



MMWRTM

Morbidity and Mortality Weekly Report

Weekly

Published April 22, 2005, for 2003 / Vol. 52 / No. 54

Summary of Notifiable Diseases — United States, 2003

The *MMWR* series of publications is published by the Coordinating Center for Health Information and Service,* 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, 2003. Published April 22, 2005, for MMWR 2003;52(No. 54):[inclusive page numbers].

Centers for Disease Control and Prevention

Julie L. Gerberding, MD, MPH
Director

Dixie E. Snider, MD, MPH
Chief of Science

Tanja Popovic, MD, PhD
(Acting) Associate Director for Science

Coordinating Center for Health Information and Service*

Blake Caldwell, MD, MPH, and Edward J. Sondik, PhD
(Acting) Directors

National Center for Health Marketing*

Steven L. Solomon, MD
(Acting) Director

Division of Scientific Communications*

Maria S. Parker
(Acting) Director

Mary Lou Lindegren, MD
(Acting) Editor, MMWR Series

Suzanne M. Hewitt, MPA
Managing Editor, MMWR Series

C. Kay Smith-Akin, MEd
Lead Technical Writer/Editor

Jeffrey D. Sokolow, MA
Project Editor

Lynda G. Cupell
Visual Information Specialist

Kim L. Bright, MBA
Quang M. Doan, MBA
Erica R. Shaver
Information Technology Specialists

* Proposed.

CONTENTS

Preface	2
Background	2
Data Sources	4
Interpreting Data	4
Highlights	5
PART 1. Summaries of Notifiable Diseases in the United States, 2003	15
TABLE 1. Reported cases of notifiable diseases, by month — United States, 2003	16
TABLE 2. Reported cases of notifiable diseases, by geographic division and area — United States, 2003 ...	18
TABLE 3. Reported cases and incidence of notifiable diseases, by age group — United States, 2003	27
TABLE 4. Reported cases and incidence of notifiable diseases, by sex — United States, 2003	29
TABLE 5. Reported cases and incidence of notifiable diseases, by race — United States, 2003	31
TABLE 6. Reported cases and incidence of notifiable diseases, by ethnicity — United States, 2003	33
PART 2. Graphs and Maps for Selected Notifiable Diseases in the United States, 2003	35
PART 3. Historical Summaries of Notifiable Diseases in the United States, 1972–2003	69
TABLE 7. Reported incidence of notifiable diseases — United States, 1993–2003	70
TABLE 8. Reported cases of notifiable diseases — United States, 1996–2003	72
TABLE 9. Reported cases of notifiable diseases — United States, 1988–1995	74
TABLE 10. Reported cases of notifiable diseases — United States, 1980–1987	76
TABLE 11. Reported cases of notifiable diseases — United States, 1972–1979	77
TABLE 12. Deaths from selected notifiable diseases — United States, 1996–2001	78
Selected Reading	79

Summary of Notifiable Diseases — United States, 2003

Prepared by

Richard S. Hopkins, MD
Ruth Ann Jajosky, DMD
Patsy A. Hall, Annual Summary Coordinator
Deborah A. Adams
Felicia J. Connor
Pearl Sharp
Willie J. Anderson
Robert F. Fagan
J. Javier Aponte
Gerald F. Jones
David A. Nitschke
Carol A. Worsham
Nelson Adekoya, DrPH
Man-huei Chang, MPH

Division of Public Health Surveillance and Informatics
Epidemiology Program Office

Preface

The *Summary of Notifiable Diseases — United States, 2003* contains the official statistics, in tabular and graphic form, for the reported occurrence of nationally notifiable diseases in the United States for 2003. Unless otherwise noted, the data are final totals for 2003 reported as of June 30, 2004. These statistics are collected and compiled from reports sent by state health departments to the National Notifiable Diseases Surveillance System (NNDSS), which is operated by CDC in collaboration with the Council of State and Territorial Epidemiologists (CSTE). The *Summary* is available at <http://www.cdc.gov/mmwr/summary.html>. This site also includes publications from past years.

The Highlights section presents noteworthy epidemiologic and prevention information for 2003 for selected diseases and additional information to aid in the interpretation of surveillance and disease-trend data. Part 1 contains tables showing incidence data for the nationally notifiable diseases during 2003.* The tables provide the number of cases reported to CDC for 2003, as well as the distribution of cases by month, geographic location, and the patient's demographic characteristics (age, sex, race, and ethnicity). Nationally notifiable diseases that are reportable in <40 states do not appear in these tables. Part 2 contains graphs and maps that depict summary data for certain 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 1970. This section also includes a table enumerating deaths associated with specified notifiable diseases reported to CDC's National Center for Health Statistics (NCHS), during 1996–2001.† The Selected Reading section presents general and disease-specific references for notifiable infectious diseases. These references provide additional information on surveillance and epidemiologic concerns, diagnostic concerns, and disease control activities.

* Because no cases of anthrax, Powassan encephalitis/meningitis, western equine encephalitis, paralytic poliomyelitis, or yellow fever were reported in the United States during 2003, these diseases do not appear in the tables in Part I. For certain other nationally notifiable diseases, incidence data were reported to CDC but are not included in the tables or graphs of this *Summary*. Data on chronic hepatitis B and hepatitis C virus infection (past or present) are undergoing data-quality review. Data on ehrlichiosis attributable to other or unspecified agents are being withheld from publication pending the outcome of discussions about the reclassification of certain *Ehrlichia* species, which will probably affect how data are reported in this category. Data on human immunodeficiency virus (HIV) infections are not included because HIV infection (not acquired immunodeficiency syndrome [AIDS]) reporting has been implemented on different dates and by using different methods than for AIDS case reporting; however, these data are summarized in the Highlights section.

Background

The infectious diseases designated as notifiable at the national level during 2003 are listed on page 3. 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 (the forerunner of the Public Health Service [PHS]) to collect morbidity reports regarding cholera, smallpox, plague, and yellow fever from U.S. overseas consuls. 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, in conjunction with PHS, state and territorial health authorities 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 CSTE to determine which diseases should be reported to PHS. In 1961, CDC assumed responsibility for collecting and publishing 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

† In 1999, mortality data began to be coded according to the *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision*. Comparability ratios provided by NCHS were used to bridge the mortality data for 1996–1998 (deaths coded by using the *International Classification of Diseases, Ninth Revision*) and 1999–2001.

annually for additions and deletions. Although disease reporting is mandated by legislation or regulation at the state and local levels, state reporting to CDC is voluntary. Thus, the list of diseases considered notifiable varies slightly

by state. All states report the internationally quarantinable diseases (i.e., cholera, plague, and yellow fever) in compliance with the World Health Organization's International Health Regulations.

Infectious Diseases Designated as Notifiable at the National Level During 2003

Acquired immunodeficiency syndrome (AIDS)	Legionellosis
Anthrax	Listeriosis
Botulism	Lyme disease
Brucellosis	Malaria
Chancroid	Measles
<i>Chlamydia trachomatis</i> , genital infection	Meningococcal disease
Cholera	Mumps
Coccidioidomycosis	Pertussis
Cryptosporidiosis	Plague
Cyclosporiasis	Poliomyelitis, paralytic
Diphtheria	Psittacosis
Ehrlichiosis	Q fever
Human granulocytic	Rabies
Human monocytic	Animal
Human, other or unspecified agent	Human
Encephalitis/meningitis, arboviral	Rocky Mountain spotted fever
California serogroup	Rubella
Eastern equine	Rubella, congenital syndrome
Powassan	Salmonellosis
St. Louis	Severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease
Western equine	Shigellosis
West Nile	Streptococcal disease, invasive, group A
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)	Streptococcal toxic-shock syndrome
EHEC O157:H7	<i>Streptococcus pneumoniae</i> , invasive disease
EHEC serogroup non-O157	Drug-resistant, all ages
EHEC, not serogrouped	Age <5 yrs
Giardiasis	Syphilis
Gonorrhea	Syphilis, congenital
<i>Haemophilus influenzae</i> , invasive disease	Tetanus
Hansen disease (leprosy)	Toxic-shock syndrome
Hantavirus pulmonary syndrome	Trichinellosis [§]
Hemolytic uremic syndrome, postdiarrheal	Tuberculosis
Hepatitis A, acute	Tularemia
Hepatitis B, acute	Typhoid fever
Hepatitis B, chronic	Varicella
Hepatitis B, perinatal infection	Varicella deaths
Hepatitis C, acute	Yellow fever
Hepatitis C, infection (past or present)	
Human immunodeficiency virus (HIV) infection	
Adult (age ≥13 yrs)	
Pediatric (age <13 yrs)	

[§] Formerly referred to as trichinosis.

Data Sources

Provisional data concerning the reported occurrence of notifiable diseases are published weekly in the *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 *Summary*.

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 *Summary*. 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, or surveillance methodology.

Data in the *Summary* 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. More information regarding notifiable diseases, including case definitions for these conditions, is available at <http://www.cdc.gov/epo/dphsi/phs.htm>. Policies for reporting notifiable disease cases can vary by disease or reporting jurisdiction.

Final data for certain diseases are derived from the surveillance records of the following CDC programs. 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).

Division of Vector-Borne Infectious Diseases (ArboNET surveillance data regarding arboviral encephalitis/meningitis).

Division of Viral and Rickettsial Diseases (animal rabies, hantavirus pulmonary syndrome, and severe acute respiratory syndrome [SARS]).

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

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

Division of STD Prevention (chancroid, chlamydia, gonorrhea, and syphilis).

Division of TB 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 U.S. Virgin Islands, or the Commonwealth of the Northern Mariana Islands.

Population estimates for the states are derived from CDC's National Center for Health Statistics (NCHS) census populations with bridged race categories, vintage 2003 postcensal series by year, county, age, sex, race, and Hispanic origin for July 1, 2000–July 1, 2003 (<http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>). For sexually transmitted diseases, population estimates are derived from the vintage 2002 postcensal series by year, county, age, sex, race, and Hispanic origin for July 1, 2000–July 1, 2002. The choice of population denominators for incidence rates reported in the *MMWR* is based on 1) the availability of census population data at the time of preparation for publication and 2) the desire for consistent use of the same population data to compute incidence rates reported by various CDC programs. Incidence rate in the *Summary* is calculated as the number of reported cases for each disease or condition divided by either the U.S. resident population for the specified demographic population or the total U.S. residential population, multiplied by 100,000. When a nationally notifiable disease is associated with a specific age restriction, the same age restriction is applied to the population in the denominator of the incidence calculation. In addition, population data from states in which the disease or condition was not notifiable or was not available were excluded from incidence calculations.

Interpreting Data

Incidence data in the *Summary* are presented by the date of report to CDC as determined by the *MMWR* week and year assigned by the state or territorial health department. In addition, data in the *Summary* are reported by the state in which the patient resided at the time of diagnosis. For many of the nationally notifiable infectious diseases, surveillance data are independently reported to various CDC programs. Thus, surveillance data reported by other CDC programs might vary from data reported in the *Summary* because of differences in 1) the date used to aggregate data (e.g., date of report or date of disease occurrence), 2) the timing of reports, 3) the source of the data, 4) surveillance case definitions, and 5) policies regarding case jurisdiction (i.e., which state should report the case to CDC).

The data reported in the *Summary* are useful for analyzing disease trends and determining relative disease burdens. However, these data must be interpreted in light of reporting practices. Disease reporting is likely incomplete, and completeness might vary depending on the disease. The degree of completeness of data reporting might be influenced by the diagnostic facilities available; control measures in effect; public awareness of a specific disease; and interests, resources, and priorities of state and local officials responsible for disease control and public health surveillance. Finally, factors such as changes in methods for public health surveillance, introduction of new diagnostic tests, or 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 populations because these variables can be risk markers for certain notifiable diseases. Race and ethnicity data also can be used to highlight populations for focused prevention efforts. However, caution must be used when drawing conclusions from reported race and ethnicity data.

Different racial/ethnic populations might have different patterns of access to health care, potentially resulting in data that are not representative of actual disease incidence among specific racial/ethnic populations. Surveillance data reported to NNDSS are in either individual case-specific form or summary form (i.e., aggregated data for a group of cases). Summary data often lack demographic information (e.g., race); therefore, the demographic-specific incidence rates presented in the *Summary* might be underestimated.

In addition, not all race and ethnicity data are collected uniformly for all diseases. For example, certain disease programs collect data on race and ethnicity by using one or two variables, based on the 1977 standards for collecting such data issued by the Office of Management and the Budget (OMB). However, beginning in 2003, certain CDC programs, including the tuberculosis program, implemented OMB's 1997 revised standards for collecting such data; these programs collect data on multiple races per person by using multiple race variables. 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.

Highlights for 2003

Below are summary highlights for certain national notifiable diseases. Highlights are intended to assist in the interpretation of major occurrences that affect disease incidence or surveillance trends (e.g., outbreaks, vaccine licensure, or policy changes).

AIDS

Since 1981, confidential name-based AIDS surveillance has been the cornerstone of national, state, and local efforts to monitor the scope and impact of the HIV epidemic. The data have many uses, including developing policy to help prevent and control AIDS. However, because of the introduction of therapies that effectively slow the progression of the infection, AIDS data no longer adequately represent the populations affected by the epidemic. By providing a window into the epidemic at an earlier stage, HIV data, combined with AIDS data, better represent the overall impact. As of the end of 2003, a total of 40 areas (35 states, Puerto Rico and four U.S. territories) had implemented confidential name-based HIV reporting. These 40 areas have integrated name-based HIV surveillance into their AIDS surveillance systems, whereas other jurisdictions have used other methods for reporting cases of HIV infection. Under no configuration are names or other personal identifying information collected at the national level.

During 1998–1999, declines in AIDS rates began to level. The number of reported cases in 2003 was essentially the same as the number in 1999. This trend follows a period of sharp declines in reported cases after 1996, when highly effective antiretroviral therapies were introduced. At the end of 2003, an estimated 405,926 persons were living with AIDS. After a dramatic decrease in the number of deaths among persons with AIDS during the late 1990s, the rate of decrease flattened through 2003. The number of deaths among persons with AIDS decreased 65% during 1995–1999. During 1999–2003, the number of deaths reported annually decreased 3%.

Brucellosis

By 2003, the National Brucellosis Eradication Program had nearly eliminated *Brucella abortus* infection from U.S. cattle herds. The risk of contracting brucellosis through occupational exposure to livestock in the United States or consumption of domestically produced dairy products therefore is minimal. Consumption of unpasteurized dairy

products from outside the United States continues to pose a risk of infection with *B. abortus* or *B. melitensis*. The majority of U.S. cases of brucellosis occur among returned travelers or recent immigrants from areas in which *Brucella* species are endemic. Hunters exposed to infected wildlife might also be at increased risk for infection. Laboratory personnel working with *Brucella* species should follow recommended biosafety precautions. *Brucella* species are considered category-B biologic threat agents.

Chlamydia trachomatis, Genital Infection

During 2003, a total of 877,478 cases of genital chlamydial infection were reported. Rates were the highest since voluntary case reporting began in the mid-1980s and the highest since genital chlamydial infection became a nationally notifiable disease in 1995 (1). This increase is attributable in part to continued expansion of chlamydia screening programs and increased use of more sensitive diagnostic tests for this condition. During 1999–2003, the reported chlamydial infection rate among men increased 58% compared with a 27% increase among women. However, the rate reported among women was more than three times the rate reported among men, reflecting the larger number of women screened and tested for this disease.

1. CDC. Sexually transmitted disease surveillance, 2003. Atlanta, GA: US Department of Health and Human Services, CDC; 2004.

Cholera

During 1995–2003, a total of 68 laboratory-confirmed cases of cholera, all caused by *Vibrio cholerae* O1, were reported to CDC. Of these infections, 44 (65%) were acquired outside the United States, and six (9%) were acquired through consumption of contaminated seafood harvested in Gulf Coast waters. One patient died (1). Only two laboratory-confirmed cases of cholera were reported to CDC in 2003. Both were caused by *Vibrio cholerae* O1 and were acquired outside the United States. Both isolates were resistant to furazolidone. Production and sale of the only licensed cholera vaccine in the United States ceased in 2001. Worldwide, fewer (111,575) cases of cholera were reported to the World Health Organization from fewer (45) countries in 2003 than in any year since 1993 (2).

1. Steinberg EB, Greene KD, Bopp CA, Cameron DN, Wells JG, Mintz ED. Cholera in the United States, 1995–2000: trends at the end of the millennium. *J Infect Dis* 2001;184:799–802.

2. World Health Organization. Cholera, 2003. *Wkly Epidemiol Rec* 2004;31:281–88.

Coccidioidomycosis

In recent years, Arizona and California have experienced substantial increases in the incidence of coccidioidomycosis. This increase is likely related to demographic and climatic changes. Physicians should maintain a high suspicion for acute coccidioidomycosis, especially among patients with a flu-like illness who live in or have visited areas in which disease is endemic.

Diphtheria

One fatal, confirmed case of diphtheria was reported to CDC in 2003 (1). The patient was a Pennsylvania man aged 63 years who had spent 1 week in Haiti and had a sore throat 1 day before returning to Pennsylvania. He reported never having been vaccinated against diphtheria. On day 4 of illness, the patient was hospitalized with stridor and a swollen neck and was intubated. Despite administration of antibiotics, the patient's condition worsened, and on day 8 of illness, an extensive membrane was noted when tracheostomy was performed. Diphtheria antitoxin was administered; polymerase chain reaction testing of a membrane sample was positive for *Corynebacterium diphtheriae* toxin genes at CDC. After 17 days of illness, cardiac complications ensued, and the patient died. No additional cases or carriers were detected among the patient's traveling companions or among household or hospital contacts.

1. CDC. Fatal respiratory diphtheria in a U.S. traveler to Haiti—2003. *MMWR* 2003;52:1285–6.

Enterohemorrhagic Escherichia coli

Escherichia coli O157:H7 has been nationally notifiable since 1994 (1). In 2000, the Council for State and Territorial Epidemiologists passed a resolution in which all Shiga toxin-producing *E. coli* were made nationally notifiable under the name Enterohemorrhagic *E. coli* (EHEC); national surveillance for EHEC began in 2001. Surveillance categories for EHEC include 1) EHEC O157:H7; 2) EHEC, serogroup non-O157; and 3) EHEC, not serogrouped. Reported infections with the most well-known pathogen in this group, *E. coli* O157:H7, increased annually during 1994–1999, to a peak of 4,744 cases. This increase in the number of cases was attributable in part to the increasing ability of laboratories to identify this pathogen. During 1996–2002, incidence of diagnosed infections with *E. coli* O157:H7 reported by active surveillance through FoodNet did not change substantially, although it decreased in 2003 (2).

During 2003, a total of 3,079 cases of *E. coli* were reported from 50 states, the District of Columbia, and Puerto Rico. Of these, 2,671 (87%) were classified as EHEC O157:H7; 252 (8%) as EHEC, serogroup non-O157; and 156 (5%) as EHEC, not serogrouped. The majority (54%) of cases were reported during August–November.

Healthy cattle, which harbor the organism as part of the bowel flora, are the main animal reservoir for *E. coli* O157:H7 and other Shiga-toxin producing *E. coli*. The majority of reported outbreaks are caused by contaminated food or water. Reported cases of *E. coli* O157:H7 infection have decreased since 2000, following implementation of U.S. Department of Agriculture measures to reduce contamination of meat through improved processing. Direct transmission from animals and their environments to humans in settings such as petting zoos and other animal exhibits remains a growing public health concern (3,4).

1. Mead PS, Griffin PM. *Escherichia coli* O157:H7. *Lancet* 1998;352:1207–12.
2. CDC. Preliminary FoodNet Data on the incidence of infection with pathogens transmitted commonly through food—selected sites, United States, 2003. *MMWR* 2004;53:338–43.
3. CDC. Outbreak of *Escherichia coli* O157:H7 infections among children associated with farm visits—Pennsylvania and Washington, 2000. *MMWR* 2001;50:293–7.
4. Crump JA, Sulka AC, Langer AJ, et al. An outbreak of *Escherichia coli* O157:H7 infections among visitors to a dairy farm. *N Engl J Med* 2002;347:555–60.

Gonorrhea

During 2003, a total of 335,104 cases of gonorrhea were reported (1). Gonorrhea rates were slightly lower than rates during 1999–2002. In 2003, for the first time, the reported gonorrhea rate among women (118.8 per 100,000) was greater than that reported for men (113.0 per 100,000). Rates among non-Hispanic black women aged 15–19 years (2,947.8 per 100,000) and non-Hispanic black men aged 20–24 years (2,649.8 per 100,000) remain higher than those for any other racial/ethnic population or age group. Decreased susceptibility to fluoroquinolone antibiotics has also been reported from certain regions (2). In 2003, the prevalence of fluoroquinolone-resistant *Neisseria gonorrhoeae* infections continued to increase, particularly among men who have sex with men (MSM). Fluoroquinolones are no longer advised for treatment of gonorrhea in Hawaii or California or for infections among MSM (3).

1. CDC. Sexually transmitted disease surveillance 2003. Atlanta, GA: US Department of Health and Human Services, CDC, 2004.
2. CDC. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae* among men who have sex with men—United States, 2003, and revised recommendations for gonorrhea treatment, 2004. *MMWR* 2004;53:335–8.

3. CDC. Sexually transmitted diseases treatment guidelines, 2002. *MMWR* 2002;51(No. RR-6).

Haemophilus influenzae

In 2003, a total of 376 cases of invasive *Haemophilus influenzae* disease among children aged <5 years were reported; 32 (9%) were reported as *H. influenzae* type b (Hib), 117 (31%) were reported as other serotypes or nontypeable isolates, and 227 (60%) were reported with serotype information unknown or missing. The continued low number of invasive Hib infections among children (from an estimated 20,000 cases annually in the prevaccine era) is a result of the successful delivery of highly effective conjugate Hib vaccines to children, beginning at age 2 months (1,2). Because discrepancies in serotyping results have occurred among laboratories, CDC requests that state health departments obtain and send all invasive *H. influenzae* isolates from children aged <5 years to CDC for serotype confirmation (3,4).

1. CDC. Progress toward elimination of *Haemophilus influenzae* type b disease among infants and children—United States, 1998–2000. *MMWR* 2002;51:234–7.
2. Zhou F, Bisgard KM, Yusuf H., et al. Impact of universal *Haemophilus influenzae* type b vaccination starting at 2 months of age in the United States: an economic analysis. *Pediatrics* 2002;110:653–61.
3. LaClaire LL, Tondella ML, Beall DS et al. Identification of *Haemophilus influenzae* serotypes by standard slide agglutination serotyping and PCR-based capsule typing. *J Clin Micro* 2003;41:393–6.
4. CDC. Serotyping discrepancies in *Haemophilus influenzae* type b disease—United States, 1998–1999. *MMWR* 2002;51:706–7.

Hemolytic Uremic Syndrome, Postdiarrheal

Hemolytic uremic syndrome (HUS) is a syndrome defined by the triad of hemolytic anemia, thrombocytopenia, and renal insufficiency. The patients reported in national notifiable diseases surveillance include only those with antecedent diarrheal illness. The most common etiology of HUS in the United States is infection with a Shiga toxin-producing *Escherichia coli*, principally *E. coli* O157:H7. However, persons infected with *E. coli* O157:H7 rarely progress to HUS (1,2). During 2003, a total of 178 cases of HUS were reported from 32 states; of these, 118 (66%) occurred among children aged <10 years.

1. Banatvala N, Griffin PM, Greene KD, et al. The United States prospective hemolytic uremic syndrome study: microbiologic, serologic, clinical, and epidemiologic findings. *J Infect Dis* 2001;183:1063–70.
2. CDC. *Escherichia coli* O111:H8 outbreak among teenage campers—Texas, 1999. *MMWR* 2000;49:321–4.

Hepatitis A

Hepatitis A vaccine is recommended for persons at increased risk of hepatitis A (e.g., international travelers, men who have sex with men [MSM], injection-drug users [IDUs], and noninjection-drug users) (1) and also for children in states and counties that have historically had consistently elevated rates of hepatitis A (2). Since routine childhood vaccination was recommended in 1996, the overall hepatitis A rate has declined steadily, and in 2003, it was the lowest (2.7 per 100,000) yet recorded, with 7,653 cases reported. The decline in rates has been greater among children and in states where routine childhood vaccination is recommended, suggesting an effect of childhood vaccination.

The dramatic declines in disease rates in the age groups and areas in the United States that have historically accounted for the majority of reported cases have resulted in a shift in the epidemiology of this disease. Hepatitis A rates, which historically were much higher in the western states, are now similar in all regions of the United States, and an increasing proportion of cases occur among adults, particularly those in populations at high risk (e.g., MSM).

Despite declining overall rates, outbreaks continue to occur. In 2003, several foodborne outbreaks were reported, including one in Pennsylvania that accounted for more than 500 cases; the produce implicated in each outbreak was believed to have been contaminated during harvest (3).

1. CDC. Prevention of hepatitis A through active or passive immunization. MMWR 1996;45(No. RR-15).
2. CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices. MMWR 1999;48(No. RR-12).
3. CDC. Hepatitis A outbreak associated with green onions at a restaurant—Monaca, Pennsylvania, 2003. MMWR 2003;52;47:1155–7.

Hepatitis B

In 2003, a total of 7,526 acute hepatitis B cases were reported, representing a 64% decrease since 1990, when 21,102 cases were reported. The steady decline in hepatitis B rates coincides with the implementation of a national strategy to eliminate hepatitis B virus (HBV) (1). The primary elements of this strategy are screening all pregnant women for HBV infection with the provision of postexposure prophylaxis to infants born to infected women, routine vaccination of all infants and children aged <19 years; and vaccination of others at increased risk for hepatitis B (e.g., health-care workers, men who have sex with men [MSM], injection-drug users [IDUs], and household and sex contacts of persons with chronic HBV infection).

In 2003, the rate among children aged <12 years, the cohort born since routine infant vaccination was implemented, was 0.02 per 100,000 population, representing a decline of >98% compared with the equivalent age group in 1990. Rates among adolescents aged 12–19 years have declined 90% since 1990 although the rate of decline among this age group, in contrast to that in the younger age group, has slowed in recent years.

Rates among adults declined 63% during 1990–1999 but have since remained stable. Among adults, a high proportion of cases occur among persons in identified high-risk populations (i.e., IDUs, MSM, and persons with multiple sex partners) indicating a need to strengthen efforts to reach these populations with vaccine.

1. CDC. Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination. MMWR 1991;40(No. RR-13).

Hepatitis C

Monitoring acute hepatitis C rates nationally has been challenging because 1) available serologic tests cannot distinguish acute infection from past or chronic infection, and 2) not all health departments have the resources to determine if a positive laboratory report for hepatitis C virus (HCV) infection represents acute infection. Consequently, the most reliable estimates of acute hepatitis C incidence have historically come from sentinel surveillance. Incidence of hepatitis C has declined >80% since the late 1980s, primarily because of a decrease in the number of cases among injection-drug users, the reasons for which are unknown. The majority of hepatitis C cases continue to occur among persons aged >25 years, with injection-drug use being the most common risk factor for infection.

In recent years, analysis of data on acute, symptomatic hepatitis C collected through the National Notifiable Diseases Surveillance System has yielded results similar to those from sentinel surveillance, indicating that the quality of national surveillance data for acute hepatitis C has improved. Direct reporting of anti-HCV–positive test results by laboratories has increased the completeness of reporting of HCV-infected persons to health departments. The reporting of other available laboratory or clinical data would improve surveillance for hepatitis C by providing information to identify patients with acute disease. Improving the accuracy of hepatitis C surveillance data continues to be important because monitoring hepatitis C incidence trends provides information needed to evaluate the effectiveness of prevention efforts and identify additional opportunities for prevention.

HIV Infection, Adult

By December 2003, all 50 states and the District of Columbia had implemented HIV surveillance systems, including both name-based and nonname-based systems. Since 1999, a total of 33 areas (32 states and the U.S. Virgin Islands) have had laws or regulations requiring name-based confidential reporting for adults/adolescents with confirmed HIV infection, in addition to reporting of persons with AIDS. In 2002, CDC initiated a system to monitor HIV incidence; in 2003, CDC expanded this system and also initiated a national HIV behavioral surveillance system. CDC will assess the implementation and effectiveness of prevention activities through multiple monitoring systems, including use of new performance indicators for state and local health departments and community-based organizations (1).

At the end of 2003, a total of 172,952 adults and adolescents in the 33 areas were living with HIV infection (not AIDS). The prevalence rate of HIV infection (not AIDS) in this group was 128 per 100,000 population (2). In these areas, 2003 was the first complete year of name-based surveillance; data from additional areas will be included in analyses when ≥ 1 year of case reports has accrued.

1. CDC. Advancing HIV prevention: new strategies for a changing epidemic—United States, 2003. MMWR 2003;52:329–32.
2. CDC. HIV/AIDS surveillance report, 2003. Atlanta, GA: US Department of Health and Human Services, CDC. Vol. 15. Available at <http://www.cdc.gov/hiv/stats/2003surveillancereport.pdf>.

HIV Infection, Pediatric

In the 33 areas (32 states and the U.S. Virgin Islands) that have had laws or regulations since 1999 requiring confidential name-based reporting for children (aged <13 years) with confirmed HIV infection, an estimated 1,687 children were living with HIV infection (not AIDS) at the end of 2003. The prevalence rate of HIV infection (not AIDS) in this group was 5.6 per 100,000 population (1).

1. CDC. HIV/AIDS surveillance report, 2003. Atlanta, GA: US Department of Health and Human Services, CDC. Vol. 15. Available at <http://www.cdc.gov/hiv/stats/2003surveillancereport.pdf>.

Listeriosis

Listeriosis is a severe but relatively uncommon infection caused by *Listeria monocytogenes*; it was made a nationally notifiable disease in 2000. Listeriosis is primarily foodborne and occurs most frequently among persons who are older, pregnant, or immunocompromised. During 2003, a total of 696 cases of listeriosis were reported from 46 states and the District of Columbia; the majority (57%) of cases occurred among

persons aged >60 years. Incidence was highest (1.52 per 100,000 population) among infants aged <1 year, probably reflecting perinatal transmission from mothers who were infected during pregnancy by ingesting contaminated food.

Molecular subtyping of *L. monocytogenes* isolates and sharing of that information through PulseNet has enhanced the ability of public health officials to detect and investigate outbreaks of listeriosis. Recent outbreaks have been linked to ready-to-eat meat (1) and unpasteurized cheese (2). In 2003, incidence of listeriosis as reported to FoodNet active surveillance was 0.33 per 100,000 population (3). In January 2001, the Food and Drug Administration (FDA), CDC, and the U.S. Department of Agriculture (USDA) released a national *Listeria* Action Plan to help guide control efforts by industry, regulators, and public health officials (4). In November 2003, FDA and CDC updated their components of the Action Plan (5). Also in 2003, USDA issued new regulations aimed at further reducing *L. monocytogenes* contamination of ready-to-eat meat and poultry products (6).

1. CDC. Outbreak of listeriosis—northeastern United States, 2002. MMWR 2002;51:950–1.
2. CDC. Outbreak of listeriosis associated with homemade Mexican-style cheese—North Carolina, October 2000–January 2001. MMWR 2002;50:560–2.
3. CDC. Preliminary FoodNet data on the incidence of infection with pathogens transmitted commonly through food—selected sites, United States, 2003. MMWR 2004;53:338–43.
4. Food and Drug Administration, CDC, and US Department of Agriculture. Reducing the risk of *Listeria monocytogenes*: joint response to the President. Available at <http://www.foodsafety.gov/~dms/lmriplan.html>.
5. Food and Drug Administration. Reducing the risk of *Listeria monocytogenes*: FDA/CDC 2003 update of the *Listeria* Action Plan. Available at <http://www.cfsan.fda.gov/~dms/lmr2plan.html>.
6. US Department of Agriculture, Food Safety and Inspection Service. Control of *Listeria monocytogenes* in ready-to-eat meat and poultry products; Final Rule. Federal Register 2003;68:34208–54.

Lyme Disease

A total of 21,273 cases of Lyme disease were reported in 2003, approximately 10% fewer cases than were reported in 2002. As in previous years, >90% of cases were reported from the northeastern and north-central United States. The number of Lyme disease cases reported for Pennsylvania in 2003 included 4,722 confirmed cases and 1,008 suspected cases. In contrast, the number of suspected Lyme disease cases reported annually for Pennsylvania during 2000–2002 ranged from two to 11 cases. The increase in the number of suspected cases is attributable to changes in reporting practices.

The only Lyme disease vaccine licensed in the United States (LYMERix[®]) was removed from the market in February 2002, reportedly because of poor sales. Nevertheless, new prevention tools and techniques are becoming available.

Recent studies indicate that peridomestic tick exposure can be reduced substantially through simple landscaping changes, and bait boxes that deliver rodent-targeted acaricide are now available through certain pest control operators. Other products under development include devices for reducing ticks on deer and naturally occurring fungi that kill ticks on vegetation.

Measles

A total of 56 confirmed measles cases, two of them fatal, were reported during 2003 by 15 states. Of the 56 cases, 24 were internationally imported, and 19 resulted from exposure to persons with imported infections. In two other cases, virologic evidence indicated an imported source. The sources for the remaining 11 cases were classified as unknown because no link to importation was detected. Three outbreaks occurred in 2003 (size range: 3–12 cases) (1,2). The 12-case outbreak was in Hawaii and included persons aged 3 months–21 years; this outbreak began simultaneously with a measles outbreak in the Republic of the Marshall Islands, which resulted in 826 cases and three deaths (3).

1. CDC. Epidemiology of measles—United States, 2001–2003. *MMWR* 2004;53:713–5.
2. CDC. Measles, mumps, and rubella—vaccine use and strategies for elimination of measles, rubella, congenital rubella syndrome and control of mumps: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 1998;47(No. RR-8).
3. CDC. Measles epidemic—Majuro Atoll, Republic of the Marshall Islands, July 13–September 13, 2003. *MMWR* 2003;52:888–9.

Pertussis

During 2003, a total of 11,647 cases of pertussis were reported (incidence: 4.0 per 100,000 population), the highest number of reported cases since 1964. Of the cases for which age was reported, 1,982 (17%) occurred among infants aged <6 months, who were too young to have received the first 3 of the 5 doses of diphtheria and tetanus toxoids and acellular pertussis (DTaP) vaccine recommended by age 6 years. This age group had the highest reported incidence (103.1 per 100,000 population). Among the other pertussis cases, 235 occurred among children aged 6–11 months (12.2 per 100,000); 1,138 among children aged 1–4 years (7.5 per 100,000); 852 among children aged 5–9 years (4.4 per 100,000); 4,540 among persons aged 10–19 years (11.1 per 100,000); and 2,854 among persons aged >20 years (1.4 per 100,000).

Pertussis continues to cause morbidity in the United States despite high coverage levels for childhood pertussis vaccine. The incidence of reported pertussis has increased from 2.5 per

100,000 population in 1993 to 4.0 per 100,000 in 2003. How much of this increase is caused by increased recognition and better reporting of cases is unclear (1,2). Although infants have the highest morbidity associated with pertussis (during the 1990s, approximately 18,500 cases were reported among infants, of whom 67% were hospitalized [3]), adolescents now account for the majority of reported cases. Adolescents and adults can become susceptible to disease when vaccine-induced immunity wanes, approximately 5–10 years after pertussis vaccination (2).

The actual number of pertussis cases (especially among adolescents and adults) continues to be substantially underreported because the pertussis cough illness resembles other conditions, infected persons might not seek medical care, and availability of reliable diagnostic tests is limited. Culture for *Bordetella pertussis* is highly specific but has low sensitivity. Polymerase chain reaction is not standardized, and its use has led to overdiagnosis of pertussis during certain outbreaks (4). New strategies are needed to reduce the burden of pertussis disease in the United States; pertussis vaccines for adolescents and adults are under review by the Food and Drug Administration.

1. CDC. Pertussis—United States, 1997–2000. *MMWR* 2002;51:73–6.
2. Guris D, Strebel PM, Bardenheier B et al. Changing epidemiology of pertussis in the United States: increased reported incidence among adolescents and adults, 1990–1996. *Clin Infect Dis* 1999;28:1230–7.
3. Tanaka M, Vitek CR, Pascual B et al. Trends in pertussis among infants in the United States, 1980–1999. *JAMA* 2003;290:2968–75.
4. Lievano FA, Reynolds MA, Waring AL, et al. Issues associated with and recommendations for using PCR to detect outbreaks of pertussis. *J Clin Microbiol* 2002;40:2801–5.

Salmonellosis

During 2003, a total of 43,657 cases of salmonellosis were reported, of which 17,608 (40%) occurred among children aged <15 years. As in previous years, the majority (67%) of reported cases occurred during July–October. *Salmonella* isolates are reported by serotype through the Public Health Laboratory Information System. Two serotypes, *S. enterica* serotype Typhimurium and *S. enterica* serotype Enteritidis, have ranked as the two most frequent reported isolates since 1993 (1). A substantial proportion of *S. enterica* serotype Typhimurium and *S. enterica* serotype Newport isolates are resistant to multiple drugs; national surveillance of *S. enterica* serotype Typhimurium strains conducted in 2002 indicated that 40% were resistant to one or more drugs and that 34% had a five-drug resistance pattern characteristic of a single phage type, DT104 (2). During 1998–2002, the proportion of multiple drug-resistant strains of *S. enterica* serotype Newport

increased dramatically; 22% had a five-drug resistance pattern in 2002 compared with 1% in 1998 (2,3).

1. CDC. PHLIS surveillance data. *Salmonella* annual summaries. Atlanta, GA: US Department of Health and Human Services, CDC;2002. Available at <http://www.cdc.gov/ncidod/dbmd/phlisdata/salmonella.htm>.
2. CDC. Human isolates final report, 2002. The National Antimicrobial Resistance Monitoring System: enteric bacteria. Atlanta, GA: US Department of Health and Human Services, CDC; 2002. Available at <http://www.cdc.gov/narms>.
3. Gupta A., Fontana J, Crowe C, et al. Emergence of multi-drug resistant *Salmonella enterica* serotype Newport infections resistant to expanded-spectrum cephalosporins in the United States. *J Infect Dis* 2003;188:1707–16.

SARS-CoV

On March 12, 2003, the World Health Organization (WHO) issued a global alert for severe acute respiratory syndrome (SARS), a potentially fatal new infectious disease that can spread rapidly from person to person and via international air travel. WHO and its partners, including CDC, initiated a rapid, intensive, and coordinated investigative and control effort that led within 2 weeks to the identification of the etiologic agent, SARS-associated coronavirus (SARS-CoV), and to a series of effective containment efforts. By July 2003, when SARS-CoV transmission was brought to an end, >8,000 cases and 780 deaths had been reported to WHO (1). Of the 161 total cases reported from the United States, 134 were classified as suspected; 19 were classified as probable; and eight were laboratory confirmed (2). As of July 1, 2003, SARS-CoV disease was added to the list of nationally notifiable diseases.

1. World Health Organization. Summary table of SARS cases by country, 1 November, 2002–7 August, 2003. Available at http://www.who.int/csr/sars/country/2003_08_15/en.
2. CDC. Severe Acute Respiratory Syndrome (SARS): report of cases in the United States, 2003. Atlanta GA: US Department of Health and Human Services; 2003. Available at <http://www.cdc.gov/od/oc/media/presskits/sars/cases.htm>.

Shigellosis

Shigella sonnei infections continue to account for >75% of shigellosis cases in the United States (1). Prolonged, multistate outbreaks of *S. sonnei* infections that are transmitted in child care centers in which maintaining good hygienic conditions requires special attention account for much of the problem (2). During June 2001–March 2003, one such outbreak in six eastern states accounted for >3,000 laboratory-confirmed infections (3). *S. sonnei* can also be transmitted through contaminated foods and through water used for drinking or recreational purposes (1). A new serotype of *Shigella boydii* has been reported in the United States and Canada (4).

1. Gupta A, Polyak CS, Bishop RD, Sobel J, Mintz ED. Laboratory-confirmed shigellosis in the United States, 1989–2002: epidemiologic trends and patterns. *Clin Infect Dis* 2004;38:1372–7.
2. Shane A, Crump J, Tucker N, Painter J, Mintz E. Sharing *Shigella*: risk factors and costs of a multi-community outbreak of shigellosis. *Arch Pediatr Adolesc Med* 2003;157:601–3.
3. CDC. Day-care related outbreaks of rhamnase-negative *Shigella sonnei*—six states, June 2001–March 2003. *MMWR* 2004;53:60–3.
4. Kalluri P, Cummings K, Abbott S, et al. Epidemiological features of a newly described serotype of *Shigella boydii*. *Epidemiol Infect* 2004;132:579–83.

Streptococcal Disease, Invasive, Group A

In 2003, approximately 1,190 invasive group A streptococcus (GAS) infections were reported by nine sites participating in the Active Bacterial Core Surveillance (ABCs) project of CDC's Emerging Infections Program (1). Passive reporting likely underestimates the number of invasive GAS infections in the United States. CDC estimates that approximately 11,000 cases of invasive GAS disease and 1,700 deaths occurred nationally during 2003. The incidence of invasive GAS infections in the United States has been relatively stable during the past 5 years (range: 3.1–3.8 per 100,000).

1. CDC. Active Bacterial Core Surveillance report. Emerging Infections Program Network, Group A Streptococcus, 2003—preliminary. Atlanta, GA: US Department of Health and Human Services, CDC; 2003. Available at <http://www.cdc.gov/ncidod/dbmd/abc/survreports/gas03prelim.pdf>.

Streptococcus pneumoniae, Invasive Disease, Drug-Resistant

In 2003, the Active Bacterial Core Surveillance (ABCs) project of CDC's Emerging Infections Program (1) collected information on invasive pneumococcal disease, including drug-resistant *Streptococcus pneumoniae*, in nine states (California, Colorado, Connecticut, Georgia, Maryland, Minnesota, New York, Oregon, and Tennessee). For the third straight year, the proportion of pneumococcal isolates that were drug resistant declined. Of the 3,075 *S. pneumoniae* isolates collected in 2003, 10.0% exhibited intermediate resistance to penicillin (minimum inhibitory concentration [MIC] 0.1–1.0 µg/mL), and 9.9% were fully resistant (MIC >2 µg/mL) (2). For cefotaxime, 2.3% of all isolates had intermediate resistance, and 0.8% were fully resistant in 2003. For erythromycin, 17.4% were resistant. Approximately one in eight (12.3%) isolates had reduced susceptibility to at least three classes of drugs commonly used to treat pneumococcal infections, a decline from a peak of one in five (18.3%) isolates in 2000.

