Please note: An erratum has been published for this issue. To view the erratum, please click here.

Centers for Disease Control and Prevention
MMWR
Morbidity and Mortality Weekly Report
Weekly / Vol. 60 / No. 53
July 5, 2013

Summary of Notifiable Diseases — United States, 2011

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

CONTENTS

The *MMWR* series of publications is published by the Office of Surveillance, Epidemiology, and Laboratory Services, 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. [Title]. MMWR 2012;61(No. SS-#):[inclusive page numbers].

Centers for Disease Control and Prevention

Thomas R. Frieden, MD, MPH, *Director*
Harold W. Jaffe, MD, MA, *Associate Director for Science*
James W. Stephens, PhD, *Director, Office of Science Quality*
Denise M. Cardo, MD, *Acting Deputy Director for Surveillance, Epidemiology, and Laboratory Services*
Stephanie Zaza, MD, MPH, *Director, Epidemiology and Analysis Program Office*

MMWR Editorial and Production Staff

Ronald L. Moolenaar, MD, MPH, *Editor,* MMWR *Series*
Christine G. Casey, MD, *Deputy Editor,* MMWR *Series*
Teresa F. Rutledge, *Managing Editor,* MMWR *Series*
David C. Johnson, *Lead Technical Writer-Editor*
Denise Williams, MBA, *Project Editor*
Martha F. Boyd, *Lead Visual Information Specialist*

Maureen A. Leahy, Julia C. Martinroe,
Stephen R. Spriggs, Terraye M. Starr
Visual Information Specialists
Quang M. Doan, MBA, Phyllis H. King
Information Technology Specialists

MMWR Editorial Board

William L. Roper, MD, MPH, Chapel Hill, NC, Chairman
Matthew L. Boulton, MD, MPH, Ann Arbor, MI
Virginia A. Caine, MD, Indianapolis, IN
Barbara A. Ellis, PhD, MS, Atlanta, GA
Jonathan E. Fielding, MD, MPH, MBA, Los Angeles, CA
David W. Fleming, MD, Seattle, WA
William E. Halperin, MD, DrPH, MPH, Newark, NJ
King K. Holmes, MD, PhD, Seattle, WA

Timothy F. Jones, MD, Nashville, TN
Rima F. Khabbaz, MD, Atlanta, GA
Dennis G. Maki, MD, Madison, WI
Patricia Quinlisk, MD, MPH, Des Moines, IA
Patrick L. Remington, MD, MPH, Madison, WI
John V. Rullan, MD, MPH, San Juan, PR
William Schaffner, MD, Nashville, TN

Summary of Notifiable Diseases — United States, 2011

Deborah A. Adams, Coordinator, *Summary of Notifiable Diseases*
Kathleen M. Gallagher, DSc
Ruth Ann Jajosky, DMD
Jeffrey Kriseman, PhD
Pearl Sharp
Willie J. Anderson
Aaron E. Aranas, MPH
Michelle Mayes
Michael S. Wodajo
Diana H. Onweh
John P. Abellera, MPH
Division of Notifiable Diseases and Healthcare Information, Office of Surveillance, Epidemiology, and Laboratory Services, CDC

Preface

The *Summary of Notifiable Diseases — United States, 2011* contains the official statistics, in tabular and graphic form, for the reported occurrence of nationally notifiable infectious diseases in the United States for 2011. Unless otherwise noted, the data are final totals for 2011 reported as of June 30, 2012. These statistics are collected and compiled from reports sent by state health departments and territories 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/mmwr_nd/index.html. This site also includes *Summary* publications from previous years.

The Highlights section presents noteworthy epidemiologic and prevention information for 2011 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 infectious diseases reported during 2011.* The tables provide the number of cases reported to CDC for 2011 and the distribution of cases by month, geographic location, and patients' demographic characteristics (e.g., age, sex, race, and ethnicity). Part 2 contains graphs and maps that depict summary data for certain notifiable infectious 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 1980. This section also includes a table enumerating deaths associated with specified notifiable diseases reported to CDC's National Center for Health Statistics (NCHS) during 2003–2009. 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.

Comments and suggestions from readers are welcome. To increase the usefulness of future editions, comments regarding the current report and descriptions of how information is or could be used are invited. Comments should be sent to Data Operations Team–NNDSS at NNDSSweb@cdc.gov.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome–associated coronavirus disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and non-neuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

Background

The infectious diseases designated as notifiable at the national level during 2011 are listed in this section. 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. A brief history of the reporting of nationally notifiable infectious diseases in the United States is available at http://wwwn.cdc.gov/nndss/script/history.aspx. In 1961, CDC assumed responsibility for the collection and publication of data on nationally notifiable diseases. NNDSS is neither a single surveillance system nor a method of reporting. Certain NNDSS data are reported to CDC through separate surveillance information systems and through different reporting mechanisms; however, these data are aggregated and compiled for publication purposes.

Notifiable disease reporting at the local level protects the public's health by ensuring the proper identification and follow-up of cases. Public health workers ensure that persons who are already ill receive appropriate treatment; trace contacts who need vaccines, treatment, quarantine, or education; investigate and halt outbreaks; eliminate environmental hazards; and close premises where spread has occurred. Surveillance of notifiable conditions helps public health authorities to monitor the effect of notifiable conditions, measure disease trends, assess the effectiveness of control and prevention measures, identify populations or geographic areas at high risk, allocate resources appropriately, formulate prevention strategies, and develop public health policies. Monitoring surveillance data enables public health authorities to detect sudden changes in disease occurrence and distribution, identify changes in agents and host factors, and detect changes in health-care practices.

The list of nationally notifiable infectious diseases is revised periodically. 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 collaborate in determining which diseases should be nationally notifiable. CSTE, with input from CDC, makes recommendations 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. Reporting completeness of notifiable diseases is highly variable and related to the condition or disease being reported (*1*). The list of diseases considered notifiable varies by state and year. Current and historic national public health surveillance case definitions used for classifying and enumerating cases consistently across reporting jurisdictions are available at http://wwwn.cdc.gov/nndss/script/casedefDefault.aspx.

Infectious Diseases Designated as Notifiable at the National Level During 2011*

- Anthrax
- Arboviral diseases, neuroinvasive and nonneuroinvasive†
  - California serogroup viruses
  - Eastern equine encephalitis virus
  - Powassan virus
  - St. Louis encephalitis virus
  - West Nile virus
  - Western equine encephalitis virus
- Babesiosis
- Botulism
  - foodborne
  - infant
  - other (wound† and unspecified)
- Brucellosis
- Chancroid
- *Chlamydia trachomatis* infection
- Cholera
- Coccidioidomycosis
- Cryptosporidiosis†
- Cyclosporiasis
- Dengue virus infections
  - Dengue Fever
  - Dengue Hemorrhagic Fever
  - Dengue Shock Syndrome
- Diphtheria
- Ehrlichiosis/Anaplasmosis
  - *Ehrlichia chaffeensis*
  - *Ehrlichia ewingii*
  - *Anaplasma phagocytophilum*
  - Undetermined
- Giardiasis
- Gonorrhea
- *Haemophilus influenzae*, invasive disease
- Hansen disease (leprosy)
- Hantavirus pulmonary syndrome
- Hemolytic uremic syndrome, post-diarrheal
- Hepatitis, viral
  - Hepatitis A, acute†
  - Hepatitis B, acute†
  - Hepatitis B virus, perinatal infection
  - Hepatitis B, chronic†
  - Hepatitis C, acute†
  - Hepatitis C, past or present†
- Human Immunodeficiency Virus (HIV) infection diagnosis§
- Influenza-associated pediatric mortality
- Legionellosis
- Listeriosis
- Lyme disease†
- Malaria
- Measles
- Meningococcal disease
- Mumps
- Novel influenza A virus infections
- Pertussis
- Plague
- Poliomyelitis, paralytic
- Poliovirus infection, nonparalytic
- Psittacosis
- Q fever
  - Acute
  - Chronic
- Rabies
  - Animal
  - Human
- Rubella
- Rubella, congenital syndrome
- Salmonellosis
- Severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease
- Shiga toxin-producing *Escherichia coli* (STEC)
- Shigellosis
- Smallpox
- Spotted fever rickettsiosis
- Streptococcal toxic-shock syndrome
- *Streptococcus Pneumoniae*, invasive disease
- Syphilis
- Syphilis, congenital
- Tetanus
- Toxic-shock syndrome (other than streptococcal)†
- Trichinellosis
- Tuberculosis
- Tularemia
- Typhoid fever
- Vancomycin-intermediate *Staphylococcus aureus* (VISA) infection
- Vancomycin-resistant *Staphylococcus aureus* (VRSA) infection
- Varicella (morbidity)
- Varicella (mortality)
- Vibriosis
- Viral Hemorrhagic Fever†
  - Crimean-Congo Hemorrhagic fever virus
  - Ebola virus
  - Lassa virus
  - Lujo virus
  - Marburg virus
  - New World Arenaviruses (Guanarito, Machupo, Junin, and Sabia viruses)
- Yellow fever

---

* This list reflects position statements approved in 2010 by the Council of State and Territorial Epidemiologists (CSTE) for national surveillance, which were implemented in January 2011. The following changes were made to the 2011 list of nationally notifiable infectious diseases to create the 2011 list: 1) babesiosis and coccidioidomycosis were added to the list, and 2) Lujo virus was included in the category of viral hemorrhagic fever.

† 2011 reflects a modified surveillance case definition for this condition, per approved 2010 CSTE position statements.

§ AIDS has been reclassified as HIV stage III.

Data Sources

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

Notifiable disease reports are the authoritative and archival counts of cases. They are approved by the appropriate chief 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 differ from 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 CDC from health departments in the 50 states, five territories, New York City, and the District of Columbia. Data were reported for *MMWR* weeks 1–52, which correspond to the period for the week ending January 8, 2011, through the week ending December 31, 2011. More information regarding infectious notifiable diseases, including case definitions, is available at http://wwwn.cdc.gov/nndss/default.aspx. Policies for reporting notifiable disease cases can vary by disease or reporting jurisdiction. The case-status categories used to determine which cases reported to NNDSS are published by disease or condition and are listed in the print criteria column of the 2011 NNDSS event code list (Exhibit).

The print criteria for NNDSS is as follows: for a case report of a nationally notifiable disease to print in the *MMWR*, the reporting state or territory must have designated the disease reportable in their state or territory for the year corresponding to the year of report to CDC. After the criterion is met, the disease-specific criteria listed in the Exhibit are applied. When the above-listed table indicates that all reports will be earmarked for printing, this means that cases designated with unknown or suspect case confirmation status will print just as probable and confirmed cases will print. Because CSTE position statements are not customarily finalized until July of each year, the NNDSS data for the newly added conditions are not usually available from all reporting jurisdictions until January of the year following the approval of the CSTE position statement.

Final data for certain diseases are derived from the surveillance records of the CDC programs listed below. Requests for further information regarding these data should be directed to the appropriate program.

Office of Surveillance, Epidemiology, and Laboratory Services
National Center for Health Statistics (NCHS)

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

Office of Infectious Diseases
National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention

Division of HIV/AIDS Prevention (AIDS and HIV infection), Division of Viral Hepatitis, Division of STD Prevention (chancroid; *Chlamydia trachomatis*, genital infection; gonorrhea; and syphilis), Division of Tuberculosis Elimination (tuberculosis)

National Center for Immunization and Respiratory Diseases

Influenza Division (influenza-associated pediatric mortality, initial detections of novel influenza A virus infections) Division of Viral Diseases, (poliomyelitis, varicella [morbidity and mortality], and SARS-CoV)

National Center for Emerging and Zoonotic Infectious Diseases

Division of Vector-Borne Diseases (arboviral diseases)

Division of Viral and Rickettsial Diseases (animal rabies)

NCHS postcensal estimates of the resident population of the United States for July 1, 2010–July 1, 2011, by year, county, single-year of age (range: 0 to ≥85 years), bridged-race, (white, black or African American, American Indian or Alaska Native, Asian or Pacific Islander), Hispanic origin (not Hispanic or Latino, Hispanic or Latino), and sex (Vintage 2010), prepared under a collaborative arrangement with the U.S. Census Bureau. Available at http://www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2010 as of May 31, 2012.

Population estimates for territories are 2010 estimates from the U.S. Census Bureau. The choice of population denominators for incidence reported in *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 reported by different CDC programs. Incidence 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. resident 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 reportable or was not available were excluded from incidence calculations. Unless otherwise stated, disease totals for the United States do not include data for American Samoa, Guam, Puerto Rico, the Commonwealth of the Northern Mariana Islands, or the U.S. Virgin Islands.

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, except for the domestic arboviral diseases, which are presented by date of diagnosis. Data are reported by the jurisdiction of the person's "usual residence" at the time of disease onset (http://wwwn.cdc.gov/nndss/document/03-ID-10_residency_rules.pdf). For certain nationally notifiable infectious diseases, surveillance data are reported independently to different CDC programs. For this reason, 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).

Data reported in the *Summary* are useful for analyzing disease trends and determining relative disease numbers. However, reporting practices affect how these data should be interpreted. Disease reporting is likely incomplete, and completeness might vary depending on the disease and reporting state. 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 the 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 actual incidence of disease.

Public health surveillance data are published for selected racial/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 programs. 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 rates presented in the *Summary* might be underestimated.

In addition, not all race and ethnicity data are collected or reported uniformly for all diseases, the standards for race and ethnicity have changed over time, and the transition in implementation to the newest race and ethnicity standard has taken varying amounts of time for different CDC surveillance systems. For example, in 1990, the National Electronic Telecommunications System for Surveillance (NETSS) was established to facilitate data collection and submission of case-specific data to CDC's National Notifiable Diseases Surveillance System, except for selected diseases. In 1990, NETSS implemented the 1977 Office of Management and Budget (OMB) standard for race and ethnicity, in which race and ethnicity were collected in one variable. Other surveillance programs implemented two variables for collection of race and ethnicity data. The 1997 OMB race and ethnicity standard, which requires collection of multiple races per person using multiple race variables, should have been implemented by federal programs beginning January 1, 2003. In 2003, the CDC Tuberculosis and HIV/AIDS programs were able to update their surveillance information systems to implement 1997 OMB standards. In 2005, the Sexually Transmitted Diseases Management Information System also was updated to implement the 1997 OMB standards. However other diseases reported to the NNDSS using NETSS were undergoing a major change in the manner in which data were collected and reported to CDC. This change is caused by the transition from NETSS to the National Electronic Disease Surveillance System (NEDSS), which implemented the newer 1997 OMB standard for race and ethnicity. However, the transition from NETSS to NEDSS was slower than originally expected relative to reporting data to CDC using NEDSS; thus, some data are currently reported to CDC using NETSS formats, even if the data in the reporting jurisdictions are collected using NEDSS. Until the transition to NEDSS is complete, race and ethnicity data collected or reported to NETSS using different race and ethnicity standards will need to be converted to one standard. The data are now converted to the 1977 OMB standard originally implemented in NETSS. Although the recommended standard for classifying a person's race or ethnicity is based on self-reporting, this procedure might not always be followed.

Transition in NNDSS Data Collection and Reporting

Before 1990, data were reported to CDC as cumulative counts rather than as individual case reports. In 1990, using NETSS, states began electronically capturing and reporting individual case reports to CDC without personal identifiers. In 2001, CDC launched NEDSS, now a component of the Public Health Information Network, to promote the use of data and information system standards that advance the development

of efficient, integrated, and interoperable surveillance information systems at the local, state, and federal levels. One of the objectives of NEDSS is to improve the accuracy, completeness, and timeliness of disease reporting at the local, state, and national levels. CDC has developed the NEDSS Base System (NBS), a public health surveillance information system currently adopted by 18 states and the District of Columbia. A total of 28 states and New York City have a state- or vendor-developed NEDSS-compatible system.The remaining nine jurisdictions, four states and five territories, are either in the process of adopting or changing their NEDSS-compatible system or use a non-NEDSS-compatible system at the time of this publication. A major feature of all NEDSS-compatible solutions, which includes NBS, is the ability to capture data already in electronic form (e.g., electronic laboratory results, which are needed for case confirmation) rather than enter these data manually as in NETSS. In 2011, a total of 18 states and the District of Columbia used NBS to transmit nationally notifiable infectious diseases to CDC, a total of 32 states and New York City used a NEDSS-compatible based system, and the remaining state and territorial jurisdictions continued to use a non-NEDSS–compatible system. Additional information concerning NEDSS is available at http://wwwn.cdc.gov/nndss/script/nedss.aspx.

Methodology for Identifying Which Nationally Notifiable Infectious Diseases Are Reportable

States and jurisdictions are sovereign entities. Reportable conditions are determined by laws and regulations of each state and jurisdiction. It is possible that some conditions deemed nationally notifiable might not be reportable in certain states or jurisdictions. Determining which nationally notifiable infectious diseases are reportable in NNDSS reporting jurisdictions was determined by asking reporting jurisdictions to update previously analyzed results of the 2010 CSTE State Reportable Conditions Assessment (SRCA) individually, because the 2011 SRCA results were not available at the time this report was prepared. The 2010 assessment solicited information from each NNDSS reporting jurisdiction (all 50 U.S. states, the District of Columbia, New York City, and five U.S. territories) regarding which public health conditions were reportable for >6 months in 2010 by clinicians, laboratories, hospitals, or "other" public health reporters, as mandated by law or regulation. To assist in the implementation of SRCA, staff from the NNDSS program provided technical assistance to CSTE for the 2010 SRCA.

In 2007, SRCA was established and became the first collaborative project of such technical magnitude ever conducted by CSTE and CDC. Previously, CDC and CSTE had gathered public health reporting requirements independently. The 2010 SRCA collected information regarding whether each reportable condition was 1) explicitly reportable (i.e., listed as a specific disease or as a category of diseases on reportable disease lists); 2) whether it was implicitly reportable (i.e., included in a general category of the reportable disease list, such as "rare diseases of public health importance"); or 3) not reportable. Only explicitly reportable conditions were considered reportable for the purpose of national public health surveillance and thus reflected in NNDSS. Moreover, to determine whether a condition included in SRCA was reportable in at least one public health reporter category for a specific nationally notifiable infectious disease (NNID) in a reporting jurisdiction, CDC developed and applied an algorithm to analyze the data collected in SRCA. Analyzed results of the 2010 SRCA were used to determine whether a NNID was not reportable in a reporting jurisdiction in 2010 and thus noted with an "N" indicator (for "not reportable") in the front tables of this report. Unanalyzed results from the 2007, 2008, 2009, and 2010 SRCA are available using CSTE's web query tool at http://www.cste.org/group/SRCAQueryRes. Additional background information has been published previously (*2*).

Revised International Health Regulations

In May 2005, the World Health Assembly adopted revised International Health regulations (IHR) (*3*) that went into effect in the United States on July 18, 2007. This international legal instrument governs the role of the World Health Organization (WHO) and its member countries, including the United States, in identifying, responding to, and sharing information about Public Health Emergencies of International Concern (PHEIC). A PHEIC is an extraordinary event that 1) constitutes a public health risk to other countries through international spread of disease, and 2) potentially requires a coordinated international response. All WHO member states are required to notify WHO of a potential PHEIC. WHO makes the final determination about the existence of a PHEIC.

The IHR are designed to prevent and protect against the international spread of diseases while minimizing the effect on world travel and trade. Countries that have adopted these rules have a much broader responsibility to detect, respond to, and report public health emergencies that potentially require a coordinated international response in addition to

taking preventive measures. The IHR will help countries work together to identify, respond to, and share information about PHEIC.

The revised IHR reflects a conceptual shift from a predefined disease list to a framework of reporting and responding to events on the basis of an assessment of public health criteria, including seriousness, unexpectedness, and international travel and trade implications. A PHEIC ia an event that falls within those criteria (further defined in a decision algorithm in Annex 2 of the revised IHR). Four conditions always constitute a PHEIC and do not require the use of the IHR decision instrument in Annex 2: severe acute respiratory syndrome (SARS), smallpox, poliomyelitis caused by wild-type poliovirus, and human influenza caused by a new subtype. Any other event requires the use of the decision algorithm to determine if it is a potential PHEIC. Examples of events that require the use of the decision instrument include, but are not limited to, cholera, pneumonic plague, yellow fever, West Nile fever, viral hemorrhagic fevers, and meningococcal disease. Other biologic, chemical, or radiologic events might fit the decision algorithm and also must be reportable to WHO.

Health-care providers in the United States are required to report diseases, conditions, or outbreaks as determined by local, state, or territorial law and regulation, and as outlined in each state's list of reportable conditions. All health-care providers should work with their local, state, and territorial health agencies to identify and report events that might constitute a potential PHEIC occurring in their location. U.S. State and Territorial Departments of Health have agreed to report information about a potential PHEIC to the most relevant federal agency responsible for the event. In the case of human disease, the U.S. State or Territorial Departments of Health will notify CDC rapidly through existing formal and informal reporting mechanisms (*4*). CDC will further analyze the event based on the decision algorithm in Annex 2 of the IHR and notify the U.S. Department of Health and Human Services (DHHS) Secretary's Operations Center (SOC), as appropriate.

DHHS has the lead role in carrying out the IHR, in cooperation with multiple federal departments and agencies. The DHHS SOC is the central body for the United States responsible for reporting potential events to WHO. The United States has 48 hours to assess the risk of the reported event. If authorities determine that a potential PHEIC exists, the WHO member country has 24 hours to report the event to WHO.

An IHR decision algorithm in Annex 2 has been developed to help countries determine whether an event should be reported. If any two of the following four questions can be answered in the affirmative, then a determination should be made that a potential PHEIC exists and WHO should be notified:

- Is the public health impact of the event serious?
- Is the event unusual or unexpected?
- Is there a significant risk of international spread?
- Is there a significant risk of international travel or trade restrictions?

Additional information concerning IHR is available at http://www.who.int/csr/ihr/en, http://www.cdc.gov/globalhealth/ihregulations.htm, and http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/07-ID-06.pdf. At its annual meeting in June 2007, CSTE approved a position statement to support the implementation of IHR in the United States (*4*). CSTE also approved a position statement in support of the 2005 IHR adding initial detections of novel influenza A virus infections to the list of nationally notifiable diseases reportable to NNDSS, beginning in January 2007 (*5*).

1. Doyle TJ, Glynn MK, Groseclose LS. Completeness of notifiable infectious disease reporting in the United States: an analytical literature review. Am J Epidemiol 2002;155:866–74.
2. Jajosky R, Rey A, Park M, et al. Findings from the Council of State and Territorial Epidemiologists' 2008 assessment of state reportable and nationally notifiable conditions in the United States and considerations for the future. Public Health Manag Pract 2011;17:255–64.
3. World Health Organization. Third report of Committee A. Annex 2. Geneva, Switzerland: World Health Organization; 2005. Available at http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf.
4. Council of State and Territorial Epidemiologists. Events that may constitute a public health emergency of international concern. Position statement 07-ID-06. Available at http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/07-ID-06.pdf.
5. Council of State and Territorial Epidemiologists. Council of State and Territorial Epidemiologists position statement; 2007. National reporting for initial detections of novel influenza A viruses. Available at http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/07-ID-01.pdf.

EXHIBIT. Print criteria for conditions reported to the National Notifiable Diseases Surveillance System, 2011

Code	Notifiable Condition	Print Criteria*,†
11090	*Anaplasma phagocytophilum*	Confirmed and probable; unknown from California (CA)
10350	Anthrax	Confirmed and probable; unknown reported from CA
12010	Babesiosis	Confirmed and probable; unknown reported from CA
10530	Botulism, foodborne	Confirmed; unknown from CA
10540	Botulism, infant	Confirmed; unknown from CA
10550	Botulism, other (includes wound)	Confirmed; unknown from CA
10548	Botulism, other (unspecified)	Confirmed; unknown from CA
10549	Botulism, wound	Confirmed; unknown from CA
10020	Brucellosis	Confirmed and probable; unknown from CA
10054	California serogroup viruses, neuroinvasive disease	Data for publication received from ArboNET
10061	California serogroup viruses, nonneuroinvasive disease	Data for publication received from ArboNET
10273	Chancroid	All reports printed
10274	*Chlamydia trachomatis* infection	All reports printed
10470	Cholera (toxigenic *Vibrio cholerae* O1 or O139)	Confirmed; unknown from CA verified as confirmed
11900	Coccidioidomycosis	Confirmed and unknown from CA
11580	Cryptosporidiosis	Confirmed and probable; unknown from CA
11575	Cyclosporiasis	Confirmed and probable; unknown from CA
10680	Dengue fever (DF)	Data for publication received from ArboNET
10685	Dengue hemorrhagic fever (DHF)	Data for publication received from ArboNET
10040	Diphtheria	Confirmed, probable, and unknown case status printed
10053	Eastern equine encephalitis virus, neuroinvasive disease	Data for publication received from ArboNET
10062	Eastern equine encephalitis virus, nonneuroinvasive disease	Data for publication received from ArboNET
11088	*Ehrlichia chaffeensis*	Confirmed and probable; unknown from CA
11089	*Ehrlichia ewingii*	Confirmed and probable; unknown from CA
11091	Ehrlichiosis/Anaplasmosis, undetermined	Confirmed and probable; unknown from CA
11570	Giardiasis	Confirmed and probable; unknown from CA
10280	Gonorrhea	All reports printed
10590	*Haemophilus influenzae*, invasive disease	Cases with confirmed, probable, and unknown case status printed
10380	Hansen disease (Leprosy)	Confirmed; unknown from CA
11590	Hantavirus pulmonary syndrome	Confirmed and unknown from CA
11550	Hemolytic uremic syndrome postdiarrheal	Confirmed, probable, and unknown from CA
10110	Hepatitis A, acute	Confirmed; unknown from CA
10100	Hepatitis B, acute	Confirmed; unknown from CA
10101	Hepatitis C, acute	Confirmed; unknown from CA
11061	Influenza-associated pediatric mortality	Cases with confirmed case status printed
10490	Legionellosis	Confirmed; unknown from CA
10640	Listeriosis	Confirmed; unknown from CA
11080	Lyme disease	Confirmed and probable; unknown from CA
10130	Malaria	Confirmed; unknown from CA
10140	Measles (rubeola), total	Cases with confirmed and unknown case status printed
10150	Meningococcal disease (*Neisseria meningitidis*)	Confirmed and probable; unknown from CA
10180	Mumps	Cases with confirmed, probable, and unknown case status printed
10317	Neurosyphilis	All reports printed

See table footnotes on page 10.

EXHIBIT. (*Continued*) Print criteria for conditions reported to the National Notifiable Diseases Surveillance System, 2011

Code	Notifiable Condition	Print Criteria*,†
11062	Novel influenza A virus infections, initial detections of	Cases with confirmed status and cases reported from CA with unknown status, verified to be confirmed, printed
10190	Pertussis	Cases with confirmed, probable, and unknown case status printed
10440	Plague	All reports printed
10410	Poliomyelitis, paralytic	Confirmed; unknown from CA that are verified as confirmed
10405	Poliovirus infection, nonparalytic	Confirmed; unknown from CA that are verified as confirmed
10057	Powassan virus, neuroinvasive disease	Data for publication received from ArboNET
10063	Powassan virus, nonneuroinvasive disease	Data for publication received from ArboNET
10450	Psittacosis (Ornithosis)	Confirmed and probable; unknown from CA
10257	Q fever, acute	Confirmed and probable; unknown from CA
10258	Q fever, chronic	Confirmed and probable; unknown from CA
10340	Rabies, animal	Confirmed and unknown from CA
10460	Rabies, human	Confirmed; unknown from CA verified as confirmed
10200	Rubella	Cases with confirmed and unknown case status printed
10370	Rubella, congenital syndrome	CSTE VPD print criteria used Cases with confirmed, probable, and unknown case status printed
11000	Salmonellosis	Confirmed and probable; unknown from CA
10575	Severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease	Confirmed and probable
11563	Shiga toxin-producing *Escherichia coli* (STEC)	All reports printed
11010	Shigellosis	Confirmed and probable; unknown from CA
11800	Smallpox	Cases with confirmed and probable case status printed
10250	Spotted Fever Rickettsiosis	Confirmed, probable, and unknown
10051	St. Louis encephalitis virus, neuroinvasive disease	Data for publication received from ArboNET
10064	St. Louis encephalitis virus, nonneuroinvasive disease	Data for publication received from ArboNET
11700	Streptococcal toxic-shock syndrome	Confirmed and probable; unknown from CA
11723	*Streptococcus pneumoniae*, invasive disease (IPD) (all ages)	Confirmed; unknown from CA
10316	Syphilis, congenital	All reports printed
10313	Syphilis, early latent	All reports printed
10314	Syphilis, late latent	All reports printed
10318	Syphilis, late with clinical manifestations other than neurosyphilis	All reports printed
10311	Syphilis, primary	All reports printed
10312	Syphilis, secondary	All reports printed
10310	Syphilis, total primary and secondary	All reports printed
10315	Syphilis, unknown latent	All reports printed
10210	Tetanus	All reports printed
10520	Toxic-shock syndrome (staphylococcal)	Confirmed and probable; unknown from CA
10270	Trichinellosis	Confirmed; unknown from CA
10220	Tuberculosis	Print criteria determined by the CDC Tuberculosis program
10230	Tularemia	Confirmed and probable; unknown from CA
10240	Typhoid fever (caused by *Salmonella typhi*)	Confirmed and probable; unknown from CA
11663	Vancomycin-intermediate *Staphylococcus aureus* (VISA)	Confirmed; unknown from CA verified as confirmed
11665	Vancomycin-resistant *Staphylococcus aureus* (VRSA)	Confirmed; unknown from CA verified as confirmed
10030	Varicella (Chickenpox)	Cases with confirmed, probable, and unknown case status from CA printed

See table footnotes on page 10.

EXHIBIT. (*Continued*) Print criteria for conditions reported to the National Notifiable Diseases Surveillance System, 2011

Code	Notifiable Condition	Print Criteria*,†
11545	Vibriosis (non-cholera *Vibrio* species infections)	Confirmed, probable, and unknown from CA
11647	Viral hemorrhagic fever	Confirmed; footnote to denote the specific virus reported to CDC
10056	West Nile virus, neuroinvasive disease	Data for publication received from ArboNET
10049	West Nile virus, nonneuroinvasive disease	Data for publication received from ArboNET
10052	Western equine encephalitis virus, neuroinvasive disease	Data for publication received from ArboNET
10065	Western equine encephalitis virus, nonneuroinvasive disease	Data for publication received from ArboNET
10660	Yellow fever	Data for publication received from ArboNET

Abbreviations: ArboNET = Software for Arboviral Surveillance and Case Management; CDC = Centers for Disease Control and Prevention; CSTE = Council of State and Territorial Epidemiologists; VPD = Vaccine Preventable Disease.

* An unknown case classification status is used when a reporting jurisdiction sends aggregate counts of cases or when the surveillance information system of a reporting jurisdiction does not capture case classification data. In both situations, cases are verified to meet the case classification (e.g., confirmed, probable, and suspected) specified in the print criteria.

† Print criteria for the National Notifiable Diseases Surveillance System (NNDSS): for a case report of a nationally notifiable disease to print in the *MMWR*, the reporting state or territory must have designated the disease reportable in their state or territory for the year corresponding to the year of report to CDC. After this criterion is met, the disease-specific criteria listed in the Exhibit are applied. When the above-listed table indicates that all reports will be earmarked for printing, this means that cases designated with unknown or suspect case confirmation status will print just as probable and confirmed cases will print. Because CSTE position statements customarily are not finalized until July of each year, the NNDSS data for the newly added conditions usually are not available from all reporting jurisdictions until January of the year following the approval of the CSTE position statement.

Highlights for 2011

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).

Anthrax

In 2011, public health authorities in Minnesota reported a confirmed case of naturally occurring inhalation anthrax was reported by Minnesota, in a Florida resident who became ill while vacationing in Minnesota and four other northern midwestern states. The patient was hospitalized and was discharged home after appropriate treatment (*1*). The incident resulted in a joint investigation involving law enforcement officials, state public and animal health agencies, the National Animal Health Laboratory Network, Laboratory Response Network, CDC, and other federal agencies. The investigation revealed that during the 3 weeks of travel before disease onset the patient collected rocks and handled antlers and other animal items, and had been exposed to dust clouds while driving through areas inhabited by herds of animals. No *Bacillus anthracis* was detected through testing of associated animal products or environmental samples, and public health officials were unable to identify the source of the exposure. Enhanced surveillance was performed in states where the person had traveled, and no other humans or animals infected with the case strain were identified; this case is considered an isolated naturally occurring case. The incidence of anthrax in the United States and U.S. territories remains low, with two or fewer naturally occurring cases reported per year for the past 30 years.

1. Minnesota Department of Health. Health officials investigate case of inhalational anthrax from suspected natural environmental exposure. Available at http://www.health.state.mn.us/news/pressrel/2011/anthrax080911.html.

