spotted fever	365	7	(2)	241	(66)	117	(32)
Rubella, congenital syndrome	7	4	(57)	—	(—)	3	(43)
Rubella (German measles)	364	289	(79)	54	(15)	21	(6)
Salmonellosis	43,694	2,523	(6)	15,393	(35)	25,778	(59)
Shigellosis	23,626	3,406	(14)	7,999	(34)	12,221	(52)
Syphilis, primary and secondary¶	6,995	441	(6)	6,310	(90)	244†	(3)
Tetanus	41	10	(24)	21	(51)	10	(24)
Toxic-shock syndrome	138	4	(3)	93	(67)	41	(30)
Trichinosis	19	—	(—)	6	(32)	13	(68)
Tuberculosis**	18,361	4,099	(22)	14,212	(77)	50	(<1)
Typhoid fever	375	64	(17)	144	(38)	167	(45)

* Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), as of December 31, 1998.

† Ethnicity is not stated and includes cases originally reported as American Indian/Alaskan Native or Asian/Pacific Islander.

§ Chlamydia refers to genital infections caused by *C. trachomatis*.

¶ In addition to data collected through the National Electronic Telecommunications System for Surveillance (NETSS), some data concerning ethnicity are collected on aggregate forms different from those used for numbers of reported cases. Thus, the total number of cases reported on this table can differ slightly from other tables. Cases were updated through the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999. Data regarding ethnicity for 1998 are unavailable for chancroid.

** Cases were updated through the Division of Tuberculosis Elimination, NCHSTP, as of June 3, 1999.

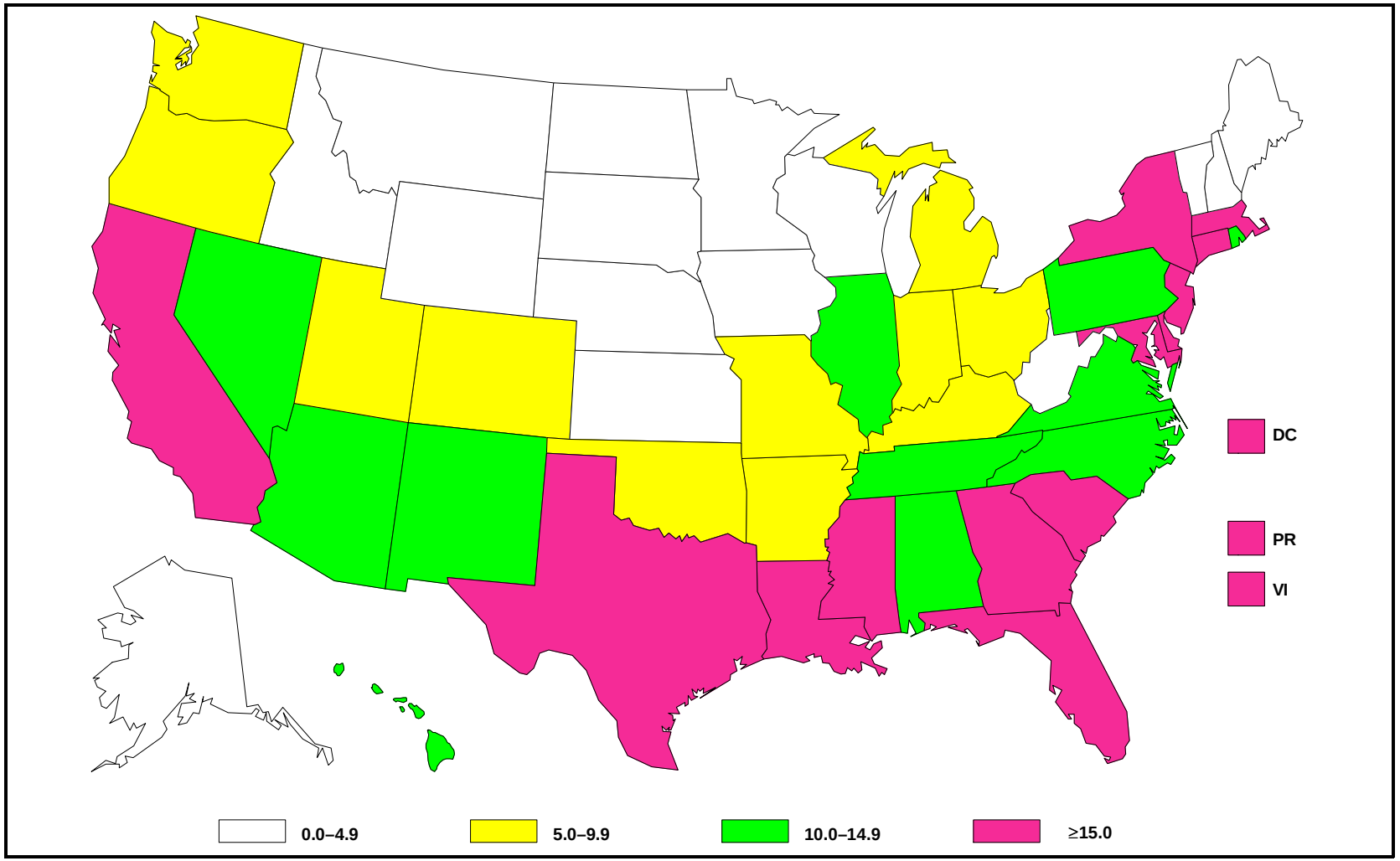
PART 2:

Graphs and Maps for Selected Notifiable Diseases in the United States

EXPLANATION OF SYMBOLS USED IN TABLES, GRAPHS, AND MAPS

Data not available.....NA
Report of disease is not required in that jurisdiction (not notifiable) .....NN

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) — reported cases per 100,000 population, United States, Puerto Rico, and Virgin Islands, 1998



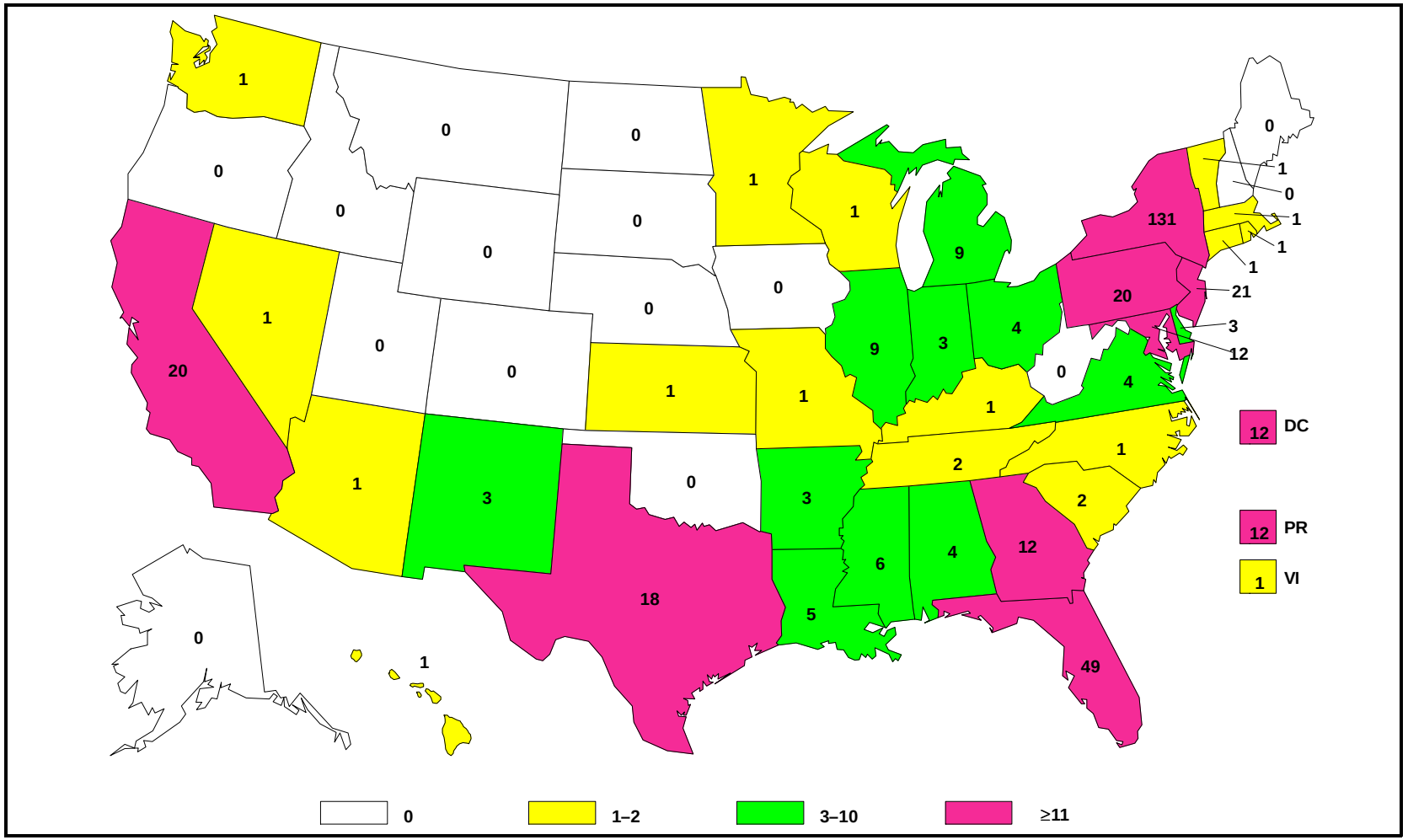
In 1998, the highest rates of reported AIDS cases per 100,000 population were in the northeastern, southern, and western states. Fifty-seven percent (57%) of reported AIDS cases occurred in New York, Florida, New Jersey, California, and Texas.

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) — reported cases by quarter, United States,* 1987–1998

*Includes Guam, Puerto Rico, the U.S. Pacific Islands, and the U.S. Virgin Islands.

The expansion of the AIDS surveillance case definition in 1993 caused a substantial increase in reported cases. However, new treatments have slowed the progression from human immunodeficiency virus (HIV) infection to AIDS and from AIDS to death. Consequently, the number of new AIDS cases is declining, and the number of persons living with HIV infection and AIDS is increasing.

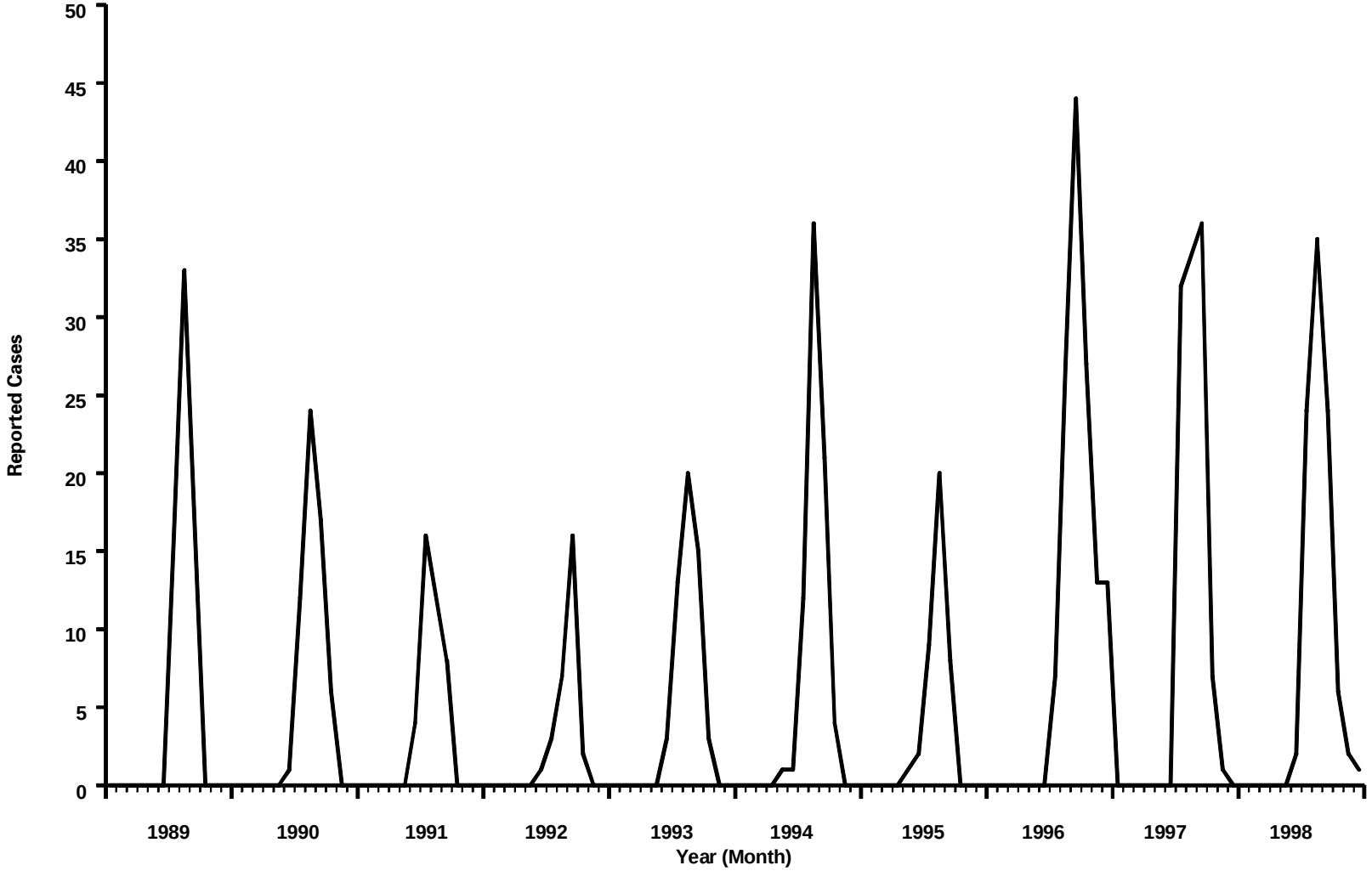
ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS) — reported pediatric cases,* United States, Puerto Rico, and Virgin Islands, 1998



*Children and adolescents aged <13 years.

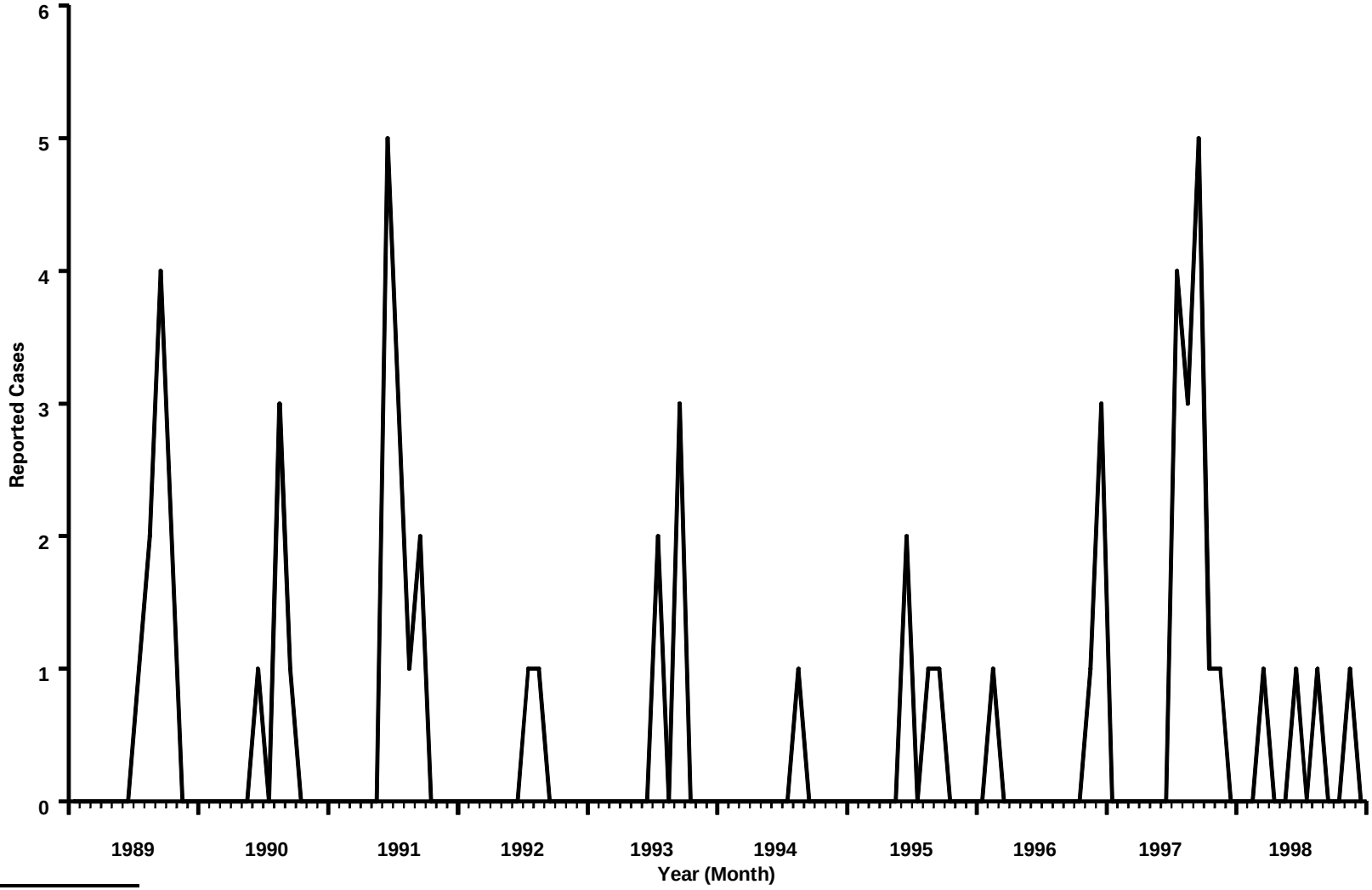
Trends in AIDS incidence among children continued to demonstrate the success of efforts to reduce perinatal (i.e., mother-to-child) human immunodeficiency virus (HIV) transmission and, more recently, the use of anti-retroviral treatments that slow the progression from HIV infection to AIDS. During 1992–1997, the number of perinatally acquired cases declined 67%. Despite these declines, new cases continue to occur among children aged <13 years who are disproportionally from racial and ethnic minority populations.

ARBOVIRAL ENCEPHALITIS — reported cases caused by California serogroup viruses, by month of onset, United States, 1989–1998



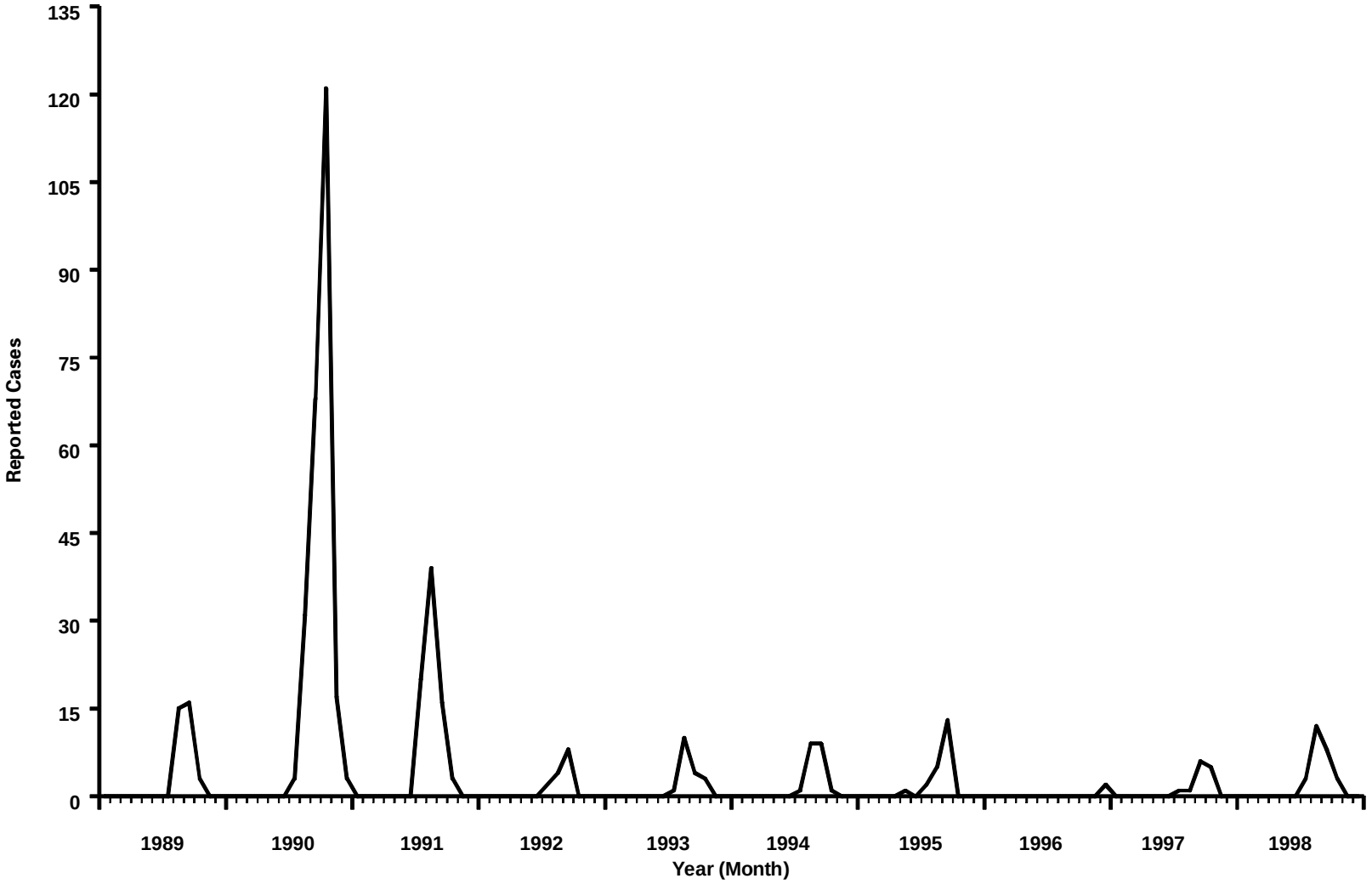
California serogroup viruses (mainly LaCrosse virus in the eastern United States) are an endemic cause of encephalitis, especially among children. In 1998, a total of 97 cases were reported from 11 states. During 1964–1998, a median of 65 cases (average: 74) were reported each year in the United States.

ARBOVIRAL ENCEPHALITIS — reported cases caused by eastern equine encephalitis virus, by month of onset, United States, 1989–1998



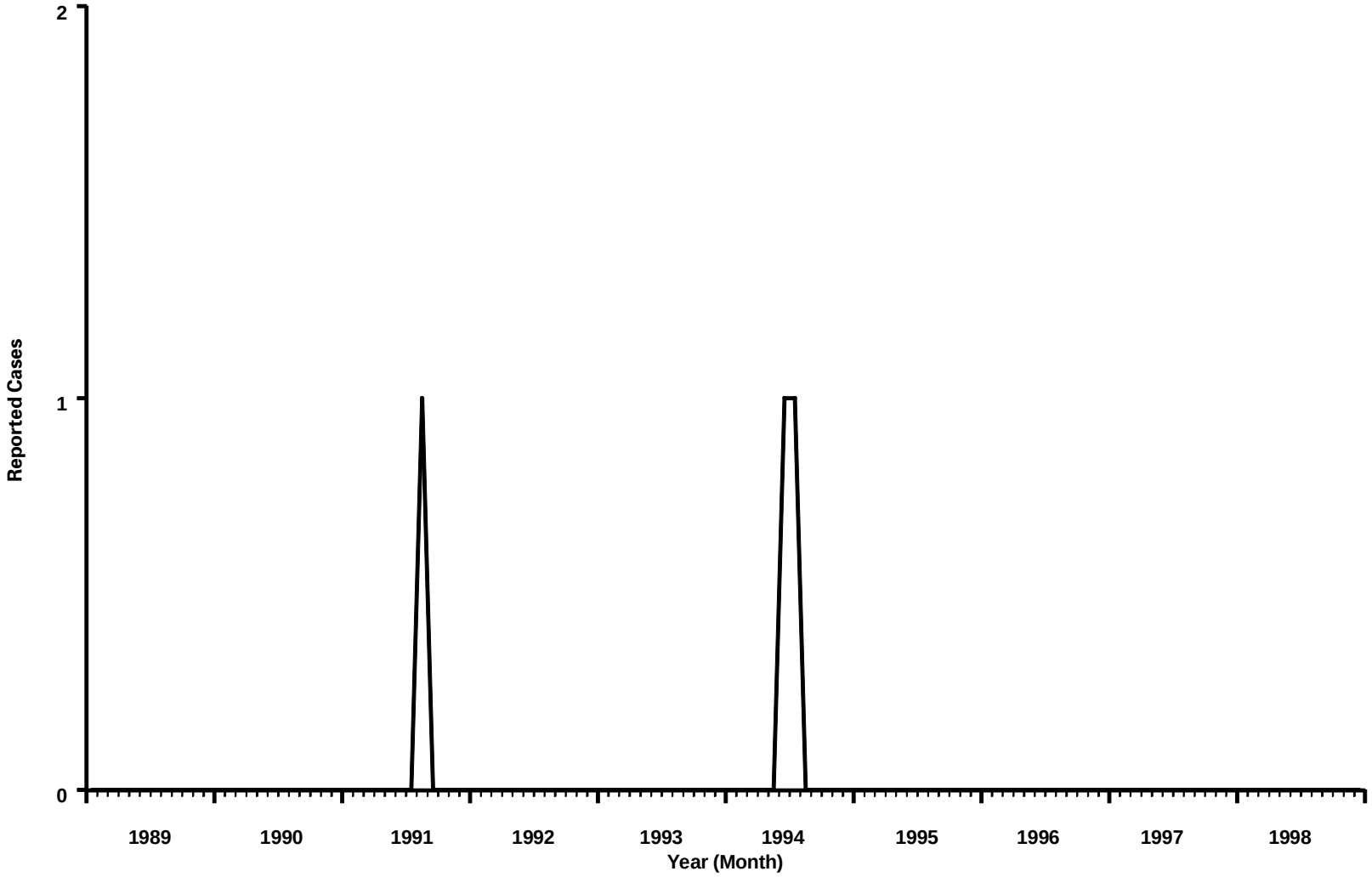
Cases of eastern equine encephalitis among humans, often associated with high mortality rates (i.e., >20%) and severe neurologic sequelae, occur sporadically in the eastern United States. During 1998, four cases were reported from four states. During 1964–1998, a median of 4 cases (average: 5) were reported each year in the United States.

ARBOVIRAL ENCEPHALITIS — reported cases caused by St. Louis encephalitis virus, by month of onset, United States, 1989–1998



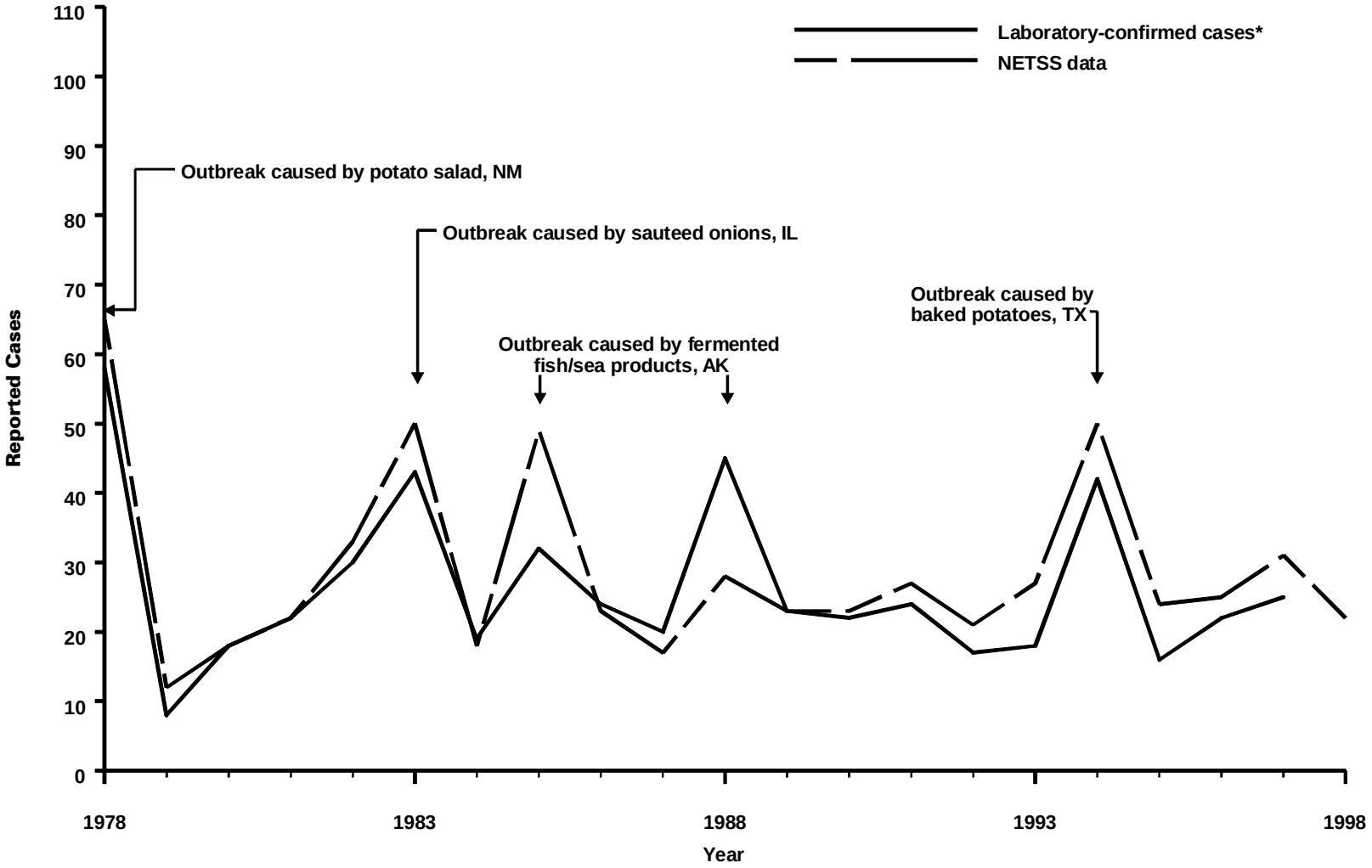
St. Louis encephalitis virus continues to be the major cause of epidemic viral encephalitis in the United States. In 1998, a total of 24 cases were reported from three states. During 1964–1998, a median of 26 cases (average: 128) were reported each year in the United States.