In February 2000, the Food and Drug Administration licensed a pneumococcal conjugate vaccine for use in infants and young children. In October 2000, the Advisory Committee on Immunization Practices issued recommendations for vaccination of children aged <5 years (3). Vaccine use has reduced rates of invasive pneumococcal disease markedly among children, the vaccine's target age group, and among unvaccinated older persons and has also reduced racial disparities in disease risk (4).

- Schuchat A, Hilger T, Zell E, et al. Active Bacterial Core Surveillance of the Emerging Infections Program Network. *Emerg Infect Dis* 2001;7:1–8. Available at <http://www.cdc.gov/ncidod/eid/vol7no1/schuchat.htm>.
- NCCLS. Performance standards for antimicrobial susceptibility testing: 13th informational supplement [No. M100-S13]. Wayne, PA: NCCLS; 2003.
- CDC. Preventing pneumococcal disease among infants and young children: recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2000;49(No. RR-9).
- Flannery B, Schrag S, Bennett NM, et al. Impact of childhood vaccination on racial disparities in invasive *Streptococcus pneumoniae* infections in the United States, 1998–2002. *JAMA* 2004;291:2197–203.

Syphilis, Congenital

During 2003, a total of 413 cases of congenital syphilis were reported (10.3 per 100,000 live births), compared with 412 in 2002. As with primary and secondary syphilis, the rate of congenital syphilis has declined sharply in recent years, from a peak of 107.3 per 100,000 in 1991 (1). The continuing decrease in the rate of congenital syphilis likely reflects the substantial reduction in the rate of primary and secondary syphilis among women. Congenital syphilis persists in the United States because a substantial number of women do not receive syphilis serologic testing until late in their pregnancies or not at all. This lack of screening is often related to absent or late prenatal care (2).

- CDC. Sexually transmitted disease surveillance 2003. Atlanta, GA: US Department of Health and Human Services, CDC; 2004.
- CDC. Congenital syphilis—United States, 2002. *MMWR* 2004;53:716–9.

Syphilis, Primary and Secondary

During 2003, a total of 7,177 primary and secondary syphilis cases were reported, compared with 6,862 cases in 2002. During 1990–2000, the primary and secondary syphilis rate declined 90%, from 20.34 per 100,000 population to 2.12 per 100,000. The 2000 rate was the lowest since reporting began in 1941. The 2003 rate (2.5 per 100,000) marks the third consecutive year of increases in the overall rate. The 2003 rate was 19% higher than the reported rate in 2000 and reflects a 62% increase among men from 2000 and a 53% decrease among women (1).

This disparity between men and women, observed across all racial and ethnic populations, along with reported outbreaks of syphilis in large urban areas among men who have sex with men (MSM), indicates that increases in syphilis are continuing to occur among MSM. Rates remain disproportionately high in the South and among non-Hispanic blacks, but these rates are continuing to decline (1,2).

- CDC. Sexually transmitted disease surveillance, 2003. Atlanta, GA: US Department of Health and Human Services, CDC; 2004.
- CDC. Primary and secondary syphilis—United States, 2002. *MMWR* 2003;52:1117–20.

Tetanus

In 2003, a total of 20 cases of tetanus were reported from 13 states and the District of Columbia. Four (20%) cases occurred among persons aged <25 years; none occurred among persons aged <18 years or neonates. Ten (50%) cases occurred among persons aged 25–59 years, and six (30%) cases occurred among persons aged >60 years. Although the annual number of reported cases continues to decrease, the percentage of cases among persons aged 25–59 years has increased during the last decade; previously, the majority of cases occurred among persons aged >60 years (1,2). Two (10%) cases were fatal.

- Pascual FB, McGinley EL, Zanardi LR, Cortese MM, Murphy TV. Tetanus surveillance—United States, 1998–2000. In: *Surveillance Summaries*, June 20, 2003. *MMWR* 2003;52(No. SS-3):1–8.
- Bardenheier B, Prevots DR, Khetsuriani N, Wharton M. Tetanus surveillance—United States, 1995–1997. In: *CDC Surveillance Summaries*, July 3, 1998. *MMWR* 1998;47(No. SS-2):1–13.

Tuberculosis

During 2003, a total of 14,874 tuberculosis (TB) cases (rate: 5.1 cases per 100,000 population) were reported to CDC from the 50 states and the District of Columbia, representing a 1.3% decrease in cases and a 1.9% decrease in the rate from 2002. This decline is the smallest since 1992, when TB incidence peaked after a 7-year resurgence (1). In addition, the rate remains higher than the national interim objective of 3.5 cases per 100,000 population that was set for 2000 (2).

Disparities in TB rates persist among racial/ethnic minority populations. In descending order, the highest rates per 100,000 population were reported among Asians (29.3 [3,425 cases]), Native Hawaiian or Other Pacific Islanders (21.8 [85 cases]), non-Hispanic blacks (11.6 [4,145 cases]), Hispanics (10.6 [4,115 cases]), American Indian or Alaska Natives (6.1 [176 cases]), and non-Hispanic whites (1.4 [2,790 cases]). In 2003, for the first time, Hispanics (28%) equaled blacks (28%) as

the racial/ethnic population with the largest percentage of cases prevalent (1).

In 2003, foreign-born persons accounted for 53% (7,902 cases) of the national case total, and 25 states reported at least 50% of their cases among foreign-born persons (1). The foreign-born prevalence represents an increase from 1993, when foreign-born persons accounted for 29% (7,354) of the national case total, and five states reported $\geq 50\%$ of their cases among foreign-born persons (1). The TB rate among foreign-born persons has declined since 1993 (from 33.6 per 100,000 population in 1993 to 23.6 per 100,000 in 2003), but the decline among U.S.-born persons has been greater (from 7.4 in 1993 to 2.7 in 2003). In 2003, the case rate was 8.7 times greater among foreign-born persons than among U.S.-born persons; since 1993, this rate ratio has been increasing steadily.

CDC is collaborating with public health partners to implement TB control initiatives for recent international arrivals and residents along the border between the United States and Mexico and to strengthen TB programs in countries with a high incidence of TB disease (2). CDC has recently updated its comprehensive national action plan to reflect the realignment of its priorities with the 2000 Institute of Medicine report (3) and to ensure that priority prevention activities are undertaken with optimal collaboration and coordination among national and international public health partners (4).

1. CDC. Reported tuberculosis in the United States, 2003. Atlanta, GA: US Department of Health and Human Services, CDC; 2004. Available at <http://www.cdc.gov/nchstp/tb/surv/surv2003/default.htm>.
2. CDC. Trends in tuberculosis morbidity—United States, 1998–2003. *MMWR* 2004;53:209–14.
3. Institute of Medicine. Ending neglect: the elimination of tuberculosis in the United States. Washington, DC: National Academy Press; 2000.
4. CDC. CDC's response to ending neglect: the elimination of tuberculosis in the United States. Atlanta, GA: US Department of Health and Human Services, CDC; 2002.

Tularemia

A total of 129 cases of tularemia were reported in 2003, compared with an annual average of 120 cases for the preceding 3 years. Noteworthy were cases involving a child who apparently acquired tularemia from exposure to pet hamsters, an outbreak among commercially distributed prairie dogs, an unusual case of intra-abdominal tularemia in a patient with stomach cancer (1), and a cluster of pneumonic tularemia cases among lawn-care workers who mowed over a dead rabbit.

1. Han XY, HoLX, Safdar A. *Francisella tularensis* peritonitis in stomach cancer patient. *Emerg Infect Dis* 2004;10:2238–40.

Typhoid Fever

In 2003, a total of 356 cases of typhoid fever were reported in the United States. Despite recommendations that travelers to countries in which typhoid fever is endemic should be immunized with either of two effective vaccines available in the United States, approximately 74% of these cases occurred among persons who reported international travel during the preceding 6 weeks. Persons visiting friends and relatives in south Asia appear to be at particular risk, even during short visits (1). *Salmonella* Typhi strains with decreased susceptibility to ciprofloxacin are increasingly common in that region and should be treated with alternative antimicrobial agents (2). *S. Typhi* outbreaks in the United States are generally limited in size but can cause substantial morbidity; they are most often foodborne and warrant thorough investigation (3). A sexually transmitted outbreak of typhoid fever has been recognized and reported (4).

1. Steinberg EB, Bishop RB, Dempsey AF, et al. Typhoid fever in travelers: who should be targeted for prevention? *Clin Infect Dis* 2004;39:186–91.
2. Crump J, Barrett TJ, Nelson JT, Angulo FJ. Reevaluating fluoroquinolones breakpoints for *Salmonella enterica* serotype Typhi and for non-Typhi *Salmonellae*. *Clin Infect Dis* 2003;37:75–81.
3. Olsen SJ, Bleasdale SC, Magnano AR, et al. Outbreaks of typhoid fever in the United States, 1960–1999. *Epidemiol Infect* 2003;130:13–21.
4. Reller M, Olsen S, Kressel A, et al. Sexual transmission of typhoid fever: a multi-state outbreak among men who have sex with men. *Clin Infect Dis* 2003;37:141–4.

Varicella Cases and Deaths

In 2003, in all four states (Illinois, Michigan, Texas, and West Virginia) that have maintained consistent and adequate reporting levels[§] since 1990, the number of varicella cases was the lowest ever reported. Compared with 2002, cases declined 15.6%; compared with the prevaccine period 1993–1995, cases declined 81%. This decrease is associated with rapidly increasing vaccination coverage; during 2002–2003, vaccination coverage among children aged 19–35 months increased from 81% to 85%.

The Council of State and Territorial Epidemiologists (CSTE) recommends that all states establish statewide individual varicella case reporting by 2005 (1). The objectives of varicella surveillance at state and national levels are to 1) monitor the epidemiology of varicella by age and place and over time, 2) monitor the impact of widespread and increasing immunization on the epidemiology of varicella, and 3) allow prompt implementation of disease control measures.

[§] Number of reported cases constituted $\geq 5\%$ of the state's annual birth cohort.

In 1999, CSTE recommended that states report varicella deaths to CDC to monitor the impact of routine varicella vaccination on varicella-related mortality (2). In 2003, two states (Arkansas and Maryland) each reported one varicella death; ages of persons at time of death were 12 and 18 years. Reporting of varicella deaths is incomplete, which limits the usefulness of mortality data in assessing the impact of the varicella vaccination program. CDC encourages states to report varicella deaths, so the risk factors for varicella-related mortality can be identified, and the percentage of deaths that would have been directly preventable by following current recommendations for vaccination can be determined.

1. Council of State and Territorial Epidemiologists. CSTE position statement 2002-ID-06: varicella surveillance. Atlanta, GA: Council of State and Territorial Epidemiologists; 2002. Available at <http://www.cste.org/position%20statements/02-ID-06.pdf>.
2. Council of State and Territorial Epidemiologists. CSTE position statement 1998-ID-10: inclusion of varicella-related deaths in the National Public Health Surveillance System (NPHSS). Atlanta, GA: Council of State and Territorial Epidemiologists; 1998. Available at <http://www.cste.org/ps/1998/1998-id-10.htm>.

West Nile Virus

During 2003, for the fifth consecutive year, epidemic and epizootic West Nile virus (WNV) activity occurred in the United States, including a substantial epidemic of neuroinvasive WNV disease in the Great Plains states, widespread perennial reemergence in areas of previous activity, and continued geographic expansion into western states.

In 2003, a total of 9,862 human WNV illness cases were reported by 45 states and the District of Columbia (DC). Six states (Colorado, Nebraska, North Dakota, South Dakota, Texas, and Wyoming) accounted for 77% of all reported human cases. Of 9,862 total cases, 2,866 (29%) were neuroinvasive, 6,830 (69%) were uncomplicated fever, and 166 (2%) were clinically unspecified. Of 2,866 neuroinvasive cases reported from 42 states and DC, 232 (8%) were fatal. The 2003 WNV epidemic in the United States was comparable in size to, but focused further west

than, the 2002 epidemic, which was centered in states along the Mississippi River Valley (1). Illness onset dates were April 14–December 5; the epidemic peak occurred during the week ending August 16. In 2003, a total of 818 presumptively WNV-viremic blood donors were identified through nationwide blood screening, and investigations were initiated to track birth outcomes among approximately 70 women with WNV illness acquired during pregnancy (2,3). Increased surveillance for human WNV illness cases might have resulted in improved surveillance for other domestic arboviruses of public health importance.

In 2003, WNV activity was reported from 2,358 counties in 46 states and D.C., including first-ever activity in Arizona, Nevada, and Utah, and first evidence of ecologic WNV transmission in California. In addition, 12,066 WNV-infected dead birds were reported from 43 states and D.C.; 5,145 WNV-infected horses and 106 other WNV-infected animals were reported from 43 states; and WNV seroconversions were reported in 1,956 sentinel bird flocks from 21 states. *Culex* mosquitoes accounted for 94% of 8,384 reported WNV-positive pools. *Cx. tarsalis* was the most commonly reported WNV-infected mosquito species and was considered a major epizootic and epidemic vector in western states.

In 2003, a total of 14 cases of neuroinvasive illness caused by eastern equine encephalitis virus were reported from eight states (Alabama, Florida, Georgia, Louisiana, New Jersey, North Carolina, South Carolina, and Virginia), equaling the maximum number reported to CDC in any year during 1964–2003. In addition, a large eastern equine encephalitis epizootic among equines (713 cases) and including dogs (two cases) and other veterinary species (18 cases) was reported in 19 states. During 1964–2003, a median of four (mean: five; range: 0–14) human cases were reported annually in the United States.

1. O'Leary DR, Marfin AA, Montgomery SP, et al. The epidemic of West Nile virus in the United States, 2002. *Vector Borne Zoonotic Dis* 2004;4:61–9.
2. CDC. West Nile virus screening of blood donations and transfusion-associated transmission—United States, 2003. *MMWR* 2004;53:281–4.
3. CDC. Interim guidelines for the evaluation of infants born to mothers with West Nile virus infection during pregnancy. *MMWR* 2004;53:154–7.

PART 1

Summaries of Notifiable Diseases in the United States, 2003

Abbreviations and Symbols Used in Tables

U	Data not available.
N	Not notifiable (i.e., report of disease is not required in that jurisdiction).
—	No reported cases.
Notes:	Rates <0.01 after rounding are listed as 0. Data in the <i>MMWR Summary of Notifiable Diseases — United States, 2003</i> might not match data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, and case definition.

TABLE 1. Reported cases of notifiable diseases,* by month — United States, 2003

Disease	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
AIDS†	2,265	3,057	4,180	2,883	3,916	3,765	3,443	3,713	3,829	4,479	3,436	5,266	44,232
Botulism													
Foodborne	1	—	3	1	1	1	1	—	1	2	1	8	20
Infant	6	8	6	4	6	1	7	7	6	5	12	8	76
Other (includes wound and unspecified)	—	1	4	1	2	2	6	—	5	5	1	6	33
Brucellosis	4	7	4	10	12	5	10	13	8	9	10	12	104
Chancroid§	1	12	1	3	9	3	7	1	7	6	2	2	54
Chlamydia§¶	54,988	67,590	85,499	68,695	83,561	67,315	61,388	83,633	67,459	70,657	84,924	81,769	877,478
Cholera	—	—	—	—	—	1	—	—	—	—	—	1	2
Coccidioidomycosis**	224	270	412	232	231	124	427	449	382	337	718	1,064	4,870
Cryptosporidiosis	126	120	204	146	199	188	276	563	634	397	352	301	3,506
Cyclosporiasis	4	3	3	4	5	11	15	12	1	3	5	9	75
Diphtheria	—	—	—	—	—	—	—	—	—	1	—	—	1
Ehrlichiosis													
Human granulocytic	1	2	6	6	19	35	50	86	35	33	31	58	362
Human monocytic	6	3	3	—	16	25	51	46	44	27	33	67	321
Encephalitis/meningitis, arboviral													
California serogroup	—	—	1	—	—	4	32	42	20	9	—	—	108
Eastern equine	—	—	—	—	1	—	7	4	1	—	—	1	14
St. Louis	—	—	—	—	1	1	6	24	7	1	1	—	41
West Nile	—	—	—	—	1	20	413	1,473	828	103	25	3	2,866
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)													
EHEC O157:H7	75	66	87	95	151	208	292	471	355	347	298	226	2,671
EHEC non-O157	8	11	20	13	21	11	25	54	14	27	25	23	252
EHEC not serogrouped	6	5	6	12	18	6	16	28	20	18	8	13	156
Giardiasis	1,045	1,159	1,498	1,179	1,538	1,268	1,466	2,526	2,055	1,908	2,066	2,001	19,709
Gonorrhea§	22,468	26,193	30,600	23,984	30,889	25,401	24,559	33,339	27,283	27,211	32,362	30,815	335,104
<i>Haemophilus influenzae</i> , invasive, all ages/serotypes	119	142	187	159	215	151	159	164	126	124	147	320	2,013
Age <5 yrs, serotype b	4	2	—	2	3	3	2	3	2	3	1	7	32
Age <5 yrs, nonserotype b	5	10	16	11	15	11	6	10	6	5	5	17	117
Age <5 yrs, unknown serotype	13	19	24	21	28	11	14	13	12	13	20	39	227
Hansen disease (leprosy)	6	2	16	4	6	5	11	8	9	1	7	20	95
Hantavirus pulmonary syndrome	2	2	—	1	6	3	—	3	1	—	3	5	26
Hemolytic uremic syndrome postdiarrheal	5	9	13	4	14	13	21	19	21	22	18	19	178
Hepatitis A, acute	405	504	624	505	590	505	485	637	753	709	1,233	703	7,653
Hepatitis B, acute	405	513	689	508	688	568	593	707	533	612	697	1,013	7,526
Hepatitis C, acute	66	75	123	70	97	76	84	79	82	78	119	153	1,102
Legionellosis	95	82	85	69	113	223	282	382	260	191	217	233	2,232
Listeriosis	34	41	40	36	54	59	67	106	58	73	45	83	696

TABLE 1. (Continued) Reported cases of notifiable diseases,* by month — United States, 2003

Disease	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Lyme disease	479	605	741	573	1,175	2,136	4,094	4,032	2,195	1,411	1,550	2,282	21,273
Malaria	68	88	95	74	71	96	135	188	161	126	124	176	1,402
Measles	1	3	3	11	7	6	6	11	3	—	1	4	56
Meningococcal disease	124	165	247	152	166	140	95	101	71	110	134	251	1,756
Mumps	14	15	32	13	23	19	12	20	18	11	24	30	231
Pertussis	436	448	701	530	695	660	685	1,108	964	1,102	1,729	2,589	11,647
Plague	—	—	—	—	—	1	—	—	—	—	—	—	1
Psittacosis	1	1	1	—	2	—	1	3	—	2	1	—	12
Q fever	4	4	1	12	10	11	4	7	1	2	4	11	71
Rabies													
Animal	347	386	719	753	709	577	541	751	616	494	503	450	6,846
Human	—	—	—	—	—	—	—	1	1	—	—	—	2
Rocky Mountain spotted fever	19	13	30	31	49	96	87	167	162	92	124	221	1,091
Rubella	—	2	—	1	1	1	1	—	1	—	—	—	7
Congenital syndrome	—	1	—	—	—	—	—	—	—	—	—	—	1
Salmonellosis	1,782	1,950	2,446	2,178	3,278	3,736	5,061	6,345	4,883	4,252	4,008	3,738	43,657
SARS-CoV††	—	—	6	1	1	—	—	—	—	—	—	—	8
Shigellosis	1,502	1,406	1,881	1,397	2,813	2,231	1,927	2,386	2,015	1,790	2,118	2,115	23,581
Streptococcal disease, invasive, group A	356	645	853	650	660	458	357	339	221	222	441	670	5,872
Streptococcal toxic-shock syndrome	14	16	27	19	19	17	5	6	6	6	6	20	161
<i>Streptococcus pneumoniae</i> , invasive													
Drug-resistant	158	223	288	219	208	132	117	106	88	118	158	541	2,356
Age <5 yrs**	61	79	78	68	72	71	41	33	34	54	94	160	845
Syphilis, total, all stages§	2,261	2,622	3,737	2,831	3,355	2,612	2,585	3,159	2,455	2,550	3,030	3,073	34,270
Congenital (age <1 yr)§	42	38	42	28	32	37	37	34	30	25	33	35	413
Primary and secondary§	496	526	714	574	641	570	525	647	535	550	684	715	7,177
Tetanus	1	—	—	—	2	1	1	8	2	1	1	3	20
Toxic-shock syndrome	5	10	14	15	16	10	5	10	11	7	11	19	133
Trichinellosis	—	—	—	—	—	—	—	—	1	—	3	2	6
Tuberculosis§§	593	912	1,021	1,284	1,214	1,296	1,216	1,197	1,202	1,385	1,057	2,497	14,874
Tularemia	2	1	1	—	5	15	15	13	13	9	5	50	129
Typhoid fever	14	26	38	23	24	25	34	51	51	22	24	24	356
Varicella	1,471	1,370	1,642	1,587	2,430	1,129	797	535	914	1,619	2,250	5,204	20,948
Varicella deaths¶¶	—	—	—	—	—	—	—	—	—	1	1	—	2

* No cases of anthrax, Powassan encephalitis, western equine encephalitis, paralytic poliomyelitis, or yellow fever were reported in 2003.

† 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, 2003.

§ Totals reported to the Division of Sexually Transmitted Diseases Prevention, NCHSTP, as of May 1, 2004.

¶ Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

** Notifiable in <40 states.

†† Severe acute respiratory syndrome—associated coronavirus; data reported to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases, notifiable as of July 1, 2003.

§§ Totals reported to the Division of Tuberculosis Elimination, NCHSTP, as of April 1, 2004.

¶¶ Death counts provided by Epidemiology and Surveillance Division, National Immunization Program.

TABLE 2. Reported cases of notifiable diseases,* by geographic division and area — United States, 2003

Area	Total resident population (in thousands)	AIDS†	Botulism			Brucellosis	Chancroid¶
			Foodborne	Infant	Other§		
UNITED STATES	287,974	44,232**	20	76	33	104	54
NEW ENGLAND	14,134	1,697	1	1	-	-	3
Maine	1,295	52	-	-	-	-	-
N.H.	1,274	37	1	-	-	-	-
Vt.	616	16	-	-	-	-	-
Mass.	6,422	757	-	-	-	-	3
R.I.	1,068	102	-	-	-	-	-
Conn.	3,459	733	-	1	-	-	-
MID. ATLANTIC	40,038	10,142	1	23	1	9	11
Upstate N.Y.	11,385	1,589	-	2	-	1	1
N.Y. City	7,749	5,133	-	1	1	3	9
N.J.	8,575	1,514	-	3	-	1	-
Pa.	12,329	1,906	1	17	-	4	1
E.N. CENTRAL	45,635	3,875	-	3	-	9	-
Ohio	11,409	775	-	2	-	1	-
Ind.	6,157	506	-	1	-	-	-
Ill.	12,586	1,734	-	-	-	-	-
Mich.	10,043	676	-	-	-	5	-
Wis.	5,440	184	-	-	-	3	-
W.N. CENTRAL	19,464	844	-	-	1	4	-
Minn.	5,025	179	-	-	-	2	-
Iowa	2,936	75	-	-	-	-	-
Mo.	5,670	404	-	-	-	-	-
N. Dak.	634	2	-	-	-	-	-
S. Dak.	760	13	-	-	1	1	-
Nebr.	1,728	60	-	-	-	1	-
Kans.	2,712	111	-	-	-	-	-
S. ATLANTIC	53,564	12,191	-	5	-	13	29
Del.	806	216	-	3	-	-	-
Md.	5,451	1,572	-	1	-	-	1
D.C.	569	961	-	-	-	-	-
Va.	7,288	786	-	-	-	2	-
W. Va.	1,805	95	-	-	-	-	-
N.C.	8,306	1,102	-	-	-	1	2
S.C.	4,104	778	-	-	-	-	24
Ga.	8,544	1,907	-	1	-	-	-
Fla.	16,692	4,774	-	-	-	10	2
E.S. CENTRAL	17,225	2,035	-	1	-	4	1
Ky.	4,090	220	-	-	-	-	1
Tenn.	5,790	835	-	1	-	-	-
Ala.	4,479	471	-	-	-	1	-
Miss.	2,867	509	-	-	-	3	-
W.S. CENTRAL	32,409	4,864	-	1	3	34	3
Ark.	2,706	189	-	-	-	1	-
La.	4,476	1,048	-	-	-	1	-
Okla.	3,490	214	-	-	-	-	-
Tex.	21,737	3,413	-	1	3	32	3
MOUNTAIN	19,033	1,501	2	9	1	8	5
Mont.	910	7	-	-	-	-	-
Idaho	1,343	25	-	-	-	-	-
Wyo.	499	8	-	-	-	1	1
Colo.	4,501	368	1	2	1	1	-
N. Mex.	1,852	111	-	-	-	3	-
Ariz.	5,441	628	-	-	-	1	2
Utah	2,319	75	1	5	-	2	2
Nev.	2,167	279	-	2	-	-	-
PACIFIC	46,472	6,863	16	33	27	23	2
Wash.	6,067	527	11	-	-	1	-
Oreg.	3,520	242	-	3	1	-	2
Calif.	35,002	5,967	2	29	26	19	-
Alaska	641	17	3	-	-	1	-
Hawaii	1,241	110	-	1	-	2	-
Guam	161	7	-	-	-	-	7
P.R.	3,859	1,065	-	-	-	-	-
V.I.	108	34	-	-	-	-	-
Amer. Samoa	57	1	-	-	-	-	-
C.N.M.I.	74	2	1	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico V.I.: U.S. Virgin Islands C.N.M.I.: Commonwealth of Northern Mariana Islands

* No cases of anthrax were reported in 2003.

† 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, 2003.

§ Includes cases reported as wound and unspecified botulism.

¶ Totals reported to the Division of STD Prevention, NCHSTP, as of May 1, 2004.

** Total includes 220 cases among persons with unknown state of residence.

TABLE 2. (Continued) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Chlamydia*	Cholera	Coccidioidomycosis	Cryptosporidiosis	Cyclosporiasis	Diphtheria
UNITED STATES	877,478	2	4,870	3,506	75	1
NEW ENGLAND	28,400	-	1	193	10	-
Maine	2,030	-	N	20	-	-
N.H.	1,616	-	-	26	-	-
Vt.	1,060	-	-	32	N	-
Mass.	11,301	-	-	78	6	-
R.I.	3,000	-	1	17	-	-
Conn.	9,393	-	N	20	4	-
MID. ATLANTIC	110,682	-	-	452	27	1
Upstate N.Y.	21,853	-	N	140	3	-
N.Y. City	35,369	-	-	126	9	-
N.J.	16,169	-	-	19	9	-
Pa.	37,291	-	N	167	6	1
E.N. CENTRAL	158,405	-	7	1,039	2	-
Ohio	42,522	-	-	173	-	-
Ind.	17,075	-	N	126	-	-
Ill.	48,294	-	-	102	-	-
Mich.	32,572	-	7	152	2	-
Wis.	17,942	-	-	486	-	-
W.N. CENTRAL	52,026	-	4	600	-	-
Minn.	10,714	-	N	155	-	-
Iowa	6,491	-	N	122	-	-
Mo.	18,570	-	1	52	-	-
N. Dak.	1,655	-	N	15	N	-
S. Dak.	2,608	-	-	49	-	-
Nebr.	4,739	-	3	33	-	-
Kans.	7,249	-	N	174	-	-
S. ATLANTIC	163,936	-	5	430	35	-
Del.	3,035	-	N	5	1	-
Md.	16,831	-	5	29	-	-
D.C.	3,168	-	-	14	8	-
Va.	19,439	-	-	54	2	-
W. Va.	2,585	-	N	4	-	-
N.C.	26,187	-	N	57	2	-
S.C.	14,623	-	-	16	-	-
Ga.	35,686	-	-	122	8	-
Fla.	42,382	-	N	129	14	-
E.S. CENTRAL	54,763	-	1	136	-	-
Ky.	7,981	-	N	27	N	-
Tenn.	20,380	-	N	43	-	-
Ala.	14,209	-	-	56	-	-
Miss.	12,193	-	1	10	-	-
W.S. CENTRAL	109,039	-	10	131	1	-
Ark.	7,856	-	-	22	-	-
La.	20,970	-	-	5	-	-
Okla.	11,013	-	N	24	-	-
Tex.	69,200	-	10	80	1	-
MOUNTAIN	48,934	1	2,751	139	-	-
Mont.	2,547	-	N	18	-	-
Idaho	2,366	-	N	27	-	-
Wyo.	960	-	1	5	-	-
Colo.	13,039	-	N	38	-	-
N. Mex.	7,480	-	10	17	-	-
Ariz.	12,819	1	2,695	6	N	-
Utah	3,893	-	9	20	-	-
Nev.	5,830	-	36	8	-	-
PACIFIC	151,293	1	2,091	386	-	-
Wash.	16,797	-	-	62	-	-
Oreg.	7,688	-	-	36	-	-
Calif.	117,428	-	2,091	287	-	-
Alaska	3,900	-	-	1	-	-
Hawaii	5,480	1	-	-	-	-
Guam	598	-	-	-	-	-
P.R.	2,722	-	N	N	N	-
V.I.	410	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-
C.N.M.I.	218	-	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico V.I.: U.S. Virgin Islands C.N.M.I.: Commonwealth of Northern Mariana Islands
 * Totals reported to the Division of STD Prevention, NCHSTP, as of May 1, 2004. Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

TABLE 2. (Continued) Reported cases of notifiable diseases,* by geographic division and area — United States, 2003

Area	Ehrlichiosis		Encephalitis/meningitis, arboviral†			
	Human granulocytic	Human monocytic	California serogroup	Eastern equine	St. Louis	West Nile
UNITED STATES	362	321	108	14	41	2,866
NEW ENGLAND	151	37	-	-	-	31
Maine	4	-	-	-	-	-
N.H.	1	1	-	-	-	2
Vt.	-	-	-	-	-	-
Mass.	54	15	-	-	-	12
R.I.	63	21	-	-	-	5
Conn.	29	-	-	-	-	12
MID. ATLANTIC	80	18	-	2	2	223
Upstate N.Y.	62	11	-	-	-	-
N.Y. City	8	4	-	-	1	57
N.J.	10	3	-	2	-	21
Pa.	N	N	-	-	1	145
E.N. CENTRAL	16	19	37	-	4	150
Ohio	2	6	17	-	-	84
Ind.	1	6	-	-	-	15
Ill.	2	6	11	-	-	30
Mich.	-	1	-	-	4	14
Wis.	11	-	9	-	-	7
W.N. CENTRAL	88	34	3	-	1	696
Minn.	77	2	3	-	-	48
Iowa	1	-	-	-	-	81
Mo.	9	31	-	-	-	39
N. Dak.	N	N	-	-	-	94
S. Dak.	-	-	-	-	1	151
Nebr.	-	-	-	-	-	194
Kans.	1	1	-	-	-	89
S. ATLANTIC	23	119	42	9	-	191
Del.	9	3	-	-	-	12
Md.	5	51	-	-	-	49
D.C.	N	N	-	-	-	3
Va.	-	9	2	1	-	19
W. Va.	-	-	23	-	-	1
N.C.	2	28	17	1	-	16
S.C.	2	-	-	2	-	3
Ga.	-	20	-	2	-	27
Fla.	5	8	-	3	-	61
E.S. CENTRAL	1	39	23	2	2	91
Ky.	-	4	3	-	-	11
Tenn.	-	33	19	-	-	21
Ala.	1	2	-	2	-	25
Miss.	-	-	1	-	2	34
W.S. CENTRAL	3	54	3	1	26	611
Ark.	-	19	-	-	-	23
La.	N	N	3	1	9	101
Okla.	2	33	-	-	-	56
Tex.	1	2	-	-	17	431
MOUNTAIN	-	1	-	-	6	871
Mont.	-	-	-	-	-	75
Idaho	-	-	-	-	-	-
Wyo.	-	-	-	-	-	92
Colo.	N	N	-	-	-	621
N. Mex.	-	-	-	-	1	74
Ariz.	-	-	-	-	5	7
Utah	-	-	-	-	-	-
Nev.	-	1	-	-	-	2
PACIFIC	-	-	-	-	-	2
Wash.	-	-	-	-	-	-
Oreg.	-	-	-	-	-	-
Calif.	-	-	-	-	-	2
Alaska	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-
Guam	-	-	-	-	-	-
P.R.	-	-	-	-	-	-
V.I.	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico V.I.: U.S. Virgin Islands C.N.M.I.: Commonwealth of Northern Mariana Islands

* No cases of Powassan or western equine encephalitis or meningitis were reported in 2003.

† Totals reported to the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (ArboNET Surveillance).

TABLE 2. (Continued) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Enterohemorrhagic <i>Escherichia coli</i> (EHEC)					<i>Haemophilus influenzae</i> , invasive disease			
	O157:H7	Shiga toxin positive		Giardiasis	Gonorrhea*	All ages, serotypes	Age <5 years		
		Non-O157	Not serogrouped				Serotype b	Nonserotype b	Unknown serotype
UNITED STATES	2,671	252	156	19,709	335,104	2,013	32	117	227
NEW ENGLAND	163	47	13	1,700	7,443	176	2	7	6
Maine	11	4	-	186	233	6	-	-	1
N.H.	21	3	-	44	125	20	1	2	-
Vt.	18	-	-	122	97	11	-	-	1
Mass.	72	10	13	854	2,901	80	1	5	3
R.I.	4	-	-	126	973	15	-	-	1
Conn.	37	30	-	368	3,114	44	-	-	-
MID. ATLANTIC	256	25	36	4,030	41,976	409	3	4	50
Upstate N.Y.	105	13	20	1,284	8,484	155	3	4	10
N.Y. City	7	-	N	1,200	13,682	70	-	-	13
N.J.	31	2	-	520	7,944	70	-	-	11
Pa.	113	10	16	1,026	11,866	114	-	-	16
E.N. CENTRAL	580	35	20	3,254	70,663	323	3	6	61
Ohio	132	16	20	903	22,537	78	-	1	14
Ind.	91	-	-	N	6,681	59	-	-	11
Ill.	122	2	-	940	21,817	109	-	-	24
Mich.	94	2	-	781	13,965	26	3	5	1
Wis.	141	15	-	630	5,663	51	-	-	11
W.N. CENTRAL	451	56	22	2,161	18,147	125	2	8	14
Minn.	132	22	1	851	3,202	57	2	8	2
Iowa	104	-	-	277	1,554	-	-	-	-
Mo.	85	20	1	515	8,792	42	-	-	11
N. Dak.	14	4	8	50	103	8	-	-	-
S. Dak.	29	4	-	89	226	1	-	-	-
Nebr.	51	6	-	145	1,623	2	-	-	-
Kans.	36	-	12	234	2,647	15	-	-	1
S. ATLANTIC	168	51	48	2,883	81,875	453	2	20	33
Del.	11	N	N	57	1,128	-	-	-	-
Md.	18	3	1	118	8,032	109	1	9	1
D.C.	1	-	-	61	2,508	2	-	-	-
Va.	50	15	-	423	9,066	68	-	-	9
W. Va.	7	1	-	64	847	17	-	-	-
N.C.	-	-	38	N	15,116	41	-	3	2
S.C.	6	-	-	175	8,518	13	-	-	5
Ga.	27	8	-	853	17,686	81	-	-	9
Fla.	48	24	9	1,132	18,974	122	1	8	7
E.S. CENTRAL	86	2	6	416	27,728	100	1	4	13
Ky.	29	2	6	N	3,578	12	-	3	2
Tenn.	36	-	-	200	8,519	61	-	1	8
Ala.	17	-	-	216	9,303	25	1	-	3
Miss.	4	-	-	-	6,328	2	-	-	-
W.S. CENTRAL	102	4	4	314	45,248	85	3	13	5
Ark.	13	-	-	154	4,251	6	-	1	-
La.	3	-	N	15	11,850	22	-	2	4
Okla.	30	-	-	145	4,552	52	-	10	-
Tex.	56	4	4	N	24,595	5	3	-	1
MOUNTAIN	327	27	7	1,641	10,472	191	9	27	21
Mont.	17	-	-	115	122	-	-	-	-
Idaho	85	16	-	206	68	7	-	-	3
Wyo.	5	1	-	23	46	2	-	-	-
Colo.	67	4	7	467	2,854	40	-	-	7
N. Mex.	13	5	-	55	1,169	24	1	6	2
Ariz.	41	N	N	256	3,580	93	8	11	5
Utah	75	-	-	380	412	15	-	6	4
Nev.	24	1	-	139	2,221	10	-	4	-
PACIFIC	538	5	-	3,310	31,552	151	7	28	24
Wash.	128	1	-	435	2,753	14	3	7	3
Oreg.	102	4	-	411	1,000	42	-	-	4
Calif.	294	-	N	2,281	25,963	60	4	21	10
Alaska	5	-	-	89	573	21	-	-	7
Hawaii	9	-	-	94	1,263	14	-	-	-
Guam	-	-	-	2	68	-	-	-	-
P.R.	3	-	-	364	277	2	-	-	2
V.I.	-	-	-	-	87	-	-	-	-
Amer. Samoa	-	-	-	-	2	-	-	-	-
C.N.M.I.	-	-	-	-	31	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico V.I.: U.S. Virgin Islands C.N.M.I.: Commonwealth of Northern Mariana Islands
 * Totals reported to the Division of STD Prevention, NCHSTP, as of May 1, 2004.

TABLE 2. (Continued) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Hansen disease (leprosy)	Hantavirus pulmonary syndrome	Hemolytic uremic syndrome, postdiarrheal	Hepatitis, acute viral			Legionellosis	Listeriosis
				A	B	C		
UNITED STATES	95	26	178	7,653	7,526	1,102	2,232	696
NEW ENGLAND	4	-	11	370	367	17	122	57
Maine	N	-	-	21	7	3	2	7
N.H.	-	-	-	19	24	N	9	4
Vt.	-	-	1	6	4	13	6	1
Mass.	4	-	8	217	213	-	57	19
R.I.	-	-	-	17	21	1	20	4
Conn.	-	N	2	90	98	-	28	22
MID. ATLANTIC	12	-	23	1,821	780	143	632	139
Upstate N.Y.	1	-	18	146	110	26	176	44
N.Y. City	8	-	-	450	193	-	71	24
N.J.	3	-	3	208	183	-	94	24
Pa.	-	-	2	1,017	294	117	291	47
E.N. CENTRAL	3	-	17	681	634	127	459	92
Ohio	2	-	5	171	160	9	226	27
Ind.	-	-	1	73	70	12	34	10
Ill.	-	-	3	186	130	22	50	24
Mich.	1	-	4	206	223	79	131	21
Wis.	-	-	4	45	51	5	18	10
W.N. CENTRAL	2	5	27	195	377	285	75	20
Minn.	1	-	9	52	55	23	5	6
Iowa	-	1	2	40	18	1	12	1
Mo.	-	-	8	60	248	258	37	6
N. Dak.	N	-	1	2	2	-	1	-
S. Dak.	-	1	1	-	4	-	2	-
Nebr.	1	1	6	14	32	3	7	4
Kans.	-	2	-	27	18	-	11	3
S. ATLANTIC	10	-	13	1,781	2,090	165	553	150
Del.	-	-	-	9	14	-	31	N
Md.	1	-	N	178	132	9	134	27
D.C.	-	-	-	43	13	-	19	2
Va.	-	-	1	141	227	15	109	18
W. Va.	N	-	1	38	43	20	26	7
N.C.	-	-	3	126	163	13	42	18
S.C.	-	-	-	56	201	26	11	9
Ga.	N	-	2	791	666	13	34	31
Fla.	9	-	6	399	631	69	147	38
E.S. CENTRAL	1	-	14	282	531	100	108	33
Ky.	-	-	N	36	94	26	46	9
Tenn.	1	-	14	206	229	25	37	9
Ala.	-	-	-	24	96	6	20	13
Miss.	-	-	-	16	112	43	5	2
W.S. CENTRAL	24	5	8	729	1,249	161	84	50
Ark.	3	-	-	38	91	3	2	1
La.	2	N	-	50	117	102	1	5
Okla.	-	-	4	28	76	6	10	3
Tex.	19	5	4	613	965	50	71	41
MOUNTAIN	3	12	15	486	595	53	90	34
Mont.	-	-	-	8	16	4	4	2
Idaho	-	2	1	18	8	1	7	2
Wyo.	-	1	-	2	31	-	2	-
Colo.	-	4	8	63	82	14	12	9
N. Mex.	-	1	-	25	36	-	5	3
Ariz.	1	-	N	280	283	7	21	12
Utah	1	3	5	39	52	-	27	2
Nev.	1	1	1	51	87	27	12	4
PACIFIC	36	4	50	1,308	903	51	109	121
Wash.	N	2	-	76	90	-	14	13
Oreg.	N	-	7	62	121	16	17	5
Calif.	21	2	42	1,147	657	31	77	98
Alaska	-	-	-	10	8	-	-	-
Hawaii	15	-	1	13	27	4	1	5
Guam	11	-	-	2	10	5	1	-
P.R.	1	N	N	102	144	-	-	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	1	5	-	-	-
C.N.M.I.	-	-	-	-	1	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico V.I.: U.S. Virgin Islands C.N.M.I.: Commonwealth of Northern Mariana Islands

TABLE 2. (Continued) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Lyme disease	Malaria	Measles		Meningococcal disease	Mumps	Pertussis	Plague
			Indigenous	Imported*				
UNITED STATES	21,273	1,402	32	24	1,756	231	11,647	1
NEW ENGLAND	4,079	74	1	-	86	4	2,083	-
Maine	175	5	-	-	6	-	91	-
N.H.	190	7	1	-	12	2	119	-
Vt.	43	2	-	-	4	-	71	-
Mass.	1,532	32	-	-	45	1	1,670	-
R.I.	736	7	-	-	4	-	55	-
Conn.	1,403	21	-	-	15	1	77	-
MID. ATLANTIC	14,016	368	14	4	210	30	1,757	-
Upstate N.Y.	5,179	63	2	-	55	3	1,067	-
N.Y. City	220	194	3	2	43	12	150	-
N.J.	2,887	61	1	1	31	6	188	-
Pa.	5,730†	50	8	1	81	9	352	-
E.N. CENTRAL	914	109	3	3	262	28	1,590	-
Ohio	66	23	1	1	60	7	328	-
Ind.	25	4	-	-	48	3	104	-
Ill.	71	46	-	1	73	8	321	-
Mich.	12	25	2	-	50	8	140	-
Wis.	740	11	-	1	31	2	697	-
W.N. CENTRAL	609	57	-	-	131	11	657	-
Minn.	474	28	-	-	29	1	207	-
Iowa	58	6	-	-	28	2	166	-
Mo.	70	7	-	-	49	5	208	-
N. Dak.	-	1	-	-	1	-	7	-
S. Dak.	1	3	-	-	1	-	7	-
Nebr.	2	-	-	-	8	-	16	-
Kans.	4	12	-	-	15	3	46	-
S. ATLANTIC	1,370	351	-	3	287	28	855	-
Del.	212	2	-	-	9	2	9	-
Md.	691	80	-	1	28	5	94	-
D.C.	14	17	-	-	6	-	4	-
Va.	195	59	-	-	28	1	219	-
W. Va.	31	4	-	-	7	3	28	-
N.C.	156	25	-	1	37	2	144	-
S.C.	18	5	-	-	29	5	208	-
Ga.	10	67	-	1	37	3	36	-
Fla.	43	92	-	-	106	7	113	-
E.S. CENTRAL	66	32	-	-	97	10	170	-
Ky.	17	11	-	-	23	-	53	-
Tenn.	20	7	-	-	30	5	83	-
Ala.	8	7	-	-	21	4	19	-
Miss.	21	7	-	-	23	1	15	-
W.S. CENTRAL	92	139	-	-	193	22	879	-
Ark.	-	4	-	-	21	1	92	-
La.	7	5	-	-	43	1	11	-
Okla.	-	5	-	-	24	2	106	-
Tex.	85	125	-	-	105	18	670	-
MOUNTAIN	15	54	-	1	103	15	1,040	1
Mont.	-	-	-	-	6	-	5	-
Idaho	3	1	-	-	9	1	82	-
Wyo.	2	2	-	-	2	1	130	-
Colo.	-	23	-	-	27	1	372	-
N. Mex.	1	3	-	-	12	1	78	1
Ariz.	4	17	-	1	34	1	211	-
Utah	2	6	-	-	5	5	127	-
Nev.	3	2	-	-	8	5	35	-
PACIFIC	112	218	14	13	387	83	2,616	-
Wash.	7	34	-	-	61	11	844	-
Oreg.	16	11	-	3	63	N	438	-
Calif.	86	166	-	5	242	58	1,255	-
Alaska	3	1	-	-	7	1	67	-
Hawaii	N	6	14	5	14	13	12	-
Guam	-	1	5	-	-	3	1	-
P.R.	N	2	-	-	12	2	5	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	1	-	-	1	-	-
C.N.M.I.	-	-	-	-	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico

V.I.: U.S. Virgin Islands

C.N.M.I.: Commonwealth of Northern Mariana Islands

* Imported cases include only those directly related to importation from other countries.