Domestic Arboviral, Neuroinvasive and Nonneuroinvasive

During 2011, West Nile virus (WNV) disease cases were reported from 43 states and the District of Columbia. The reported incidence of neuroinvasive disease was 0.16 cases per 100,000 population. Despite the decline in neuroinvasive disease incidence compared with previous years, the overall morbidity caused by WNV continues to be substantial. Based on previous studies, for every reported case of neuroinvasive disease, approximately 140–350 human WNV infections occur, with approximately 80% of infected persons remaining asymptomatic and 20% developing nonneuroinvasive disease (*1*–*3*). Using the 486 reported neuroinvasive disease cases, an estimated 13,600–34,000 cases of nonneuroinvasive disease might have occurred in 2011. However, only 226 nonneuroinvasive disease cases were diagnosed and reported; 1%–2% of the cases estimated to have occurred. Evidence of WNV human disease was detected in all geographic regions of the United States. The states with the highest incidence of neuroinvasive disease were the District of Columbia (1.62 per 100,000 population), Mississippi (1.04), Nebraska (0.76), and Arizona (0.76). Among the neuroinvasive disease cases, 250 (51%) cases were reported from five states: California (110 cases), Arizona (49), Michigan (32), Mississippi (31), and New York (28). California reported 23% of all WNV neuroinvasive disease cases in 2011 (*4*).

Among the other domestic arboviral diseases in the United States, La Crosse virus remained the most common cause of neuroinvasive disease in children. Eastern equine encephalitis virus disease, although rare, remained the most severe arboviral disease, resulting in three deaths among four patients. More Powassan virus disease cases were reported in 2011 than in any previous year, and included the first case ever reported from Pennsylvania. Wisconsin reported its first Eastern equine encephalitis disease case since 1984.

1. Mostashari F, Bunning ML, Kitsutani PT, et al. Epidemic West Nile encephalitis, New York, 1999: results of a household-based seroepidemiological survey. Lancet 2001;358:261–4.
2. Busch MP, Wright DJ, Custer B, et al. West Nile virus infections projected from blood donor screening data, United States, 2003. Emerg Infect Dis 2006;12:395–402.
3. Carson PJ, Borchardt SM, Custer B, et al. Neuroinvasive disease and West Nile virus infection, North Dakota, USA, 1999–2008. Emerg Infect Dis 2012;18:684–6.
4. CDC. West Nile virus disease and other arboviral diseases—United States, 2011. MMWR 2012;61:510–4.

Babesiosis

Babesiosis, a tickborne parasitic disease, became a nationally notifiable condition in 2011. Babesiosis is caused by protozoan parasites of the genus *Babesia* that infect red blood cells. *Babesia* infection can range from asymptomatic to life threatening. Clinical manifestations can include fever, chills, other nonspecific influenza-like symptoms, and hemolytic anemia. *Babesia* parasites usually are tickborne, but they also are transmissible via blood transfusion or congenitally (*1*). In recent years, reports of tickborne and transfusion-associated cases have increased in number and geographic distribution (*1*).

In 2011, public health authorities in seven states (Connecticut, Massachusetts, Minnesota, New Jersey, New York, Rhode Island, and Wisconsin) reported the majority (97%) of babesiosis cases, with 1,092 of 1,128 cases. The median age of patients was 62 years (range: age <1–98 years); 62% (n = 700) were male, 34% (n = 386) were female, and the sex was unknown for 4% (n = 42) of patients. Among the patients for whom data were available, 82% (717 of 879) had symptom onset dates during June–August (*2*).

1. Herwaldt BL, Linden JV, Bosserman E, et al. Transfusion-associated babesiosis in the United States: a description of cases. Ann Intern Med 2011;155:509–19.
2. CDC. Babesiosis surveillance—18 states, 2011. MMWR 2012;61:505–9.

Botulism

Botulism is a severe paralytic illness caused by toxins produced by *Clostridium botulinum*. Exposure to the toxin can occur by ingestion (foodborne botulism), by *in situ* production from *C. botulinum* colonization of a wound (wound botulism) or the gastrointestinal tract (infant botulism and adult intestinal colonization botulism), or overdose of botulinum toxin used for cosmetic or therapeutic purposes (*1*). Infant botulism continues to be the most frequently observed transmission category. During 2011, eight persons located in a prison acquired foodborne botulism after consuming pruno, an illicitly brewed alcoholic beverage.

All states maintain 24-hour telephone services for reporting of botulism and other public health emergencies. Health-care providers should report suspected botulism cases immediately to their state health departments. CDC maintains intensive surveillance for cases of botulism in the United States and provides consultation to clinicians and antitoxin for suspected cases. State health departments can reach the CDC botulism duty officer on call 24 hours a day, 7 days a week, via the CDC Emergency Operations Center (telephone: 770-488-7100).

1. Sobel J. Botulism. Clin Infect Dis 2005;41:1167–73.

Brucellosis

Brucellosis is an infectious disease that can be acquired by persons who come into contact with infected animals or animal products contaminated with the bacteria. The number of brucellosis cases reported in 2011 decreased by 31%, from 115 cases in 2010 to 79 cases in 2011. The five states (California, Florida, Georgia, Illinois, and Texas) reported 45 cases, accounting for approximately 57% of all cases. No cases were reported from any U.S. territories.

In 2011, the U.S. Department of Health and Human Services approved a revised brucellosis case report form. Health departments and providers are strongly encouraged to use the approved form to report brucellosis cases to CDC's Bacterial Special Pathogens Branch. This mechanism will ensure collection of standardized data needed to assess risk factors and trends associated with brucellosis better so that targeted preventive strategies can be implemented. A fillable PDF version of the form is available at http://www.cdc.gov/nczved/divisions/dfbmd/diseases/brucellosis/case-report-form.pdf. The form also can be requested via e-mail (bspb@cdc.gov) or by telephone (404-639-1711). Patient identifiers such as full name, address, phone number, hospital name, and chart number should not be included in forms sent to CDC. Instructions for completion and submission of the form are included in pages 1 and 2 of the form.

Chlamydia

In 2011, approximately 1.4 million cases of *Chlamydia trachomatis* infections were reported, the largest number of cases ever reported to CDC for any condition (*1*). This case count corresponds to a rate of 457.6 cases per 100,000 population, an increase of 8% compared with the rate in 2010. Rates of reported chlamydial infections among women have been increasing annually since the late 1980s, when public programs for screening and treatment of women were established to avert pelvic inflammatory disease and related complications. The continued increase in chlamydia case reports in 2011 likely represents a continued increase in screening for this usually asymptomatic infection, expanded use of more sensitive tests, and more complete national reporting; however, it also might reflect an increase in morbidity.

1. CDC. Sexually transmitted disease surveillance 2011. Atlanta, GA: US Department of Health and Human Services; 2012.

Cholera

Cholera continues to be rare in the United States and is acquired most often during travel in countries where toxigenic *Vibrio cholerae* O1 or O139 is circulating (*1*). Since epidemic cholera emerged in Haiti in October 2010, cases have continued to be reported in the United States among travelers who have arrived recently from Hispaniola. Of the 42 cholera infections reported in the United States in 2011, a total of 39 were travel associated; 22 patients had arrived recently from Haiti, 11 from the Dominican Republic, and six from other cholera-affected countries. Until the cholera epidemic in Hispaniola wanes, associated cases are expected to continue to occur in the United States (*2*). Cholera remains a global threat to health, particularly

in areas with poor access to improved water and sanitation, such as Haiti and sub-Saharan Africa (*3*,*4*).

1. Steinberg EB, Greene KD, Bopp CA, et al. Cholera in the United States, 1995–2000: trends at the end of the Twentieth Century. J Infect Dis 2001;184:799–802.
2. Newton AE, Heiman KE, Schmitz A, et al. Cholera in United States associated with epidemic in Hispaniola. Emerg Infect Dis 2011;17:2166–8.
3. Tappero J, Tauxe RV. Lessons learned during public health response to cholera epidemic in Haiti and the Dominican Republic. Emerg Infect Dis 2011;17:2087–93.
4. Mintz ED, Guerrant RL. A lion in our village—the unconscionable tragedy of cholera in Africa. New Engl J Med 2009;360:1061–3.

Coccidioidomycosis

Coccidioidomycosis is a fungal infection caused by inhalation of airborne *Coccidioides spp.* spores that are present in the arid soil of the southwestern United States, California, and parts of Central and South America. The incidence of coccidioidomycosis increased in 2011, for the second consecutive year in California, Arizona, and other states. Coccidioidomycosis was not a nationally notifiable condition during 2010, although many states reported cases. In 2011, coccidioidomycosis incidence increased among all age groups, although rates remain highest among persons aged ≥60 years. Since 2009, the majority of cases have occurred among women in Arizona, whereas the majority of cases have occurred among men elsewhere in the United States. The 16,467 cases reported from Arizona and 5,697 cases from California during 2011 represent a 61% and 129% increase, respectively, compared with 2009. Coccidioidomycosis is currently the second most commonly reported condition in Arizona, and the fourth in California.

The morbidity of this disease in Arizona is considerable (*1*). Enhanced surveillance conducted during 2007–2008 demonstrated a self-reported median duration of illness of 42 days among persons who had recovered at the time of the interview and 157 days among those who had not; a total of 200 (41%) patients were hospitalized for coccidioidomycosis; a total of 67 (74%) employed persons and 37 (59%) students were unable to attend work or school (*1*).

Whether the recent increase is related to changes in surveillance methodology is not known. In 2009, one of the major commercial laboratories in Arizona changed its reporting practices to conform to the CSTE laboratory case definition, which was revised in 2007 to include cases with a single positive enzyme immunoassay result (*2*). The majority of laboratories in endemic areas perform testing using an enzyme immunoassay, the specificity of which is controversial (*3*).

Physicians, particularly in areas where the disease is endemic, should continue to maintain a high suspicion for acute coccidioidomycosis, especially among patients with an influenza-like illness or pneumonia who live in or have visited areas in which the disease is endemic.

1. Tsang CA, Anderson SM, Imholte SB, et al. Enhanced surveillance of coccidioidomycosis, Arizona, USA, 2007–2008. Emerg Infect Dis 2010;11:1738–44.
2. Council of State and Territorial Epidemiologists. Revision of the surveillance case definition for coccidioidomycosis. Position statement 07-ID-13. Atlanta, GA: Council of State and Territorial Epidemiologists; 2007. Available at http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/07-ID-13.pdf.
3. Kuberski T, Herrig J, Pappagianis D. False-positive IgM serology in coccidioidomycosis. J Clin Microbiol 2010;48:2047–9.

Cryptosporidiosis

Cryptosporidiosis is a nationally notifiable gastrointestinal illness caused by chlorine-tolerant protozoa of the genus *Cryptosporidium*. *Cryptosporidium* is transmitted by the fecal-oral route with the ingestion of *Cryptosporidium* oocysts through the consumption of fecally contaminated food or water or through direct person-to-person or animal-to-person contact.

Although cryptosporidiosis affects persons in all age groups, cases are reported most frequently in children (*1*). A substantial increase in transmission of *Cryptosporidium* in children occurs during summer through early fall, coinciding with increased use of recreational water, which is a known risk factor for cryptosporidiosis. *Cryptosporidium* has emerged as the leading cause of reported recreational water-associated outbreaks (*2*). Transmission through recreational water is facilitated by the substantial number of *Cryptosporidium* oocysts that can be shed by a single person, the extended time that oocysts can be shed (*3*), the low infectious dose (*4*), and the extreme tolerance of *Cryptosporidium* oocysts to chlorine (*5*).

To reduce the number of cryptosporidiosis cases associated with recreational water, enhanced public health prevention measures are needed. In the United States, pool codes are reviewed and approved by state or local public health officials; no federal agency regulates the design, construction, and operation of treated recreational water venues. This lack of uniform national standards has been identified as a barrier to the prevention and control of outbreaks associated with treated recreational water. To provide support to state and local health departments, CDC is sponsoring development of the Model Aquatic Health Code (MAHC) (http://www.cdc.gov/mahc). MAHC is a collaborative effort between local, state, and federal public health agencies and the aquatics sector to develop a data-driven, knowledge-based resource for state and local jurisdictions reviewing and updating their existing pool codes to optimally prevent and control recreational water-associated illness, including cryptosporidiosis.

1. CDC. Cryptosporidiosis surveillance—United States, 2009–2010. MMWR 2012;61(No. SS-5):1–12.
2. CDC. Surveillance for waterborne disease outbreaks and other health events associated with recreational water—United States, 2007–2008. MMWR 2011;60(No. SS-12):1–32.
3. Chappell CL, Okhuysen PC, Sterling CR, DuPont HL. *Cryptosporidium parvum*: intensity of infection and oocyst excretion patterns in healthy volunteers. J Infect Dis 1996;173:232–6.
4. Chappell CL, Okhuysen PC, Langer-Curry R, et al. *Cryptosporidium hominis*: experimental challenge of healthy adults. Am J Trop Med Hyg 2006;75:851–7.
5. Shields JM, Hill VR, Arrowood MJ, Beach MJ. Inactivation of *Cryptosporidium parvum* under chlorinated recreational water conditions. J Water Health 2008;6:513–20.

Dengue

With more than one third of the world's population living in areas at risk for transmission, dengue infection is a leading cause of illness and death in the tropics and subtropics. As many as 100 million persons are infected yearly. Dengue is caused by any one of four related viruses transmitted by mosquitoes.

Dengue in the United States occurs among persons living in subtropical and tropical areas where the disease is endemic, among U.S. travelers returning from endemic areas worldwide, and occasionally among persons living in U.S. areas that are not endemic for dengue but that are experiencing an outbreak. In 2011, a total of 1,541 dengue cases were reported to the national arbovirus surveillance network (ArboNET) from the Commonwealth of Puerto Rico and 254 cases were reported from 31 U.S. states. This represents a decrease in reported cases from Puerto Rico, and the U.S. states in 2010 (*1*). The overall decrease in 2011 in reported dengue cases both from U.S. areas that are and are not endemic for dengue was considered to be because of the cyclical nature of this disease worldwide and the decrease in global dengue cases (*2*–*5*).

Dengue is endemic in Puerto Rico, the U.S. Virgin Islands, and the U.S.-affiliated Pacific Islands (USAPI); (i.e., the U.S.-territories of Guam and American Samoa, the Commonwealth of the Northern Mariana Islands, the Republic of Palau, the Republic of the Marshall Islands [RMI], and the Federated States of Micronesia [FSM]). Although dengue is a notifiable disease in most U.S. territories and USAPIs, only Puerto Rico reports dengue cases to ArboNET (*6*). Puerto Rico did not experience an outbreak year in 2011; however, dengue outbreaks occurred in RMI and FSM. During September–December 2011, a total of 1,408 suspected cases were reported to the RMI Ministry of Health, and 1,017 suspected cases were reported from Yap state to the FSM Department of Health Services. Dengue virus (DENV)-2 and DENV-4 transmission was confirmed during the Yap and RMI outbreaks, respectively. Both outbreaks continued for several months into 2012.

Travel-associated dengue is the leading source of dengue in the U.S. areas that are not endemic for the disease, with 243 cases reported in 2011. Travel-associated dengue cases from residents of the U.S. areas that are not endemic resulted from travel to the following 42 foreign countries or U.S. territories: Puerto Rico (31), Bahamas (27), India (27), Bangladesh (16), Philippines (16), Haiti (14), Dominican Republic (10), Brazil (eight), Cuba (seven), Trinidad (seven), Costa Rica (five), and <5 cases from the Antilles, Aruba, Bermuda, Bolivia, Colombia, Curacao, Ecuador, El Salvador, Ghana, Granada, Guatemala, Guyana, Indonesia, Jamaica, Kenya, Laos, Malaysia, Mexico, Nicaragua, Pakistan, Panama, Peru, Singapore, Sri Lanka, Saint Lucia, Sudan, Thailand, Turks and Caicos, U.S. Virgin Islands, Venezuela, and Vietnam.

Although dengue is not endemic in the 50 U.S. states, an outbreak and locally acquired dengue cases were reported in Hawaii and Florida, respectively, in 2011. During February–March 2011, the Hawaii Department of Health (HI-DOH) detected laboratory-confirmed cases of dengue in five residents of Pearl City on the island of O'ahu. The first case was laboratory-confirmed in an O'ahu resident who travelled to Wisconsin in late February. After being notified by the Wisconsin Department of Health, the HI-DOH conducted case finding activities, which included a serosurvey in the index case household and neighborhood. After exhibiting dengue-like symptoms in late February, two laboratory-confirmed cases were found among the index patient's family members, and one laboratory-confirmed case was found in the neighboring household. None of these persons had travelled outside of the United States in the 2 weeks before illness onset and the virus DENV-1 was identified in two of these patients. The investigation also revealed that the likely source of virus transmission was an unrelated Pearl City resident who developed an acute febrile illness soon after returning in early February from a trip to the Philippines. In 2011, the Florida Department of Health reported cases occurring in seven persons with locally acquired dengue who had no reported travel outside of the United States in the 2 weeks before illness onset. The patients resided in Hillsborough (one patient), Martin (one), Miami-Dade (three), and Palm Beach (two) counties.

1. CDC. Summary of notifiable diseases—United States, 2010. MMWR 2012;59(No. SS-3):1–111.
2. World Health Organization (WHO)—Western Pacific Region Office (WPRO). WPRO Dengue situation update; 2012. Available at http://www.wpro.who.int/emerging_diseases/12_Jan2012DengueBiWeekly.pdf.
3. World Health Organization—Pan American Health Organization. Number of reported cases of dengue and severe dengue in the Americas by country: Figures for 2010; 2010. Available at http://new.paho.org/hq/dmdocuments/2010/dengue_cases_2010_december_10_2%20.pdf.

4. World Health Organization—Pan American Health Organizatin. Number of reported cases of dengue and dengue severe in the Americas by country: Figures for 2011; 2011. Available at http://new.paho.org/hq/dmdocuments/2011/dengue_cases_2011_January_21_EW_3.pdf.
5. Dash AP. From the editor's desk. Dengue Bulletin 2011;35:i–i.
6. Council of State and Territorial Epidemiologists. State reportable conditions query results, 2012. Available at http://www.cste.org/group/SRCAQueryRes.

Ehrlichiosis and Anaplasmosis

Ehrlichiosis and anaplasmosis are rickettsial tickborne diseases. The number of reported cases of anaplasmosis increased by approximately 50%, from 1,761 cases in 2010 to 2,575 cases in 2011, the largest reported incidence since anaplasmosis became notifiable in 1998. The number of reported cases of ehrlichiosis increased by 15%, from 740 cases in 2010 to 850 cases in 2011. A case of *Ehrlichia ewingii* was reported for the first time from Georgia, Maryland, and Virginia. Reports of undetermined ehrlichiosis or anaplasmosis increased by approximately 40% from 104 cases in 2010 to 148 cases in 2011. The overall increase in reported incidence of all four categories of ehrlichiosis and anaplasmosis from 2010 to 2011 might indicate an increase in tick populations, expansion of tick vector range, and an increase in the use of diagnostic assays.

Giardiasis

Giardia is transmitted through the fecal-oral route with the ingestion of *Giardia* cysts through the consumption of fecally contaminated water or through person-to-person (or, to a lesser extent, animal-to-person) transmission. The disease normally is characterized by diarrhea, abdominal cramps, bloating, weight losss, and malabsorption.

Although giardiasis is the most common enteric parasitic infection in the United States and no declines in incidence have occurred in recent years, knowledge of its epidemiology remains incomplete. Giardiasis symptomatology is variable; infected persons can shed *Giardia* for several weeks, and recent studies indicate a potential for chronic sequelae from giardiasis (*1,2*). New epidemiologic studies are needed to identify effective public health prevention measures.

Most data on giardiasis transmission come from outbreak investigations; however, the overwhelming majority of reported giardiasis cases are not linked to known outbreaks. During 2009–2010, <1% of reported giardiasis cases were associated with outbreaks (*3*). The relative contributions of person-to-person, animal-to-person, foodborne, and waterborne transmission to sporadic human giardiasis in the United States are not well understood.

Until recently, no reliable serologic assays for *Giardia* have been available, and no population studies of *Giardia* seroprevalence have been conducted. With recent laboratory advances (*4*), such studies might now be feasible and would contribute substantially to understanding the prevalence of giardiasis in the United States. Enhanced genotyping methods would increase knowledge of the molecular epidemiology of *Giardia*, including elucidating species-specific subassemblages (*5*). These tools, combined with traditional epidemiology and surveillance, would improve understanding of giardiasis risk factors, enable researchers to identify outbreaks by linking cases currently classified as sporadic infections, and provide risk factor information needed to inform prevention strategies.

1. Cantey PT, Roy S, Lee B, et al. Study of nonoutbreak giardiasis: novel findings and implications for research. Am J Med 2011;124:1175.e1–8.
2. Wensaas KA, Langeland N, Hanevik K, et al. Irritable bowel syndrome and chronic fatigue 3 years after acute giardiasis: historic cohort study. Gut 2012;61:214–9.
3. CDC. Giardiasis surveillance—United States, 2009–2010. MMWR 2012;61 (No. SS-5):13–23.
4. Priest JW, Moss DM, Visvesvara GS, et al. Multiplex assay detection of immunoglobulin G antibodies that recognize *Giardia intestinalis* and *Cryptosporidium parvum* antigens. Clin Vaccine Immunol 2010; 17:1695–707.
5. Feng Y, Xiao L. Zoonotic potential and molecular epidemiology of *Giardia* species and giardiasis. Clin Microbiol Rev 2011;24:110–40.

Gonorrhea

After a 79% decline in the rate of reported gonorrhea during 1975–2009, and after reaching the lowest gonorrhea rate recorded in 2009, the national gonorrhea rate increased in 2011 for the second consecutive year. During 2009–2011, the national rate of gonorrheal infection increased by 6% to 104 cases per 100,000 population. In 2011, the rate increased among men and women, among all racial/ethnic groups, and in all four regions of the United States (West, Midwest, Northeast, and South). As in previous years, the highest rates were observed among persons aged 15–24 years, among blacks, and in the South. In 2011, the gonorrhea rate among blacks was 17 times higher than the rate among whites (427 cases in blacks per 100,000 population compared with 25 cases in whites per 100,000 population) (*1*).

Treatment for gonorrhea is complicated by antimicrobial resistance. Most recently, declining susceptibility to cefixime resulted in a change in the CDC treatment guidelines; dual therapy with ceftriaxone and either azithromycin or doxycycline is now the only CDC-recommended treatment regimen for gonorrhea (*2*). In 2011, no isolates with decreased susceptibility to ceftriaxone were identified in CDC's sentinel surveillance system, the Gonococcal Isolate Surveillance Project (GISP); the

percentage of isolates with elevated cefixime minimum inhibitory concentrations remain unchanged. Three isolates with decreased susceptibility to cefixime were identified within GISP from three different regions of the United States in 2011 (*1*).

1. CDC. Sexually transmitted disease surveillance 2011. Atlanta, GA: US Department of Health and Human Services; 2012.
2. CDC. Update to CDC's sexually transmitted diseases treatment guidelines, 2010: oral cephalosporins no longer a recommended treatment for gonococcal infections. MMWR 2012;61:590–4.

Hansen Disease (Leprosy)

The number of reported cases decreased by 16%, from 98 cases in 2010 to 82 cases in 2011. The geographic distribution of cases reported in 2011 was the same as that reported in 2010, with Florida, Texas, California, and Hawaii reporting 61 cases and accounting for the majority (approximately 75%) of 82 reported cases. No cases were reported from any U.S. territories.

Hantavirus Pulmonary Syndrome

Hantavirus Pulmonary Syndrome (HPS) is a severe, sometimes fatal, respiratory disease in humans caused by infection with a hantavirus. Anyone who comes into contact with rodents that carry hantavirus is at risk for HPS. Rodent infestation in and around the home remains the primary risk for hantavirus exposure.

In 2011, HPS was confirmed in a rural Maine resident. This was the first person to have developed HPS from exposure to mice in Maine. Also in 2011, a fatal case of HPS occurred in a Long Island, New York, resident. This was the second case of HPS in a New York resident since 1995, and the fourth case in a person potentially exposed to rodents in the state. Although 517 (>95%) of 538 HPS cases have occurred west of the Mississippi river (*1*), the deer mouse (*Peromyscus maniculatus*, reservoir for Sin Nombre virus) and the white-footed mouse (*Peromyscus leucopus*, reservoir for the New York virus) are distributed widely throughout North America, and the potential for hantavirus infection is present wherever persons come into contact with an infected rodent (*2*).

1. Knust B, MacNeil A, Rollin PE. Hantavirus pulmonary syndrome clinical findings: evaluating a surveillance case definition. Vector Borne Zoonotic Dis 2012;12:393–9.
2. Mills JN, Amman BR, Glass GE. Ecology of hantaviruses and their hosts in North America. Vector Borne Zoonotic Dis 2009;10:563–74.

Influenza-Associated Pediatric Mortality

In June 2004, the Council of State and Territorial Epidemiologists added influenza-associated pediatric mortality (i.e., among persons aged <18 years) to the list of conditions reportable to the National Notifiable Diseases Surveillance System. Cumulative year-to-date incidence data are published each week in *MMWR* Table 1 for low-incidence nationally notifiable diseases. *MMWR* counts of deaths are by date of report in a calendar year and not by date of occurrence. A total of 118 influenza-associated pediatric deaths reported to CDC during 2011. Although all deaths occurred during the 2010–2011 influenza season, 10 of these deaths occurred in 2010, and were reported several months later in 2011. A total of 108 deaths occurred in 2011. This compares with a mean of 68 deaths (range: 43–90) per year that have been reported for seasonal influenza during 2005–2010. A total of 358 deaths were reported from April 15, 2009 to September 30, 2010, coinciding with the 2009 pandemic virus influenza A (H1N1)(pH1N1).

Of the 118 influenza-associated pediatric deaths reported to CDC during 2011, a total of 117 occurred between November 2010 and April 2011, and one occurred during August 2011. Seventy-three (62%) deaths were associated with influenza A viruses and 45 (38%) with influenza B viruses. Among the 73 influenza A virus-associated deaths, a subtype was determined for 54 (74%); 31 were influenza A (H1N1) (pH1N1) and 23 were A (H3N2) viruses.

In 2011, the median age at the time of death was 5.7 years (range: 25 days–17.9 years). This is similar to that observed (4–7.5 years) before the 2009 A (H1N1) pandemic for the years 2005–2008 and January–April 2009 but lower than that seen when pH1N1 viruses circulated widely during May–December 2009 (9.3 years) and 2010 (8.2 years). Sixteen children (14%) were aged <6 months; 18 (15%) were aged 6–23 months; 21 (18%) were aged 24–59 months; 17 (14%) were aged 5–8 years; 17 (14%) were aged 9–12 years; and the remaining 29 (25%) were aged 13–17 years. The overall influenza-associated death rate for children aged <18 years for 2011 was 0.16 per 100,000 population. The rates by age group were 0.63 per 100,000 population for children aged <1 year, 0.19 for children ≥1 year and <5 years, and 0.12 for children ≥5 and <18 years.

Information on the location of death was available for 117 of 118 children. Seventy-three children (62%) died after being admitted to the hospital (63 were admitted to an intensive care unit); 21 (18%) died in the emergency room; and 23 (20%) died outside the hospital. Information on underlying or chronic medical condition was reported for 116 (98%) children: 59 (51%) children had one or more underlying or chronic

medical conditions, placing them at increased risk for influenza-associated complications (*1*). The most common group of underlying conditions were neurologic (e.g., moderate to severe developmental delay, seizure disorder, mitochondrial disorder, cerebral palsy, a neuromuscular disorder, or other neurological condition). These neurologic conditions were reported for 34 of 116 children for whom previous health status was known and 18 of 116 children were reported to have had a chronic pulmonary condition (e.g., asthma, cystic fibrosis, or other chronic pulmonary disease). Of 60 children who had specimens collected for bacterial culture from normally sterile sites, 23 (38%) had positive cultures. *Staphylococcus aureus* was detected in seven of 23 (30%) of the positive cultures; five were methicillin-resistant and two were methicillin-sensitive. Five cultures (16%) were positive for *Streptococcus pneumoniae* and four (20%) were positive for Group A Streptococcus. Other streptococcus species, *Pseudomonas aeruginosa* and *Enterobacter cloacae,* were identified less frequently. Of the 72 fatal cases among children aged ≥6 months for whom seasonal vaccination status was known, 19 (26%) were vaccinated against influenza as recommended by the Advisory Committee on Immunization Practices (ACIP) for 2011(*2*). Continued surveillance of influenza-associated mortality is important to monitor both the effects of seasonal and novel influenza and the impact of interventions in children.

1. CDC. Post-censal estimates of the resident population of the United States for July 1, 2010–July 1, 2011, by year, county, single year of age (0, 1, 12…85 years and over), bridged race, Hispanic origin, sex. Atlanta, GA: CDC, National Center for Health Statistics, 2011. Available at http://www.cdc.gov/nchs/nvss/bridged_race/data_documentation.htm#vintage2011.
2. CDC. Prevention and control of influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP) 2011. MMWR 2011;60:1128–32.

Listeriosis

Listeria monocytogenes infection (listeriosis) is rare but causes severe invasive disease (e.g., bacteremia, meningitis, and fetal death). Listeriosis has been nationally notifiable since 2000. Listeriosis is acquired predominately through contaminated food and occurs most frequently among pregnant women and their newborns, older adults, and persons with certain immunocompromising conditions. Pregnancy-associated listeriosis is usually a mild illness but can be associated with fetal death and severe neonatal disease.

In 2011, the incidence of reported listeriosis in the United States was 0.28 infections per 100,000 population. Progress toward the *Healthy People 2020* (objective no. FS-1.3) of 0.20 infections per 100,000 population (*1*) is measured through the Foodborne Diseases Active Surveillance Network (FoodNet), which conducts active surveillance for listeriosis in 10 U.S. states. FoodNet reported a preliminary annual incidence of *Listeria monocytogenes* in 2011 of 0.24 infections per 100,000 population, similar to the rate reported to NNDSS (*2*).

The *Listeria* Initiative is an enhanced surveillance system designed to aid public health authorities in the rapid investigation of listeriosis outbreaks by combining molecular subtyping results with epidemiologic data collected by state and local health departments (*3*). As part of the *Listeria* Initiative, CDC recommends that all clinical isolates of *L. monocytogenes* be forwarded routinely to a public health laboratory for pulsed-field gel electrophoresis (PFGE) subtyping, and submission of these PFGE patterns to PulseNet, the National Molecular Subtyping Network for Foodborne Disease Surveillance (*4*). In addition, communicable disease programs are asked to interview all listeriosis patients promptly using the standard *Listeri*a Initiative case form, available at in English and Spanish at http://www.cdc.gov/listeria/surveillance.html.

The *Listeria* Initiative has allowed for timely identification and removal of contaminated food during outbreaks, including a large outbreak in 2011 linked to whole cantaloupes from a single farm (*5*) that resulted in 147 illnesses, 143 hospitalizations, 33 deaths, and one miscarriage (*6*). A second outbreak of listeriosis in 2011 was linked to ackawi and chive cheeses made from pasteurized milk; these cheeses were produced by a single manufacturer. In addition, illnesses associated with consumption of blue cheese made from unpasteurized milk were investigated (*7*).

1. US Department of Health and Human Services. Healthy People 2020 objectives. Available at http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=14.
2. CDC. Foodborne diseases active surveillance network. Available at http://www.cdc.gov/foodnet/data/trends/tables/table2a-b.html#table-2b.
3. CDC. The listeria initiative surveillance overview. Available at http://www.cdc.gov/listeria/pdf/ListeriaInitiativeOverview_508.pdf.
4. CDC. PulseNet. Available at http://www.cdc.gov/pulsenet.
5. CDC. Multistate outbreak of listeriosis associated with Jensen Farms cantaloupe—United States, August–September, 2011. MMWR 2011; 60:1357–8.
6. CDC. Multi-state outbreak of listeriosis linked to whole cantaloupe in Jenson Farms, Colorado. Available at http://www.cdc.gov/listeria/outbreaks/cantaloupes-jensen-farms/082712/index.html.
7. CDC. National listeria surveillance annual summary, 2011. Atlanta, Georgia. US Department of Health and Human Services, CDC, 2013.

Lyme disease

National surveillance for Lyme disease was implemented in the United States in 1991 using a case definition based on clinical and laboratory findings. CSTE revised the case definition, effective 2008, to standardize laboratory criteria for confirmation and allow reporting of "probable" cases.

The number of confirmed and probable Lyme disease cases reported to CDC increased by 2,939 (9.7%) in 2011 over 2010. Nevertheless, the total number of reported cases remained substantially lower than in either 2008 or 2009. Unlike 2010, when reported cases decreased in nearly all Northeastern and mid-Atlantic states, no consistent regional trend was apparent in 2011.

Measles

The elimination of endemic measles has been achieved in the United States (*1*); however, measles continues to be imported, resulting in substantial morbidity and expenditure of local, state, and federal public health resources (*2,3*). Although measles incidence in the United States remains low, the number of cases reported during 2011 was the highest since 1996.

A total of 191 cases accounted for the majority (87%) of persons with measles, which were unvaccinated or had unknown vaccination status; an estimated 68 (36%) were known to claim vaccine exemption based on personal, religious, or philosophical beliefs (PBEs). A total of 196 cases accounted for the majority (89%) of cases in 2011, which were import-associated. The World Health Organization, European Region, where approximately 30,000 cases occurred in 2011, accounted for the majority of imported cases (41%) among U.S. residents who acquired measles while traveling. Imported genotypes were identified in all 16 outbreaks, with 12 (75%) of the outbreaks being caused by D4 genotype virus, known to be circulating in Europe.