ARBOVIRAL ENCEPHALITIS — reported cases caused by western equine encephalitis virus, by month of onset, United States, 1989–1998



The most recent epidemic of western equine encephalitis occurred in Colorado in 1987. The reasons for the recent absence of epidemic transmission are not fully understood. During 1964–1998, a median of 3 cases (average: 19) were reported each year in the United States.

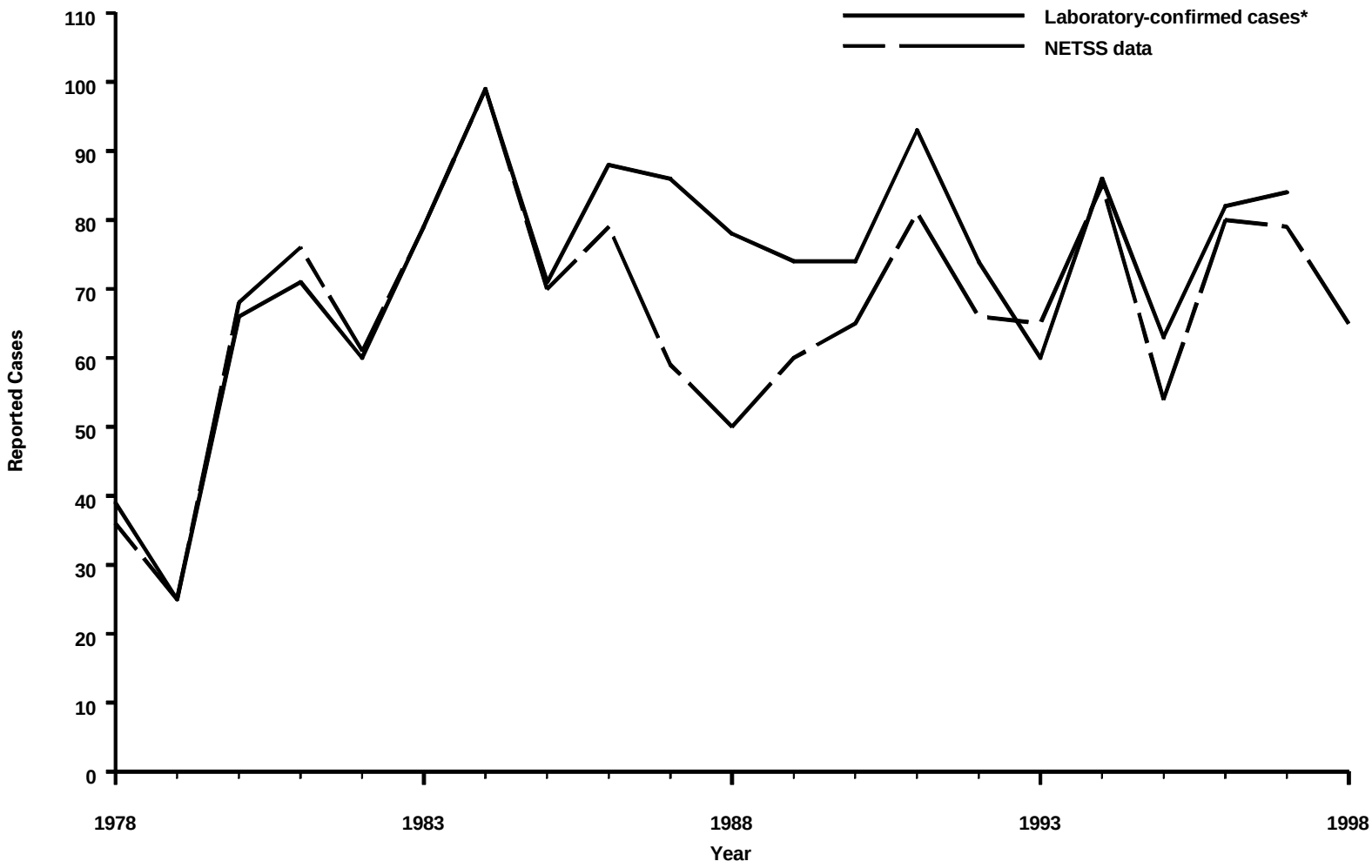
BOTULISM (foodborne) — by year, United States, 1978–1998



*Data from annual survey of state epidemiologists and directors of state public health laboratories. Data are not yet available for 1998.

Although outbreaks of foodborne botulism occur infrequently, they can rapidly kill many affected persons. Such outbreaks require prompt and effective communication among clinicians and public health officials.

BOTULISM (infant) — by year, United States, 1978–1998



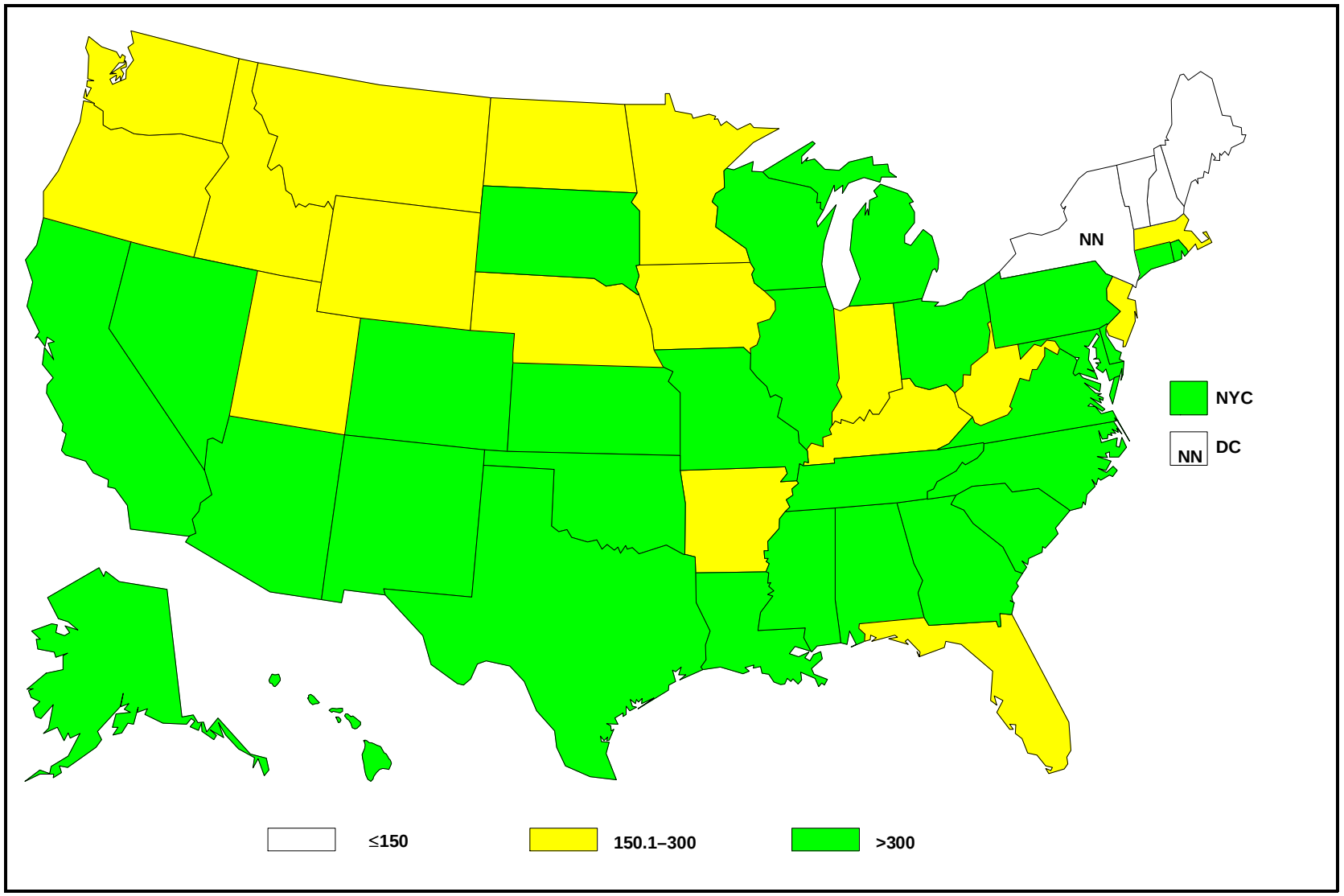
*Data from annual survey of state epidemiologists and directors of state public health laboratories. Data are not yet available for 1998.

In the United States, approximately one third of the reported cases of infant botulism occur in California.

BRUCELLOSIS — by year, United States, 1968–1998

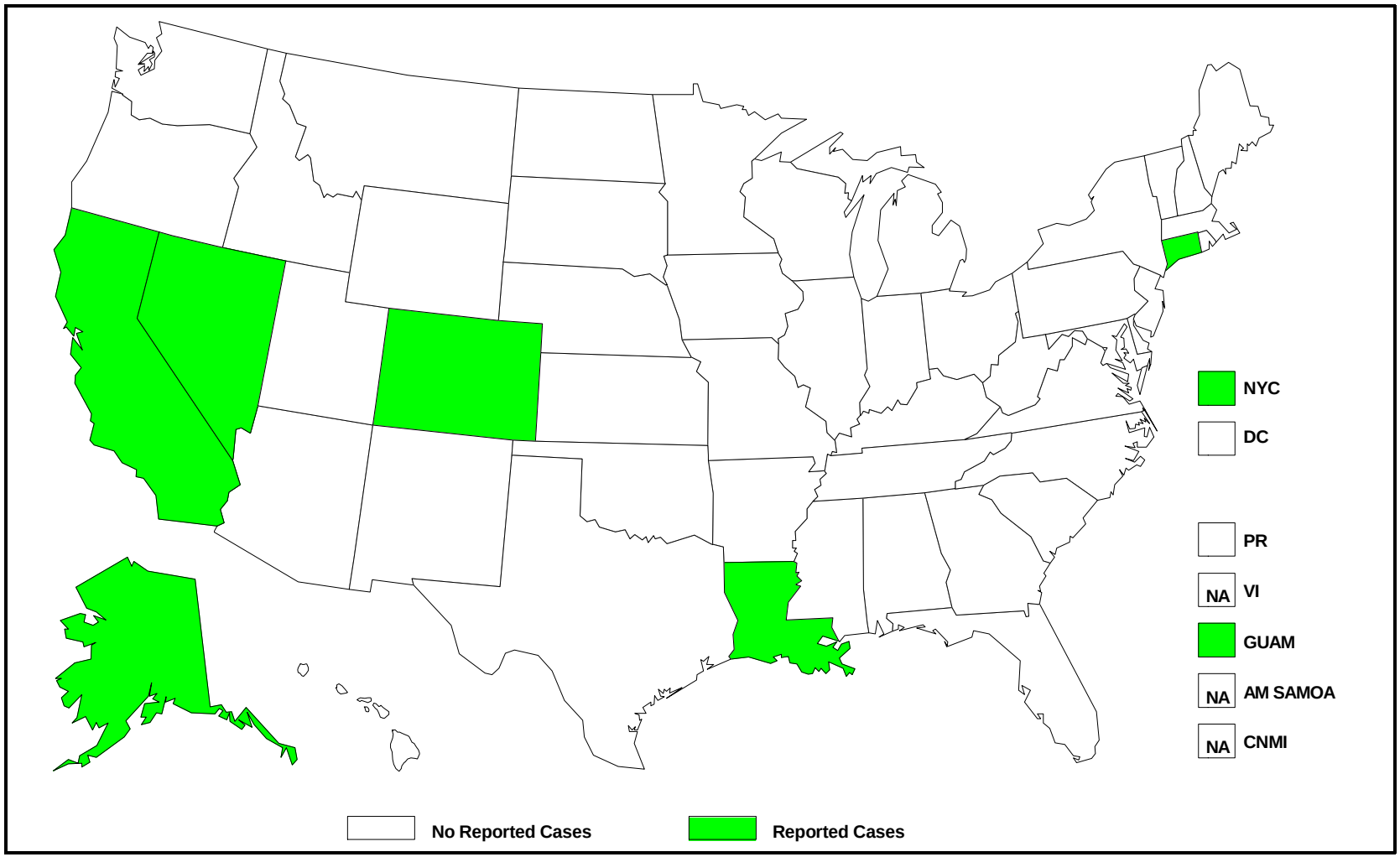
After peaking at >300 cases in 1975, the number of brucellosis cases has declined and, for the last 10 years, has remained relatively stable at approximately 100 cases per year.

CHLAMYDIA — reported cases among women per 100,000 population, United States, 1998



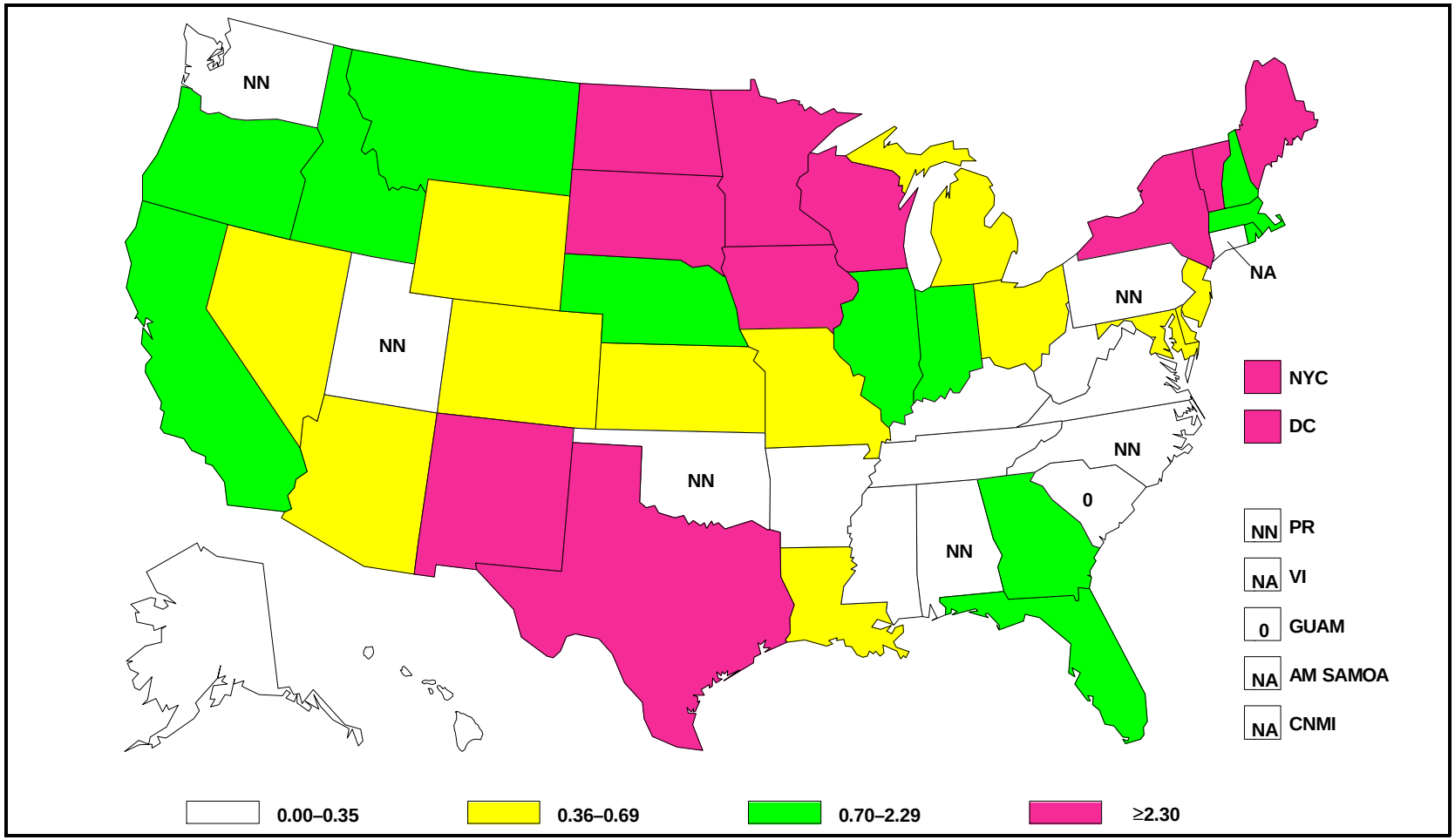
Chlamydia refers to genital infections caused by *C. trachomatis*. In 1998, the chlamydia rate among women was 382.2 cases per 100,000 population. The rates for men are not presented because reporting for men is more limited than it is for women.

CHOLERA — reported cases, United States and territories, 1998



In recent years, cholera has been primarily a disease of travelers to Latin America, Asia, and Africa, although cases are occasionally acquired from contaminated seafood in the United States.

CRYPTOSPORIDIOSIS — reported cases per 100,000 population, United States and territories, 1998

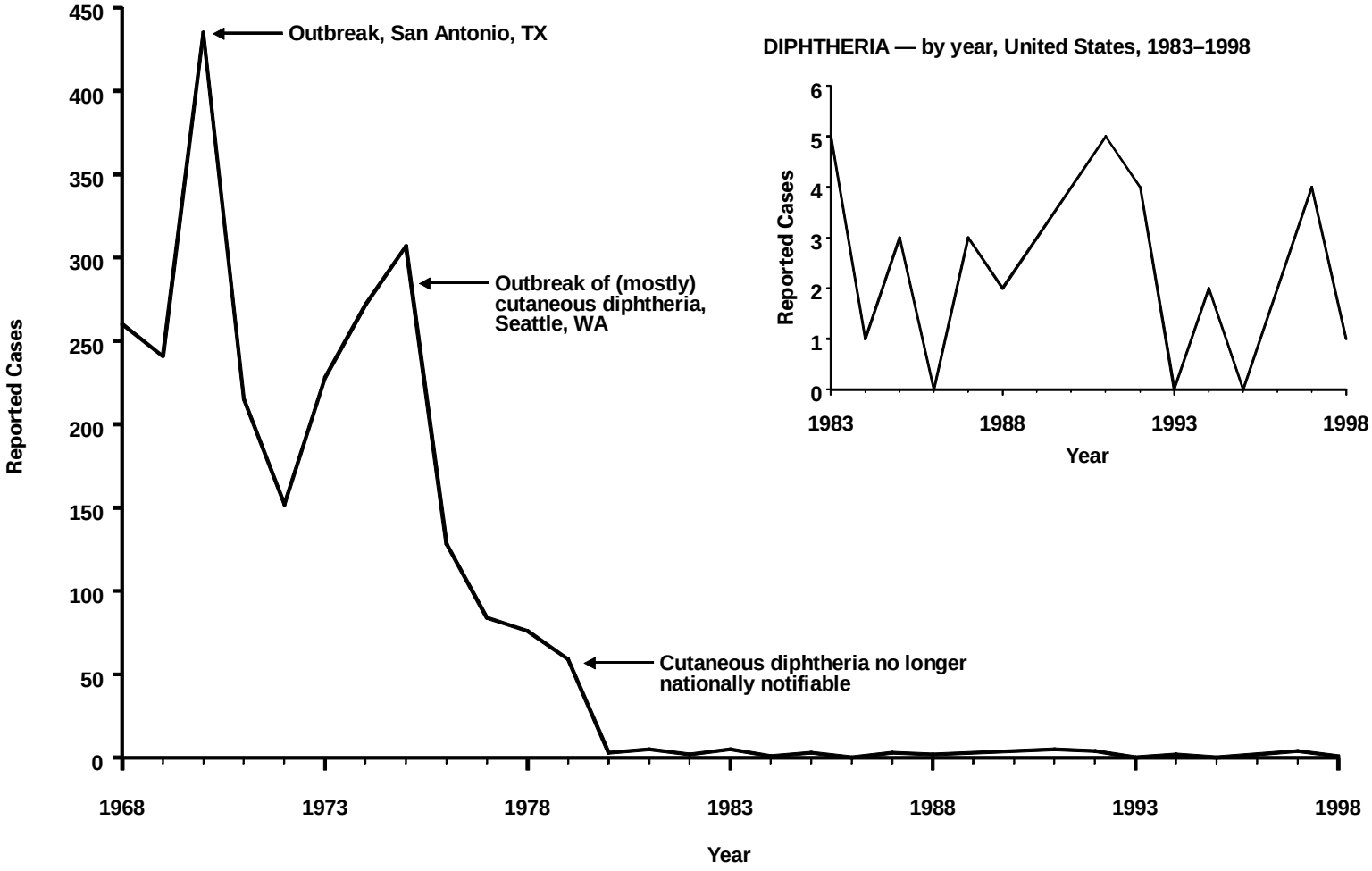


In 1998, cryptosporidiosis was not a reportable disease in six states (Alabama, North Carolina, Oklahoma, Pennsylvania, Utah, and Washington) and Puerto Rico.

Outbreaks can substantially influence cryptosporidiosis rates reported by states. In 1998, waterborne (i.e., drinking or recreational) or foodborne outbreaks were reported from Florida, Nebraska, New Mexico, Oregon, Texas, Wisconsin, and the District of Columbia.

Case-detection and reporting rates can be higher in states that participate in CDC's FoodNet or Emerging Infectious Diseases Program. In 1998, participating states included California, Connecticut, Georgia, New York, Maryland, Minnesota, and Oregon.

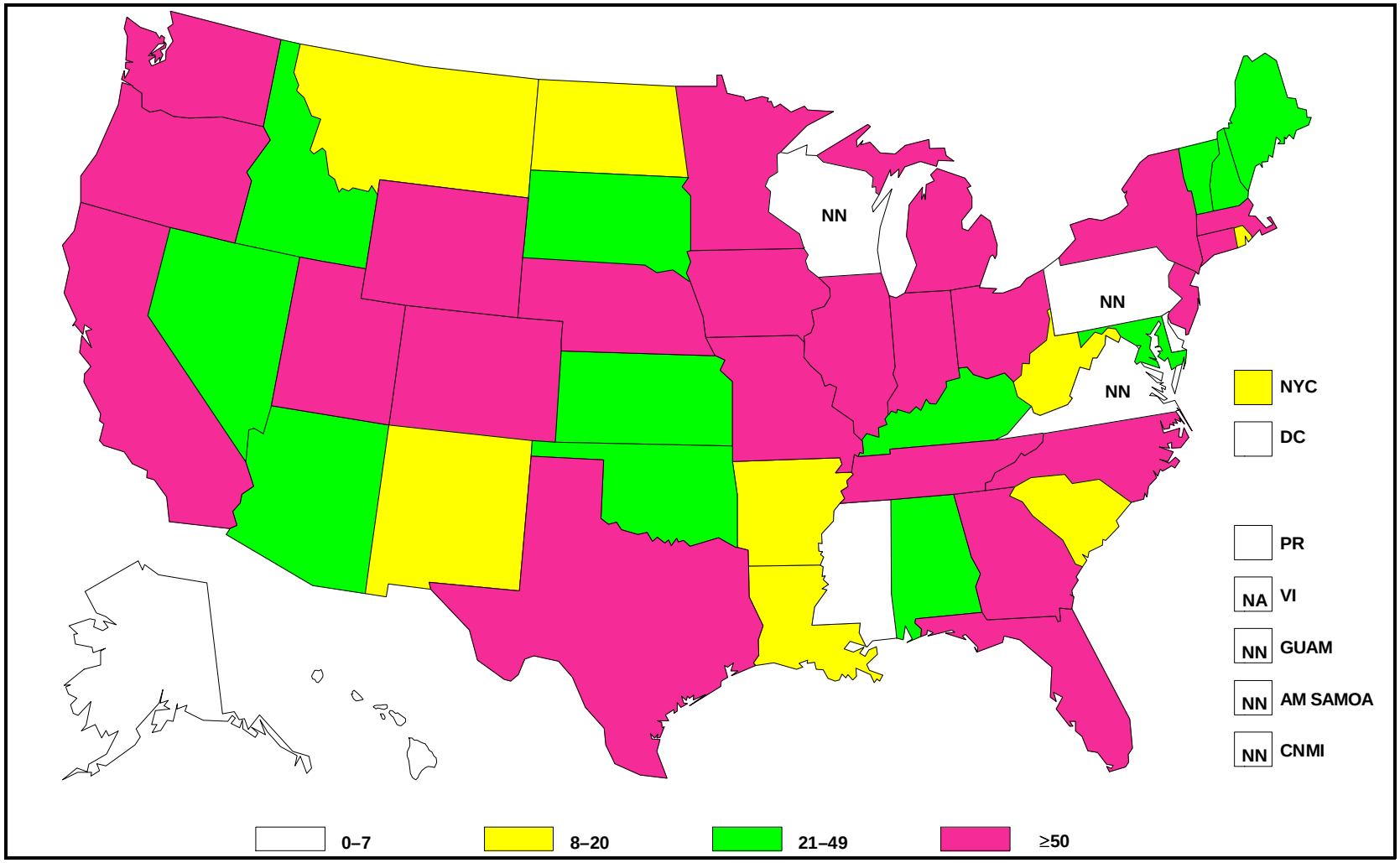
DIPHTHERIA — by year, United States, 1968–1998



Respiratiory diphtheria continues to be rare in the United States; only one probable case was reported in 1998.

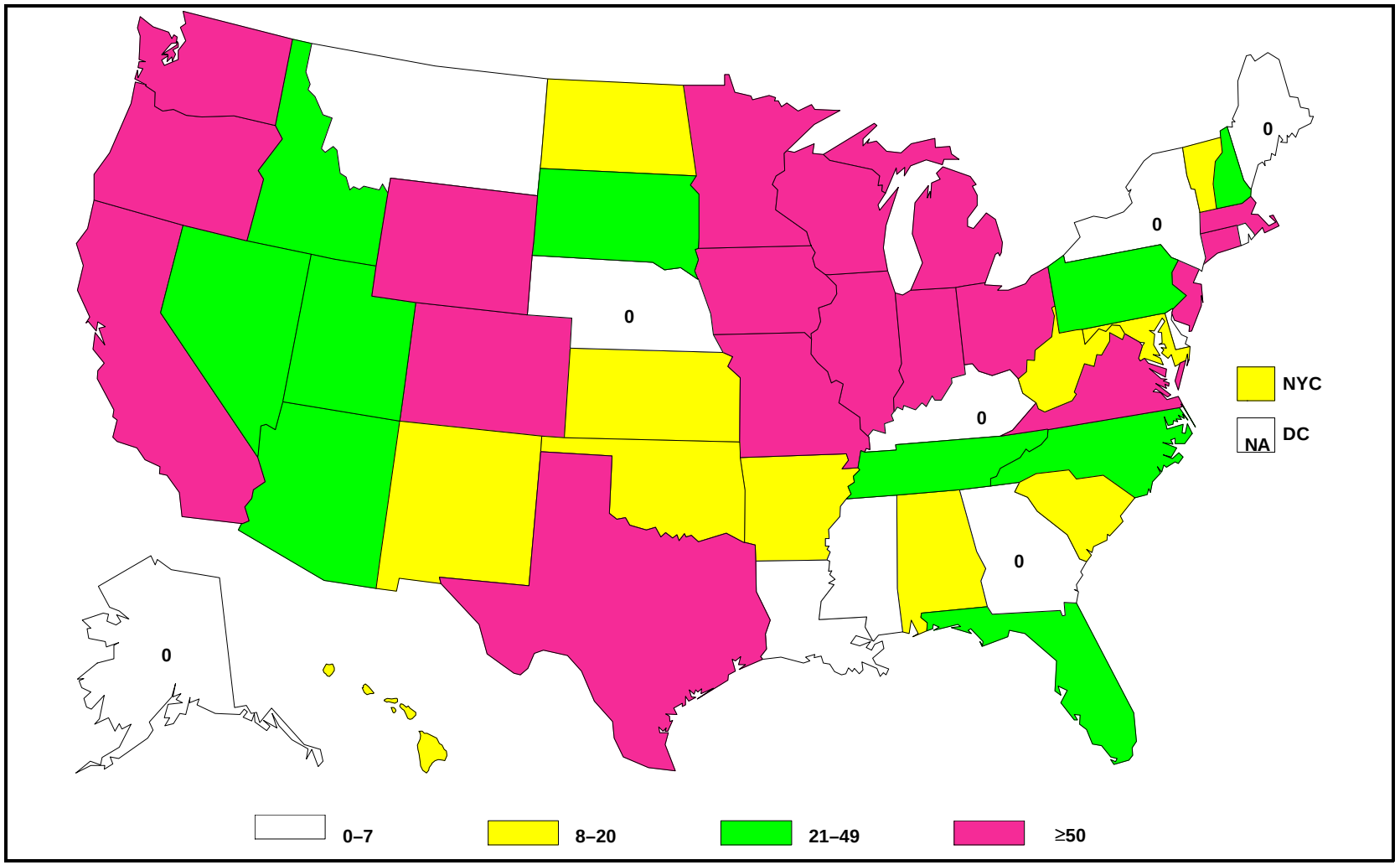
Note: A diphtheria vaccine was first licensed in 1949.

ESCHERICHIA COLI 0157:H7 — reported cases, United States and territories, 1998



The number of states in which *Escherichia coli* O157:H7 infection is a notifiable disease increased to 47 in 1998. However, because <60% of clinical laboratories routinely test all stool specimens — or even all bloody stool specimens — for *E. coli* O157:H7, many infections are not recognized or reported.