† Includes 4,722 confirmed and 1,008 suspected cases.

TABLE 2. (Continued) Reported cases of notifiable diseases,* by geographic division and area — United States, 2003

Area	Psittacosis	Q Fever	Rabies		RMSF†	Rubella		Salmonellosis	SARS-CoV§
			Animal	Human		Rubella	Congenital syndrome		
UNITED STATES	12	71	6,846	2	1,091	7	1	43,657	8
NEW ENGLAND	1	6	616	-	10	1	-	2,127	-
Maine	-	2	73	-	N	-	-	141	-
N.H.	1	-	29	-	-	-	-	152	-
Vt.	-	-	39	-	-	-	-	73	-
Mass.	-	4	216	-	9	1	-	1,223	-
R.I.	-	-	71	-	1	-	-	137	-
Conn.	N	-	188	-	-	-	-	401	-
MID. ATLANTIC	2	2	929	-	41	3	1	4,995	2
Upstate N.Y.	-	-	432	-	-	-	-	1,282	-
N.Y. City	-	2	6	-	13	1	1	1,301	-
N.J.	-	-	62	-	16	2	-	857	1
Pa.	2	N	429	-	12	-	-	1,555	1
E.N. CENTRAL	-	12	175	-	22	-	-	5,614	-
Ohio	-	8	53	-	10	-	-	1,326	-
Ind.	-	2	32	-	1	-	-	587	-
Ill.	-	-	24	-	5	-	-	1,955	-
Mich.	-	1	52	-	6	-	-	798	-
Wis.	-	1	14	-	-	-	-	948	-
W.N. CENTRAL	-	7	646	-	65	-	-	2,525	-
Minn.	-	1	48	-	2	-	-	574	-
Iowa	-	-	105	-	2	-	-	415	-
Mo.	-	3	43	-	51	-	-	882	-
N. Dak.	-	1	57	-	-	-	-	46	-
S. Dak.	-	-	132	-	5	-	-	131	-
Nebr.	-	1	98	-	4	-	-	183	-
Kans.	-	1	163	-	1	-	-	294	-
S. ATLANTIC	6	12	2,657	1	610	-	-	11,382	2
Del.	-	N	64	-	1	-	-	105	-
Md.	-	-	351	-	106	-	-	856	-
D.C.	-	2	-	-	1	-	-	55	-
Va.	1	-	542	1	34	-	-	1,187	1
W. Va.	-	N	82	-	6	-	-	152	-
N.C.	-	2	773	-	331	-	-	1,435	1
S.C.	2	1	255	-	49	-	-	866	-
Ga.	-	1	402	-	65	-	-	2,057	-
Fla.	3	6	188	-	17	-	-	4,669	-
E.S. CENTRAL	-	15	210	-	131	-	-	2,979	-
Ky.	-	9	39	-	3	-	-	404	-
Tenn.	-	6	103	-	74	-	-	781	-
Ala.	-	-	64	-	21	-	-	792	-
Miss.	-	-	4	-	33	-	-	1,002	-
W.S. CENTRAL	-	4	1,200	-	201	-	-	6,079	-
Ark.	-	-	69	-	48	-	-	838	-
La.	-	-	5	-	1	-	-	879	-
Okla.	-	N	204	-	138	-	-	494	-
Tex.	N	4	922	-	14	-	-	3,868	-
MOUNTAIN	1	3	181	-	10	1	-	2,379	2
Mont.	-	-	23	-	1	-	-	112	-
Idaho	1	1	15	-	2	-	-	181	-
Wyo.	-	-	6	-	2	-	-	77	-
Colo.	-	-	38	-	3	1	-	503	-
N. Mex.	-	-	5	-	1	-	-	304	1
Ariz.	-	-	75	-	-	-	-	789	-
Utah	-	-	14	-	1	-	-	234	1
Nev.	-	2	5	-	-	-	-	179	-
PACIFIC	2	10	232	1	1	2	-	5,577	2
Wash.	-	-	-	-	N	-	-	699	-
Oreg.	1	1	7	-	-	1	-	425	-
Calif.	1	9	216	1	1	-	-	4,127	2
Alaska	-	-	9	-	-	-	-	96	-
Hawaii	-	-	-	-	-	1	-	230	-
Guam	-	-	-	-	-	1	-	44	-
P.R.	N	-	71	1	N	-	-	798	-
V.I.	-	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	-	-	-	-
C.N.M.I.	-	-	-	-	-	-	-	21	-

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico V.I.: U.S. Virgin Islands C.N.M.I.: Commonwealth of Northern Mariana Islands

* No cases of paralytic poliomyelitis were reported in 2003.

† Rocky Mountain spotted fever.

§ Totals reported to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases. Data are displayed from all states or territories reporting cases, whether or not that state or territory added SARS to its notifiable disease list.

TABLE 2. (Continued) Reported cases of notifiable diseases, by geographic division and area — United States, 2003

Area	Shigellosis	Streptococcal	Streptococcal	Streptococcus pneumoniae,		Syphilis*		
		invasive, group A	toxic-shock syndrome	Drug-resistant	Age <5 yrs	All stages†	Congenital (age <1 yr)	Primary and secondary
UNITED STATES	23,581	5,872	161	2,356	845	34,270	413	7,177
NEW ENGLAND	353	488	7	123	17	1,000	1	224
Maine	7	29	-	-	-	21	-	8
N.H.	10	34	-	-	N	37	-	19
Vt.	8	19	3	9	5	1	-	1
Mass.	236	210	2	N	N	644	-	133
R.I.	22	35	2	25	12	90	-	33
Conn.	70	161	U	89	U	207	1	30
MID. ATLANTIC	2,399	953	8	152	92	6,155	65	913
Upstate N.Y.	645	362	-	88	88	535	12	53
N.Y. City	416	146	-	U	U	3,825	30	531
N.J.	360	174	1	-	4	1,089	21	170
Pa.	978	271	7	64	N	706	2	159
E.N. CENTRAL	1,882	1,305	106	475	331	3,203	75	886
Ohio	301	287	24	285	98	481	3	197
Ind.	201	136	14	190	38	375	15	50
Ill.	1,006	349	68	-	134	1,376	19	374
Mich.	235	357	N	N	N	860	38	249
Wis.	139	176	-	N	61	111	-	16
W.N. CENTRAL	796	363	11	188	91	559	6	159
Minn.	103	181	9	167	74	195	-	47
Iowa	94	N	-	N	N	46	-	12
Mo.	356	81	2	16	3	207	4	61
N. Dak.	10	18	-	4	9	2	-	2
S. Dak.	17	25	-	1	-	5	-	2
Nebr.	92	27	-	-	5	27	1	10
Kans.	124	31	-	N	N	77	1	25
S. ATLANTIC	6,973	987	11	1,149	85	8,744	76	1,940
Del.	164	8	-	N	N	47	-	7
Md.	579	233	N	27	-	974	8	312
D.C.	76	11	-	1	9	330	1	48
Va.	453	111	3	N	N	552	1	82
W. Va.	4	39	4	113	12	11	-	2
N.C.	1,061	111	4	N	U	848	18	152
S.C.	620	50	-	153	N	548	11	94
Ga.	1,169	195	N	249	64	2,152	11	585
Fla.	2,847	229	N	606	N	3,282	26	658
E.S. CENTRAL	1,058	222	7	168	-	2,037	8	322
Ky.	136	52	6	31	N	160	1	33
Tenn.	405	170	1	137	N	876	2	135
Ala.	342	-	-	-	N	566	3	114
Miss.	175	-	-	-	-	435	2	40
W.S. CENTRAL	6,047	315	-	85	155	6,221	81	952
Ark.	113	7	-	24	8	296	2	51
La.	447	2	-	61	30	1,576	1	183
Okla.	1,078	99	N	N	77	353	1	64
Tex.	4,409	207	-	N	40	3,996	77	654
MOUNTAIN	1,354	598	11	12	74	1,725	42	337
Mont.	2	1	-	-	-	-	-	-
Idaho	36	19	2	N	N	45	4	15
Wyo.	8	2	1	10	-	4	-	-
Colo.	333	147	4	-	55	144	3	39
N. Mex.	286	127	-	-	12	205	6	71
Ariz.	572	259	-	N	N	1,106	29	186
Utah	51	41	3	2	7	72	-	14
Nev.	66	2	1	-	-	149	-	12
PACIFIC	2,719	641	-	4	-	4,626	59	1,444
Wash.	188	74	-	-	N	239	-	82
Oreg.	211	N	-	N	N	118	-	48
Calif.	2,261	428	-	N	N	4,202	59	1,299
Alaska	11	-	-	-	N	8	-	1
Hawaii	48	139	-	4	-	59	-	14
Guam	41	-	-	-	-	2	1	1
P.R.	33	N	N	N	N	1,391	15	204
V.I.	-	-	-	-	-	1	-	1
Amer. Samoa	6	-	-	-	-	1	-	1
C.N.M.I.	128	-	-	-	-	8	-	8

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico V.I.: U.S. Virgin Islands C.N.M.I.: Commonwealth of Northern Mariana Islands
 * Totals reported to the Division of STD Prevention, NCHSTP, as of May 1, 2004.

† Includes the following categories: primary, secondary, latent (including neurosyphilis, early latent, late latent, late with clinical manifestations other than neurosyphilis, and unknown duration), and congenital syphilis.

TABLE 2. (Continued) Reported cases of notifiable diseases,* by geographic division and area — United States, 2003

Area	Tetanus	Toxic-shock syndrome	Trichinellosis	Tuberculosis†	Tularemia	Typhoid fever	Varicella (chickenpox)	Varicella deaths§
UNITED STATES	20	133	6	14,874	129	356	20,948	2
NEW ENGLAND	1	8	1	467	6	29	5,522	-
Maine	-	1	-	25	-	-	1,012	-
N.H.	-	2	1	15	-	4	-	-
Vt.	1	1	-	9	-	-	930	-
Mass.	-	3	-	261	6	15	1,993	-
R.I.	-	1	-	46	-	2	5	-
Conn.	-	N	-	111	-	8	1,582	-
MID. ATLANTIC	1	16	1	2,311	1	80	43	-
Upstate N.Y.	1	6	1	340	1	12	-	-
N.Y. City	-	1	-	1,140	-	37	-	-
N.J.	-	-	-	495	-	21	-	-
Pa.	-	9	-	336	-	10	43	-
E.N. CENTRAL	3	39	-	1,314	2	33	6,484	-
Ohio	2	12	-	229	-	2	1,302	-
Ind.	1	2	-	143	-	4	-	-
Ill.	-	9	-	633	1	17	-	-
Mich.	-	13	-	243	-	10	4,171	-
Wis.	-	3	-	66	1	-	1,011	-
W.N. CENTRAL	1	29	-	514	46	7	103	-
Minn.	-	10	-	214	1	3	N	-
Iowa	-	5	-	40	N	2	N	-
Mo.	-	4	-	131	32	1	1	-
N. Dak.	-	1	-	6	-	-	102	-
S. Dak.	-	1	-	20	5	-	-	-
Nebr.	1	7	-	28	5	1	N	-
Kans.	-	1	-	75	3	-	-	-
S. ATLANTIC	5	10	-	2,933	9	59	2,433	1
Del.	-	-	-	33	3	-	29	-
Md.	1	N	-	268	1	11	1	1
D.C.	1	1	-	79	-	-	55	-
Va.	-	3	-	332	4	16	682	-
W. Va.	-	-	-	21	-	-	1,330	-
N.C.	-	2	-	374	1	9	N	-
S.C.	-	-	-	254	-	-	336	-
Ga.	-	4	N	526	-	8	N	-
Fla.	3	N	-	1,046	-	15	N	-
E.S. CENTRAL	3	2	2	809	7	8	-	-
Ky.	-	-	N	138	2	1	N	-
Tenn.	1	1	2	285	3	3	-	-
Ala.	1	1	-	258	1	4	-	-
Miss.	1	-	-	128	1	-	-	-
W.S. CENTRAL	1	-	-	2,144	43	31	5,481	1
Ark.	-	-	-	127	32	-	-	1
La.	-	-	-	260	-	-	16	-
Okla.	-	-	-	163	9	1	N	-
Tex.	1	N	-	1,594	2	30	5,465	-
MOUNTAIN	-	19	-	625	10	8	882	-
Mont.	-	-	-	7	-	-	-	-
Idaho	-	-	-	13	-	1	-	-
Wyo.	-	-	-	4	3	-	113	-
Colo.	-	5	-	111	3	4	N	-
N. Mex.	-	1	-	49	1	1	7	-
Ariz.	-	9	-	295	1	2	N	-
Utah	-	2	-	39	2	-	762	-
Nev.	-	2	-	107	-	-	-	-
PACIFIC	5	10	2	3,757	5	101	-	-
Wash.	-	-	-	250	3	4	N	-
Oreg.	-	-	-	106	-	4	N	-
Calif.	5	10	2	3,227	2	91	N	-
Alaska	-	-	-	57	-	-	-	-
Hawaii	-	-	-	117	-	2	-	-
Guam	-	-	-	61	-	-	153	-
P.R.	-	N	-	115	-	-	626	-
V.I.	-	-	-	-	-	-	-	-
Amer. Samoa	-	-	-	-	-	1	21	-
C.N.M.I.	-	-	-	45	-	-	-	-

N: Not notifiable. U: Unavailable. -: No reported cases. P.R.: Puerto Rico V.I.: U.S. Virgin Islands C.N.M.I.: Commonwealth of Northern Mariana Islands

* No cases of yellow fever were reported in 2003.

† Totals reported to the Division of TB Elimination, NCHSTP, as of April 1, 2004.

§ Death counts provided by the Epidemiology and Surveillance Division, National Immunization Program.

TABLE 3. Reported cases and incidence* of notifiable diseases,[†] by age group — United States, 2003

Disease	<1 yr		1–4 yrs		5–14 yrs		15–24 yrs		25–39 yrs		40–64 yrs		≥65 yrs		Age not stated		Total
	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)			
AIDS [§]	46	(1.14)	39	(0.25)	174	(0.42)	2,019	(4.97)	19,966	(32.28)	21,209	(23.65)	779	(2.19)	—	—	44,232
Botulism, foodborne	3	(0.07)	1	(0.01)	—	(0)	2	(0)	3	(0)	9	(0.01)	1	(0)	1	—	20
Infant	72	(1.78)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	4	—	76
Other (includes wound and unspecified)	1	(0.02)	—	(0)	1	(0)	—	(0)	4	(0.01)	25	(0.03)	1	(0)	1	—	33
Brucellosis	1	(0.02)	2	(0.01)	16	(0.04)	10	(0.02)	26	(0.04)	36	(0.04)	10	(0.03)	3	—	104
Chlamydia ^{¶**}	—	(0)	—	(0)	—	(0)	630,385	(1,553.06)	201,630	(326.03)	21,985	(24.51)	677	(1.90)	6,246	—	877,478
Cholera	—	(0)	—	(0)	1	(0)	—	(0)	1	(0)	—	(0)	—	(0)	—	—	2
Coccidioidomycosis ^{††}	20	(1.39)	36	(0.65)	238	(1.64)	511	(3.65)	1,152	(5.43)	1,895	(6.60)	979	(9.21)	39	—	4,870
Cryptosporidiosis	75	(1.86)	684	(4.39)	593	(1.45)	385	(0.95)	750	(1.21)	720	(0.80)	213	(0.60)	86	—	3,506
Cyclosporiasis	—	(0)	—	(0)	5	(0.01)	4	(0.01)	18	(0.03)	34	(0.04)	12	(0.04)	2	—	75
Diphtheria	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	1	(0)	—	(0)	—	—	1
Ehrlichiosis	—	(0)	1	(0.01)	15	(0.04)	26	(0.07)	58	(0.10)	169	(0.20)	92	(0.28)	1	—	362
Human granulocytic	—	(0)	1	(0.01)	15	(0.04)	26	(0.07)	58	(0.10)	169	(0.20)	92	(0.28)	1	—	362
Human monocytic	1	(0.03)	5	(0.03)	13	(0.03)	17	(0.05)	47	(0.08)	151	(0.18)	87	(0.27)	—	—	321
Encephalitis/meningitis, arboviral	—	(0)	16	(0.10)	79	(0.19)	3	(0.01)	2	(0)	5	(0.01)	3	(0.01)	—	—	108
California serogroup	—	(0)	16	(0.10)	79	(0.19)	3	(0.01)	2	(0)	5	(0.01)	3	(0.01)	—	—	108
Eastern equine	1	(0.02)	3	(0.02)	3	(0.01)	—	(0)	—	(0)	3	(0)	4	(0.01)	—	—	14
St. Louis	—	(0)	—	(0)	—	(0)	1	(0)	4	(0.01)	24	(0.03)	12	(0.03)	—	—	41
West Nile	5	(0.12)	12	(0.08)	64	(0.16)	175	(0.43)	411	(0.66)	1,121	(1.25)	987	(2.77)	91	—	2,866
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	—	—
EHEC O157:H7	61	(1.51)	556	(3.57)	562	(1.37)	419	(1.03)	279	(0.45)	458	(0.51)	314	(0.88)	22	—	2,671
EHEC non-O157	18	(0.46)	53	(0.35)	46	(0.11)	37	(0.09)	21	(0.03)	43	(0.05)	30	(0.09)	4	—	252
EHEC not serogrouped	10	(0.31)	31	(0.25)	20	(0.06)	21	(0.06)	27	(0.05)	27	(0.04)	19	(0.06)	1	—	156
Giardiasis	322	(9.40)	3,415	(25.88)	2,637	(7.52)	1,375	(3.96)	3,858	(7.28)	4,542	(5.86)	981	(3.15)	2,579	—	19,709
Gonorrhea ^{**}	—	(0)	—	(0)	—	(0)	195,987	(482.85)	103,741	(167.75)	26,873	(29.96)	702	(1.97)	2,200	—	335,104
<i>Haemophilus influenzae</i> , invasive	—	(0)	—	(0)	97	(0.24)	94	(0.23)	114	(0.18)	476	(0.53)	802	(2.25)	430	—	2,013
All ages/serotypes	—	(0)	—	(0)	97	(0.24)	94	(0.23)	114	(0.18)	476	(0.53)	802	(2.25)	430	—	2,013
Age <5 yrs, serotype b	19	(0.47)	13	(0.08)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	—	32
Age <5 yrs, nonserotype b	59	(1.46)	58	(0.37)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	—	117
Age <5 yrs, unknown serotype	134	(3.32)	93	(0.60)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	—	227
Hansen disease (leprosy)	—	(0)	—	(0)	1	(0)	10	(0.03)	30	(0.05)	26	(0.03)	12	(0.04)	16	—	95
Hantavirus pulmonary syndrome	—	(0)	—	(0)	—	(0)	1	(0)	9	(0.01)	11	(0.01)	3	(0.01)	2	—	26
Hemolytic uremic syndrome	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	—	—
postdiarrheal	6	(0.16)	83	(0.56)	47	(0.12)	9	(0.02)	5	(0.01)	18	(0.02)	10	(0.03)	—	—	178
Hepatitis A, acute	28	(0.69)	203	(1.30)	935	(2.28)	1,124	(2.77)	1,868	(3.02)	2,382	(2.66)	993	(2.79)	120	—	7,653
Hepatitis B, acute	8	(0.20)	5	(0.03)	22	(0.05)	886	(2.18)	3,075	(4.97)	2,942	(3.28)	344	(0.97)	244	—	7,526
Hepatitis C, acute	6	(0.15)	2	(0.01)	3	(0.01)	159	(0.39)	352	(0.57)	529	(0.59)	37	(0.10)	14	—	1,102
Legionellosis	2	(0.05)	—	(0)	5	(0.01)	29	(0.07)	191	(0.31)	1,187	(1.32)	796	(2.24)	22	—	2,232
Listeriosis	61	(1.52)	7	(0.05)	3	(0.01)	24	(0.06)	58	(0.09)	181	(0.20)	350	(0.99)	12	—	696
Lyme disease	62	(1.54)	1,048	(6.76)	4,035	(9.87)	1,987	(4.92)	3,057	(4.96)	8,096	(9.07)	2,670	(7.53)	318	—	21,273

TABLE 3. (Continued) Reported cases and incidence* of notifiable diseases,[†] by age group — United States, 2003

Disease	<1 yr		1–4 yrs		5–14 yrs		15–24 yrs		25–39 yrs		40–64 yrs		≥65 yrs		Age not stated		Total
	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)			
Malaria	1	(0.02)	50	(0.32)	142	(0.35)	238	(0.59)	426	(0.69)	468	(0.52)	51	(0.14)	26		1,402
Measles	11	(0.27)	8	(0.05)	5	(0.01)	15	(0.04)	9	(0.01)	7	(0.01)	1	(0)	—		56
Meningococcal disease	206	(5.11)	240	(1.54)	210	(0.51)	354	(0.87)	176	(0.28)	303	(0.34)	246	(0.69)	21		1,756
Mumps	2	(0.05)	30	(0.19)	70	(0.17)	17	(0.04)	44	(0.07)	58	(0.07)	6	(0.02)	4		231
Pertussis	2,217	(54.96)	1,138	(7.31)	3,481	(8.48)	2,272	(5.60)	1,030	(1.67)	1,328	(1.48)	135	(0.38)	46		11,647
Plague	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	1	(0)	—		1
Psittacosis	—	(0)	—	(0)	—	(0)	—	(0)	2	(0)	9	(0.01)	1	(0)	—		12
Q fever	—	(0)	—	(0)	—	(0)	6	(0.02)	10	(0.02)	36	(0.04)	19	(0.06)	—		71
Rabies, human	—	(0)	—	(0)	—	(0)	—	(0)	1	(0)	—	(0)	1	(0)	—		2
Rocky Mountain spotted fever	2	(0.05)	37	(0.24)	84	(0.21)	106	(0.27)	242	(0.40)	462	(0.53)	153	(0.44)	5		1,091
Rubella	—	(0)	—	(0)	2	(0)	3	(0.01)	2	(0)	—	(0)	—	(0)	—		7
Salmonellosis	4,356	(107.99)	7,656	(49.15)	5,596	(13.64)	3,591	(8.85)	5,688	(9.20)	7,825	(8.72)	3,958	(11.12)	4,987		43,657
SARS-CoV ^{§§}	—	(0)	—	(0)	—	(0)	1	(0)	3	(0)	4	(0)	—	(0)	—		8
Shigellosis	418	(10.36)	6,665	(42.79)	7,259	(17.69)	1,517	(3.74)	2,833	(4.58)	1,818	(2.03)	362	(1.02)	2,709		23,581
Streptococcal disease, invasive, group A	138	(3.49)	273	(1.79)	424	(1.06)	252	(0.64)	760	(1.26)	1,880	(2.15)	1,798	(5.18)	347		5,872
Streptococcal toxic-shock syndrome	1	(0.03)	4	(0.03)	6	(0.02)	7	(0.02)	23	(0.04)	64	(0.09)	56	(0.19)	—		161
<i>Streptococcus pneumoniae</i> , invasive disease																	
Drug-resistant	93	(5.97)	288	(4.77)	103	(0.64)	57	(0.35)	179	(0.74)	732	(1.98)	789	(5.04)	115		2,356
Age <5 yrs ^{††}	284	(14.53)	561	(7.41)	—	(0)	—	(0)	—	(0)	—	(0)	—	(0)	—		845
Syphilis, primary and secondary ^{**}	—	(0)	—	(0)	—	(0)	1,182	(2.91)	3,585	(5.80)	2,351	(2.62)	42	(0.12)	1		7,177
Tetanus	—	(0)	—	(0)	—	(0)	4	(0.01)	4	(0.01)	6	(0.01)	6	(0.02)	—		20
Toxic-shock syndrome	3	(0.09)	2	(0.02)	26	(0.08)	34	(0.10)	26	(0.05)	31	(0.04)	11	(0.04)	—		133
Trichinellosis	—	(0)	—	(0)	2	(0.01)	—	(0)	1	(0)	3	(0)	—	(0)	—		6
Tuberculosis ^{¶¶}	101	(2.50)	454	(2.91)	367	(0.90)	1,573	(3.88)	3,710	(6.00)	5,666	(6.32)	2,694	(7.57)	309		14,874
Tularemia	—	(0)	13	(0.08)	31	(0.08)	4	(0.01)	21	(0.03)	36	(0.04)	22	(0.06)	2		129
Typhoid fever	4	(0.10)	42	(0.27)	66	(0.16)	57	(0.14)	99	(0.16)	74	(0.08)	9	(0.03)	5		356

* Per 100,000 population.

[†] No cases of anthrax, Powassan encephalitis or meningitis, western equine encephalitis or meningitis, paralytic poliomyelitis, or yellow fever were reported in 2003.[§] 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, 2003.[¶] Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.^{**} Age-related data are collected on aggregate forms different from those used for the number of reported cases. Thus, total cases reported here will differ slightly from other tables. Cases among persons aged <15 years are not shown because some might not be caused by sexual transmission; these cases are included in the totals. Totals reported to the Division of STD Prevention, NCHSTP, as of May 1, 2004.^{††} Notifiable in <40 states.^{§§} Severe acute respiratory syndrome-associated coronavirus; age data provided by the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.^{¶¶} Totals reported to the Division of TB Elimination, NCHSTP, as of April 1, 2004.

TABLE 4. Reported cases and incidence* of notifiable diseases,[†] by sex — United States, 2003

Disease	Male		Female		Sex not stated No.	Total
	No.	(Rate)	No.	(Rate)		
AIDS [§]	32,851	(23.19)	11,380	(7.76)	1	44,232
Botulism						
Foodborne	10	(0.01)	10	(0.01)	—	20
Infant	36	(1.74)	40	(2.03)	—	76
Other (includes wound and unspecified)	24	(0.02)	8	(0.01)	1	33
Brucellosis	52	(0.04)	50	(0.03)	2	104
Chancroid [¶]	25	(0.02)	29	(0.02)	—	54
Chlamydia ^{¶**}	190,244	(134.30)	685,017	(466.93)	2,217	877,478
Cholera	1	(0)	1	(0)	—	2
Coccidioidomycosis ^{††}	2,867	(6.02)	1,973	(4.07)	30	4,870
Cryptosporidiosis	1,920	(1.36)	1,512	(1.03)	74	3,506
Cyclosporiasis	37	(0.03)	37	(0.03)	1	75
Diphtheria	1	(0)	—	(0)	—	1
Ehrlichiosis						
Human granulocytic	218	(0.17)	142	(0.11)	2	362
Human monocytic	186	(0.14)	133	(0.10)	2	321
Encephalitis/meningitis, arboviral						
California serogroup	61	(0.04)	47	(0.03)	—	108
Eastern equine	8	(0.01)	6	(0)	—	14
St. Louis	24	(0.02)	17	(0.01)	—	41
West Nile	1,679	(1.19)	1,180	(0.80)	7	2,866
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)						
EHEC O157:H7	1,175	(0.83)	1,483	(1.01)	13	2,671
EHEC non-O157	110	(0.08)	135	(0.09)	7	252
EHEC not serogrouped	81	(0.71)	75	(0.64)	—	156
Giardiasis	9,472	(7.78)	7,728	(6.12)	2,509	19,709
Gonorrhea [¶]	160,106	(113.02)	174,230	(118.76)	768	335,104
<i>Haemophilus influenzae</i> , invasive, all ages/ serotypes	920	(0.65)	1,080	(0.74)	13	2,013
Age <5 yrs, serotype b	19	(0.19)	13	(0.14)	—	32
Age <5 yrs, nonserotype b	76	(0.76)	40	(0.42)	1	117
Age <5 yrs, unknown serotype	118	(1.18)	106	(1.11)	3	227
Hansen disease (leprosy)	59	(0.05)	20	(0.01)	16	95
Hantavirus pulmonary syndrome	17	(0.01)	7	(0)	2	26
Hemolytic uremic syndrome, postdiarrheal	76	(0.06)	102	(0.07)	—	178
Hepatitis A, acute	4,024	(2.84)	3,589	(2.45)	40	7,653
Hepatitis B, acute	4,548	(3.21)	2,923	(1.99)	55	7,526
Hepatitis C, acute	648	(0.46)	452	(0.31)	2	1,102
Legionellosis	1,473	(1.04)	743	(0.51)	16	2,232

TABLE 4. (Continued) Reported cases and incidence* of notifiable diseases,[†] by sex — United States, 2003

Disease	Male		Female		Sex not stated	Total
	No.	(Rate)	No.	(Rate)	No.	
Listeriosis	344	(0.24)	350	(0.24)	2	696
Lyme disease	11,294	(8.01)	9,800	(6.71)	179	21,273
Malaria	901	(0.64)	487	(0.33)	14	1,402
Measles	30	(0.02)	26	(0.02)	—	56
Meningococcal disease	856	(0.60)	889	(0.61)	11	1,756
Mumps	129	(0.09)	100	(0.07)	2	231
Pertussis	5,367	(3.79)	6,223	(4.24)	57	11,647
Plague	—	(0)	1	(0)	—	1
Psittacosis	5	(0)	7	(0.01)	—	12
Q fever	55	(0.04)	16	(0.01)	—	71
Rabies, human	2	(0)	—	(0)	—	2
Rocky Mountain spotted fever	649	(0.47)	437	(0.31)	5	1,091
Rubella	2	(0)	5	(0)	—	7
Salmonellosis	19,013	(13.42)	20,073	(13.68)	4,571	43,657
SARS-CoV ^{§§}	4	(0)	4	(0)	—	8
Shigellosis	9,859	(6.96)	11,169	(7.61)	2,553	23,581
Streptococcal disease, invasive, group A	2,895	(2.09)	2,688	(1.87)	289	5,872
Streptococcal toxic-shock syndrome	70	(0.06)	89	(0.07)	2	161
<i>Streptococcus pneumoniae</i> , invasive disease						
Drug-resistant	1,204	(1.49)	1,152	(1.36)	—	2,356
Age <5 yrs	462	(9.49)	374	(8.03)	9	845
Syphilis, primary and secondary ^{¶¶}	5,956	(4.20)	1,217	(0.83)	4	7,177
Tetanus	8	(0.01)	11	(0.01)	1	20
Toxic-shock syndrome	26	(0.02)	107	(0.09)	—	133
Trichinellosis	3	(0)	3	(0)	—	6
Tuberculosis ^{¶¶¶}	9,114	(6.44)	5,754	(3.93)	6	14,874
Tularemia	94	(0.07)	35	(0.02)	—	129
Typhoid fever	175	(0.12)	180	(0.12)	1	356

* Per 100,000 population.

[†] No cases of anthrax, Powassan encephalitis or meningitis, western equine encephalitis or meningitis, paralytic poliomyelitis, or yellow fever were reported in 2003.

[§] 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, 2003.

[¶] Totals reported to the Division of STD Prevention, NCHSTP, as of May 1, 2004.

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

†† Notifiable in <40 states.

§§ Severe acute respiratory syndrome-associated coronavirus; data on sex provided by the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases.

¶¶¶ Totals reported to the Division of TB Elimination, NCHSTP, as of April 1, 2004.

TABLE 5. Reported cases and incidence* of notifiable diseases,† by race — United States, 2003

Disease	American Indian or Alaska Native		Asian or Pacific Islander		Black		White		Other No.	Race not stated No.	Total
	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)			
AIDS§	230	(7.48)	564	(4.41)	21,287	(56.39)	13,777	(5.87)	0	8,374	44,232¶
Botulism											
Infant	—	(—)	5	(2.68)	3	(0.44)	46	(1.47)	2	20	76
Other (includes wound and unspecified)	0	(0)	0	(0)	2	(0.01)	16	(0.01)	0	15	33
Brucellosis	2	(0.07)	1	(0.01)	2	(0.01)	46	(0.02)	3	50	104
Chlamydia**††	12,067	(392.28)	12,848	(100.39)	296,564	(785.65)	268,366	(114.32)	17,390	270,243	877,478¶
Coccidioidomycosis§§	29	(2.11)	103	(1.69)	219	(2.08)	1,188	(1.52)	26	3,305	4,870
Cryptosporidiosis	21	(0.68)	36	(0.28)	269	(0.71)	2,141	(0.91)	46	993	3,506
Cyclosporiasis	0	(0)	2	(0.02)	3	(0.01)	45	(0.02)	1	24	75
Ehrlichiosis											
Human granulocytic	3	(0.10)	0	(0)	5	(0.01)	198	(0.09)	2	154	362
Human monocytic	2	(0.07)	0	(0)	11	(0.03)	266	(0.12)	0	42	321
Encephalitis/meningitis, arboviral											
California serogroup	0	(0)	0	(0)	0	(0)	84	(0.04)	0	24	108
St. Louis	0	(0)	0	(0)	0	(0)	32	(0.01)	2	7	41
West Nile	56	(1.82)	5	(0.04)	0	(0)	1,856	(0.79)	13	936	2,866
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)											
EHEC O157:H7	16	(0.52)	46	(0.36)	50	(0.13)	1,811	(0.77)	66	682	2,671
EHEC non-O157	2	(0.07)	0	(0)	6	(0.02)	156	(0.07)	7	81	252
EHEC not serogrouped	—	(—)	1	(0.01)	4	(0.01)	106	(0.56)	6	39	156
Giardiasis	69	(2.49)	459	(3.88)	957	(2.95)	8,378	(4.17)	384	9,462	19,709
Gonorrhea††	1,971	(64.07)	2,218	(17.33)	183,274	(485.52)	62,032	(26.43)	4,572	81,037	335,104¶
<i>Haemophilus influenzae</i> , invasive, all ages/serotypes	44	(1.43)	29	(0.23)	252	(0.67)	1,193	(0.51)	24	471	2,013
Age <5 yrs, serotype b	2	(0.83)	—	(—)	1	(0.03)	22	(0.14)	0	7	32
Age <5 yrs, nonserotype b	12	(4.98)	5	(0.56)	19	(0.59)	52	(0.34)	0	29	117
Age <5, unknown serotype	10	(4.15)	1	(0.11)	30	(0.93)	108	(0.71)	0	78	227
Hansen disease (leprosy)	0	(0)	18	(0.15)	3	(0.01)	27	(0.01)	3	44	95
Hantavirus pulmonary syndrome	0	(0)	0	(0)	0	(0)	19	(0.01)	0	7	26
Hemolytic uremic syndrome postdiarrheal	0	(0)	2	(0.02)	2	(0.01)	133	(0.06)	3	38	178
Hepatitis A, acute	33	(1.07)	235	(1.84)	545	(1.44)	3,551	(1.51)	90	3,199	7,653
Hepatitis B, acute	61	(1.98)	197	(1.54)	1,235	(3.27)	2,724	(1.16)	115	3,194	7,526
Hepatitis C, acute	9	(0.29)	11	(0.09)	111	(0.29)	626	(0.27)	6	339	1,102
Legionellosis	5	(0.16)	14	(0.11)	316	(0.84)	1,399	(0.60)	30	468	2,232

TABLE 5. (Continued) Reported cases and incidence* of notifiable diseases,† by race — United States, 2003

Disease	American Indian or Alaska Native		Asian or Pacific Islander		Black		White		Other	Race not stated	Total
	No.	(Rate)	No.	(Rate)	No.	(Rate)	No.	(Rate)			
Listeriosis	0	(0)	26	(0.20)	70	(0.19)	419	(0.18)	17	164	696
Lyme disease	37	(1.20)	81	(0.68)	181	(0.48)	10,636	(4.54)	74	10,264	21,273
Malaria	6	(0.20)	92	(0.72)	606	(1.61)	324	(0.14)	34	340	1,402
Measles	0	(0)	23	(0.18)	1	(0)	20	(0.01)	2	10	56
Meningococcal disease	8	(0.26)	35	(0.27)	237	(0.63)	1,067	(0.45)	20	389	1,756
Mumps	2	(0.07)	21	(0.17)	10	(0.03)	119	(0.05)	5	74	231
Pertussis	97	(3.15)	124	(0.97)	572	(1.52)	8,658	(3.69)	101	2,095	11,647
Q fever	0	(0)	0	(0)	3	(0.01)	45	(0.02)	0	23	71
Rocky Mountain spotted fever	41	(1.39)	1	(0.01)	80	(0.21)	827	(0.36)	2	140	1,091
Salmonellosis	284	(9.23)	613	(4.79)	4,142	(10.97)	21,086	(8.98)	796	16,736	43,657
Shigellosis	352	(11.44)	151	(1.18)	4,945	(13.10)	9,902	(4.22)	352	7,879	23,581
Streptococcal disease, invasive, group A	83	(2.76)	145	(1.15)	749	(1.99)	3,151	(1.38)	105	1,639	5,872
Streptococcal toxic-shock syndrome	0	(0)	2	(0.02)	14	(0.05)	132	(0.07)	2	11	161
<i>Streptococcus pneumoniae</i> , invasive disease											
Drug-resistant	3	(0.22)	16	(0.31)	472	(2.01)	1,484	(10.95)	49	332	2,356
Age <5 yrs ^{§§}	7	(5.89)	14	(4.06)	146	(9.13)	454	(6.08)	0	224	845
Syphilis, primary and secondary ^{¶¶}	67	(2.18)	128	(1.00)	2,693	(7.13)	3,690	(1.57)	251	348	7,177 ^{¶¶}
Toxic-shock syndrome	0	(0)	2	(0.02)	8	(0.03)	104	(0.05)	2	17	133
Tuberculosis ^{¶¶¶}	189	(6.14)	3,575	(28.00)	4,261	(11.29)	6,755	(2.88)	0	94	14,874
Tularemia	5	(0.16)	0	(0)	3	(0.01)	76	(0.03)	2	43	129
Typhoid fever	0	(0)	100	(0.78)	26	(0.07)	54	(0.02)	21	155	356

* Per 100,000 population.

† No cases of anthrax, Powassan encephalitis or meningitis, western equine encephalitis or meningitis, paralytic poliomyelitis, or yellow fever were reported in 2003. Disease conditions with <25 reported cases are not included in this table.

§ 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, 2003.

¶ Includes the following cases originally reported as Hispanic: 8,154 for AIDS; 122,559 for chlamydia; 21,297 for gonorrhea; and 1,097 for syphilis, primary and secondary.

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

¶¶ In addition to data collected through the National Electronic Telecommunications System for Surveillance (NETSS), certain data on ethnicity are collected on aggregate forms different from those used for reported cases. Thus, the total number of cases reported here can differ slightly from totals reported in other surveillance summaries. Totals reported to the Division of STD Prevention, NCHSTP, as of May 1, 2004.

§§ Notifiable in <40 states.

¶¶¶ Totals reported to the Division of TB Elimination, NCHSTP, as of April 1, 2004.