Seven outbreaks occurred after unvaccinated U.S. residents acquired infection abroad with onset of symptoms after returning to the United States. These outbreaks (range: 3–21 cases) accounted for 58 cases. A total of 38 (65%) persons claimed PBEs, seven (12%) were infants aged <12 months; for one child aged 12 months, measles vaccination had been delayed intentionally by parents until the child was older.

Cases in U.S. residents who were unvaccinated or who had unknown vaccine status, who had no medical contraindication to vaccination, and who were either born after 1957 or were aged ≥12 months (without prior documentation of presumptive evidence of immunity to measles), or were aged 6–11 months, with recent history of international travel, are considered vaccine-preventable. During 2011, a total of 48 of 57 imported cases occurred among unvaccinated U.S. residents who were vaccine-eligible: nine traveler cases occurred in infants aged 6–11 months; nine in infants aged 12–15 months; five in children aged 16 months–4 years; seven in persons aged 5–19 years; and 18 in persons aged 20–53 years. Among persons aged 20–53 years (median: 28 years), 44% held PBEs.

To prevent measles among U.S. residents, health-care providers should follow ACIP vaccination recommendations (*4*), ensuring that travelers are vaccinated, particularly infants aged 6–11 months, and that 2 doses are administered for those aged ≥12 months. In addition, parents should be educated about the risk for measles associated with international travel. Information on vaccination recommendations for travelers is available from CDC at http://www.cdc.gov/travel.

1. Katz SL, Hinman AR. Summary and conclusions: measles elimination meeting, 16–17 March 2000. J Infect Dis 2004;189(Suppl 1):S43–7.
2. CDC. Epidemiology of measles—United States, 2001–2003. MMWR 2004;53:713–6.
3. Dayan GH, Ortega-Sanchez IR, LeBaron CW. The cost of containing one case of measles: the economic impact on the public health infrastructure, Iowa, 2004. Pediatrics 2005;116:1–4.
4. CDC. Measles, mumps, and rubella—vaccine use and strategies for elimination of measles, rubella, and congenital rubella syndrome and control of mumps: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1998;47(No. RR-8):38–9.

Meningoccocal Disease, Invasive

Neisseria meningitidis is a major cause of bacterial meningitis and sepsis in the United States. The highest incidence of meningococcal disease occurred among infants aged <1 year with a second peak occurring in adolescents and young adults (*1,2*). Among infants, disease incidence peaks within the first 6 months of life and the majority of cases in this age group are caused by serogroup B (*2*). Rates of meningococcal disease are at historic lows in the United States, but meningococcal disease continues to cause substantial morbidity and mortality in persons of all ages.

The Advisory Committee on Immunization Practices recommends routine use of quadrivalent (A, C, Y, W-135) meningococcal conjugate vaccine in adolescents and others at increased risk for disease (*1*). In October 2010, a booster dose was recommended for adolescents at age 16 years (*3*). In 2011, coverage with 1 dose of meningococcal conjugate vaccine was approximately 70% among 23,564 adolescents aged 13–17 years in the United States (*4*).

1. CDC. Prevention and control of meningococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2005;54(No. RR-7).
2. Cohn AC, MacNeil JR, Harrison LH, et al. Changes in *Neisseria meningitidis* disease epidemiology in the United States, 1998–2007: implications for prevention of meningococcal disease. Clin Infect Dis 2010:50:184–91.
3. CDC. Updated recommendations for use of meningococcal conjugate vaccines—Advisory Committee on Immunization Practices (ACIP), 2010. MMWR 2011;60:72–6.
4. CDC. National and state vaccination coverage among adolescents aged 13–17 years—United States, 2011. MMWR 2012:61:671–7.

Novel Influenza A

In 2007, CSTE added human infection with a novel influenza A virus to the list of conditions reportable to NNDSS (*1*). Novel influenza A virus infections are human infections with influenza A viruses that are different from currently circulating human seasonal influenza viruses. These viruses include those that are subtyped as nonhuman in origin and those that cannot be subtyped with standard methods and reagents used for currently circulating influenza viruses.

During 2005–2011, all cases of human infection with novel influenza A viruses involved swine-origin viruses (now called variant influenza viruses when detected in humans [*2*]), rather than avian-origin influenza viruses. Although most persons identified with variant influenza infection report contact with swine preceding their illness, limited human-to-human transmission of these viruses has occurred. Because the implications of sustained, ongoing transmission of these viruses between humans are potentially severe, prompt and thorough investigation of sporadic human infections with nonhuman influenza viruses is needed to reduce the risk for sustained transmission (*2*). In 2011, cases of variant influenza virus infection likely from human-to-human transmission were identified, but efficient, sustained transmission did not occur.

In 2011, a total of 14 cases of human infection with novel influenza A viruses were reported from seven states (Indiana [two], Iowa [three], Maine [two], Minnesota [one], Pennsylvania [three], West Virginia [two], and Wisconsin [one]) (*3,4*). One case (Wisconsin) was associated with an influenza A (H1N1) variant virus (H1N1v), one case (Minnesota) was associated with an influenza A (H1N2) variant virus (H1N2v), and the other 12 cases were associated with influenza A (H3N2) variant viruses (H3N2v). The H1N1v and H1N2v viruses were similar to viruses detected in cases previously reported (*5*). All 12 H3N2v viruses were similar to viruses previously identified in swine (*6*); however, these viruses had acquired the matrix (M) gene from the influenza A (H1N1)pdm09 virus, which has been hypothesized to contribute to increased transmissibility in animal models (*7,8*).

One case occurred in July (Indiana), three cases in August (Pennsylvania), four cases in October (Maine [two], Minnesota [one] and Indiana [one]), and six cases in November (Iowa [three], West Virginia [two], and Wisconsin [one]). Twelve out of 14 patients reported influenza-like illness (e.g., fever with cough and/or sore throat) and two patients (both with H3N2v virus infection) reported fever only. Three of the 14 patients (all with H3N2v virus infection) were hospitalized for influenza; all 14 fully recovered from their illness. Six patients with H3N2v virus infection and the two patients with H1N1v and H1N2v virus infection reported either direct contact (touching or handling) or indirect contact (walking through an area or coming within 6 feet) with swine in the week preceding illness onset. The remaining six patients with H3N2v infection had no known exposure to swine before illness onset, indicating likely human-to-human spread. Five cases occurred in two distinct clusters. In one cluster, illness onset occurred in three patients who were exposed to one another over a 4-day period; in the second cluster, illness onset was reported for two cases within a 10-day period. The patients in the second cluster attended a daycare center where multiple attendees had influenza-like illness during this 10-day period. The sixth patient without exposure to swine had a caretaker who was not ill, but reported contact with swine.

Transmission of variant influenza A viruses to humans usually occurs among persons in direct contact with pigs or in those who have visited places where pigs were present (e.g., agricultural fairs, farms, and petting zoos). CDC conducts surveillance for human infections with novel influenza A viruses in conjunction with state and local public health laboratories. Any specimen with results suggestive of the presence of a novel influenza A virus or that cannot be subtyped using standard methods and reagents at a public health laboratory is immediately submitted to CDC for further testing. Surveillance for human infections with novel influenza A viruses is essential, and early identification and intensive investigation of these cases are critical to evaluate the extent of outbreaks, and the potential for human-to-human transmission.

1. Council of State and Territorial Epidemiologists. List of Nationally Notifiable Conditions. 2011. Available at http://www.c.ymcdn.com/sites/www.cste.org/resource/resmgr.
2. CDC. Update: Influenza A (H3N2)v transmission and guidelines—five states, 2011. MMWR 2012;60:1741–4.
3. CDC. Update: influenza activity—United States, 2010–11 season, and composition of the 2011–12 influenza vaccine. MMWR 2011;60:705–12.
4. CDC. Update: influenza activity—United States, 2011–12 season, and composition of the 2012–13 influenza vaccine. MMWR 2011;60:705–12.
5. Shinde V, Bridges CB, Uyeki TM, et al. Triple-reassortant swine influenza A (H1) in humans in the United States, 2005–2009. N Engl J Med 2009;360:2616–25.
6. Vincent AL, Ma W, Lager KM, Janke BH, Richt JA. Swine influenza viruses: a North American perspective. Adv Virus Res 2008;72:127–54.
7. Chou YY, Albrecht RA, Pica N, et al. The M segment of the 2009 new pandemic H1N1 influenza virus is critical for its high transmission efficiency in the guinea pig model. J Virol 2011;85:11235–41.
8. Lakdawala SS, Lamirande EW, Suguitan AL, Jr., et al. Eurasian-origin gene segments contribute to the transmissibility, aerosol release, and morphology of the 2009 pandemic H1N1 influenza virus. PLoS Pathogens 2011;7:e1002443.

Pertussis

After the 2010 peak in reported pertussis (incidence: 8.9 per 100,000 population), reports of disease declined in 2011 (6.1 per 100,000 population). Consistent with previous

years, age-specific rates are highest among infants aged <1 year (70.9 per 100,000 population). Similar to trends observed in 2009 and 2010, children aged 7–10 years continue to contribute the second highest rates of disease nationally (20.0 per 100,000 population). Rates of disease among adolescents remained lower than those observed before the introduction of three vaccines: tetanus, diptheria, and acellular pertussis (Tdap) in 2005 (24.5 per 100,000 population in 2004; 10.3 per 100,000 in 2011), and Tdap coverage continues to improve among adolescents aged 13–17 years (68.7% in 2010 to 78.2% in 2011) (*1–3*). Increasing Tdap coverage among adults continues to be a priority, and ACIP expanded Tdap recommendations to include vaccination of pregnant women in June of 2011 (*4*).

1. CDC. Preventing tetanus, diphtheria, and pertussis among adolescents; use of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2006;55(No. RR–3).
2. CDC. Vaccination coverage among adolescents aged 13–17 years—United States, 2010. MMWR 2011;60:1117–23.
3. CDC. Vaccination coverage among adolescents aged 13–17 years—United States, 2011. MMWR 2012;61:671–7.
4. CDC. Updated recommendations for use of tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine (Tdap) in pregnant women and persons who have or anticipate having close contact with an infant aged <12 months—Advisory Committee on Immunization Practices (ACIP), 2011. MMWR 2011;60:1424–6.

Q fever

Q fever is a worldwide disease with acute and chronic stages caused by the bacteria *Coxiella burnetii*. Cattle, sheep, and goats are the primary reservoirs for Q fever, although a variety of species can be infected. In 2008, the case definition for Q fever was further specified into acute and chronic cases.

Two outbreaks of Q fever were of particular note in 2011. A cluster of five persons had serologic or clinical evidence of infection with *Coxiella burnetii*, the causative agent of Q fever, in Michigan. Upon investigation, exposure was linked to habitual consumption of raw cow's milk from the same dairy farm (*1*). This was the first report of transmission by ingestion of raw milk products in the state of Michigan. The second outbreak was one of the largest ever reported in the United States. Twenty cases of Q fever were identified in Montana and Washington between January and July 2011 (*2*). These cases were linked epidemiologically to exposure to goats that originated from a single farm in eastern Washington state.

1. Signs KA, Stobierski MG, Gandhi TN. Q fever cluster among raw milk drinkers, Michigan, 2011. Clin Infect Dis 2012;55:1387–9.
2. CDC. Notes from the field: Q fever outbreak associated with goat farms—Washington and Montana, 2011. MMWR 2011;60:1393.

Rabies

During 2011, six cases of human rabies were reported in the United States, the most reported in a single year since 2004. Three cases reported from Massachusetts, New Jersey, and New York were associated with canine rabies virus variants acquired outside the United States (*1,2*). Two domestically acquired cases from Massachusetts and South Carolina were associated with bat rabies virus variants. The remaining case reported from California occurred in a person who survived; however, no rabies virus was isolated, and a definitive source of infection was not determined (*3*).

The recent decline in animals submitted for rabies diagnosis continued during 2011. A total of 99,905 suspected rabid animals were tested in 2011, compared with 104,647 in 2010, a decline of 4.5%. Despite this decline, substantial increases in reported rabid animals were observed among some reservoir species, most notably skunks (*4*).

1. CDC. Imported human rabies—New Jersey, 2011. MMWR 2012; 60;1734–6.
2. CDC. Imported human rabies in a U.S. Army soldier—New York, 2011. MMWR 2012;61:302–5.
3. CDC. Recovery of a patient from clinical rabies—California, 2011. MMWR 2012;61:61–5.
4. Blanton JD, Dyer J, McBrayer J, Rupprecht CE. Rabies surveillance in the United States during 2011. J Am Vet Med Assoc 2012;241:712–22.

Salmonellosis

During 2011, as in previous years, the age group with the highest incidence of salmonellosis was children aged <5 years. Salmonellosis is reported most frequently in late summer and early fall; in 2011, this seasonality was again evident, with most reports during July–October. *Salmonella* infections have not declined over the past 10 years. In 2011, the incidence in the United States (16.8 infections per 100,000 population) was nearly one and a half times the 2020 national health objective target of 11.4 infections per 100,000 population (*1*). Data from the Foodborne Diseases Active Surveillance Network (FoodNet), which conducts active surveillance for salmonellosis in 10 U.S. states, are used to measure progress toward *Healthy People 2020* objectives. FoodNet reported a preliminary annual incidence of *Salmonella* in 2011 of 16.5 infections per 100,000 population, similar to the rate reported to the National Notifiable Diseases Surveillance System (*2*).

Salmonella causes an estimated 1.2 million illnesses annually in the United States, approximately 1 million of which are transmitted by food consumed in the United States (*3*). *Salmonella* can contaminate a wide range of foods, and different serotypes tend to have different animal reservoirs and food sources, making control challenging. During 2011, multistate

outbreaks of *Salmonella* infection were linked to fresh produce: cantaloupe (serotype Panama), alfalfa and spicy sprouts (serotype Enteritidis), and whole, fresh, imported papayas (serotype Agona); meat and poultry: ground beef (serotype Typhimurium), turkey burgers (serotype Hadar), ground turkey (serotype Heidelberg), kosher broiled chicken livers (serotype Heidelberg); other foods: Turkish pine nuts (serotype Enteritidis); and contact with animals: African dwarf frogs (serotype Typhimurium), frozen rodents used as reptile feed (serotype I, 4,[5],12:i:-), and chicks and ducklings (serotypes Altona and Johannesburg) (*4*).

1. US Department of Health and Human Services. Healthy People 2020 objectives. Available at http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=14.
2. CDC. Foodborne diseases active surveillance network. Available at http://www.cdc.gov/foodnet/data/trends/tables/table2a-b.html#table-2b.
3. Scallan E, Hoekstra RM, Angulo FJ, et al. Foodborne illness acquired in the United States—major pathogens. Emerg Infect Dis 2011;17:7–15.
4. CDC. Reports of selected *Salmonella* outbreak investigations. Available at http://www.cdc.gov/salmonella/outbreaks.html.

Shigellosis

In 2011, the incidence of reported shigellosis in the United States was 4.3 infections per 100,000 population. Accounting for underdiagnosis, *Shigella* causes an estimated 494,000 illnesses annually in the United States, approximately 131,000 of which are transmitted by food consumed in the United States (*1*). *Shigella* infections have not declined over the past 10 years. During 1999–2009, a total of 97,864 out of 116,191 (84%) of *Shigella* infection with a known species were caused by *S. sonnei* (*2*). During 2011, as in previous years, the age group with the highest incidence of shigellosis was children aged <10 years. *S. sonnei* infections generally account for approximately 75% of shigellosis in the United States (*2*). Shigellosis does not demonstrate marked seasonality, likely reflecting the importance of person-to-person transmission.

Shigella often is spread directly from one person to another, including through sexual contact between MSM, and also can be transmitted by contaminated food or by contaminated water used for drinking or recreational purposes (*3*). Some cases of shigellosis also are acquired during international travel (*4,5*). Daycare-associated outbreaks are common and are often difficult to control (*6*). During 2011, outbreaks of *S. sonnei* infection were reported within traditionally observant Jewish communities in several northeastern and midwestern states. Outbreaks in such communities have occurred before (*7*). Resistance to ampicillin and trimethoprim-sulfamethoxazole among *S. sonnei* strains in the United States remains common, and resistance to quinolones, including ciprofloxacin, is emerging and cause for concern (*8*).

1. Scallan E, Hoekstra RM, Angulo FJ, et al. Foodborne illness acquired in the United States—major pathogens. Emerg Infect Dis 2011;17:7–15.
2. CDC. National *Shigella* surveillance annual summary, 2009. Atlanta, GA: US Department of Health and Human Services, CDC; 2012. Available at http://www.cdc.gov/ncezid/dfwed/PDFs/shigella-annual-summary-2009-508c.pdf.
3. 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.
4. Ram PK, Crump JA, Gupta SK, Miller MA, Mintz ED. Review article: part II. Analysis of data gaps pertaining to *Shigella* infections in low and medium human development index countries, 1984–2005. Epidemiol Infect 2008;136:577–603.
5. Gupta SK, Strockbine N, Omondi M, et al. Short report: emergence of Shiga toxin 1 genes within *Shigella dysenteriae* Type 4 isolates from travelers returning from the island of Hispaniola. Am J Trop Med Hyg 2007; 76:1163–5.
6. Arvelo W, Hinkle J, Nguyen TA, et al. Transmission risk factors and treatment of pediatric shigellosis during a large daycare center-associated outbreak of multidrug resistant *Shigella sonnei*. Pediatr Infect Dis J 2009;11:976–80.
7. Garrett V, Bornschlegel K, Lange D, et al. A recurring outbreak of *Shigella sonnei* among traditionally observant Jewish children in New York City: the risks of daycare and household transmission. Epidemiol Infect 2006;134:1231–6.
8. CDC. National Antimicrobial Resistance Monitoring System (NARMS) for enteric bacteria: human isolates final report, 2010. Atlanta, GA: US Department of Health and Human Services, CDC; 2012. Available at http://www.cdc.gov/narms.

Spotted Fever Rickettsiosis

Spotted fever rickettsioses are a group of tickborne infections caused by some members of the genus *Rickettsia*. More cases of spotted fever rickettsiosis were reported in 2011 than in any year since 1920, when spotted fever rickettsiosis became a reportable condition. Similarly, 18 states reported more cases in 2011 than any year in the last decade. Although the increase in reported cases might be influenced by testing and reporting practices, high tick vector activity and increased human exposure to infected ticks in 2011 might have resulted in an increased incidence of spotted fever rickettsiosis.

Shiga Toxin-Producing *Escherichia coli* (STEC)

During 2011, as in previous years, the age group with the highest incidence of Shiga toxin-producing *Escherichia coli* (STEC) infections was children aged <5 years. STEC infection is reported most frequently in late summer and early fall. In 2011, this seasonality was evident, with the highest number of reports in July, August, September, and October. During 2011, several multistate outbreaks of STEC O157 infection were linked to foods (e.g., romaine lettuce, Lebanon bologna,

and hazelnuts). In addition, six cases of STEC O104:H4 were linked to travel to Germany during a large outbreak associated with sprouts (*1*).

Accounting for underdiagnosis, an estimated 96,000 illnesses are caused by STEC O157, and 168,000 illnesses are caused by non-O157 STEC each year (*2*). *Escherichia coli* O157:H7 infection has been nationally notifiable since 1994 (*3*). STEC infection caused by any serotype was made nationally notifiable in 2001, originally using the nomenclature "enterohemorrhagic *E. coli* (EHEC)" and changing to STEC in 2006 (*4*).

Public health actions to monitor, prevent, and control STEC infections are made on the basis of serogroup characterization. Development of postdiarrheal hemolytic uremic syndrome, a severe complication of STEC infection, is most strongly associated with STEC O157. Non-O157 STEC, a diverse group that varies in virulence, comprises 50 other serogroups. In the United States, STEC O157 is the most commonly reported serogroup of STEC causing human infection (*5*); however, increased use of assays for the detection of Shiga toxins in clinical laboratories in recent years has led to increased reporting of non-O157 STEC infection (*6*). Stool specimens from patients with community-acquired diarrhea submitted to clinical laboratories should be tested routinely both by culture for STEC O157 and by an assay that detects Shiga toxins (*7*). Detection of Shiga toxin alone is inadequate for outbreak detection; characterizing STEC isolates by serogroup and by pulsed-field gel electrophoresis pattern is important to detect, investigate, and control outbreaks.

1. CDC. Reports of selected *E. coli* outbreak investigations. Available at http://www.cdc.gov/ecoli/outbreaks.html.
2. Scallan E, Hoekstra RM, Angulo FJ, et al. Foodborne illness acquired in the United States—major pathogens. Emerg Infect Dis 2011;17:7–15.
3. Mead PS, Griffin PM. *Escherichia coli* O157:H7. Lancet 1998; 352:1207–12.
4. Council of State and Territorial Epidemiologists. Revision of the Enterohemorrhagic *Escherichia coli* (EHEC) condition name to Shiga toxin-producing *Escherichia coli* (STEC) and adoption of serotype specific national reporting for STEC. Position statement 05-ID-07. Atlanta, GA: Council of State and Territorial Epidemiologists; 2005. Available at http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS-05-ID-07.
5. CDC. National shiga toxin-producing *Escherichia coli* (STEC) surveillance annual summary, 2009. Atlanta, GA: US Department of Health and Human Services, CDC, 2012. Available at http://www.cdc.gov/ncezid/dfwed/PDFs/national-stec-surv-summ-2009-508c.pdf.
6. Hoefer D, Hurd S, Medis C, et al. Laboratory practices for the identification of Shiga toxin-producing *Escherichia coli* in the United States, FoodNet Sites, 2007. Foodborne Pathog Dis 2011;8:555–60.
7. CDC. Recommendations for diagnosis of Shiga toxin-producing *Escherichia coli* infections by clinical laboratories, 2009. MMWR 2009;58:1–14.

Primary and Secondary Syphilis

During 2011, overall rates of primary and secondary syphilis remained unchanged compared with 2010. Rates among women continued to decrease (33% compared with 2008), but increased among men for the eleventh consecutive year. Rates were highest among men aged approximately 20–24 years and 25–29 years for the fourth consecutive year. Notably, cases among MSM increased each year during 2007–2011 in 33 states and in areas reporting sex of partner data for approximately 70% of cases of primary and secondary syphilis each year during this period. During 2007–2011, rates among black men aged 20–24 years increased from 54.9 to 96.2 cases per 100,000 population (75%); the magnitude of this increase (41.3 cases per 100,000 population) was the greatest reported regardless of age, sex, or race/ethnicity (*1*). Analyses showing recent trends of increasing primary and secondary syphilis among black MSM are consistent with these data (*2*).

1. CDC. Sexually transmitted disease surveillance 2011. Atlanta, GA: US Department of Health and Human Services; 2012.
2. Su JR, Beltrami JF, Zaidi AA, Weinstock HS. Primary and secondary syphilis among black and Hispanic men who have sex with men: case report data from 27 states. Ann Intern Med 2011;155:145–51.

Typhoid Fever

Typhoid fever is rare in the United States. During 1999–2006, 1,439 out of 1,902 patients reported foreign travel within 30 days of illness, which accounted for approximately 79% of cases associated with international travel (*1*). The risk for infection is highest for travelers visiting friends and relatives in countries where typhoid fever is endemic, perhaps because they are less likely than other travelers to seek pretravel vaccination and to observe strict safe water and food practices. The risk also is higher for travelers who visit areas where disease is most highly endemic, such as the Indian subcontinent, even for a short time (*2*). CDC recently removed pretravel typhoid vaccination recommendations for 26 low-risk destinations; pretravel vaccination guidelines can be found at http://www.cdc.gov/travel (*3*).

During 1960–1999, a total of 60 outbreaks of typhoid fever were reported in the United States (*4*). The first domestically acquired outbreak of typhoid fever in more than a decade occurred in 2010. Twelve cases were identified, and illness was linked to consumption of imported frozen mamey fruit (*5*). Mamey from the same producer in Guatemala also was implicated in the last domestic typhoid fever outbreak, which occurred in 1999 (*5*). No outbreaks were reported in 2011.

1. Lynch MF, Blanton EM, Bulens S, et al. Typhoid fever in the United States, 1999–2006. JAMA 2009;302:898–9
2. 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.
3. Johnson KJ, Gallagher NM, Mintz ED, et al. From the CDC: New country-specific recommendations for pre-travel typhoid vaccination. J Travel Med 2011;18:430–3.
4. Olsen SJ, Bleasdale SC, Magnano AR, et al. Outbreaks of typhoid fever in the United States, 1960–1999. Epidemiol Infect 2003;130:13–21.
5. Loharikar A, Newton A, Rowley P, et al. Typhoid fever outbreak associated with frozen mamey pulp imported from Guatemala to the western United States, 2010. Clin Infect Dis 2012;55:61–6.

Varicella

As varicella incidence has declined with implementation of the varicella vaccination program (*1,2*), more states are able to conduct varicella surveillance. Thus, varicella surveillance data reported to CDC through the National Notifiable Diseases Surveillance System (NNDSS) are now adequate for monitoring trends in varicella incidence (*3*).

The number of states reporting varicella data to CDC through NNDSS continued to increase, from 38 in 2010 to 39 in 2011. Varicella incidence continues to decline during the 2-dose varicella vaccination era; varicella incidence in the 31 states meeting criteria for adequate and consistent reporting (*3*) decreased 73.6% from 31.4 per 100,000 in 2006 to 8.3 per 100,000 in 2011. Among children aged 5–9 years, which includes children targeted for the second dose of varicella vaccine, age-specific incidence decreased 85.7%, from 261 per 100,000 in 2006 to 37.2 per 100,000 in 2011.

CDC encourages all states to move toward case-based varicella surveillance to allow for effective monitoring of the impact of the 2-dose varicella vaccination program. States are encouraged to collect standard demographic, clinical, and epidemiologic data, in addition to the previously requested information on disease severity (e.g., number of lesions and hospitalizations), vaccination status (e.g., whether the person received varicella-containing vaccine and the number of doses), and ages of persons to help with the continued monitoring of the impact of the 2-dose varicella vaccination recommendation.

1. CDC. Prevention of varicella: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2007;56 (No. RR-4).
2. Guris D, Jumaan AO, Mascola L, et al. Changing varicella epidemiology in active surveillance sites—United States, 1995–2005. J Infect Dis 2008;197 (Suppl 2):S71–5.
3. CDC. Evolution of varicella surveillance—selected states, 2000–2010. MMWR 2012;61:609–12.

Vibriosis

Vibriosis became a nationally notifiable condition in 2007 (*1*). Three states (California, Florida, and Texas) report the largest numbers of cases. *Vibrio parahaemolyticus*, *V. vulnificus*, and *V. alginolyticus* account for the largest proportion of reported infections. The incidence of vibriosis, both overall and for each of the three most commonly reported species has increased over the past 15 years (*2*). In 2011, an outbreak of toxigenic (i.e., producing cholera toxin) *V. cholerae* O75 infection was associated with consumption of raw oysters harvested from Apalachicola Bay.

1. Council of State and Territorial Epidemiologists. National reporting for non-cholera Vibrio infections (vibriosis). Position statement 06-ID-05. Atlanta, GA: Council of State and Territorial Epidemiologists; 2006.
2. Newton A, Kendall M, Vugia DJ, et al. Increasing rates of vibriosis in the United States, 1996–2010: review of surveillance data from 2 systems. Clin Infect Dis 2012;545:S391–5.

PART 1
Summaries of Notifiable Diseases in the United States, 2011

Abbreviations and Symbols Used in Tables

U	Data not available.
N	Not reportable (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 *MMWR Summary of Notifiable Diseases — United States, 2011* might differ from data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, the use of different case definitions, and print criteria.

Please note: An erratum has been published for this issue. To view the erratum, please click here.

TABLE 1. Reported cases of notifiable diseases,* by month — United States, 2011

Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Month not stated	Total
Anthrax	—	—	—	—	—	—	—	—	1	—	—	—	—	**1**
Arboviral diseases†														
California serogroup viruses														
neuroinvasive	—	—	—	—	1	4	44	36	28	7	—	—	—	**120**
nonneuroinvasive	—	—	—	1	1	—	5	3	3	4	—	—	—	**17**
Eastern equine encephalitis virus	—	—	—	—	—	—	—	3	—	1	—	—	—	**4**
Powassan virus														
neuroinvasive	—	—	—	—	2	3	4	1	—	1	1	—	—	**12**
nonneuroinvasive	—	—	—	—	2	—	2	—	—	—	—	—	—	**4**
St. Louis encephalitis virus														
neuroinvasive	—	—	—	—	—	—	1	1	1	—	—	1	—	**4**
nonneuroinvasive	—	—	—	—	—	—	—	1	—	1	—	—	—	**2**
West Nile virus														
neuroinvasive	1	—	—	—	2	2	60	181	198	39	1	2	—	**486**
nonneuroinvasive	—	—	1	—	1	1	33	88	92	9	1	—	—	**226**
Babesiosis	6	4	2	13	31	111	376	273	92	114	58	48	—	**1,128**
Botulism, total	6	11	6	10	16	10	12	8	9	42	10	13	—	**153**
foodborne	—	2	—	3	3	—	—	2	3	8	—	3	—	**24**
infant	4	7	6	6	12	7	12	6	6	13	8	10	—	**97**
other (wound and unspecified)	2	2	—	1	1	3	—	—	—	21	2	—	—	**32**
Brucellosis	3	4	6	10	10	2	11	6	6	9	5	7	—	**79**
Chancroid	1	—	2	1	—	1	1	1	—	—	—	1	—	**8**
Chlamydia trachomatis infection	99,231	103,791	113,539	136,188	110,352	102,752	131,492	113,061	110,013	146,374	104,355	141,643	—	**1,412,791**
Cholera	12	3	3	1	1	2	4	3	—	5	3	3	—	**40**
Coccidioidomycosis	1,899	1,679	1,477	2,154	1,720	1,553	2,257	1,835	1,615	2,307	1,914	2,224	—	**22,634**
Cryptosporidiosis, total	371	404	440	613	584	734	1,270	1,458	1,306	945	547	578	—	**9,250**
confirmed	300	290	313	420	377	459	820	980	834	617	342	378	—	**6,130**
probable	71	114	127	193	207	275	450	478	472	328	205	200	—	**3,120**
Cyclosporiasis	4	12	9	9	19	17	26	27	7	11	3	7	—	**151**
Dengue fever	19	18	11	9	5	5	44	48	31	30	19	12	—	**251**
Dengue hemorrhagic fever	—	—	1	—	—	—	—	—	—	1	1	—	—	**3**
Ehrlichiosis/Anaplasmosis	14	20	19	42	218	630	712	270	162	166	151	171	—	**2,575**
Ehrlichia chaffeensis	7	7	5	25	55	111	283	119	75	49	32	82	—	**850**
Ehrlichia ewingii	—	—	—	—	2	2	2	6	1	—	—	—	—	**13**
Undetermined	—	—	2	8	16	30	36	14	14	13	6	9	—	**148**
Giardiasis	1,000	1,091	1,115	1,331	1,057	1,177	1,701	1,734	1,771	2,011	1,154	1,605	—	**16,747**
Gonorrhea	23,459	23,117	23,719	29,724	24,189	23,374	30,177	26,095	26,272	34,117	24,310	33,296	—	**321,849**
Haemophilus influenzae, invasive disease, all ages, serotypes	297	258	289	340	321	329	292	204	180	291	259	479	—	**3,539**
age<5 yrs														
serotype b	—	1	—	2	2	1	1	1	1	1	1	3	—	**14**
nonserotype b	10	15	25	14	17	10	7	7	5	12	11	12	—	**145**
unknown serotype	18	18	24	21	23	18	15	16	16	18	12	27	—	**226**
Hansen disease (leprosy)	5	6	—	15	12	3	9	7	3	7	2	13	—	**82**
Hantavirus pulmonary syndrome	3	—	2	4	2	3	7	1	—	—	1	—	—	**23**
Hemolytic uremic syndrome post-diarrheal	7	5	6	16	15	22	44	43	27	46	31	28	—	**290**
Hepatitis, virus, acute														
A	97	94	86	113	110	106	133	130	135	125	91	178	—	**1,398**
B	193	218	213	246	184	263	265	232	269	252	221	347	—	**2,903**
C	77	68	101	123	90	97	112	103	105	106	87	160	—	**1,229**
HIV diagnoses§	3,623	3,298	3,880	3,392	3,531	3,502	3,102	3,277	2,822	2,662	1,757	415	5	**35,266**
Influenza-associated pediatric mortality¶	15	36	33	12	6	6	2	—	2	—	4	2	—	**118**
Legionellosis	144	164	153	163	180	279	514	483	662	720	348	392	—	**4,202**
Listeriosis	40	29	34	37	49	44	74	106	155	144	62	96	—	**870**
Lyme disease, total	664	691	804	1,207	1,847	5,170	9,249	4,498	2,781	2,627	1,677	1,882	—	**33,097**
confirmed	457	458	548	817	1,286	3,969	7,289	3,347	2,013	1,844	1,112	1,224	—	**24,364**
probable	207	233	256	390	561	1,201	1,960	1,151	768	783	565	658	—	**8,733**
Malaria	108	96	74	106	120	155	220	218	190	171	107	159	—	**1,724**
Measles, total	8	15	21	33	51	37	19	11	12	10	2	1	—	**220**
indigenous	3	6	10	22	34	31	17	2	4	8	2	1	—	**140**
imported	5	9	11	11	17	6	2	9	8	2	—	—	—	**80**
Meningococcal disease., invasive, all serogroups	65	77	85	93	64	58	47	39	40	54	51	86	—	**759**
serogroup A,C,Y, and W-135	21	21	39	30	21	27	19	10	15	15	12	27	—	**257**
serogroup B	9	18	19	21	14	10	2	7	9	18	13	19	—	**159**
serogroup other	—	—	3	2	2	—	1	2	—	1	4	5	—	**20**
serogroup unknown	35	38	24	40	27	21	25	20	16	20	22	35	—	**323**

See table footnotes on page 27.