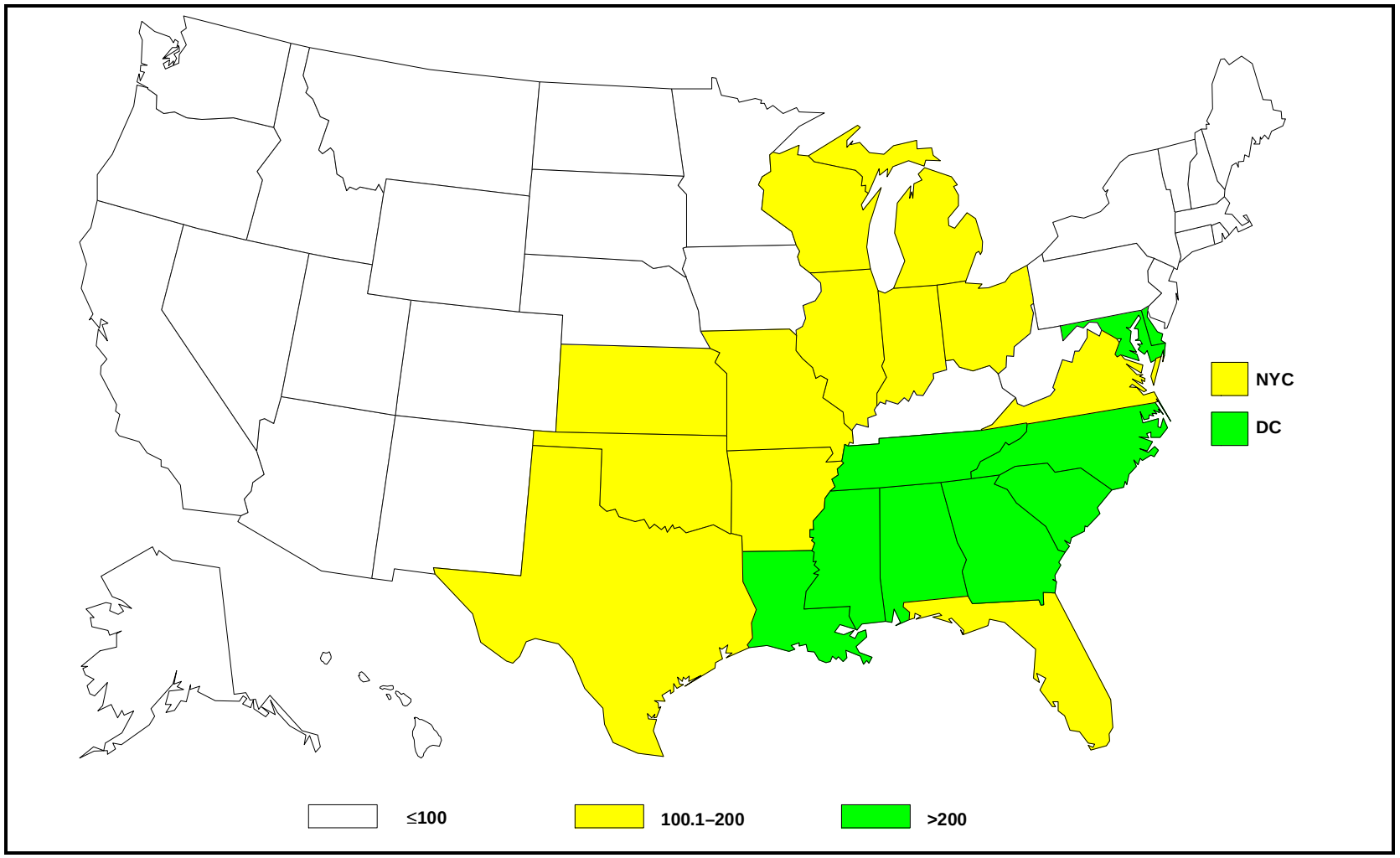
ESCHERICHIA COLI 0157:H7 — reported isolates,* United States, 1998



*Data from the Public Health Laboratory Information System (PHLIS).

Only *Escherichia coli* O157:H7 isolates that are confirmed by a state public health laboratory are reported to PHLIS. Many public health laboratories are now able to subtype isolates using pulsed-field gel electrophoresis and compare their findings electronically with other states through the National Molecular Subtyping Network for Foodborne Disease Surveillance (PulseNet).

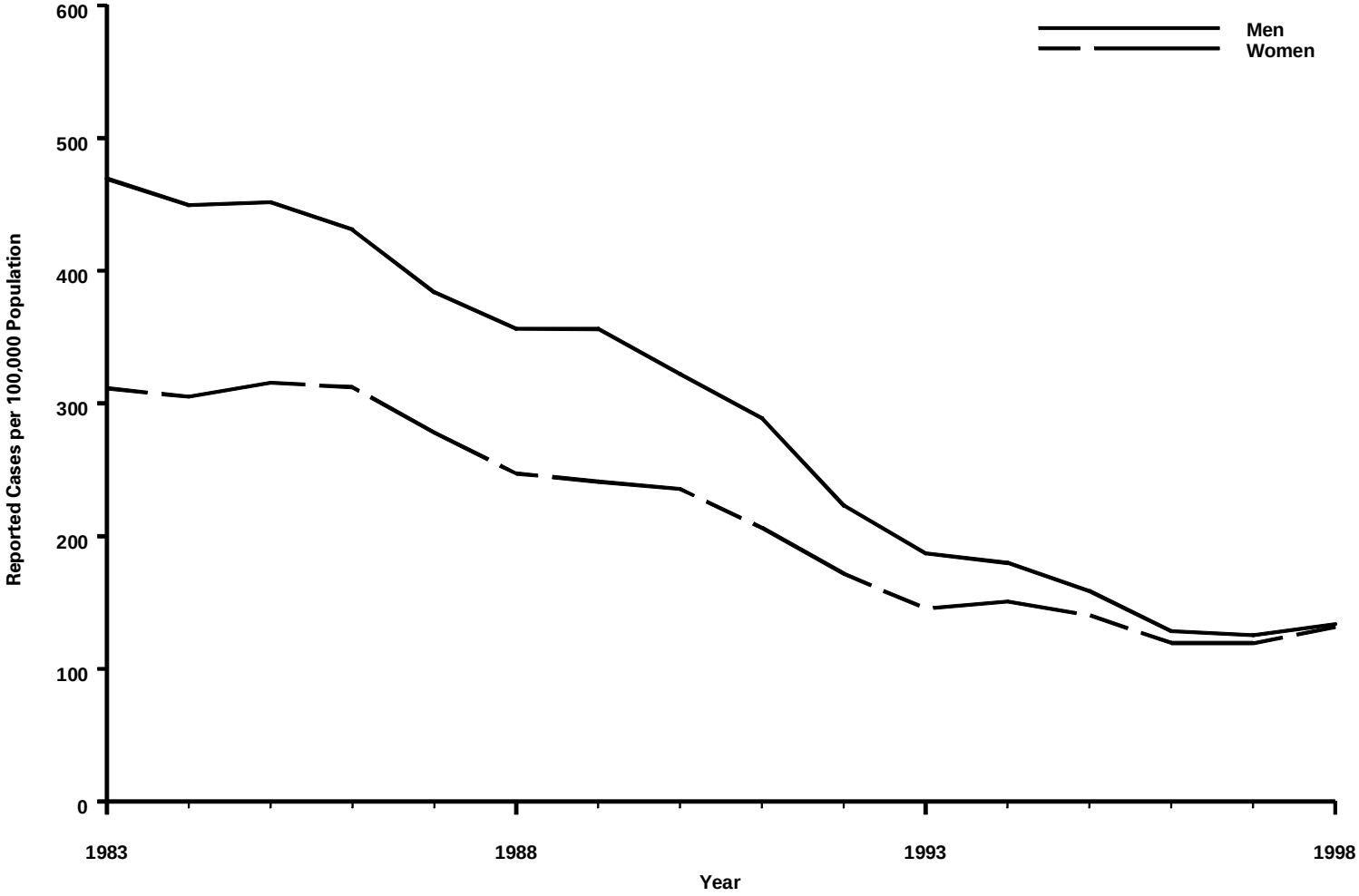
GONORRHEA — reported cases per 100,000 population, United States, 1998



The overall U.S. rate of gonorrhea in 1998 was 132.9 cases per 100,000 population. Twenty-eight states reported gonorrhea rates below the revised *Healthy People 2000* national objective.

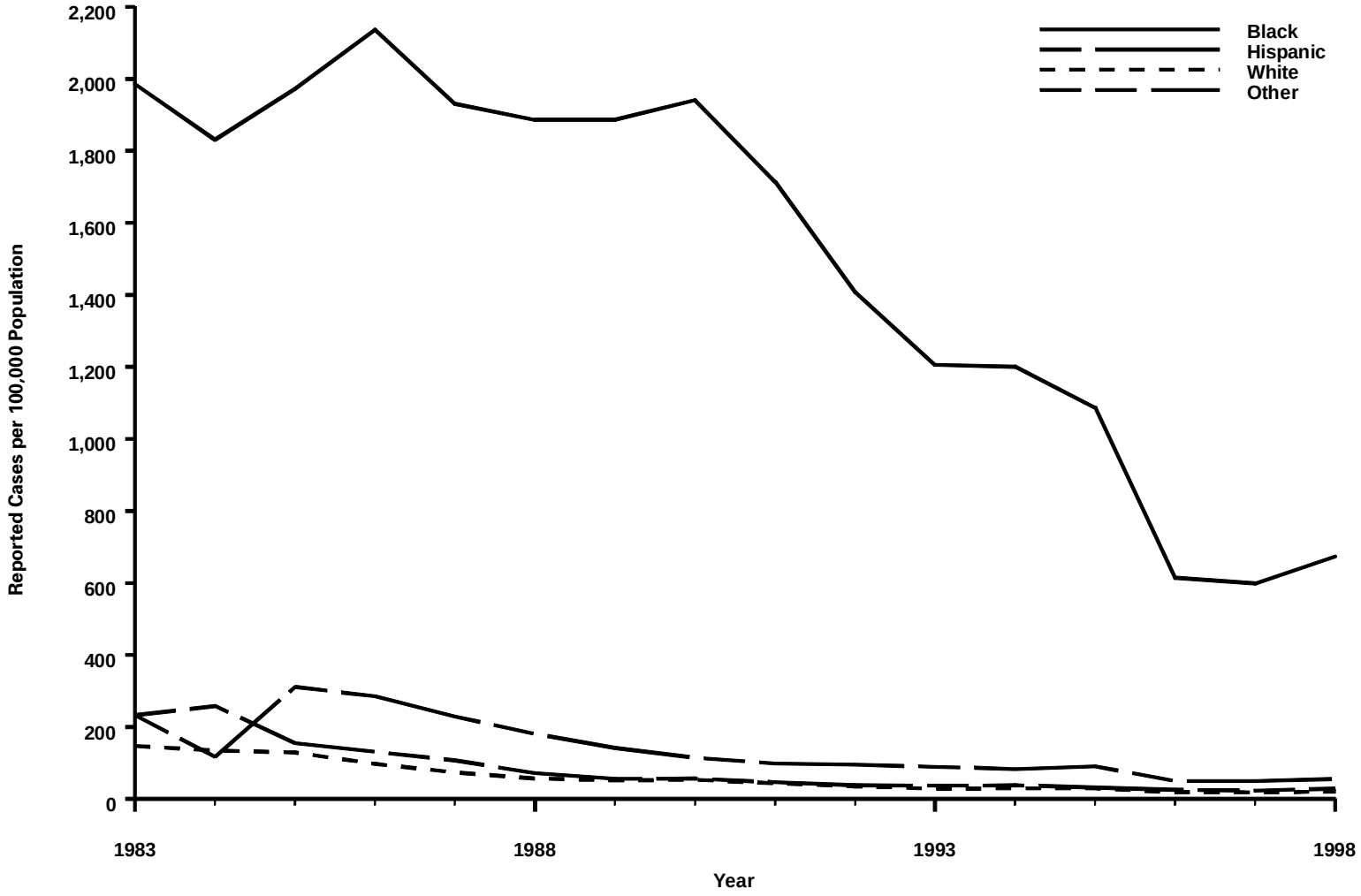
Note: The revised *Healthy People 2000* national objective is ≤100 cases per 100,000 population.

GONORRHEA — by sex, United States, 1983–1998



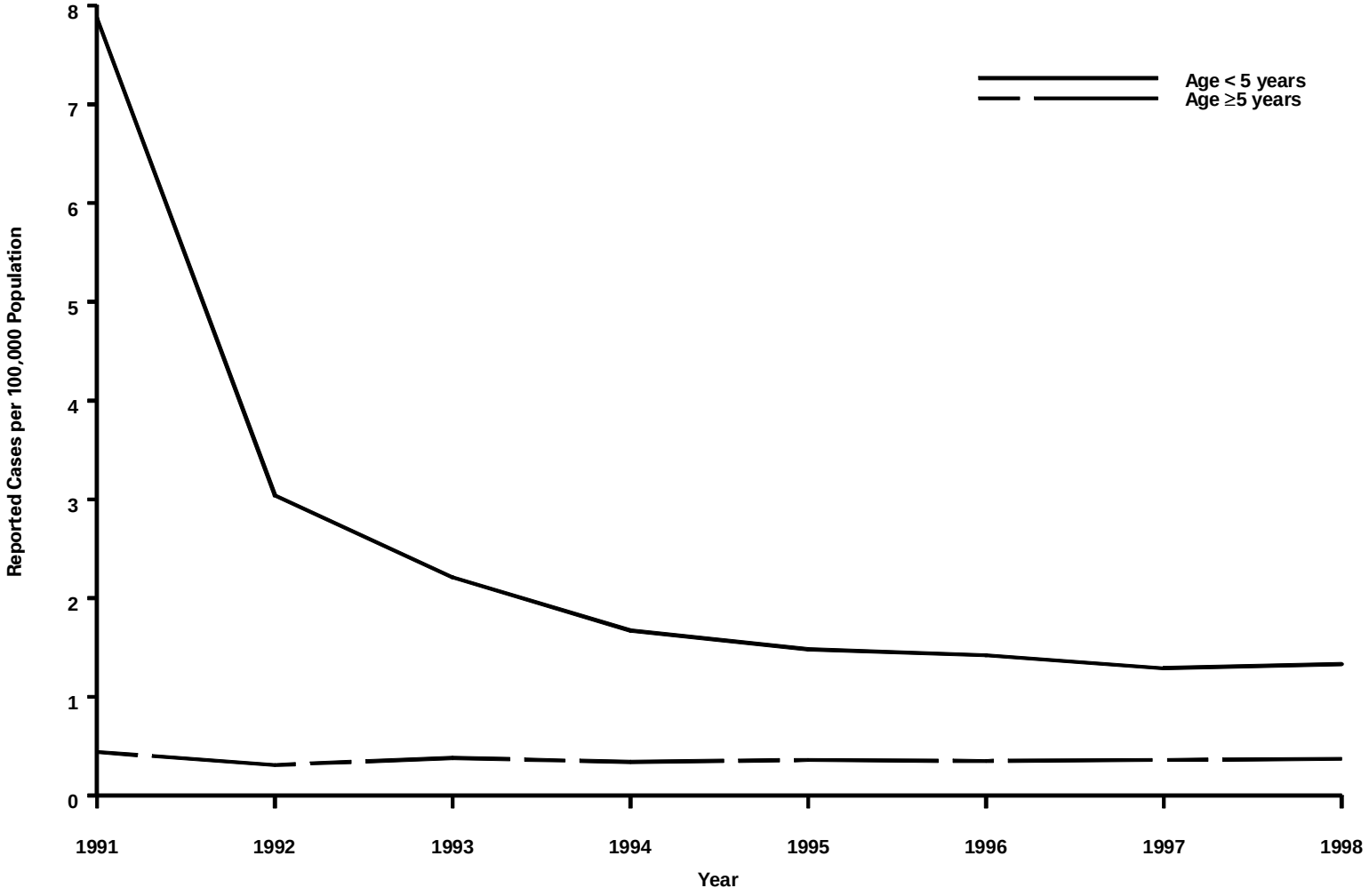
In 1998, the overall reported rate of gonorrhea in the United States was 132.9 cases per 100,000 population, an increase of 8.9% compared with 1997, when the rate was 122.0. Among men, the rate increased from 124.9 per 100,000 population in 1997 to 133.8 in 1998. Among women, the rate increased from 119.0 to 131.5 in 1998. (Data from the Division of Sexually Transmitted Diseases Prevention, National Center for HIV, STD, and TB Prevention.)

GONORRHEA — by race and ethnicity, United States, 1983–1998



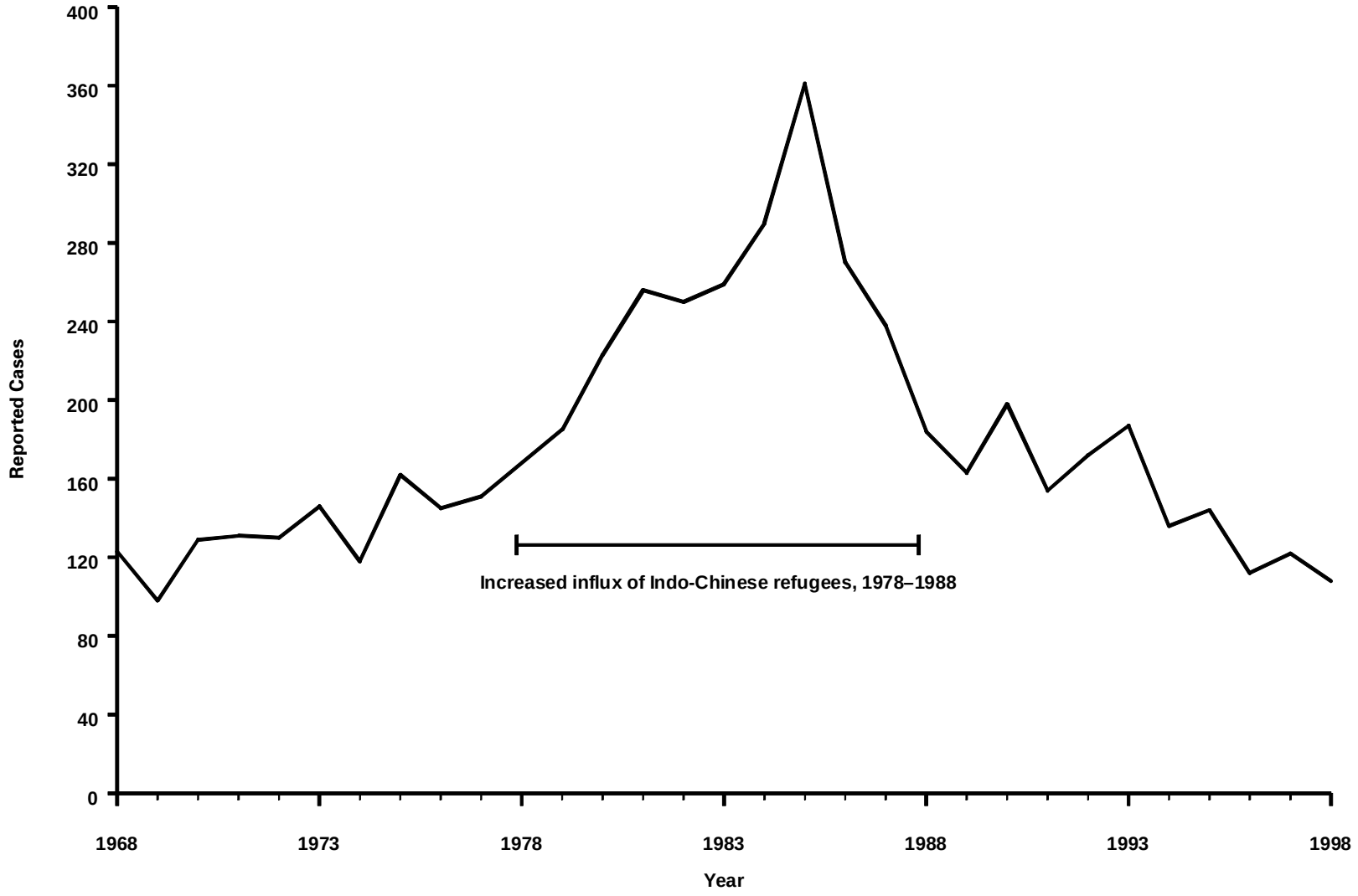
In 1998, gonorrhea rates increased among all racial and ethnic groups.

HAEMOPHILUS INFLUENZAE, INVASIVE DISEASE — by age group, United States, 1991–1998



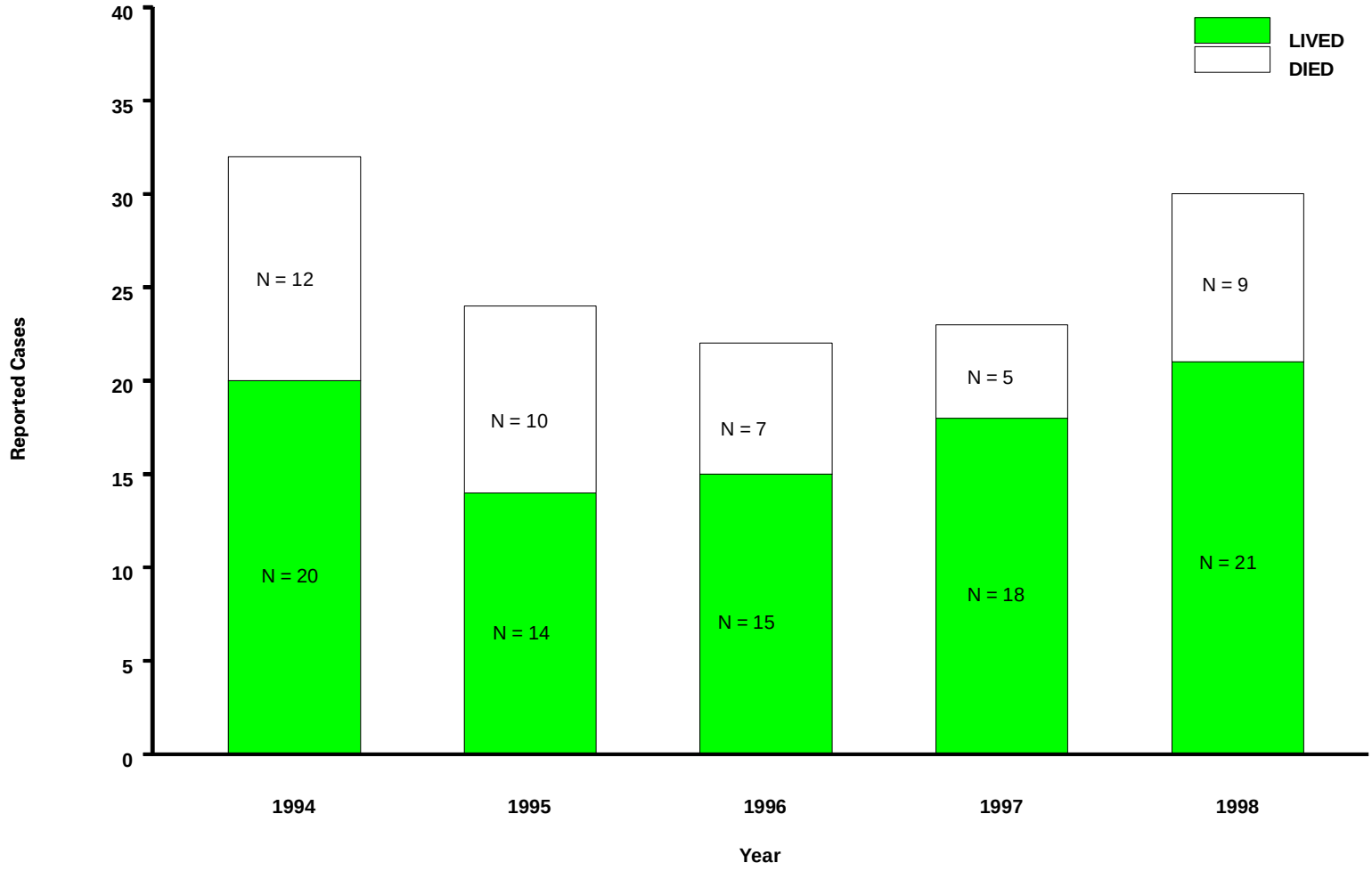
Before a vaccine was introduced in December 1987, the incidence of *Haemophilus influenzae* type b (Hib) invasive disease among children aged <5 years was estimated to be 100 per 100,000. In 1998, a total of 255 cases of all serotypes of *H. influenzae* invasive disease were reported among children aged <5 years (incidence: 1.3 per 100,000 children); 61 (23%) cases were caused by Hib. (Data from the National Immunization Program.)

HANSEN DISEASE (leprosy) — by year, United States, 1968–1998



In 1998, a total of 108 cases of Hansen disease were reported in the United States. The number of cases peaked at 361 in 1985; since 1988, the number has remained relatively stable.

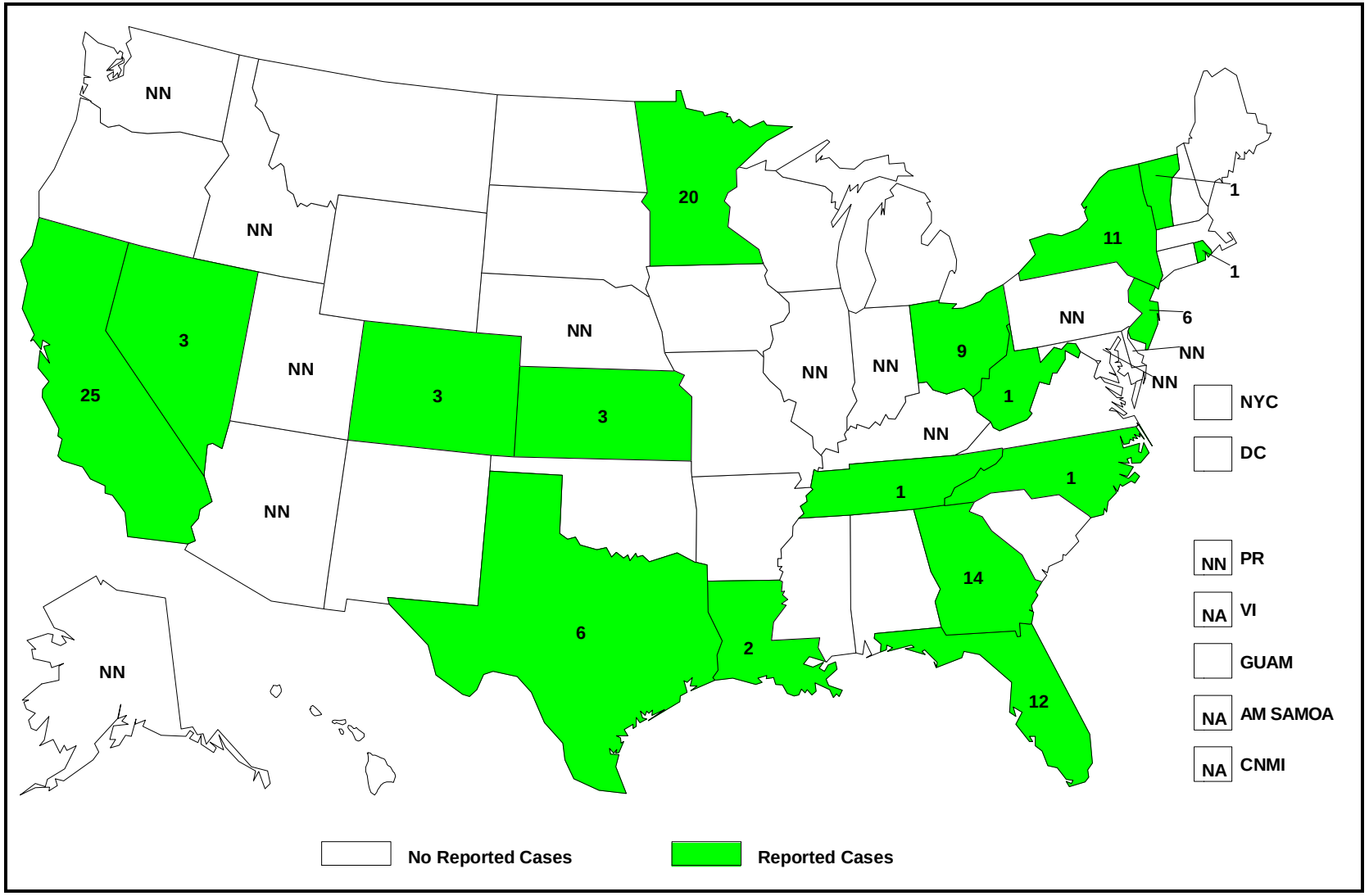
HANTAVIRUS PULMONARY SYNDROME — by survival status,* by year, United States, 1994–1998



*Data from National Center for Infectious Disease.

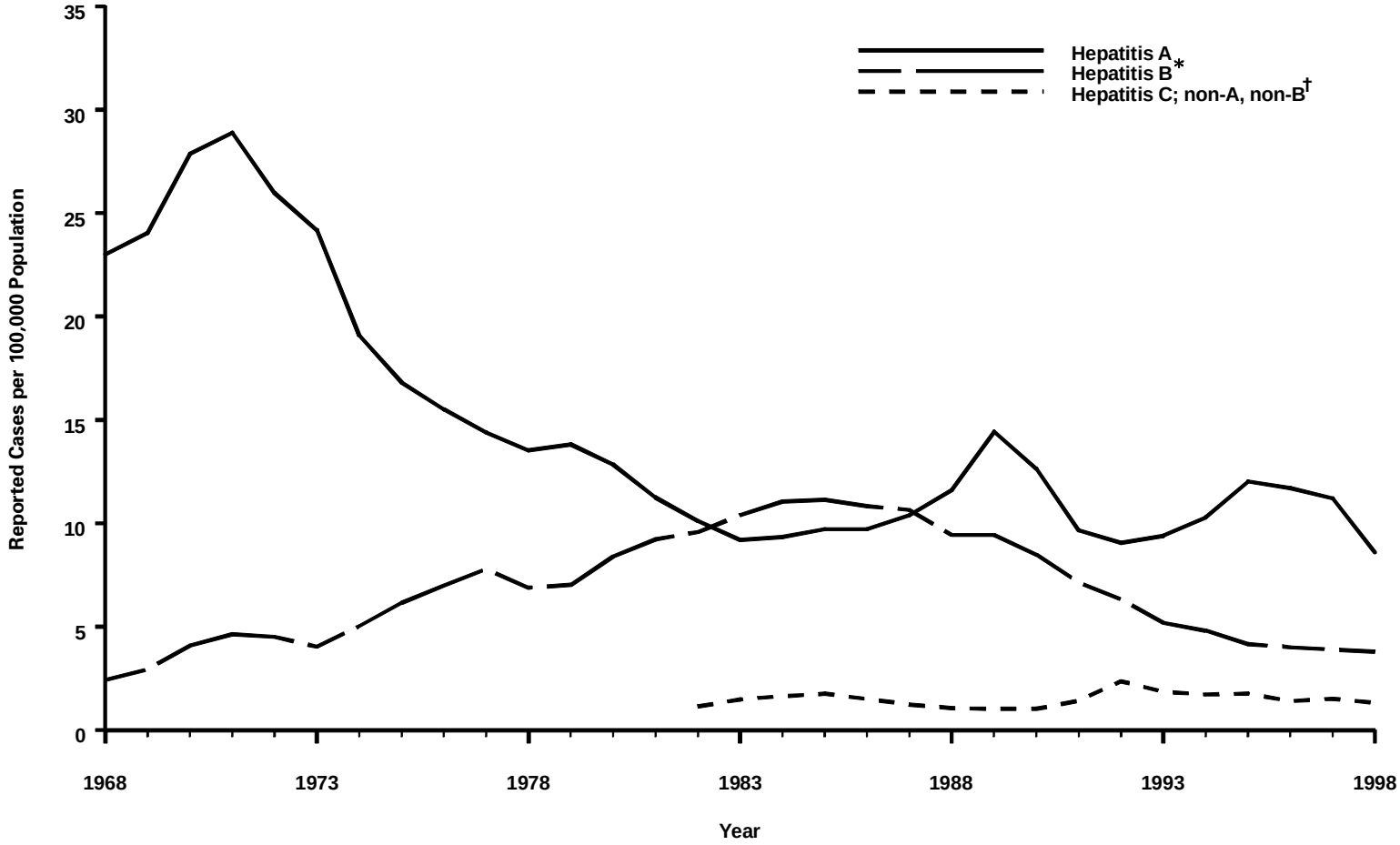
In 1998, a total of 15 (50%) of the confirmed cases of hantavirus pulmonary syndrome (HPS) were reported from Arizona, Colorado, New Mexico, and Utah — the largest number of cases from the Four Corners region since 1994 (17 cases). During 1995–1997, the average number of HPS cases from this region each year was four. An additional three cases with preliminary clinical and serologic evidence of HPS with onset in 1998 are under investigation.