TABLE 6. Reported cases and incidence* of notifiable diseases,[†] by ethnicity — United States, 2003

Disease	Hispanic		Non-Hispanic		Ethnicity not stated	Total
	No.	(Rate)	No.	(Rate)		
AIDS [§]	8,154	(21.04)	35,064	(14.05)	1,014	44,232
Botulism						
Infant	15	(1.80)	38	(1.19)	23	76
Other (includes wound and unspecified)	14	(0.04)	16	(0.01)	3	33
Brucellosis	62	(0.16)	17	(0.01)	25	104
Chlamydia ^{¶**}	122,559	(316.19)	448,456	(179.66)	306,463	877,478
Coccidioidomycosis ^{††}	747	(3.22)	1,238	(1.70)	2,885	4,870
Cryptosporidiosis	235	(0.61)	1,834	(0.73)	1,437	3,506
Cyclosporiasis	10	(0.03)	33	(0.01)	32	75
Ehrlichiosis						
Human granulocytic	3	(0.01)	147	(0.06)	212	362
Human monocytic	4	(0.01)	232	(0.10)	85	321
Encephalitis/meningitis, arboviral						
California serogroup	1	(0)	34	(0.01)	73	108
St. Louis	5	(0.01)	20	(0.01)	16	41
West Nile	248	(0.64)	1,366	(0.55)	1,252	2,866
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)						
EHEC O157:H7	112	(0.29)	1,563	(0.63)	996	2,671
EHEC non-O157	13	(0.03)	113	(0.05)	126	252
EHEC not serogrouped	2	(0.01)	82	(0.40)	72	156
Giardiasis	1,173	(3.82)	7,422	(3.42)	11,114	19,709
Gonorrhea ^{**}	21,297	(54.94)	203,594	(81.57)	110,213	335,104
<i>Haemophilus influenzae</i> , invasive, all ages/serotypes	122	(0.31)	1,003	(0.40)	888	2,013
Age <5 yrs, serotype b	11	(0.29)	18	(0.12)	3	32
Age <5 yrs, nonserotype b	18	(0.48)	66	(0.42)	33	117
Age <5, unknown serotype	28	(0.75)	83	(0.53)	116	227
Hansen disease (leprosy)	34	(0.09)	26	(0.01)	35	95
Hantavirus pulmonary syndrome	3	(0.01)	15	(0.01)	8	26
Hemolytic uremic syndrome, postdiarrheal	21	(0.06)	113	(0.05)	44	178
Hepatitis A, acute	1,083	(2.79)	3,036	(1.22)	3,534	7,653
Hepatitis B, acute	424	(1.09)	3,154	(1.26)	3,948	7,526
Hepatitis C, acute	63	(0.16)	506	(0.20)	533	1,102
Legionellosis	72	(0.19)	1,139	(0.46)	1,021	2,232
Listeriosis	87	(0.22)	344	(0.14)	265	696

TABLE 6. (Continued) Reported cases and incidence* of notifiable diseases,[†] by ethnicity — United States, 2003

Disease	Hispanic		Non-Hispanic		Ethnicity not stated	Total
	No.	(Rate)	No.	(Rate)		
Lyme disease	257	(0.66)	6,529	(2.63)	14,487	21,273
Malaria	94	(0.24)	787	(0.32)	521	1,402
Measles	1	(0)	39	(0.02)	16	56
Meningococcal disease	193	(0.50)	952	(0.38)	611	1,756
Mumps	52	(0.14)	104	(0.04)	75	231
Pertussis	1,294	(3.34)	8,033	(3.22)	2,320	11,647
Q fever	8	(0.02)	42	(0.02)	21	71
Rocky Mountain spotted fever	17	(0.04)	750	(0.31)	324	1,091
Salmonellosis	3,300	(8.51)	17,603	(7.05)	22,754	43,657
Shigellosis	3,774	(9.74)	10,029	(4.02)	9,778	23,581
Streptococcal disease, invasive, group A	419	(1.09)	2,568	(1.05)	2,885	5,872
Streptococcal toxic-shock syndrome	5	(0.01)	98	(0.05)	58	161
<i>Streptococcus pneumoniae</i> , invasive						
Drug-resistant	121	(0.93)	1,032	(6.76)	1,203	2,356
Age <5 yrs ^{††}	79	(4.69)	351	(4.48)	415	845
Syphilis, primary and secondary ^{**}	1,097	(2.83)	5,417	(2.17)	663	7,177
Toxic-shock syndrome	7	(0.03)	79	(0.04)	47	133
Tuberculosis ^{§§}	4,115	(10.62)	10,675	(4.28)	84	14,874
Tularemia	3	(0.01)	58	(0.02)	68	129
Typhoid fever	62	(0.16)	155	(0.06)	139	356

* Per 100,000 population.

[†] No cases of anthrax, Powassan encephalitis or meningitis, western equine encephalitis or meningitis, paralytic poliomyelitis, or yellow fever were reported in 2003. Diseases with <25 reported cases are not included in this table.

[§] 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, 2003.

[¶] Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

^{**} In addition to data collected through the National Electronic Telecommunications System for Surveillance (NETSS), certain data on ethnicity are collected on aggregate forms different from those used for reported cases. Thus, the total number of cases reported here can differ slightly from totals reported in other surveillance summaries. Totals reported to the Division of STD Prevention, NCHSTP, as of May 1, 2004

^{††} Notifiable in <40 states.

^{§§} Totals reported to the Division of TB Elimination, NCHSTP, as of April 1, 2004.

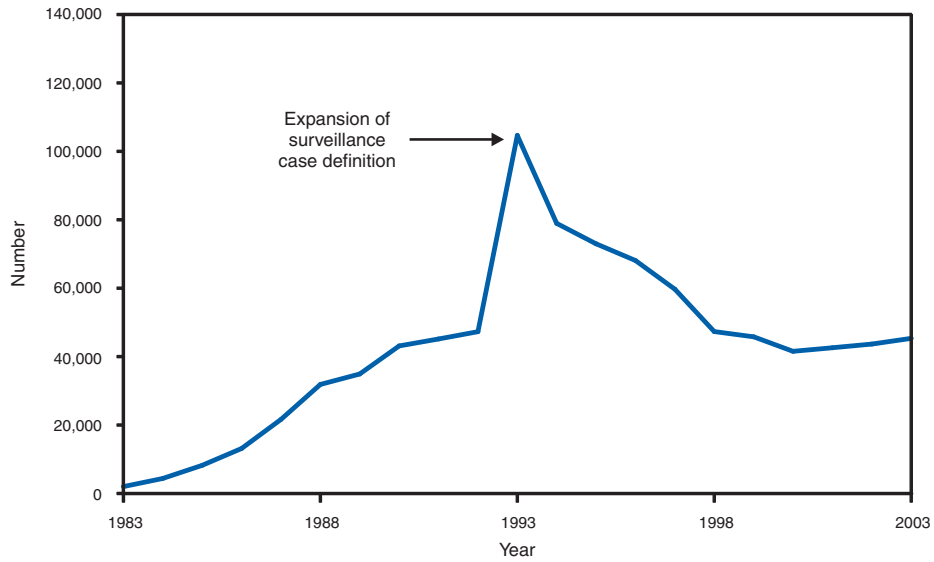
PART 2

Graphs and Maps for Selected Notifiable Diseases in the United States, 2003

Abbreviations and Symbols Used in Graphs and Maps

U	Data not available.
N	Not notifiable (i.e., report of disease not required in that jurisdiction).
AS	American Samoa
CNMI	Commonwealth of Northern Mariana Islands
GU	Guam
PR	Puerto Rico
VI	U.S. Virgin Islands

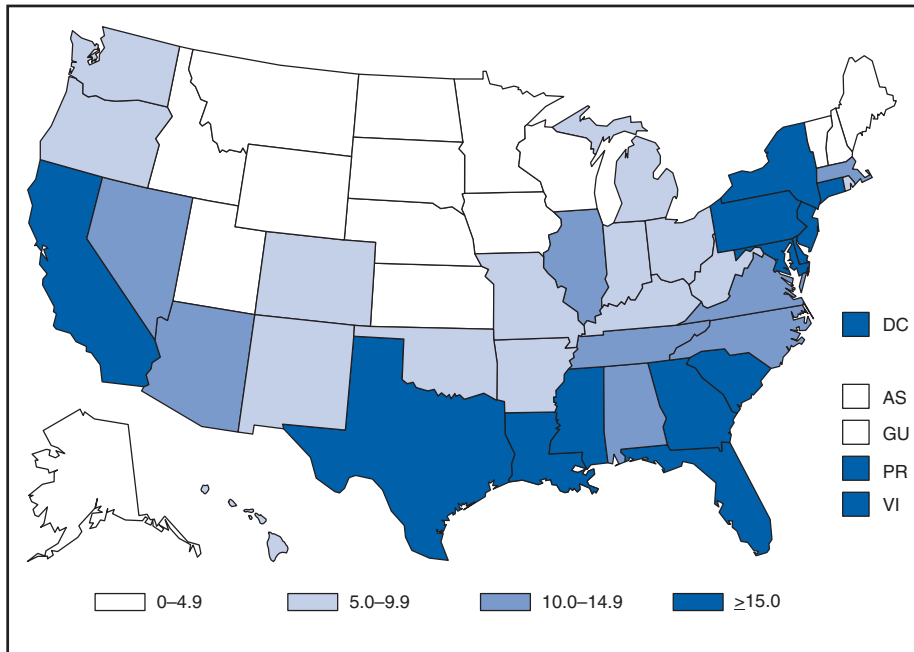
ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS). Number of reported cases,* by year — United States and U.S. territories, 1983–2003



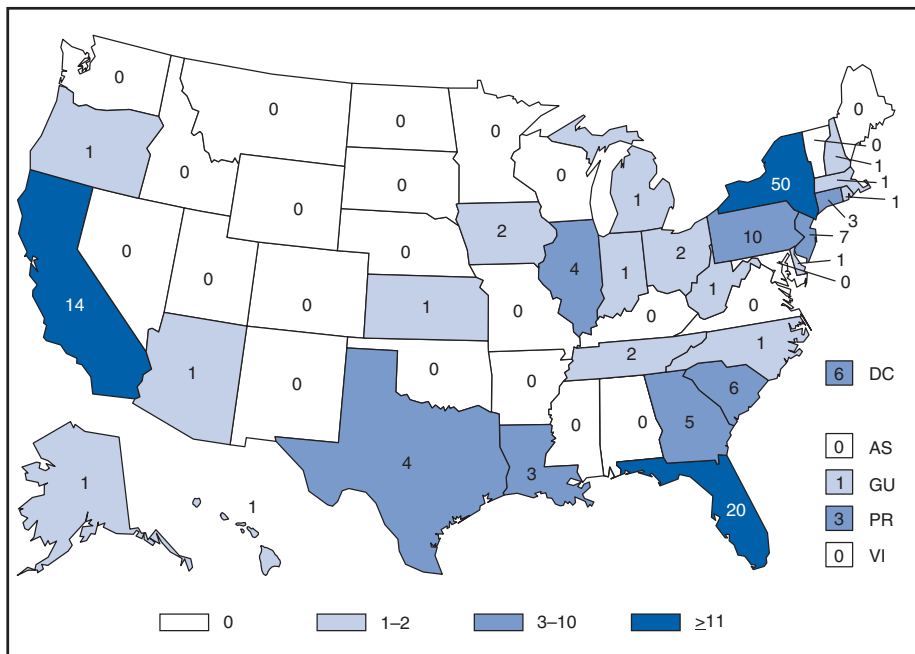
* Total number of AIDS cases includes all cases reported to CDC as of December 31, 2003. Total includes cases among residents in U.S. territories and 220 cases among persons with unknown state of residence.

During 1994–2000, the number of AIDS cases reported to CDC decreased 47.4%, predominantly attributable to effective antiretroviral therapies. During 2000–2003, the number of reported AIDS cases increased 8.5%. This increase might be attributable to increased AIDS case ascertainment in areas with recent HIV reporting implementation.

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS). Incidence* — United States† and U.S. territories, 2003



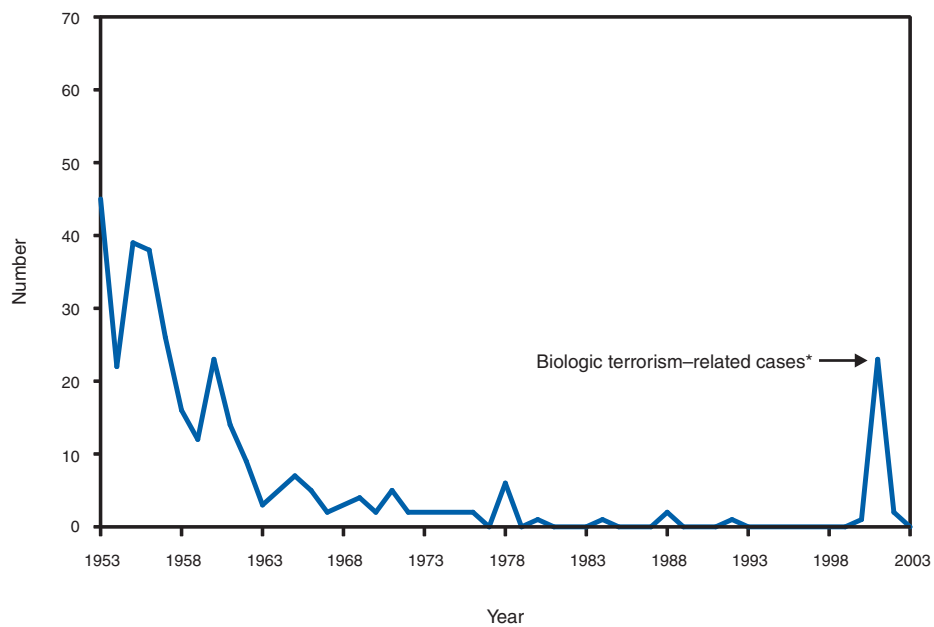
ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS). Number of reported pediatric* cases — United States and U.S. territories, 2003



*Children and adolescents aged <13 years.

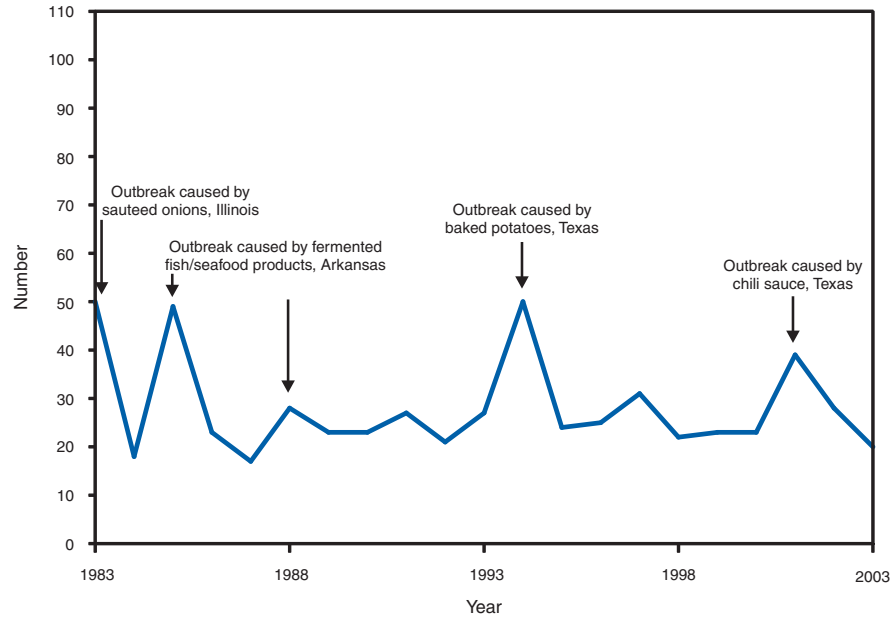
During 2003, a total of 157 new cases were reported in the United States and U.S. territories.

ANTHRAX. Number of reported cases, by year — United States, 1953–2003



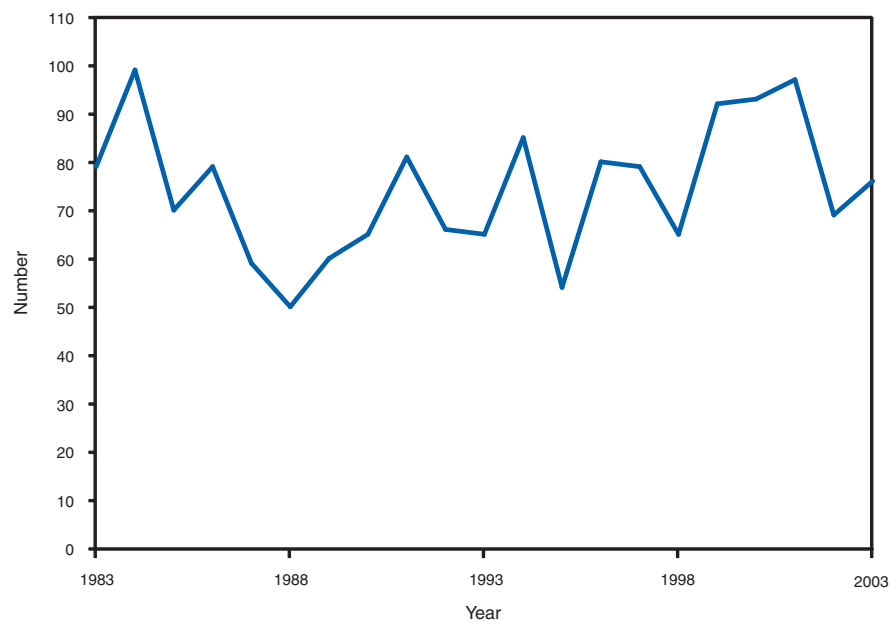
* One epizootic-associated cutaneous case was reported in 2001 from Texas.

BOTULISM, FOODBORNE. Number of reported cases, by year — United States, 1983–2003



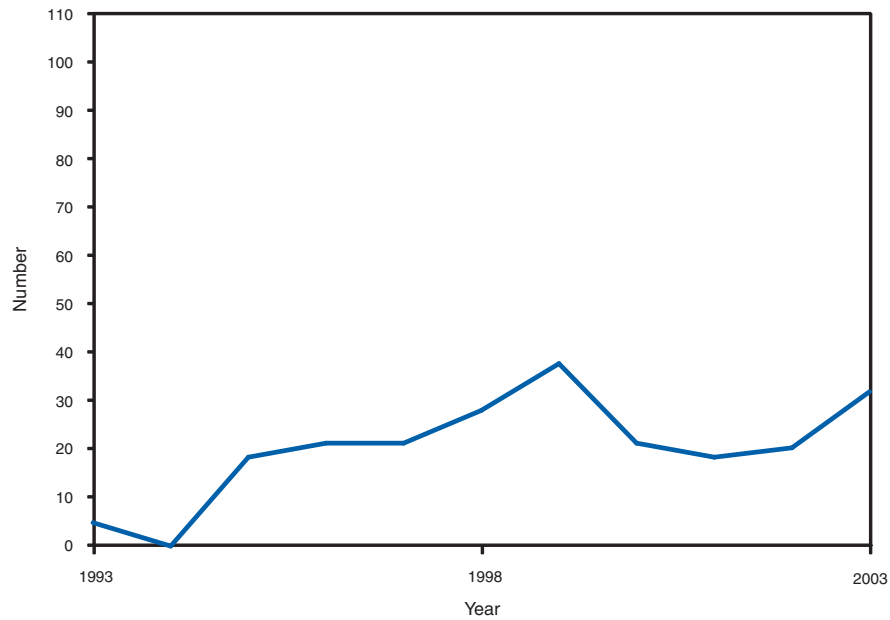
Home-canned foods and Alaska Native foods consisting of fermented foods of aquatic origin remain the principal sources of foodborne botulism in the United States.

BOTULISM, INFANT. Number of reported cases, by year — United States, 1983–2003



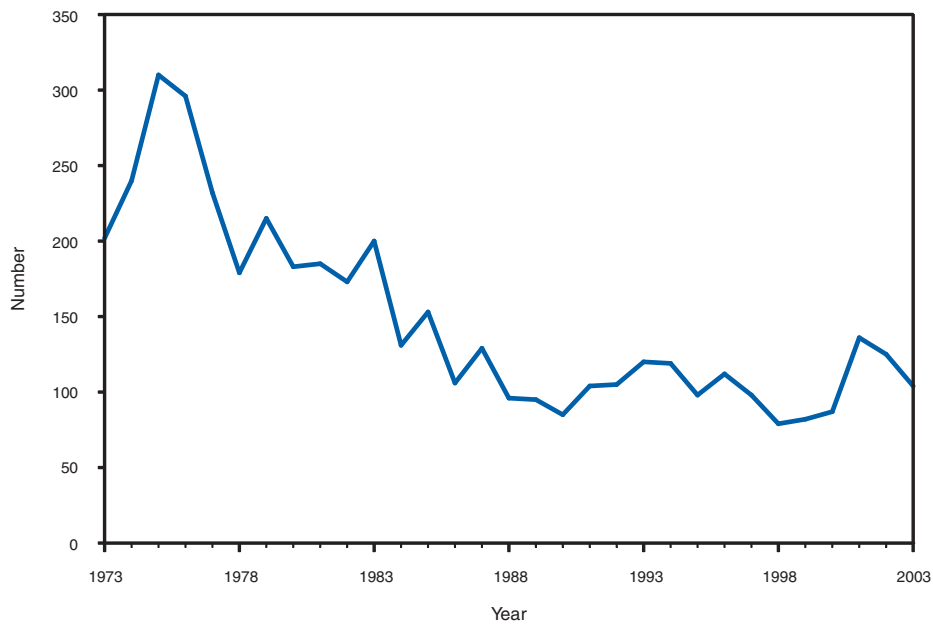
Infant botulism is the most common type of botulism in the United States. Cases are sporadic, and risk factors remain substantially unknown.

BOTULISM, OTHER (includes wound and unspecified). Number of reported cases, by year — United States, 1993–2003



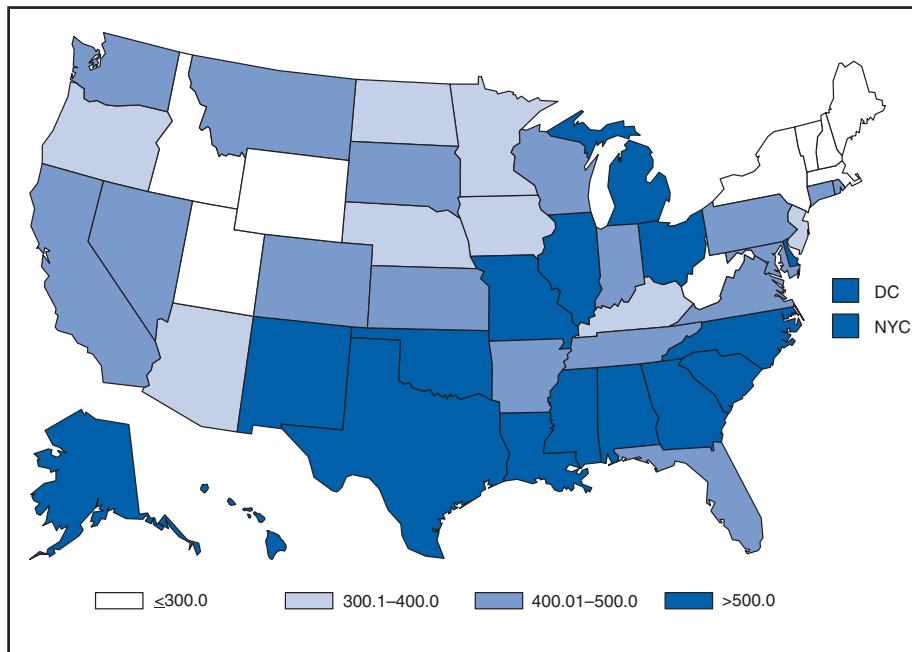
Wound botulism, which continues to constitute a substantial proportion of adult botulism cases, occurs almost exclusively among injection-drug users in the western United States and appears to be associated with injection of a particular type of heroin known as Black Tar Heroin.

BRUCELLOSIS. Number of reported cases, by year — United States, 1973–2003



The majority of cases of brucellosis in the United States occur among returned travelers or immigrants from areas in which brucellosis is endemic.

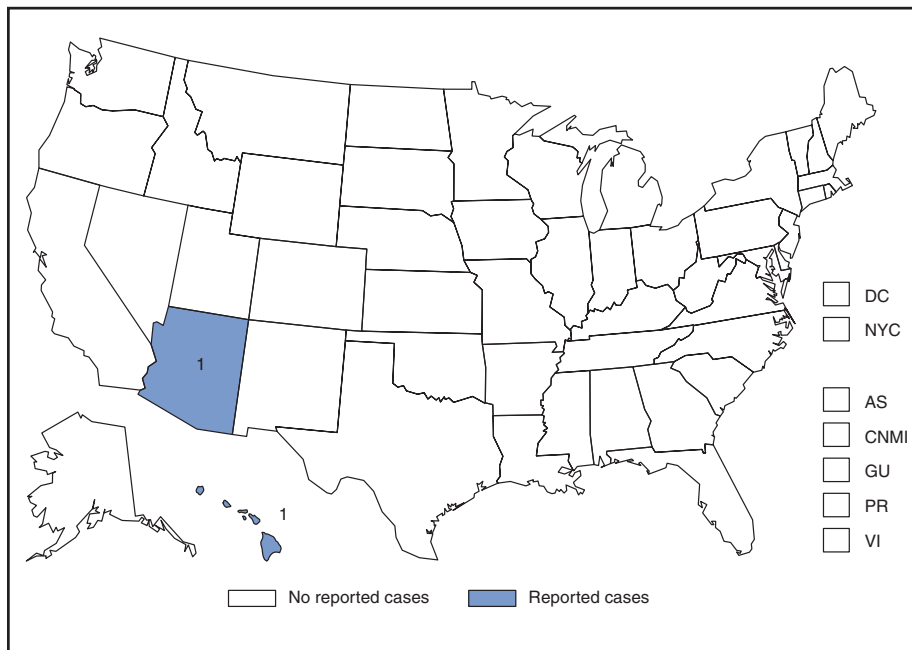
CHLAMYDIA. Incidence* among women — United States, 2003



* Per 100,000 population.

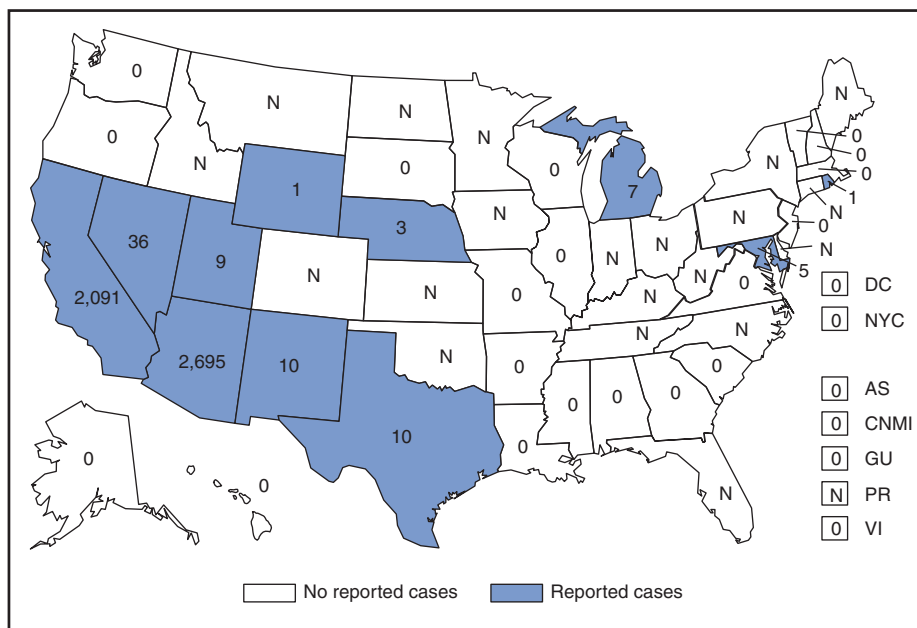
Chlamydia refers to genital infections caused by *Chlamydia trachomatis*. In 2003, the chlamydia rate among women was 466.9 cases per 100,000 population. Rates for men are not given because reporting for men is limited.

CHOLERA. Number of reported cases — United States and U.S. territories, 2003



The majority of cholera infections in the United States are acquired in developing countries or through consumption of contaminated seafood. Cholera vaccine is not recommended for international travelers and is no longer available in the United States.

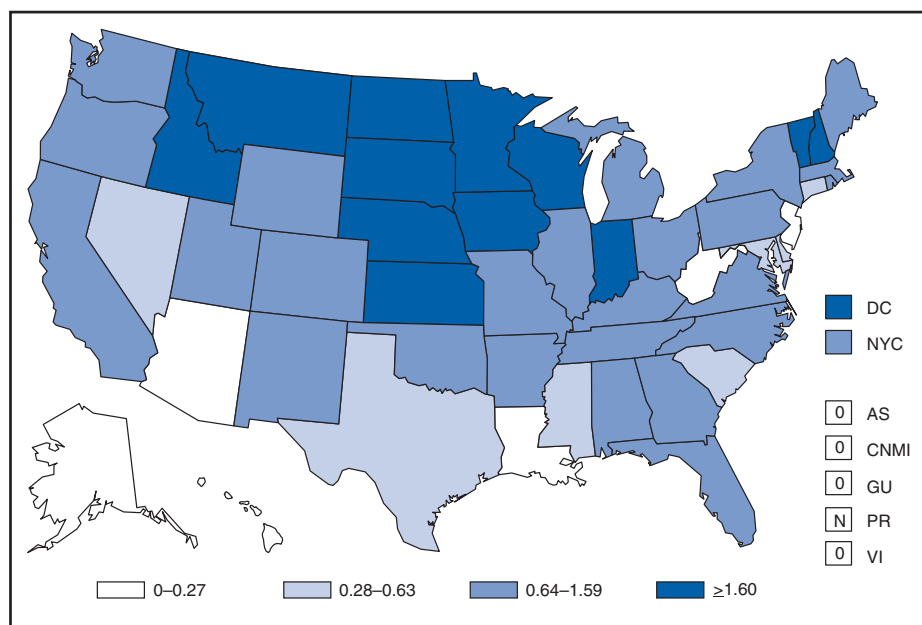
COCCIDIOIDOMYCOSIS. Number of reported cases — United States* and U.S. territories, 2003



* In the United States, coccidioidomycosis is endemic in the southwestern states. However, cases have been reported in other states, usually among travelers returning from areas in which the disease is endemic.

During 2002–2003, the number of coccidioidomycosis cases in California increased from 1,727 to 2,091, whereas the number of cases in Arizona declined from 3,133 to 2,695. Physicians should maintain a high suspicion for acute coccidioidomycosis, especially for patients with a flu-like illness who live in or have visited areas in which disease is endemic.

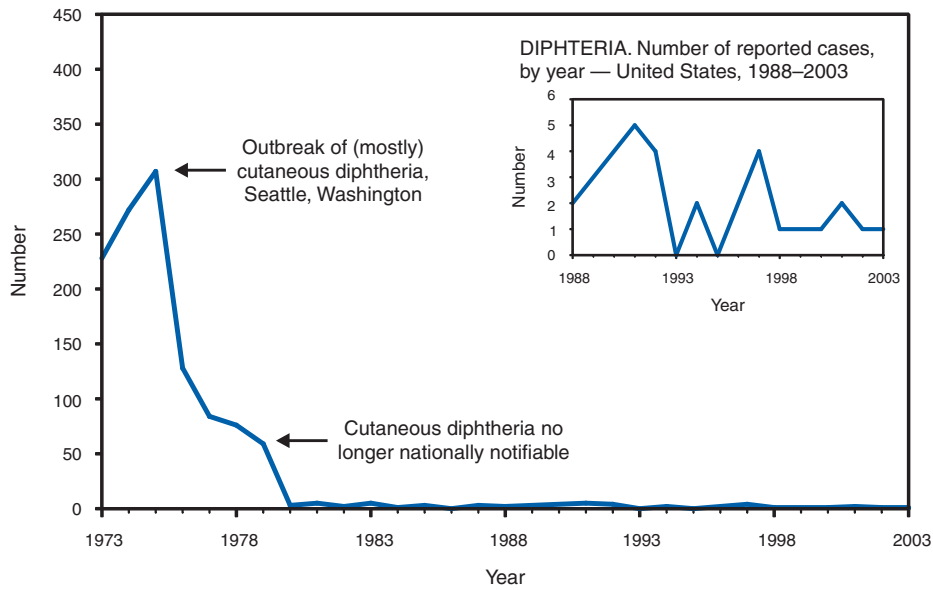
CRYPTOSPORIDIOSIS. Incidence* — United States and U.S. territories, 2003



* Per 100,000 population.

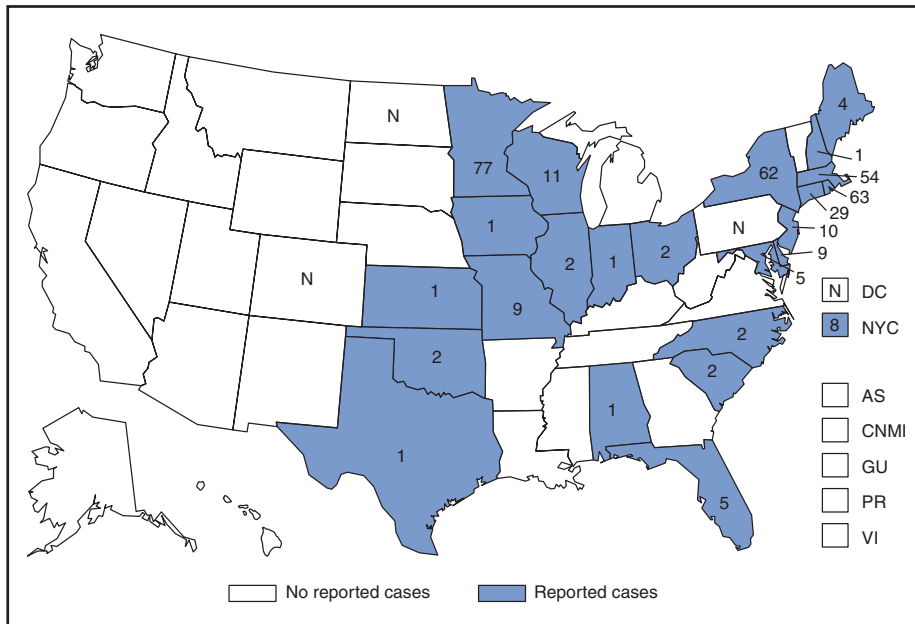
Surveillance data from 2003 indicate that infection with *Cryptosporidium* species is geographically widespread in the United States. The diagnosis or transmission of cryptosporidiosis might be higher in northern states, particularly in the Midwest; however, state-by-state differences should be interpreted with caution because different state surveillance systems have varying capabilities to detect cases. Reported illness onset dates exhibited a seasonal increase from early summer through early fall.

DIPHTHERIA. Number of reported cases, by year — United States, 1973–2003



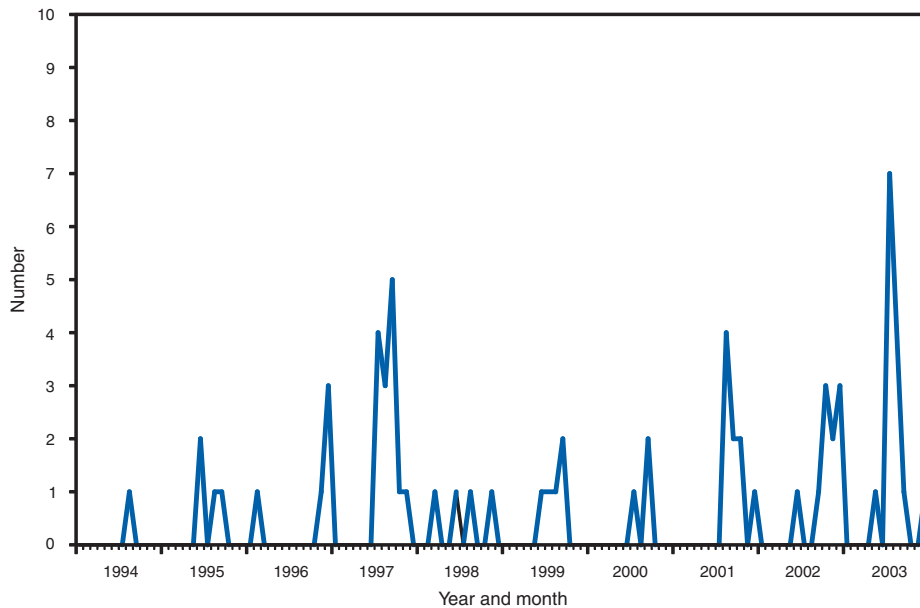
In 2003, one laboratory-confirmed, fatal case of diphtheria was reported in an unvaccinated adult resident of Pennsylvania who had traveled to Haiti, where diphtheria is endemic. The Advisory Committee on Immunization Practices recommends a 5-dose primary series of DTP/DTaP (diphtheria, tetanus, and pertussis) vaccine by age 6 years, a combined formulation of tetanus and diphtheria (Td) vaccine at age 11–12 years, and a booster dose (Td) at 10-year intervals thereafter.

EHRlichiosis, HUMAN GRANULOCYTIC. Number of reported cases — United States and U.S. territories, 2003



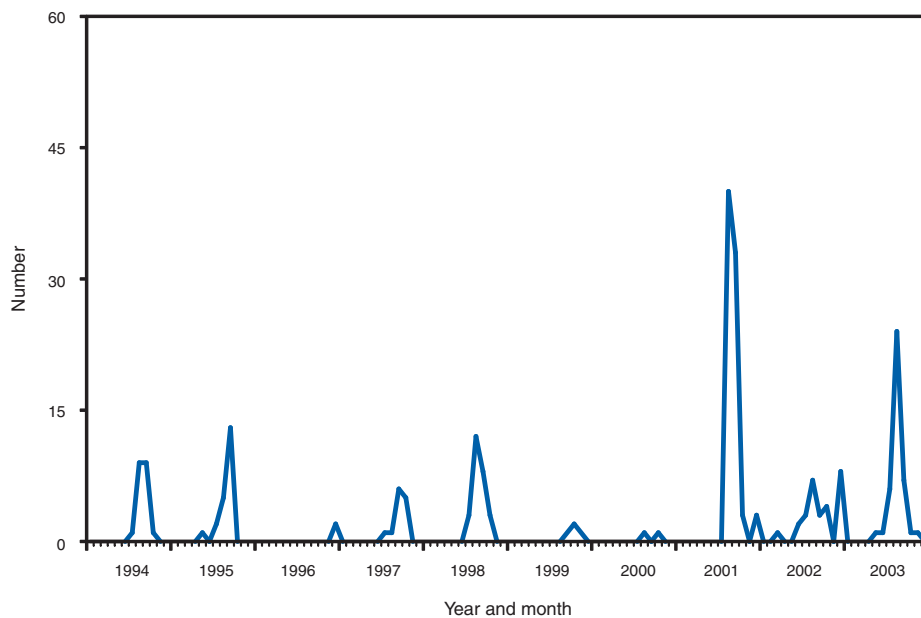
Human ehrlichiosis is an emerging tickborne disease that became nationally notifiable in 1999 (in certain states, ehrlichiosis is not a notifiable disease). Identification and reporting of human ehrlichioses are incomplete, and numbers of cases reported here are not indicative of the overall distribution or the regional prevalence of disease.

ENCEPHALITIS/MENINGITIS, ARBOVIRAL, EASTERN EQUINE. Number of reported cases, by month of onset — United States, 1994–2003



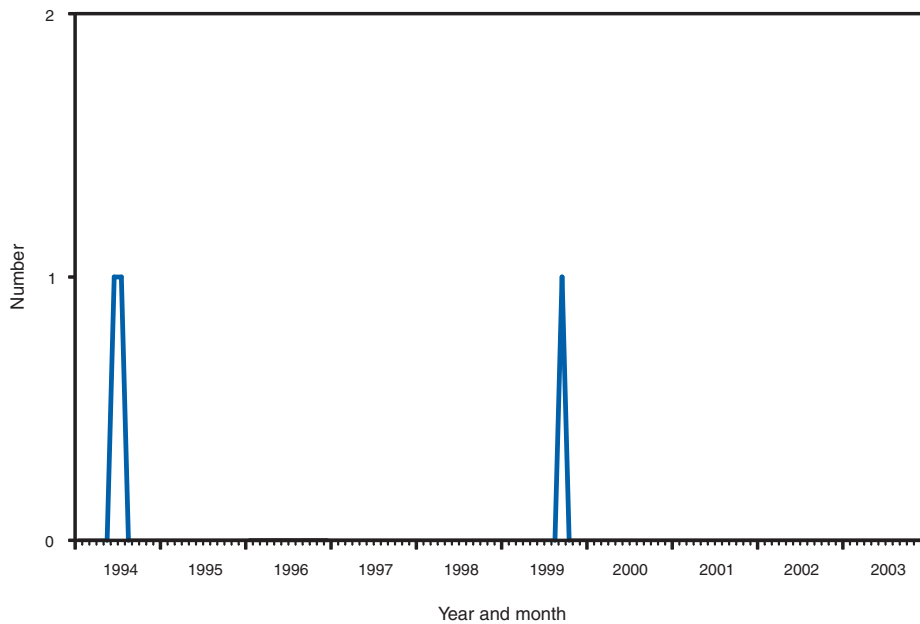
Cases of eastern equine encephalitis among humans, often associated with high mortality rates (>20%) and severe neurologic sequelae, occur sporadically in the eastern United States. In 2003, a total of 14 cases were reported from eight states (Alabama, Florida, Georgia, Louisiana, New Jersey, North Carolina, South Carolina, and Virginia), equaling the greatest number reported to CDC in any year during 1964–2003. During 1964–2003, a median of four (average: five; range, 0–14) cases were reported per year in the United States.