TABLE 1. (*Continued*) Reported cases of notifiable diseases,* by month — United States, 2011

Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Month not stated	Total
Mumps	22	44	26	28	23	14	20	25	34	81	32	55	—	**404**
Novel influenza A virus infection	—	—	—	—	—	—	1	1	2	2	4	4	—	**14**
Pertussis	1,438	1,412	1,219	1,325	970	975	1,507	1,333	1,393	1,919	1,947	3,281	—	**18,719**
Plague	—	—	—	1	1	—	—	—	1	—	—	—	—	**3**
Psittacosis	—	—	1	—	—	—	—	—	1	—	—	—	—	**2**
Q fever, total	—	6	4	10	6	20	10	11	12	10	11	34	—	**134**
acute	—	4	2	8	6	18	10	8	10	8	9	27	—	**110**
chronic	—	2	2	2	—	2	—	3	2	2	2	7	—	**24**
Rabies														
animal	170	304	268	448	411	404	461	440	424	424	296	307	—	**4,357**
human	—	—	—	1	—	1	—	—	1	—	—	3	—	**6**
Rubella	—	—	—	—	2	1	—	—	—	—	1	—	—	**4**
Salmonellosis	1,947	1,807	2,029	3,401	3,572	4,415	7,195	6,777	6,143	6,223	3,905	4,473	—	**51,887**
Shiga toxin-producing *E. coli* (STEC)	171	166	238	394	363	567	943	898	625	732	426	524	—	**6,047**
Shigellosis	671	600	609	923	917	1,298	1,406	1,213	1,179	1,530	1,314	1,692	—	**13,352**
Spotted fever rickettsiosis, total	23	24	29	64	135	191	542	482	305	324	181	502	—	**2,802**
confirmed	8	—	6	14	14	23	59	39	20	21	14	16	—	**234**
probable	15	24	22	49	121	168	480	443	285	302	167	486	—	**2,562**
Streptococcal toxic-shock syndrome	15	19	24	19	14	9	13	6	3	9	10	27	—	**168**
Streptococcus pneumoniae, invasive disease														
all ages	1,786	1,870	1,952	2,153	1,445	1,014	755	556	668	1,222	1,308	2,409	—	**17,138**
age <5 yrs	118	125	177	198	113	78	70	49	72	124	133	202	—	**1,459**
Syphilis, total, all stages**,††	3,128	3,507	3,690	4,550	3,654	3,663	4,363	3,642	3,502	4,538	3,067	4,738	—	**46,042**
congenital (age <1 yr)**	35	47	27	27	28	26	36	32	28	19	28	27	—	**360**
primary and secondary**	905	1,043	1,099	1,369	1,032	1,074	1,306	1,119	1,114	1,423	970	1,516	—	**13,970**
Tetanus	1	2	—	4	5	1	5	3	5	2	4	4	—	**36**
Toxic-shock syndrome (other than streptococcal)	6	6	6	5	5	7	3	9	5	8	5	13	—	**78**
Trichinellosis	1	2	1	5	1	1	—	—	—	1	—	3	—	**15**
Tuberculosis§§	510	631	890	860	849	992	786	904	886	956	807	1,457	—	**10,528**
Tularemia	—	—	1	6	26	27	30	18	16	18	13	11	—	**166**
Typhoid fever	23	37	30	41	35	39	24	35	45	30	18	33	—	**390**
Vancomycin-intermediate *Staphylococcus aureus* (VISA)	4	4	4	9	5	5	10	7	9	9	6	10	—	**82**
Varicella (Chickenpox)														
morbidity	1,121	1,089	1,382	1,677	1,406	952	744	629	1,002	1,679	1,230	1,602	—	**14,513**
mortality¶¶	—	2	—	—	—	—	1	—	1	1	—	—	—	**5**
Vibriosis	11	14	20	55	53	65	144	146	117	97	47	63	—	**832**

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin resistant staphylococcus aureus; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on Hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Totals reported to the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (ArboNET Surveillance), as of June 1, 2012.

§ Total number of HIV diagnoses case counts was reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) through December 31, 2011.

¶ Totals reported to the Division of Influenza, National Center for Immunization and Respiratory Diseases (NCIRD), as of December 31, 2011.

** Totals reported to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), as of June 7, 2012.

†† Includes the following categories: primary, secondary, latent (including early latent, late latent, and latent syphilis of unknown duration), neurosyphilis, late (including late syphilis with clinical manifestations other than neurosyphilis), and congenital syphilis. Totals reported to the Division of STD Prevention, NCHHSTP, as of June 7, 2012.

§§ Totals reported to the Division of Tuberculosis Elimination, NCHHSTP, as of June 25, 2012.

¶¶ Totals reported to the Division of Viral Diseases, NCIRD, as of June 30, 2012.

TABLE 2. Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Total resident population (in thousands)	Anthrax	Arboviral diseases†								
			California serogroup viruses		Eastern equine encephalitis virus	Powassan virus		St. Louis encephalitis virus		West Nile virus	
			Neuro-invasive	Nonneuro-invasive	Neuro-invasive	Neuro-invasive	Nonneuro-invasive	Neuro-invasive	Nonneuro-invasive	Neuro-invasive	Nonneuro-invasive
United States	**309,049**	1	120	17	4	12	4	4	2	486	226
New England	**14,474**	—	—	—	1	—	—	—	—	15	2
Connecticut	**3,527**	—	—	—	—	—	—	—	—	8	1
Maine	**1,313**	—	—	—	—	—	—	—	—	—	—
Massachusetts	**6,631**	—	—	—	1	—	—	—	—	5	1
New Hampshire	**1,324**	—	—	—	—	—	—	—	—	—	—
Rhode Island	**1,057**	—	—	—	—	—	—	—	—	1	—
Vermont	**622**	—	—	—	—	—	—	—	—	1	—
Mid. Atlantic	**40,943**	—	—	—	1	1	—	—	—	35	22
New Jersey	**8,733**	—	—	—	—	—	—	—	—	2	5
New York (Upstate)	**11,146**	—	—	—	1	—	—	—	—	19	14
New York City	**8,431**	—	—	—	—	—	—	—	—	9	2
Pennsylvania	**12,633**	—	—	—	—	1	—	—	—	5	1
E.N. Central	**46,521**	—	51	12	1	2	2	—	—	73	28
Illinois	**12,944**	—	1	—	—	—	—	—	—	22	12
Indiana	**6,445**	—	2	—	—	—	—	—	—	7	2
Michigan	**9,931**	—	1	—	—	—	—	—	—	32	2
Ohio	**11,532**	—	44	6	—	—	—	—	—	10	11
Wisconsin	**5,669**	—	3	6	1	2	2	—	—	2	1
W.N. Central	**20,451**	—	1	—	1	9	2	—	1	31	29
Iowa	**3,023**	—	—	—	—	—	—	—	—	5	4
Kansas	**2,841**	—	—	—	—	—	—	—	—	4	—
Minnesota	**5,290**	—	1	—	—	9	2	—	—	1	1
Missouri	**6,012**	—	—	—	1	—	—	—	1	6	4
Nebraska	**1,811**	—	—	—	—	—	—	—	—	14	15
North Dakota	**654**	—	—	—	—	—	—	—	—	1	3
South Dakota	**820**	—	—	—	—	—	—	—	—	—	2
S. Atlantic	**59,659**	1	52	5	—	—	—	—	1	67	27
Delaware	**891**	—	—	—	—	—	—	—	—	1	—
District of Columbia	**611**	—	—	—	—	—	—	—	—	10	5
Florida	**18,678**	1	1	—	—	—	—	—	—	20	4
Georgia	**9,908**	—	2	—	—	—	—	—	—	14	8
Maryland	**5,737**	—	—	—	—	—	—	—	1	10	9
North Carolina	**9,459**	—	26	—	—	—	—	—	—	2	—
South Carolina	**4,597**	—	1	—	—	—	—	—	—	—	—
Virginia	**7,952**	—	—	1	—	—	—	—	—	8	1
West Virginia	**1,826**	—	22	4	—	—	—	—	—	2	—
E.S. Central	**18,367**	—	15	—	—	—	—	1	—	56	24
Alabama	**4,730**	—	1	—	—	—	—	1	—	5	—
Kentucky	**4,339**	—	1	—	—	—	—	—	—	4	1
Mississippi	**2,960**	—	1	—	—	—	—	—	—	31	21
Tennessee	**6,338**	—	12	—	—	—	—	—	—	16	2
W.S. Central	**36,376**	—	—	—	—	—	—	3	—	28	11
Arkansas	**2,910**	—	—	—	—	—	—	3	—	1	—
Louisiana	**4,529**	—	—	—	—	—	—	—	—	6	4
Oklahoma	**3,724**	—	—	—	—	—	—	—	—	1	—
Texas	**25,213**	—	—	—	—	—	—	—	—	20	7
Mountain	**22,380**	—	1	—	—	—	—	—	—	71	35
Arizona	**6,677**	—	1	—	—	—	—	—	—	49	20
Colorado	**5,095**	—	—	—	—	—	—	—	—	2	5
Idaho	**1,560**	—	—	—	—	—	—	—	—	1	2
Montana	**980**	—	—	—	—	—	—	—	—	1	—
Nevada	**2,655**	—	—	—	—	—	—	—	—	12	4
New Mexico	**2,034**	—	—	—	—	—	—	—	—	4	—
Utah	**2,831**	—	—	—	—	—	—	—	—	1	2
Wyoming	**548**	—	—	—	—	—	—	—	—	1	2
Pacific	**49,878**	—	—	—	—	—	—	—	—	110	48
Alaska	**709**	—	—	—	—	—	—	—	—	—	—
California	**37,267**	—	—	—	—	—	—	—	—	110	48
Hawaii	**1,300**	—	—	—	—	—	—	—	—	—	—
Oregon	**3,856**	—	—	—	—	—	—	—	—	—	—
Washington	**6,746**	—	—	—	—	—	—	—	—	—	—
Territories											
American Samoa	**55**	—	—	—	—	—	—	—	—	—	—
C.N.M.I.	**54**	—	—	—	—	—	—	—	—	—	—
Guam	**159**	—	—	—	—	—	—	—	—	—	—
Puerto Rico	**3,722**	—	—	—	—	—	—	—	—	—	—
U.S. Virgin Islands	**106**	—	—	—	—	—	—	—	—	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Totals reported to the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (ArboNET Surveillance), as of April 17, 2012.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Babesiosis	Botulism				Brucellosis	Chancroid§	*Chlamydia trachomatis* infection§
		Total	Foodborne	Infant	Other†			
United States	1,128	**153**	24	97	32	79	8	1,412,791
New England	378	—	—	—	—	1	2	48,146
Connecticut	74	—	—	—	—	—	—	13,649
Maine	9	—	—	—	—	—	—	3,094
Massachusetts	208	—	—	—	—	1	2	22,764
New Hampshire	13	—	—	—	—	—	—	3,010
Rhode Island	73	—	—	—	—	—	—	4,146
Vermont	1	—	—	—	—	—	—	1,483
Mid. Atlantic	584	**29**	2	27	—	7	—	181,856
New Jersey	166	**11**	—	11	—	1	—	26,209
New York (Upstate)	361	**2**	1	1	—	—	—	37,494
New York City	57	**4**	1	3	—	3	—	65,269
Pennsylvania	N	**12**	—	12	—	3	—	52,884
E.N. Central	80	**3**	2	1	—	10	1	219,580
Illinois	N	—	—	—	—	8	—	64,939
Indiana	—	**1**	1	—	—	—	—	27,801
Michigan	—	—	—	—	—	1	1	49,568
Ohio	N	**2**	1	1	—	1	—	52,653
Wisconsin	80	—	—	—	—	—	—	24,619
W.N. Central	74	**2**	—	1	1	1	—	78,726
Iowa	N	—	—	—	—	1	—	10,705
Kansas	N	**1**	—	1	—	—	—	10,598
Minnesota	73	**1**	—	—	1	—	—	16,902
Missouri	N	—	—	—	—	—	—	27,887
Nebraska	—	—	—	—	—	—	—	6,780
North Dakota	1	—	—	—	—	—	—	2,445
South Dakota	N	—	—	—	—	—	—	3,409
S. Atlantic	5	**9**	1	8	—	13	2	293,101
Delaware	1	**2**	—	2	—	—	—	4,508
District of Columbia	N	—	—	—	—	—	—	6,585
Florida	N	—	—	—	—	6	—	76,033
Georgia	—	**1**	1	—	—	5	—	54,403
Maryland	4	**2**	—	2	—	1	—	27,212
North Carolina	N	**2**	—	2	—	—	—	54,819
South Carolina	N	—	—	—	—	1	2	28,932
Virginia	N	**2**	—	2	—	—	—	36,314
West Virginia	N	—	—	—	—	—	—	4,295
E.S. Central	2	**7**	—	7	—	4	—	98,576
Alabama	1	—	—	—	—	1	—	29,626
Kentucky	N	**2**	—	2	—	—	—	16,629
Mississippi	N	**2**	—	2	—	1	—	21,216
Tennessee	1	**3**	—	3	—	2	—	31,105
W.S. Central	—	**6**	1	4	1	15	1	187,144
Arkansas	N	—	—	—	—	3	—	16,052
Louisiana	N	—	—	—	—	—	—	31,614
Oklahoma	N	**1**	1	—	—	1	—	14,596
Texas	N	**5**	—	4	1	11	1	124,882
Mountain	—	**26**	10	15	1	10	1	90,226
Arizona	N	**5**	2	3	—	3	1	29,251
Colorado	N	**4**	—	3	1	—	—	21,811
Idaho	N	**2**	—	2	—	2	—	4,699
Montana	—	—	—	—	—	—	—	3,406
Nevada	N	**1**	—	1	—	—	—	10,507
New Mexico	N	**2**	—	2	—	2	—	11,374
Utah	N	**12**	8	4	—	3	—	7,086
Wyoming	—	—	—	—	—	—	—	2,092
Pacific	5	**71**	8	34	29	18	1	215,436
Alaska	N	**6**	6	—	—	—	—	5,739
California	4	**58**	1	30	27	15	1	166,773
Hawaii	N	—	—	—	—	1	—	6,001
Oregon	1	**2**	1	1	—	1	—	13,643
Washington	—	**5**	—	3	2	1	—	23,280
Territories								
American Samoa	—	—	—	—	—	—	—	—
C.N.M.I.	—	—	—	—	—	—	—	—
Guam	—	—	—	—	—	—	—	1,071
Puerto Rico	N	—	—	—	N	—	—	5,634
U.S. Virgin Islands	N	—	—	—	—	—	—	820

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Includes cases reported as wound and unspecified botulism.

§ Totals reported to the Division of STD Prevention, NCHHSTP, as of June 7, 2012.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Cholera	Coccidioidomycosis	Cryptosporidiosis			Cyclosporiasis	Dengue virus infection†	
			Total	Confirmed	Probable		Dengue fever	Dengue hemorrhagic fever
United States	40	22,634	**9,250**	6,130	3,120	151	251	3
New England	4	2	**418**	358	60	12	4	—
Connecticut	—	N	**71**	71	—	10	1	—
Maine	—	N	**51**	19	32	N	—	—
Massachusetts	4	—	**168**	168	—	2	—	—
New Hampshire	—	1	**68**	40	28	—	—	—
Rhode Island	—	1	**12**	12	—	—	—	—
Vermont	—	N	**48**	48	—	N	3	—
Mid. Atlantic	14	6	**904**	824	80	38	69	—
New Jersey	1	N	**56**	55	1	8	—	—
New York (Upstate)	2	N	**234**	226	8	11	8	—
New York City	10	N	**86**	86	—	19	45	—
Pennsylvania	1	6	**528**	457	71	N	16	—
E.N. Central	2	56	**2,676**	1,476	1,200	7	21	2
Illinois	1	N	**213**	31	182	—	6	2
Indiana	—	N	**261**	79	182	—	2	—
Michigan	1	36	**358**	325	33	7	6	—
Ohio	—	20	**1,106**	303	803	—	2	—
Wisconsin	—	—	**738**	738	—	—	5	—
W.N. Central	1	130	**1,563**	714	849	3	13	—
Iowa	—	N	**364**	61	303	1	5	—
Kansas	1	N	**42**	42	—	—	1	—
Minnesota	—	104	**309**	309	—	—	6	—
Missouri	—	18	**495**	156	339	1	—	—
Nebraska	—	8	**175**	124	51	1	—	—
North Dakota	—	N	**32**	1	31	N	1	—
South Dakota	—	N	**146**	21	125	—	—	—
S. Atlantic	13	5	**1,239**	791	448	69	92	1
Delaware	—	—	**7**	7	—	1	2	—
District of Columbia	—	—	**N**	—	—	N	—	—
Florida	11	N	**437**	203	234	58	66	—
Georgia	1	N	**307**	307	—	6	6	—
Maryland	—	5	**70**	66	4	1	6	—
North Carolina	—	N	**115**	69	46	1	4	—
South Carolina	—	N	**132**	66	66	—	1	—
Virginia	1	N	**140**	54	86	2	7	1
West Virginia	—	N	**31**	19	12	—	—	—
E.S. Central	2	—	**457**	301	156	2	11	—
Alabama	—	N	**138**	16	122	N	4	—
Kentucky	2	N	**177**	160	17	N	4	—
Mississippi	—	N	**50**	50	—	N	—	—
Tennessee	—	N	**92**	75	17	2	3	—
W.S. Central	1	3	**712**	579	133	15	10	—
Arkansas	—	N	**32**	32	—	—	—	—
Louisiana	—	3	**87**	87	—	1	3	—
Oklahoma	—	N	**89**	2	87	—	—	—
Texas	1	N	**504**	458	46	14	7	—
Mountain	1	16,712	**641**	552	89	1	6	—
Arizona	—	16,467	**46**	42	4	—	2	—
Colorado	—	N	**147**	126	21	—	—	—
Idaho	—	N	**111**	79	32	N	—	—
Montana	—	5	**77**	77	—	N	—	—
Nevada	—	104	**17**	3	14	N	1	—
New Mexico	1	75	**134**	134	—	1	2	—
Utah	—	58	**63**	62	1	—	1	—
Wyoming	—	3	**46**	29	17	—	—	—
Pacific	2	5,720	**640**	535	105	4	25	—
Alaska	1	N	**12**	12	—	N	—	—
California	1	5,697	**332**	332	—	—	5	—
Hawaii	—	N	**1**	1	—	—	11	—
Oregon	—	13	**207**	179	28	—	—	—
Washington	—	10	**88**	11	77	4	9	—
Territories								
American Samoa	—	N	**N**	—	—	N	—	—
C.N.M.I.	—	—	**—**	—	—	—	—	—
Guam	—	—	**—**	—	—	—	—	—
Puerto Rico	1	N	**N**	—	—	N	1,507	34
U.S. Virgin Islands	—	—	**—**	—	—	—	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Total number of reported laboratory-positive dengue cases including all confirmed cases (by anti-dengue virus [DENV] molecular diagnostic methods or seroconversion of anti-DENV IgM) and all probable cases (by a single, positive anti-DENV IgM). Totals reported to the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (ArboNET Surveillance), as of April 17, 2012.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Ehrlichiosis/Anaplasmosis				Giardiasis	Gonorrhea†
	Anaplasma phagocytophilum	*Ehrlichia chaffeensis*	*Ehrlichia ewingii*	Undetermined		
United States	2,575	850	13	148	16,747	321,849
New England	461	4	—	2	1,594	5,612
Connecticut	152	—	—	—	233	2,449
Maine	26	1	—	—	171	272
Massachusetts	172	—	—	—	758	2,353
New Hampshire	31	1	—	1	130	130
Rhode Island	72	2	—	1	79	360
Vermont	8	—	—	—	223	48
Mid. Atlantic	482	108	—	25	3,293	41,824
New Jersey	126	60	—	7	437	7,348
New York (Upstate)	314	41	—	11	1,144	6,240
New York City	36	4	—	—	917	14,466
Pennsylvania	6	3	—	7	795	13,770
E.N. Central	710	42	—	58	2,657	58,022
Illinois	11	25	—	—	407	17,037
Indiana	—	—	—	18	324	6,569
Michigan	—	4	—	5	550	12,901
Ohio	9	6	—	1	799	16,726
Wisconsin	690	7	—	34	577	4,789
W.N. Central	808	178	6	25	1,769	16,420
Iowa	N	N	N	N	271	1,920
Kansas	6	18	—	1	139	2,209
Minnesota	770	7	1	10	672	2,284
Missouri	25	151	5	13	344	7,802
Nebraska	1	1	—	1	179	1,352
North Dakota	3	—	—	—	54	251
South Dakota	3	1	—	—	110	602
S. Atlantic	72	272	6	16	2,756	79,089
Delaware	1	15	2	—	34	827
District of Columbia	N	N	N	N	56	2,569
Florida	11	15	—	—	1,255	19,689
Georgia	11	23	1	3	651	16,428
Maryland	7	33	2	—	291	6,458
North Carolina	21	83	—	1	N	17,454
South Carolina	—	2	—	1	117	8,350
Virginia	21	100	1	9	290	6,518
West Virginia	—	1	—	2	62	796
E.S. Central	15	78	1	14	171	27,134
Alabama	4	5	—	—	171	9,132
Kentucky	—	16	—	—	N	4,521
Mississippi	1	3	—	—	N	5,814
Tennessee	10	54	1	14	N	7,667
W.S. Central	20	167	—	1	349	49,001
Arkansas	8	53	—	—	123	4,687
Louisiana	1	—	—	1	226	9,169
Oklahoma	9	110	—	—	—	4,215
Texas	2	4	—	—	N	30,930
Mountain	1	—	—	5	1,326	11,336
Arizona	—	—	—	4	133	4,564
Colorado	N	N	N	N	445	2,363
Idaho	N	N	N	N	178	162
Montana	N	N	N	N	86	85
Nevada	—	—	—	—	79	2,000
New Mexico	N	N	N	N	108	1,839
Utah	—	—	—	1	256	277
Wyoming	1	—	—	—	41	46
Pacific	6	1	—	2	2,832	33,411
Alaska	N	N	N	N	101	984
California	—	—	—	2	1,728	27,516
Hawaii	N	N	N	N	38	685
Oregon	6	—	—	—	436	1,489
Washington	—	1	—	—	529	2,737
Territories						
American Samoa	N	N	N	N	—	—
C.N.M.I.	—	—	—	—	—	—
Guam	N	N	N	N	—	96
Puerto Rico	N	N	N	N	84	341
U.S. Virgin Islands	—	—	—	—	—	139

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Totals reported to the Division of STD Prevention, NCHHSTP, as of June 7, 2012.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	*Haemophilus influenza*, invasive disease				Hansen disease (leprosy)	Hantavirus pulmonary syndrome	Hemolytic uremic syndrome, postdiarrheal
	All ages, serotypes	Age <5 years					
		Serotype b	Nonserotype b	Unknown serotype			
United States	**3,539**	14	145	226	82	23	290
New England	**252**	—	9	6	3	—	12
Connecticut	**65**	—	—	4	—	N	2
Maine	**26**	—	1	—	N	—	2
Massachusetts	**121**	—	7	—	2	—	5
New Hampshire	**17**	—	1	1	—	—	—
Rhode Island	**16**	—	—	—	1	—	2
Vermont	**7**	—	—	1	N	—	1
Mid. Atlantic	**771**	—	13	45	4	1	21
New Jersey	**123**	—	—	9	—	—	4
New York (Upstate)	**195**	—	8	1	N	1	13
New York City	**187**	—	—	15	4	—	4
Pennsylvania	**266**	—	5	20	—	—	N
E.N. Central	**645**	3	30	28	3	—	36
Illinois	**188**	—	6	8	—	—	7
Indiana	**117**	1	9	—	1	—	—
Michigan	**72**	—	—	14	—	—	9
Ohio	**173**	2	15	—	2	—	5
Wisconsin	**95**	—	—	6	—	—	15
W.N. Central	**224**	2	4	23	2	2	49
Iowa	**3**	—	—	—	—	1	13
Kansas	**23**	—	—	3	—	—	4
Minnesota	**71**	1	3	—	—	—	12
Missouri	**80**	—	—	13	2	—	20
Nebraska	**30**	1	1	4	—	—	—
North Dakota	**16**	—	—	3	N	—	—
South Dakota	**1**	—	—	—	—	1	—
S. Atlantic	**783**	2	25	46	14	—	24
Delaware	**6**	—	—	—	—	—	—
District of Columbia	**1**	—	—	—	—	N	N
Florida	**232**	—	—	23	11	—	4
Georgia	**140**	—	10	10	—	—	7
Maryland	**95**	1	7	1	2	—	2
North Carolina	**85**	—	—	8	—	—	5
South Carolina	**79**	—	2	3	—	—	3
Virginia	**108**	1	5	—	1	—	3
West Virginia	**37**	—	1	1	N	—	—
E.S. Central	**225**	3	14	7	1	—	25
Alabama	**57**	1	5	—	—	N	9
Kentucky	**41**	—	1	4	—	—	N
Mississippi	**19**	1	1	—	1	N	1
Tennessee	**108**	1	7	3	—	—	15
W.S. Central	**163**	—	9	13	19	—	41
Arkansas	**35**	—	5	—	2	—	12
Louisiana	**53**	—	—	13	1	—	—
Oklahoma	**73**	—	4	—	N	—	7
Texas	**2**	—	N	N	16	—	22
Mountain	**294**	3	31	16	2	16	25
Arizona	**95**	1	13	2	—	3	5
Colorado	**67**	—	5	—	—	3	6
Idaho	**21**	—	2	1	—	1	3
Montana	**3**	—	—	—	—	2	1
Nevada	**17**	—	—	3	1	2	2
New Mexico	**47**	—	2	10	—	5	2
Utah	**42**	2	9	—	1	—	5
Wyoming	**2**	—	—	—	—	—	1
Pacific	**182**	1	10	42	34	4	57
Alaska	**26**	—	—	11	—	N	N
California	**44**	—	—	27	14	—	42
Hawaii	**32**	—	—	4	20	—	1
Oregon	**72**	—	3	—	N	2	14
Washington	**8**	1	7	—	N	2	—
Territories							
American Samoa	**—**	—	—	—	—	N	N
C.N.M.I.	**—**	—	—	—	—	—	—
Guam	**—**	—	—	—	—	N	—
Puerto Rico	**—**	—	—	—	—	—	N
U.S. Virgin Islands	**N**	—	—	—	—	N	N

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Hepatitis, viral, acute A	Hepatitis, viral, acute B	Hepatitis, viral, acute C	HIV diagnoses†	Influenza-associated pediatric mortality§	Legionellosis	Listeriosis
United States	1,398	2,903	1,229	35,266	118	4,202	870
New England	77	97	88	1,003	4	406	61
Connecticut	18	19	47	305	1	81	18
Maine	6	8	12	46	1	18	4
Massachusetts	39	67	23	523	1	240	32
New Hampshire	—	3	N	40	—	26	4
Rhode Island	8	U	U	88	—	29	3
Vermont	6	—	6	1	1	12	—
Mid. Atlantic	252	291	140	5,628	15	1,353	158
New Jersey	79	73	53	812	4	235	33
New York (Upstate)	47	54	44	1,301	2	400	48
New York City	66	80	8	2,246	3	216	30
Pennsylvania	60	84	35	1,269	6	502	47
E.N. Central	214	353	143	3,641	19	864	116
Illinois	73	85	6	1,351	7	151	34
Indiana	24	70	84	434	2	71	11
Michigan	70	91	32	610	6	187	29
Ohio	39	90	6	987	1	386	29
Wisconsin	8	17	15	259	3	69	13
W.N. Central	59	124	35	1,085	9	122	62
Iowa	8	15	—	116	—	11	5
Kansas	4	15	8	126	—	14	14
Minnesota	27	20	17	283	3	29	6
Missouri	13	60	8	481	1	55	21
Nebraska	5	12	2	46	—	8	9
North Dakota	—	—	—	12	1	3	6
South Dakota	2	2	—	21	4	2	1
S. Atlantic	222	775	284	10,925	22	640	111
Delaware	2	13	U	99	—	24	—
District of Columbia	—	—	—	495	—	N	N
Florida	87	213	64	4,890	2	185	38
Georgia	27	142	53	1,431	4	55	9
Maryland	26	62	35	851	—	143	19
North Carolina	31	109	60	1,439	10	83	21
South Carolina	11	39	1	771	—	25	6
Virginia	30	84	25	857	5	93	15
West Virginia	8	113	46	92	1	32	3
E.S. Central	48	519	248	2,191	2	180	22
Alabama	8	119	23	592	—	29	9
Kentucky	10	151	142	233	2	53	4
Mississippi	7	57	U	552	—	14	4
Tennessee	23	192	83	814	—	84	5
W.S. Central	157	423	97	4,967	16	165	79
Arkansas	3	57	—	199	—	14	6
Louisiana	5	62	7	1,281	1	25	7
Oklahoma	11	100	53	262	4	15	15
Texas	138	204	37	3,225	11	111	51
Mountain	129	88	85	1,410	12	147	98
Arizona	77	14	U	494	4	46	8
Colorado	21	23	28	362	3	41	51
Idaho	6	2	12	16	—	9	5
Montana	3	—	9	17	—	1	3
Nevada	5	29	10	320	3	16	5
New Mexico	7	10	14	111	1	12	15
Utah	8	10	10	76	1	18	5
Wyoming	2	—	2	14	—	4	6
Pacific	240	233	109	4,416	19	325	163
Alaska	4	3	—	25	—	—	—
California	186	157	48	3,679	16	261	123
Hawaii	8	6	—	50	1	5	12
Oregon	11	32	20	213	1	22	9
Washington	31	35	41	449	1	37	19
Territories							
American Samoa	—	—	—	—	—	N	N
C.N.M.I.	—	—	—	—	—	—	—
Guam	43	120	70	1	—	—	—
Puerto Rico	21	28	N	436	—	9	—
U.S. Virgin Islands	—	5	—	22	—	1	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Total number of HIV cases reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) through December 31, 2011.