HEMOLYTIC UREMIC SYNDROME, POSTDIARRHEAL — reported cases, United States and territories, 1998



In the United States, nearly all cases of postdiarrheal hemolytic uremic syndrome are caused by infection with *Escherichia coli* 0157:H7 or other *E. coli* bacteria that produce Shiga toxin.

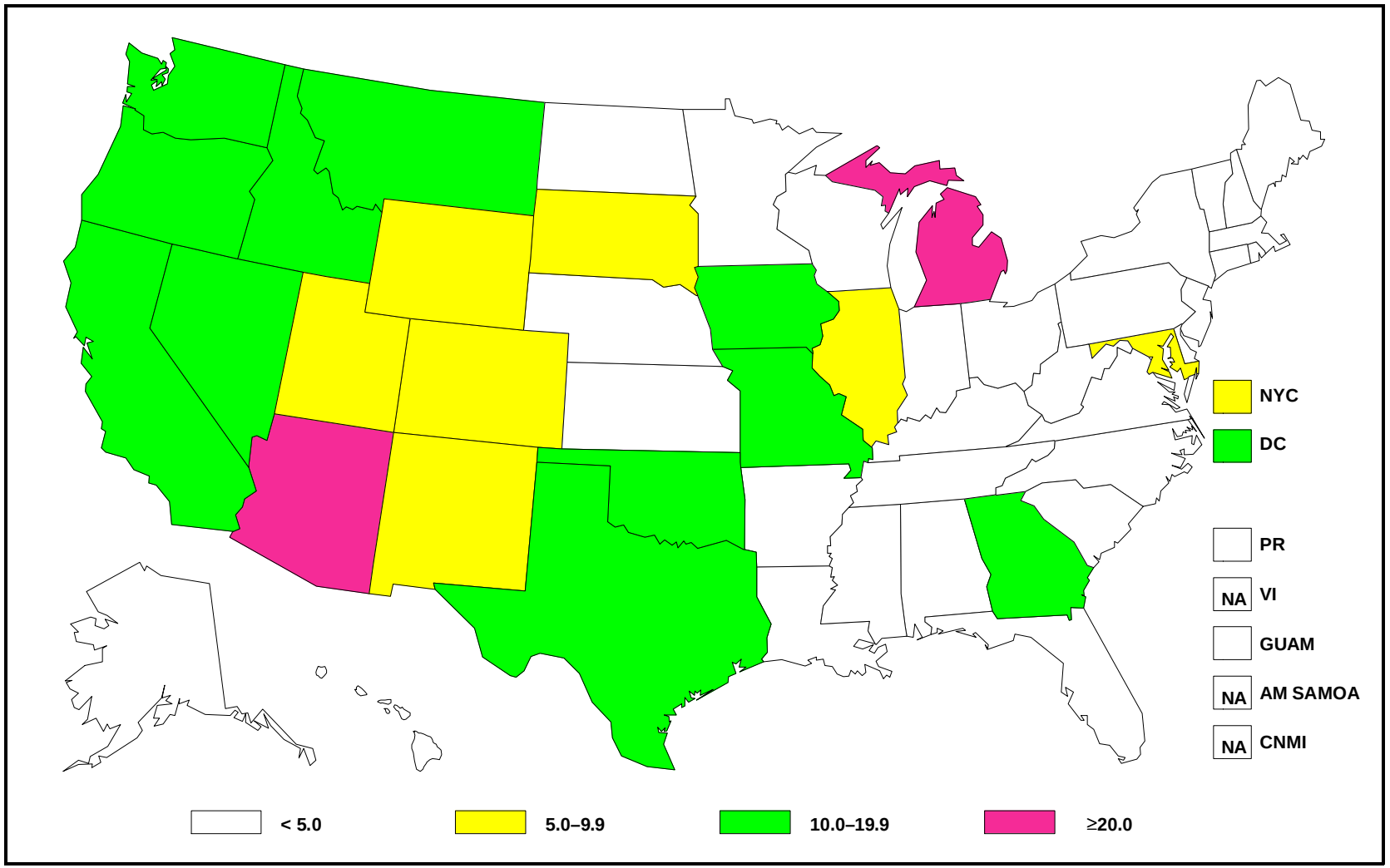
HEPATITIS — by year, United States, 1968–1998



*A hepatitis B vaccine was first licensed in June 1982.
†An anti-HCV (hepatitis C virus) antibody test first became available in May 1990.

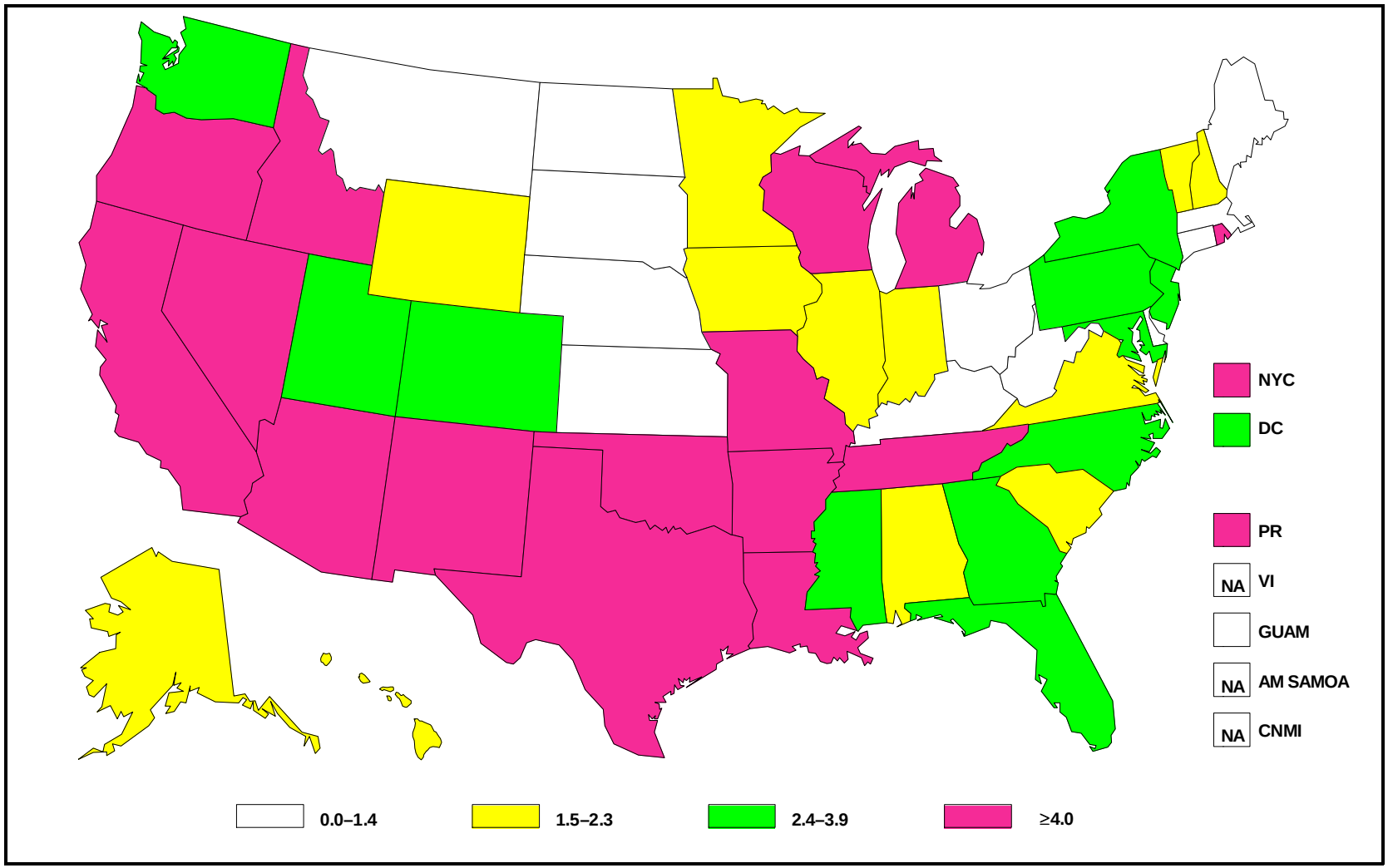
Cyclic peaks in hepatitis A occur approximately every ten years. In 1998, hepatitis A rates continued to decline after peaking at 12.1 cases per 100,000 in 1995. The ongoing decline in hepatitis B since the mid-1980s is attributed to a decrease in the number of cases among injecting-drug users and a decline in cases associated with both male homosexual practices and heterosexual practices. The increase observed in non-A, non-B hepatitis after 1990 is misleading because, in some states, reported cases have included those among persons identified in routine screening programs as testing positive for antibody to hepatitis C virus but not exhibiting symptoms of acute hepatitis.

HEPATITIS A — reported cases per 100,000 population, United States and territories, 1998



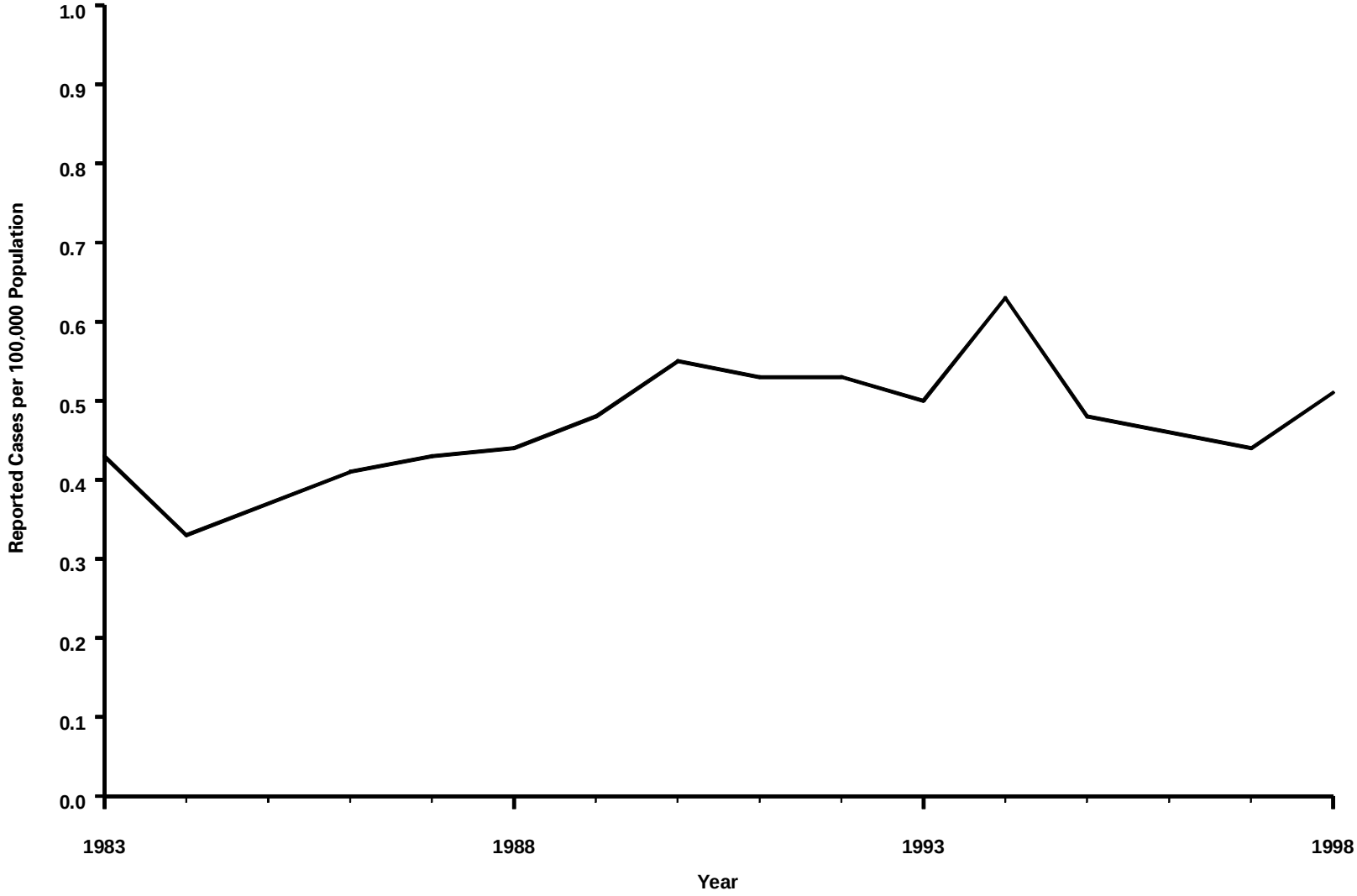
As in previous years, the rate of hepatitis A virus (HAV) infection in the western United States in 1998 was three times the average rate in other regions. The Advisory Committee on Immunization Practices (ACIP) recently recommended routine HAV vaccination for children living in states with consistently elevated HAV infection rates as the approach most likely to prevent and control transmission of this disease (*MMWR* 1999;48[RR-12]).

HEPATITIS B — reported cases per 100,000 population, United States and territories, 1998



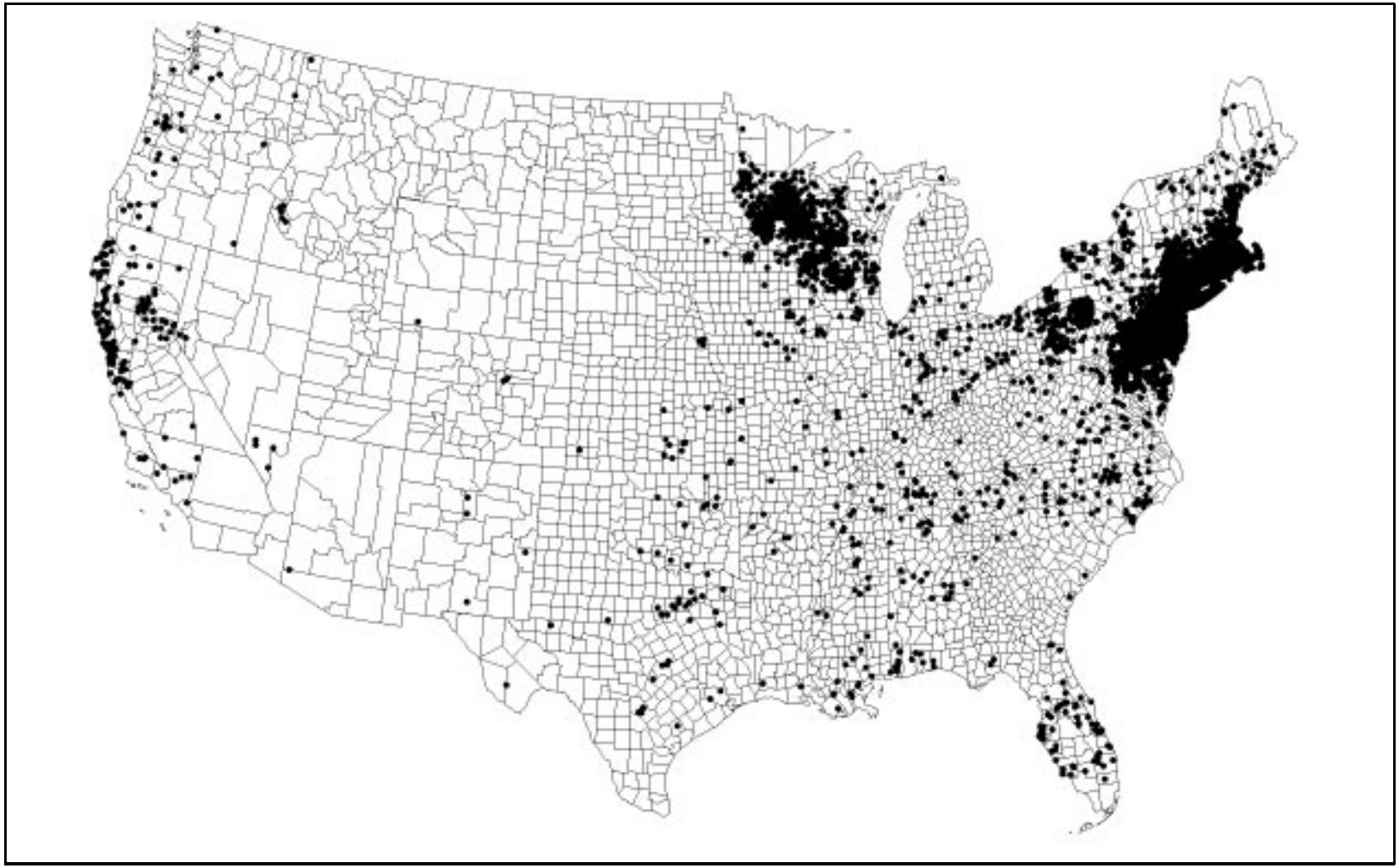
Although hepatitis B virus (HBV) infection continues to decline in most states, reported cases represent only a fraction of actual cases. Seroprevalence data from the National Health and Nutrition Examination Survey indicate that 5% of persons (12.5 million persons) living in the United States have been infected with HBV — approximately 300,000 persons each year during the preceding two decades.

LEGIONELLOSIS — by year, United States, 1983–1998



In 1998, the overall reported rate of legionellosis in the United States was 0.51 cases per 100,000 population. However, data from prospective, population-based studies of persons with pneumonia indicate that the actual rate of legionellosis is more than 10-fold this number.

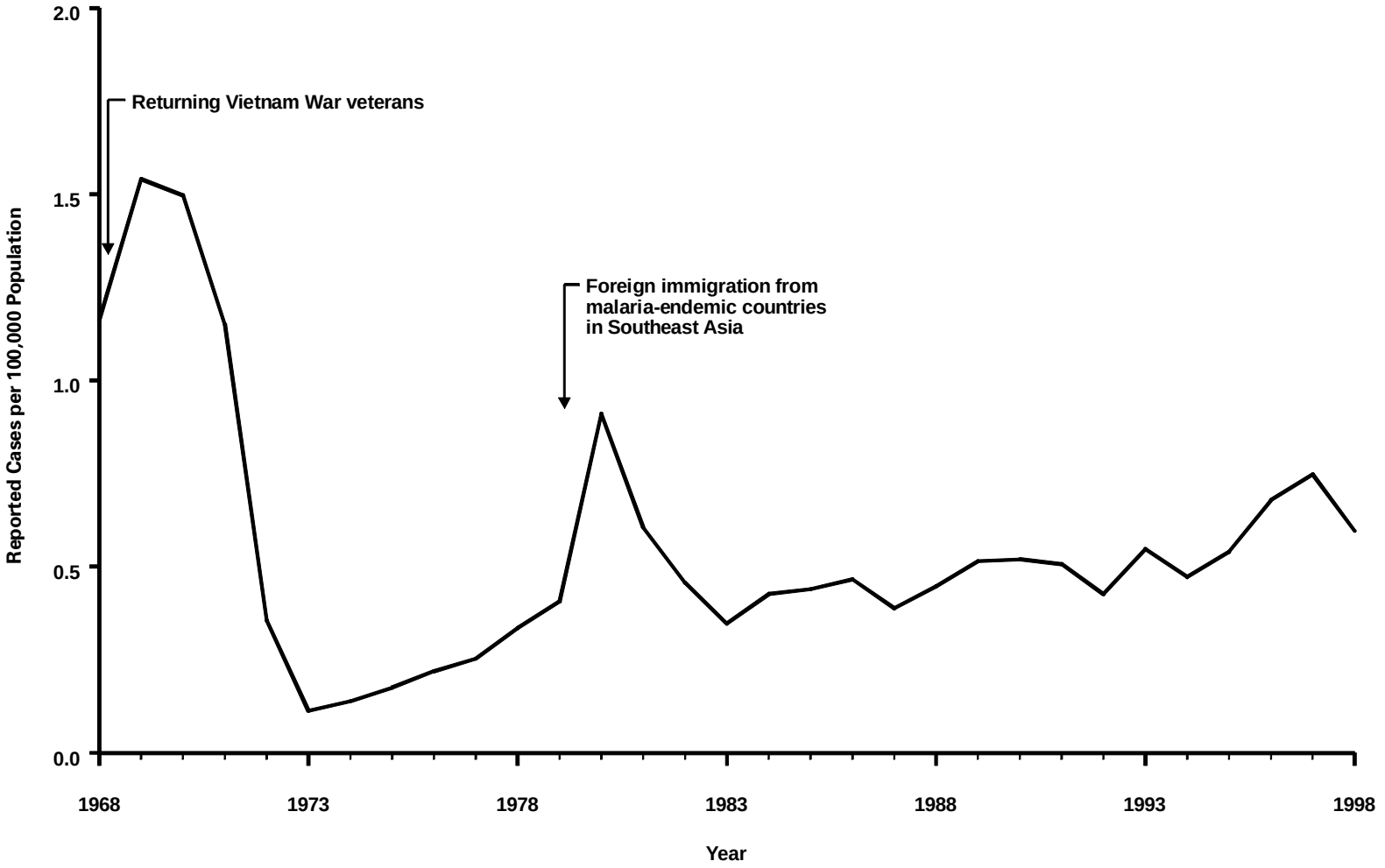
LYME DISEASE — reported cases,* United States, 1998



*One case=one dot randomly placed in the patient's county of residence.

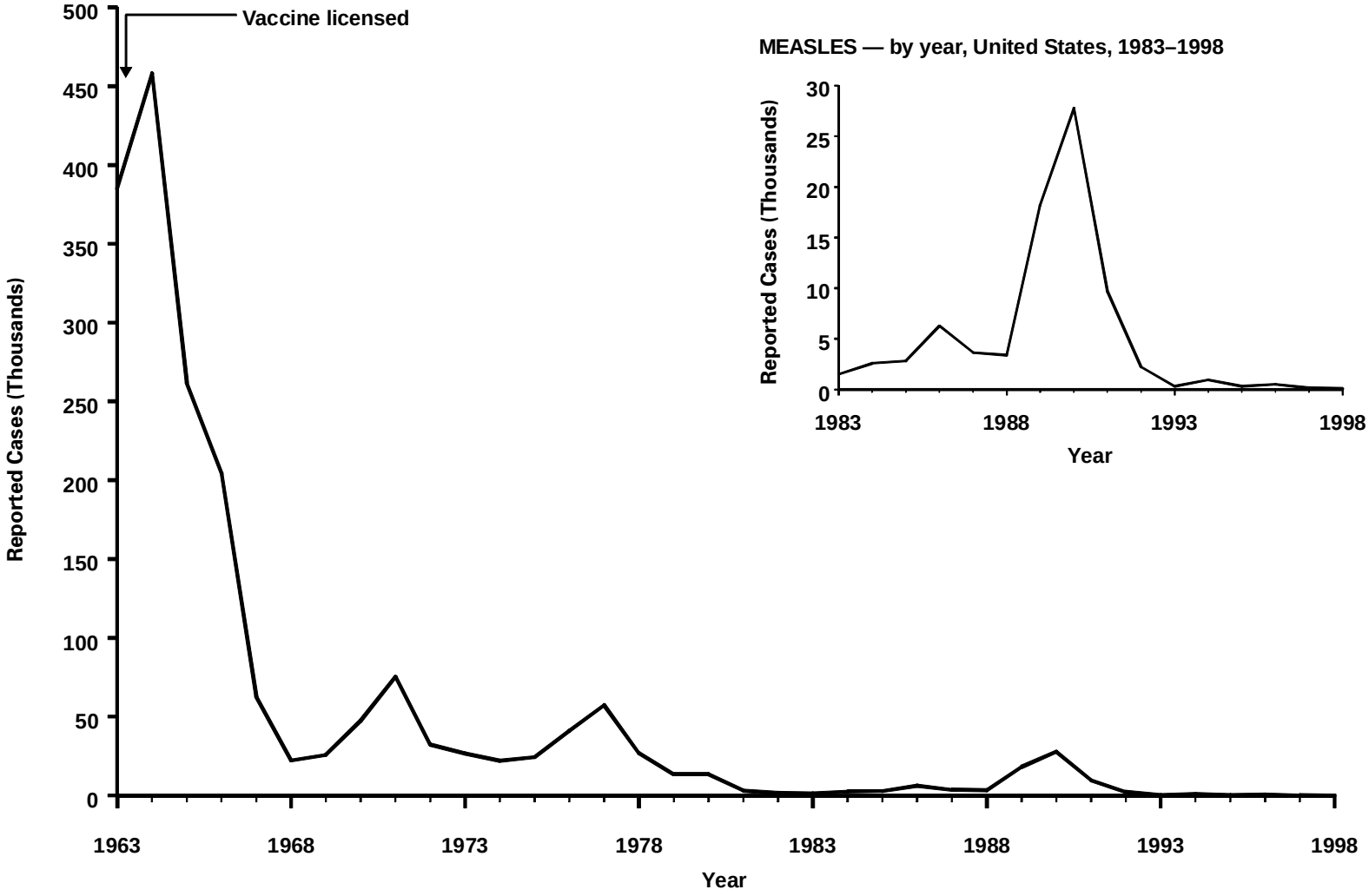
In 1998, a total of 16,801 cases of Lyme disease were reported, the highest number of cases ever reported. In December 1998, a new Lyme disease vaccine was approved by the U.S. Food and Drug Administration. The Advisory Committee on Immunization Practices (ACIP) issued recommendations for the use of this vaccine in June 1999 (*MMWR* 1999;48[RR-7]).

MALARIA — by year, United States, 1968–1998



The increasing number of imported malaria cases in the preceding decade is probably related to several factors, including a) increased foreign travel to and from malaria-endemic areas, some of which have higher rates of malaria transmission; b) inadequate chemoprophylaxis used by travelers; and c) increasing antimalarial drug resistance.

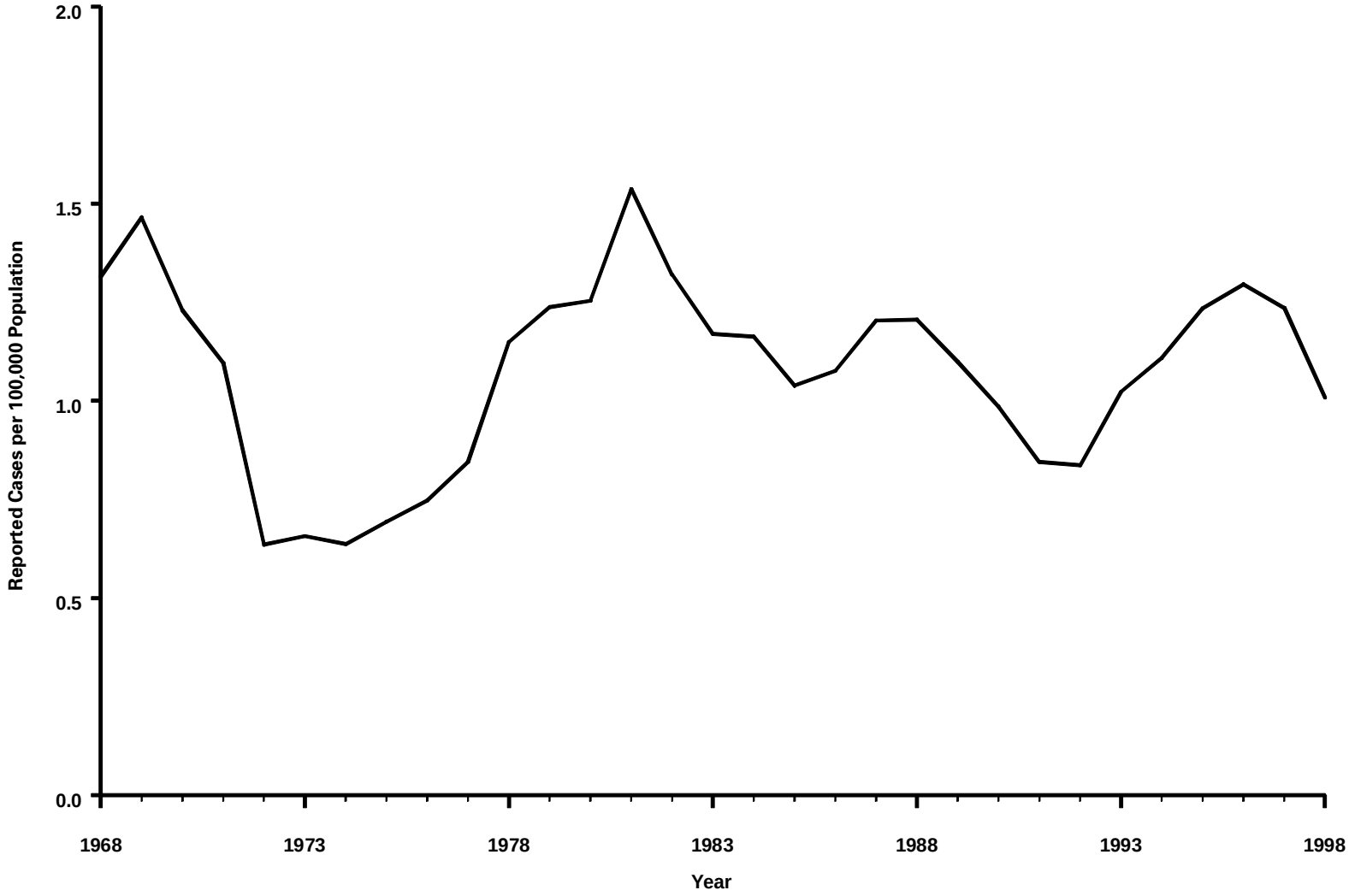
MEASLES (rubeola) — by year, United States, 1963–1998



MEASLES — by year, United States, 1983–1998

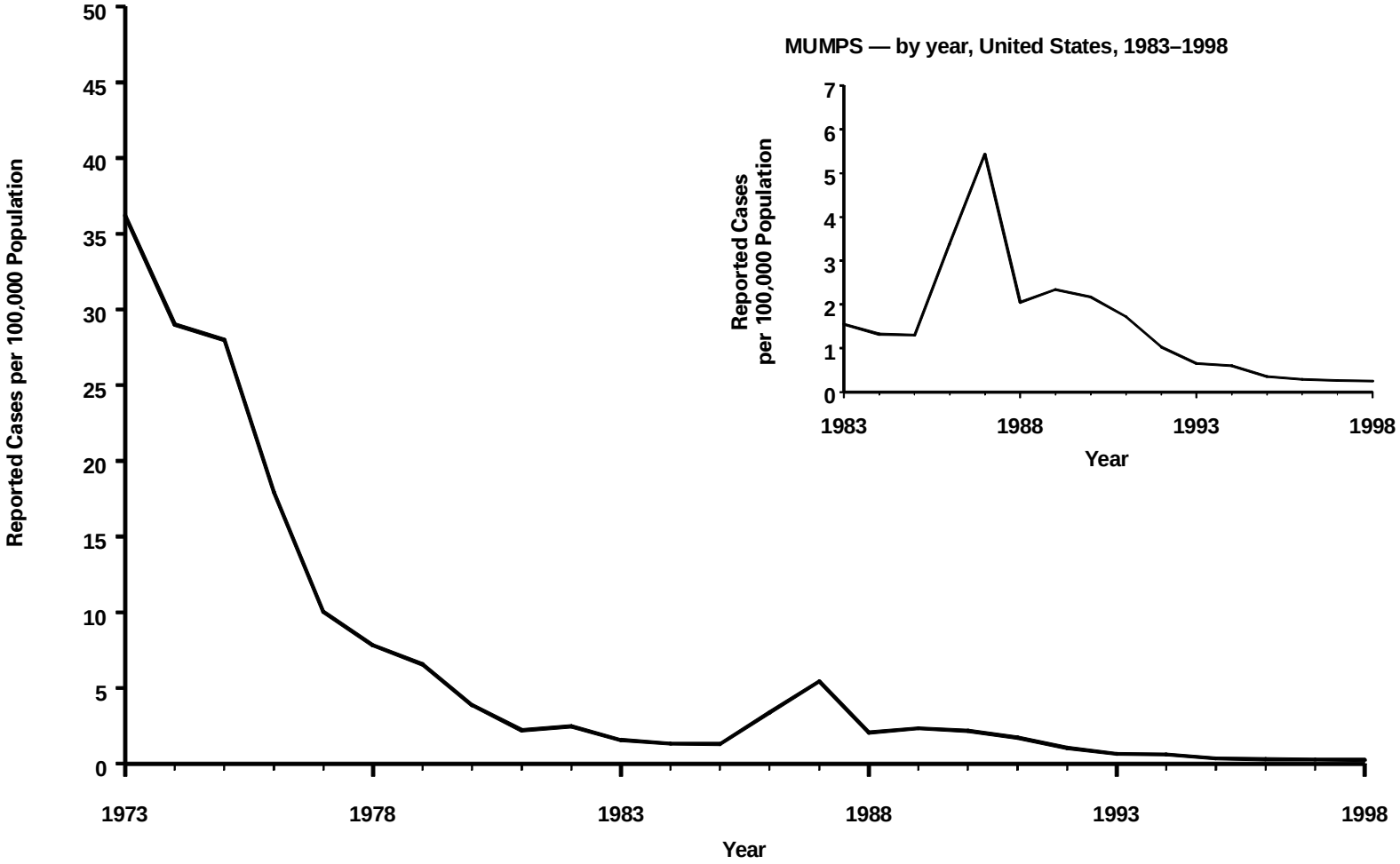
With a record low of 100 measles cases reported in 1998, measles incidence remained at <1 case per million population for the second consecutive year. Of the 100 cases reported, 71% were associated with international importation, suggesting measles is no longer an indigenous disease in the United States.