ENCEPHALITIS/MENINGITIS, ARBOVIRAL, ST. LOUIS. Number of reported cases, by month of onset — United States, 1994–2003



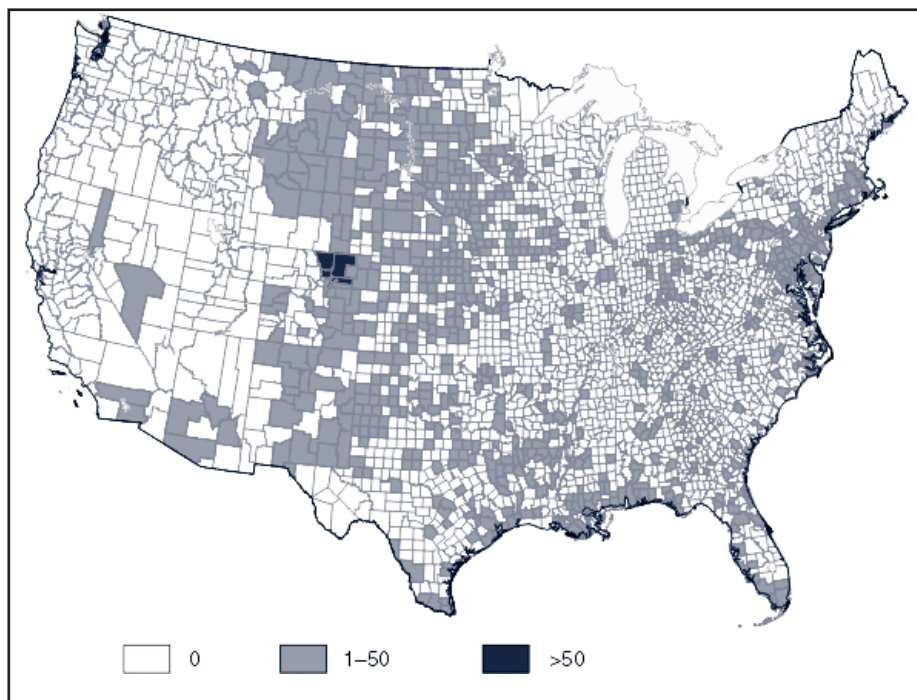
Before the emergence of West Nile virus (WNV) in the United States, St. Louis encephalitis (SLE) virus was the primary cause of epidemic viral encephalitis in the United States. In 2003, a total of 41 SLE cases were reported from nine states (Arizona, Louisiana, Michigan, Mississippi, New Mexico, New York, Pennsylvania, South Dakota, and Texas). During 1964–2003, a median of 27 (average: 116; range: 2–1,967) cases were reported per year in the United States.

ENCEPHALITIS/MENINGITIS, ARBOVIRAL, WESTERN EQUINE. Number of reported cases, by month of onset — United States, 1994–2003



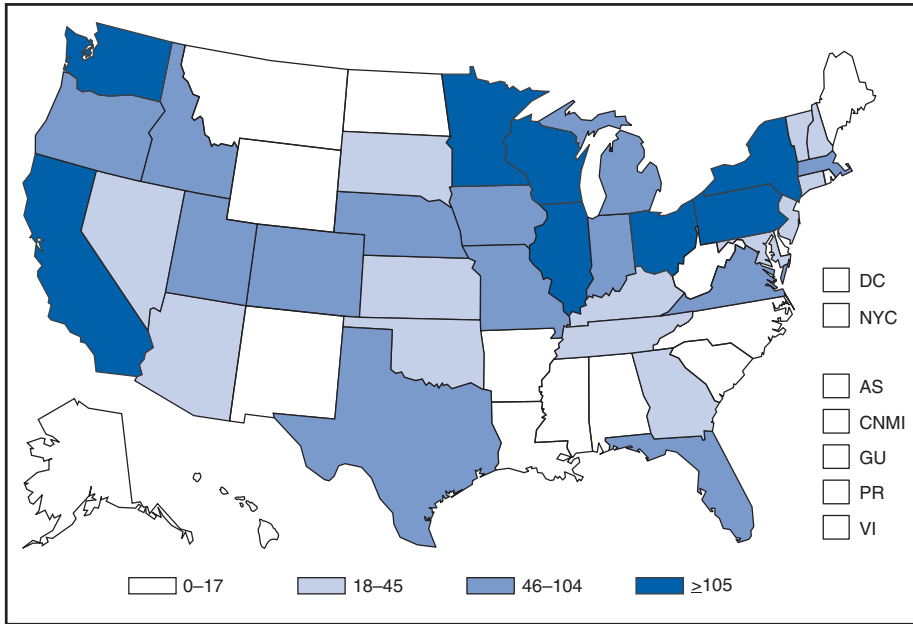
The most recent epidemic of western equine encephalitis occurred in Colorado in 1987. The reasons for the recent absence of epidemic transmission are poorly understood. No cases were reported nationally in 2003. During 1964–2003, a median of two (average: 16; range: 0–172) cases were reported per year in the United States.

ENCEPHALITIS/MENINGITIS, ARBOVIRAL, WEST NILE. Number of reported cases, by county — United States, 2003



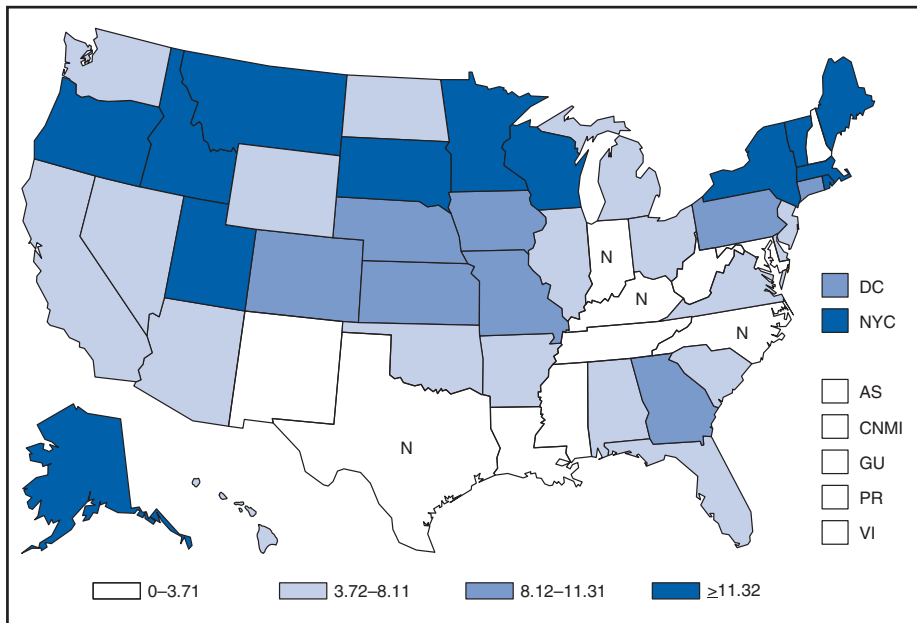
In 2003, a total of 2,866 West Nile virus (WNV) neuroinvasive cases were reported from 42 states and the District of Columbia (DC) compared with 2,942 cases from 36 states and DC in 2002. Since WNV was first discovered during an encephalitis outbreak in New York City in 1999, a median of 64 (average: 1,170; range: 19–2,942) neuroinvasive cases were reported per year in the United States.

ESCHERICHIA COLI, ENTEROHEMORRHAGIC O157:H7. Number of reported cases — United States and U.S. territories, 2003



E. coli O157:H7 constitutes the major serotype of the enterohemorrhagic *E. coli*, although many other *E. coli* serotypes can produce Shiga toxin and cause hemorrhagic colitis. *E. coli* O157:H7 has been a nationally notifiable disease since 1994. In 2001, surveillance was expanded to include all serotypes of enterohemorrhagic *E. coli*; however, certain laboratories still lack the capacity to isolate and identify *E. coli* serotypes other than O157:H7.

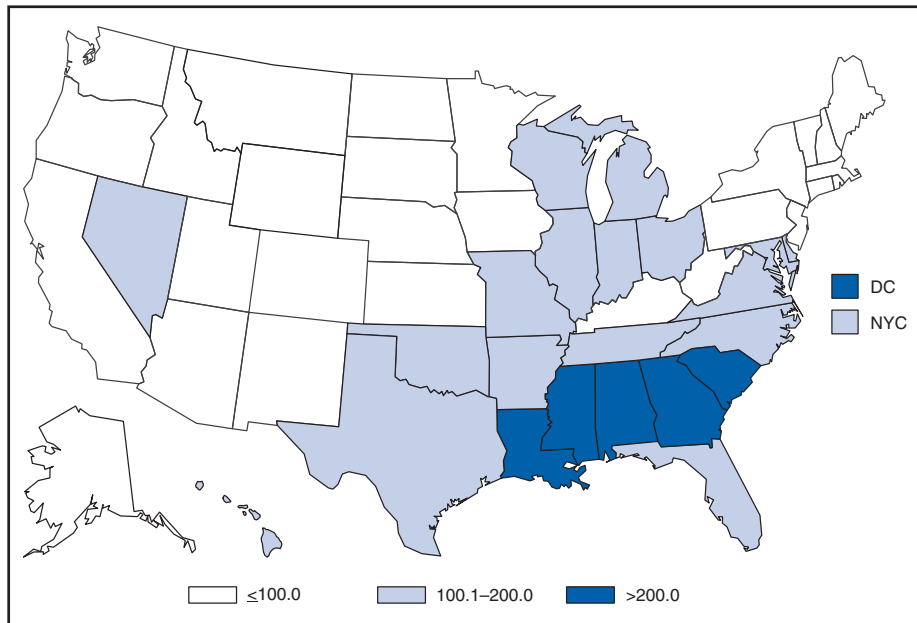
GIARDIASIS. Incidence* — United States and U.S. territories, 2003



* Per 100,000 population.

Surveillance data from 2003 indicate that infection with *Giardia intestinalis* is geographically widespread in the United States. The diagnosis or transmission of giardiasis might be higher in the northern states; however, state-by-state differences should be interpreted with caution because different state surveillance systems have varying capabilities to detect cases. Reported illness onset dates exhibited a seasonal increase from early summer through early fall.

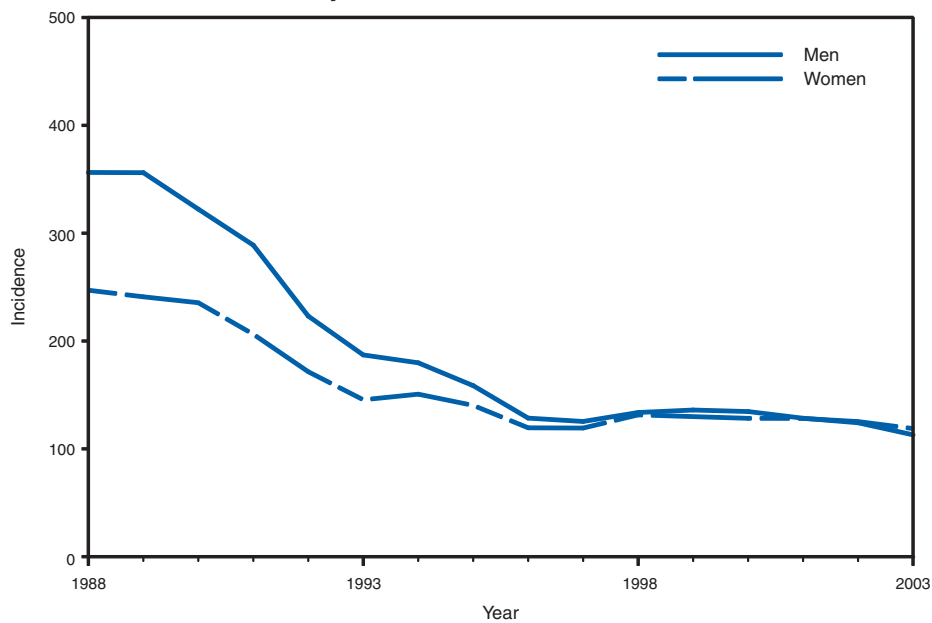
GONORRHEA. Incidence* — United States, 2003



* Per 100,000 population.

In 2003, the overall U.S. gonorrhea rate was 116.3 per 100,000 population. The *Healthy People 2010* national objective is ≤ 19 cases per 100,000 population. Eight states (Idaho, Maine, Montana, New Hampshire, North Dakota, Utah, Vermont and Wyoming) reported rates below the national objective.

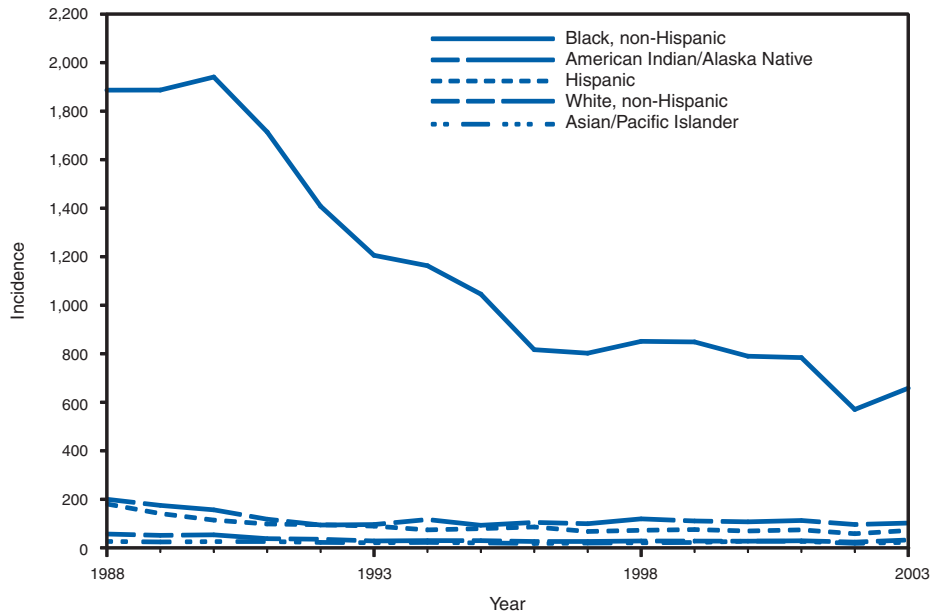
GONORRHEA. Incidence,* by sex — United States, 1988–2003



* Per 100,000 population.

The overall incidence of gonorrhea in the United States has declined since 1975. In 2003, incidence was slightly higher among women than among men.

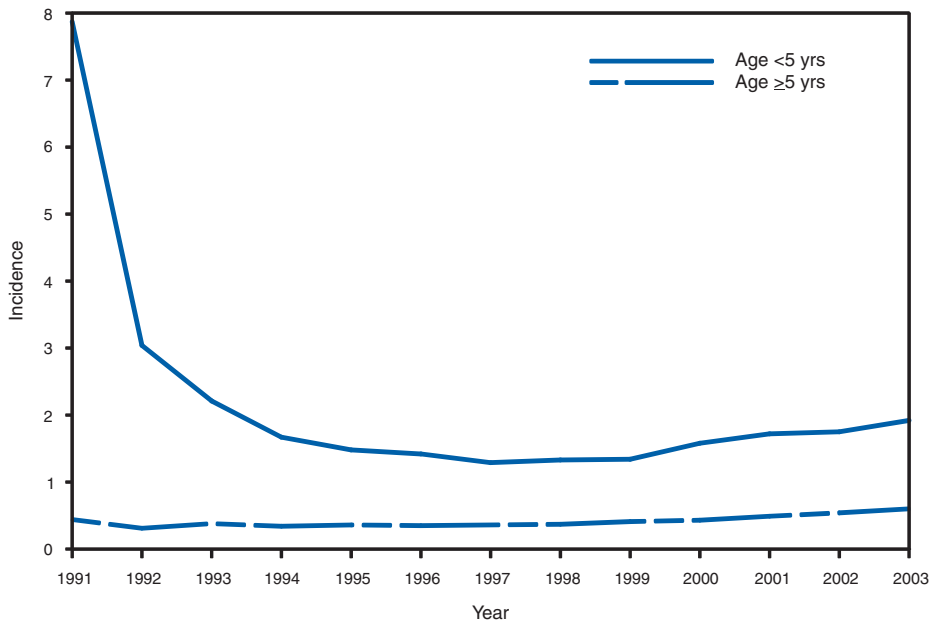
GONORRHEA. Incidence,* by race/ethnicity — United States, 1988–2003



* Per 100,000 population.

Gonorrhea incidence among blacks decreased considerably in the 1990s but continues to be the highest among all race/ethnic groups. In 2003, gonorrhea incidence among non-Hispanic blacks was approximately 20 times greater than that for non-Hispanic whites.

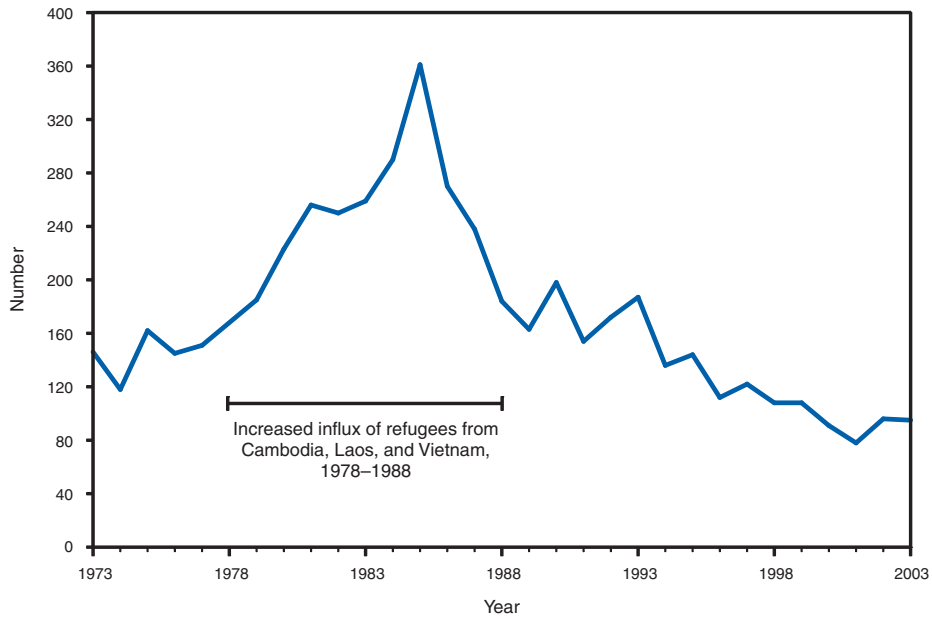
HAEMOPHILUS INFLUENZAE, INVASIVE DISEASE. Incidence,* by age group — United States, 1991–2003



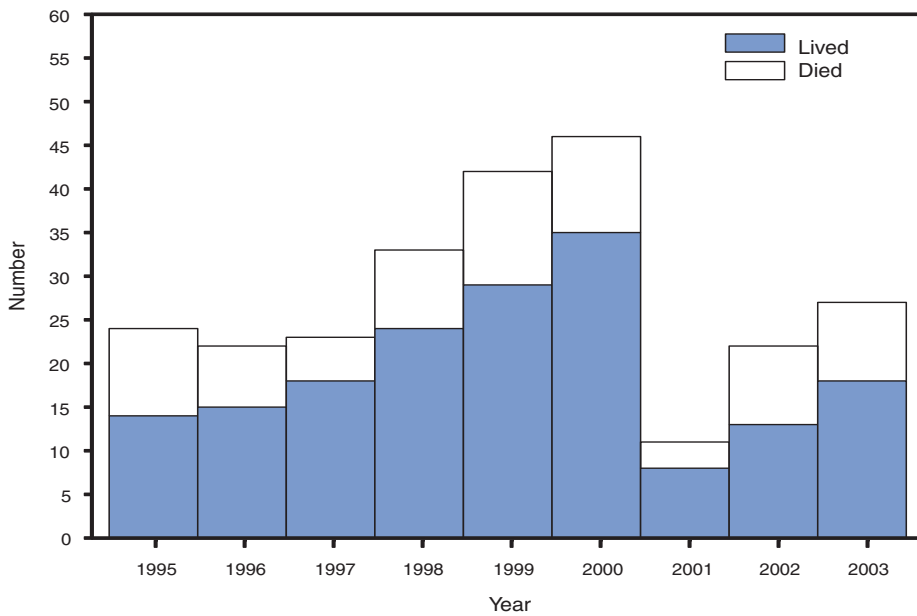
* Per 100,000 population.

Before the introduction of conjugate *Haemophilus influenzae* serotype b (Hib) vaccines in 1987, incidence of invasive Hib disease among children aged <5 years was estimated to be 100 per 100,000 population. In 2003, incidence of invasive *H. influenzae* disease (all serotypes) was 1.9 per 100,000 in this age group (376 reported cases; 32 [9%] reported as Hib, 117 [31%] as other serotypes or nontypeable isolates, and 227 [60%] with serotype information unknown or missing).

HANSEN DISEASE (LEPROSY). Number of reported cases, by year — United States, 1973–2003



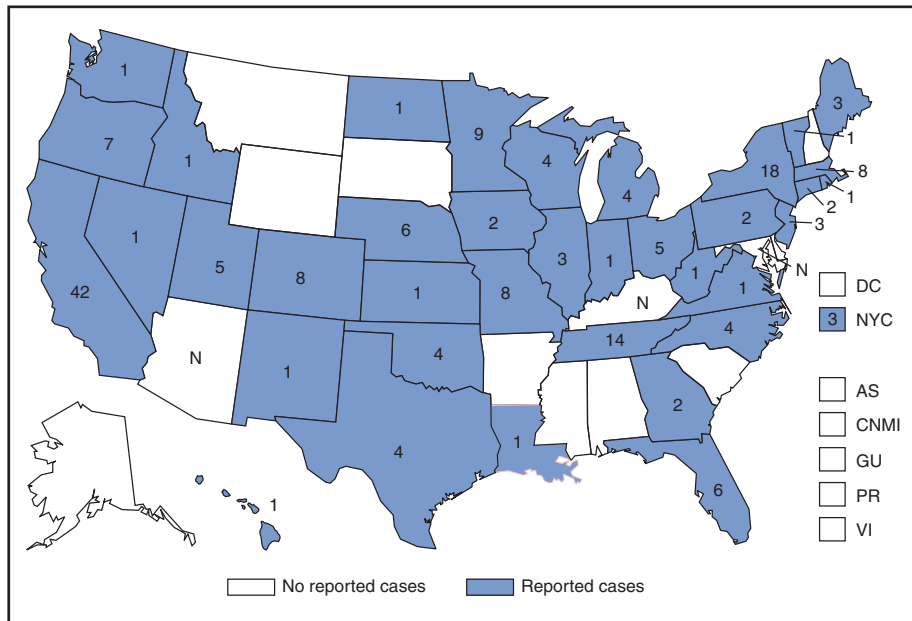
HANTAVIRUS PULMONARY SYNDROME. Number of reported cases, by survival status*, and year — United States, 1995–2003



* Data from National Center for Infectious Diseases.

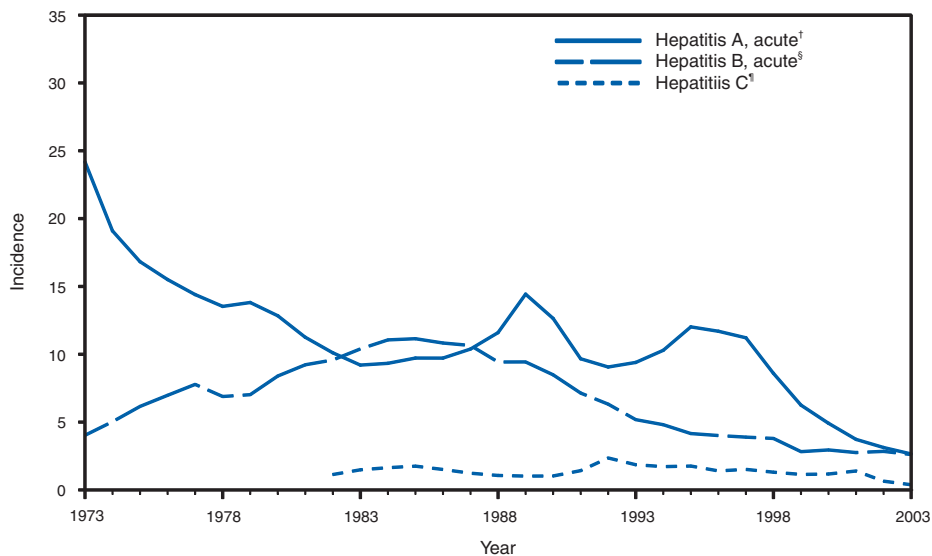
Hantavirus pulmonary syndrome incidence varies with ecologic conditions that affect rodent reservoir species. Human infection is associated with high mortality, even with appropriate medical care.

HEMOLYTIC UREMIC SYNDROME, POSTDIARRHEAL. Number of reported cases — United States and U.S. territories, 2003



In the United States, the majority of cases of postdiarrheal hemolytic uremic syndrome are caused by infection with *Escherichia coli* O157:H7. Approximately 50% of cases occur among children aged <5 years.

HEPATITIS, VIRAL. Incidence,* by year — United States, 1973–2003



* Per 100,000 population.

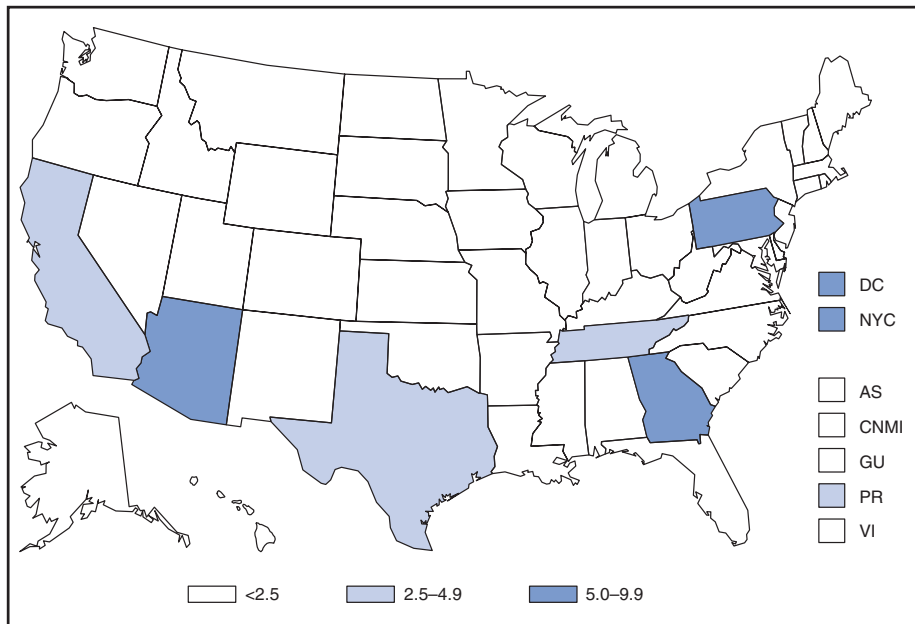
[†] Hepatitis A vaccine was first licensed in 1995.

[§] Hepatitis B vaccine was first licensed in June 1982.

[¶] An anti-HCV antibody test first became available in May 1990.

Hepatitis A incidence continues to decline and in 2003 was the lowest ever recorded. However, cyclic increases in hepatitis A have been observed approximately every 10 years, and incidence could increase again. Hepatitis B incidence, which declined >65% during 1990–2000, has remained unchanged for the past 4 years, reflecting ongoing transmission in adult populations at high risk. The trend in reported hepatitis C/non-A, non-B (renamed hepatitis C, acute, in 2003) cases after 1990 is misleading because reported cases have included those based only on a positive laboratory test for anti-HCV, and the majority of these cases represent chronic hepatitis C virus (HCV) infection.

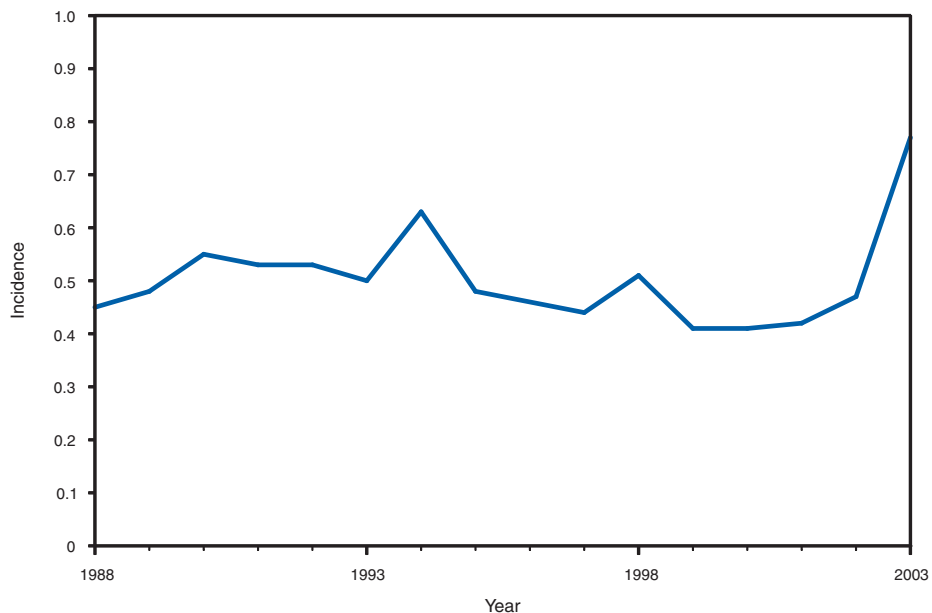
HEPATITIS A. Incidence* — United States and U.S. territories, 2003



* Per 100,000 population.

In 1999, routine hepatitis A vaccination was recommended for children living in 11 states with consistently elevated disease rates. Since then, hepatitis A rates have declined in all regions, with the greatest declines occurring in the West, where 10 of these states are located. Hepatitis A rates are now similar in all regions.

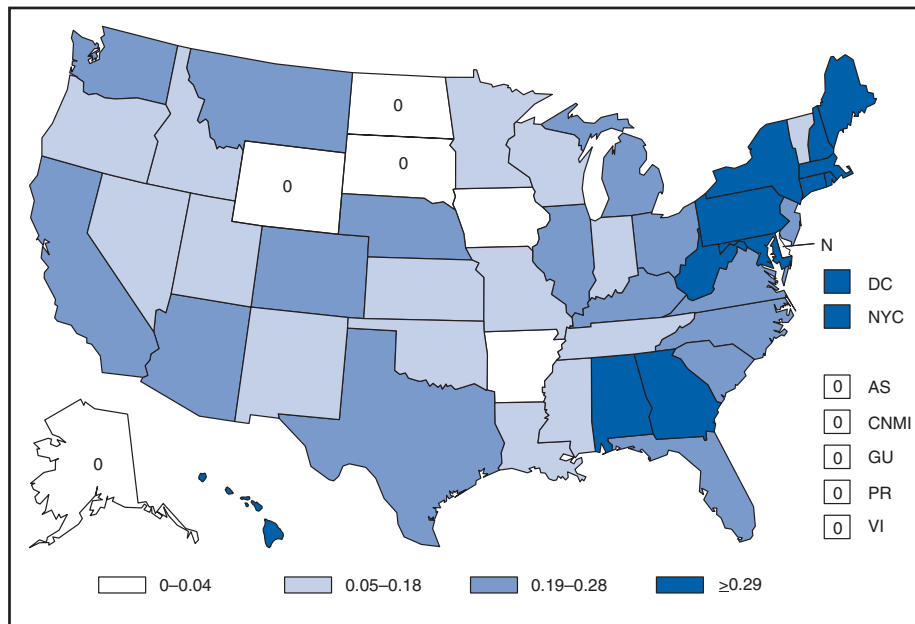
LEGIONELLOSIS. Incidence,* by year — United States, 1988-2003



* Per 100,000 population.

The increased incidence of legionellosis in 2003 was influenced largely by increases in the incidence of sporadic, community-acquired Legionnaire disease in certain mid- and south Atlantic states. During this same period and in these same states, no changes occurred in diagnostic methods, diagnostic test volume, or surveillance methods. These states did experience record levels of rainfall that correlated with the increased incidence of Legionnaire disease; however, the precise nature of this association is unknown.

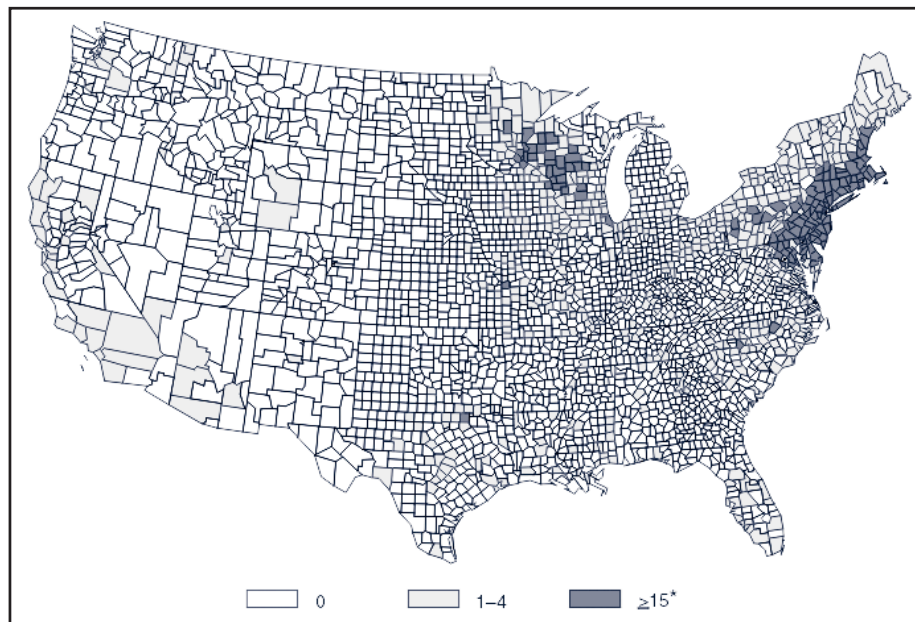
LISTERIOSIS. Incidence* — United States and U.S. territories, 2003



* Per 100,000 population.

Listeriosis was made a nationally notifiable disease in 2000. Although the infection is relatively uncommon, listeriosis is a leading cause of death attributable to foodborne illness in the United States. Recent outbreaks have been linked to unpasteurized cheese.

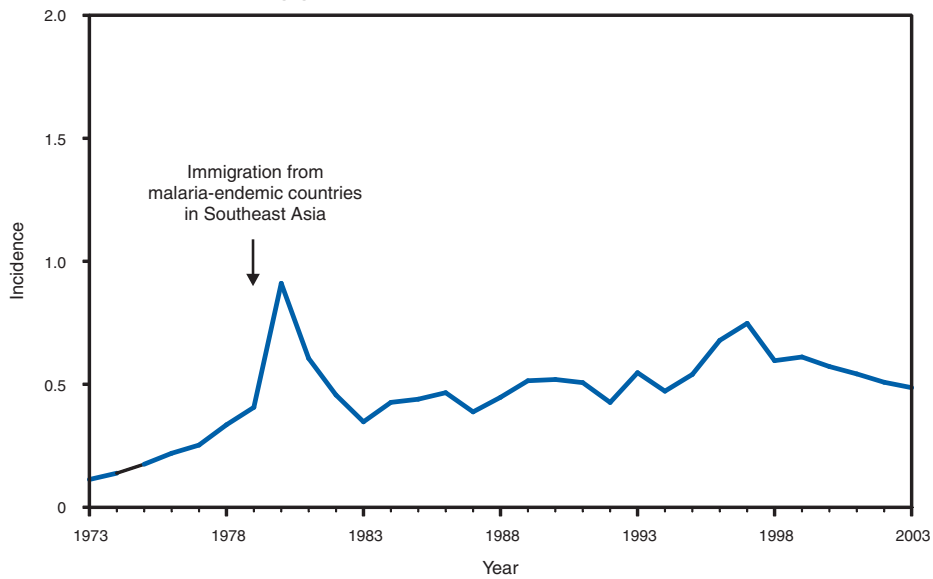
LYME DISEASE. Number of reported cases, by county — United States, 2003



* The total number of cases from these counties represented 90% of all cases reported in 2003.

A rash that might be misdiagnosed as Lyme disease can occur following bites of the Lone Star tick (*Amblyomma americanum*). These ticks, which do not transmit the Lyme disease bacterium, are common human-biting ticks in the southern and southeastern United States.

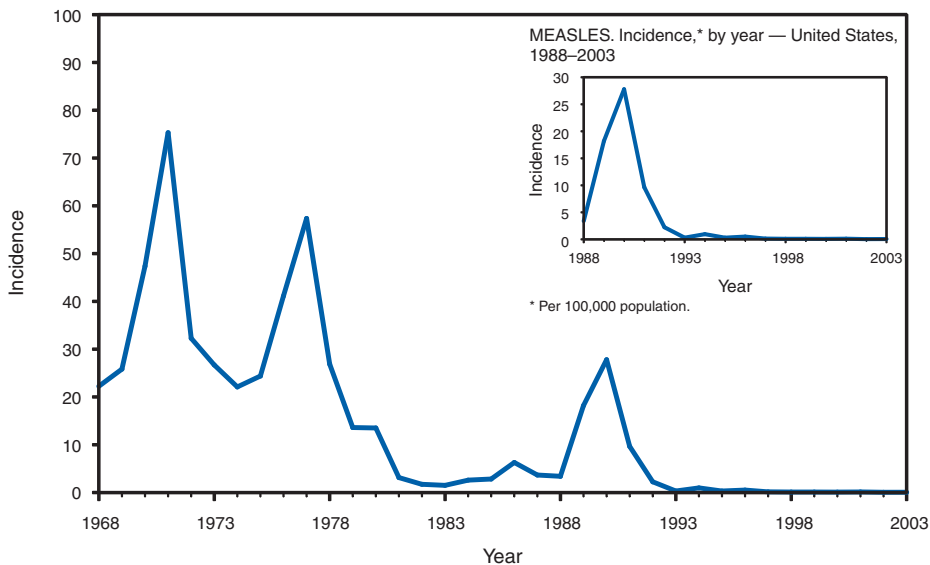
MALARIA. Incidence,* by year — United States, 1973–2003



* Per 100,000 population.

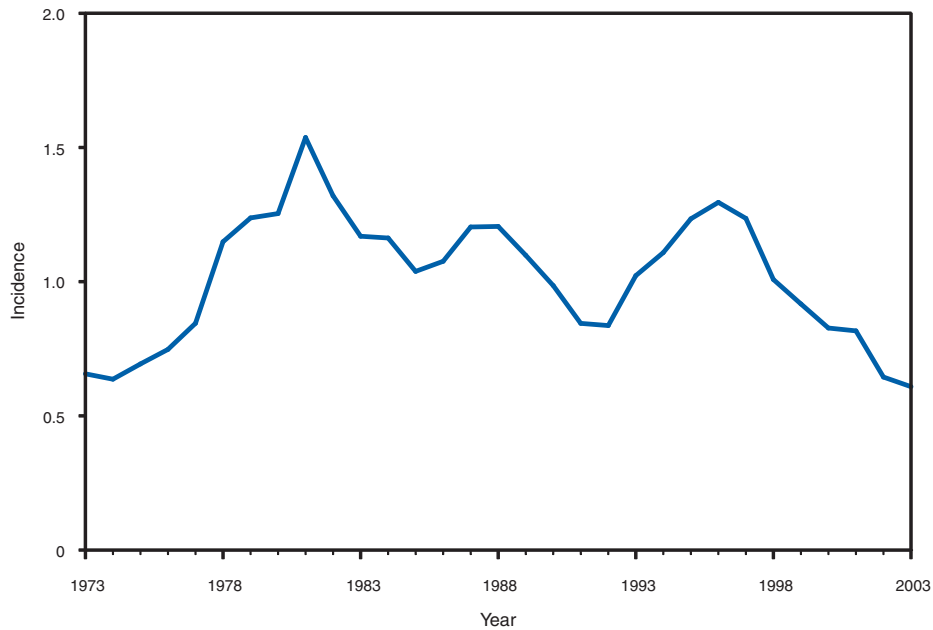
Since 1997, the number of malaria cases has decreased. This decline might reflect decreased international travel and immigration after the September 11, 2001, attacks on New York City and the District of Columbia.

MEASLES. Incidence, by year — United States, 1968–2003

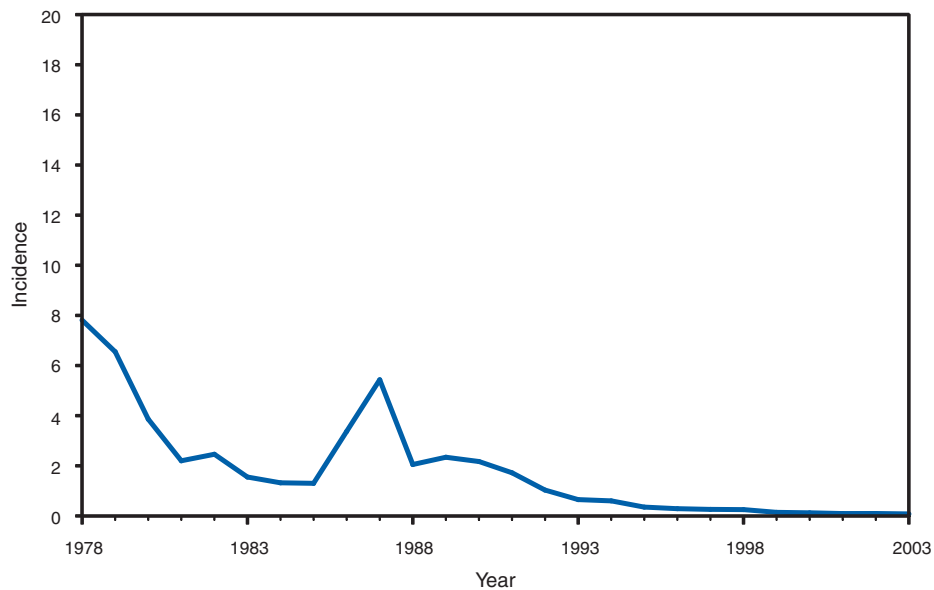


* Per 100,000 population.

In 2003, a total of 56 cases were reported, two of them fatal; measles incidence remains at less than one case per 1,000,000 population for the seventh consecutive year. Of 56 confirmed cases reported in 2003, a total of 24 were identified as international importations, and 19 others were epidemiologically linked to an imported case. The continued low reported incidence of measles disease and the high percentage of import-associated cases support the conclusion that measles is not endemic in the United States.