§ Totals reported to the Division of Influenza, National Center for Immunization and Respiratory Diseases (NCIRD), as of December 31, 2011.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Lyme disease			Malaria	Measles		
	Total	Confirmed	Probable		Total	Indigenous	Imported†
United States	**33,097**	24,364	8,733	1,724	**220**	140	80
New England	**8,602**	6,080	2,522	109	**28**	18	10
Connecticut	**3,039**	2,004	1,035	20	**1**	—	1
Maine	**1,006**	801	205	6	**—**	—	—
Massachusetts	**2,476**	1,801	675	68	**24**	17	7
New Hampshire	**1,299**	887	412	3	**1**	—	1
Rhode Island	**159**	111	48	6	**1**	—	1
Vermont	**623**	476	147	6	**1**	1	—
Mid. Atlantic	**14,114**	11,255	2,859	438	**49**	35	14
New Jersey	**4,262**	3,398	864	97	**4**	3	1
New York (Upstate)	**3,759**	2,678	1,081	53	**7**	4	3
New York City	**731**	440	291	227	**25**	16	9
Pennsylvania	**5,362**	4,739	623	61	**13**	12	1
E.N. Central	**4,094**	2,808	1,286	174	**21**	15	6
Illinois	**194**	194	—	66	**3**	1	2
Indiana	**94**	81	13	14	**14**	13	1
Michigan	**104**	89	15	34	**2**	1	1
Ohio	**53**	36	17	41	**—**	—	—
Wisconsin	**3,649**	2,408	1,241	19	**2**	—	2
W.N. Central	**2,291**	1,304	987	109	**34**	30	4
Iowa	**100**	72	28	22	**1**	—	1
Kansas	**17**	11	6	10	**6**	6	—
Minnesota	**2,124**	1,185	939	46	**26**	23	3
Missouri	**8**	5	3	21	**—**	—	—
Nebraska	**11**	7	4	8	**—**	—	—
North Dakota	**27**	22	5	—	**1**	1	—
South Dakota	**4**	2	2	2	**—**	—	—
S. Atlantic	**3,637**	2,720	917	478	**20**	7	13
Delaware	**873**	767	106	7	**1**	1	—
District of Columbia	**N**	—	—	18	**N**	—	—
Florida	**115**	78	37	99	**8**	3	5
Georgia	**32**	32	—	91	**—**	—	—
Maryland	**1,351**	938	413	128	**2**	—	2
North Carolina	**88**	18	70	49	**2**	—	2
South Carolina	**37**	24	13	7	**—**	—	—
Virginia	**1,023**	756	267	78	**7**	3	4
West Virginia	**118**	107	11	1	**—**	—	—
E.S. Central	**69**	20	49	41	**4**	1	3
Alabama	**24**	9	15	9	**—**	—	—
Kentucky	**3**	3	—	10	**1**	—	1
Mississippi	**5**	3	2	1	**—**	—	—
Tennessee	**37**	5	32	21	**3**	1	2
W.S. Central	**78**	31	47	121	**6**	5	1
Arkansas	**—**	—	—	7	**—**	—	—
Louisiana	**2**	1	1	2	**—**	—	—
Oklahoma	**2**	2	—	10	**—**	—	—
Texas	**74**	28	46	102	**6**	5	1
Mountain	**52**	32	20	67	**20**	13	7
Arizona	**15**	8	7	21	**2**	—	2
Colorado	**—**	—	—	24	**—**	—	—
Idaho	**4**	3	1	2	**—**	—	—
Montana	**11**	9	2	2	**—**	—	—
Nevada	**5**	3	2	8	**1**	—	1
New Mexico	**6**	2	4	5	**4**	1	3
Utah	**9**	6	3	5	**13**	12	1
Wyoming	**2**	1	1	—	**—**	—	—
Pacific	**160**	114	46	187	**38**	16	22
Alaska	**11**	9	2	5	**—**	—	—
California	**92**	79	13	129	**31**	12	19
Hawaii	**N**	N	N	7	**—**	—	—
Oregon	**38**	9	29	22	**3**	2	1
Washington	**19**	17	2	24	**4**	2	2
Territories							
American Samoa	**N**	—	—	1	**—**	—	—
C.N.M.I.	**—**	—	—	—	**—**	—	—
Guam	**—**	—	—	—	**—**	—	—
Puerto Rico	**N**	—	—	1	**—**	—	—
U.S. Virgin Islands	**N**	—	—	—	**—**	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

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

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Meningococcal disease					Mumps	Novel influenza A virus infections
	All serogroups	Serogroup A, C, Y, and W-135	Serogroup B	Serogroup other	Serogroup unknown		
United States	**759**	257	159	20	323	404	14
New England	**29**	18	7	2	2	12	2
Connecticut	**3**	2	—	—	1	—	—
Maine	**5**	3	2	—	—	2	2
Massachusetts	**14**	8	3	2	1	4	—
New Hampshire	**1**	1	—	—	—	—	—
Rhode Island	**1**	—	1	—	—	5	—
Vermont	**5**	4	1	—	—	1	—
Mid. Atlantic	**92**	20	5	1	66	55	3
New Jersey	**13**	—	—	—	13	13	—
New York (Upstate)	**23**	18	4	1	—	10	—
New York City	**31**	—	—	—	31	29	—
Pennsylvania	**25**	2	1	—	22	3	3
E.N. Central	**115**	59	44	6	6	110	3
Illinois	**35**	19	12	1	3	78	—
Indiana	**25**	12	12	1	—	3	2
Michigan	**12**	4	6	1	1	9	—
Ohio	**24**	13	7	2	2	16	—
Wisconsin	**19**	11	7	1	—	4	1
W.N. Central	**63**	15	15	3	30	35	4
Iowa	**14**	6	6	1	1	8	3
Kansas	**5**	—	—	—	5	4	—
Minnesota	**15**	6	8	1	—	2	1
Missouri	**15**	—	—	—	15	11	—
Nebraska	**11**	3	1	1	6	6	—
North Dakota	**—**	—	—	—	—	4	—
South Dakota	**3**	—	—	—	3	—	—
S. Atlantic	**135**	42	23	4	66	46	2
Delaware	**1**	—	—	—	1	—	—
District of Columbia	**1**	—	—	—	1	2	—
Florida	**51**	—	—	—	51	11	—
Georgia	**14**	10	1	2	1	5	—
Maryland	**15**	10	4	1	—	2	—
North Carolina	**15**	10	4	—	1	9	—
South Carolina	**9**	5	4	—	—	3	—
Virginia	**18**	3	8	—	7	13	—
West Virginia	**11**	4	2	1	4	1	2
E.S. Central	**31**	13	10	2	6	6	—
Alabama	**11**	4	5	—	2	2	—
Kentucky	**8**	3	1	1	3	—	—
Mississippi	**3**	1	1	1	—	3	—
Tennessee	**9**	5	3	—	1	1	—
W.S. Central	**70**	25	20	1	24	76	—
Arkansas	**12**	5	5	—	2	4	—
Louisiana	**16**	—	—	—	16	—	—
Oklahoma	**12**	7	4	1	—	4	—
Texas	**30**	13	11	—	6	68	—
Mountain	**55**	32	17	—	6	11	—
Arizona	**16**	7	5	—	4	—	—
Colorado	**9**	5	4	—	—	7	—
Idaho	**7**	6	1	—	—	2	—
Montana	**4**	—	4	—	—	—	—
Nevada	**5**	3	1	—	1	—	—
New Mexico	**3**	2	—	—	1	1	—
Utah	**11**	9	2	—	—	—	—
Wyoming	**—**	—	—	—	—	1	—
Pacific	**169**	33	18	1	117	53	—
Alaska	**2**	—	—	—	2	1	—
California	**110**	—	—	—	110	43	—
Hawaii	**4**	1	—	1	2	3	—
Oregon	**31**	22	6	—	3	4	—
Washington	**22**	10	12	—	—	2	—
Territories							
American Samoa	**—**	—	—	—	—	—	—
C.N.M.I.	**—**	—	—	—	—	—	—
Guam	**—**	—	—	—	—	3	—
Puerto Rico	**—**	—	—	—	—	4	—
U.S. Virgin Islands	**—**	—	—	—	—	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Pertussis	Plague	Psittacosis	Q fever			Rabies	
				Total	Acute	Chronic	Animal	Human
United States	18,719	3	2	**134**	110	24	4,357	6
New England	870	—	—	**2**	1	1	344	2
Connecticut	68	—	N	—	—	—	195	—
Maine	205	—	—	**2**	1	1	66	—
Massachusetts	271	—	—	—	—	—	—	2
New Hampshire	170	—	—	—	N	N	25	—
Rhode Island	62	—	—	—	—	—	27	—
Vermont	94	—	—	—	N	N	31	—
Mid. Atlantic	2,305	—	1	**14**	11	3	835	2
New Jersey	312	—	—	**6**	6	—	—	1
New York (Upstate)	928	—	—	**5**	2	3	370	1
New York City	323	—	—	**1**	1	—	13	—
Pennsylvania	742	—	1	**2**	2	—	452	—
E.N. Central	4,526	—	1	**20**	16	4	195	—
Illinois	1,509	—	—	**4**	4	—	51	—
Indiana	367	—	—	**1**	1	—	28	—
Michigan	691	—	1	**10**	8	2	65	—
Ohio	767	—	—	**1**	1	—	51	—
Wisconsin	1,192	—	—	**4**	2	2	N	—
W.N. Central	1,636	—	—	**5**	3	2	197	—
Iowa	232	—	—	—	N	N	25	—
Kansas	145	—	—	—	—	—	31	—
Minnesota	658	—	—	**1**	1	—	56	—
Missouri	438	—	—	**1**	—	1	29	—
Nebraska	56	—	—	**2**	1	1	33	—
North Dakota	70	—	—	—	—	—	23	—
South Dakota	37	—	—	**1**	1	—	—	—
S. Atlantic	1,506	—	—	**18**	15	3	1,147	1
Delaware	29	—	—	—	—	—	—	—
District of Columbia	9	—	—	—	N	N	—	—
Florida	312	—	—	**3**	3	—	120	—
Georgia	179	—	—	**2**	2	—	—	—
Maryland	123	—	—	**2**	2	—	305	—
North Carolina	198	—	—	**5**	5	—	—	—
South Carolina	156	—	—	**2**	1	1	N	1
Virginia	399	—	—	**3**	1	2	618	—
West Virginia	101	—	—	**1**	1	—	104	—
E.S. Central	481	—	—	**2**	—	2	162	—
Alabama	143	—	—	**1**	—	1	83	—
Kentucky	179	—	—	**1**	—	1	16	—
Mississippi	49	—	—	—	—	—	—	—
Tennessee	110	—	—	—	—	—	63	—
W.S. Central	1,140	—	—	**27**	24	3	1,144	—
Arkansas	80	—	—	**5**	5	—	60	—
Louisiana	31	—	—	—	—	—	6	—
Oklahoma	68	—	—	**3**	3	—	60	—
Texas	961	—	N	**19**	16	3	1,018	—
Mountain	2,574	2	—	**21**	18	3	75	—
Arizona	867	—	—	**2**	1	1	N	—
Colorado	416	—	—	**3**	2	1	—	—
Idaho	192	—	—	—	—	—	6	—
Montana	134	—	—	**15**	14	1	N	—
Nevada	34	—	—	—	—	—	17	—
New Mexico	273	2	—	—	—	—	19	—
Utah	645	—	—	—	—	—	7	—
Wyoming	13	—	—	**1**	1	—	26	—
Pacific	3,681	1	—	**25**	22	3	258	1
Alaska	27	—	—	—	—	—	14	—
California	2,319	—	—	**16**	16	—	216	1
Hawaii	59	—	—	—	—	—	—	—
Oregon	314	1	—	**1**	—	1	17	—
Washington	962	—	—	**8**	6	2	11	—
Territories								
American Samoa	—	—	N	—	N	N	N	N
C.N.M.I.	—	—	—	—	—	—	—	—
Guam	7	—	—	—	—	N	—	—
Puerto Rico	8	—	N	—	—	—	47	—
U.S. Virgin Islands	—	—	—	—	—	—	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Rubella	Salmonellosis	Shiga toxin-producing *E. coli* (STEC)†	Shigellosis	Spotted fever rickettsiosis§		
					Total	Confirmed	Probable
United States	4	51,887	6,047	13,352	**2,802**	234	2,562
New England	1	2,106	212	271	**10**	2	8
Connecticut	—	466	57	41	**—**	—	—
Maine	—	134	28	32	**1**	—	1
Massachusetts	1	1,049	80	179	**4**	—	4
New Hampshire	—	178	22	4	**3**	2	1
Rhode Island	—	194	8	9	**2**	—	2
Vermont	—	85	17	6	**—**	—	—
Mid. Atlantic	—	5,649	663	1,430	**179**	4	175
New Jersey	—	1,222	143	481	**136**	2	134
New York (Upstate)	—	1,423	221	378	**12**	2	10
New York City	—	1,132	90	448	**12**	—	12
Pennsylvania	—	1,872	209	123	**19**	—	19
E.N. Central	—	5,119	1,023	925	**120**	8	106
Illinois	—	1,694	241	262	**51**	—	51
Indiana	—	634	132	88	**33**	3	24
Michigan	—	854	152	190	**4**	—	4
Ohio	—	1,187	183	314	**21**	3	18
Wisconsin	—	750	315	71	**11**	2	9
W.N. Central	—	3,001	1,021	381	**301**	21	280
Iowa	—	448	189	18	**7**	—	7
Kansas	—	463	108	72	**—**	—	—
Minnesota	—	717	285	87	**11**	—	11
Missouri	—	900	282	182	**270**	13	257
Nebraska	—	252	103	14	**10**	5	5
North Dakota	—	59	13	2	**2**	2	—
South Dakota	—	162	41	6	**1**	1	—
S. Atlantic	1	15,305	624	3,921	**751**	128	623
Delaware	—	175	16	6	**20**	—	20
District of Columbia	—	92	6	35	**4**	1	3
Florida	—	5,923	103	2,635	**12**	3	9
Georgia	—	2,645	122	670	**88**	88	—
Maryland	—	1,010	71	94	**29**	3	26
North Carolina	1	2,519	155	225	**327**	16	311
South Carolina	—	1,567	18	142	**36**	12	24
Virginia	—	1,208	123	107	**231**	5	226
West Virginia	—	166	10	7	**4**	—	4
E.S. Central	—	4,364	296	1,025	**370**	15	355
Alabama	—	1,266	74	322	**79**	5	74
Kentucky	—	606	75	252	**4**	3	1
Mississippi	—	1,438	37	241	**24**	1	23
Tennessee	—	1,054	110	210	**263**	6	257
W.S. Central	—	8,333	655	3,397	**955**	21	934
Arkansas	—	848	61	96	**558**	10	548
Louisiana	—	1,440	20	487	**10**	—	10
Oklahoma	—	827	88	275	**335**	8	327
Texas	—	5,218	486	2,539	**52**	3	49
Mountain	—	2,599	706	880	**103**	32	71
Arizona	—	886	126	434	**77**	31	46
Colorado	—	522	169	89	**3**	—	3
Idaho	—	143	117	17	**2**	—	2
Montana	—	120	37	124	**1**	—	1
Nevada	—	175	42	36	**2**	—	2
New Mexico	—	341	43	123	**—**	—	—
Utah	—	338	142	55	**8**	1	7
Wyoming	—	74	30	2	**10**	—	10
Pacific	2	5,411	847	1,122	**13**	3	10
Alaska	—	54	N	5	**N**	—	—
California	—	4,072	504	908	**8**	2	6
Hawaii	—	332	9	48	**N**	N	N
Oregon	—	364	136	57	**1**	—	1
Washington	2	589	198	104	**4**	1	3
Territories							
American Samoa	—	—	—	1	**N**	—	—
C.N.M.I.	—	—	—	—	**—**	—	—
Guam	2	19	—	16	**N**	—	—
Puerto Rico	—	468	—	6	**N**	—	—
U.S. Virgin Islands	—	6	—	—	**N**	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Includes *Escherichia coli* O157:H7; shiga toxin-positive, serogroup non-O157; and shiga toxin positive, not serogrouped.

§ Total case count includes six unknown case status reports.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Streptococcal toxic-shock syndrome	*Streptococcus pneumoniae*, invasive disease†		Syphilis§			Tetanus	Toxic-shock syndrome
		All ages	Age <5 years	All stages¶	Congenital (age <2 yr)	Primary and secondary		
United States	168	17,138	1,459	46,042	360	13,970	36	78
New England	25	807	54	1,110	—	416	1	3
Connecticut	N	354	14	189	—	65	—	N
Maine	12	136	4	24	—	12	—	—
Massachusetts	6	38	19	770	—	266	—	2
New Hampshire	—	110	5	33	—	18	—	1
Rhode Island	—	97	5	84	—	46	1	—
Vermont	7	72	7	10	—	9	—	—
Mid. Atlantic	54	2,598	138	6,882	23	1,688	1	13
New Jersey	23	680	43	971	5	232	—	1
New York (Upstate)	25	1,183	56	881	13	194	—	4
New York City	—	735	39	3,905	—	889	—	—
Pennsylvania	6	N	N	1,125	5	373	1	8
E.N. Central	37	3,283	262	4,812	37	1,845	8	16
Illinois	—	N	76	2,426	18	881	1	5
Indiana	13	819	40	468	—	173	—	2
Michigan	6	694	36	762	6	286	4	5
Ohio	18	1,278	83	954	13	440	1	—
Wisconsin	—	492	27	202	—	65	2	4
W.N. Central	—	835	112	982	1	330	4	10
Iowa	—	N	N	70	—	20	—	1
Kansas	—	N	N	76	—	24	1	1
Minnesota	—	580	47	367	—	139	1	3
Missouri	—	N	35	414	1	136	2	2
Nebraska	—	121	12	36	—	10	—	3
North Dakota	—	91	4	5	—	1	—	—
South Dakota	—	43	14	14	—	—	—	—
S. Atlantic	30	4,009	376	10,619	72	3,448	6	14
Delaware	1	52	—	124	—	27	—	—
District of Columbia	—	55	6	552	1	165	—	—
Florida	N	1,324	138	4,142	32	1,257	3	N
Georgia	—	1,173	94	1,895	10	678	2	10
Maryland	N	587	51	1,278	24	452	—	N
North Carolina	15	N	N	1,254	5	431	—	1
South Carolina	2	452	29	639	—	221	1	3
Virginia	7	N	33	726	—	213	—	N
West Virginia	5	366	25	9	—	4	—	—
E.S. Central	5	1,408	121	2,866	26	826	3	4
Alabama	N	42	10	758	10	228	2	—
Kentucky	5	226	23	335	2	129	—	2
Mississippi	N	148	14	748	6	191	1	N
Tennessee	—	992	74	1,025	8	278	—	2
W.S. Central	—	2,090	229	8,946	142	1,882	6	1
Arkansas	—	228	14	464	15	182	1	1
Louisiana	—	259	25	2,043	18	447	3	—
Oklahoma	N	N	37	270	2	84	—	N
Texas	N	1,603	153	6,169	107	1,169	2	N
Mountain	17	1,963	155	2,036	17	648	4	6
Arizona	—	767	55	906	14	274	2	2
Colorado	—	494	38	367	—	133	—	2
Idaho	—	N	5	42	—	13	1	—
Montana	N	20	N	9	—	7	—	N
Nevada	1	124	6	430	3	136	—	1
New Mexico	—	329	24	212	—	71	—	—
Utah	16	206	27	64	—	14	—	1
Wyoming	—	23	—	6	—	—	1	—
Pacific	—	145	12	7,789	42	2,887	3	11
Alaska	—	138	10	11	—	5	—	N
California	N	N	N	6,782	40	2,443	3	11
Hawaii	—	7	2	32	—	14	—	N
Oregon	N	N	N	252	—	97	—	N
Washington	N	N	N	712	2	328	—	N
Territories								
American Samoa	N	N	—	—	—	—	—	N
C.N.M.I.	—	—	—	—	—	—	—	—
Guam	—	—	—	26	—	5	—	—
Puerto Rico	N	—	—	671	2	254	1	N
U.S. Virgin Islands	—	—	—	7	—	—	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† The previous categories of invasive pneumococcal disease among children aged <5 years and invasive, drug-resistant *Streptococcus pneumoniae* were eliminated. All cases of invasive *S. pneumoniae* disease, regardless of age or drug resistance are reported under a single disease code.

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

¶ Totals reported to the Division of STD Prevention, NCHHSTP, as of June 7, 2012.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Trichinellosis	Tuberculosis†	Tularemia	Typhoid fever	Vancomycin-intermediate *Staphylococcus aureus*
United States	15	10,528	166	390	82
New England	1	334	8	29	6
Connecticut	—	83	—	5	1
Maine	1	9	—	—	—
Massachusetts	—	196	8	24	5
New Hampshire	—	11	—	—	N
Rhode Island	—	27	—	—	—
Vermont	—	8	—	—	—
Mid. Atlantic	2	1,501	4	93	35
New Jersey	1	331	3	39	4
New York (Upstate)	1	221	—	15	23
New York City	—	689	—	26	4
Pennsylvania	—	260	1	13	4
E.N. Central	2	844	8	45	14
Illinois	—	359	5	28	3
Indiana	1	100	1	4	N
Michigan	—	170	—	6	5
Ohio	1	145	1	3	5
Wisconsin	—	70	1	4	1
W.N. Central	2	356	49	15	3
Iowa	—	40	3	4	N
Kansas	—	36	11	4	N
Minnesota	2	137	—	3	2
Missouri	—	98	21	1	1
Nebraska	—	23	4	3	—
North Dakota	—	7	2	—	—
South Dakota	—	15	8	—	—
S. Atlantic	3	2,029	7	52	11
Delaware	—	21	1	—	—
District of Columbia	—	56	—	—	N
Florida	—	754	—	8	3
Georgia	N	347	—	9	—
Maryland	—	233	—	17	2
North Carolina	—	244	—	8	1
South Carolina	—	140	—	1	3
Virginia	2	221	6	9	2
West Virginia	1	13	—	—	—
E.S. Central	—	479	4	—	1
Alabama	—	161	—	—	—
Kentucky	N	71	1	—	N
Mississippi	—	91	—	—	1
Tennessee	—	156	3	—	—
W.S. Central	3	1,671	52	31	9
Arkansas	N	85	37	2	—
Louisiana	1	167	—	1	3
Oklahoma	—	94	15	2	—
Texas	2	1,325	—	26	6
Mountain	1	527	18	13	3
Arizona	1	255	—	3	2
Colorado	—	70	3	5	N
Idaho	—	12	2	—	N
Montana	—	8	3	—	N
Nevada	—	95	1	4	—
New Mexico	—	49	7	1	N
Utah	—	34	1	—	1
Wyoming	—	4	1	—	—
Pacific	1	2,787	16	112	—
Alaska	—	67	—	—	N
California	1	2,323	6	96	N
Hawaii	—	123	—	1	—
Oregon	—	74	5	6	N
Washington	—	200	5	9	N
Territories					
American Samoa	N	3	—	2	N
C.N.M.I.	—	27	—	—	—
Guam	—	78	—	—	—
Puerto Rico	N	50	—	—	—
U.S. Virgin Islands	1	—	—	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV)disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Totals reported to the Division of Tuberculosis Elimination, NCHHSTP, as of June 25, 2012.

TABLE 2. (*Continued*) Reported cases of notifiable diseases,* by geographic division and area — United States, 2011

Area	Varicella		Vibriosis
	Morbidity	Mortality†	
United States	14,513	5	832
New England	1,360	—	32
Connecticut	304	—	25
Maine	226	—	4
Massachusetts	513	N	—
New Hampshire	158	—	1
Rhode Island	42	—	2
Vermont	117	N	—
Mid. Atlantic	1,567	—	63
New Jersey	466	—	28
New York (Upstate)	N	N	N
New York City	—	—	26
Pennsylvania	1,101	—	9
E.N. Central	3,679	1	40
Illinois	881	—	16
Indiana	293	—	2
Michigan	1,036	—	9
Ohio	1,047	1	7
Wisconsin	422	—	6
W.N. Central	819	—	14
Iowa	N	N	N
Kansas	418	—	N
Minnesota	1	—	9
Missouri	248	—	3
Nebraska	20	—	—
North Dakota	65	—	2
South Dakota	67	N	N
S. Atlantic	1,905	—	286
Delaware	11	—	6
District of Columbia	12	—	1
Florida	861	—	155
Georgia	33	—	33
Maryland	N	—	35
North Carolina	N	N	15
South Carolina	13	—	11
Virginia	549	N	30
West Virginia	426	—	N
E.S. Central	294	—	35
Alabama	279	N	8
Kentucky	N	N	2
Mississippi	15	N	13
Tennessee	N	—	12
W.S. Central	3,005	1	135
Arkansas	347	—	N
Louisiana	100	N	54
Oklahoma	N	N	2
Texas	2,558	1	79
Mountain	1,737	2	42
Arizona	660	1	26
Colorado	447	N	6
Idaho	N	N	N
Montana	163	—	N
Nevada	N	N	6
New Mexico	65	1	2
Utah	389	—	1
Wyoming	13	N	1
Pacific	147	1	185
Alaska	64	N	—
California	39	—	100
Hawaii	44	—	33
Oregon	N	N	7
Washington	N	1	45
Territories			
American Samoa	N	N	N
C.N.M.I.	—	—	—
Guam	102	N	1
Puerto Rico	444	—	N
U.S. Virgin Islands	1	—	—

N: Not reportable U: Unavailable — : No reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands.

* No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin-resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

† Totals reported to the Division of Viral Diseases, National Center for Immunization and Respiratory Diseases (NCIRD), as of June 30, 2012.

Please note: An erratum has been published for this issue. To view the erratum, please click here.

TABLE 3. Reported cases and incidence* of notifiable diseases,† by age group — United States, 2011

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		
Anthrax	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	1	(0.00)	—	(0.00)	—	**1**
Arboviral diseases§																
California serogroup viruses																
neuroinvasive	2	(0.05)	25	(0.15)	84	(0.21)	3	(0.01)	—	(0.00)	5	(0.00)	1	(0.00)	—	**120**
nonneuroinvasive	—	(0.00)	3	(0.02)	8	(0.02)	—	(0.00)	—	(0.00)	5	(0.00)	1	(0.00)	—	**17**
Eastern equine virus	—	(0.00)	1	(0.01)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	3	(0.01)	—	**4**
Powassan virus																
neuroinvasive	1	(0.02)	1	(0.01)	—	(0.00)	1	(0.00)	2	(0.00)	5	(0.00)	2	(0.00)	—	**12**
nonneuroinvasive	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	2	(0.00)	2	(0.00)	—	**4**
St. Louis encephalitis virus																
neuroinvasive	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	2	(0.00)	2	(0.00)	—	**4**
nonneuroinvasive	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	2	(0.00)	—	**2**
West Nile virus																
neuroinvasive	—	(0.00)	—	(0.00)	5	(0.01)	17	(0.04)	49	(0.08)	226	(0.22)	189	(0.47)	—	**486**
nonneuroinvasive	—	(0.00)	—	(0.00)	3	(0.01)	13	(0.03)	35	(0.06)	117	(0.12)	58	(0.14)	—	**226**
Babesiosis¶	1	(0.04)	5	(0.04)	17	(0.06)	22	(0.07)	60	(0.14)	466	(0.65)	461	(1.60)	96	**1,128**
Botulism, total	98	(2.36)	1	(0.01)	1	(0.00)	4	(0.01)	17	(0.03)	29	(0.03)	2	(0.00)	1	**153**
foodborne	1	(0.02)	—	(0.00)	—	(0.00)	2	(0.00)	9	(0.01)	10	(0.01)	2	(0.00)	—	**24**
infant	96	(2.31)	1	(0.01)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	**97**
other (wound and unspecified)	1	(0.02)	—	(0.00)	1	(0.00)	2	(0.00)	8	(0.01)	19	(0.02)	—	(0.00)	1	**32**
Brucellosis	—	(0.00)	1	(0.01)	4	(0.01)	8	(0.02)	15	(0.02)	39	(0.04)	12	(0.03)	—	**79**
Chancroid**	—	(0.00)	—	(0.00)	—	(0.00)	5	(0.01)	3	(0.00)	—	(0.00)	—	(0.00)	—	**8**
Chlamydia trachomatis infection**	—	(0.00)	—	(0.00)	—	(0.00)	1,001,976	(2,313.29)	347,055	(559.93)	44,000	(43.47)	1,064	(2.62)	2,406	**1,412,791**
Cholera	—	(0.00)	—	(0.00)	—	(0.00)	2	(0.00)	13	(0.02)	17	(0.02)	7	(0.02)	1	**40**
Coccidioidomycosis¶	27	(1.48)	106	(1.41)	928	(5.16)	2,409	(12.43)	5,086	(18.50)	9,424	(20.86)	4,514	(25.29)	140	**22,634**
Cryptosporidiosis, total	124	(3.00)	1,239	(7.25)	1,230	(3.02)	1,214	(2.81)	1,833	(2.97)	2,164	(2.14)	1,331	(3.29)	115	**9,250**
confirmed	70	(1.69)	853	(4.98)	777	(1.91)	858	(1.98)	1,205	(1.94)	1,429	(1.41)	841	(2.07)	97	**6,130**
probable	54	(1.30)	386	(2.26)	453	(1.11)	356	(0.82)	628	(1.01)	735	(0.73)	490	(1.21)	18	**3,120**
Cyclosporiasis	—	(0.00)	6	(0.04)	1	(0.00)	10	(0.03)	37	(0.07)	67	(0.07)	28	(0.08)	2	**151**
Dengue fever	—	(0.00)	1	(0.01)	15	(0.04)	40	(0.09)	73	(0.12)	99	(0.10)	23	(0.06)	—	**251**
Dengue hemorrhagic fever	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	1	(0.00)	2	(0.00)	—	(0.00)	—	**3**
Ehrlichiosis/Anaplasmosis	3	(0.08)	7	(0.04)	103	(0.27)	124	(0.30)	280	(0.48)	1,209	(1.26)	760	(1.97)	89	**2,575**
Ehrlichia chaffeensis	—	(0.00)	14	(0.09)	42	(0.11)	43	(0.10)	92	(0.16)	389	(0.40)	269	(0.70)	1	**850**
Ehrlichia ewingii	—	(0.00)	—	(0.00)	1	(0.00)	—	(0.00)	1	(0.00)	5	(0.01)	6	(0.02)	—	**13**
Undetermined	—	(0.00)	—	(0.00)	13	(0.03)	10	(0.02)	7	(0.01)	80	(0.08)	38	(0.10)	—	**148**
Giardiasis	149	(4.35)	2,398	(16.94)	2,312	(6.83)	1,802	(4.95)	2,972	(5.72)	5,158	(5.99)	1,497	(4.30)	459	**16,747**
Gonorrhea**	—	(0.00)	—	(0.00)	—	(0.00)	199,869	(461.44)	94,511	(152.48)	22,906	(22.63)	587	(1.45)	489	**321,849**
Haemophilus influenzae, invasive disease, all ages, serotypes	234	(5.64)	151	(0.88)	114	(0.28)	112	(0.26)	197	(0.32)	878	(0.87)	1,789	(4.41)	64	**3,539**
age<5 years																
serotype b	8	(0.19)	6	(0.04)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	**14**
nonserotype b	93	(2.49)	52	(0.34)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	**145**
unknown serotype	133	(3.56)	93	(0.60)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	**226**
Hansen disease (leprosy)	—	(0.00)	—	(0.00)	1	(0.00)	—	(0.00)	19	(0.03)	20	(0.02)	20	(0.06)	22	**82**
Hantavirus pulmonary syndrome	—	(0.00)	—	(0.00)	—	(0.00)	6	(0.01)	9	(0.02)	8	(0.01)	—	(0.00)	—	**23**
Hemolytic uremic syndrome, post-diarrheal	4	(0.10)	141	(0.87)	78	(0.20)	10	(0.02)	5	(0.01)	17	(0.02)	20	(0.05)	15	**290**
Hepatitis viral, acute																
A	1	(0.02)	32	(0.19)	92	(0.23)	264	(0.61)	340	(0.55)	414	(0.41)	233	(0.57)	22	**1,398**
B	1	(0.02)	6	(0.04)	4	(0.01)	127	(0.29)	1,122	(1.82)	1,396	(1.38)	182	(0.45)	65	**2,903**
C	3	(0.08)	3	(0.02)	1	(0.00)	300	(0.72)	570	(0.96)	319	(0.33)	15	(0.04)	18	**1,229**
Human immunodeficiency virus (HIV) infection diagnosis††	35	(0.90)	29	(0.20)	87	(0.20)	7,494	(17.10)	13,542	(22.10)	13,418	(12.90)	661	(1.60)	—	**35,266**
Influenza-associated pediatric mortality §§	25	(0.65)	30	(0.19)	49	(0.13)	14	(0.12)	—	(0.00)	—	(0.00)	—	(0.00)	—	**118**
Legionellosis	2	(0.05)	5	(0.03)	13	(0.03)	41	(0.09)	257	(0.42)	2,107	(2.09)	1,646	(4.07)	131	**4,202**
Listeriosis	32	(0.77)	8	(0.05)	13	(0.03)	21	(0.05)	70	(0.11)	209	(0.21)	495	(1.22)	22	**870**
Lyme disease, total	31	(0.75)	1,136	(6.68)	5,130	(12.66)	3,190	(7.41)	3,980	(6.47)	11,798	(11.72)	5,204	(12.92)	2,628	**33,097**
confirmed	27	(0.65)	965	(5.66)	3,935	(9.70)	2,166	(5.02)	2,852	(4.62)	8,806	(8.74)	3,676	(9.11)	1,937	**24,364**
probable	4	(0.10)	171	(1.00)	1,195	(2.94)	1,024	(2.37)	1,128	(1.83)	2,992	(2.97)	1,528	(3.79)	691	**8,733**
Malaria	8	(0.19)	60	(0.35)	138	(0.34)	308	(0.71)	504	(0.81)	584	(0.58)	84	(0.21)	38	**1,724**
Measles, total	30	(0.72)	54	(0.31)	26	(0.06)	33	(0.07)	39	(0.06)	25	(0.02)	3	(0.01)	10	**220**
indigenous	17	(0.41)	36	(0.21)	22	(0.05)	19	(0.04)	19	(0.03)	18	(0.02)	1	(0.00)	8	**140**
imported	13	(0.31)	18	(0.11)	4	(0.01)	14	(0.03)	20	(0.03)	7	(0.01)	2	(0.00)	2	**80**

See table footnotes on page 42.