MENINGOCOCCAL DISEASE — by year, United States, 1968–1998



Although overall rates of meningococcal disease have remained relatively stable in the United States during the preceding 10 years, case-fatality rates remain elevated. Of the 1,186 (43%) of patients with outcome reported in 1998, a total of 14.4% died. In 1998, serogroup information was reported for 33% of patients. Serogroup Y accounted for 34% of cases in which the serogroup was reported. Most other cases were caused by serogroup B (29%) or serogroup C (29%).

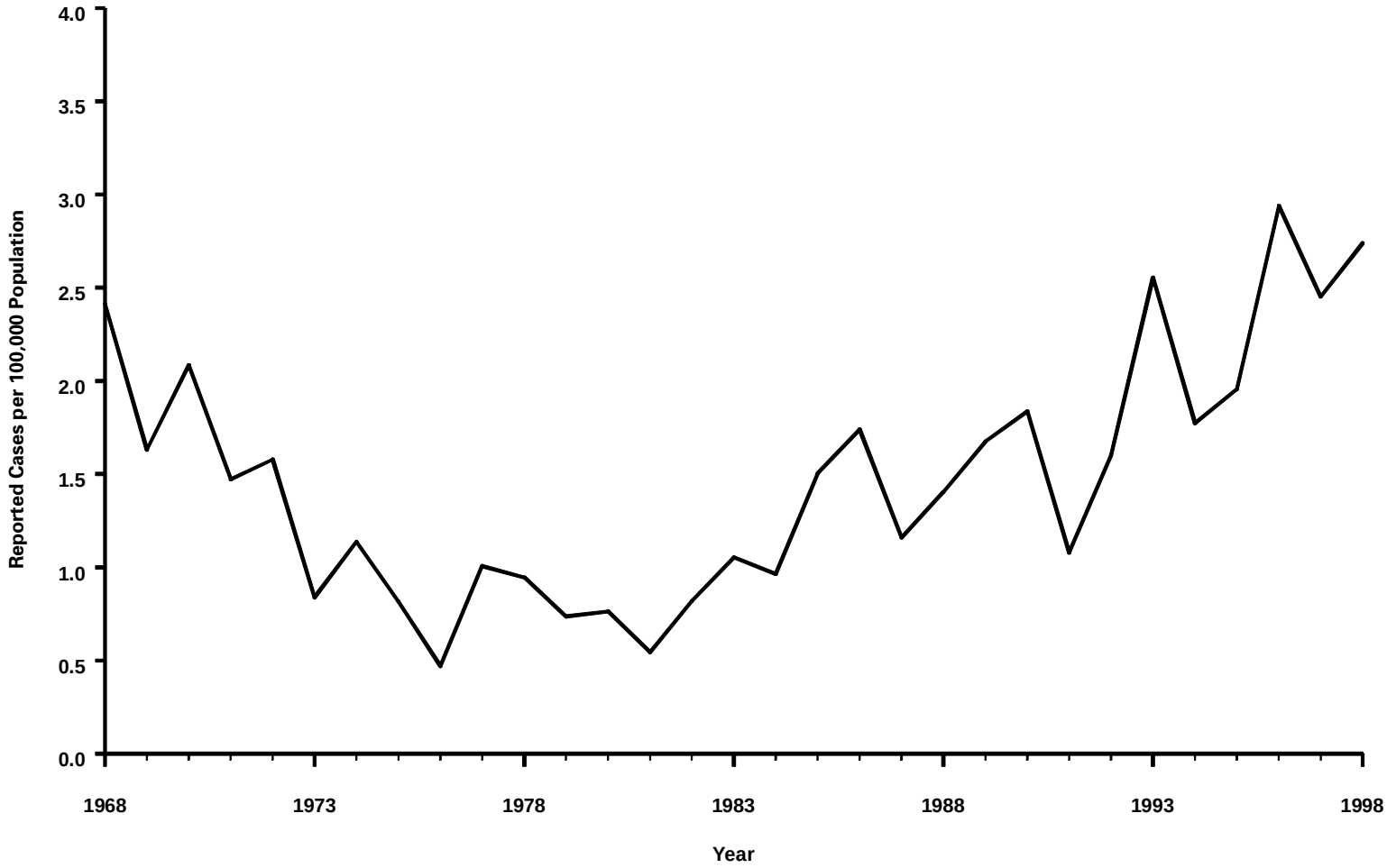
MUMPS — by year, United States, 1973–1998



In 1998, a record low number of 666 mumps cases was reported in the United States.

Note: A mumps vaccine was first licensed in December 1967.

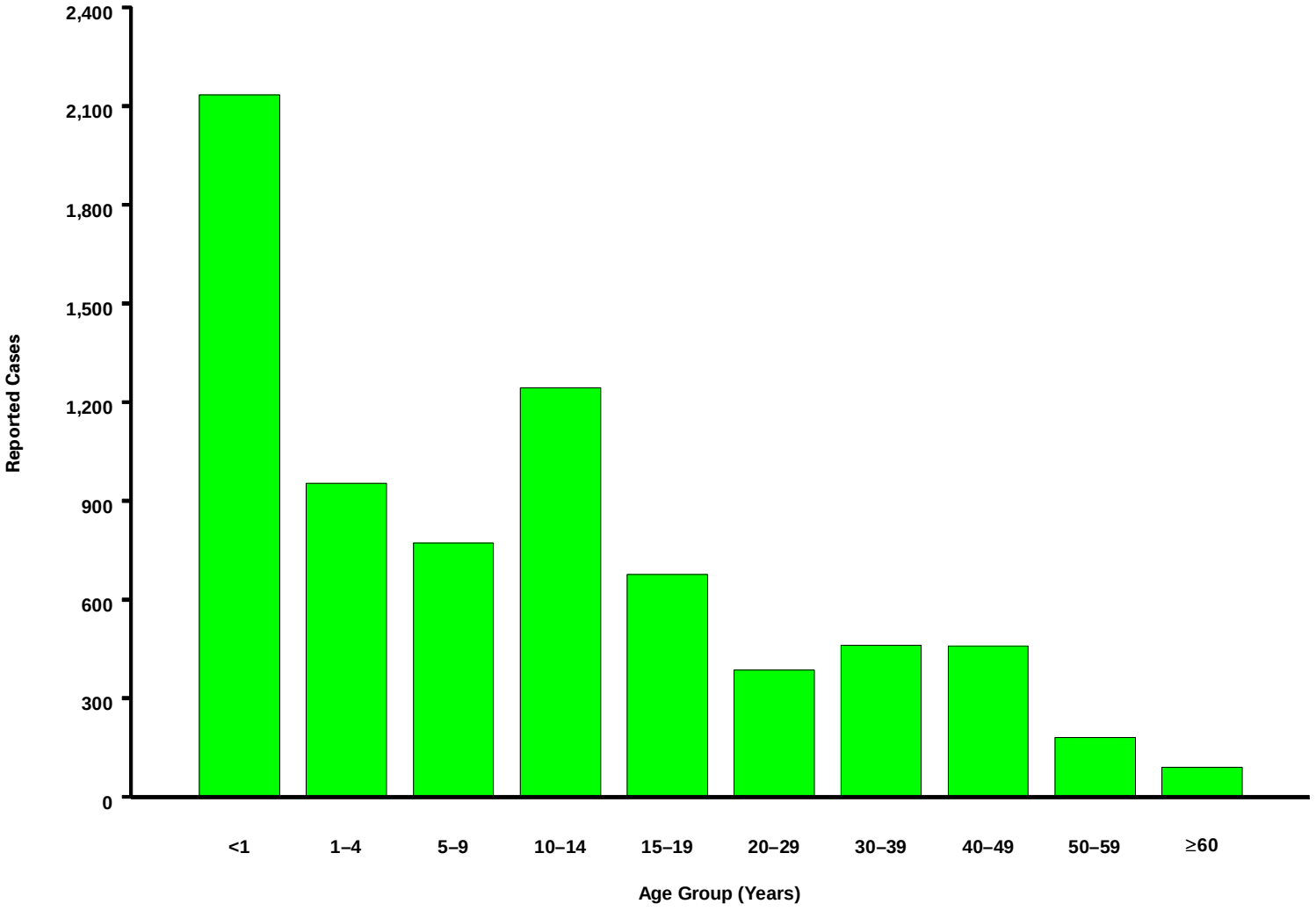
PERTUSSIS (whooping cough) — by year, United States, 1968–1998



Pertussis epidemics occur every 3–4 years. During the last epidemic (1996), the highest number of pertussis cases (7,796) since 1967 was reported (incidence: 2.9 cases per 100,000 population). Since 1993, the number of cases reported after each epidemic year has not returned to the baseline of the preepidemic year.

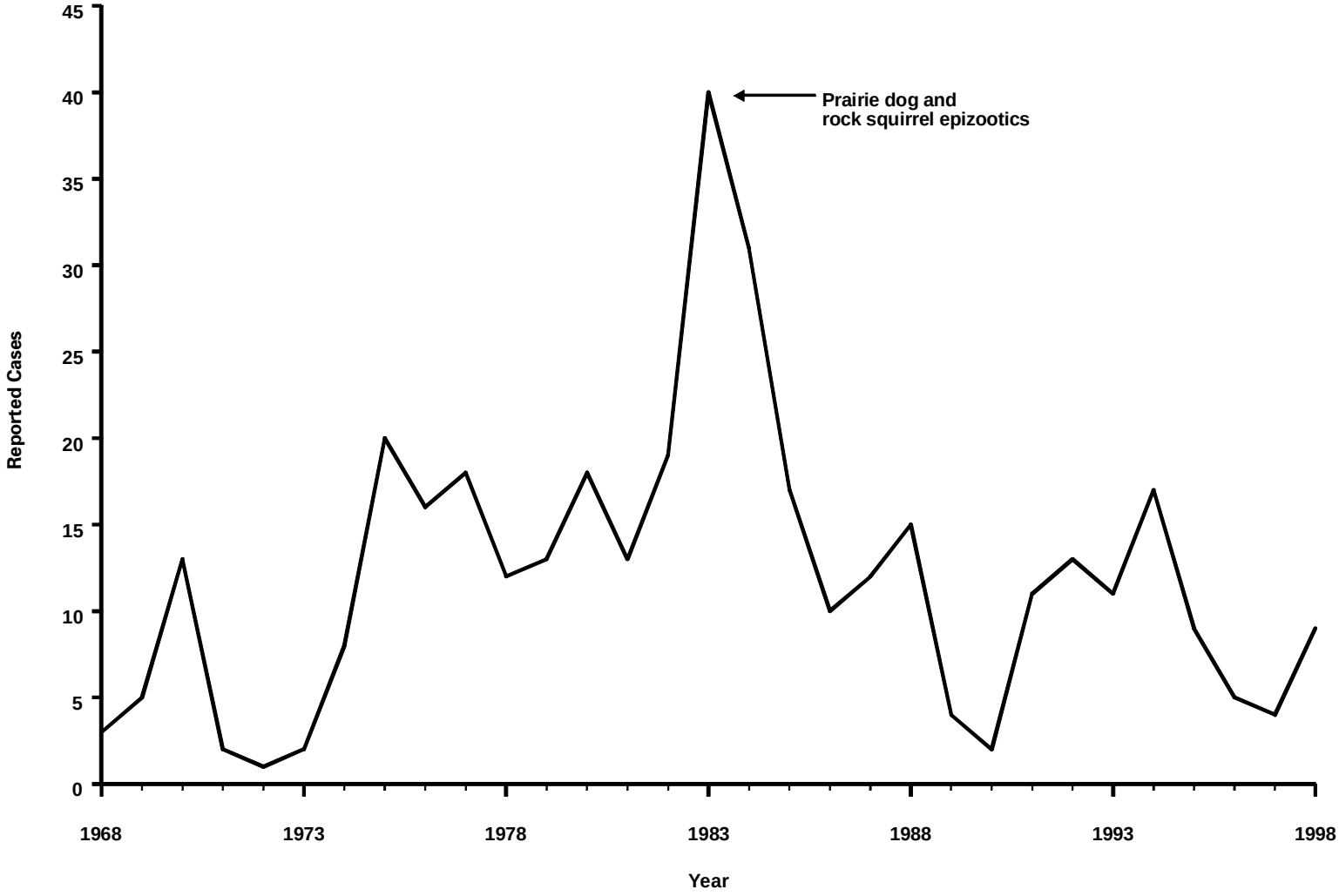
Note: A pertussis vaccine was first licensed in 1949.

PERTUSSIS (whooping cough) — by age group, United States, 1998



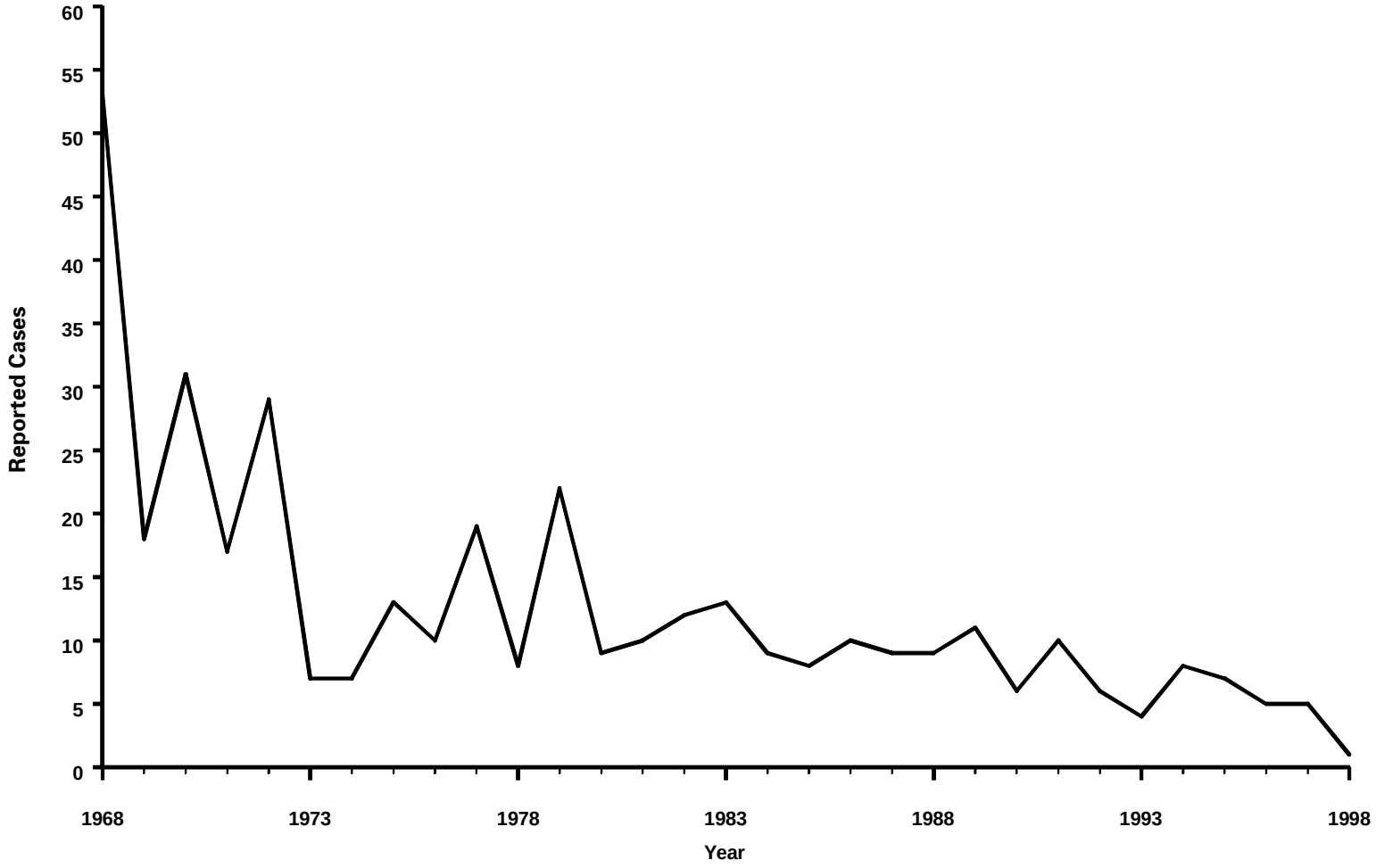
Although the highest number of reported cases continues to be among children aged <1 year, pertussis cases among adolescents and adults increasingly are being reported to CDC. In 1998, a total of 47% of all reported pertussis cases occurred among persons aged ≥10 years. By comparison, during 1990–1992, 1993–1995, and 1996–1997, the proportion of reported pertussis cases among persons aged ≥10 years was 24%, 29%, and 45%, respectively.

PLAGUE — among humans, by year, United States, 1968–1998



In 1998, nine cases of plague among humans were reported in the United States (six cases in New Mexico, one in Arizona, one in California, and one in Colorado). No cases were fatal.

POLIOMYELITIS (paralytic) — by year, United States, 1968–1998



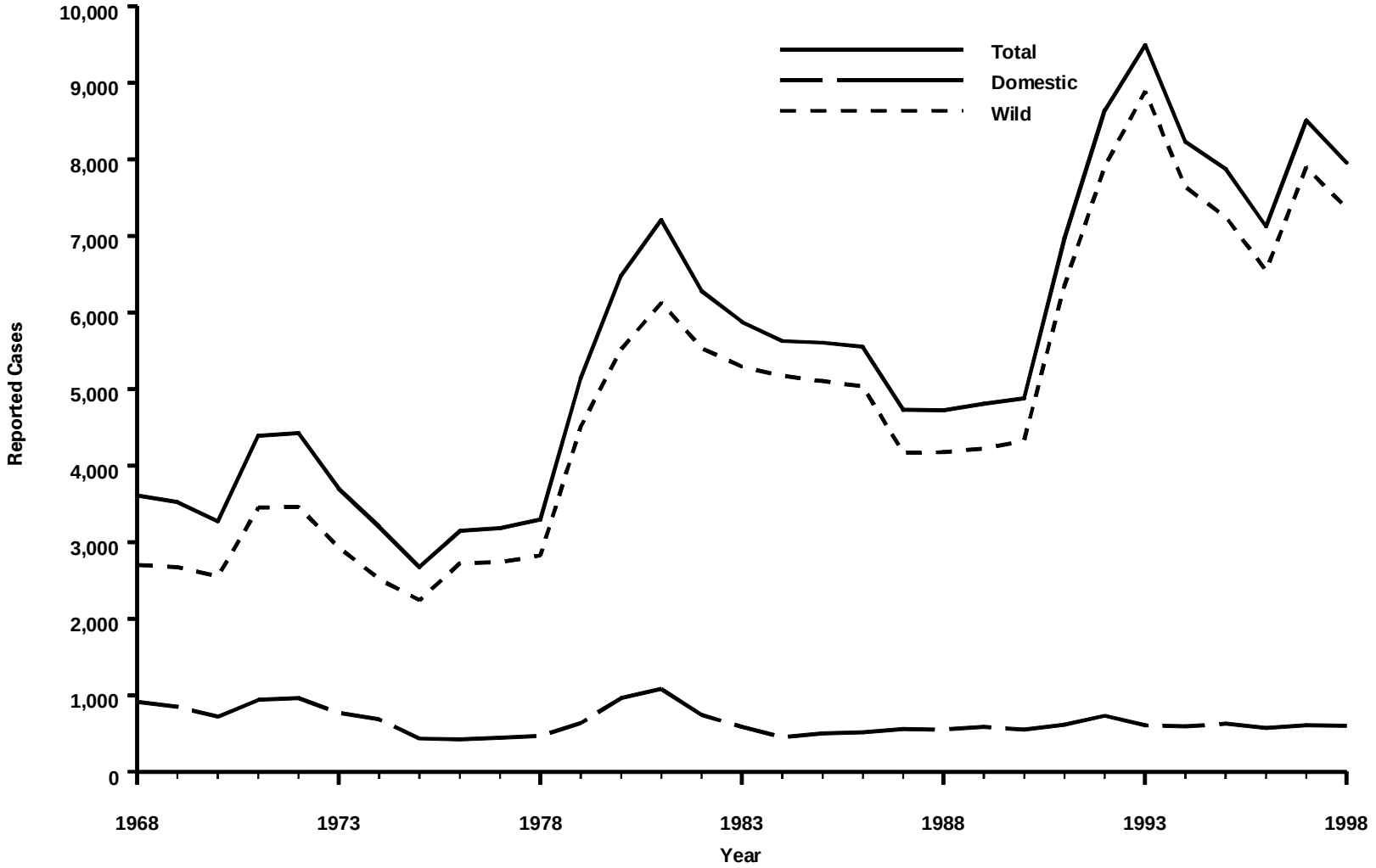
On July 16, 1999, the Advisory Committee for Immunization Practices (ACIP) recommended an all inactivated polio vaccine (IPV) schedule for routine, childhood polio vaccination in the United States. As of January 1, 2000, all children should receive four doses of IPV — at ages 2 months, 4 months, 6–18 months, and 4–6 years.

Note: An inactivated poliomyelitis vaccine was first licensed in 1955. An oral vaccine was licensed in 1961.

PSITTACOSIS — by year, United States, 1968–1998

The number of psittacosis cases can vary from year to year because of periodic outbreaks. The apparent increase in cases from the late 1970s to the mid-1980s might reflect greater application of diagnostic tests for *Chlamydia* species among patients with respiratory illness. The lower number of cases in recent years might reflect both improved diagnostic testing to distinguish *C. psittaci* from *C. pneumoniae* infections and improved control measures for *C. psittaci* infection among birds.

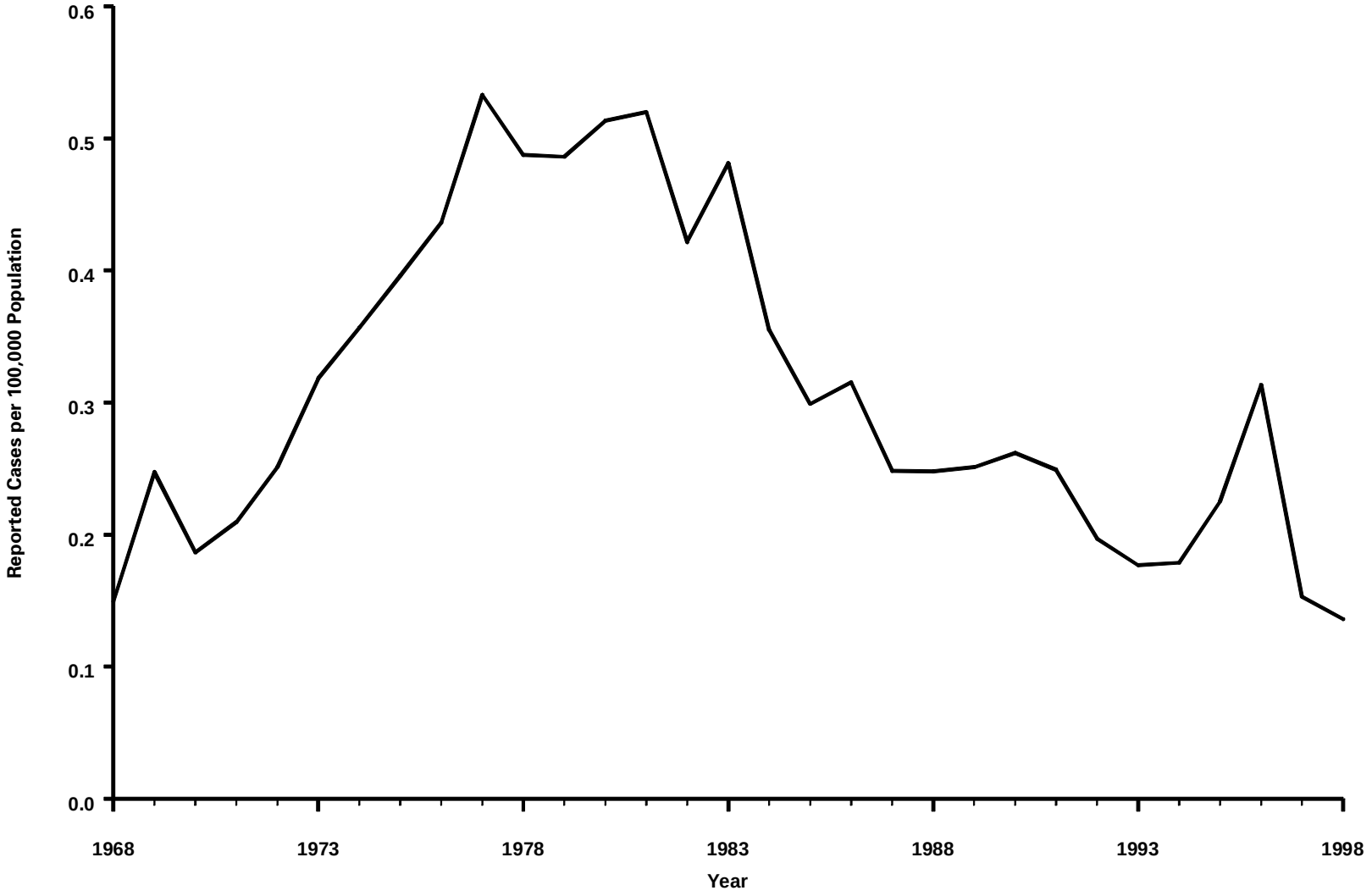
RABIES — wild and domestic animals, by year,* United States and Puerto Rico, 1968–1998



*Data from the National Center for Infectious Diseases.