MENINGOCOCCAL DISEASE. Incidence,* by year — United States, 1973–2003

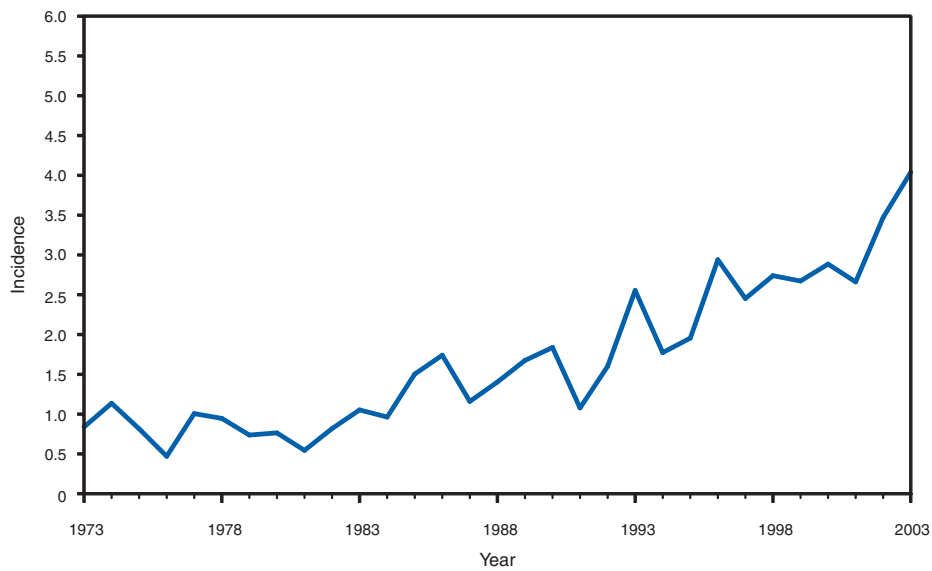
* Per 100,000 population.

MUMPS. Incidence,* by year — United States, 1978–2003

* Per 100,000 population.

A mumps vaccine was first licensed in December 1967. Because of the recommendation of 2 doses of measles-mumps-rubella vaccine and the continued high coverage rate in the United States, mumps incidence continues to be low, with 231 cases reported for 2003, thus meeting the *Healthy People 2010* objective of <500 cases per year.

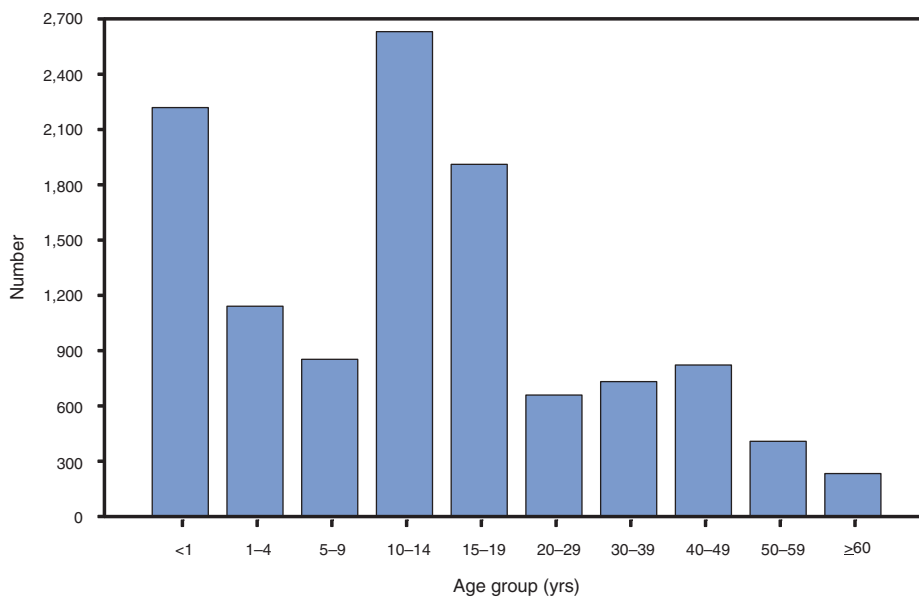
PERTUSSIS. Incidence,* by year — United States, 1973–2003



* Per 100,000 population.

Pertussis epidemics occur every 3–5 years. In 2003, a total of 11,647 cases were reported, the highest number reported since 1964.

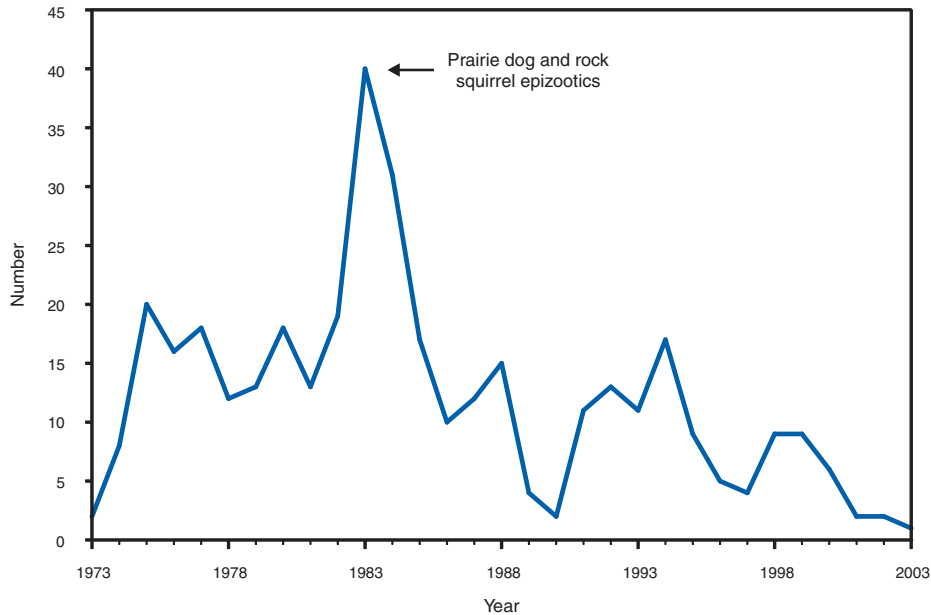
PERTUSSIS. Number of reported cases,* by age group — United States, 2003



* Of 11,647 cases, age was reported unknown for 46 (0.4%) cases.

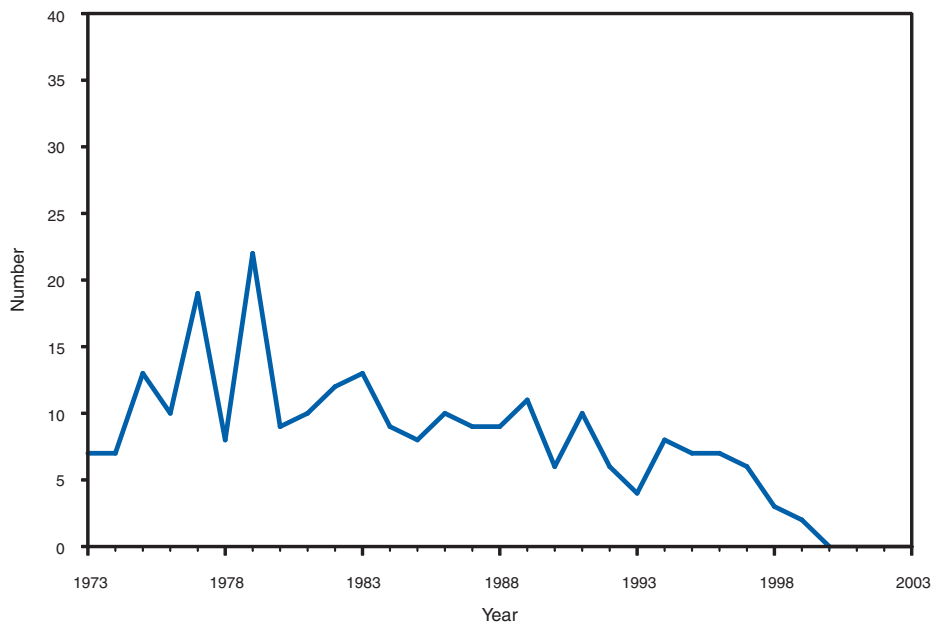
In 2003, a total of 1,982 (17%) reported cases occurred among infants aged <6 months (who were too young to receive 3 diphtheria and tetanus toxoids and acellular pertussis doses), and 7,394 (63%) cases occurred among persons aged ≥10 years (no pertussis vaccine is currently licensed for persons aged ≥7 years).

PLAGUE. Number of reported cases among humans, by year — United States, 1973–2003



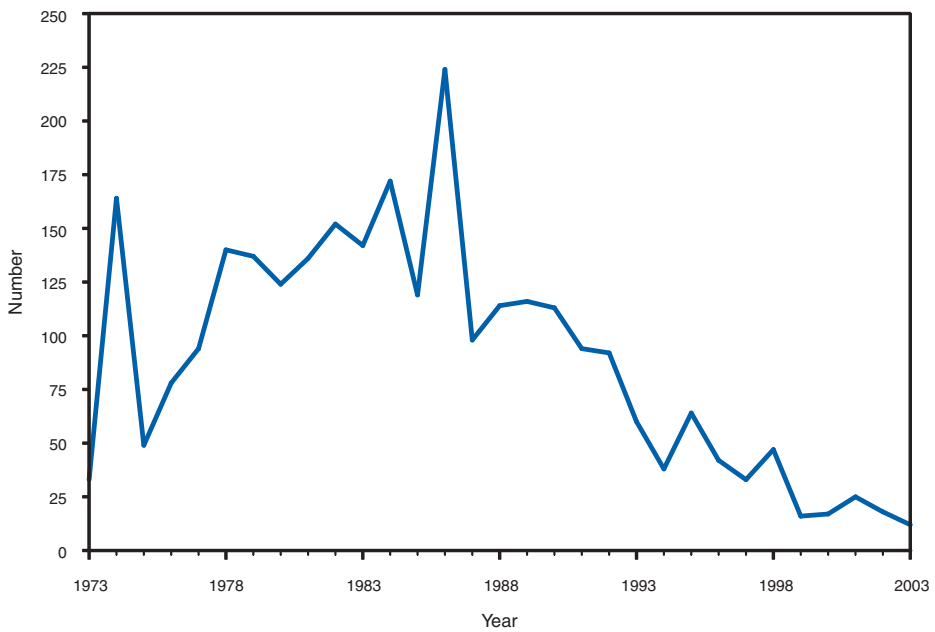
In 2003, a single case of plague was reported, bringing the 3-year total for 2001–2003 to five cases. This is the lowest sustained rate of naturally occurring plague in the United States in 40 years. The low number of cases was expected because of prolonged drought conditions in the Southwest during the past 5 years. Increased precipitation in the Southwest in 2004 might result in increased human cases in 2005.

POLIOMYELITIS, PARALYTIC. Number of reported cases, by year — United States, 1973–2003

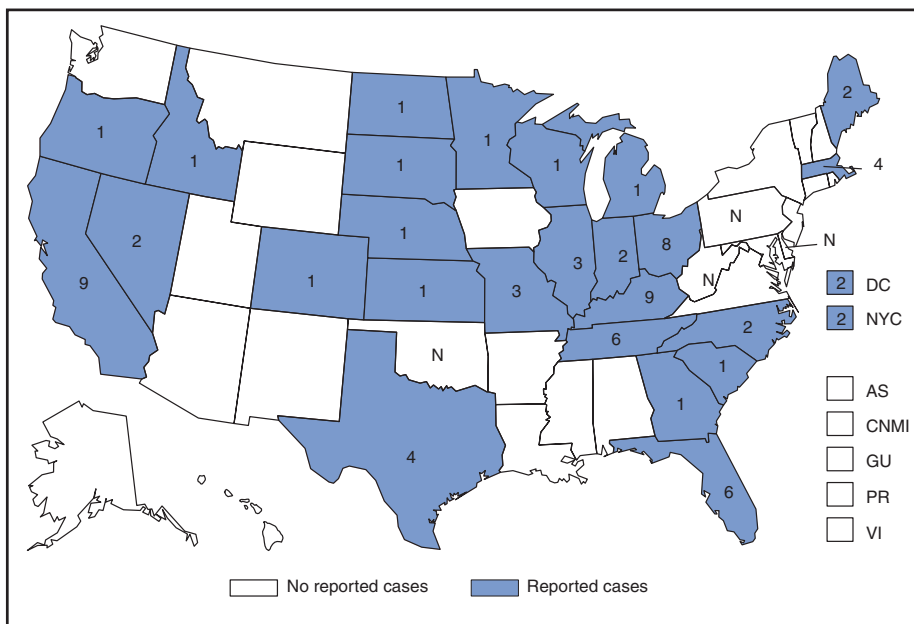


An inactivated poliomyelitis vaccine (IPV) was first licensed in 1955. An oral vaccine was licensed in 1961. No cases of vaccine-associated paralytic poliomyelitis have been reported since the IPV schedule was implemented in 2000.

PSITTACOSIS. Number of reported cases, by year — United States, 1973–2003

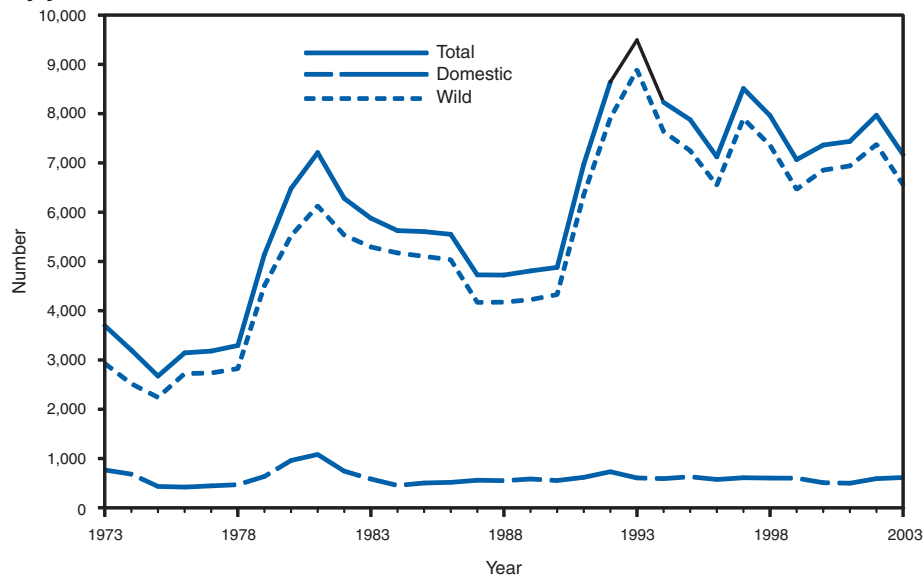


Q FEVER. Number of reported cases — United States and U.S. territories, 2003



Q fever became nationally notifiable in 1999. Identification and reporting of Q fever are incomplete, and the number of cases reported do not represent the overall distribution or regional prevalence of disease.

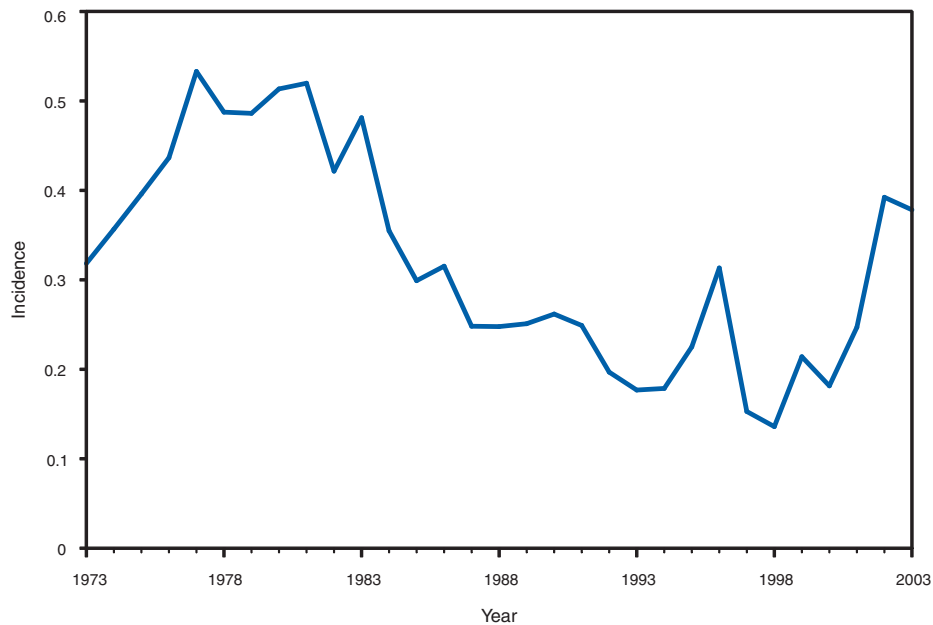
RABIES, ANIMAL. Number of reported cases among wild and domestic animals,* by year – United States and Puerto Rico, 1973–2003



* Data from 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.

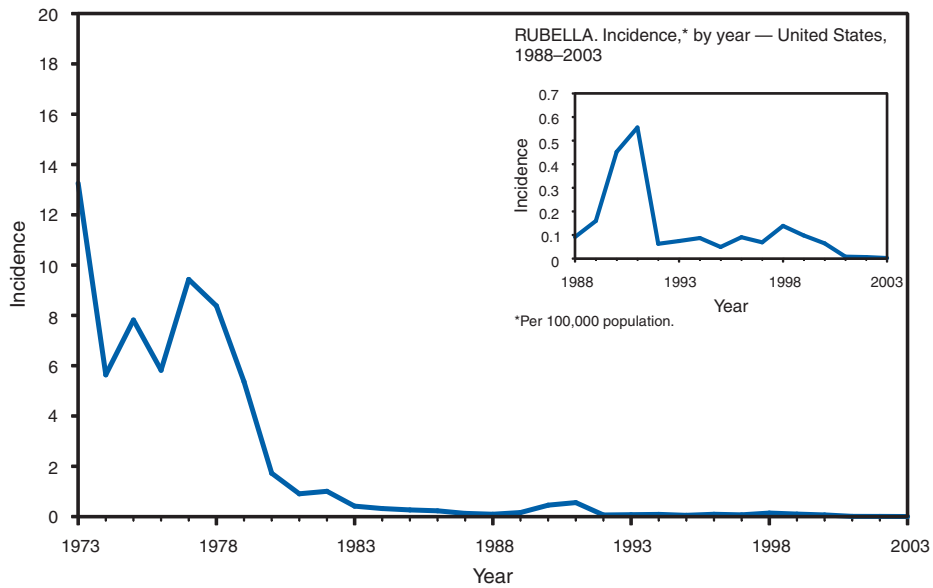
ROCKY MOUNTAIN SPOTTED FEVER. Incidence,* by year — United States, 1973–2003



* Per 100,000 population.

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 might be involved.

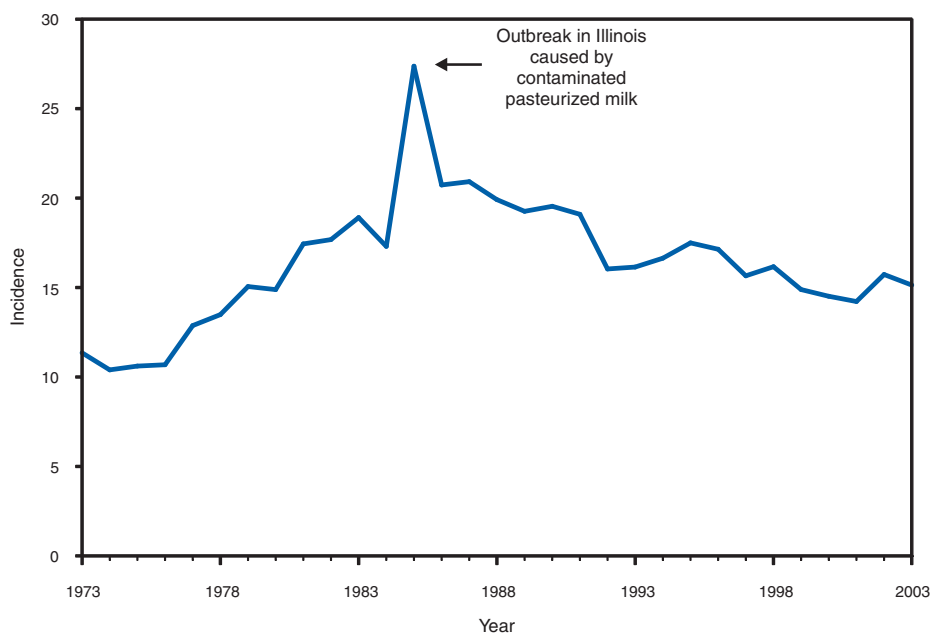
RUBELLA. Incidence,* by year — United States, 1973–2003



* Per 100,000 population.

A rubella vaccine was first licensed in 1969. In 2003, only seven confirmed cases of rubella were reported by six states, which is the lowest number of rubella cases ever reported. None were identified as importations. The majority of reported cases continue to occur among persons aged >20 years. Of the cases in persons with known ethnicity, >50% occurred among Hispanics. Of ill persons for whom the country of birth was known and disease occurred in 2003, half were foreign born.

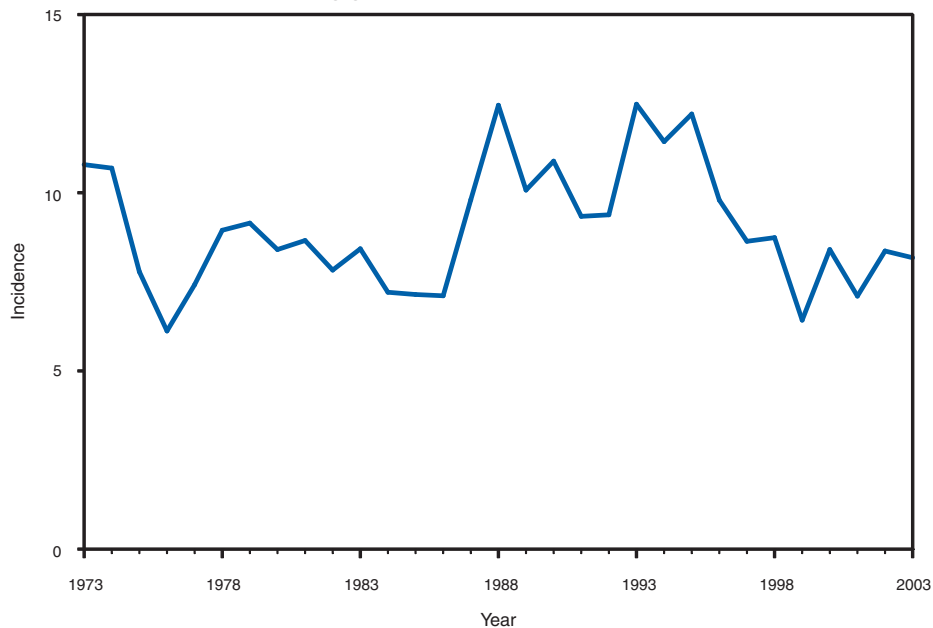
SALMONELLOSIS. Incidence,* by year — United States, 1973–2003



* Per 100,000 population.

Foodborne transmission accounts for approximately 95% of salmonellosis in the United States. CDC estimates that approximately 38 cases occur for every one case reported through national surveillance. The three *Salmonella* serotypes that cause the majority of cases are *S. enterica* serotype Typhimurium, *S. enterica* serotype Enteritidis, and *S. enterica* serotype Newport.

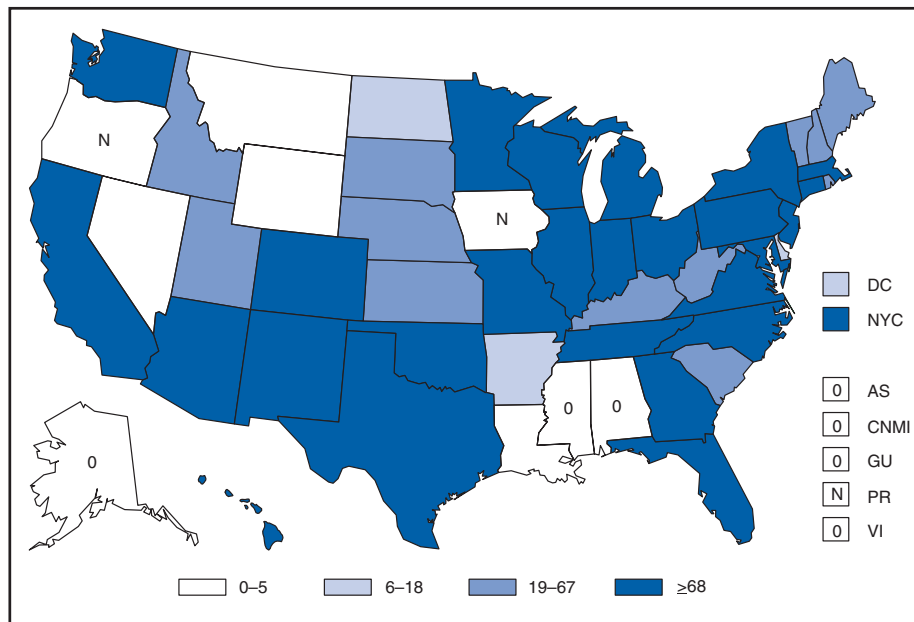
SHIGELLOSIS. Incidence,* by year — United States, 1973–2003



* Per 100,000 population.

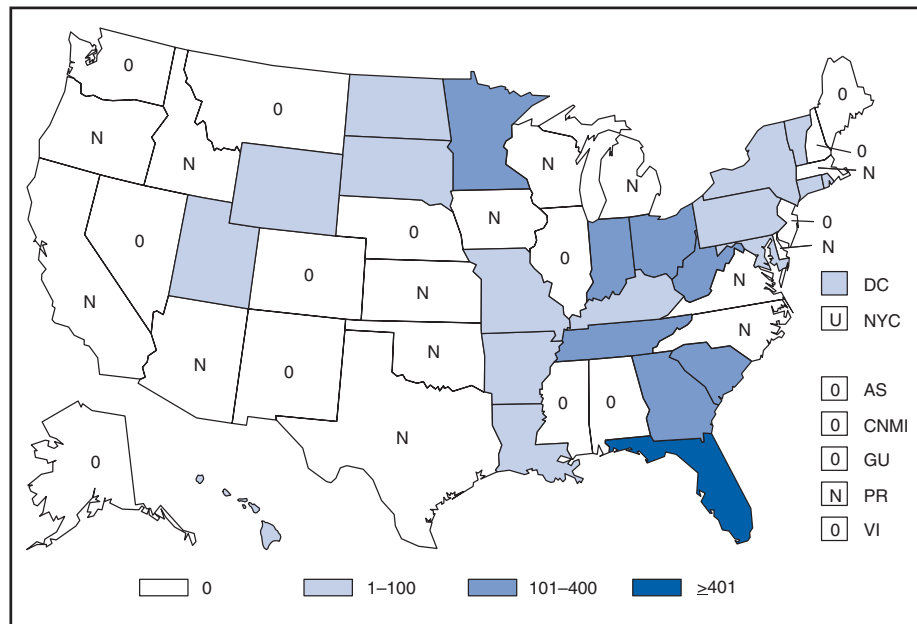
Although incidence of shigellosis declined during 1993–2003, prolonged and extensive outbreaks of *Shigella sonnei* infections continue to occur in child care settings. These child care-associated infections are responsible for a substantial proportion of the shigellosis cases reported in the United States. Resistance to first-line antimicrobial agents, including trimethoprim-sulfamethoxazole, continues to increase among *S. sonnei* cases in the United States.

STREPTOCOCCAL DISEASE, INVASIVE, GROUP A. Number of reported cases — United States and U.S. territories, 2003



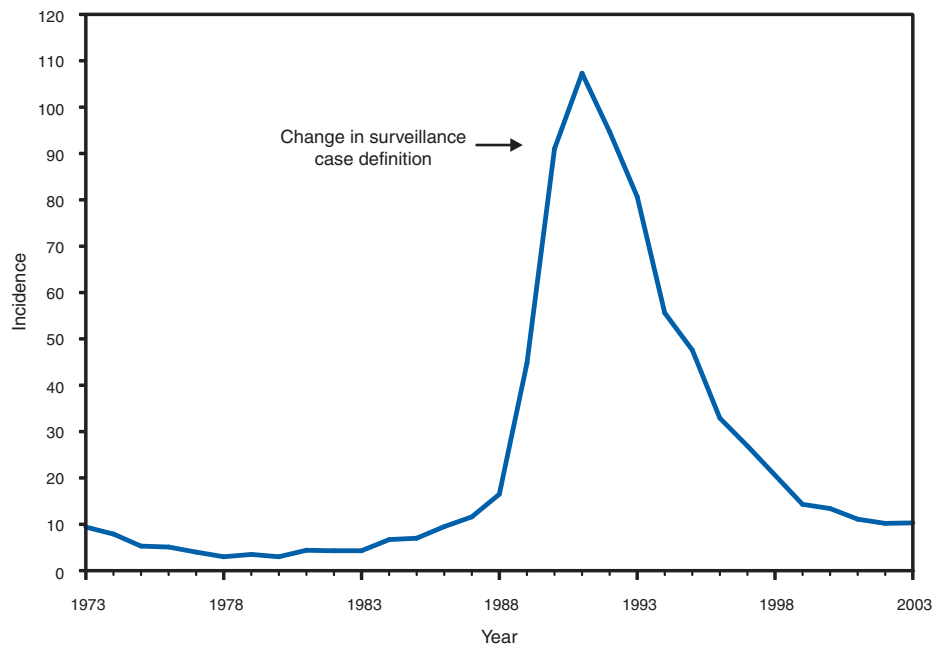
Passive reporting likely underestimates the numbers of invasive group A *Streptococcus* (GAS) infections in the United States. In 2003, approximately 1,190 invasive GAS infections were reported by nine sites participating in CDC's Active Bacterial Core Surveillance (ABCs). On the basis of ABCs data, CDC estimates that approximately 11,000 cases and 1,700 deaths attributable to invasive GAS disease occurred in the United States in 2003.

STREPTOCOCCUS PNEUMONIAE, INVASIVE, DRUG-RESISTANT. Number of reported cases — United States and U.S. territories, 2003



A conjugate pneumococcal vaccine was licensed for young children in early 2000. Data from CDC's Active Bacterial Core Surveillance/Emerging Infections Program Network indicate that rates of invasive disease caused by drug-resistant pneumococci have declined since the vaccine was licensed.

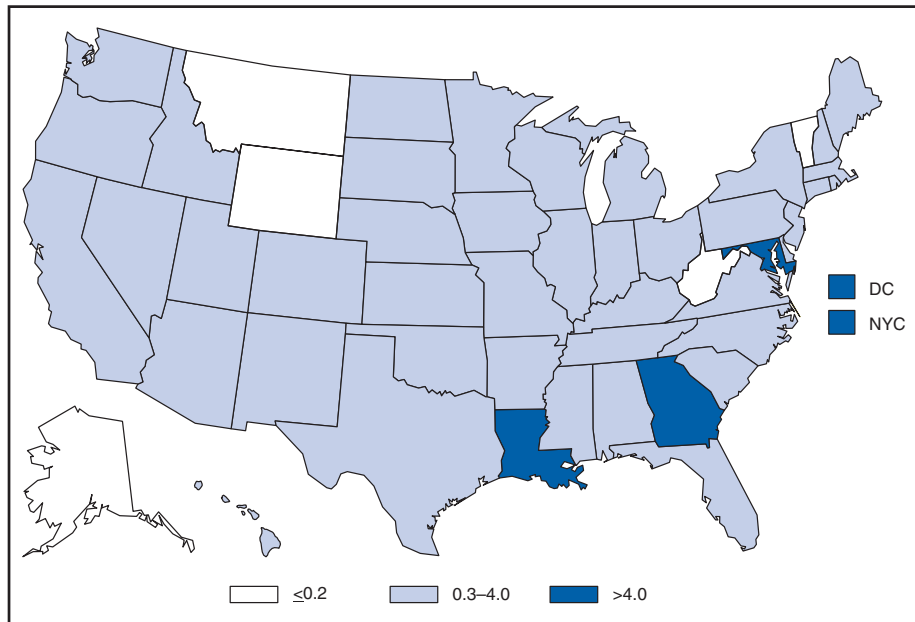
SYPHILIS, CONGENITAL. Incidence* among infants aged <1 year — United States, 1973–2003



* Per 100,000 live births.

Incidence of congenital syphilis has declined steadily since 1991.

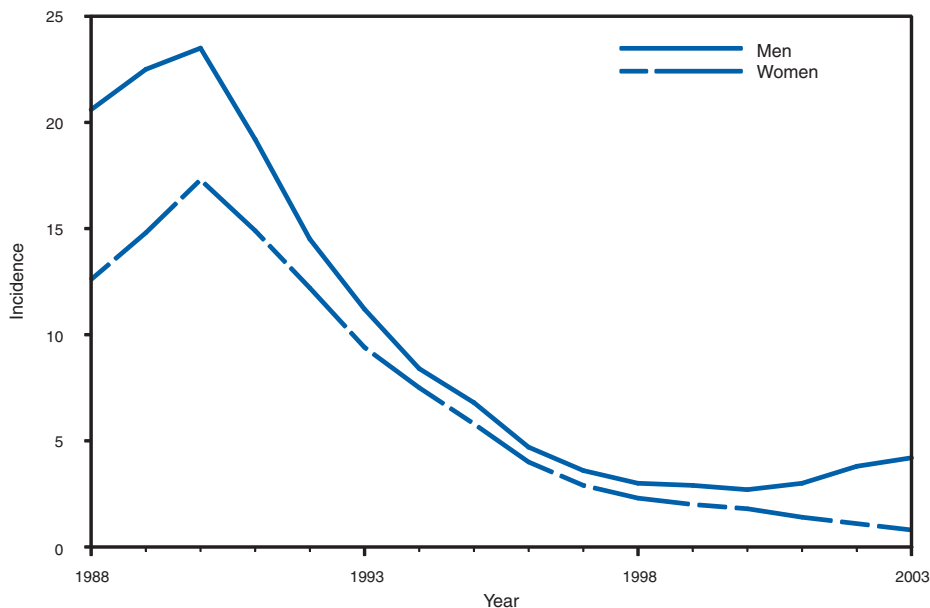
SYPHILIS, PRIMARY AND SECONDARY. Incidence* — United States, 2003



* Per 100,000 population.

In 2003, the overall U.S. rate of primary and secondary syphilis was 2.5 cases per 100,000 population, which is above the *Healthy People 2010* objective of 0.2 cases per 100,000 population per year. Five states reported rates at or below the national objective. Seven states reported fewer than three cases.

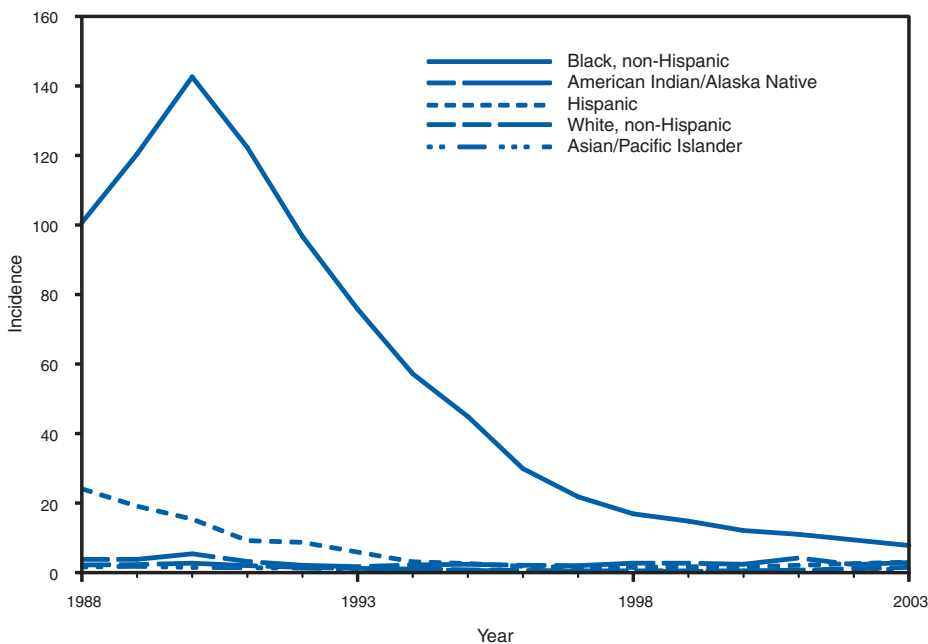
SYPHILIS, PRIMARY AND SECONDARY: Incidence,* by sex — United States, 1988–2003



* Per 100,000 population.

During 2002–2003, incidence of primary and secondary syphilis in the United States increased slightly, from 2.4 to 2.5 cases per 100,000 population. Among women, incidence continued to decline, from 1.1 cases per 100,000 women in 2001 to 0.8 cases per 100,000 in 2003, the lowest rate for women since reporting began in 1941. Among men, rates increased from 3.7 cases per 100,000 in 2002 to 4.2 cases per 100,000 in 2003, after a low rate of 2.6 cases per 100,000 in 2000.

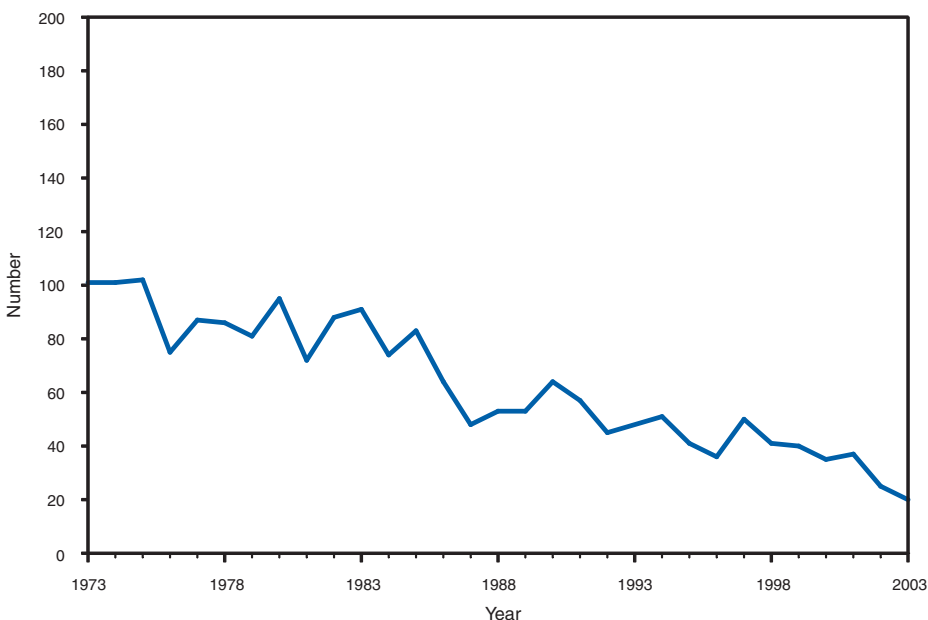
SYPHILIS, PRIMARY AND SECONDARY. Incidence,* by race/ethnicity — United States, 1988–2003



* Per 100,000 population.

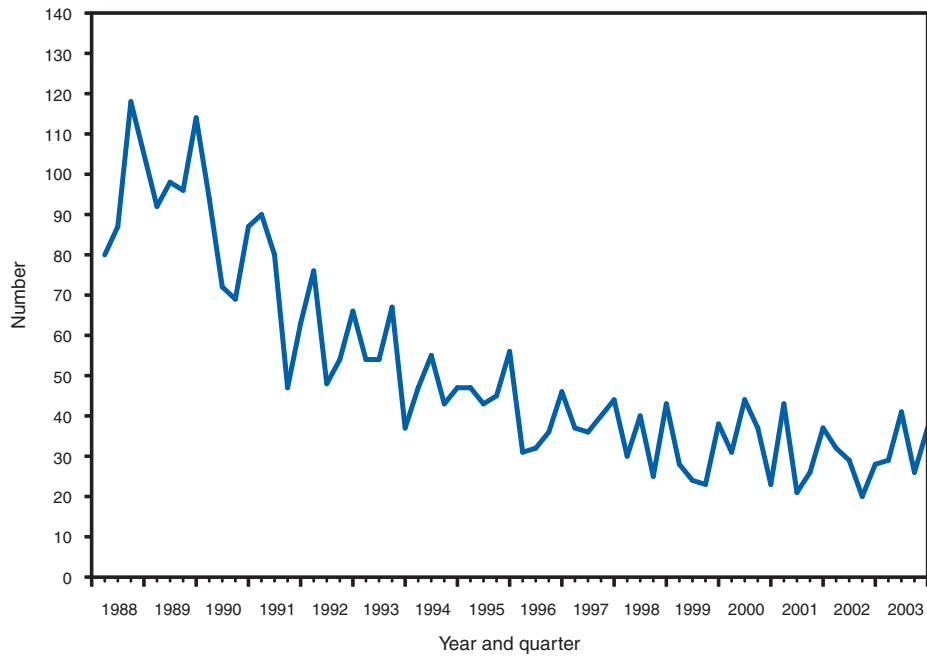
During 2002–2003, incidence of primary and secondary syphilis declined among non-Hispanic blacks, from 9.5 to 7.2 cases per 100,000 population. Increases occurred among all other race/ethnic populations: incidence for non-Hispanic whites increased from 1.2 to 1.5 per 100,000 population, incidence among Hispanics increased from 2.5 to 2.8 per 100,000 population, incidence among Asian/Pacific Islanders increased from 0.8 to 1.0 per 100,000 population, and incidence among American Indians/Alaska Natives increased from 2.1 to 2.2 per 100,000 population. During 1992–2003, overall incidence among non-Hispanic blacks decreased from 64 times that for non-Hispanic whites to five times that for non-Hispanic whites.