TABLE 3. (*Continued*) Reported cases and incidence* of notifiable diseases,† by age group — United States, 2011

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		
Meningococcal disease, invasive, all serogroups	70	(1.69)	69	(0.40)	43	(0.11)	142	(0.33)	107	(0.17)	169	(0.17)	153	(0.38)	6	**759**
serogroup A, C, Y,and W-135	14	(0.34)	14	(0.08)	12	(0.03)	45	(0.10)	27	(0.04)	66	(0.07)	77	(0.19)	2	**257**
serogroup B	32	(0.77)	28	(0.16)	14	(0.03)	37	(0.09)	22	(0.04)	19	(0.02)	5	(0.01)	2	**159**
other serogroup	1	(0.02)	3	(0.02)	1	(0.00)	4	(0.01)	1	(0.00)	3	(0.00)	6	(0.01)	1	**20**
serogroup unknown	23	(0.55)	24	(0.14)	16	(0.04)	56	(0.13)	57	(0.09)	81	(0.08)	65	(0.16)	1	**323**
Mumps	3	(0.07)	41	(0.24)	69	(0.17)	123	(0.28)	67	(0.11)	82	(0.08)	18	(0.04)	1	**404**
Novel influenza A virus infection	—	(0.00)	7	(0.04)	5	(0.01)	—	(0.00)	—	(0.00)	2	(0.00)	—	(0.00)	—	**14**
Pertussis	2,772	(66.85)	2,642	(15.44)	7,176	(17.62)	1,502	(3.47)	1,602	(2.58)	2,292	(2.26)	559	(1.38)	174	**18,719**
Plague	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	1	(0.00)	1	(0.00)	1	(0.00)	—	**3**
Psittacosis	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	1	(0.00)	1	(0.00)	—	(0.00)	—	**2**
Q fever, total	—	(0.00)	1	(0.01)	4	(0.01)	2	(0.00)	26	(0.04)	74	(0.07)	26	(0.06)	1	**134**
Acute	—	(0.00)	1	(0.01)	4	(0.01)	2	(0.00)	18	(0.03)	64	(0.06)	20	(0.05)	1	**110**
Chronic	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	8	(0.01)	10	(0.01)	6	(0.02)	—	**24**
Rabies, human	—	(0.00)	—	(0.00)	1	(0.00)	—	(0.00)	—	(0.00)	1	(0.00)	1	(0.00)	3	**6**
Rubella	—	(0.00)	—	(0.00)	—	(0.00)	1	(0.00)	2	(0.00)	—	(0.00)	—	(0.00)	1	**4**
Salmonellosis	5,524	(133.21)	8,886	(51.92)	6,770	(16.62)	4,756	(10.98)	6,561	(10.59)	11,755	(11.61)	6,905	(17.03)	730	**51,887**
Shiga toxin-producing *E. coli* (STEC)	220	(5.32)	1,549	(9.07)	1,114	(2.74)	986	(2.28)	691	(1.12)	863	(0.85)	511	(1.26)	113	**6,047**
Shigellosis	248	(5.98)	4,105	(23.98)	4,204	(10.32)	930	(2.15)	1,698	(2.74)	1,583	(1.56)	430	(1.06)	154	**13,352**
Spotted fever rickettsiosis, total	5	(0.12)	48	(0.28)	182	(0.45)	244	(0.57)	476	(0.77)	1,223	(1.22)	612	(1.52)	12	**2,802**
confirmed	1	(0.02)	13	(0.08)	26	(0.06)	14	(0.03)	37	(0.06)	100	(0.10)	43	(0.11)	—	**234**
probable	4	(0.10)	35	(0.21)	156	(0.38)	230	(0.53)	438	(0.71)	1,118	(1.11)	569	(1.41)	12	**2,562**
Streptococcal toxic-shock syndrome	1	(0.04)	3	(0.03)	8	(0.03)	4	(0.01)	27	(0.07)	68	(0.10)	54	(0.21)	3	**168**
Streptococcus pneumoniae, invasive disaease																
all ages	368	(13.70)	909	(8.20)	525	(1.98)	416	(1.49)	1,392	(3.48)	7,046	(10.67)	6,385	(23.91)	97	**17,138**
age <5 years	419	(13.47)	1,040	(8.11)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	**1,459**
Syphilis, total, all stages**,¶¶	—	(0.00)	—	(0.00)	—	(0.00)	10,441	(24.11)	18,152	(29.29)	15,859	(15.67)	1,142	(2.82)	12	**46,042**
congenital (age <1 yr)**	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	(0.00)	—	**360**
primary and secondary**	—	(0.00)	—	(0.00)	—	(0.00)	3,851	(8.89)	5,774	(9.32)	4,180	(4.13)	138	(0.34)	2	**13,970**
Tetanus	1	(0.02)	—	(0.00)	—	(0.00)	2	(0.00)	6	(0.01)	6	(0.01)	12	(0.03)	9	**36**
Toxic-shock syndrome (other than streptococcal)	—	(0.00)	2	(0.02)	18	(0.06)	34	(0.11)	8	(0.02)	11	(0.01)	4	(0.01)	1	**78**
Trichinellosis	—	(0.00)	1	(0.01)	4	(0.01)	1	(0.00)	2	(0.00)	6	(0.01)	1	(0.00)	—	**15**
Tuberculosis***	72	(1.74)	278	(1.62)	227	(0.56)	1,033	(2.38)	2,548	(4.11)	4,118	(4.07)	2,247	(5.56)	5	**10,528**
Tularemia	—	(0.00)	12	(0.07)	27	(0.07)	7	(0.02)	26	(0.04)	63	(0.06)	22	(0.05)	9	**166**
Typhoid fever	3	(0.07)	54	(0.32)	90	(0.22)	52	(0.12)	112	(0.18)	53	(0.05)	13	(0.03)	13	**390**
Vancomycin-intermediate *Staphylococcus aureus* (VISA) infection	—	(0.00)	1	(0.01)	—	(0.00)	1	(0.00)	5	(0.01)	36	(0.05)	33	(0.11)	6	**82**
Vibriosis	1	(0.03)	36	(0.23)	70	(0.19)	61	(0.15)	137	(0.24)	281	(0.30)	146	(0.40)	100	**832**

* Per 100,000 population.

† No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin resistant staphylococcus aureus; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

§ Totals reported to the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (ArboNET Surveillance), as of April 17, 2012.

¶ Notifiable in <25 states.

** 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, NCHHSTP, as of June 7, 2012.

†† Total number of HIV diagnoses case counts was reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) through December 31, 2011.

§§ Totals reported to the Division of Influenza, National Center for Immunization and Respiratory Diseases (NCIRD), as of December 31, 2011.

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

*** Totals reported to the Division of Tuberculosis Elimination, NCHHSTP, as of June 25, 2012.

Please note: An erratum has been published for this issue. To view the erratum, please click here.

TABLE 4. Reported cases and incidence* of notifiable diseases,† by sex — United States, 2011

Disease	Male		Female		Sex not stated	Total
	No.	Rate	No.	Rate		
Anthrax	1	(0.00)	—	(0.00)	—	**1**
Arboviral diseases§						
California serogroup viruses						
neuroinvasive	76	(0.05)	44	(0.03)	—	**120**
nonneuroinvasive	11	(0.01)	6	(0.00)	—	**17**
Eastern equine encephalitis virus	2	(0.00)	2	(0.00)	—	**4**
Powassan virus						
neuroinvasive	9	(0.01)	3	(0.00)	—	**12**
nonneuroinvasive	4	(0.00)	—	(0.00)	—	**4**
St. Louis encephalitis virus						
neuroinvasive	3	(0.00)	1	(0.00)	—	**4**
nonneuroinvasive	—	(0.00)	2	(0.00)	—	**2**
West Nile virus						
neuroinvasive	282	(0.18)	204	(0.13)	—	**486**
nonneuroinvasive	142	(0.09)	84	(0.05)	—	**226**
Babesiosis¶	700	(0.65)	386	(0.35)	42	**1,128**
Botulism, total	100	(0.07)	53	(0.03)	—	**153**
foodborne	18	(0.01)	6	(0.00)	—	**24**
infant	55	(2.59)	42	(2.07)	—	**97**
other (wound and unspecified)	27	(0.02)	5	(0.00)	—	**32**
Brucellosis	41	(0.03)	35	(0.02)	3	**79**
Chancroid**	4	(0.00)	4	(0.00)	—	**8**
Chlamydia trachomatis infection**	389,970	(255.36)	1,018,552	(651.51)	4,269	**1,412,791**
Cholera	21	(0.01)	19	(0.01)	—	**40**
Coccidioidomycosis¶	11,088	(16.31)	11,367	(16.41)	179	**22,634**
Cryptosporidiosis, total	4,292	(2.82)	4,933	(3.16)	25	**9,250**
confirmed	2,919	(1.91)	3,199	(2.05)	12	**6,130**
probable	1,373	(0.90)	1,734	(1.11)	13	**3,120**
Cyclosporiasis	62	(0.05)	87	(0.06)	2	**151**
Dengue fever	141	(0.09)	110	(0.07)	—	**251**
Dengue hemorrhagic fever	1	(0.00)	2	(0.00)	—	**3**
Ehrlichiosis, Anaplasmosis						
Ehrlichia chaffeensis	1,505	(1.04)	1,031	(0.69)	39	**2,575**
Ehrlichia ewingii	496	(0.34)	346	(0.23)	8	**850**
Anaplasma phagocytophilum	6	(0.00)	6	(0.00)	1	**13**
Undetermined	93	(0.06)	55	(0.04)	—	**148**
Giardiasis	9,536	(7.40)	7,105	(5.38)	106	**16,747**
Gonorrhea**	149,835	(98.12)	171,005	(109.38)	1,009	**321,849**
Haemophilus influenzae, invasive disease, all ages, serotypes						
age <5 yrs	1,552	(1.02)	1,970	(1.26)	17	**3,539**
serotype b	8	(0.07)	6	(0.06)	—	**14**
nonserotype b	85	(0.78)	60	(0.58)	—	**145**
unknown serotype	130	(1.20)	95	(0.91)	1	**226**
Hansen disease (leprosy)	41	(0.03)	21	(0.01)	20	**82**
Hantavirus pulmonary syndrome	9	(0.01)	14	(0.01)	—	**23**
Hemolytic uremic syndrome post-diarrheal	123	(0.09)	151	(0.10)	16	**290**
Hepatitis, viral, acute						
A	703	(0.46)	691	(0.44)	4	**1,398**
B	1,796	(1.18)	1,094	(0.70)	13	**2,903**
C	641	(0.44)	582	(0.39)	6	**1,229**
Human immunodeficiency virus (HIV) diagnosis††	27,711	(18.10)	7,555	(4.80)	—	**35,266**
Influenza-associated pediatric mortality§§	73	(0.21)	45	(0.13)	—	**118**
Legionellosis	2,671	(1.75)	1,520	(0.97)	11	**4,202**
Listeriosis	391	(0.26)	479	(0.31)	—	**870**
Lyme disease, total	18,260	(12.03)	13,947	(8.98)	890	**33,097**
confirmed	13,579	(8.93)	10,053	(6.46)	732	**24,364**
probable	4,681	(3.08)	3,894	(2.50)	158	**8,733**
Malaria	1,119	(0.73)	594	(0.38)	11	**1,724**
Measles, total	115	(0.08)	99	(0.05)	6	**220**
indigenous	77	(0.05)	59	(0.03)	4	**140**
imported	38	(0.02)	40	(0.03)	2	**80**

See table footnotes on page 44

TABLE 4. (*Continued*) Reported cases and incidence* of notifiable diseases,† by sex — United States, 2011

Disease	Male		Female		Sex not stated	Total
	No.	Rate	No.	Rate		
Meningococcal disease, invasive, all serogroup	383	(0.25)	374	(0.24)	2	759
serogroup A, C, Y, and W-135	119	(0.08)	138	(0.09)	—	257
serogroup B	85	(0.06)	73	(0.05)	1	159
serogroup other	10	(0.01)	10	(0.01)	—	20
serogroup unknown	169	(0.11)	153	(0.10)	1	323
Mumps	236	(0.15)	168	(0.11)	—	404
Novel influenza A virus infection	8	(0.01)	6	(0.00)	—	14
Pertussis	8,302	(5.44)	10,308	(6.59)	109	18,719
Plague	3	(0.00)	—	(0.00)	—	3
Psittacosis	—	(0.00)	2	(0.00)	—	2
Q fever, total	99	(0.06)	34	(0.02)	1	134
acute	79	(0.05)	30	(0.02)	1	110
chronic	20	(0.01)	4	(0.00)	—	24
Rabies, human	3	(0.00)	3	(0.00)	—	6
Rubella	3	(0.00)	1	(0.00)	—	4
Salmonellosis	24,774	(16.22)	26,749	(17.11)	364	51,887
Shiga toxin-producing *E. coli* (STEC)	2,671	(1.75)	3,324	(2.13)	52	6,047
Shigellosis	6,620	(4.33)	6,689	(4.28)	43	13,352
Spotted fever rickettsiosis, total	1,751	(1.15)	1,033	(0.66)	18	2,802
confirmed	141	(0.09)	91	(0.06)	2	234
probable	1,604	(1.05)	942	(0.61)	16	2,562
Streptococcal toxic-shock syndrome	82	(0.09)	86	(0.09)	—	168
Streptococcus pneumoniae, invasive disease						
all ages	8,685	(8.76)	8,377	(8.22)	76	17,138
age <5 yrs	634	(7.79)	500	(6.42)	325	1,459
Syphilis, total, all stages**,¶¶	36,265	(23.75)	9,712	(6.21)	65	46,042
congenital (age <1 yr)**	199	(9.39)	150	(7.40)	11	360
primary and secondary**	12,453	(8.15)	1,501	(0.96)	16	13,970
Tetanus	23	(0.02)	13	(0.01)	—	36
Toxic-shock syndrome (other than streptococcal)	15	(0.01)	63	(0.05)	—	78
Trichinellosis	11	(0.01)	4	(0.00)	—	15
Tuberculosis***	6,413	(4.20)	4,112	(2.63)	3	10,528
Tularemia	101	(0.07)	61	(0.04)	4	166
Typhoid fever	213	(0.14)	176	(0.11)	1	390
Vancomycin, intermediate *Staphlococcus aureus* (VISA) infection	53	(0.05)	28	(0.02)	1	82
Vibriosis	569	(0.41)	256	(0.18)	7	832

* Per 100,000 population.

† No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin resistant staphylococcus aureus; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

§ Totals reported to the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (ArboNET Surveillance), as of April 17, 2012.

¶ Notifiable in <25 states.

** 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, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), as of June 7, 2012.

†† Total number of HIV cases was reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) through December 31, 2011.

§§ Totals reported to the Division of Influenza, National Center for Immunization and Respiratory Diseases (NCIRD), as of December 31, 2011.

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

*** Totals reported to the Division of Tuberculosis Elimination, NCHHSTP, as of June 25, 2012.

TABLE 5. Reported cases and incidence* of notifiable diseases,† by race — United States, 2011

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			
Arboviral diseases§											
California serogroup viruses, neuroinvasive	1	(0.03)	2	(0.01)	3	(0.01)	100	(0.04)	3	11	**120**
West Nile virus											
neuroinvasive	5	(0.14)	4	(0.03)	69	(0.17)	318	(0.13)	11	79	**486**
nonneuroinvasive	3	(0.08)	4	(0.03)	10	(0.02)	149	(0.06)	3	57	**226**
Babesiosis¶	3	(0.12)	18	(0.14)	26	(0.09)	576	(0.33)	30	475	**1,128**
Botulism, total	3	(0.08)	10	(0.06)	1	(0.00)	72	(0.03)	1	66	**153**
infant	—	(—)	6	(2.61)	1	(0.14)	50	(1.59)	1	39	**97**
other (wound and unspecified)	0	(0.00)	0	(0.00)	0	(0.00)	11	(0.00)	0	21	**32**
Brucellosis	1	(0.03)	5	(0.03)	3	(0.01)	45	(0.02)	1	24	**79**
Chlamydia trachomatis infection**	17,431	(488.44)	19,144	(120.58)	475,470	(1146.2)	434,052	(174.93)	56,514	410,180	**1,412,791**
Cholera	0	(0.00)	2	(0.01)	18	(0.04)	8	(0.00)	1	11	**40**
Coccidioidomycosis¶	193	(10.07)	258	(2.98)	592	(4.26)	4,143	(3.67)	261	17,187	**22,634**
Cryptosporidiosis, total	36	(1.01)	96	(0.61)	740	(1.80)	6,134	(2.47)	262	1,982	**9,250**
confirmed	24	(0.67)	72	(0.45)	425	(1.02)	3,902	(1.57)	187	1,520	**6,130**
probable	12	(0.34)	24	(0.15)	315	(0.76)	2,232	(0.90)	75	462	**3,120**
Cyclosporiasis	0	(0.00)	1	(0.01)	5	(0.01)	98	(0.04)	3	44	**151**
Dengue fever	0	(0.00)	48	(0.30)	22	(0.05)	109	(0.04)	12	60	**251**
Ehrlichiosis/Anaplasmosis											
Anaplasma phagocytophilum	55	(1.80)	10	(0.07)	12	(0.03)	1,093	(0.46)	15	1,390	**2,575**
Ehrlichia chaffeensis	32	(1.05)	4	(0.03)	24	(0.06)	548	(0.23)	29	213	**850**
undetermined	0	(0.00)	0	(0.00)	3	(0.01)	110	(0.05)	1	34	**148**
Giardiasis	67	(2.11)	905	(6.25)	1,027	(3.05)	7,189	(3.43)	576	6,983	**16,747**
Gonorrhea**	3,095	(86.73)	2,531	(15.94)	169,799	(409.32)	68,411	(27.57)	8,597	69,416	**321,849**
Haemophilus influenzae, invasive disease, all ages, serotypes	35	(0.98)	57	(0.36)	402	(0.97)	2,221	(0.90)	52	772	**3,539**
age <5 yrs											
nonserotype b	3	(0.84)	2	(0.17)	24	(0.68)	83	(0.51)	7	26	**145**
unknown serotype	18	(5.06)	6	(0.50)	45	(1.28)	94	(0.58)	6	57	**226**
Hansen disease (leprosy)	0	(0.00)	17	(0.12)	1	(0.00)	33	(0.01)	1	30	**82**
Hemolytic uremic syndrome post-diarrheal	4	(0.12)	4	(0.03)	4	(0.01)	223	(0.10)	11	44	**290**
Hepatitis, viral, acute											
A	17	(0.48)	142	(0.89)	108	(0.26)	774	(0.31)	45	312	**1,398**
B	14	(0.39)	67	(0.42)	546	(1.32)	1,721	(0.70)	53	502	**2,903**
C	25	(0.78)	8	(0.05)	54	(0.14)	941	(0.40)	14	187	**1,229**
Human immunodeficiency virus (HIV) diagnosis††	162	(7.10)	686	(4.60)	16,730	(43.60)	10,277	(5.20)	7,411	—	**35,266**
Influenza-associated pediatric mortality§§	3	(0.32)	6	(0.16)	22	(0.19)	76	(0.14)	0	11	**118**
Legionellosis	8	(0.22)	38	(0.24)	743	(1.81)	2,550	(1.03)	72	791	**4,202**
Listeriosis	2	(0.06)	44	(0.28)	80	(0.19)	601	(0.24)	24	119	**870**
Lyme disease, total	94	(2.64)	275	(1.83)	331	(0.81)	17,727	(7.16)	899	13,771	**33,097**
Lyme disease, confirmed	69	(1.94)	190	(1.26)	225	(0.54)	13,045	(5.27)	780	10,055	**24,364**
Lyme disease, probable	25	(0.70)	85	(0.56)	106	(0.26)	4,682	(1.89)	119	3,716	**8,733**
Malaria	5	(0.14)	224	(1.41)	834	(2.01)	275	(0.11)	45	341	**1,724**
Measles, total	4	(0.11)	24	(0.15)	18	(0.04)	134	(0.04)	5	35	**220**
Measles, indigenous	4	(0.11)	4	(0.03)	14	(0.03)	97	(0.03)	3	18	**140**
Measles, imported	0	(0.00)	20	(0.13)	4	(0.01)	37	(0.01)	2	17	**80**
Meningococcal disease, invasive, all serogroups	8	(0.22)	28	(0.18)	114	(0.27)	494	(0.20)	8	107	**759**
Meningococcal disease, serogroup. A, C, Y, and W-135	3	(0.08)	7	(0.04)	47	(0.11)	167	(0.07)	3	30	**257**
Meningococcal disease, serogroup B	3	(0.08)	5	(0.03)	10	(0.02)	110	(0.04)	4	27	**159**
Meningococcal disease, serogroup unknown	1	(0.03)	15	(0.09)	54	(0.13)	205	(0.08)	1	47	**323**
Mumps	2	(0.06)	28	(0.18)	31	(0.07)	260	(0.10)	13	70	**404**
Pertussis	173	(4.85)	346	(2.18)	716	(1.73)	12,608	(5.08)	428	4,448	**18,719**
Q fever, total	2	(0.06)	2	(0.01)	7	(0.02)	83	(0.03)	6	34	**134**
acute	2	(0.06)	2	(0.01)	6	(0.01)	69	(0.03)	4	27	**110**

See table footnotes on page 46.

TABLE 5. (*Continued*) Reported cases and incidence* of notifiable diseases,† by race — United States, 2011

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			
Salmonellosis	322	(9.02)	1,266	(7.97)	4,500	(10.85)	30,579	(12.32)	1,259	13,961	**51,887**
Shiga toxin-producing *E. coli* (STEC)	33	(0.96)	89	(0.56)	260	(0.63)	3,834	(1.55)	141	1,690	**6,047**
Shigellosis	164	(4.60)	189	(1.19)	2,610	(6.29)	7,018	(2.83)	506	2,865	**13,352**
Spotted fever rickettsiosis, total	146	(4.24)	15	(0.10)	89	(0.21)	1,697	(0.69)	40	815	**2,802**
confirmed	29	(0.81)	1	(0.01)	12	(0.03)	144	(0.06)	6	42	**234**
probable	117	(3.29)	14	(0.09)	77	(0.19)	1,550	(0.63)	34	770	**2,562**
Streptococcal toxic-shock syndrome	0	(0.00)	2	(0.03)	19	(0.07)	129	(0.08)	0	18	**168**
Streptococcus pneumoniae, invasive disease											
all ages	186	(8.76)	140	(1.75)	2,681	(8.95)	9,922	(6.16)	194	4,015	**17,138**
age <5 yr	18	(7.00)	28	(3.80)	244	(8.29)	559	(4.66)	33	577	**1,459**
Syphilis, all stages**,¶¶	266	(7.45)	1,005	(6.33)	20,605	(49.67)	18,799	(7.58)	2,627	2,740	**46,042**
congenital (age <1 yr)**	2	(2.75)	15	(6.52)	209	(30.08)	118	(3.75)	12	4	**360**
primary and secondary**	80	(2.24)	267	(1.68)	6,177	(14.89)	6,281	(2.53)	618	547	**13,970**
Tetanus	0	(0.00)	0	(0.00)	5	(0.01)	29	(0.01)	1	1	**36**
Toxic-shock syndrome (other than streptococcal)	0	(0.00)	4	(0.03)	4	(0.01)	51	(0.03)	2	17	**78**
Tuberculosis***	150	(4.20)	3,165	(19.93)	2,478	(5.97)	4,515	(1.82)	126	94	**10,528**
Tularemia	13	(0.36)	4	(0.03)	4	(0.01)	105	(0.04)	2	38	**166**
Typhoid fever	2	(0.06)	207	(1.30)	17	(0.04)	36	(0.01)	31	97	**390**
Vancomycin-intermediate *Staphylococcus aureus* (VISA)	0	(0.00)	0	(0.00)	19	(0.05)	34	(0.02)	2	27	**82**
Vibriosis	5	(0.15)	34	(0.22)	58	(0.15)	538	(0.24)	15	182	**832**

* Per 100,000 population. Diseases for which <25 cases were reported are not included in this table.

† No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin resistant staphylococcus aureus; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

§ Totals reported to the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (ArboNET Surveillance), as of June 1, 2012.

¶ Notifiable in <25 states.

** Cases with unknown race have not been redistributed. For this reason, the total number of cases reported here might differ slightly from totals reported in other surveillance summaries.

†† Total number of HIV cases reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) through December 31, 2011.

§§ Totals reported to the Division of Influenza, National Center for Immunization and Respiratory Diseases (NCIRD), as of December 31, 2011.

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

*** Totals reported to the Division of Tuberculosis Elimination, NCHHSTP, as of June 25, 2012.

TABLE 6. Reported cases and incidence* of notifiable diseases,† by ethnicity — United States, 2011

Disease	Hispanic		Non-Hispanic		Ethnicity not stated	Total
	No.	Rate	No.	Rate		
Arboviral diseases§						
California serogroup viruses						
neuroinvasive	2	(0.00)	87	(0.03)	31	**120**
West Nile virus						
neuroinvasive	61	(0.12)	277	(0.11)	148	**486**
nonneuroinvasive	15	(0.03)	118	(0.05)	93	**226**
Babesiosis¶	65	(0.18)	486	(0.27)	577	**1,128**
Botulism, total	33	(0.07)	72	(0.03)	48	**153**
infant	17	(1.58)	47	(1.53)	33	**97**
other (wound and unspecified)	15	(0.03)	8	(0.00)	9	**32**
Brucellosis	40	(0.08)	29	(0.01)	10	**79**
Chlamydia trachomatis infection**	193,623	(390.80)	663,300	(255.60)	555,868	**1,412,791**
Cholera	9	(0.02)	24	(0.01)	7	**40**
Coccidioidomycosis¶	1,817	(7.87)	3,769	(3.30)	17,048	**22,634**
Cryptosporidiosis, total	550	(1.11)	5,393	(2.08)	3,307	**9,250**
confirmed	420	(0.85)	3,391	(1.31)	2,319	**6,130**
probable	130	(0.26)	2,002	(0.77)	988	**3,120**
Cyclosporiasis	23	(0.05)	89	(0.04)	39	**151**
Dengue fever	38	(0.08)	149	(0.06)	64	**251**
Ehrlichiosis, Anaplasmosis						
Anaplasma phagocytophilum	19	(0.04)	910	(0.37)	1,646	**2,575**
Ehrlichia chaffeensis	15	(0.03)	490	(0.20)	345	**850**
Undetermined	1	(0.00)	91	(0.04)	56	**148**
Giardiasis	1,125	(2.89)	7,459	(3.36)	8,163	**16,747**
Gonorrhea**	27,176	(54.85)	180,202	(69.44)	114,471	**321,849**
Haemophilus influenzae, invasive disease, all ages, serotypes	193	(0.39)	1,950	(0.75)	1,396	**3,539**
nonserotype b	16	(0.24)	88	(0.47)	41	**145**
unknown serotype	25	(0.38)	105	(0.56)	96	**226**
Hansen disease (leprosy)	15	(0.03)	32	(0.01)	35	**82**
Hemolytic uremic syndrome post-diarrheal	23	(0.05)	218	(0.09)	49	**290**
Hepatitis, viral, acute						
A	276	(0.56)	746	(0.29)	376	**1,398**
B	211	(0.43)	1,810	(0.70)	882	**2,903**
C	82	(0.17)	763	(0.31)	384	**1,229**
Human immunodeficiency virus (HIV) diagnosis††	6,941	(13.30)	28,325	(10.90)	—	**35,266**
Influenza-associated pediatric mortality§§	20	(0.12)	83	(0.16)	15	**118**
Legionellosis	229	(0.46)	2,488	(0.96)	1,485	**4,202**
Listeriosis	120	(0.24)	560	(0.22)	190	**870**
Lyme disease, total	537	(1.09)	12,238	(4.75)	20,322	**33,097**
confirmed	365	(0.74)	8,934	(3.46)	15,065	**24,364**
probable	172	(0.35)	3,304	(1.28)	5,257	**8,733**
Malaria	36	(0.07)	1,203	(0.46)	485	**1,724**
Measles, total	10	(0.02)	168	(0.06)	42	**220**
indigenous	9	(0.02)	106	(0.03)	25	**140**
imported	1	(0.00)	62	(0.02)	17	**80**
Meningococcal disease, invasive, all serogroups	96	(0.19)	476	(0.18)	187	**759**
serogroup A, C, Y, and W-135	19	(0.04)	177	(0.07)	61	**257**
serogroup B	13	(0.03)	101	(0.04)	45	**159**
serogroup unknown	64	(0.13)	184	(0.07)	75	**323**
Mumps	68	(0.14)	260	(0.10)	76	**404**
Pertussis	2,688	(5.43)	10,970	(4.23)	5,061	**18,719**
Q fever, total	13	(0.03)	81	(0.03)	40	**134**
acute	13	(0.03)	64	(0.03)	33	**110**
Salmonellosis	6,801	(13.73)	27,736	(10.69)	17,350	**51,887**
Shiga toxin-producing *E. coli* (STEC)	744	(1.50)	3,422	(1.32)	1,881	**6,047**
Shigellosis	3,345	(6.75)	6,664	(2.57)	3,343	**13,352**
Spotted fever rickettsiosis, total	79	(0.16)	1,632	(0.63)	1,091	**2,802**
confirmed	7	(0.01)	144	(0.06)	83	**234**
probable	72	(0.15)	1,487	(0.58)	1,003	**2,562**

See table footnotes on page 48.

TABLE 6. (*Continued*) Reported cases and incidence* of notifiable diseases,† by ethnicity — United States, 2011

Disease	Hispanic		Non-Hispanic		Ethnicity not stated	Total
	No.	Rate	No.	Rate		
Streptococcal toxic-shock syndrome	5	(0.03)	108	(0.06)	55	**168**
Streptococcus pneumoniae, invasive disease, all ages	1,108	(3.77)	8,788	(5.12)	7,242	**17,138**
age <5 yrs	177	(4.09)	564	(3.83)	718	**1,459**
Syphilis, total, all stages**,¶¶	9,848	(19.88)	32,788	(12.63)	3,406	**46,042**
congenital (age <1 yr)**	79	(7.36)	268	(8.72)	13	**360**
primary and secondary**	2,331	(4.70)	10,935	(4.21)	704	**13,970**
Tetanus	2	(0.00)	24	(0.01)	10	**36**
Toxic-shock syndrome (other than streptococcal)	4	(0.01)	45	(0.02)	29	**78**
Tuberculosis***	3,008	(6.07)	7,500	(2.89)	20	**10,528**
Tularemia	3	(0.01)	108	(0.04)	55	**166**
Typhoid fever	37	(0.07)	264	(0.10)	89	**390**
Vancomycin-intermediate *Staphylococcus aureus* (VISA)	5	(0.02)	31	(0.02)	46	**82**
Vibriosis	96	(0.20)	507	(0.21)	229	**832**

* Per 100,000 population. Diseases for which <25 cases were reported are not included in this table.

† No cases of diphtheria; eastern equine encephalitis virus disease, nonneuroinvasive; poliomyelitis, paralytic; poliovirus infection, nonparalytic; rubella, congenital syndrome; severe acute respiratory syndrome-associated coronavirus (SARS-CoV) disease; smallpox; vancomycin resistant *Staphylococcus aureus*; western equine encephalitis virus disease, neuroinvasive and nonneuroinvasive; yellow fever; and viral hemorrhagic fevers were reported in the United States during 2011. Data on Hepatitis B virus, perinatal infection, and chronic hepatitis B and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

§ Totals reported to the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (ArboNET Surveillance), as of June 1, 2012.

¶ Notifiable in <25 states.

** Cases with unknown race have not been redistributed. For this reason, the total number of cases reported here might differ slightly from totals reported in other surveillance summaries.

†† Total number of HIV diagnoses case counts was reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) through December 31, 2011.

§§ Totals reported to the Division of Influenza, National Center for Immunization and Respiratory Diseases (NCIRD), as of December 31, 2011.

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

*** Totals reported to the Division of Tuberculosis Elimination, NCHHSTP, as of June 25, 2012.

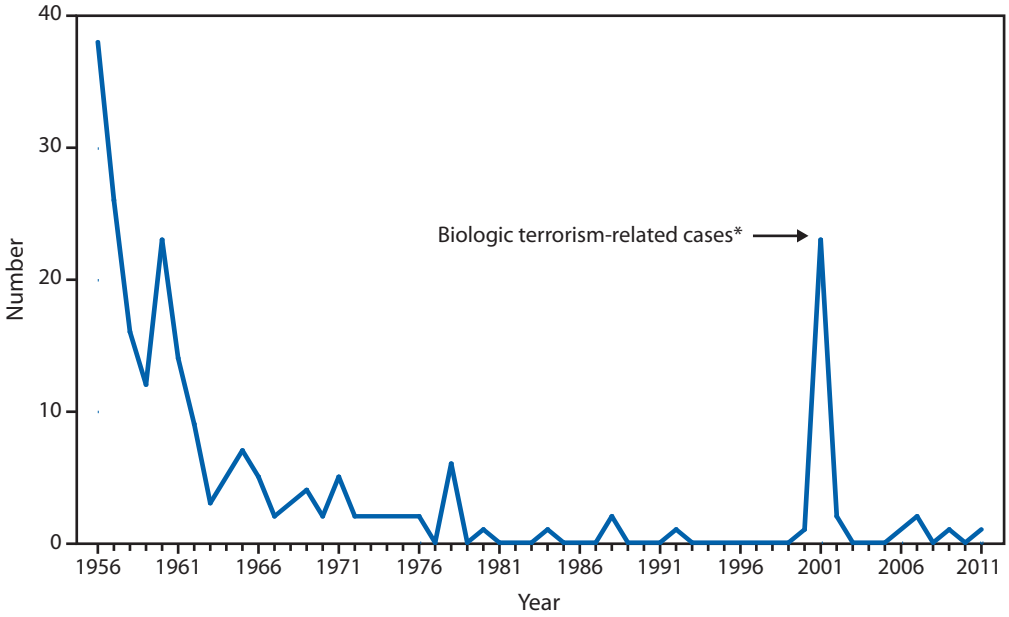
PART 2

Graphs and Maps for Selected Notifiable Diseases in the United States, 2011

Abbreviations and Symbols Used in Graphs and Maps

U	Data not available.
N	Not reportable (i.e., report of disease not required in that jurisdiction).
DC	District of Columbia
NYC	New York City
AS	American Samoa
CNMI	Commonwealth of Northern Mariana Islands
GU	Guam
PR	Puerto Rico
VI	U.S. Virgin Islands

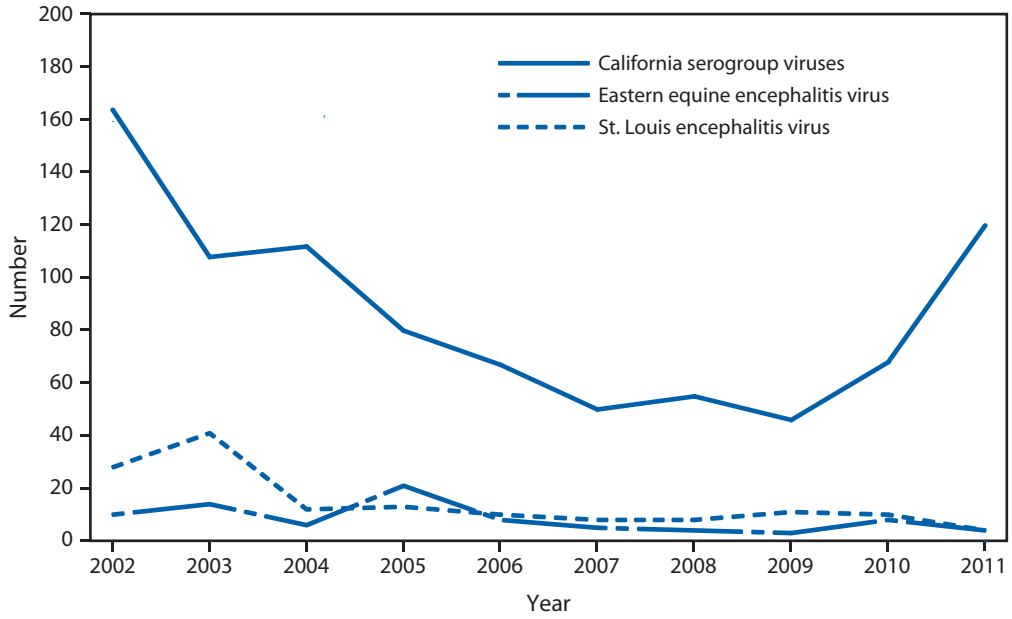
ANTHRAX. Number of reported cases, by year — United States, 1956–2011



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

The confirmed case of inhalation anthrax that was reported in the United States in 2011 is considered to be an isolated naturally occurring case, with no other related human or animal cases detected. The occurrence of naturally occurring human anthrax cases has remained stable during the past 30 years with no more than two cases reported per year.