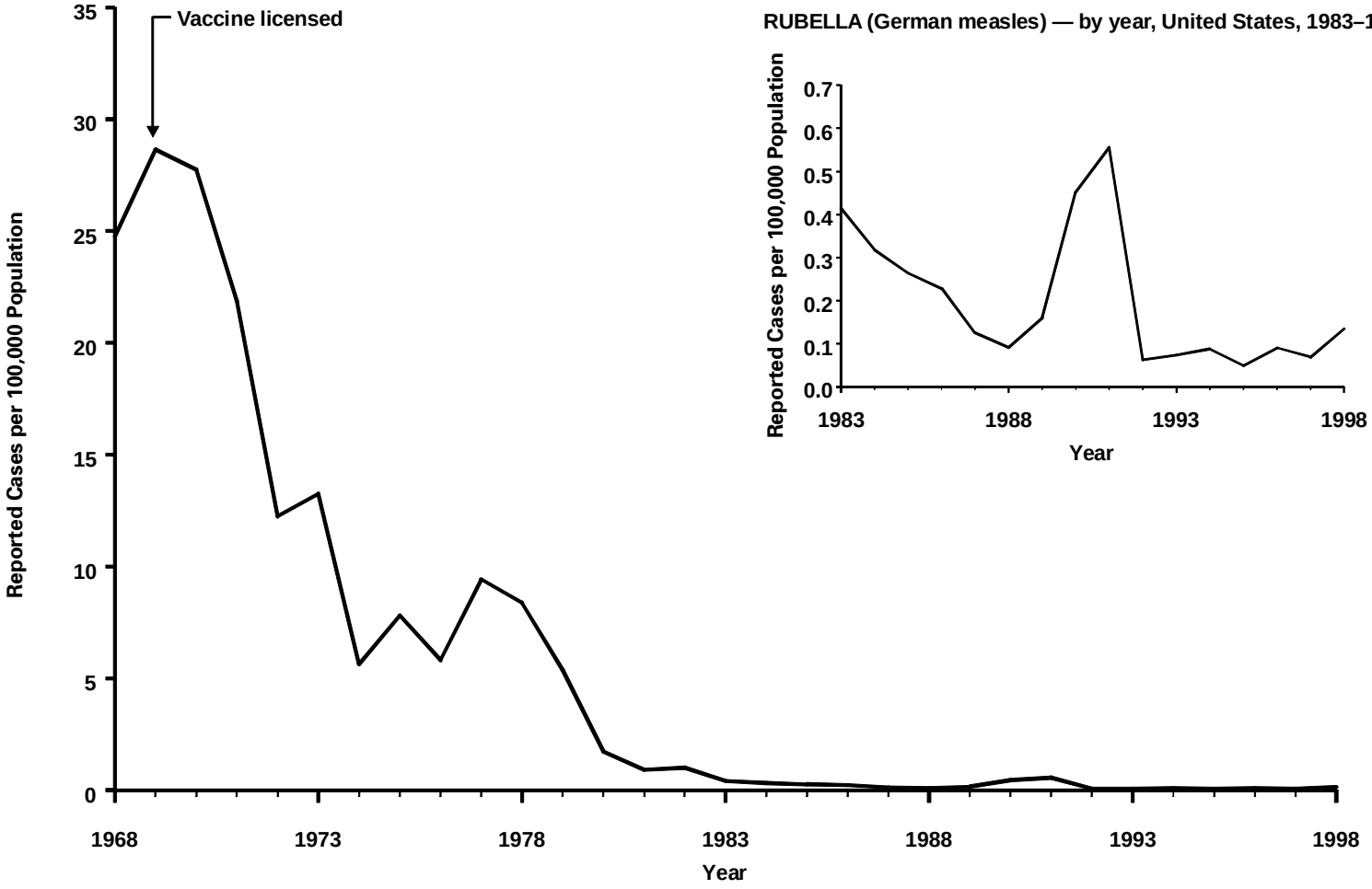
Periods of resurgence and decline of rabies incidence are primarily the result of cyclic reemergence, mainly among raccoons in the eastern United States. Wildlife populations increase and reach densities sufficient to support epizootic transmission of the disease, resulting in substantial increases in reported cases. As populations are decimated by these epizootics, numbers of reported cases decline until populations again reach levels to support epizootic transmission of the disease.

ROCKY MOUNTAIN SPOTTED FEVER — by year, United States, 1968–1998



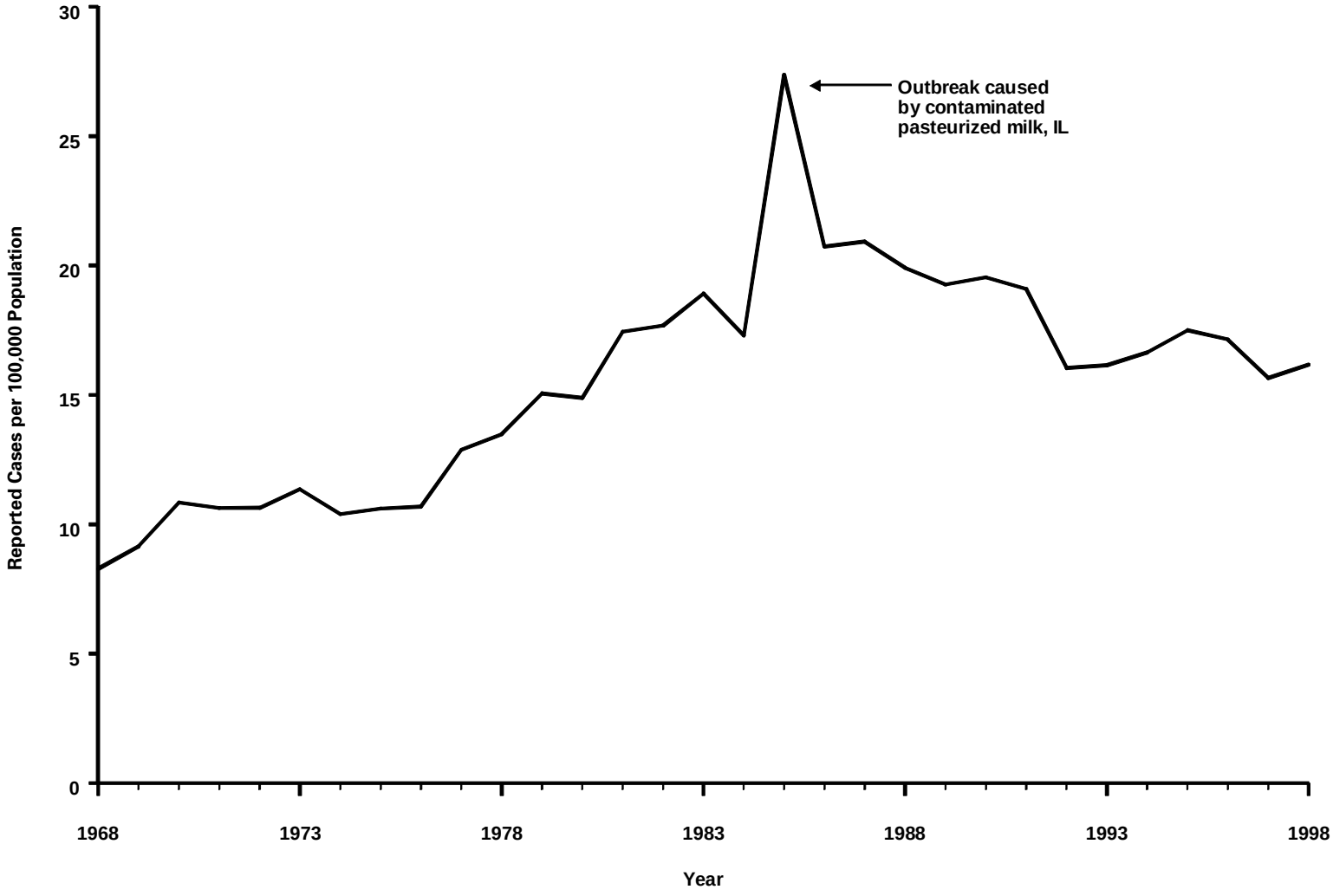
Changes in the number of reported cases of Rocky Mountain spotted fever might reflect alterations to surveillance algorithms for this and other tickborne diseases. Biological factors (e.g., changes in tick populations resulting from fluctuating environmental conditions) also could be involved.

RUBELLA (German measles) — by year, United States, 1968–1998



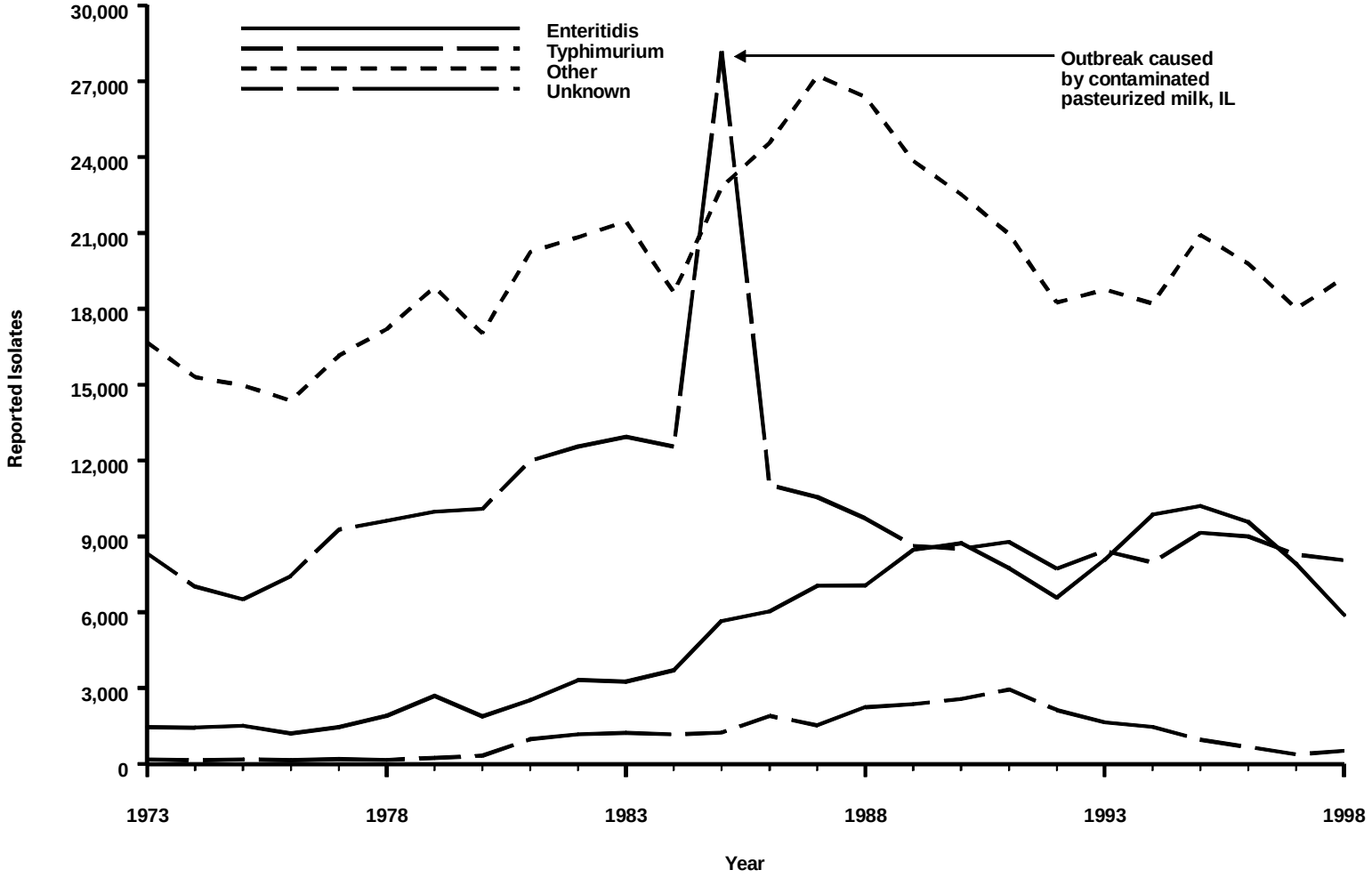
Since 1994, the incidence of rubella has remained at record low levels in the United States. In 1998, a total of 74% of reported rubella cases occurred among persons aged ≥20 years.

SALMONELLOSIS (excluding typhoid fever) — by year, United States, 1968–1998



In 1998, *Salmonella* serotype Typhimurium and Enteritidis together accounted for 44% of all reported laboratory-confirmed human salmonellosis.

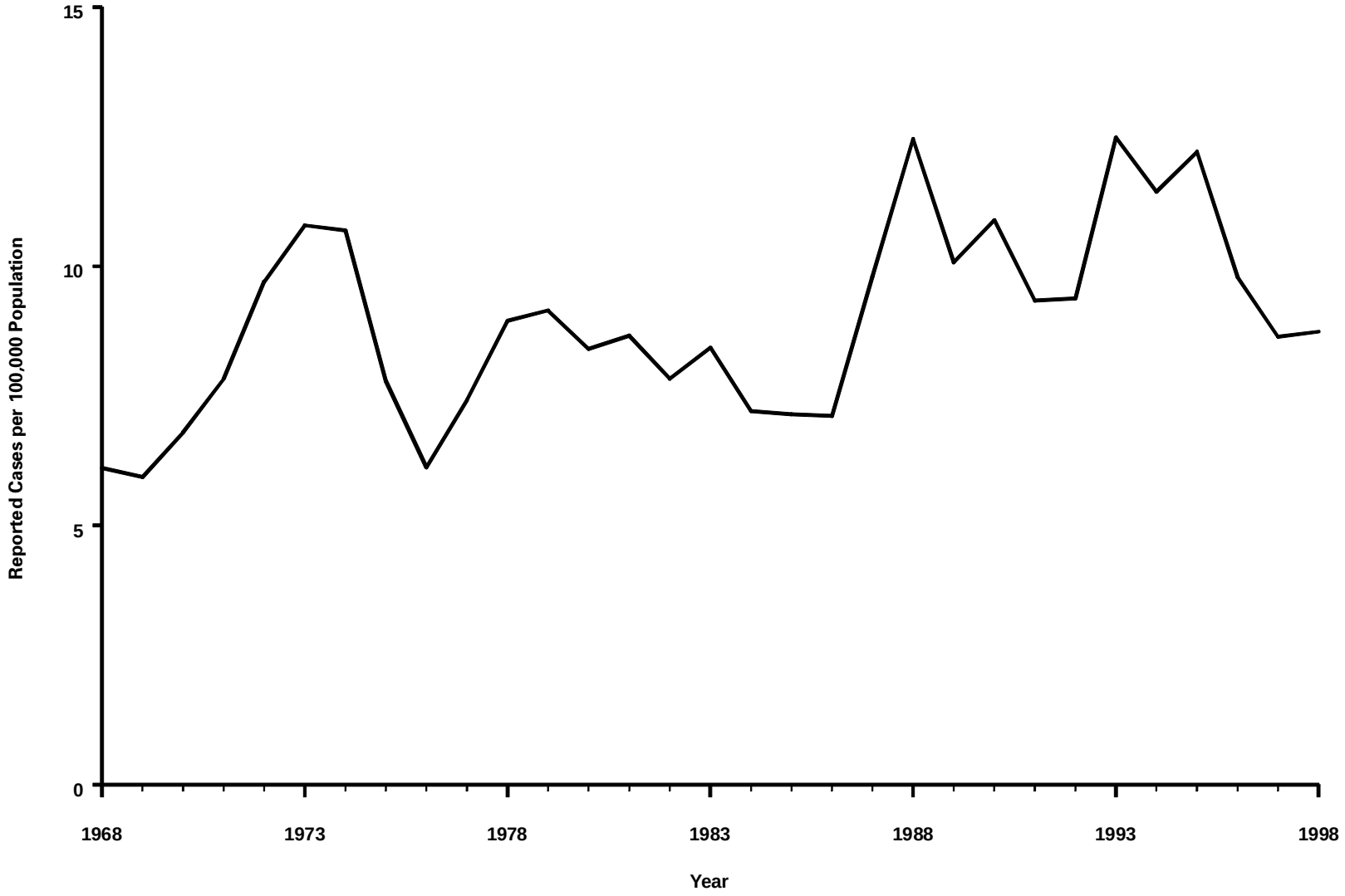
SALMONELLA — serotype of isolate by year,* United States, 1973–1998



*Data from Public Health Laboratory Information System (PHLIS).

In 1998, a new food vehicle, cold breakfast cereal, caused an outbreak of *Salmonella* serotype Agona infections that resulted in 409 culture-confirmed cases in 22 states. As a result of the outbreak investigation, two million pounds of cereal were recalled.

SHIGELLOSIS — by year, United States, 1968–1998

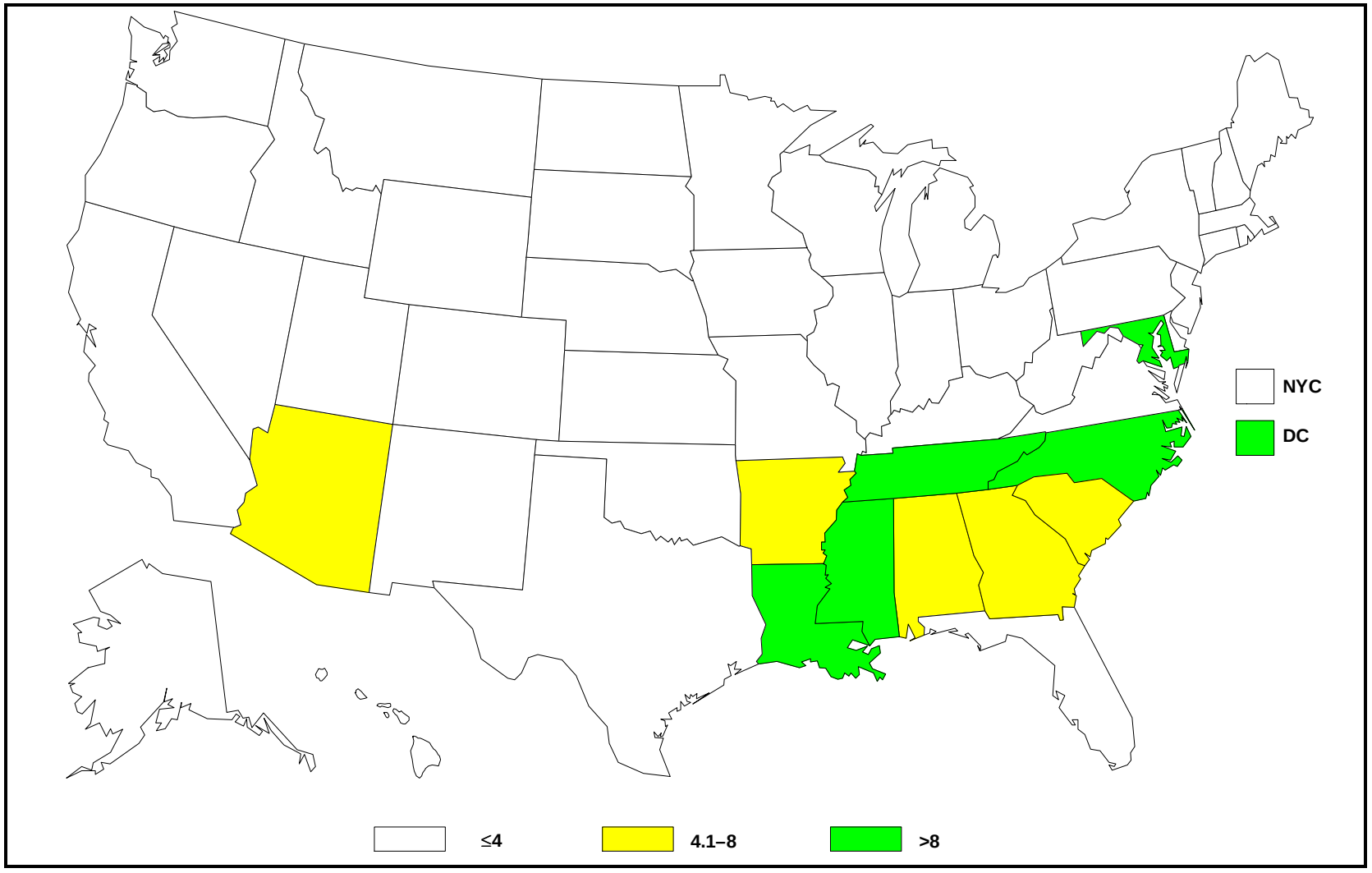


***SHIGELLA* — species of isolate by year,* United States, 1973–1998**

*Data from Public Health Laboratory Information System (PHLIS).

In 1998, a large international outbreak of *Shigella sonnei* caused by contaminated parsley led to secondary transmission in child-care centers. Improvements in food safety could lead to a decrease in cases of shigellosis.

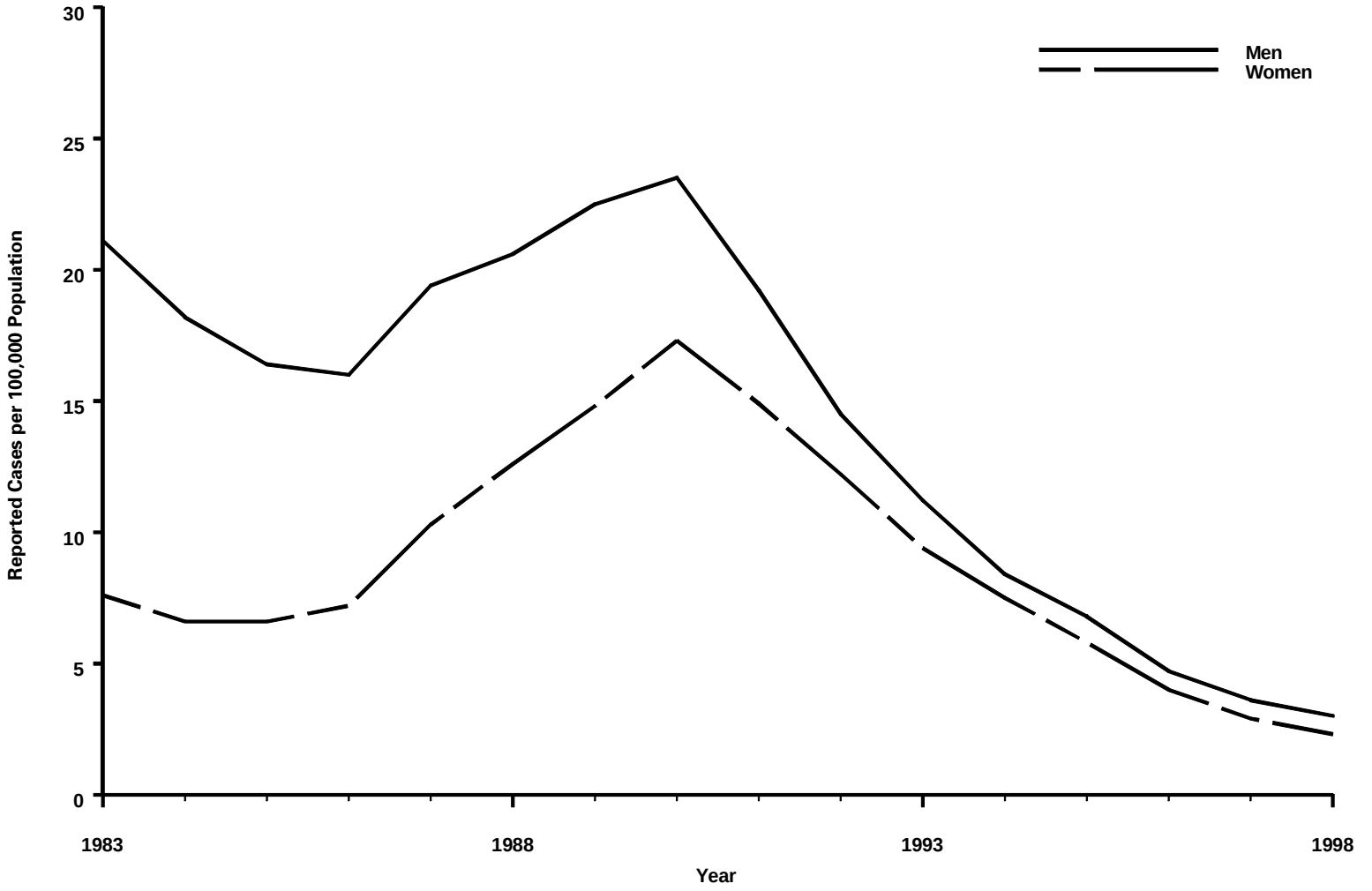
SYPHILIS, PRIMARY AND SECONDARY — reported cases per 100,000 population, United States, 1998



In 1998, the U.S. rate of primary and secondary syphilis was 2.6 cases per 100,000 population — below the revised *Healthy People 2000* national objective. Forty states reported rates below the national objective, and 14 states reported ≤5 cases.

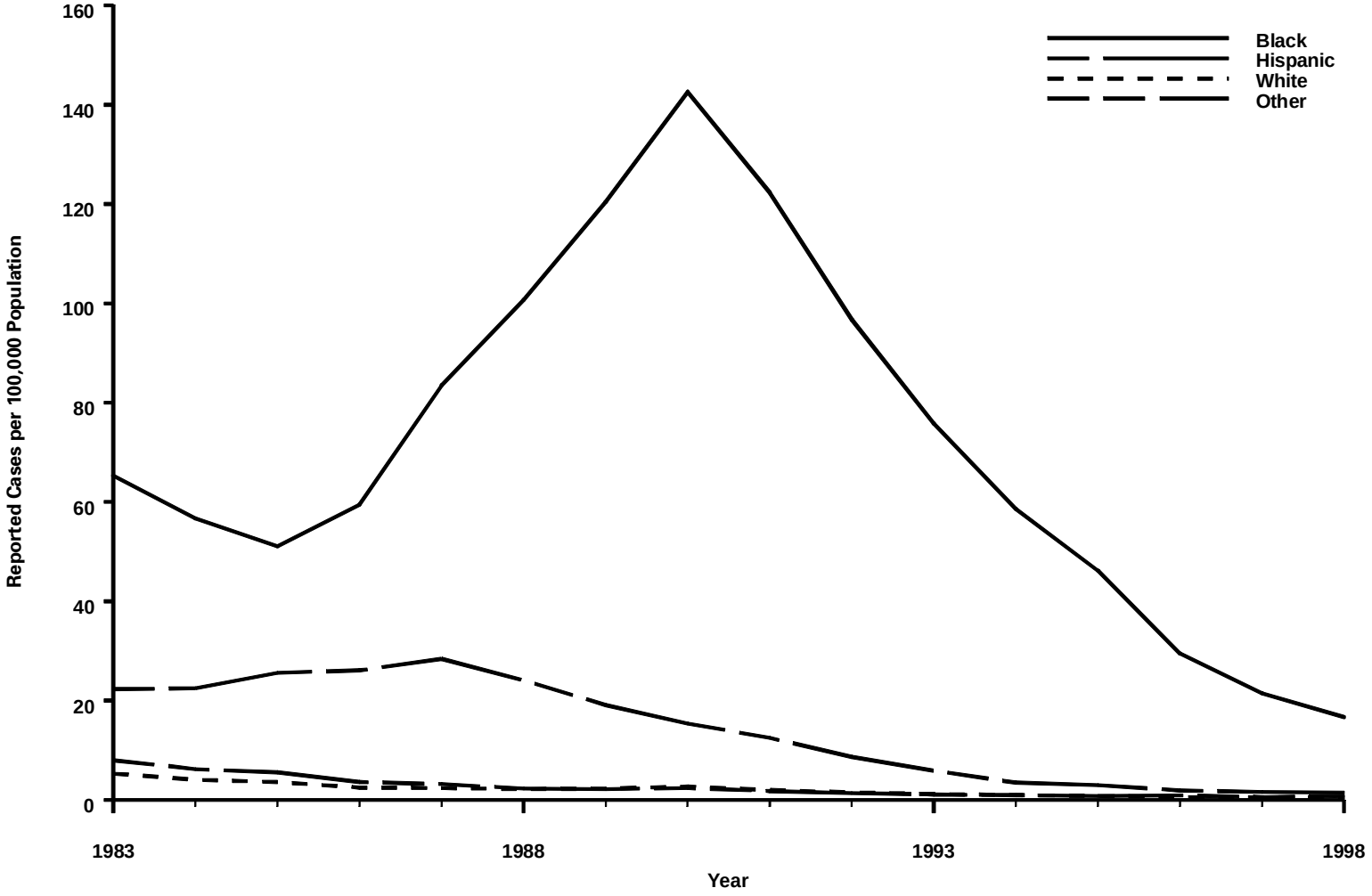
Note: The revised *Healthy People 2000* national objective is ≤4.0 cases per 100,000 population.

SYPHILIS, PRIMARY AND SECONDARY — by sex, United States, 1983–1998



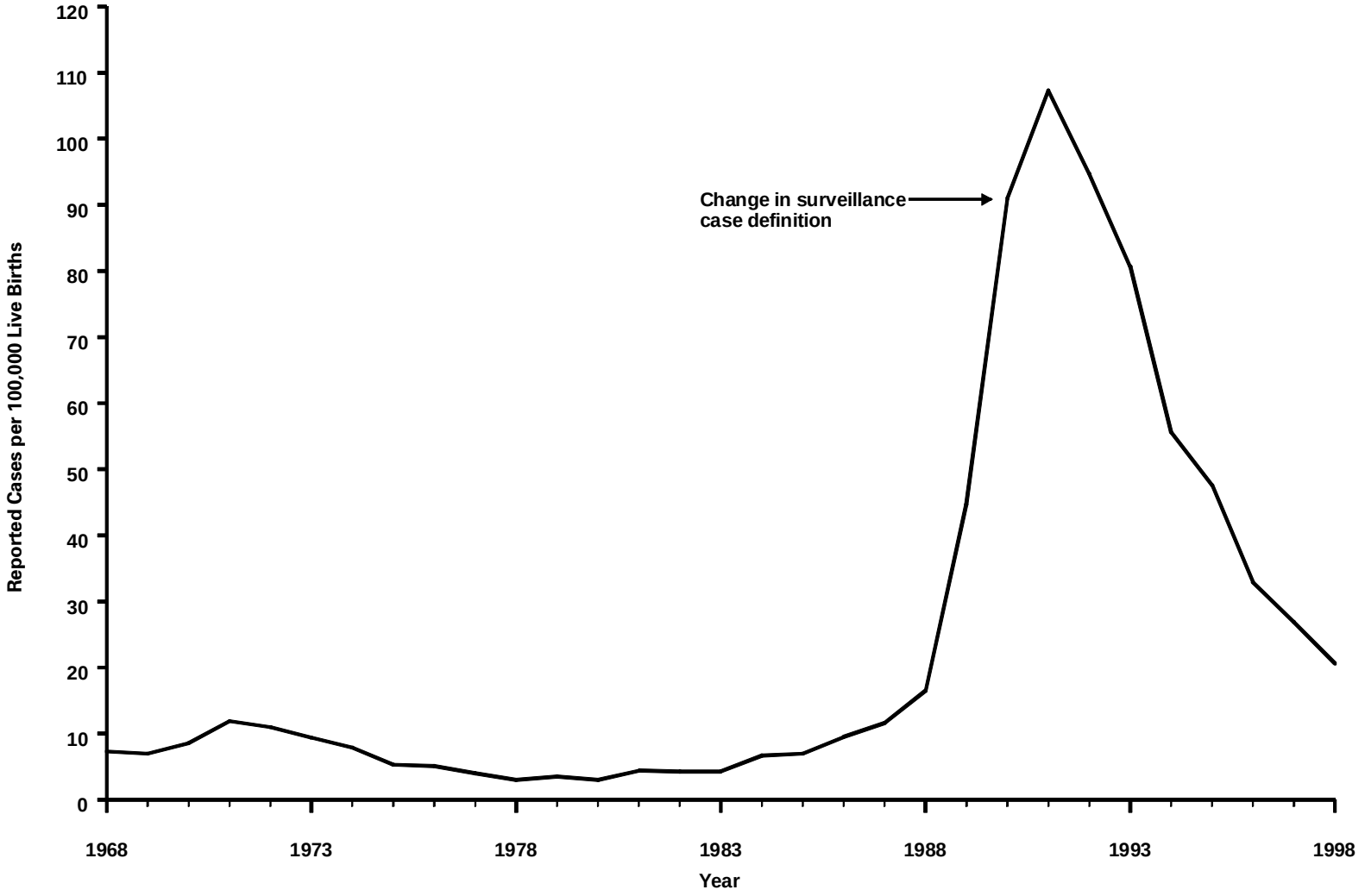
The reported rate of primary and secondary syphilis in the United States continues to decline, with 1998 rates among both males and females below the *Healthy People 2000* national objective of 4.0 cases per 100,000 population. Among men, the rate decreased from 3.6 cases per 100,000 population in 1997 to 3.0 in 1998. Among women, the rate decreased from 2.9 cases per 100,000 population in 1997 to 2.3 in 1998.