TETANUS. Number of reported cases, by year — United States, 1973–2003

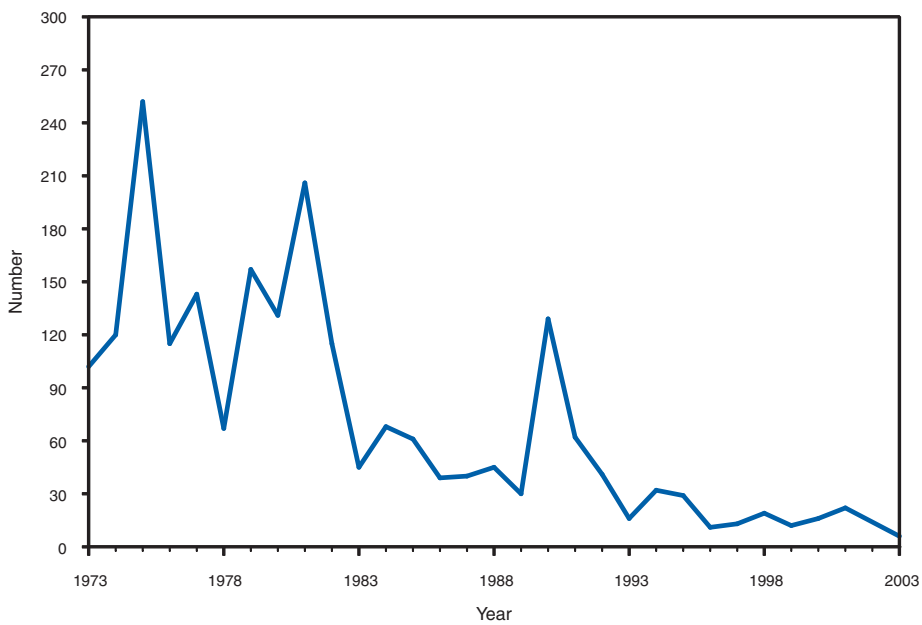


In 2003, a total of 20 cases of tetanus were reported, two (10%) of them fatal. Nineteen (95%) cases occurred among persons who had not completed a 3-dose primary tetanus toxoid vaccination series or for whom vaccination history was uncertain. No neonatal cases or cases among persons aged <18 years occurred.

TOXIC-SHOCK SYNDROME. Number of reported cases, by quarter — United States, 1988–2003

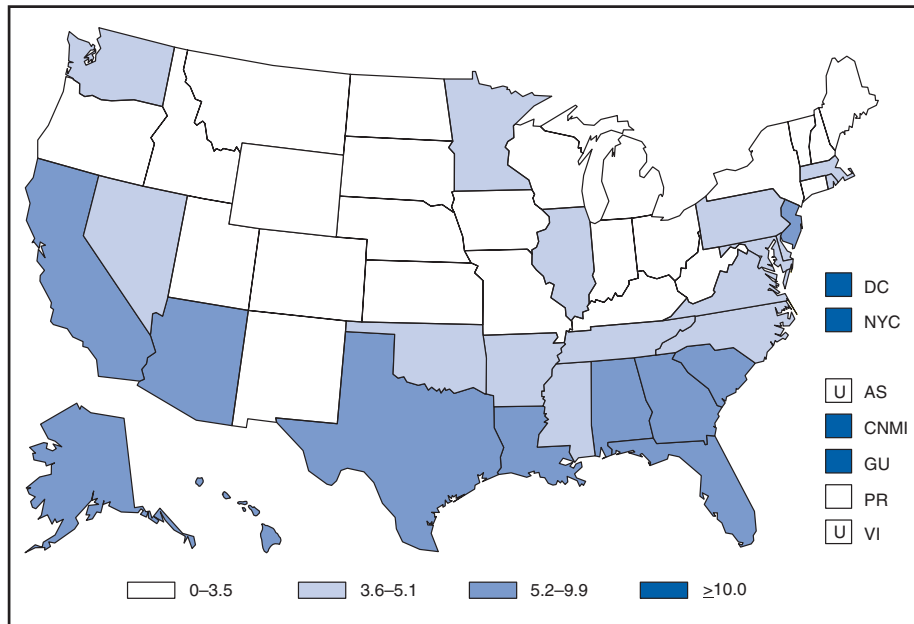


TRICHINELLOSIS. Number of reported cases, by year — United States, 1973–2003



In 2003, six cases of trichinellosis (trichinosis) were reported by four states (California, New Hampshire, New York, and Tennessee); this was the eighth consecutive year in which <25 cases were reported.

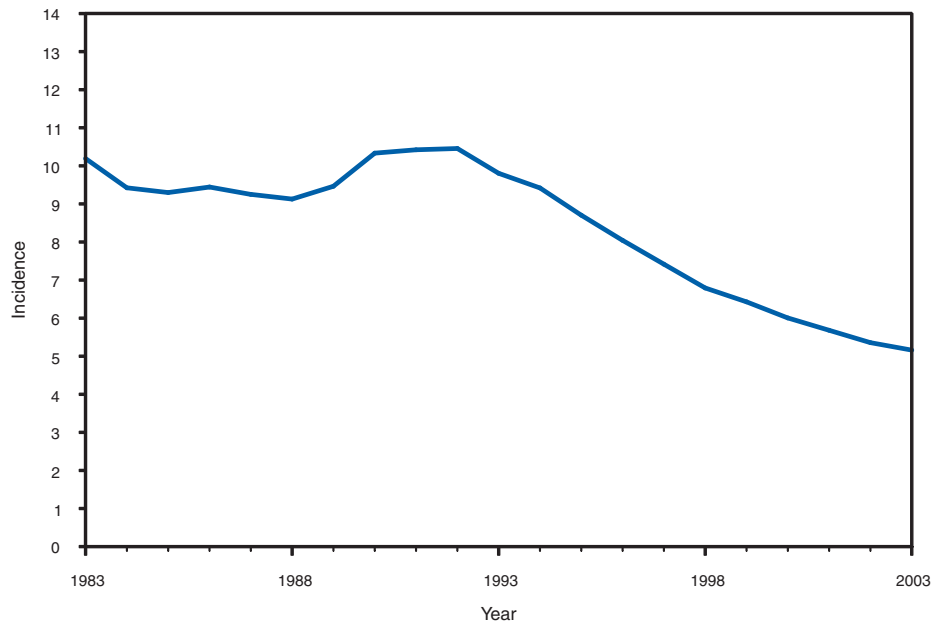
TUBERCULOSIS. Incidence* — United States and U.S. territories, 2003



* Per 100,000 population.

In 2003, a total of 25 states and Puerto Rico had tuberculosis rates ≤ 3.5 cases per 100,000 population, which is the interim (i.e., year 2000) incidence target for the elimination of tuberculosis by 2010. During 2002–2003, the number of states that reported tuberculosis incidence below the national average (5.1 cases per 100,000) increased from 37 to 39.

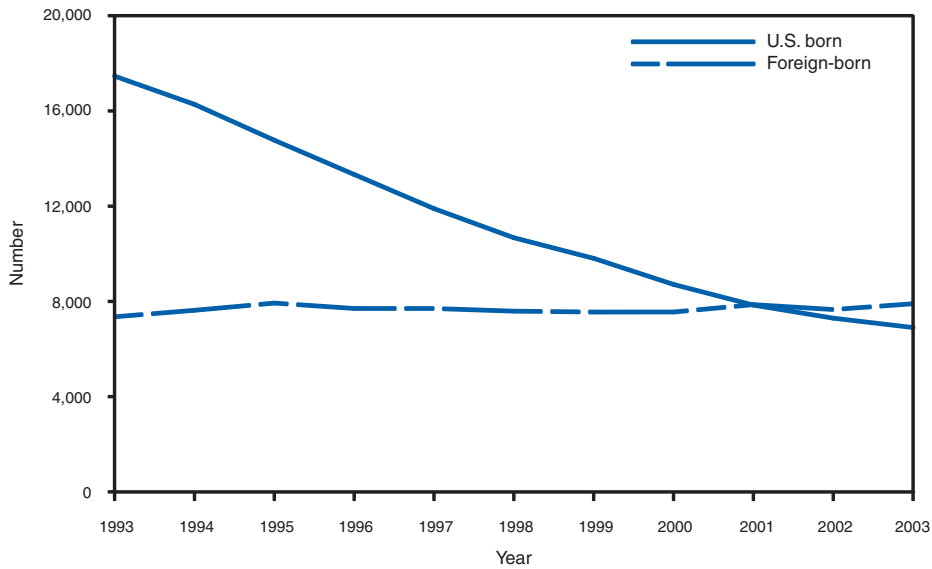
TUBERCULOSIS. Incidence,* by year — United States, 1983–2003



* Per 100,000 population.

During 2002–2003, the number of cases of tuberculosis reported to CDC decreased 1.3%, and incidence decreased 1.9%. Although the number and incidence of tuberculosis cases are the lowest since national surveillance began in 1953, the decline for each was the smallest since 1988.

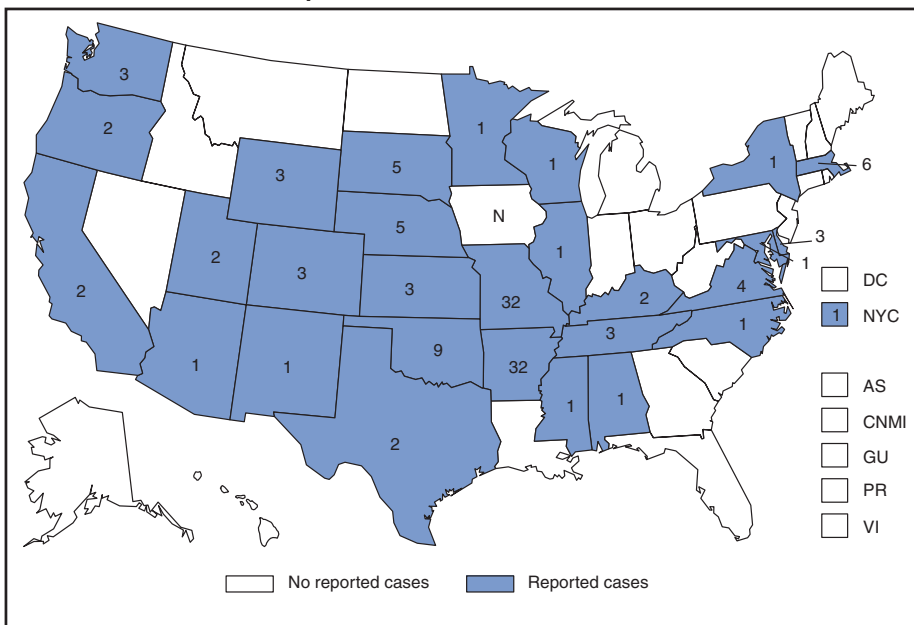
TUBERCULOSIS. Number of reported cases among U.S.-born and foreign-born persons,* by year — United States, 1993–2003



* For 69 cases, origin of patients was unknown.

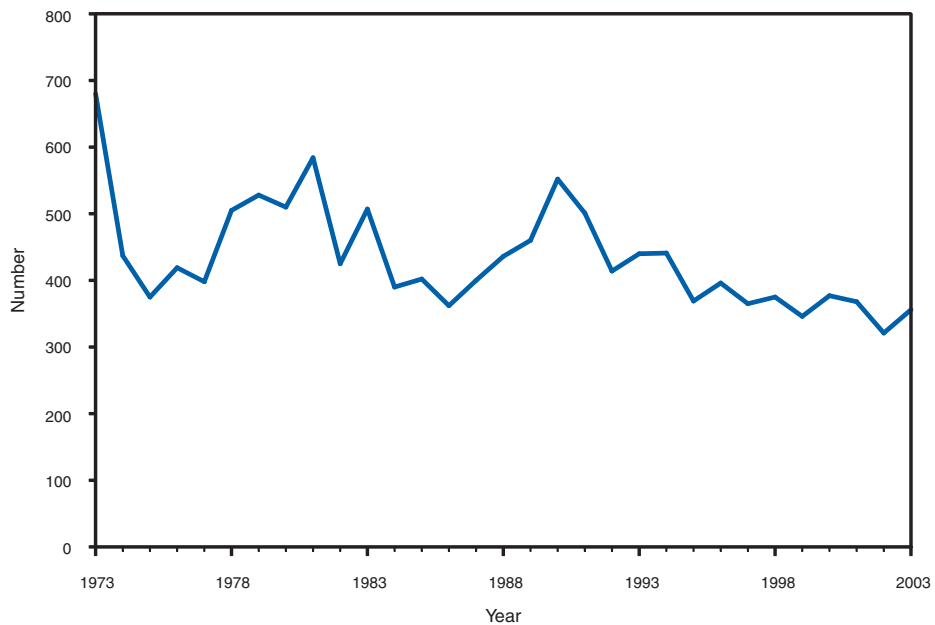
CDC is collaborating with public health partners to implement tuberculosis (TB) control initiatives for recent international arrivals and residents along the border between the United States and Mexico and to strengthen TB programs in countries with a high incidence of disease.

TULAREMIA. Number of reported cases — United States and U.S. territories, 2003



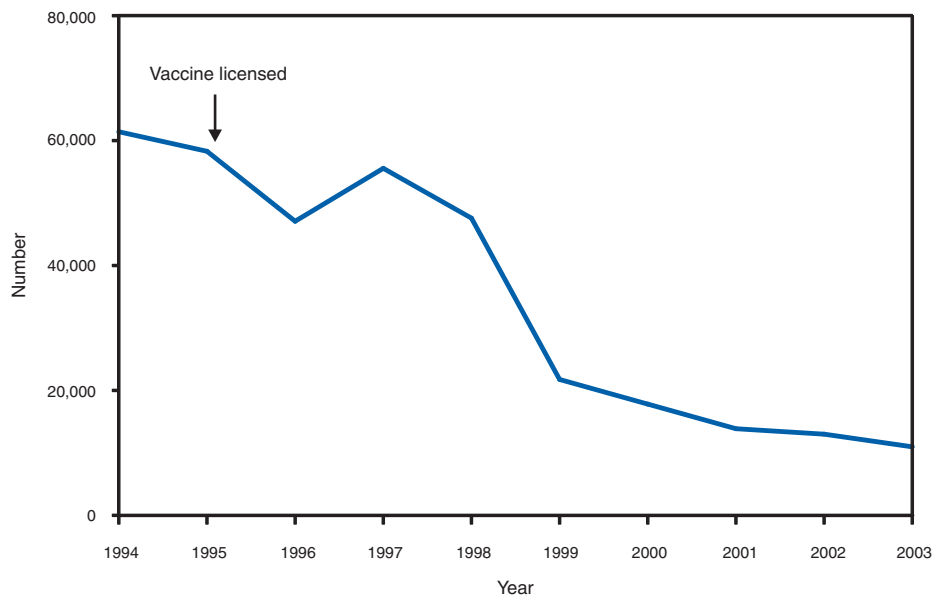
In 2003, a total of 129 cases of tularemia were reported. Areas with high rates of infection included Arkansas, Missouri, and Martha's Vineyard, Massachusetts. In 2000, tularemia was reinstated as a nationally notifiable disease.

TYPHOID FEVER. Number of reported cases, by year — United States, 1973–2003



In 2003, approximately 71% of reported cases of typhoid fever were acquired by travelers to countries where the disease is endemic. Increasing antimicrobial resistance has complicated the treatment of typhoid fever.

VARICELLA. Number of reported cases — Michigan, Rhode Island, Texas, and West Virginia,* 1994–2003



* These four states maintained consistent and adequate surveillance by reporting cases constituting $\geq 5\%$ of their birth cohort during 1990–1995 (Source: CDC, National Immunization Program).

The number of varicella cases in these four states during 2003 is the lowest ever reported, constituting a 15.6% decline compared with cases reported in 2002 and an 81.0% decline compared with cases reported in the 3 years before vaccine was licensed in 1995.

PART 3

Historical Summaries of Notifiable Diseases in the United States, 1972–2003

Abbreviations and Symbols Used in Tables

NA Data not available.

— No reported cases.

Notes: Rates <0.01 after rounding are listed as 0.

Data in the *MMWR Summary of Notifiable Diseases — United States, 2003* might not match data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, and case definitions.

TABLE 7. Reported incidence* of notifiable diseases — United States, 1993–2003

Disease	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
AIDS†	40.20	30.07	27.20	25.21	21.85	7.21	16.66	14.95	14.88	15.29	15.36
Amebiasis	1.21	1.20	\$	\$	\$	\$	\$	\$	\$	\$	\$
Anthrax	—	—	—	—	—	—	—	0	0.01	0	0
Aseptic meningitis	5.39	3.71	\$	\$	\$	\$	\$	\$	\$	\$	\$
Botulism, total (includes wound and unspecified)	0.04	0.06	0.04	0.05	0.05	0.04	0.06	0.05	0.06	0.03	0.01
Foodborne	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0	0.01
Brucellosis	0.05	0.05	0.04	0.05	0.04	0.03	0.03	0.03	0.05	0.04	0.04
Chancroid	0.54	0.30	0.20	0.15	0.09	0.07	0.06	0.03	0.01	0.02	0.02
Chlamydia¶	**	**	182.60	188.10	196.80	236.57	254.10	257.76	278.32	296.55	304.71
Cholera	0	0.02	0.01	0.01	0.01	0.01	0	0	0	0	0
Coccidioidomycosis	**	**	0.46	0.64	0.65	0.99	3.58	4.69	6.71	3.03	2.57
Cryptosporidiosis	**	**	1.13	1.07	1.12	1.61	0.92	1.17	1.34	1.07	1.22
Cyclosporiasis	**	**	**	**	**	**	0.07	0.03	0.07	0.06	0.03
Diphtheria	0	0	0	0.01	0.01	0	0	0	0	0	0
Ehrlichiosis											
Human granulocytic	**	**	**	**	**	0.16	0.14	0.15	0.10	0.18	0.13
Human monocytic	**	**	**	**	**	0.03	0.06	0.09	0.05	0.08	0.11
Encephalitis, primary	0.36	0.28	\$	\$	\$	\$	\$	\$	\$	\$	\$
Postinfectious	0.07	0.06	\$	\$	\$	\$	\$	\$	\$	\$	\$
Encephalitis/meningitis, arboviral											
California serogroup	**	**	0	0.04	0.04	0.04	0.03	0.04	0.05	0.06	0.06
Eastern equine	**	**	0	0	0	0	0	0	0	0	0
Powassan	**	**	**	**	**	**	**	**	**	0	0
St. Louis	**	**	0	0	0.01	0.01	0	0	0.03	0.01	0.01
West Nile	**	**	**	**	**	**	**	**	**	1.01	1.00
Western equine	**	**	0	0	0	0	0	0	0	0	0
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)											
EHEC O157:H7	**	0.06	1.01	1.18	1.04	1.28	1.77	1.74	1.22	1.36	0.93
EHEC non-O157	**	**	**	**	**	**	**	**	0.19	0.08	0.09
EHEC not serogrouped	**	**	**	**	**	**	**	**	0.06	0.02	0.05
Giardiasis	**	**	**	**	**	**	**	**	**	8.06	6.84
Gonorrhea	172.40	168.40	149.50	122.80	121.40	132.88	133.20	131.65	128.53	125.03	116.37
Granuloma inguinale	0	0	\$	\$	\$	\$	\$	\$	\$	\$	\$
<i>Haemophilus influenzae</i> , invasive, all ages/serotypes	0.55	0.45	0.45	0.45	0.44	0.44	0.48	0.51	0.57	0.62	0.70
Age <5 yrs, serotype b	**	**	**	**	**	**	**	**	**	0.18	0.16
Age <5 yrs, nonserotype b	**	**	**	**	**	**	**	**	**	0.75	0.59
Age <5 yrs, unknown serotype	**	**	**	**	**	**	**	**	**	0.80	1.15
Hansen disease (leprosy)	0.07	0.05	0.06	0.05	0.05	0.05	0.04	0.04	0.03	0.04	0.03
Hantavirus pulmonary syndrome	**	**	NA††	NA	NA	NA	NA	0.02	0	0.01	0.01
Hemolytic uremic syndrome postdiarrheal	**	**	NA	NA	NA	NA	NA	0.10	0.08	0.08	0.06
Hepatitis A, acute	9.40	10.29	12.13	11.70	11.22	8.59	6.25	4.91	3.77	3.13	2.66
Hepatitis B, acute	5.18	4.81	4.19	4.01	3.90	3.80	2.82	2.95	2.79	2.84	2.61
Hepatitis C, acute§§	1.86	1.78	1.78	1.41	1.43	1.30	1.14	1.17	1.41	0.65	0.38
Hepatitis, unspecified	0.24	0.17	\$	\$	\$	\$	\$	\$	\$	\$	\$
Legionellosis	0.50	0.63	0.48	0.47	0.44	0.51	0.41	0.42	0.42	0.47	0.78

TABLE 7. (Continued) Reported incidence* of notifiable diseases — United States, 1993–2003

Disease	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Leptospirosis	0.02	0.02	§	§	§	§	§	§	§	§	§
Listeriosis	**	**	**	**	**	**	0.31	0.29	0.22	0.24	0.24
Lyme disease	3.20	5.01	4.49	6.21	4.79	6.39	5.99	6.53	6.05	8.44	7.39
Lymphogranuloma venereum	0.10	0.10	§	§	§	§	§	§	§	§	§
Malaria	0.55	0.47	0.55	0.68	0.75	0.60	0.61	0.57	0.55	0.51	0.49
Measles	0.12	0.37	0.12	0.20	0.06	0.04	0.04	0.03	0.04	0.02	0.02
Meningococcal disease	1.02	1.11	1.25	1.30	1.24	1.01	0.92	0.83	0.83	0.64	0.61
Mumps	0.66	0.60	0.35	0.29	0.27	0.25	0.14	0.13	0.10	0.10	0.08
Murine typhus fever	0.01	0.01	§	§	§	§	§	§	§	§	§
Pertussis	2.55	1.77	1.97	2.94	2.46	2.74	2.67	2.88	2.69	3.47	4.04
Plague	0	0.01	0	0.01	0.01	0	0	0	0	0	0
Poliomyelitis, paralytic	0	0	0	0.03	0.02	0.01	0	0	0	0	0
Psittacosis	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0
Q Fever	**	**	**	**	**	**	0	0.01	0.01	0.02	0.02
Rabies, human	0	0	0	0.01	0.01	0	0	0	0	0	0
Rheumatic fever, acute	0.08	0.09	§	§	§	§	§	§	§	§	§
Rocky Mountain spotted fever	0.18	0.18	0.23	0.32	0.16	0.14	0.21	0.18	0.25	0.39	0.38
Rubella	0.07	0.09	0.05	0.10	0.07	0.13	0.21	0.06	0.01	0.01	0
Rubella, congenital syndrome	0	0	0	0	0	0	0	0	0	0	0
Salmonellosis	16.15	16.64	17.66	17.15	15.66	16.17	14.89	14.51	14.39	15.73	15.16
SARS-CoV ^{¶¶}	**	**	**	**	**	**	**	**	**	**	0
Shigellosis	12.48	11.44	12.32	9.80	8.64	8.74	6.43	8.41	7.19	8.37	8.19
Streptococcal disease, invasive, Group A	**	**	0.23	0.55	0.75	0.83	0.87	1.45	1.60	1.69	2.04
Streptococcal toxic-shock syndrome	**	**	0	0	0.01	0.02	0.02	0.04	0.04	0.05	0.06
<i>Streptococcus pneumoniae</i> , invasive Drug-resistant	**	**	0.12	0.57	0.67	1.44	2.39	2.77	2.11	1.14	0.99
Age <5 yrs	**	**	**	**	**	**	**	**	1.03	3.62	8.86
Syphilis, total, all stages	39.70	32.00	26.20	19.97	17.39	14.19	13.07	11.58	11.45	11.68	11.90
Primary and secondary	10.40	8.10	6.30	4.29	3.19	2.61	2.50	2.19	2.17	2.44	2.50
Tetanus	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01
Toxic-shock syndrome	0.08	0.10	0.07	0.06	0.06	0.06	0.05	0.06	0.05	0.05	0.05
Trichinellosis	0.01	0.01	0.01	0.01	0.01	0.01	0	0.01	0.01	0.01	0
Tuberculosis	9.82	9.36	8.70	8.04	7.42	6.79	6.43	6.01	5.68	5.36	5.17
Tularemia	0.05	0.04	§	§	§	§	§	0.06	0.05	0.03	0.04
Typhoid fever	0.17	0.17	0.14	0.15	0.14	0.14	0.13	0.14	0.13	0.11	0.12
Varicella ^{***}	118.54	135.76	118.11	44.13	93.55	70.28	44.56	26.18	19.51	10.27	7.27
Yellow fever	—	—	—	0	—	—	0	—	—	0	0

Note: Rates <0.01 after rounding are listed as 0. 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.

* Per 100,000 population.

† Acquired immunodeficiency syndrome (AIDS).

§ No longer nationally notifiable.

¶ Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

** Not nationally notifiable.

†† Data not available.

§§ Before 2003, hepatitis C, acute, was termed hepatitis C/non-A, non-B; anti-HCV antibody test became available May 1990.

¶¶ Severe acute respiratory syndrome-associated coronavirus disease.

*** Varicella was not a notifiable disease before 2003.

TABLE 8. Reported cases of notifiable diseases — United States, 1996–2003

Disease	1996	1997	1998	1999	2000	2001	2002	2003
AIDS*	66,885	58,492	46,521	45,104	40,758	41,868	42,745	44,232†
Anthrax	—	—	—	—	1	23	2	—
Botulism, total (includes wound and unspecified)	119	132	116	154	138	155	118	129
Foodborne	25	31	22	23	23	39	28	20
Infant	80	79	65	92	93	97	69	76
Brucellosis	112	98	79	82	87	136	125	104
Chancroid	386	243	189	143	78	38	67	54§
Chlamydia¶	498,884	526,671	604,420	656,721	702,093	783,242	834,555	877,478§
Cholera	4	6	17	6	5	3	2	2
Coccidioidomycosis	1,697	1,749	2,274	2,826	2,867	3,922	4,968	4,870
Cryptosporidiosis	2,827	2,566	3,793	2,361	3,128	3,785	3,016	3,506
Cyclosporiasis	**	**	**	56	60	147	156	75
Diphtheria	2	4	1	1	1	2	1	1
Ehrlichiosis								
Human granulocytic	**	**	**	203	351	261	511	362
Human monocytic	**	**	**	99	200	142	216	321
Encephalitis/meningitis, arboviral								
California serogroup	123	129	97	70	114	128	164	108††
Eastern equine	5	14	4	5	3	9	10	14††
Powassan	**	**	**	**	**	**	1	—††
St. Louis	2	13	24	4	2	79	28	41††
West Nile	**	**	**	**	**	**	2,840	2,866††
Western equine	—	—	—	1	—	—	—	—††
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)								
EHEC O157:H7	2,741	2,555	3,161	4,513	4,528	3,287	3,840	2,671
EHEC non-O157	**	**	**	**	**	171	194	252
EHEC not serogrouped	**	**	**	**	**	20	60	156
Giardiasis	**	**	**	**	**	**	21,206	19,709
Gonorrhea	325,883	324,907	355,642	360,076	358,995	361,705	351,852	335,104§
<i>Haemophilus influenzae</i> , invasive, all ages/serotypes	1,170	1,162	1,194	1,309	1,398	1,597	1,743	2,013
Age <5 yrs, serotype b	**	**	**	**	**	**	34	32
Age <5 yrs, nonserotype b	**	**	**	**	**	**	144	117
Age <5 yrs, unknown serotype	**	**	**	**	**	**	153	227
Hansen disease (leprosy)	112	122	108	108	91	79	96	95
Hantavirus pulmonary syndrome	NA	NA	NA	33	41	8	19	26
Hemolytic uremic syndrome, postdiarrheal	97	91	119	181	249	202	216	178
Hepatitis A, acute	31,032	30,021	23,229	17,047	13,397	10,609	8,795	7,653
Hepatitis B, acute	10,637	10,416	10,258	7,694	8,036	7,843	7,996	7,526
Hepatitis C, acute§§	3,716	3,816	3,518	3,111	3,197	3,976	1,835	1,102
Legionellosis	1,198	1,163	1,355	1,108	1,127	1,168	1,321	2,232
Listeriosis	**	**	**	823	755	613	665	696
Lyme disease	16,455	12,801	16,801	16,273	17,730	17,029	23,763	21,273
Malaria	1,800	2,001	1,611	1,666	1,560	1,544	1,430	1,402
Measles	508	138	100	100	86	116	44	56
Meningococcal disease	3,437	3,308	2,725	2,501	2,256	2,333	1,814	1,756
Mumps	751	683	666	387	338	266	270	231
Pertussis	7,796	6,564	7,405	7,288	7,867	7,580	9,771	11,647

TABLE 8. (Continued) Reported cases of notifiable diseases — United States, 1996–2003

Disease	1996	1997	1998	1999	2000	2001	2002	2003
Plague	5	4	9	9	6	2	2	1
Poliomyelitis, paralytic ^{¶¶}	7	6	3	2	—	—	—	—
Psittacosis	42	33	47	16	17	25	18	12
Q Fever	**	**	**	**	21	26	61	71
Rabies								
Animal	6,982	8,105	7,259	6,730	6,934	7,150	7,609	6,846
Human	3	2	1	—	4	1	3	2
Rocky Mountain spotted fever	831	409	365	579	495	695	1,104	1,091
Rubella	238	181	364	267	176	23	18	7
Rubella, congenital syndrome	4	5	7	9	9	3	1	1
Salmonellosis	45,471	41,901	43,694	40,596	39,574	40,495	44,264	43,657
SARS-CoV ^{***}	**	**	**	**	**	**	**	8 ^{†††}
Shigellosis	25,978	23,117	23,626	17,521	22,922	20,221	23,541	23,581
Streptococcal disease, invasive, Group A	1,445	1,973	2,260	2,667	3,144	3,750	4,720	5,872
Streptococcal toxic-shock syndrome	19	33	58	65	83	77	118	161
<i>Streptococcus pneumoniae</i> , invasive								
Drug-resistant	1,514	1,799	2,823	4,625	4,533	2,896	2,546	2,356
Age <5 yrs	**	**	**	**	**	498	513	845
Syphilis, total, all stages	52,976	46,540	37,977	35,628	31,575	32,221	32,871	34,270 [§]
Primary and secondary	11,387	8,550	6,993	6,657	5,979	6,103	6,862	7,177 [§]
Tetanus	36	50	41	40	35	37	25	20
Toxic-shock syndrome	145	157	138	113	135	127	109	133
Trichinellosis	11	13	19	12	16	22	14	6
Tuberculosis	21,337	19,851	18,361	17,531	16,377	15,989	15,075	14,874 ^{§§§}
Tularemia	¶¶¶	¶¶¶	¶¶¶	¶¶¶	142	129	90	129
Typhoid fever	396	365	375	346	377	368	321	356
Varicella ^{****}	83,511	98,727	82,455	46,016	27,382	22,536	22,841	20,948
Varicella deaths	**	**	**	**	**	**	9	2
Yellow fever ^{††††}	1	—	—	1	—	—	1	—

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.

* Acquired immunodeficiency syndrome.

† The total number of acquired immunodeficiency syndrome (AIDS) cases includes all cases reported to the Division of HIV/AIDS Prevention—Surveillance, and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), through December 31, 2003.

§ Cases were updated through the Division of STD Prevention, NCHSTP, as of May 1, 2004.

¶ Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

** Not previously nationally notifiable.

†† Data provided by the Division of Vector-Borne Infectious Diseases, National Center for Infectious Diseases (NCID) (ArboNET Surveillance).

§§ Before 2003, hepatitis C, acute, was termed hepatitis C/non-A, non-B; anti-HCV antibody test became available May 1990.

¶¶ Numbers might not reflect changes based on retrospective case evaluations or late reports (see CDC. Current trends poliomyelitis—United States, 1975–1984. *MMWR* 1986;35:180–2).

*** Severe acute respiratory syndrome-associated coronavirus disease.

††† Includes all confirmed and probable cases (according to the revised 2003 SARS surveillance case definition) reported to the Division of Viral and Rickettsial Diseases, NCID. SARS-CoV became nationally notifiable as of July 2003.

§§§ Cases were updated through the Division of TB Elimination, NCHSTP, as of April 1, 2004.

¶¶¶ At that time not a nationally notifiable disease.

**** Varicella was taken off the nationally notifiable disease list in 1991. Varicella became nationally notifiable again in 2003.

†††† The last indigenous case of yellow fever was reported in 1911, and the last imported case was reported in 1999.

TABLE 9. Reported cases of notifiable diseases* — United States, 1988–1995

Disease	1988	1989	1990	1991	1992	1993	1994	1995
AIDS†	31,001	33,722	41,595	43,672	45,472	103,691	78,279	71,547
Amebiasis	2,860	3,217	3,328	2,989	2,942	2,970	2,983	§
Anthrax	2	—	—	—	1	—	—	—
Aseptic meningitis	7,234	10,274	11,852	14,526	12,223	12,848	8,932	§
Botulism, total (includes wound and unspecified)	84	89	92	114	91	97	143	97
Foodborne	28	23	23	27	21	27	50	24
Infant	50	60	65	81	66	65	85	54
Brucellosis	96	95	82	104	105	120	119	98
Chancroid	5,001	4,692	4,212	3,476	1,886	1,399	773	606¶
Chlamydia**	††	††	††	††	††	††	††	477,638¶
Cholera	8	—	6	26	103	18	39	23
Coccidioidomycosis	††	††	††	††	††	††	††	1,212
Cryptosporidiosis	††	††	††	††	††	††	††	2,970
Diphtheria	2	3	4	5	4	—	2	—
Encephalitis								
Primary§§	882	981	1,341	1,021	774	919	717	§
Postinfectious	121	88	105	82	129	170	143	§
Encephalitis/meningitis, arboviral								
California serogroup	††	††	††	††	††	††	††	11
Eastern equine	††	††	††	††	††	††	††	1
St. Louis	††	††	††	††	††	††	††	††
Western equine	††	††	††	††	††	††	††	—
<i>Escherichia coli</i> O157:H7	††	††	††	††	††	††	1,420	2,139
Gonorrhea	719,536	733,151	690,169	620,478	501,409	439,673	418,068	392,848¶
Granuloma inguinale	11	7	97	29	6	19	3	§
<i>Haemophilus influenzae</i> , invasive	††	††	††	††	1,412	1,419	1,174	1,180
Hansen disease (leprosy)	184	163	198	154	172	187	136	144
Hantavirus pulmonary syndrome	††	††	††	††	††	††	††	—
Hemolytic uremic syndrome, postdiarrheal	††	††	††	††	††	††	††	72
Hepatitis A, acute	28,507	35,821	31,441	24,378	23,112	24,238	26,796	31,582
Hepatitis B, acute	23,177	23,419	21,102	18,003	16,126	13,361	12,517	10,805
Hepatitis C/nonA, non-B¶¶	2,619	2,529	2,553	3,582	6,010	4,786	4,470	4,576
Hepatitis, unspecified	2,470	2,306	1,671	1,260	884	627	444	§
Legionellosis	1,085	1,190	1,370	1,317	1,339	1,280	1,615	1,241
Leptospirosis	54	93	77	58	54	51	38	§
Lyme disease	††	††	††	††	9,895	8,257	13,043	11,700
Lymphogranuloma venereum	185	189	277	471	302	285	235	§
Malaria	1,099	1,277	1,292	1,278	1,087	1,411	1,229	1,419
Measles	3,396	18,193	27,786	9,643	2,237	312	963	309

TABLE 9. (Continued) Reported cases of notifiable diseases* — United States, 1988–1995

Disease	1988	1989	1990	1991	1992	1993	1994	1995
Meningococcal disease	2,964	2,727	2,451	2,130	2,134	2,637	2,886	3,243
Mumps	4,866	5,712	5,292	4,264	2,572	1,692	1,537	906
Murine typhus fever	54	41	50	43	28	25	§	§
Pertussis	3,450	4,157	4,570	2,719	4,083	6,586	4,617	5,137
Plague	15	4	2	11	13	10	17	9
Poliomyelitis, paralytic	9	11	6	10	6	4	8	7
Psittacosis	114	116	113	94	92	60	38	64
Rabies,								
Animal	4,651	4,724	4,826	6,910	8,589	9,377	8,147	7,811
Human	—	1	1	3	1	3	6	5
Rheumatic fever, acute	158	144	108	127	75	112	112	§
Rocky Mountain spotted fever	609	623	651	628	502	456	465	590
Rubella	225	396	1,125	1,401	160	192	227	128
Congenital syndrome	6	3	11	47	11	5	7	6
Salmonellosis, excluding typhoid fever	48,948	47,812	48,603	48,154	40,912	41,641	43,323	45,970
Shigellosis	30,617	25,010	27,077	23,548	23,931	32,198	29,769	32,080
Streptococcal disease, invasive, Group A	††	††	††	††	††	††	††	††
<i>Streptococcus pneumoniae</i> , invasive, drug-resistant	††	††	††	††	††	††	††	309
Streptococcal toxic-shock syndrome	††	††	††	††	††	††	††	10
Syphilis, total, all stages	103,437	110,797	134,255	128,569	112,581	101,259	81,696	68,953 [¶]
Primary and secondary	40,117	44,540	50,223	42,935	33,973	26,498	20,627	16,500 [¶]
Tetanus	53	53	64	57	45	48	51	41
Toxic-shock syndrome	390	400	322	280	244	212	192	191
Trichinellosis	45	30	129	62	41	16	32	29
Tuberculosis	22,436	23,495	25,701	26,283	26,673	25,313	24,361	22,860 ^{***}
Tularemia	201	152	152	193	159	132	96	§
Typhoid fever	436	460	552	501	414	440	441	369
Varicella ^{†††}	192,857	185,441	173,099	147,076	158,364	134,722	151,219	120,624

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.

* No cases of yellow fever were reported during 1988–1995.

† Acquired immunodeficiency syndrome (AIDS).

§ No longer nationally notifiable.

¶ Cases were updated through the Division of STD Prevention, NCHSTP, as of March 1, 1996.

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

†† Not previously nationally notifiable.

§§ Beginning in 1984, data were recorded by date of record to state health departments. Before 1984, data were recorded by onset date.

¶¶ Anti-HCV antibody test became available May 1990.

*** Cases were updated through the Division of TB Elimination, NCHSTP, as of May 29, 1996.

††† Varicella was taken off the nationally notifiable disease list in 1991. Many states continued to report these cases to CDC. Varicella became nationally notifiable again in 2003.

TABLE 10. Reported cases of notifiable diseases* — United States, 1980–1987

Disease	1980	1981	1982	1983	1984	1985	1986	1987
AIDS†	§	§	§	§	4,445	8,249	12,932	21,070
Amebiasis	5,271	6,632	7,304	6,658	5,252	4,433	3,532	3,123
Anthrax	1	—	—	—	1	—	—	1
Aseptic meningitis	8,028	9,547	9,680	12,696	8,326	10,619	11,374	11,487
Botulism, total (includes wound and unspecified)	89	103	97	133	123	122	109	82
Foodborne	§	§	§	§	§	49	23	17
Infant	§	§	§	§	§	70	79	59
Brucellosis	183	185	173	200	131	153	106	129
Chancroid	788	850	1,392	847	666	2,067	3,756	4,998
Cholera	9	19	—	1	1	4	23	6
Diphtheria¶	3	5	2	5	1	3	—	3
Encephalitis								
Primary	1,362	1,492	1,464	1,761	1,257	1,376	1,302	1,418
Postinfectious**	40	43	36	34	108	161	124	121
Gonorrhea	1,004,029	990,864	960,633	900,435	878,556	911,419	900,868	780,905
Granuloma inguinale	51	66	17	24	30	44	61	22
Hansen disease (leprosy)	223	256	250	259	290	361	270	238
Hepatitis A, acute	29,087	25,802	23,403	21,532	22,040	23,210	23,430	25,280
Hepatitis B, acute	19,015	21,152	22,177	24,318	26,115	26,611	26,107	25,916
Hepatitis C/non-A, non-B††	§	§	§	§	3,871	4,184	3,634	2,999
Hepatitis, unspecified	11,894	10,975	8,564	7,149	5,531	5,517	3,940	3,102
Legionellosis	475	408	654	852	750	830	980	1,038
Leptospirosis	85	82	100	61	40	57	41	43
Lymphogranuloma venereum	199	263	235	335	170	226	396	303
Malaria	2,062	1,388	1,056	813	1,007	1,049	1,123	944
Measles	13,506	3,124	1,714	1,497	2,587	2,822	6,282	3,655
Meningococcal disease	2,840	3,525	3,056	2,736	2,746	2,479	2,594	2,930
Mumps	8,576	4,941	5,270	3,355	3,021	2,982	7,790	12,848
Murine typhus fever	81	61	58	62	53	37	67	49
Pertussis	1,730	1,248	1,895	2,463	2,276	3,589	4,195	2,823
Plague	18	13	19	40	31	17	10	12
Poliomyelitis, total	9	10	12	13	9	8	10	§§
Paralytic¶¶	9	10	12	13	9	8	10	9
Psittacosis	124	136	152	142	172	119	224	98
Rabies								
Animal	6,421	7,118	6,212	5,878	5,567	5,565	5,504	4,658
Human	—	2	—	2	3	1	—	1
Rheumatic fever, acute	432	264	137	88	117	90	147	141
Rocky Mountain spotted fever	1,163	1,192	976	1,126	838	714	760	604
Rubella	3,904	2,077	2,325	970	752	630	551	306
Congenital syndrome	50	19	7	22	5	—	14	5
Salmonellosis	33,715	39,990	40,936	44,250	40,861	65,347	49,984	50,916
Shigellosis	19,041	19,859	18,129	19,719	17,371	17,057	17,138	23,860
Syphilis, total, all stages	68,832	72,799	75,579	74,637	69,888	67,563	68,215	86,545
Primary and secondary	27,204	31,266	33,613	32,698	28,607	27,131	27,883	35,147
Tetanus	95	72	88	91	74	83	64	48
Toxic-shock syndrome	§	§	§	§	482	384	412	372
Trichinellosis	131	206	115	45	68	61	39	40
Tuberculosis	27,749	27,373	25,520	23,846	22,255	22,201	22,768	22,517
Tularemia	234	288	275	310	291	177	170	214
Typhoid fever	510	584	425	507	390	402	362	400
Varicella	190,894	200,766	167,423	177,462	221,983	178,162	183,243	213,196

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.