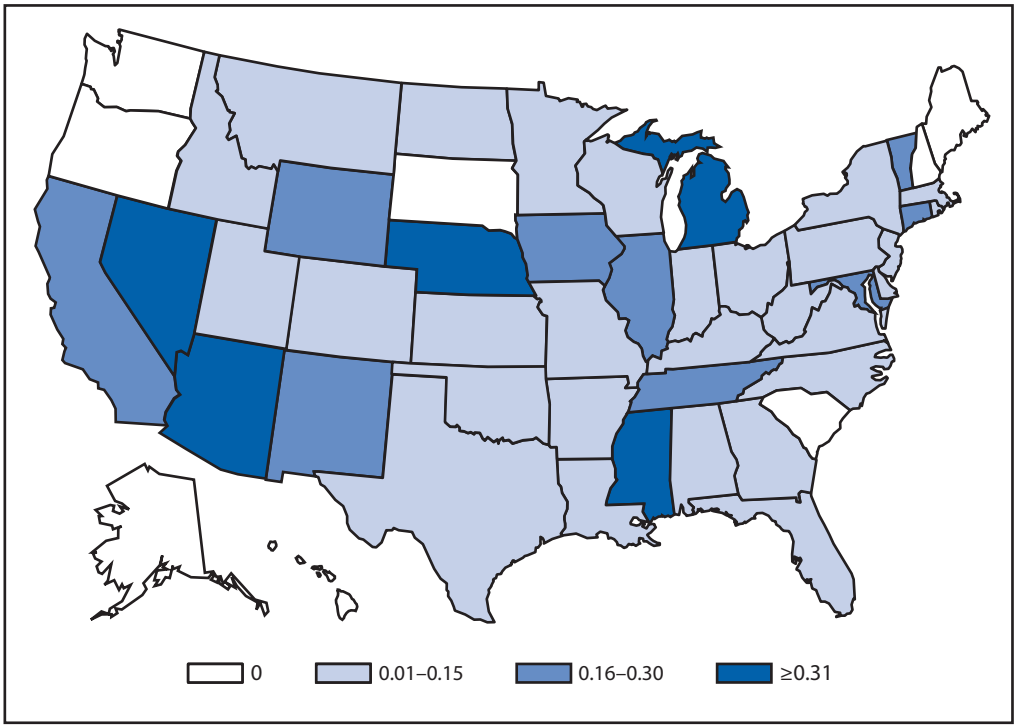
ARBOVIRAL DISEASES. Number* of reported cases of neuroinvasive disease, by year — United States, 2002–2011



* Data from the Division of Vector-Borne Diseases, National Center for Emerging and Zoonotic Infectious Diseases (ArboNET Surveillance). Only reported cases of neuroinvasive disease are shown.

The most common arthropod-borne viruses (arboviruses) that cause neuroinvasive disease in humans in the United States are West Nile virus (WNV), La Crosse virus (LACV), St. Louis encephalitis virus (SLEV), and eastern equine encephalitis virus (EEEV). LACV is the most common California serogroup virus in the United States. LACV causes neuroinvasive disease primarily among children. In 2011, a total of 120 cases of California serogroup viruses neuroinvasive disease, including 116 cases caused by LACV, were reported from 16 states (Alabama, Arizona, Florida, Georgia, Illinois, Indiana, Kentucky, Michigan, Minnesota, Mississippi, North Carolina, Ohio, South Carolina, Tennessee, Wisconsin, and West Virginia); 114 (95%) of the cases occurred among children aged <18 years. During 2002–2011, a median of 71 (range: 46–167) cases per year were reported in the United States. EEEV disease in humans is associated with high mortality rates (>20%) and severe neurologic sequelae. In 2011, four cases of EEEV neuroinvasive disease cases were reported from four states (Massachusetts, Missouri, New York, and Wisconsin). Three (75%) of the four reported cases were fatal. During 2002–2011, a median of seven (range: 3–21) cases per year were reported in the United States. Before the introduction of WNV, SLEV was the leading cause of arboviral encephalitis in the United States, with periodic large outbreaks with hundreds to thousands of cases. In 2011, four cases of SLEV neuroinvasive disease were reported from two states (Alabama and Arkansas). During 2002–2011, a median of eight (range: 4–43) cases per year were reported in the United States. It is not known if the recent decline in the number of reported SLEV disease cases is related to normal periodicity in viral activity, surveillance artifact, or possible competitive displacement of SLEV by WNV.

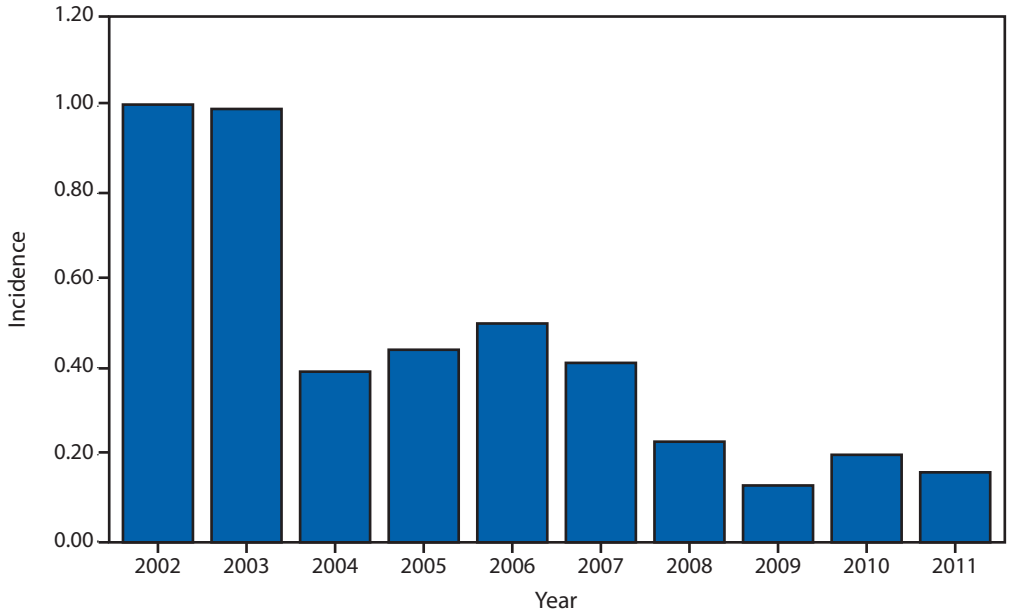
ARBOVIRAL DISEASES, WEST NILE VIRUS. Incidence* of reported cases of neuroinvasive disease, by state — United States, 2011



* Per 100,000 population. Data from the Division of Vector-Borne Diseases, National Center for Emerging and Zoonotic Infectious Diseases (ArboNET Surveillance).

In 2011, the states with the highest reported incidence of West Nile virus (WNV) neuroinvasive disease were the District of Columbia (1.62 per 100,000), Mississippi (1.04), Nebraska (0.76), and Arizona (0.76). Five states reported 51% of WNV neuroinvasive disease cases: California (110), Arizona (49), Michigan (32), Mississippi (31), and New York (28).

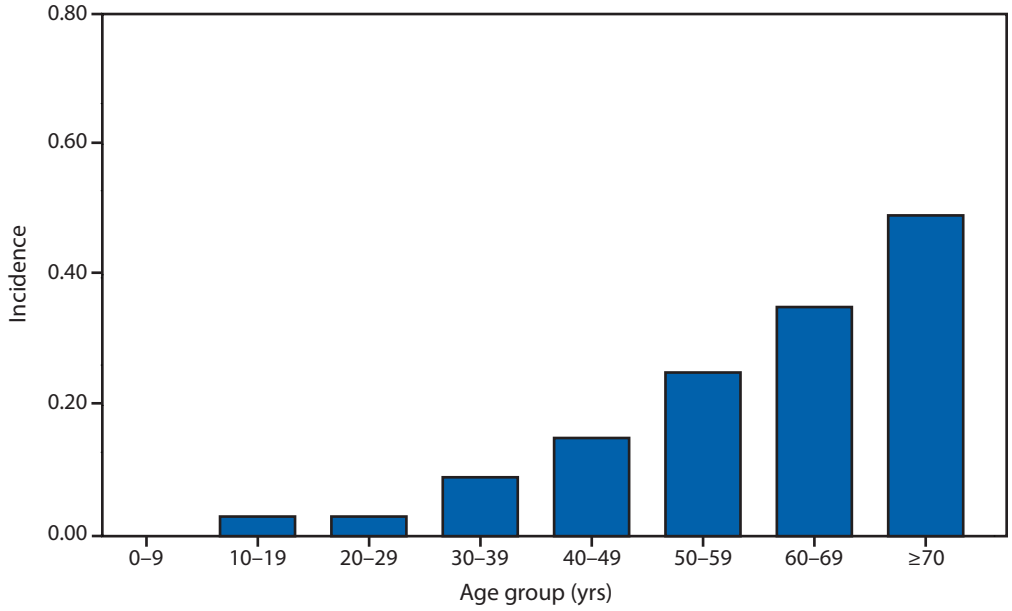
ARBOVIRAL DISEASES, WEST NILE VIRUS. Incidence* of reported cases of neuroinvasive disease, by year — United States, 2002–2011



* Per 100,000 population. Data from the Division of Vector-Borne Diseases, National Center for Emerging and Zoonotic Infectious Diseases (ArboNET Surveillance).

West Nile virus (WNV) was first detected in the United States in 1999. Despite substantial geographic spread of the virus from 1999 through 2001, WNV neuroinvasive disease incidence remained low until 2002, when large outbreaks occurred in the Midwest and Great Plains. The national incidence of WNV neuroinvasive disease peaked in 2002 and 2003, and was relatively stable from 2004 through 2007. WNV had appeared to reach a stable incidence, but incidence decreased in 2008 and continued to decline in 2009. However, in 2010 the number of reported WNV neuroinvasive disease cases increased 62% from that reported in 2009. The reported incidence of WNV neuroinvasive disease in the United States in 2011 was 0.16 per 100,000 population, which is consistent with incidence rates during 2008–2010.

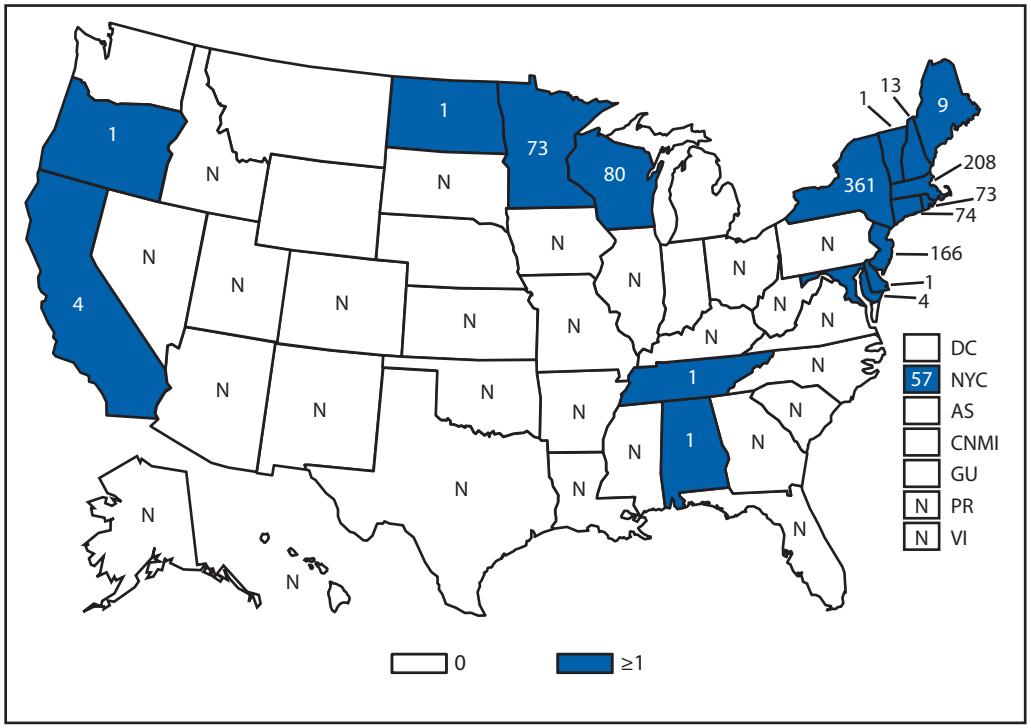
ARBOVIRAL DISEASES, WEST NILE VIRUS. Incidence* of reported cases of neuroinvasive disease, by age group — United States, 2011



* Per 100,000 population. Data from the Division of Vector-Borne Diseases, National Center for Emerging and Zoonotic Infectious Diseases (ArboNET Surveillance).

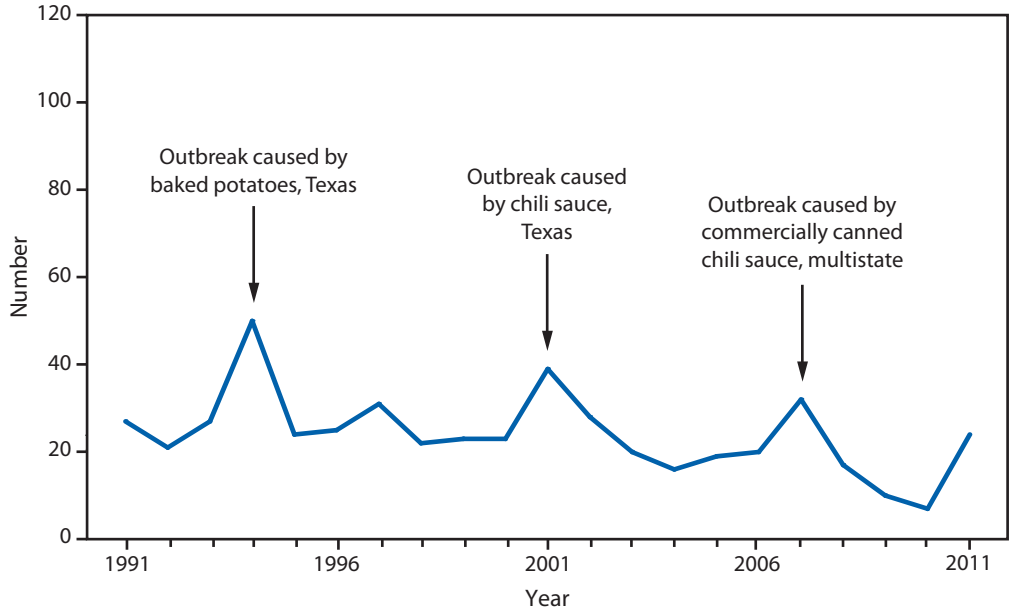
In 2011, the median age of patients with West Nile virus neuroinvasive disease was 57 years (range: 7–96 years), with increasing incidence among older age groups.

BABESIOSIS. Number of reported cases — United States and U.S. territories, 2011



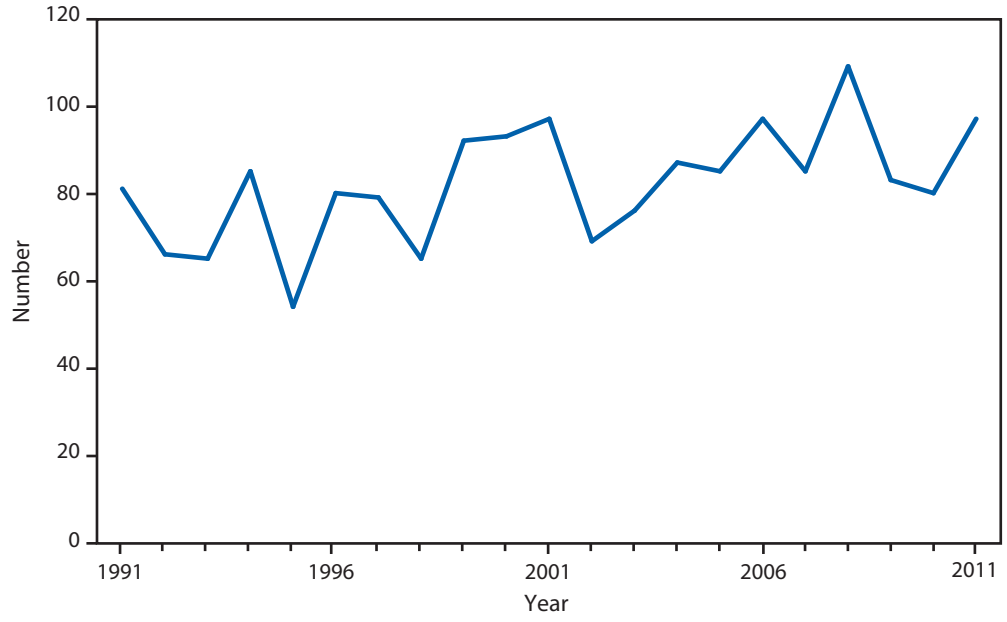
Babesiosis, a tickborne parasitic infection, became nationally notifiable in 2011. Approximately 97% of cases were reported from the Northeast and Upper Midwest.

BOTULISM, FOODBORNE. Number of reported cases, by year — United States, 1991–2011



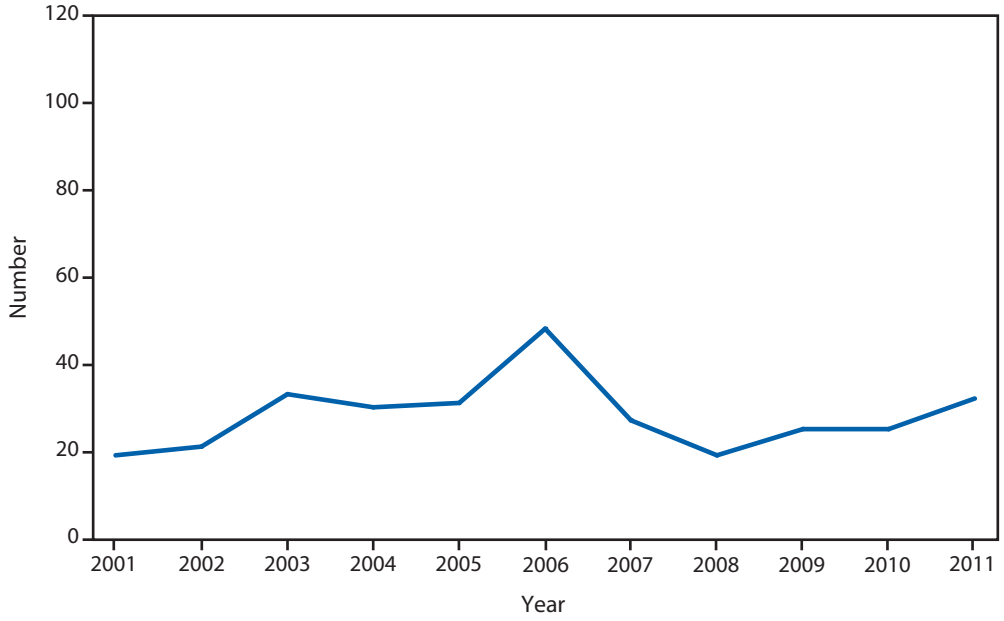
Foodborne botulism is typically associated with home-canned or Alaska Native foods. In 2011, an outbreak of eight cases of foodborne botulism occurred in a Utah prison, associated with consumption of pruno, an illicit alcoholic brew.

BOTULISM, INFANT. Number of reported cases, by year — United States, 1991–2011



Infant botulism remains the most common transmission category of botulism in the United States and accounted for the majority of botulism cases in 2011.

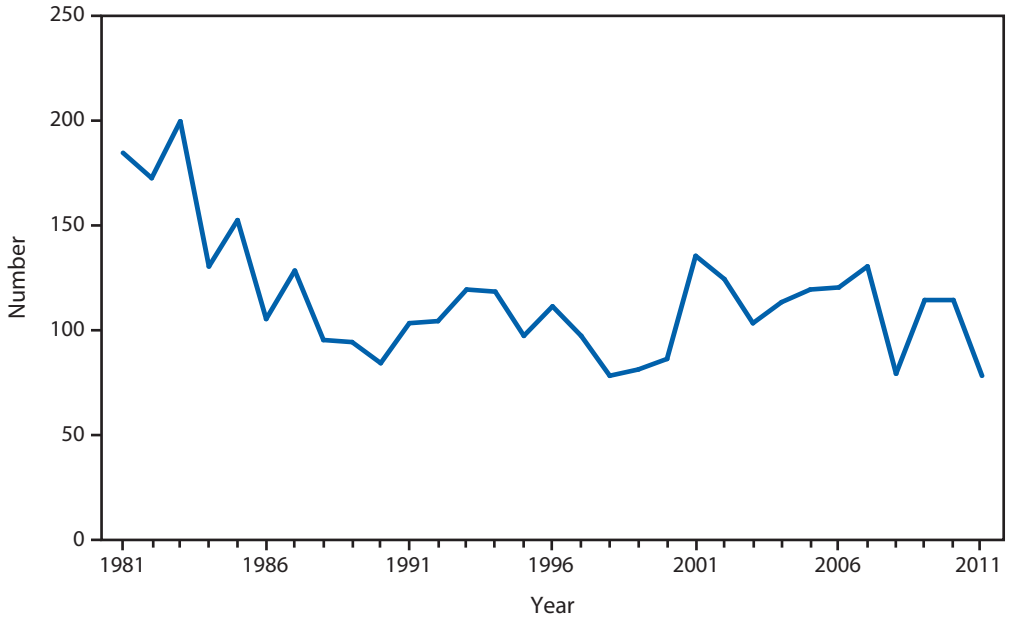
BOTULISM, OTHER. Number* of reported cases, by year — United States, 2001–2011



* Includes wound and unspecified.

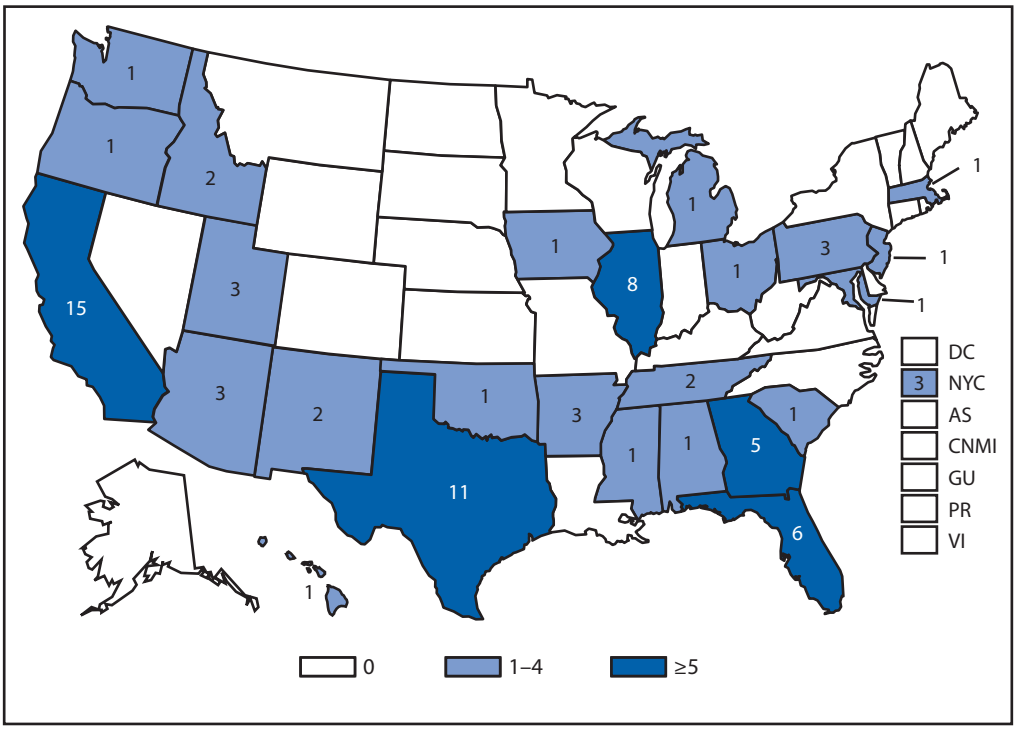
Annual numbers of wound and unspecified forms of botulism have remained generally stable during the past decade.

BRUCELLOSIS. Number of reported cases, by year — United States, 1981–2011



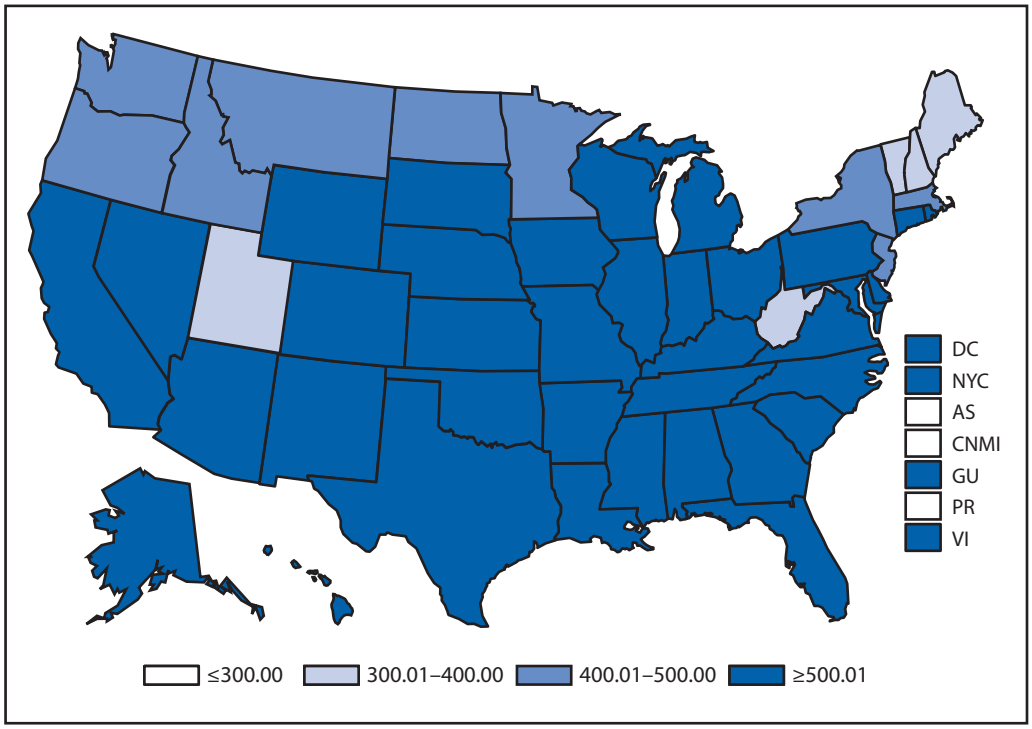
Reported cases for 2011 declined 31% compared with 2009 and 2010.

BRUCELLOSIS. Number of reported cases — United States and U.S. territories, 2011



Cases from California, Florida, Georgia, Illinois, and Texas accounted for approximately 57% of all reported cases.

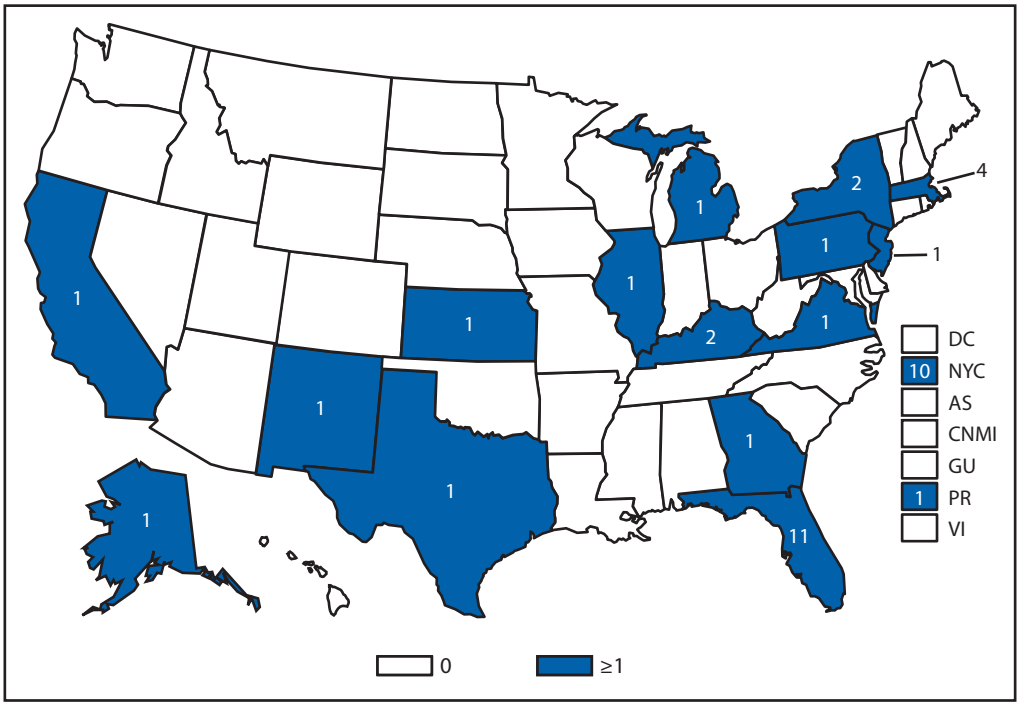
CHLAMYDIA. Incidence* among women — United States and U.S. territories, 2011



* Per 100,000 population.

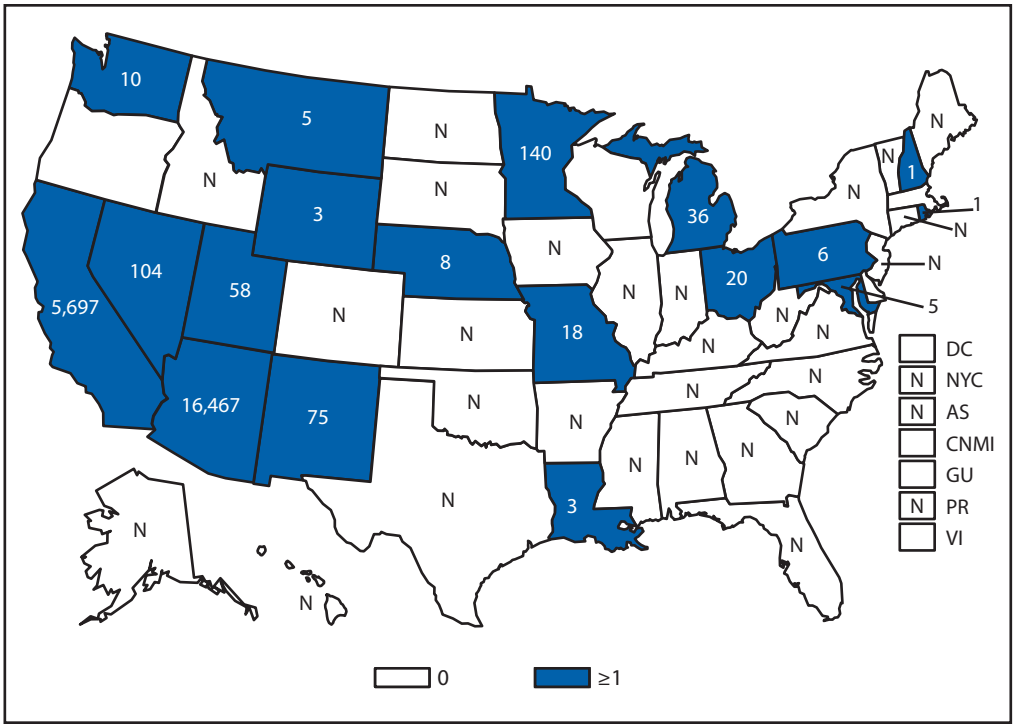
In 2011, the chlamydia rate among women in the United States and U. S. territories (Guam, Puerto Rico, and the Virgin Islands) was 644.1 cases per 100,000 population.