SYPHILIS, PRIMARY AND SECONDARY — by race and ethnicity, United States, 1983–1998



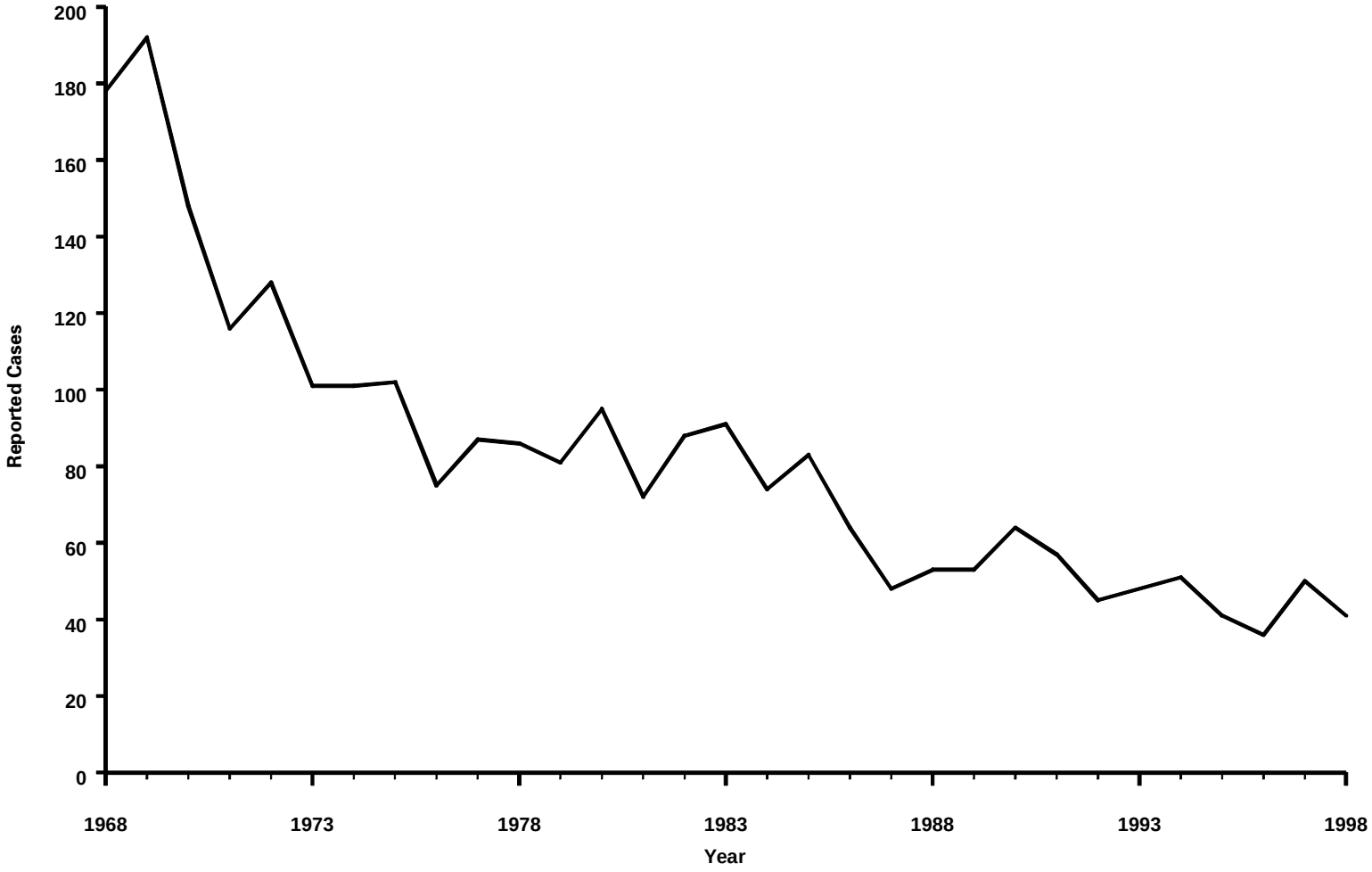
In 1998, primary and secondary syphilis rates for all racial and ethnic groups declined except among American Indians/Alaskan Natives (included in the "Other" race and ethnicity category). However, the rate for non-Hispanic blacks in 1998 (i.e., 17.1 cases per 100,000 population) was 34-fold greater than the rate for non-Hispanic whites.

SYPHILIS, CONGENITAL — among infants aged <1 year, United States, 1968–1998



The rate of congenital syphilis decreased from 27.5 cases per 100,000 live births in 1997 to 20.6 in 1997. (Data from the Division of Sexually Transmitted Diseases Prevention, National Center for HIV, STD, and TB Prevention.)

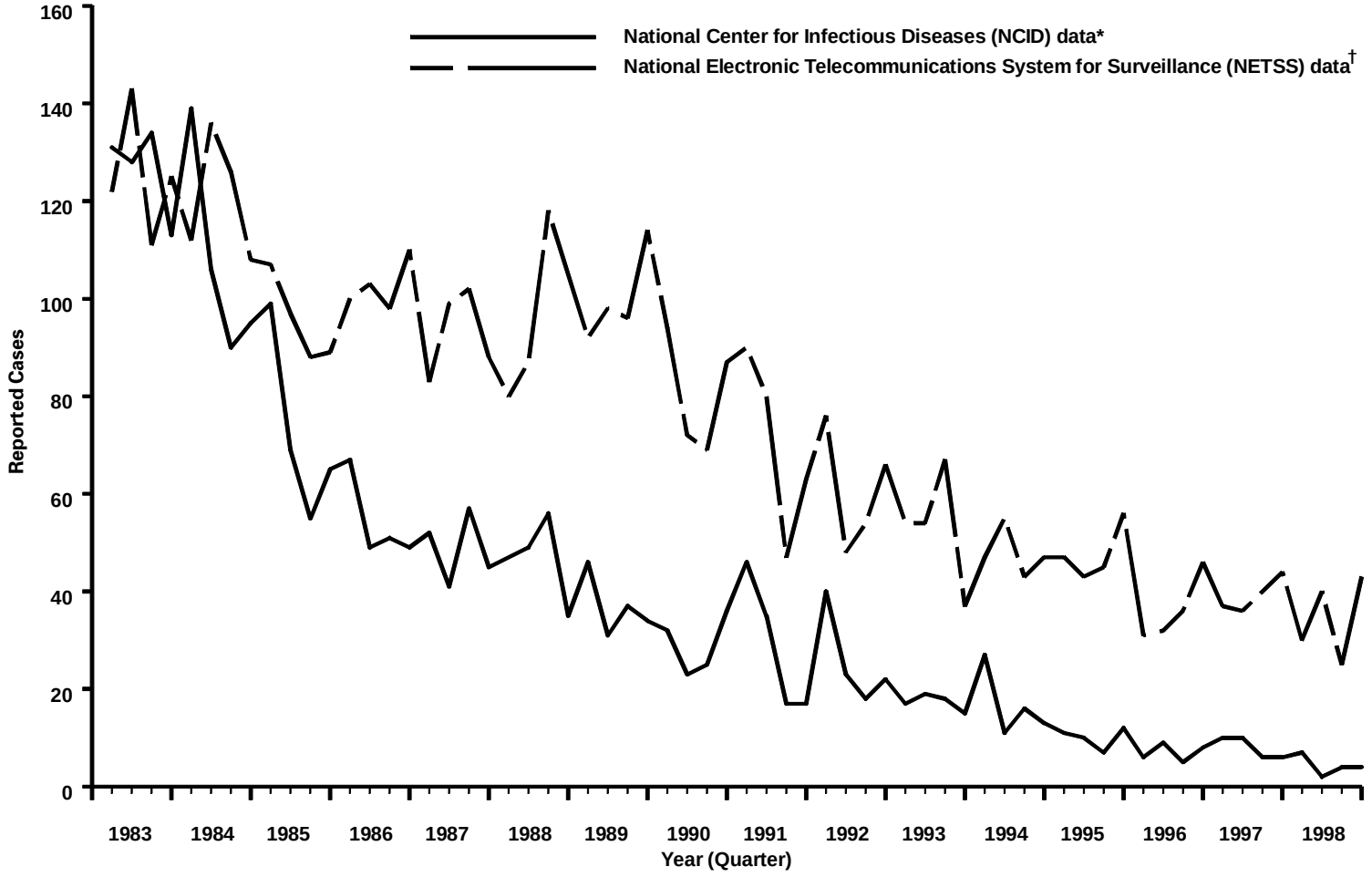
TETANUS — by year, United States, 1968–1998



Of the 41 cases of tetanus reported in 1998, nine (22%) were among persons aged <25 years.

Note: A tetanus vaccine was first available in 1933.

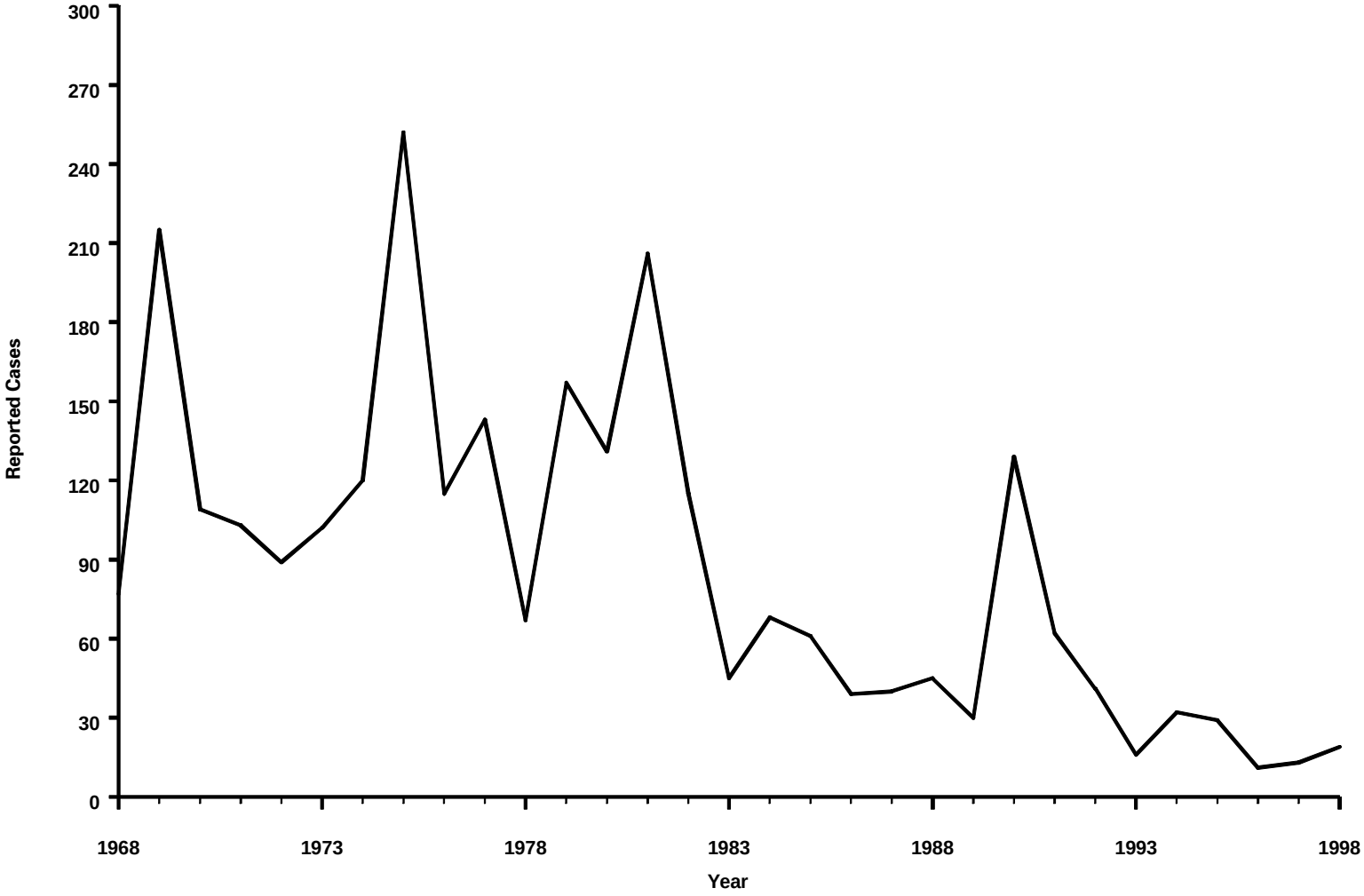
TOXIC-SHOCK SYNDROME (TSS) — by quarter, United States, 1983–1998



*Includes cases meeting the CDC definition for confirmed and probable cases of staphylococcal TSS.
†TSS data were first available through NETSS in 1983.

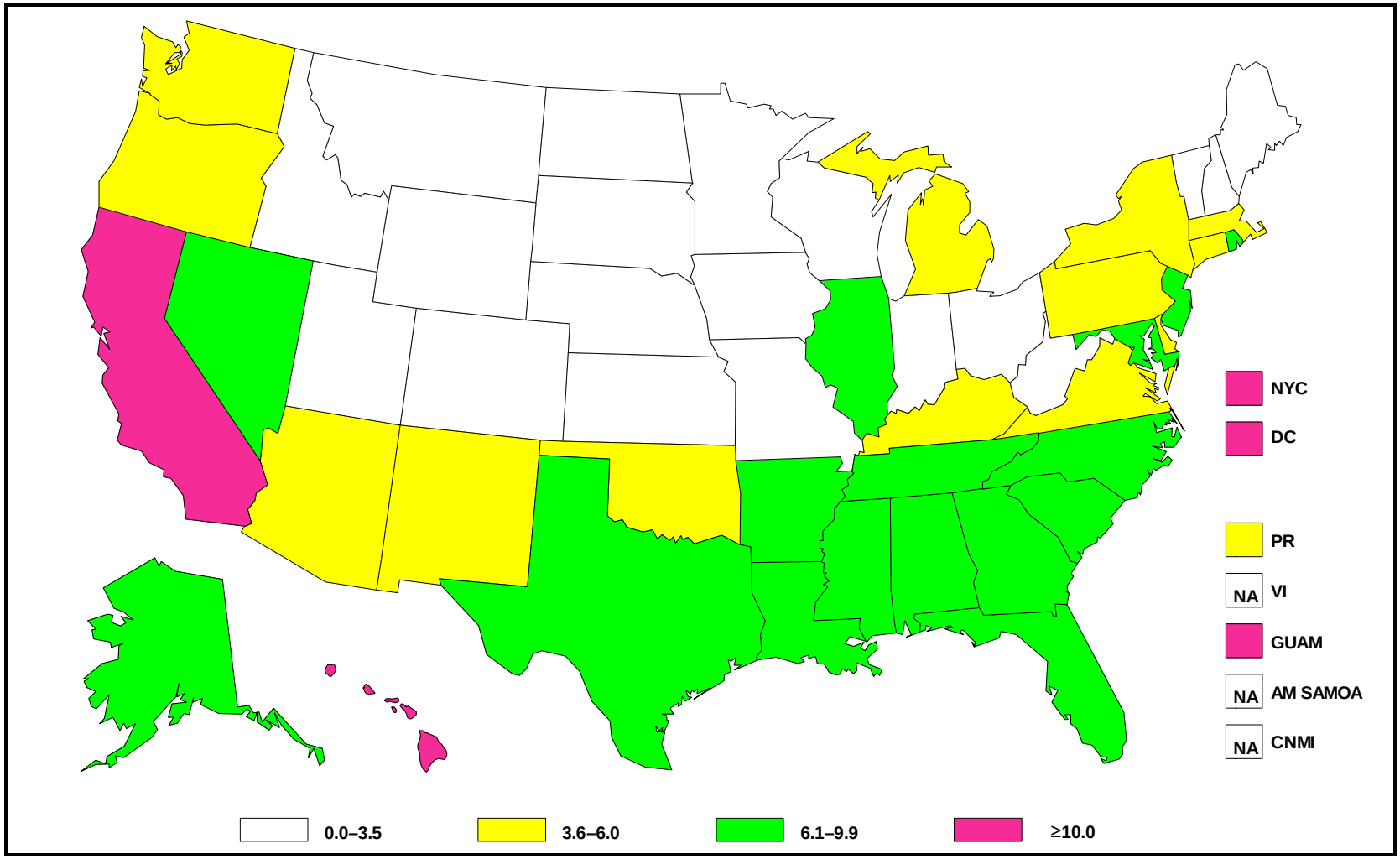
In 1998, a total of 17 cases of staphylococcal TSS were reported to NCID. Of those cases, seven persons (41%) had menstrual TSS.

TRICHINOSIS — by year, United States, 1968–1998



In 1998, a total of 19 trichinosis cases were reported. This low number of reported cases continues the declining trend of this zoonotic infection in the United States.

TUBERCULOSIS (TB) — reported cases per 100,000 population, United States and territories, 1998

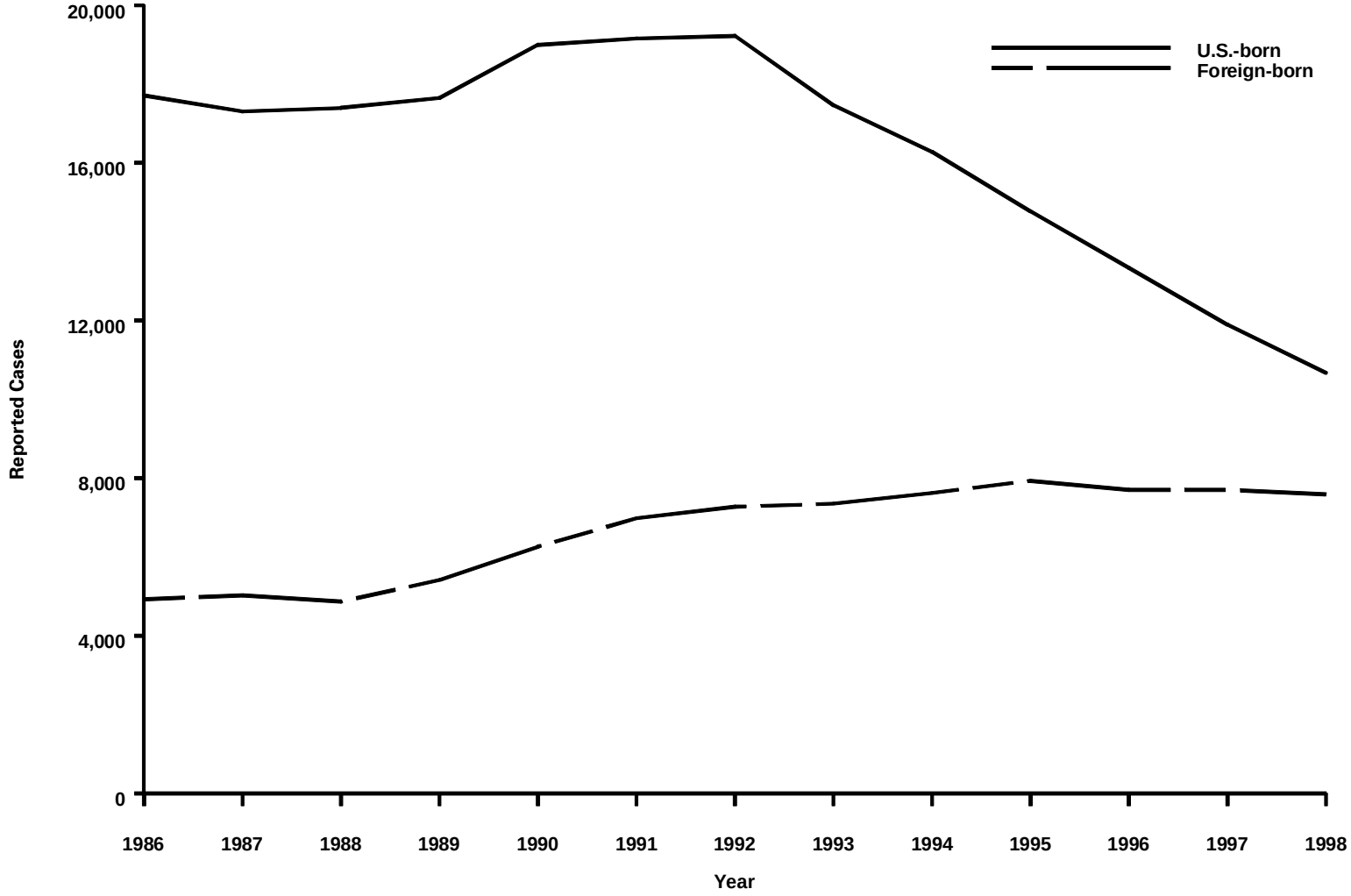


In 1998, a total of 19 states had TB rates of ≤3.5 cases per 100,000 population, which is the interim (i.e., year 2000) incidence target for the elimination of TB by the year 2010, established by CDC and the Advisory Council for the Elimination of Tuberculosis.

TUBERCULOSIS (TB) — by year, United States, 1978–1998

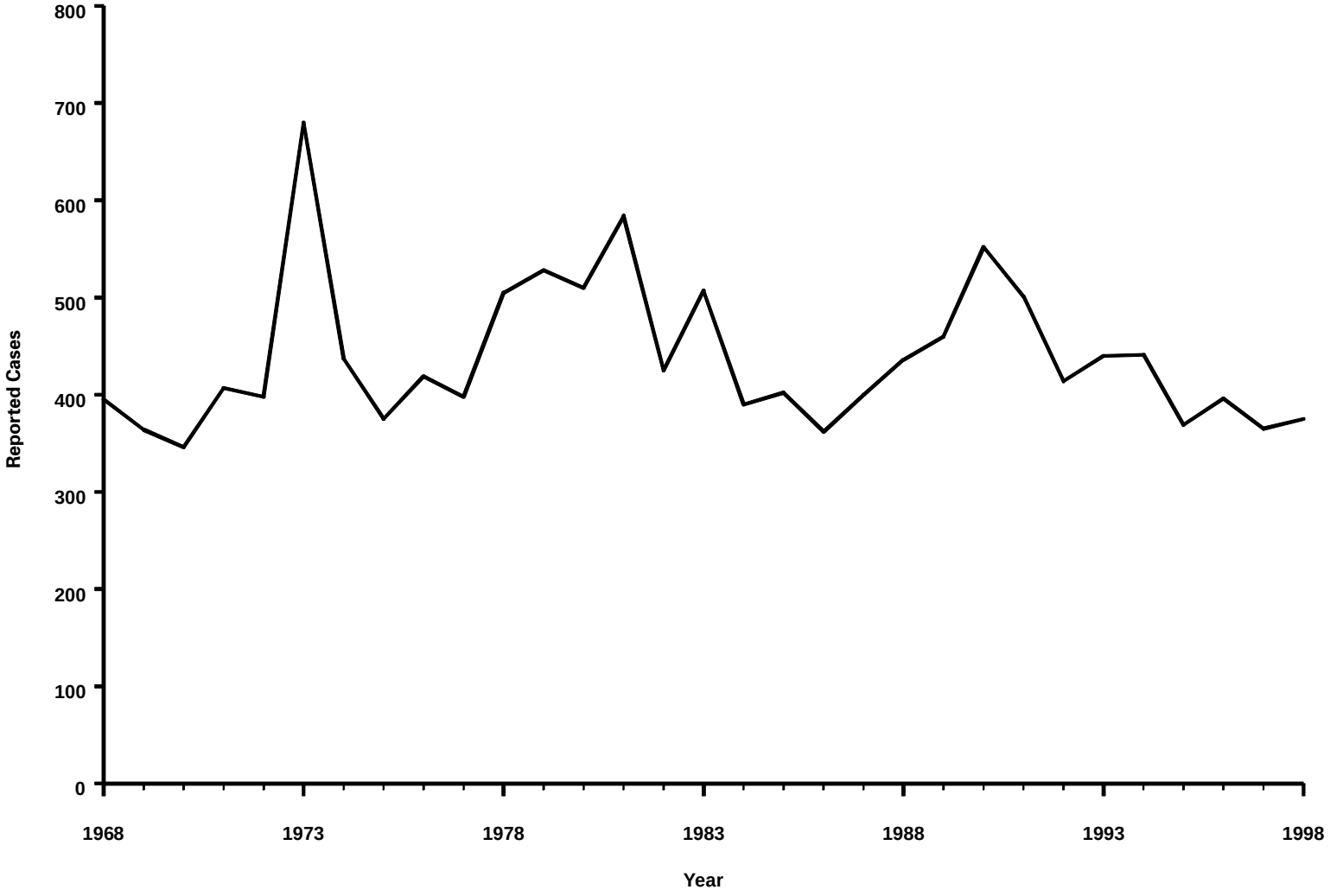
In 1998, a total of 18,361 cases of TB were reported to CDC, representing a 7.5% decrease from 1997.

TUBERCULOSIS (TB) — among U.S.- and foreign-born persons, by year, United States, 1986–1998



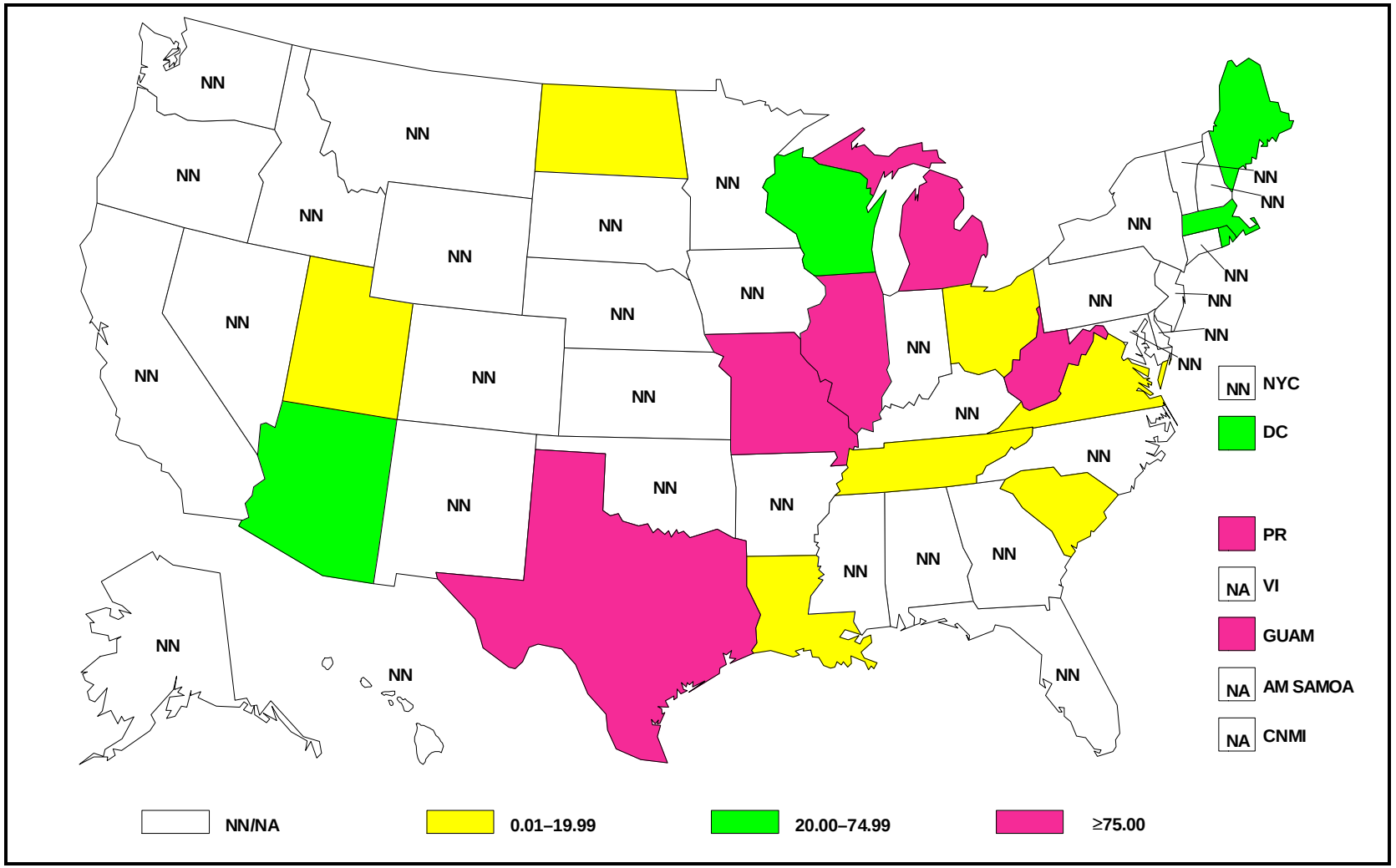
The number (and percentage) of TB cases among foreign-born persons in the United States has increased from 4,925 (22%) in 1986 to 7,591 (42%) in 1998.

TYPHOID FEVER — by year, United States, 1968–1998



Antimicrobial resistance among *Salmonella* serotype Typhi isolates has continued to increase, as has the proportion of typhoid fever cases that are preventable through immunization of international travelers.

VARICELLA (chickenpox) — reported cases per 100,000 population, United States and territories, 1998



Varicella (chickenpox) is not a nationally notifiable disease. However, in 1998, a total of 17 states, the District of Columbia, and two territories reported cases via the National Electronic Telecommunications System for Surveillance (NETSS). This map reflects data from states where varicella is notifiable at the state level.