* No cases of yellow fever were reported during 1980–1987.

† Acquired immunodeficiency syndrome (AIDS).

§ Not previously nationally notifiable.

¶ Cutaneous diphtheria ceased being notifiable nationally after 1979.

** Beginning in 1984, data were recorded by date of record to state health departments. Before 1984, data were recorded by onset date.

†† Anti-HCV antibody test became available May 1990.

§§ No longer nationally notifiable.

¶¶ No cases of paralytic poliomyelitis caused by wild virus have been reported in the United States since 1979.

TABLE 11. Reported cases of notifiable diseases* — United States, 1972–1979

Disease	1972	1973	1974	1975	1976	1977	1978	1979
Amebiasis	2,199	2,235	2,743	2,775	2,906	3,044	3,937	4,107
Anthrax	2	2	2	2	2	—	6	—
Aseptic meningitis	4,634	4,846	3,197	4,475	3,510	4,789	6,573	8,754
Botulism, total (includes wound and unspecified)	22	34	28	20	55	129	105	45
Brucellosis	196	202	240	310	296	232	179	215
Chancroid	1,414	1,165	945	700	628	455	521	840
Cholera	—	1	—	—	—	3	12	1
Diphtheria	152	228	272	307	128	84	76	59
Encephalitis								
Primary	1,059	1,613	1,164	4,064	1,651	1,414	1,351	1,504
Postinfectious	243	354	218	237	175	119	78	84
Gonorrhea	767,215	842,621	906,121	999,937	1,001,994	1,002,219	1,013,436	1,004,058
Granuloma inguinale	81	62	47	60	71	75	72	76
Hansen disease (leprosy)	130	146	118	162	145	151	168	185
Hepatitis A, acute	54,074	50,749	40,358	35,855	33,288	31,153	29,500	30,407
Hepatitis B, acute	9,402	8,451	10,631	13,121	14,973	16,831	15,016	15,452
Hepatitis, unspecified	†	†	†	†	7,488	8,639	8,776	10,534
Legionellosis	†	†	†	†	235	359	761	593
Leptospirosis	41	57	8,351	93	73	71	110	94
Lymphogranuloma venereum	756	408	394	353	365	348	284	250
Malaria	742	237	293	373	471	547	731	894
Measles	32,275	26,690	22,094	24,374	41,126	57,345	26,871	13,597
Meningococcal disease	1,323	1,378	1,346	1,478	1,605	1,828	2,505	2,724
Mumps	74,215	69,612	59,128	59,647	38,492	21,436	16,817	14,225
Murine typhus fever	18	32	26	41	69	75	46	69
Pertussis	3,287	1,759	2,402	1,738	1,010	2,177	2,063	1,623
Plague	1	2	8	20	16	18	12	13
Poliomyelitis, total	31	8	7	13	10	19	8	22
Paralytic	29	7	7	13	10	19	8	22
Psittacosis	52	33	164	49	78	94	140	137
Rabies								
Animal	4,369	3,640	3,151	2,627	3,073	3,130	3,254	5,119
Human	2	1	—	2	2	1	4	4
Rheumatic fever, acute	2,614	2,560	2,431	2,854	1,865	1,738	851	629
Rocky Mountain spotted fever	523	668	754	844	937	1,153	1,063	1,070
Rubella	25,507	27,804	11,917	16,652	12,491	20,395	18,269	11,795
Congenital syndrome	42	35	45	30	30	23	30	62
Salmonellosis	22,151	23,818	21,980	22,612	22,937	27,850	29,410	33,138
Shigellosis	20,207	22,642	22,600	16,584	13,140	16,052	19,511	20,135
Syphilis, total, all stages	91,149	87,469	83,771	80,356	71,761	64,621	64,875	67,049
Primary and secondary	24,429	24,825	25,385	25,561	23,731	20,399	21,656	24,874
Tetanus	128	101	101	102	75	87	86	81
Trichinellosis	89	102	120	252	115	143	67	157
Tuberculosis [§]	32,882	30,998	30,122	33,989	32,105	30,145	28,521	27,669
Tularemia	152	171	144	129	157	165	141	196
Typhoid fever	398	680	437	375	419	398	505	528
Varicella	164,114	182,927	141,495	154,248	183,990	188,396	154,089	199,081

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.

* No cases of yellow fever were reported during 1972–1979.

† Not previously nationally notifiable.

§ Case data after 1974 are not comparable with earlier years because of changes in reporting criteria that became effective in 1975.

TABLE 12. Deaths from selected notifiable diseases — United States, 1996–2001

Cause of death	Cause-of-death codes		Estimated comparability ratio [§]	1996 No. of deaths according to		1997 No. of deaths according to		1998 No. of deaths according to		1999 No. of deaths	2000 No. of deaths	2001 No. of deaths
	ICD-10*	ICD-9†		ICD-10 [¶]	ICD-9**	ICD-10	ICD-9	ICD-10	ICD-9			
AIDS††	B20–B24	042–044	1.0824	33,695	31,130	17,877	16,516	14,532	13,426	14,802	14,478	14,175
Anthrax	A22	022	§§	—	—	—	—	—	—	—	—	—
Botulism, foodborne	A05.1	005.1	§§	—	1	—	2	—	—	4	4	3
Brucellosis	A23	023	§§	—	—	—	1	—	1	—	1	—
Chancroid	A57	099.0	§§	—	—	—	—	—	—	—	—	—
Chlamydia ^{¶¶¶}	A56	099.5	§§	—	—	—	—	—	—	—	—	—
Cholera	A00	001	§§	—	2	—	—	—	1	1	1	—
Coccidioidomycosis	B38	114	§§	—	102	—	87	—	81	82	67	58
Cryptosporidiosis	A07.2	136.8	§§	—	7	—	4	—	5	—	1	—
Cyclosporiasis	A07.8	136.8	§§	***	***	***	***	***	***	—	—	—
Diphtheria	A36	032	§§	—	—	—	—	—	1	1	—	—
Ehrlichiosis (human granulocytic and human monocytic)	A79.8	083.8	§§	***	***	***	***	***	***	1	—	2
Encephalitis/meningitis, arboviral												
California serogroup	A83.5	062.5	§§	—	1	—	1	—	—	1	—	—
Eastern equine	A83.2	062.2	§§	—	1	—	2	—	1	—	—	1
St. Louis	A83.3	062.3	§§	—	—	—	1	—	—	2	1	2
Western equine	A83.1	062.1	§§	—	—	—	—	—	1	—	1	—
Enterohemorrhagic <i>Escherichia coli</i>												
O157:H7	A04.0–A04.4	005.8	§§	—	1	—	1	—	1	7	5	6
Gonococcal infections	A54	098	§§	—	4	—	3	—	4	9	12	7
<i>Haemophilus influenzae</i>	A49.2	041.5	§§	—	7	—	7	—	11	6	6	11
Hansen disease (leprosy)	A30	030	§§	—	—	—	2	—	—	2	2	—
Hantavirus pulmonary syndrome	J12.8	79.89	§§	***	***	***	***	***	***	2	4	—
Hemolytic uremic syndrome, postdiarrheal	D59.3									35	35	35
Hepatitis A, acute	B15	070.0–070.1	0.9328	113	121	118	127	106	114	134	106	83
Hepatitis B, acute	B16, B18.0, B18.1	070.2–070.3	0.6879	744	1,082	709	1,030	724	1,052	832	886	769
Hepatitis C/non-A, non-B	B17.1, B18.2	070.4–070.5	0.7114	1,692	2,378	1,940	2,727	2,457	3,454	3,763	4,225	4,609
Legionellosis	A48.1	482.82	§§	***	***	***	***	***	***	78	84	70
Listeriosis	A32	027.0	§§	***	***	***	***	***	***	42	45	33
Lyme disease	A69.2,L90.4	088.81	§§	—	—	—	—	—	—	7	5	2
Malaria	B50–B54	084	§§	—	4	—	7	—	6	7	3	9
Measles	B05	055	§§	—	1	—	2	—	—	2	1	1
Meningococcal disease	A39	036	0.9861	286	290	305	309	231	234	227	211	199
Mumps	B26	072	§§	—	1	—	—	—	1	1	2	—
Pertussis	A37	033	§§	—	4	—	6	—	5	7	12	17
Plague	A20	020	§§	—	2	—	—	—	—	1	—	—
Polioyielitis	A80	045	§§	—	—	—	—	—	—	—	—	—
Psittacosis	A70	073	§§	—	1	—	—	—	—	—	—	—
Q fever	A78	083.0	§§	—	1	—	—	—	—	—	—	—
Rabies, human	A82	071	§§	—	3	—	4	—	1	—	3	—
Rocky Mountain spotted fever	A77.0	082.0	§§	—	6	—	12	—	3	5	4	6
Rubella	B06	056	§§	—	—	—	—	—	—	—	—	2
Congenital syndrome	P35.0	771.0	§§	—	4	—	4	—	4	8	4	4
Salmonellosis	A02	003	0.8929	52	58	46	51	33	37	38	28	40
Shigellosis	A03	004	§§	—	5	—	5	—	5	6	9	2
Streptococcal disease, invasive, group A	A40.0, A49.1, B95.0	041.0	§§	—	67	—	87	—	87	145	132	91
Syphilis, total, all stages	A50–A53	090–097	0.7887	58	73	49	62	35	45	33	41	36
Tetanus	A35	037	§§	—	1	—	4	—	7	7	5	5
Toxic-shock syndrome	A48.3	041.1	§§	—	207	—	216	—	235	55	74	75
Trichinellosis	B75	124	§§	—	—	—	—	—	—	—	—	—
Tuberculosis	A16–A19	010–018	0.8821	1,060	1,202	1,029	1,166	981	1,112	930	776	764
Tularemia	A21	021	§§	—	—	—	1	—	1	1	3	—
Typhoid fever	A01.0	002.0	§§	—	1	—	—	—	—	—	—	1
Varicella ^{†††}	B01	052	0.7848	64	81	78	99	64	81	48	44	26
Yellow fever	A95	060	§§	—	1	—	—	—	—	1	—	—

Source: CDC. CDC WONDER Compressed Mortality files (<http://wonder.cdc.gov/mortSQL.html>) provided by the National Center for Health Statistics. National Vital Statistics System, 1996–2000. Deaths are classified according to the ICD-9 (1996–1998) and ICD-10 (1999–2001). Data for 2002 and 2003 currently are not available. Data are limited by the accuracy of information regarding the underlying cause of death indicated on death certificates and reported to the National Vital Statistics System.

* World Health Organization. *International Statistical Classification of Disease and Related Health Problems, Tenth Revision, 1992.*

† World Health Organization. *International Classification of Diseases, Ninth Revision, 1975.*

§ Unpublished estimates; see also Anderson RN, Minino AM, Hoyert DL, et al. Comparability of cause of death between ICD-9 and ICD-10: preliminary estimates. US Department of Health and Human Services, CDC, National Center for Health Statistics. 2001; DHHS publication no. (PHS) 2001-1120. (Nat'l Vital Stat Rep;49,2).

¶ Number of deaths modified with the comparability ratio for ICD-10 code.

** Number of deaths based on ICD-9 code; unmodified with the comparability ratio for ICD-10 code.

†† Acquired immunodeficiency syndrome. In 1987, the National Center for Health Statistics introduced ICD-9 categories 042–044 for classifying and coding human immunodeficiency virus (HIV) infection.

§§ Comparability ratio not calculated because it does not meet standards of reliability or precision.

¶¶ Chlamydia refers to genital infections caused by *Chlamydia trachomatis*.

*** Not previously nationally notifiable.

††† Varicella was removed from the nationally notifiable disease list in 1991. Many states continue to report these cases to CDC.

Selected Reading

General

- Bayer R, Fairchild AL. Public health: surveillance and privacy. *Science* 2000;290:1898–9.
- CDC. Case definitions for infectious conditions under public health surveillance. *MMWR* 1997;46(No. RR-10). Additional information available at <http://www.cdc.gov/epo/dphsi/casedef/index.htm>.
- CDC. Demographic differences in notifiable infectious disease morbidity—United States, 1992–1994. *MMWR* 1997;46:637–41.
- CDC. Framework for evaluating public health surveillance systems for early detection of outbreaks; recommendations from the CDC working group. *MMWR* 2004;53(No. RR-5):1–13.
- CDC. Framework for program evaluation in public health. *MMWR* 1999;48(No. RR-11).
- CDC. Historical perspectives: notifiable disease surveillance and notifiable disease statistics—United States, June 1946 and June 1996. *MMWR* 1996;45:530–6.
- CDC. Manual of procedures for the reporting of nationally notifiable diseases to CDC. Atlanta, GA: US Department of Health and Human Services, Public Health Service, CDC; 1995.
- CDC. Manual for the surveillance of vaccine-preventable diseases. Atlanta, GA: US Department of Health and Human Services, Public Health Service, CDC; 1999. Available at <http://www.cdc.gov/nip/publications/surv-manual/begin.pdf>.
- CDC. National Electronic Disease Surveillance System (NEDSS): a standards-based approach to connect public health and clinical medicine. *Journal of Public Health Management and Practice* 2001;7:43–50.
- CDC. Reporting race and ethnicity data—National Electronic Telecommunications System for Surveillance, 1994–1997. *MMWR* 1999;48:305–12.
- CDC. Sexually transmitted disease surveillance 1998. Atlanta: US Department of Health and Human Services, Public Health Service, CDC; 1999.
- CDC. Ten leading nationally notifiable infectious diseases—United States, 1995. *MMWR* 1996;45:883–4.
- CDC. Updated guidelines for evaluating public health surveillance systems: recommendations from the guidelines working group. *MMWR* 2001;50(No. RR-13):1–36.
- CDC. Use of race and ethnicity in public health surveillance: summary of the CDC/ATSDR workshop. *MMWR* 1993;42(No. RR-10).
- Chang M-H, Glynn MK, Groseclose SL. Endemic, notifiable bioterrorism-related diseases, United States, 1992–1999. *Emerg Infect Dis* 2003;9:556–64.
- Chin JE, ed. Control of communicable diseases manual. 17th ed. Washington, DC: American Public Health Association; 2000.
- Doyle TJ, Glynn MK, Groseclose SL. Completeness of notifiable infectious disease reporting in the United States: an analytical literature review. *Am J Epidemiol* 2002;155:866–74.
- Effler P, Ching-Lee M, Bogard A, Jeong M-C, Nekomoto T, Jernigan D. Statewide system of electronic notifiable disease reporting from clinical laboratories: comparing automated reporting with conventional methods. *JAMA* 1999;282:1845–50.
- Freimuth V, Linnan HW, Potter P. Communicating the threat of emerging infections to the public. *Emerg Infect Dis* 2000;6:337–47.
- Government Accountability Office. Emerging infectious diseases: review of state and federal surveillance efforts. Washington, DC: Government Accountability Office. GAO-04-877; 2004. Available at <http://www.gao.gov/new.items/d04877.pdf>.
- Jajosky RA, Groseclose SL. Evaluation of reporting timeliness of public health surveillance systems for infectious diseases. *BMC Public Health* 2004;4:29.
- Koo D, Caldwell B. The role of providers and health plans in infectious disease surveillance. *Eff Clin Pract* 1999;2:247–52. Available at <http://www.acponline.org/journals/ecp/sepoct99/koo.htm>.
- Koo D, Wetterhall S. History and current status of the National Notifiable Diseases Surveillance System. *Journal of Public Health Management and Practice* 1996;2:4–10.
- Lin SS, Kelsey JL. Use of race and ethnicity in epidemiologic research: concepts, methodological issues, and suggestions for research. *Epidemiol Rev* 2000;22:187–202.
- Martin SM, Bean NH. Data management issues for emerging diseases and new tools for managing surveillance and laboratory data. *Emerg Infect Dis* 1995;1:124–8. Available at <http://www.cdc.gov/ncidod/eid/vol1no4/martin2.htm#top>.
- Niskar AS, Koo D. Differences in notifiable infectious disease morbidity among adult women—United States, 1992–1994. *J Womens Health* 1998;7:451–8.
- Panackal AA, M'ikanatha NM, Tsui FC, et al. Automatic electronic laboratory-based reporting of notifiable infectious diseases at a large health system. *Emerg Infect Dis* 2002;8:685–91.
- Pinner RW, Koo D, Berkelman RL. Surveillance of infectious diseases. In: Lederberg J, Alexander M, Bloom RB, eds. *Encyclopedia of microbiology*. 2nd ed. San Diego, CA: Academic Press; 2000;4:506–25.

Pinner RW, Jernigan DB, Sutliff SM. Electronic laboratory-based reporting for public health. *Military Medicine* 2000;165(suppl 2):20-4.

Roush S, Birkhead G, Koo D, Cobb A, Fleming D. Mandatory reporting of diseases and conditions by health care professionals and laboratories. *JAMA* 1999;282:164-70. Available at <http://jama.ama-assn.org/issues/v282n2/abs/joc90413.html>.

Teutsch SM, Churchill RE, eds. *Principles and practice of public health surveillance*. 2nd ed. New York, NY: Oxford University Press; 2000.

Thacker SB, Choi K, Brachman PS. The surveillance of infectious diseases. *JAMA* 1983;249:1181-5.

AIDS

CDC. Cases of HIV infection and AIDS in the United States, 2002 HIV/AIDS surveillance report, Vol.14. Atlanta, GA: US Department of Health and Human Services, CDC; 2004. Available at: <http://www.cdc.gov/hiv/stats/hasr1402.htm>.

CDC. Guidelines for national human immunodeficiency virus case surveillance, including monitoring for human immunodeficiency virus infection and acquired immunodeficiency syndrome. *MMWR* 1999;48(No. RR-13):1-31.

Nakashima AK, Fleming PL. HIV/AIDS surveillance in the United States, 1981-2001. *J Acquir Immune Defic Syndr* 2003;32:68-85.

Botulism

Sobel J, Tucker N, MacLaughlin J, Maslanka S. Foodborne botulism in the United States, 1999-2000. *Emerg Infect Dis* 2004;10:1606-12. Available at <http://www.cdc.gov/ncidod/EID/vol10no9/03-0745.htm>.

CDC. Botulism in the United States, 1899-1996: handbook for epidemiologists, clinicians and laboratory workers. Atlanta, GA: US Department of Health and Services, CDC; 1998.

Shapiro R, Hatheway C, Swerdlow DL. Botulism in the United States: a clinical and epidemiologic review. *Ann Intern Med* 1998;129:221-8.

Brucellosis

CDC. Brucellosis: (*Brucella melitensis*, *abortus*, *suis*, and *canis*). Atlanta, GA: US Department of Health and Human Services, CDC. Available at http://www.cdc.gov/ncidod/dbmd/diseaseinfo/brucellosis_g.htm.

CDC. Brucellosis case definition. Atlanta, GA: US Department of Health and Human Services, CDC; 2001. Available at <http://www.bt.cdc.gov/Agent/Brucellosis/CaseDef.asp>.

CDC. Human exposure to *Brucella abortus* strain RB51—Kansas, 1997. *MMWR* 1998;47:172-5.

Stevens, MG, Olsen SC, Palmer MV, Cheville NF. US Department of Agriculture, Agricultural Research Service National Animal Disease Center, Iowa State University. *Brucella abortus* strain RB51: a new brucellosis vaccine for cattle. *Compendium* 1997;19:766-74.

Robichaud S, Libman M, Behr M, Rubin E. Prevention of laboratory-acquired brucellosis. *Clin Infect Dis* 2004;38:e119-22.

Chomel BB, DeBess EE, Mangiamele DM, et al. Changing trends in the epidemiology of human brucellosis in California from 1973 to 1992: a shift toward foodborne transmission. *J Infect Dis* 1994;170:1216-23.

Chancroid

DiCarlo RP, Armentor BS, Martin DH. Chancroid epidemiology in New Orleans men. *J Infect Dis* 1995;172:446-52.

Mertz KJ, Weiss JB, Webb RM, et al. An investigation of genital ulcers in Jackson, Mississippi, with use of a multiplex polymerase chain reaction assay: high prevalence of chancroid and human immunodeficiency virus infection. *J Infect Dis* 1998;178:1060-6.

Mertz KJ, Trees D, Levine WC, et al. Etiology of genital ulcers and prevalence of human immunodeficiency virus coinfection in 10 US cities. The Genital Ulcer Disease Surveillance Group. *J Infect Dis* 1998;178:1795-8.

Chlamydia trachomatis, Genital Infection

CDC. Sexually transmitted disease surveillance 2002 supplement: Chlamydia Prevalence Monitoring Project, annual report 2002. Atlanta, GA: US Department of Health and Human Services, CDC; 2003. Available at <http://www.cdc.gov/std/chlamydia2002>.

Gaydos CA, Howell MR, Pare B, et al. *Chlamydia trachomatis* infections in female military recruits. *N Engl J Med* 1998;339:739-44.

Mertz KJ, McQuillian GM, Levine WC, et al. A pilot study of chlamydial infection in a national household survey. *Sex Transm Dis* 1998;25:225-8.

Miller WC, Ford CA, Handcock MS, et al. Prevalence of chlamydial and gonococcal infections among young adults in the United States. *JAMA* 2004;291:2229-36.

Cholera

Steinberg EB, Greene KD, Bopp CA, Cameron DN, Wells JG, Mintz ED. Cholera in the United States, 1995-2000: Trends at the end of the millennium. *J Infect Dis* 2001;184:799-802.

World Health Organization. Cholera, 2003. *Wkly Epidemiol Rec* 2004;31:281-8.

Mintz ED, Tauxe RV, Levine MM. The global resurgence of cholera. In: Noah ND, O'Mahony M, eds. Communicable disease epidemiology and control. Chichester, England: John Wiley & Sons; 1998:63–104.

Mahon BE, Mintz ED, Greene KD, Wells JG, Tauxe RV. Reported cholera in the United States, 1992–1994: a reflection of global change in cholera epidemiology. *JAMA* 1996;276:307–12.

Cryptosporidiosis

Roy SL, DeLong SM, Stenzel SA, et al. Risk factors for sporadic cryptosporidiosis among immunocompetent persons in the United States from 1999 to 2001. *J Clin Microbiol* 2004;42:2944–51.

CDC. Diagnostic procedures for stool specimens: detection of parasite antigens. Atlanta, GA: US Department of Health and Human Services, CDC. Available at <http://www.dpd.cdc.gov/DPDx/HTML/DiagnosticProcedures.htm>.

Yoder JS, Blackburn BG, Craun GF, et al. Surveillance for waterborne-disease outbreaks associated with recreational water—United States, 2001–2002. In: Surveillance Summaries, October 22, 2004. *MMWR* 2002;53(No. SS-8):1–21.

Rose JB, Huffman DE, Gennaccaro A. Risk and control of waterborne cryptosporidiosis. *FEMS Microbiol Rev* 2002;26:113–23.

Cyclosporiasis

Lopez AS, Bendik JM, Alliance JY, et al. Epidemiology of *Cyclospora cayetanensis* and other intestinal parasites in a community in Haiti. *J Clin Microbiol* 2003;41:2047–54.

Ho AY, Lopez AS, Eberhard MG, et al. Outbreak of cyclosporiasis associated with imported raspberries, Philadelphia, Pennsylvania, 2000. *Emerg Infect Dis* 2002;8:783–8.

Herwaldt BL. *Cyclospora cayetanensis*: a review, focusing on the outbreaks of cyclosporiasis in the 1990s. *Clin Infect Dis* 2000;31:1040–57.

Ehrlichiosis (Human Granulocytic and Human Monocytic)

Ehrlichia chafeensis: a prototypical emerging pathogen [Review].

Paddock CD, Childs JE. *J Clin Microbiol* 2003;16:37–64.

Ijdo JW, Meek JI, Cartter ML, et al. The emergence of another tickborne infection in the 12-town area around Lyme, Connecticut: human granulocytic ehrlichiosis. *J Infect Dis* 2000;181:1388–93.

McQuiston JH, Paddock CD, Holman RC, Childs JE. The human ehrlichioses in the United States [Review]. *Emerg Infect Dis* 1999;5:635–42. Available at <http://www.cdc.gov/ncidod/eid/vol5no5/mcquiston.htm>.

Childs JE, Sumner JW, Nicholson WL, Massung RF, Standaert SM, Paddock CD. Outcome of diagnostic tests using samples from patients with culture-proven human monocytic ehrlichiosis: implications for surveillance. *J Clin Microbiol* 1999;37:2997–3000.

Giardiasis

Stuart JM, Orr HJ, Warburton FG, et al. Risk factors for sporadic giardiasis: a case-control study in Southwestern England. *Emerg Infect Dis* 2003;9:229–33.

CDC. Diagnostic procedures for stool specimens: detection of parasite antigens. Atlanta, GA: US Department of Health and Human Services, CDC; 2004. Available at <http://www.dpd.cdc.gov/DPDx/HTML/DiagnosticProcedures.htm>.

Blackburn BG, Craun GF, Yoder JS, et al. Surveillance for waterborne-disease outbreaks associated with drinking water—United States, 2001–2002. In: Surveillance Summaries, October 22, 2004. *MMWR* 2002;53(No. SS-8):23–45.

Furness BW, Beach MJ, Roberts JM. Giardiasis surveillance—United States, 1992–1997. In: CDC Surveillance Summaries, August 11, 2000. *MMWR* 2000;49(No. SS-7):1–13.

Gonorrhea

CDC. Increases in fluoroquinolone-resistant *Neisseria gonorrhoeae* among men who have sex with men—United States, 2003, and revised recommendations for gonorrhea treatment, 2004. *MMWR* 2004;53:335–8.

CDC. Sexually transmitted diseases treatment guidelines, 2002. *MMWR* 2002;51(No. RR-6).

CDC. Sexually transmitted diseases surveillance 2002 supplement: Gonococcal Isolate Surveillance Project (GISP) annual report 2002. Atlanta, GA: US Department of Health and Human Services, CDC; 2003.

Fox KK, del Rio C, Holmes KK, et al. Gonorrhea in the HIV era: a reversal in trends among men who have sex with men. *Am J Public Health* 2001;91:959–64.

Haemophilus influenzae, Invasive Disease

LaClaire LL, Tondella ML, Beall DS et al. Identification of *Haemophilus influenzae* serotypes by standard slide agglutination serotyping and PCR-based capsule typing. *J Clin Micro* 2003;41:393–6.

CDC. Progress toward elimination of *Haemophilus influenzae* type b disease among infants and children—United States, 1998–2000. *MMWR* 2002;51:234–7.

Fry AM, Lurie P, Gidley M, Schmink S, Lingappa J, Rosenstein NE. *Haemophilus influenzae* type b (Hib) disease among Amish children in Pennsylvania: reasons for persistent disease. *Pediatrics* 2001;108:1–6.

CDC. Recommendations for use of *Haemophilus b* conjugate vaccines and a combined diphtheria, tetanus, pertussis, and *Haemophilus b* vaccine: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1993;42(No. RR-13).

Hepatitis A

Armstrong GL, Bell BP. Hepatitis A virus infections in the United States: model-based estimates and implications for childhood immunization. Pediatrics 2002;109:839–45.

CDC. Prevention of hepatitis A through active or passive immunization: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1999;48(No. RR-12).

Bell BP, Shapiro CN, Alter MJ, et al. The diverse patterns of hepatitis A epidemiology in the United States—implications for vaccination strategies. J Infect Dis 1998;178:1579–84.

Lemon SM, Shapiro CN. The value of immunization against hepatitis A. Infect Agents Dis 1994;3:38–49.

Shapiro CN, Coleman PJ, McQuillan GM, Alter MJ, Margolis HS. Epidemiology of hepatitis A: seroepidemiology and risk groups in the USA. Vaccine 1992;10(suppl 1):S59–62.

Hepatitis B

Coleman PJ, McQuillan GM, Moyer LA, Lambert SB, Margolis HS. Incidence of hepatitis B virus infection in the United States, 1976–1994: estimates from the National Health and Nutrition Examination Surveys. J Infect Dis 1998;178:954–9.

CDC. Hepatitis B virus: a comprehensive strategy for eliminating transmission in the United States through universal childhood vaccination: recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(No. RR-13):1–19.

Goldstein ST, Alter MJ, Williams IT, et al. Incidence and risk factors for acute hepatitis B in the United States, 1982–1998: implications for vaccination programs. J Infect Dis 2002;185:713–9.

McQuillan GM, Coleman PJ, Kruszon-Moran D, Moyer LA, Lambert SB, Margolis HS. Prevalence of hepatitis B virus infection in the United States: The National Health and Nutrition Examination Surveys, 1976 through 1994. Am J Public Health 1999;89:14–8.

Margolis HS, Alter MJ, Hadler SC. Hepatitis B: evolving epidemiology and implications for control [Review]. Semin Liver Dis 1991;11:84–92.

Hepatitis C

Alter MJ, Kruszon-Moran D, Nainan OV, et al. The prevalence of hepatitis C virus infection in the United States, 1988 through 1994. N Engl J Med 1999;341:556–62.

Armstrong GA, Alter MJ, McQuillan GM, Margolis HS. The past incidence of hepatitis C virus infection: implications for the future burden of chronic liver disease in the United States. Hepatology 2000;31:777–82.

CDC. Recommendations for prevention and control of hepatitis C virus (HCV) infection and HCV-related chronic disease. MMWR 1998;47(No. RR-19).

Lyme Disease

Stafford KC III. Tick management handbook: a integrated guide for homeowners, pest control operators, and public health officials for the prevention of tick-associated disease. Connecticut Agricultural Experiment Station; 2004. Available at <http://www.caes.state.ct.us/SpecialFeatures/TickHandbook.pdf>.

Hayes EB, Piesman J. How can we prevent Lyme disease? N Engl J Med 2003;348:2424–30.

Bunikis J, Barbour AG. Laboratory testing for suspected Lyme disease. Med Clin North Am 2002;86:311–40.

Guerra M, Walker E, Jone C, et al. Predicting risk of Lyme disease: habitat suitability for *Ixodes scapularis* in the North Central United States. Emerg Infect Dis 2002;8:289–97.

Malaria

CDC. Malaria surveillance—United States, 2002. In: Surveillance Summaries, April 30, 2004. MMWR 2004;53(No. SS-1):21–34.

CDC. Probable transfusion-transmitted malaria—Houston, Texas, 2003. MMWR 2003;52:1075–6.

CDC. Local transmission of *Plasmodium vivax* malaria—Palm Beach County, Florida, 2003. MMWR 2003;52:908–11.

Lobel HO, Kozarsky PE. Update on prevention of malaria for travelers. JAMA 1997;278:1767–71.

Measles

Papania M, Hinman A, Katz S, Orenstein W, McCauley M, eds. Progress toward measles elimination—absence of measles as an endemic disease in the United States. J Infect Dis 2004;189(Suppl 1):S1–257.

CDC. National, state, and urban area vaccination levels among children aged 19–35 months—United States, 2002. MMWR 2003;52:728–32.

Rota PA, Liffick SL, Rota JS, et al. Molecular epidemiology of measles viruses in the United States, 1997–2001. Emerg Infect Dis 2002;8:902–8.

De Serres G, Gay NJ, Farrington CP. Epidemiology of transmissible diseases after elimination. *Am J Epidemiol* 2000;151:1039–48.

Plague

CDC. Imported plague—New York City, 2002. *MMWR* 2003;53:725–8.

Enscore RE, Biggerstaff BJ, Brown TL, et al. Modeling relationships between climate and the frequency of human plague cases in the southwestern United States, 1960–1997. *Am J Trop Med Hyg* 2002;66:186–96.

Inglesby TV, Dennis DT, Henderson DA, et al. Plague as a biological weapon: medical and public health management. Working Group on Civilian Biodefense [Review]. *JAMA* 2000;283:2281–90.

Dennis DT, Gage KL, Gratz N, Poland JD, Tikhomirov E. Plague manual: epidemiology, distribution, surveillance and control. Geneva, Switzerland: World Health Organization; 1999.

Rubella

CDC. Control and prevention of rubella: evaluation and management of suspected outbreaks, rubella in pregnant women, and surveillance for congenital rubella syndrome. *MMWR* 2001;50(No. RR-12).

Danovaro-Holliday MC, Gordon E, Woernle C, et al. Identifying risk factors for rubella susceptibility in a population at risk in the United States. *Am J Public Health* 2003;93:289–91.

Reef SE, Frey TK, Theall K, et al. The changing epidemiology of rubella in the 1990s: on the verge of elimination and new challenges for control and prevention. *JAMA* 2002;287:464–72.

Reef S, Plotkin S, Cordero J, et al. Preparing for congenital rubella syndrome elimination: summary of the Workshop on Congenital Rubella Elimination in the United States. *Clin Infect Dis* 2000;31:85–95.

Q Fever

McQuiston JH, Childs JE. Q fever in humans and animals in the United States [Review]. *Vector Borne and Zoonotic Dis* 2002;179–191.

CDC. Q Fever—California, Georgia, Pennsylvania, and Tennessee, 2000–2001. *MMWR* 2002;51:924–7.

Raoult D, Tissot-Dupont H, Foucault C, et al. Q fever 1985–1998. Clinical and epidemiologic features of 1,383 infections [Review]. *Medicine* 2000;79:109–25.

Bernard KW, Parham GL, Winkler WG, Helmick CG. Q fever control measures: recommendations for research facilities using sheep. *Infection Control* 1982;3:461–65.

Rabies, Animal and Human

CDC. Compendium of animal rabies prevention and control, 2004: National Association of State and Territorial Public Health Veterinarians, Inc. *MMWR* 2004;53(No. RR-9).

CDC. Human rabies prevention—United States, 1999: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 1999;48(No. RR-1).

Krebs J.W., J.T. Wheeling, J.E. Childs. 2003. Rabies surveillance in the United States during 2002. *J. Am Vet Med Assoc* 223:1736–8.

Noah DL, Drenzek CL, Smith JS, et al. Epidemiology of human rabies in the United States, 1980 to 1996 [Review]. *Ann Intern Med* 1998;128:922–0.

Rocky Mountain Spotted Fever

Cases of Rocky Mountain spotted fever in family clusters—three states, 2003. *MMWR* 2004;53:407–10.

Treadwell TA, Holman RC, Clarke MA et al. Rocky Mountain spotted fever in the United States, 1993–1996. *Am J Trop Med Hyg* 2000;63:21–6.

Thorner AR, Walker, DH, Petri WA. Rocky Mountain spotted fever [Review]. *Clin Infect Dis* 1998;27:1353–60.

Dalton MJ, Clarke MJ, Holman RC, et al. National surveillance for Rocky Mountain spotted fever, 1981–1992: epidemiologic summary and evaluation of risk factors for fatal outcome. *Am J Trop Med Hyg* 1995;52:405–13.

Shigellosis

Gupta A, Polyak CS, Bishop RD, Sobel J, Mintz ED. Laboratory-confirmed shigellosis in the United States, 1989–2002: epidemiologic trends and patterns. *Clin Infect Dis* 2004;38:1372–7.

Kalluri P, Cummings K, Abbott S, et al. Epidemiological features of a newly described serotype of *Shigella boydii*. *Epidemiol Infect* 2004;132:579–83.

Shane A, Crump J, Tucker N, Painter J, Mintz E. Sharing *Shigella*: risk factors and costs of a multi-community outbreak of shigellosis. *Arch Pediatrics and Adolescent Medicine* 2003;157:601–3.

Naimi TS, Wicklund JH, Olsen SJ et al. Concurrent outbreaks of *Shigella sonnei* and enterotoxigenic *Escherichia coli* infections associated with parsley: implications for surveillance and outbreak control. *Journal of Food Protection* 2003;66:535–41.

Streptococcal Disease, Invasive, Group A

The Prevention of Invasive Group A Streptococcal Infections Workshop Participants. Prevention of invasive group A streptococcal disease among household contacts of case patients and among postpartum and postsurgical patients: recommendations from the Centers for Disease Control and Prevention. *Clin Infect Dis* 2002;35:950–9.

CDC. Active Bacterial Core Surveillance report. Emerging Infections Program Network. Group A streptococcus, 2003—preliminary. Atlanta, GA: Available at <http://www.cdc.gov/ncidod/dbmd/abcs/survreports/gas03prelim.pdf>.

O'Brien KL, Beall B, Barrett NL, et al. Epidemiology of invasive group A streptococcus disease in the United States, 1995–1999. *Clin Infect Dis* 2002;35:268–76.

Factor SH, Levine OS, Schwartz B, et al. Invasive group A streptococcal disease: risk factors for adults. *Emerg Infect Dis* 2003;9:970–7.

Streptococcus pneumoniae, Invasive, Drug-Resistant

CDC. Preventing pneumococcal disease among infants and young children: recommendations of the Advisory Committee on Immunization Practices. *MMWR* 2000;49 (No. RR-9):1–38.

Flannery B, Schrag S, Bennett NM, et al. Impact of childhood vaccination on racial disparities in invasive *Streptococcus pneumoniae* infections in the United States, 1998–2002. *JAMA* 2004;291:2197–2203.

Whitney CG, Farley MM, Hadler J, et al. Increasing prevalence of multidrug-resistant *Streptococcus pneumoniae* in the United States. *N Engl J Med* 2000;343:1917–24.

Whitney CG, Farley MM, Hadler J, et al. Decline in invasive pneumococcal disease following the introduction of protein-polysaccharide conjugate vaccine. *N Engl J Med* 2003;348:1737–46.

Syphilis, Congenital

CDC. Congenital syphilis—United States, 2002. *MMWR* 2004;53:716–9.

Syphilis, Primary and Secondary

CDC. The national plan to eliminate syphilis from the United States. Atlanta, GA: US Department of Health and Human Services, CDC; 1999.

CDC. Trends in primary and secondary syphilis and HIV infections in men who have sex with men—San Francisco and Los Angeles, California, 1998–2002. *MMWR* 2004;53:575–8.

CDC. Primary and secondary syphilis—United States, 2002. *MMWR* 2003;52:1117–20.

CDC. Sexually transmitted disease surveillance supplement 2002: syphilis surveillance report. Atlanta, GA: US Department of Health and Human Services, CDC; 2004.

Tetanus

Pascual FB, McGinley EL, Zanardi LR, Cortese MM, Murphy TV. Tetanus surveillance—United States, 1998–2000. In: *Surveillance Summaries*, June 20, 2003. *MMWR* 2003;52(No. SS-3):1–8.

CDC. Tetanus—Puerto Rico, 2002. *MMWR* 2002;51:613–5. Fair E, Murphy T, Golaz A, Wharton M. Philosophic objection to vaccination as a risk for tetanus among children <15 years of age. *Pediatrics* 2002;109:E2.

McQuillan GM, Kruszon-Moran D, Deforest A, Chu SY, Wharton M. Serologic immunity to diphtheria and tetanus in the United States. *Ann Intern Med* 2002;136:660–6.

Trichinellosis

CDC. Trichinellosis associated with bear meat—New York and Tennessee, 2003. *MMWR* 2004;53:606–10.

Roy SL, Lopez AS, Schantz PM. Trichinellosis surveillance—United States, 1997–2001. In: *Surveillance Summaries*, July 25, 2003. *MMWR* 2003;52(No. SS-6):1–8.

Moorhead A, Grunenwald PE, Dietz VJ, Schantz PM. Trichinellosis in the United States, 1991–1996: declining but not gone. *Am J Trop Med Hyg* 1999;60:66–9.

CDC. Outbreak of trichinellosis associated with eating cougar jerky—Idaho, 1995. *MMWR* 1996;45:205–6.

Tuberculosis

CDC. Reported tuberculosis in the United States, 2003. Atlanta, GA: US Department of Health and Human Services, CDC; 2004. Available at <http://www.cdc.gov/nchstp/tb>.

CDC. Trends in tuberculosis morbidity—United States, 1998–2003. *MMWR* 2004;53:209–14.

Saraiya M, Cookson ST, Tribble P, et al. Tuberculosis screening among foreign-born persons applying for permanent US residence. *Am J Public Health* 2002;92:826–9.

Talbot EA, Moore M, McCray E, Binkin NJ. Tuberculosis among foreign-born persons in the United States, 1993–1998. *JAMA* 2000;284:2894–900.

Tularemia

- CDC. Outbreak of tularemia among commercially distributed prairie dogs, 2002. *MMWR* 2002;51:688,699.
- CDC. Tularemia—United States, 1990–2000. *MMWR* 2002;51:182–4.
- Dennis DT, Inglesby TV, Henderson DA, et al. Tularemia as a biological weapon: medical and public health management. *JAMA* 2001;285:2763–73.
- Feldman KA, Ensore RE, Lathrop SL, et al. Outbreak of primary pneumonic tularemia on Martha's Vineyard. *N Engl J Med* 2001;345:1219–26.

Typhoid Fever

- Steinberg EB, Bishop RB, Dempsey AF, et al. Typhoid fever in travelers: who should be targeted for prevention? *Clin Infect Dis* 2004;39:186–91.
- Crump JA, Luby SP, Mintz ED. The global burden of typhoid fever. *Bull WHO* 2004;84:346–53.

- Olsen SJ, Bleasdale SC, Magnano AR, et al. Outbreaks of typhoid fever in the United States, 1960–1999. *Epidemiol Infect* 2003;130:13–21.
- Reller M, Olsen S, Kressel A. Sexual transmission of typhoid fever: a multi-state outbreak among men who have sex with men. *Clin Infect Dis* 2003;37:141–4.

Varicella

- Seward JF, Zhang JX, Maupin TJ, Mascola L, Jumaan AO. Contagiousness of varicella in vaccinated cases: a household contact study. *JAMA* 2004;292:704–8.
- CDC. Outbreak of varicella among vaccinated children—Michigan, 2003. *MMWR* 2004;53:389–92.
- CDC. Prevention of varicella: updated recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 1999;48(No. RR-6).
- CDC. Prevention of varicella: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR* 1996;45(No. RR-11):1–25.

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy each week, send an e-mail message to listserv@listserv.cdc.gov. The body content should read *SUBscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/mmwr> or from CDC's file transfer protocol server at <ftp://ftp.cdc.gov/pub/publications/mmwr>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop E-96, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone 888-232-3228.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

All *MMWR* references are available on the Internet at <http://www.cdc.gov/mmwr>. Use the search function to find specific articles.

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

References to non-CDC sites on the Internet are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of these sites. URL addresses listed in *MMWR* were current as of the date of publication.