PART 3:

Historical Summary Tables

EXPLANATION OF SYMBOLS USED IN TABLES, GRAPHS, AND MAPS

No reported cases .....—

TABLE 1. NOTIFIABLE DISEASES — Summary of reported cases per 100,000 population, United States, 1988–1998

Disease	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
AIDS*	12.61	13.58	16.72	17.32	17.83	40.20	30.07	27.20	25.21	21.85	17.21
Amebiasis	1.20	1.34	1.38	1.23	1.21	1.21	1.20	.....†	.....	.....	.....
Anthrax	0.00	—	—	—	0.00	—	—	—	—	—	—
Aseptic meningitis	2.94	4.14	4.77	6.26	5.18	5.39	3.71	.....	.....†	.....	.....
Botulism, total (wound and unspecified)	0.03	0.04	0.04	0.05	0.04	0.04	0.06	0.04	0.05	0.05	0.04
Foodborne	0.01	0.01	0.01	0.01	0.00	0.01	0.02	0.01	0.01	0.02	0.01
Brucellosis	0.04	0.04	0.03	0.04	0.04	0.05	0.05	0.04	0.05	0.04	0.03
Chancroid	2.04	1.90	1.70	1.40	0.80	0.54	0.30	0.20	0.15	0.09	0.07
Chlamydia§	.....	.....	.....	.....¶	.....	.....	.....	182.60	188.10	196.80	236.57
Cholera	0.00	—	0.00	0.01	0.04	0.00	0.02	0.01	0.01	0.01	0.01
Cryptosporidiosis	.....	.....	.....	.....¶	.....	.....	.....	.....	.....	1.12	1.61
Diphtheria	0.00	0.00	0.00	0.00	0.00	—	0.00	—	0.01	0.01	0.00
Encephalitis, primary	0.36	0.40	0.54	0.40	0.30	0.36	0.28	.....	.....†	.....	.....
Postinfectious	0.05	0.04	0.04	0.03	0.05	0.07	0.06	.....	.....†	.....	.....
Encephalitis, California serogroup viral	.....	.....	.....	.....¶	.....	.....	.....	.....	.....**	.....	0.04
Eastern equine	.....	.....	.....	.....¶	.....	.....	.....	.....	.....**	.....	0.00
St. Louis	.....	.....	.....	.....¶	.....	.....	.....	.....	.....**	.....	0.01
Western equine	.....	.....	.....	.....¶	.....	.....	.....	.....	.....**	.....	0.00
Escherichia coli O157:H7	.....	.....	.....¶	.....	.....	.....	0.82	1.01	1.18	1.04	1.28
Gonorrhea	298.74	297.36	276.60	249.48	201.60	172.40	168.40	149.50	122.80	121.40	132.88
Granuloma inguinale	0.00	0.00	0.00	0.01	0.00	0.00	0.00	.....	.....†	.....	.....
Haemophilus influenzae, invasive disease	.....	.....**	.....	1.10	0.55	0.55	0.45	0.45	0.45	0.44	0.44
Hansen disease (leprosy)	0.07	0.07	0.08	0.06	0.07	0.07	0.05	0.06	0.05	0.05	0.05
Hepatitis A	11.60	14.43	12.64	9.67	9.06	9.40	10.29	12.13	11.70	11.22	8.59
Hepatitis B	9.43	9.43	8.48	7.14	6.32	5.18	4.81	4.19	4.01	3.90	3.80
Hepatitis C; non-A, non-B††	1.07	1.02	1.03	1.42	2.36	1.86	1.78	1.78	1.41	1.43	1.30
Hepatitis, unspecified	1.00	0.93	0.67	0.50	0.35	0.24	0.17	.....	.....†	.....	.....
Legionellosis	0.44	0.48	0.55	0.53	0.53	0.50	0.63	0.48	0.47	0.44	0.51
Leptospirosis	0.02	0.04	0.03	0.02	0.02	0.02	0.02	.....	.....†	.....	.....
Lyme disease	.....	.....**	.....	3.80	3.93	3.20	5.01	4.49	6.21	4.79	6.39
Lymphogranuloma venereum	0.07	0.08	0.10	0.19	0.10	0.10	0.10	.....	.....†	.....	.....
Malaria	0.45	0.51	0.52	0.51	0.43	0.55	0.47	0.55	0.68	0.75	0.60
Measles (rubeola)	1.38	7.33	11.17	3.82	0.88	0.12	0.37	0.12	0.20	0.06	0.04
Meningococcal disease	1.21	1.10	0.99	0.84	0.84	1.02	1.11	1.25	1.30	1.24	1.01
Mumps	2.05	2.34	2.17	1.72	1.03	0.66	0.60	0.35	0.29	0.27	0.25
Murine typhus fever	0.02	0.02	0.02	0.02	0.02	0.01		.....	.....†	.....	.....
Pertussis (whooping cough)	1.40	1.67	1.84	1.08	1.60	2.55	1.77	1.97	2.94	2.46	2.74
Plague	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.00
Poliomyelitis, paralytic	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00
Psittacosis	0.05	0.05	0.05	0.04	0.04	0.02	0.02	0.03	0.02	0.02	0.02
Rabies, human	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00
Rheumatic fever, acute	0.14	0.13	0.09	0.12	0.06	0.08	0.09	.....	.....†	.....	.....
Rocky Mountain spotted fever	0.25	0.25	0.26	0.25	0.20	0.18	0.18	0.23	0.32	0.16	0.14
Rubella (German measles)	0.09	0.16	0.45	0.56	0.06	0.07	0.09	0.05	0.10	0.07	0.13
Salmonellosis, excluding typhoid fever	19.91	19.26	19.54	19.10	16.04	16.15	16.64	17.66	17.15	15.66	16.17
Shigellosis	12.46	10.07	10.89	9.34	9.38	12.48	11.44	12.32	9.80	8.64	8.74
Syphilis, primary and secondary	16.43	18.07	20.10	17.26	13.70	10.40	8.10	6.30	4.29	3.19	2.61
Total, all stages	42.37	44.94	53.80	51.69	45.30	39.70	32.00	26.20	19.97	17.39	14.19
Tetanus	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Toxic-shock syndrome	0.16	0.16	0.13	0.11	0.10	0.08	0.10	0.07	0.06	0.06	0.06
Trichinosis	0.02	0.01	0.05	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
Tuberculosis	9.13	9.46	10.33	10.42	10.46	9.82	9.36	8.70	8.04	7.42	6.79
Tularemia	0.08	0.06	0.06	0.08	0.06	0.05	0.04	.....	.....†	.....	.....
Typhoid fever	0.18	0.19	0.22	0.20	0.16	0.17	0.17	0.14	0.15	0.14	0.14
Varicella (chickenpox)§§	122.43	121.77	120.06	135.82	176.54	118.54	135.76	118.11	44.13	93.55	70.28
Yellow fever	—	—	—	—	—	—	—	—	0.01	—	—

* Acquired immunodeficiency syndrome (AIDS).
† No longer nationally notifiable.
§ Chlamydia refers to genital infections caused by *C. trachomatis*.
¶ Not previously nationally notifiable.
** Nationally notifiable; data not presented because of limited number of states reporting.
†† Anti-HCV (hepatitis C virus) antibody test became available May 1990.
§§ Not nationally notifiable.

Note: Incidence rates per 100,000 population. Rates <0.01 after rounding are listed as 0.00. Data in the *MMWR Summary of Notifiable Diseases, United States* might not match data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, and the use of different case definitions.

TABLE 2. NOTIFIABLE DISEASES — Summary of reported cases, United States, 1991–1998

Disease	1991	1992	1993	1994	1995	1996	1997	1998
AIDS	43,672	45,472	103,691	78,279	71,547	66,885	58,492	46,521*
Amebiasis	2,989	2,942	2,970	2,983	†			
Anthrax	—	1	—	—	—	—	—	—
Aseptic meningitis	14,526	12,223	12,848	8,932	†			
Botulism, total (wound and unspecified)	114	91	97	143	97	119	132	116
Foodborne	27	21	27	50	24	25	31	22
Infant	81	66	65	85	54	80	79	65
Brucellosis	104	105	120	119	98	112	98	79
Chancroid	3,476	1,886	1,399	773	606	386	243	189§
Chlamydia¶	**				477,638	498,884	526,671	604,420§
Cholera	26	103	18	39	23	4	6	17
Cryptosporidiosis	**						2,566	3,793
Diphtheria	5	4	—	2	—	2	4	1
Encephalitis, primary	1,021	774	919	717	†			
Postinfectious	82	129	170	143	†			
Encephalitis, California serogroup viral	**				††			97
Eastern equine	**				††			4
St. Louis	**				††			24
Western equine	**				††			—
Escherichia coli O157:H7	**			1,420	2,139	2,741	2,555	3,161
Gonorrhea	620,478	501,409	439,673	418,068	392,848	325,883	324,907	355,642§
Granuloma inguinale	29	6	19	3	†			
Haemophilus influenzae, invasive disease	2,764	1,412	1,419	1,174	1,180	1,170	1,162	1,194
Hansen disease (leprosy)	154	172	187	136	144	112	122	108
Hepatitis A	24,378	23,112	24,238	26,796	31,582	31,032	30,021	23,229
Hepatitis B	18,003	16,126	13,361	12,517	10,805	10,637	10,416	10,258
Hepatitis C; non-A, non-B§§	3,582	6,010	4,786	4,470	4,576	3,716	3,816	3,518
Hepatitis, unspecified	1,260	884	627	444	†			
Legionellosis	1,317	1,339	1,280	1,615	1,241	1,198	1,163	1,355
Leptospirosis	58	54	51	38	†			
Lyme disease	9,465	9,895	8,257	13,043	11,700	16,455	12,801	16,801
Lymphogranuloma venereum	471	302	285	235	†			

Malaria	1,278	1,087	1,411	1,229	1,419	1,800	2,001	1,611
Measles (rubeola)	9,643	2,237	312	963	309	508	138	100
Meningococcal disease	2,130	2,134	2,637	2,886	3,243	3,437	3,308	2,725
Mumps	4,264	2,572	1,692	1,537	906	751	683	666
Murine typhus fever	43	28	25	.....	.....	†.....	.....	.....
Pertussis (whooping cough)	2,719	4,083	6,586	4,617	5,137	7,796	6,564	7,405
Plague	11	13	10	17	9	5	4	9
Poliomyelitis, paralytic¶¶	10	6	4	8	7	5	5	1
Psittacosis	94	92	60	38	64	42	33	47
Rabies, animal	6,910	8,589	9,377	8,147	7,811	6,982	8,105	7,259
Rabies, human	3	1	3	6	5	3	2	1
Rheumatic fever, acute	127	75	112	112	.....	.....	†.....	.....
Rocky Mountain spotted fever	628	502	456	465	590	831	409	365
Rubella (German measles)	1,401	160	192	227	128	238	181	364
Rubella, congenital syndrome	47	11	5	7	6	4	5	7
Salmonellosis, excluding typhoid fever	48,154	40,912	41,641	43,323	45,970	45,471	41,901	43,694
Shigellosis	23,548	23,931	32,198	29,769	32,080	25,978	23,117	23,626
Syphilis, primary and secondary	42,935	33,973	26,498	20,627	16,500	11,387	8,550	6,993§
Total, all stages	128,569	112,581	101,259	81,696	68,953	52,976	46,540	37,977§
Tetanus	57	45	48	51	41	36	50	41
Toxic-shock syndrome	280	244	212	192	191	145	157	138
Trichinosis	62	41	16	32	29	11	13	19
Tuberculosis	26,283	26,673	25,313	24,361	22,860	21,337	19,851	18,361***
Tularemia	193	159	132	96	.....	.....	†.....	.....
Typhoid fever	501	414	440	441	369	396	365	375
Varicella (chickenpox)†††	147,076	158,364	134,722	151,219	120,624	83,511	98,727	82,455
Yellow fever	.....	.....	§§§.....	.....	.....	1	—	—

*Total number of acquired immunodeficiency syndrome (AIDS) cases reported to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), through December 31, 1998.
†No longer nationally notifiable.
§Cases were updated through the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of July 19, 1999.
¶Chlamydia refers to genital infections caused by *C. trachomatis*.
**Not previously nationally notifiable.
††Nationally notifiable; data not presented because of limited number of states reporting.
§§Anti-HCV (hepatitis C virus) antibody test was available as of May 1990.
¶¶Numbers might not reflect changes because of retrospective case evaluations or late reports (see *MMWR* 1986;35:180–2).
***Cases were updated through the Division of Tuberculosis Elimination, NCHSTP, as of June 3, 1999.
†††Varicella was taken off the nationally notifiable disease list in 1991. Many states continue to report these cases to CDC.
§§§Last indigenous case of yellow fever was reported in 1911; before 1996, the last imported case was reported in 1924.

Note: Data in the *MMWR Summary of Notifiable Diseases, United States* might not match data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, and the use of different case definitions.

TABLE 3. NOTIFIABLE DISEASES — Summary of reported cases, United States, 1983–1990

Disease	1983	1984	1985	1986	1987	1988	1989	1990
AIDS*	†	4,445	8,249	12,932	21,070	31,001	33,722	41,595
Amebiasis	6,658	5,252	4,433	3,532	3,123	2,860	3,217	3,328
Anthrax	—	1	—	—	1	2	—	—
Aseptic meningitis	12,696	8,326	10,619	11,374	11,487	7,234	10,274	11,852
Botulism, total (wound and unspecified)	133	123	122	109	82	84	89	92
Foodborne	§	§	49	23	17	28	23	23
Infant	§	§	70	79	59	50	60	65
Brucellosis	200	131	153	106	129	96	95	82
Chancroid	847	665	2,067	3,756	4,998	5,001	4,692	4,212
Cholera	1	1	4	23	6	8	—	6
Diphtheria	5	1	3	—	3	2	3	4
Encephalitis, primary¶	1,761	1,257	1,376	1,302	1,418	882	981	1,341
Postinfectious¶	34	108	161	124	121	121	88	105
Gonorrhea	900,435	878,556	911,419	900,868	780,905	719,536	733,151	690,169
Granuloma inguinale	24	30	44	61	22	11	7	97
Hansen disease (leprosy)	259	290	361	270	238	184	163	198
Hepatitis A	21,532	22,040	23,210	23,430	25,280	28,507	35,821	31,441
Hepatitis B	24,318	26,115	26,611	26,107	25,916	23,177	23,419	21,102
Hepatitis C; non-A, non-B	3,470	3,871	4,184	3,634	2,999	2,619	2,529	2,553
Hepatitis, unspecified	7,149	5,531	5,517	3,940	3,102	2,470	2,306	1,671
Legionellosis	852	750	830	980	1,038	1,085	1,190	1,370
Leptospirosis	61	40	57	41	43	54	93	77
Lymphogranuloma venereum	335	170	226	396	303	185	189	277
Malaria	813	1,007	1,049	1,123	944	1,099	1,277	1,292
Measles (rubeola)	1,497	2,587	2,822	6,282	3,655	3,396	18,193	27,786
Meningococcal disease	2,736	2,746	2,479	2,594	2,930	2,964	2,727	2,451
Mumps	3,355	3,021	2,982	7,790	12,848	4,866	5,712	5,292
Murine typhus fever	62	53	37	67	49	54	41	50
Pertussis (whooping cough)	2,463	2,276	3,589	4,195	2,823	3,450	4,157	4,570

Plague	40	31	17	10	12	15	4	2
Poliomyelitis, total	13	9	.....			**	.....	
Paralytic	13	9	8	10	9	9	11	6
Psittacosis	142	172	119	224	98	114	116	113
Rabies, animal	5,878	5,567	5,565	5,504	4,658	4,651	4,724	4,826
Rabies, human	2	3	1	—	1	—	1	1
Rheumatic fever, acute	88	117	90	147	141	158	144	108
Rocky Mountain spotted fever	1,126	838	714	760	604	609	623	651
Rubella (German measles)	970	752	630	551	306	225	396	1,125
Rubella, congenital syndrome	22	5	—	14	5	6	3	11
Salmonellosis, excluding typhoid fever	44,250	40,861	65,347	49,984	50,916	48,948	47,812	48,603
Shigellosis	19,719	17,371	17,057	17,138	23,860	30,617	25,010	27,077
Syphilis, primary and secondary	32,698	28,607	27,131	27,883	35,147	40,117	44,540	50,223
Total, all stages	74,637	69,888	67,563	68,215	86,545	103,437	110,797	134,255
Tetanus	91	74	83	64	48	53	53	64
Toxic-shock syndrome	502	482	384	412	372	390	400	322
Trichinosis	45	68	61	39	40	45	30	129
Tuberculosis	23,846	22,255	22,201	22,768	22,517	22,436	23,495	25,701
Tularemia	310	291	177	170	214	201	152	152
Typhoid fever	507	390	402	362	400	436	460	552
Varicella (chickenpox)	177,462	221,983	178,162	183,243	213,196	192,857	185,441	173,099
Yellow fever	.....				††	.....		

*Acquired immunodeficiency syndrome (AIDS).
†Not previously nationally notifiable.
§Not reported as distinct categories during this period.
¶Beginning in 1984, data were recorded by date of report to state health departments. Before 1984, data were recorded by onset date.
**Categories other than paralytic are no longer reported.
†† Last indigenous case of yellow fever was reported in 1911; before 1996, the last imported case was reported in 1924.

Note: Data in the *MMWR Summary of Notifiable Disease, United States* might not match data in other CDC Surveillance reports because of differences in timing of reports, the source of the data, and the use of different case definitions.

TABLE 4. NOTIFIABLE DISEASES — Summary of reported cases, United States, 1975–1982

Disease	1975	1976	1977	1978	1979	1980	1981	1982
Amebiasis	2,775	2,906	3,044	3,937	4,107	5,271	6,632	7,304
Anthrax	2	2	—	6	—	1	—	—
Aseptic meningitis	4,475	3,510	4,789	6,573	8,754	8,028	9,547	9,680
Botulism, total (wound and unspecified)	20	55	129	105	45	89	103	97
Brucellosis	310	296	232	179	215	183	185	173
Chancroid	700	628	455	521	840	788	850	1,392
Cholera	—	—	3	12	1	9	19	—
Diphtheria*	307	128	84	76	59	3	5	2
Encephalitis, primary	4,064	1,651	1,414	1,351	1,504	1,362	1,492	1,464
Postinfectious	237	175	119	78	84	40	43	36
Gonorrhea	999,937	1,001,994	1,002,219	1,013,436	1,004,058	1,004,029	990,864	960,633
Granuloma inguinale	60	71	75	72	76	51	66	17
Hansen disease (leprosy)	162	145	151	168	185	223	256	250
Hepatitis A	35,855	33,288	31,153	29,500	30,407	29,087	25,802	23,403
Hepatitis B	13,121	14,973	16,831	15,016	15,452	19,015	21,152	22,177
Hepatitis, unspecified	7,158	7,488	8,639	8,776	10,534	11,894	10,975	8,564
Legionellosis	†	235	359	761	593	475	408	654
Leptospirosis	93	73	71	110	94	85	82	100
Lymphogranuloma venereum	353	365	348	284	250	199	263	235
Malaria	373	471	547	731	894	2,062	1,388	1,056
Measles (rubeola)	24,374	41,126	57,345	26,871	13,597	13,506	3,124	1,714
Meningococcal disease	1,478	1,605	1,828	2,505	2,724	2,840	3,525	3,056
Mumps	59,647	38,492	21,436	16,817	14,225	8,576	4,941	5,270
Murine typhus fever	41	69	75	46	69	81	61	58
Pertussis (whooping cough)	1,738	1,010	2,177	2,063	1,623	1,730	1,248	1,895
Plague	20	16	18	12	13	18	13	19
Poliomyelitis, total	13	10	19	8	22	9	10	12
Paralytic§	13	10	19	8	22	9	10	12
Psittacosis	49	78	94	140	137	124	136	152
Rabies, animal	2,627	3,073	3,130	3,254	5,119	6,421	7,118	6,212
Rabies, human	2	2	2	4	4	—	2	—
Rheumatic fever, acute	2,854	1,865	1,738	851	629	432	264	137
Rocky Mountain spotted fever	844	937	1,153	1,063	1,070	1,163	1,192	976
Rubella (German measles)	16,652	12,491	20,395	18,269	11,795	3,904	2,077	2,325
Rubella, congenital syndrome	30	30	23	30	62	50	19	7
Salmonellosis, excluding typhoid fever	22,612	22,937	27,850	29,410	33,138	33,715	39,990	40,936
Shigellosis	16,584	13,140	16,052	19,511	20,135	19,041	19,859	18,129
Syphilis, primary and secondary	25,561	23,731	20,399	21,656	24,874	27,204	31,266	33,613
Total, all stages	80,356	71,761	64,621	64,875	67,049	68,832	72,799	75,579
Tetanus	102	75	87	86	81	95	72	88
Trichinosis	252	115	143	67	157	131	206	115
Tuberculosis¶	33,989	32,105	30,145	28,521	27,669	27,749	27,373	25,520
Tularemia	129	157	165	141	196	234	288	275
Typhoid fever	375	419	398	505	528	510	584	425
Varicella (chickenpox)	154,248	183,990	188,396	154,089	199,081	190,894	200,766	167,423
Yellow fever	.....	.....	.....	.....	**	.....	.....	.....

*Cutaneous diphtheria is no longer nationally notifiable after 1979.
†Not previously nationally notifiable.
§No cases with paralytic poliomyelitis caused by wild-virus have been reported in the United States since 1979.
¶Case data after 1974 are not comparable with earlier years because of changes in reporting criteria that became effective in 1975.
**Last indigenous case of yellow fever was reported in 1911; before 1996, the last imported case was reported in 1924.

Note: Data in the *MMWR Summary of Notifiable Diseases, United States* might not match data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, and the use of different case definitions.

TABLE 5. NOTIFIABLE DISEASES — Summary of reported cases, United States, 1967–1974

Disease	1967	1968	1969	1970	1971	1972	1973	1974
Amebiasis	3,157	3,005	2,915	2,888	2,752	2,199	2,235	2,743
Anthrax	2	3	4	2	5	2	2	2
Aseptic meningitis	3,082	4,494	3,672	6,480	5,176	4,634	4,846	3,197
Botulism	5	7	16	12	25	22	34	28
Brucellosis	265	218	235	213	183	196	202	240
Chancroid	784	845	1,104	1,416	1,320	1,414	1,165	945
Cholera	—	—	—	—	1	—	1	—
Diphtheria	219	260	241	435	215	152	228	272
Encephalitis, primary	1,478	1,781	1,613	1,580	1,524	1,059	1,613	1,164
Postinfectious	1,060	502	304	370	439	243	354	218
Gonorrhea	404,836	464,543	534,872	600,072	670,268	767,215	842,621	906,121
Granuloma inguinale	154	156	154	124	89	81	62	47
Hansen disease (leprosy)	81	123	98	129	131	130	146	118
Hepatitis A (infectious)	38,909	45,893	48,416	56,797	59,606	54,074	50,749	40,358
Hepatitis B (serum)	2,458	4,829	5,909	8,310	9,556	9,402	8,451	10,631
Leptospirosis	67	69	89	47	62	41	57	8,351
Lymphogranuloma venereum	371	485	520	612	692	756	408	394
Malaria	2,022	2,317	3,102	3,051	2,375	742	237	293
Measles (rubeola)	62,705	22,231	25,826	47,351	75,290	32,275	26,690	22,094
Meningococcal disease	2,161	2,623	2,951	2,505	2,262	1,323	1,378	1,346
Mumps	*	152,209	90,918	104,953	124,939	74,215	69,612	59,128
Murine typhus fever	52	36	36	27	23	18	32	26
Pertussis (whooping cough)	9,718	4,810	3,285	4,249	3,036	3,287	1,759	2,402
Plague	3	3	5	13	2	1	2	8
Poliomyelitis, total	41	53	20	33	21	31	8	7
Paralytic	40	53	18	31	17	29	7	7
Psittacosis	41	43	57	35	32	52	33	164
Rabies, animal	4,481	3,591	3,490	3,224	4,310	4,369	3,640	3,151
Rabies, human	2	1	1	3	2	2	1	—
Rheumatic fever, acute	3,985	3,470	3,229	3,227	2,793	2,614	2,560	2,431
Rocky Mountain spotted fever	305	298	498	380	432	523	668	754
Rubella (German measles)	46,888	49,371	57,686	56,552	45,086	25,507	27,804	11,917
Rubella, congenital syndrome	10	14	31	77	68	42	35	45
Salmonellosis, excluding typhoid fever	18,120	16,514	18,419	22,096	21,928	22,151	23,818	21,980
Shigellosis	13,474	12,180	11,946	13,845	16,143	20,207	22,642	22,600
Streptococcal sore throat and scarlet fever	453,351	435,013	450,008	433,405	....†			
Syphilis, primary and secondary	21,053	19,019	19,130	21,982	23,783	24,429	24,825	25,385
Total, all stages	102,581	96,271	92,162	91,382	95,997	91,149	87,469	83,771
Tetanus	263	178	192	148	116	128	101	101
Trichinosis	66	77	215	109	103	89	102	120
Tuberculosis	45,647	42,623	39,120	37,137	35,217	32,882	30,998	30,122
Tularemia	184	186	149	172	187	152	171	144
Typhoid fever	396	395	364	346	407	398	680	437
Varicella (chickenpox)	....*					164,114	182,927	141,495
Yellow fever	....§							

* Not previously nationally notifiable.
† No longer nationally notifiable.
§ Last indigenous case of yellow fever was reported in 1911; before 1996, the last imported case was reported in 1924.

Note: Data in the *MMWR Summary of Notifiable Diseases, United States* might not match data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, and the use of different case definitions.

TABLE 6. NOTIFIABLE DISEASES — Deaths from selected diseases, United States, 1988–1997

Cause of Death	*ICD-9**	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
AIDS†	*042–*044	16,602	22,082	25,188	29,555	33,566	37,267	42,114	43,115	31,130	16,516
Anthrax	022	—	—	—	—	—	—	—	—	—	—
Botulism, foodborne	005.1	1	2	4	2	1	—	—	2	1	2
Brucellosis	023	2	—	—	—	—	1	—	1	—	1
Chancroid	099.0	—	—	—	1	—	—	—	—	—	—
Cholera	001	—	—	2	2	2	—	1	—	2	—
Diphtheria	032	—	—	1	—	1	—	—	1	—	—
Encephalitis, California serogroup viral	062.5	—	—	—	—	—	—	—	—	1	1
Eastern equine	062.2	—	1	1	1	1	1	—	1	1	2
St. Louis	062.3	—	—	13	9	2	1	3	6	—	1
Western equine	062.1	—	—	—	—	—	—	—	—	—	—
Gonococcal infections	098	3	4	3	3	4	5	3	3	4	3
Haemophilus influenzae, invasive disease	041.5	25	16	16	17	16	7	5	12	7	7
Hansen disease (leprosy)	030	—	4	3	—	2	1	3	2	—	2
Hepatitis, viral, infectious (Hep A)	070.0,070.1	70	88	76	71	82	95	97	142	121	127
Hepatitis, viral, serum (Hep B)	070.2,070.3	621	711	816	912	903	1,041	1,120	1,027	1,082	1,030
Hepatitis, viral, other and unspecified	070.4–070.9	599	717	686	857	1,016	1,353	1,844	2,231	2,577	2,900
Malaria	084	7	11	3	4	8	12	3	8	4	7
Measles (rubeola)	055	3	32	64	27	4	—	—	2	1	2
Meningococcal disease	036	278	273	215	198	201	260	276	273	290	309
Mumps	072	2	3	1	1	—	—	—	—	1	—
Pertussis (whooping cough)	033	4	12	12	—	5	7	8	6	4	6
Plague	020	—	—	—	—	1	2	2	1	2	—
Poliomyelitis, total	045.0–045.9	1	—	—	1	—	—	—	1	—	—
Psittacosis	073	1	1	2	—	4	1	—	—	1	—
Rabies, human	071	—	1	1	3	1	1	3	3	3	4
Rubella (German measles)	056	1	4	8	1	1	—	—	1	—	—
Salmonellosis, incl. paratyphoid fever	002.1–002.9,003	66	99	80	53	47	52	49	66	58	51
Shigellosis	004	8	16	10	10	8	5	13	8	5	5
Spotted fevers	082.0	20	10	20	13	13	5	9	8	6	12
Syphilis	090–097	85	105	106	93	91	80	79	65	73	62
Tetanus	037	17	9	11	11	9	11	9	5	1	4
Trichinosis	124	—	1	—	—	—	—	—	—	—	—
Tuberculosis (all forms)	010–018	1,921	1,970	1,810	1,713	1,705	1,631	1,478	1,336	1,202	1,166
Typhoid fever	002.0	—	—	1	1	—	—	1	—	1	—
Varicella (chickenpox)§	052	83	89	120	81	100	100	124	115	81	99
Yellow fever	060	—	—	—	—	—	—	—	—	1	—

* *International Classification of Diseases, Ninth Revision, 1975*. Numbers in this column are *ICD-9* categories.
† Acquired immunodeficiency syndrome (AIDS). In 1987, the National Center for Health Statistics introduced categories *042–*044 for classifying and coding human immunodeficiency virus (HIV) infection. The asterisks are not footnote symbols, but indicate that these codes are not part of *ICD-9*.
§ Varicella was taken off the nationally notifiable disease list in 1991. Many states continue to report these cases to CDC.

Note: Data in the *MMWR Summary of Notifiable Diseases, United States* might not match data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, and the use of different case definitions.
Source: National Center for Health Statistics System, 1988–1997. Deaths are classified according to the *ICD-9*.

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State and Territorial Epidemiologists and Laboratory Directors

State and Territorial Epidemiologists and Laboratory Directors are acknowledged for their contributions to *CDC Surveillance Summaries*. The epidemiologists and the laboratory directors listed below were in the positions shown as of December 1999.

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Alabama	John P. Lofgren, MD	William J. Callan, PhD
Alaska	John P. Middaugh, MD	Gregg Herriford
Arizona	Lee A. Bland, MA, MPH (Acting)	Wes Pres, MA (Acting)
Arkansas	Thomas C. McChesney, DVM	Michael G. Foreman
California	Duc J. Vugia, MD, MPH	Paul Kimsey, PhD
Colorado	Richard E. Hoffman, MD, MPH	Ronald L. Cada, DrPH
Connecticut	James L. Hadler, MD, MPH	Katherine Kelley, DrPH
Delaware	A. LeRoy Hathcock, PhD	Jane Getchall, PhD
District of Columbia	Martin E. Levy, MD, MPH	James B. Thomas, ScD
Florida	Richard S. Hopkins, MD, MSPH	Ming Chan, PhD (Acting)
Georgia	Kathleen E. Toomey, MD, MPH	Elizabeth A. Franko, DrPH
Hawaii	Paul V. Effler, MD, MPH	Vernon K. Miyamoto, PhD
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West Virginia	Loretta E. Haddy, MA, MS,	Andrea Labik, ScD
Wisconsin	Jeffrey P. Davis, MD	Ronald H. Laessig, PhD
Wyoming	Karl Musgrave, DVM, MPH	Richard Harris, PhD
American Samoa	Joseph Tufa, DSM, MPH	Joseph Tufa, DSM, MPH
Federated States of Micronesia	Jean-Paul Chaine	—
Guam	Robert L. Haddock, DVM, MPH	Florencia Nocon (Acting)
Marshall Islands	Tom D. Kijiner	—
Northern Mariana Islands	Jose L. Chong, MD	Joseph Villagomez
Palau	Jill McCready, MS, MPH	—
Puerto Rico	Carmen C. Deseda, MD, MPH	José Luis Miranda Arroyo, MD
Virgin Islands	Jose Poblete, MD (Acting)	Norbert Mantor, PhD

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