CHOLERA. Number of reported cases — United States and U.S. territories, 2011



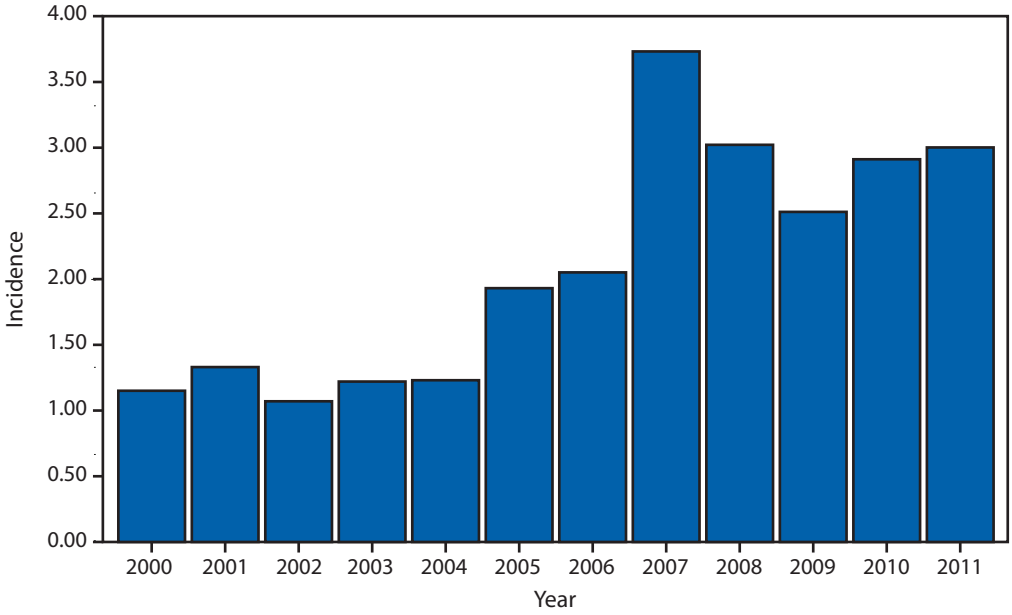
In 2011, as in 2010, the majority of cholera cases reported in the United States occurred among travelers who had recently arrived from Hispaniola. Of the 42 cholera infections reported in the United States, 39 were travel-associated (22 with travel to Haiti, 11 to the Dominican Republic, and 6 to other cholera-affected countries).

COCCIDIOIDOMYCOSIS. Number of reported cases — United States* and U.S. territories, 2011



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

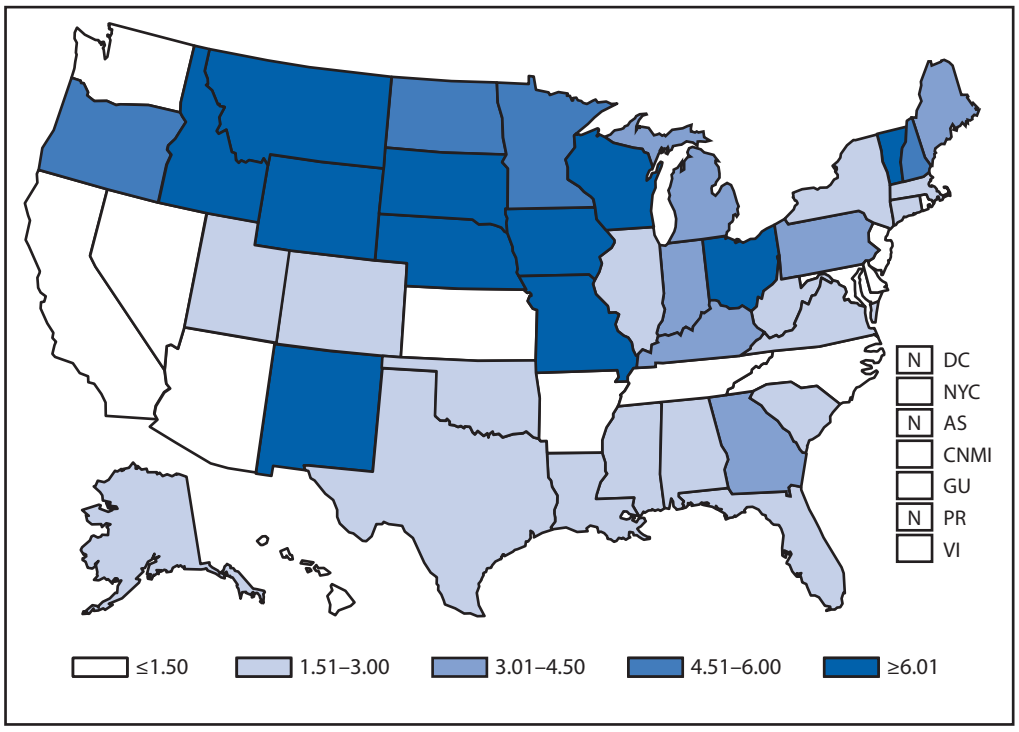
CRYPTOSPORIDIOSIS. Incidence,* by year — United States, 2000–2011



* Per 100,000 population.

Cryptosporidiosis incidence remains historically elevated relative to the baseline observed before 2005. Whether the changes in cryptosporidiosis reporting reflect a real change in cryptosporidiosis incidence or changing diagnosis, testing, or reporting patterns is unclear.

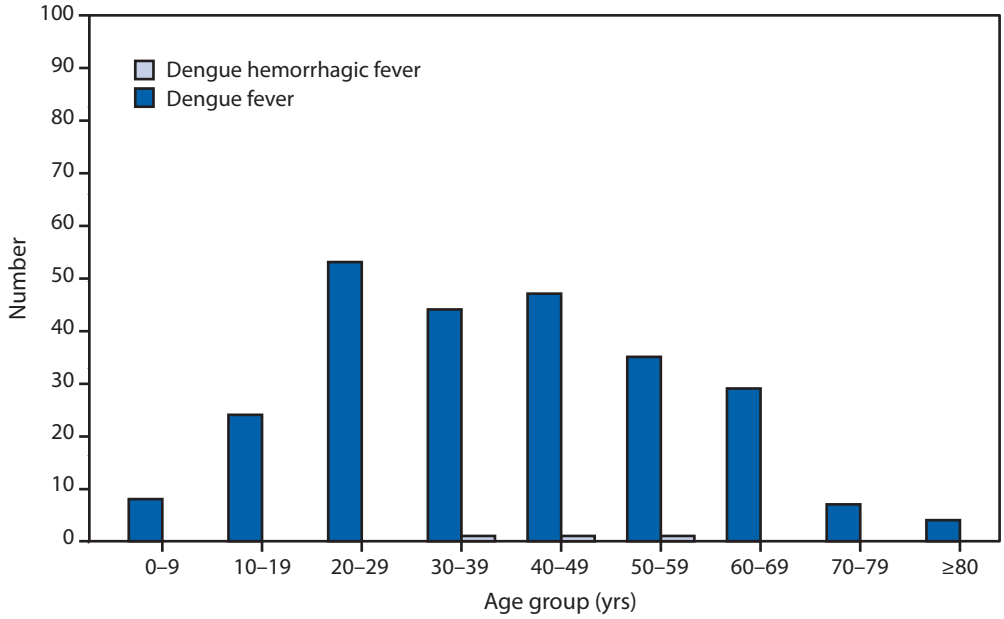
CRYPTOSPORIDIOSIS. Incidence* — United States and U.S. territories, 2011



* Per 100,000 population.

Cryptosporidiosis is widespread geographically in the United States. Although incidence appears to be consistently higher in certain states, differences in reported incidence among states might reflect differences in risk factors; the number of cases associated with outbreaks; or in the capacity to detect, investigate, and report cases. Incidence categories have been modified to reflect the recent increase in incidence.

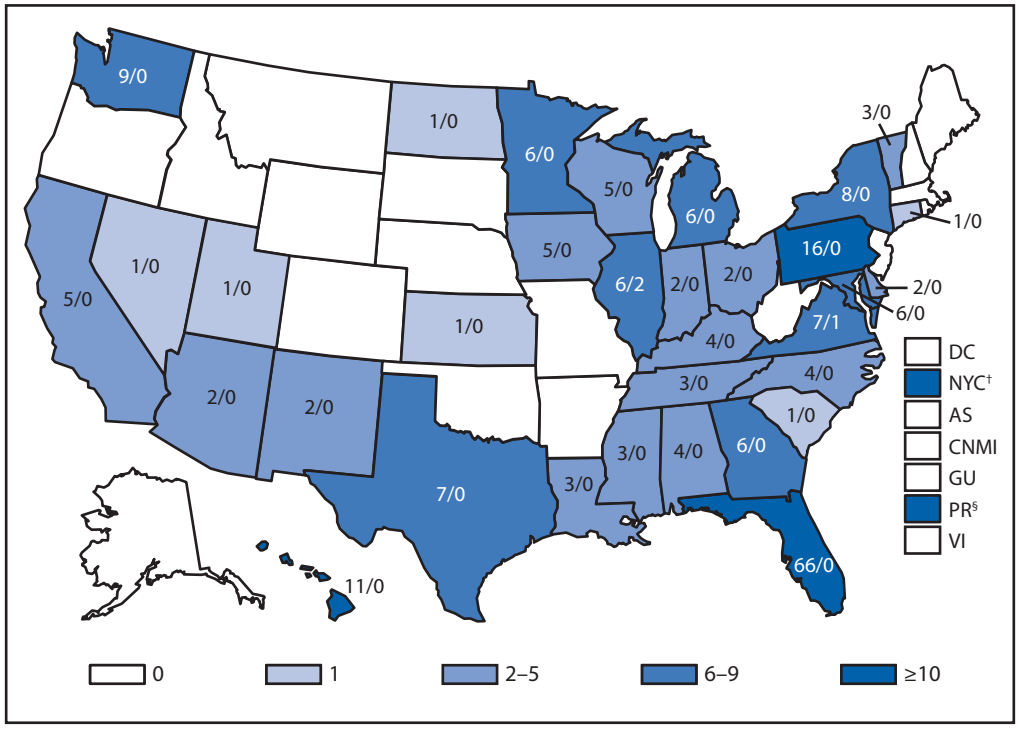
DENGUE VIRUS INFECTION. Number* of reported cases, by age group — United States, 2011



* Data from the Division of Vector-Borne Diseases, National Center for Emerging and Zoonotic Infectious Diseases (ArboNET Surveillance).

This bar graph represents the number of travel and locally acquired cases of dengue fever and dengue hemorrhagic fever with illness onset in 2011 reported from the 50 U.S. states and stratified by age group. The median age of persons with dengue fever was 19 years (range: 1–94 years); most cases occurred in persons aged 50–59 years. The median age for persons with dengue hemorrhagic fever was 40.5 years (range: 28–65 years).

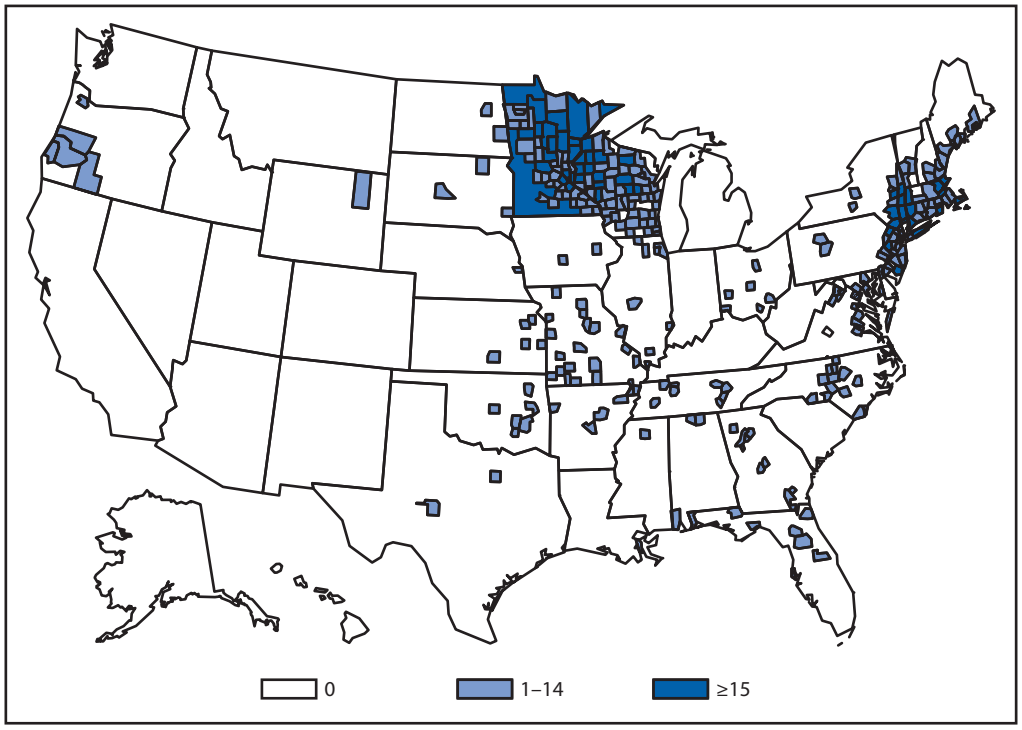
DENGUE FEVER AND DENGUE HEMORRHAGIC FEVER. Number of reported cases, by location of residence* — United States and U.S. territories, 2011



* Data from the Division of Vector-Borne Diseases, National Center for Emerging and Zoonotic Infectious Diseases (ArboNET Surveillance).
† New York City reported cases 45/0.
§ Puerto Rico locally acquired cases 1,507/34.

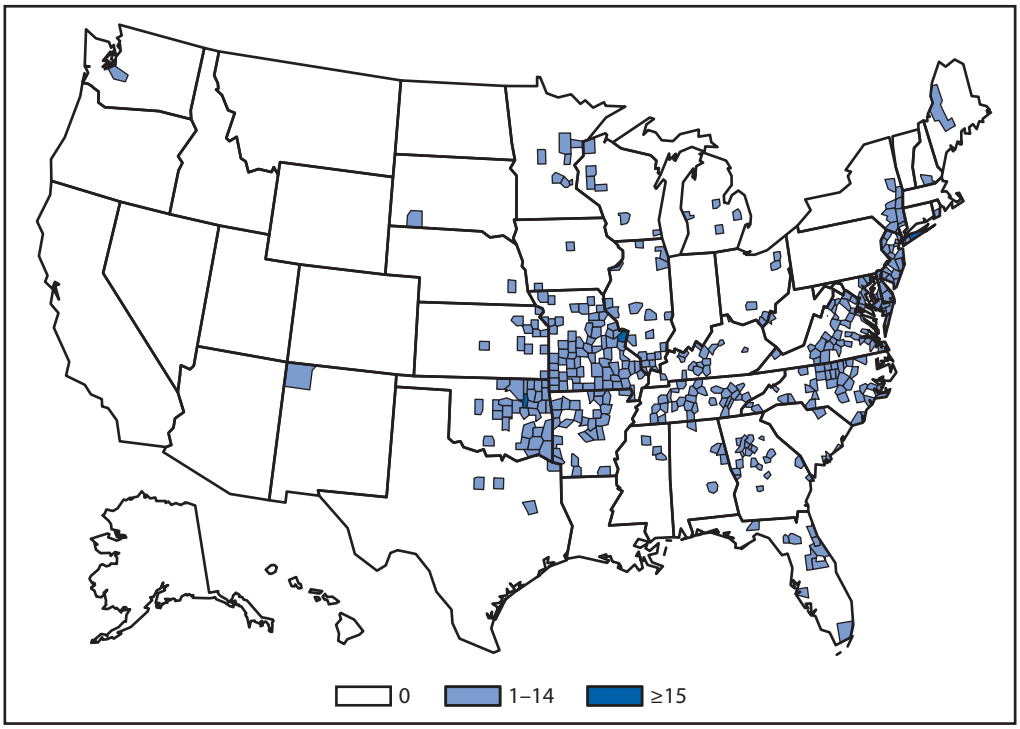
The numbers on this map represent the number of dengue fever and dengue hemorrhagic fever cases with illness onset in 2011, by residence. Both travel-associated and locally acquired cases are presented. Florida, New York City, and Pennsylvania had the highest number of travel-associated cases. The U.S. territory of Puerto Rico (n = 1,541), Florida (n = seven), and Hawaii (n = four) were the only jurisdictions reporting locally acquired dengue cases.

EHRLICHIOSIS, *ANAPLASMA PHAGOCYTOPHILUM*. Number of reported cases, by county — United States, 2011



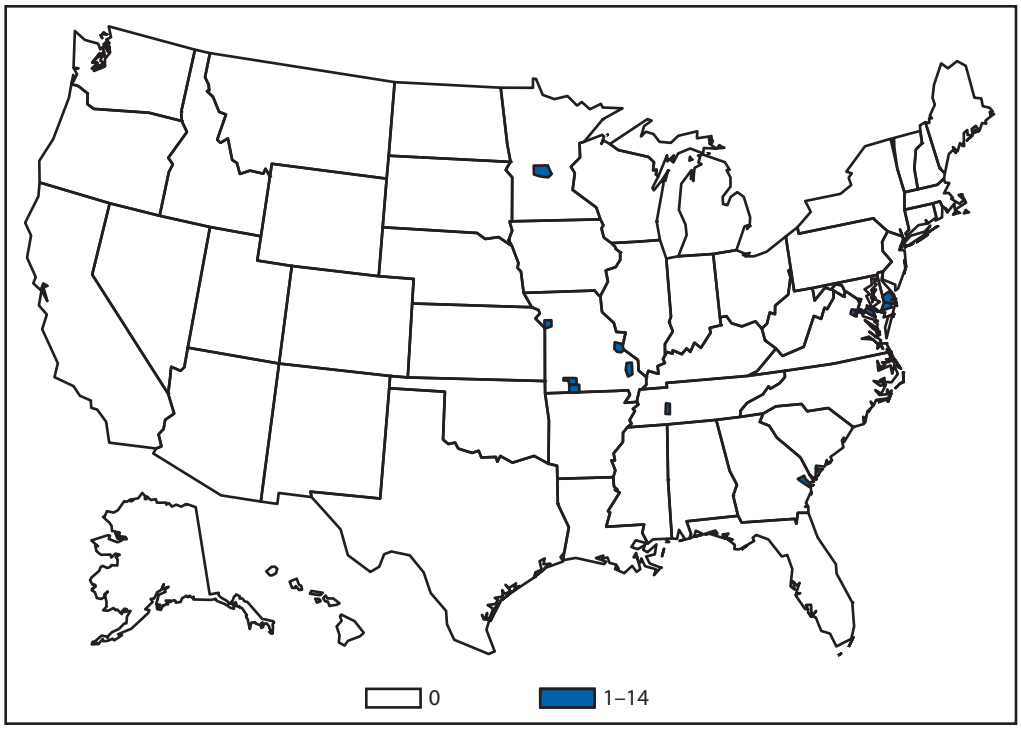
Anaplasmosis is caused by infection with *Anaplasma phagocytophilum*. Cases are reported primarily from the upper Midwest and coastal New England, reflecting both the range of the primary tick vector species, *Ixodes scapularis* — also known to transmit Lyme disease and babesiosis—and the range of preferred animal hosts for tick feeding.

EHRLICHIOSIS, *EHRLICHIA CHAFFEENSIS*. Number of reported cases, by county — United States, 2011



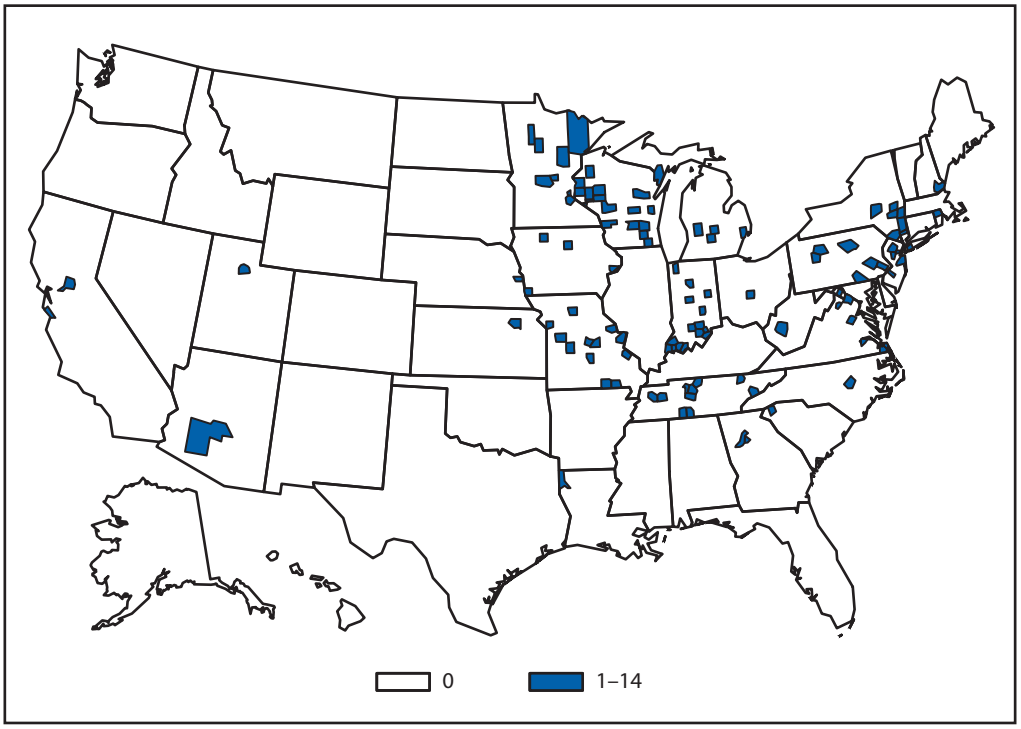
Ehrlichia chaffeensis is the most common type of ehrlichiosis infection in the United States. This tick-borne pathogen is transmitted by *Amblyomma americanum*, the lonestar tick. The majority of cases of *E. chaffeensis* are reported from the Midwest and New York.

EHRLICHIOSIS, *EHRLICHIA EWINGII*. Number of reported cases, by county — United States, 2011



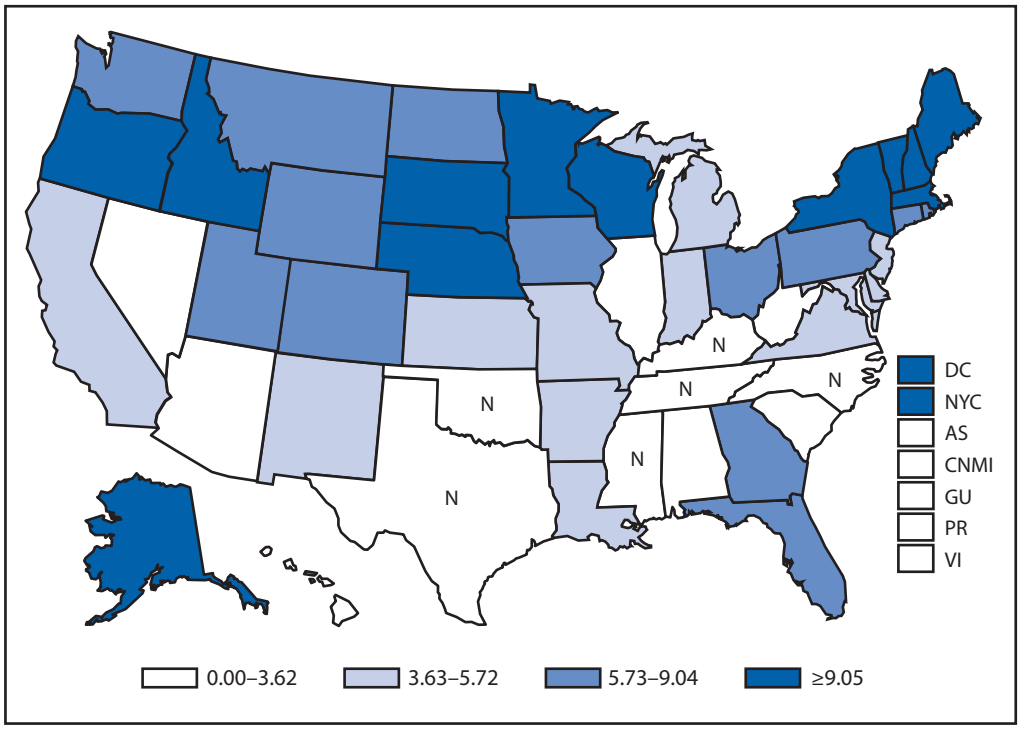
Ehrlichiosis ewingii is the less common cause of ehrlichiosis. *E. ewingii* is carried by *Amblyomma americanum*, the lonestar tick, which is the same vector that transmits *E. chaffeensis*. Currently, no serologic tests are used to distinguish between the two species, and differentiation can only be made by molecular genotyping.

EHRLICHIOSIS, UNDETERMINED. Number of reported cases, by county — United States, 2011



Cases of ehrlichiosis and anaplasmosis, caused by an undetermined species are reported across the United States, but are more likely to be found in the Midwest and Eastern Atlantic regions. This reporting category is used to report new *Ehrlichia* or *Anaplasma* species, including the newly recognized *Ehrlichia muris*-like organism, which was recently confirmed in some patients from Minnesota and Wisconsin. However, this classification is most often used in geographic areas where no clear geographic boundary separates the individual tick vectors. Because ehrlichiosis and anaplasmosis elicit some cross reactivity in antibody detection, this category can also be used when single, inappropriate diagnostic tests are performed.

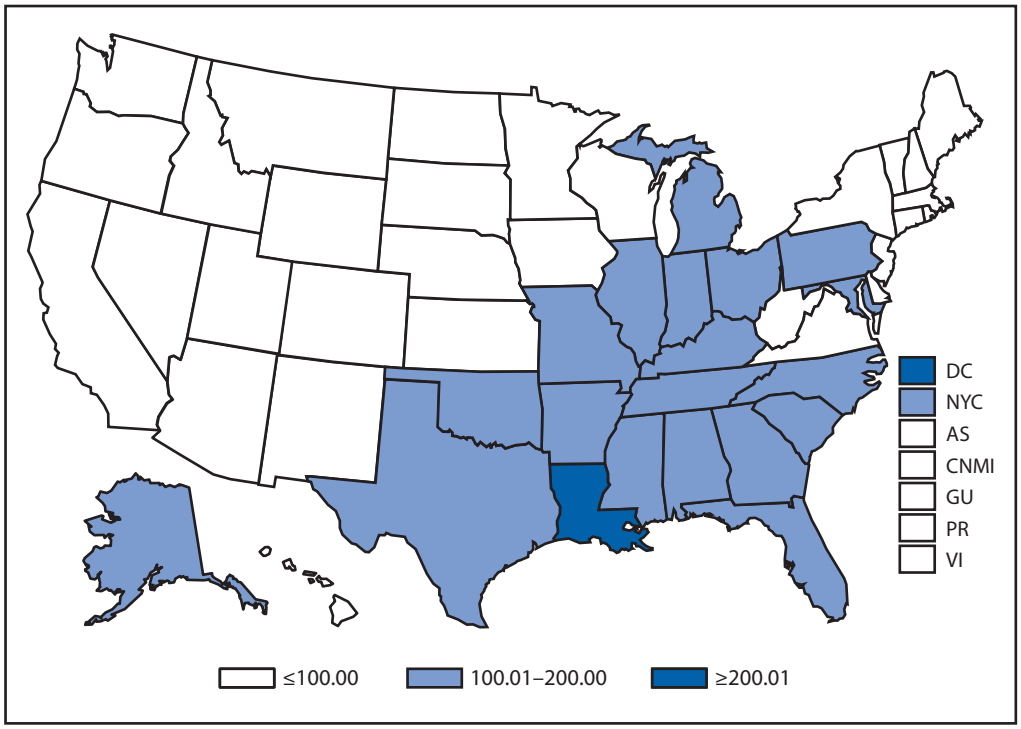
GIARDIASIS. Incidence* — United States and U.S. territories, 2011



* Per 100,000 population.

Giardiasis is widespread geographically in the United States, with varying reported rates in certain states and regions. Whether these differences are of true biologic significance or reflect differences in giardiasis case detection and reporting among states is unclear.

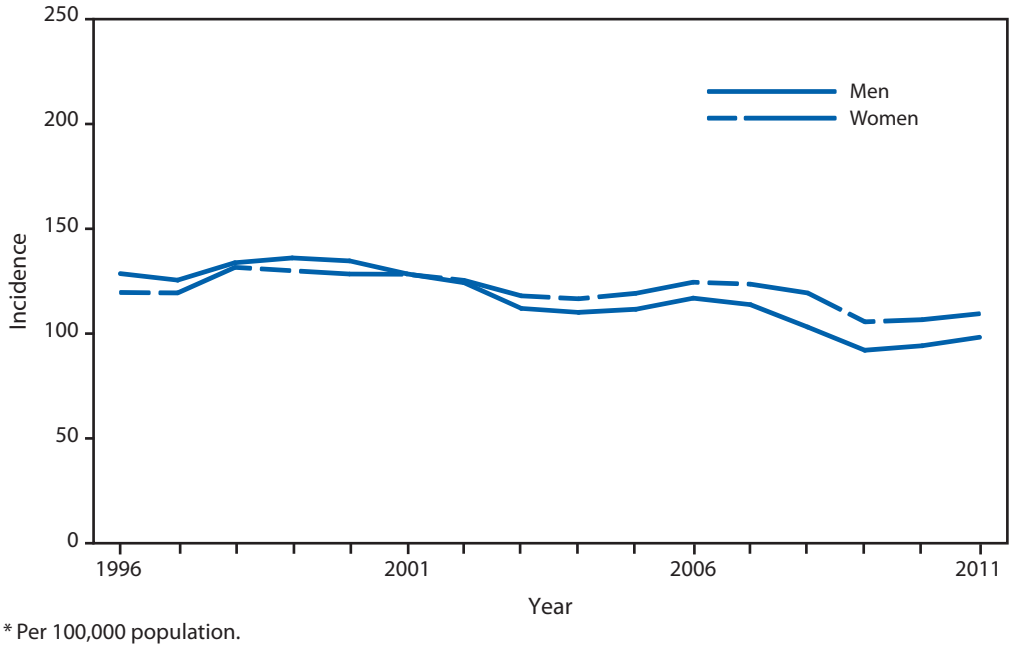
GONORRHEA. Incidence* — United States and U.S. territories, 2011



* Per 100,000 population.

In 2011, the gonorrhea rate in the United States and U.S. territories (Guam, Puerto Rico, and the Virgin Islands) was 103.1 cases per 100,000 population, an increase from the rate in 2010.

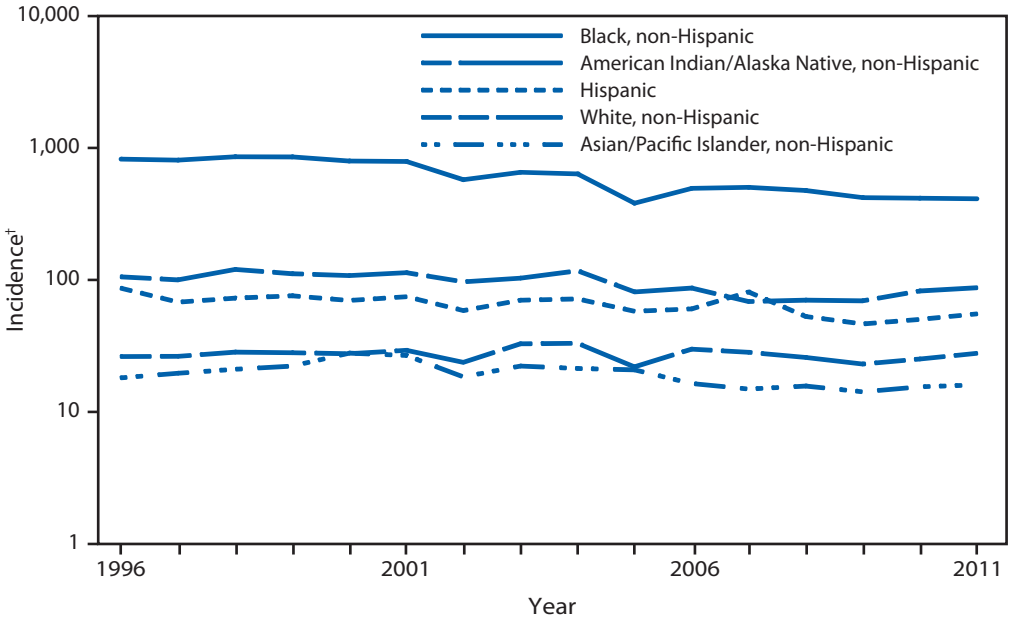
GONORRHEA. Incidence,* by sex — United States, 1996–2011



* Per 100,000 population.

For the tenth year in a row, the gonorrhea rate among women was slightly higher than the rate among men.

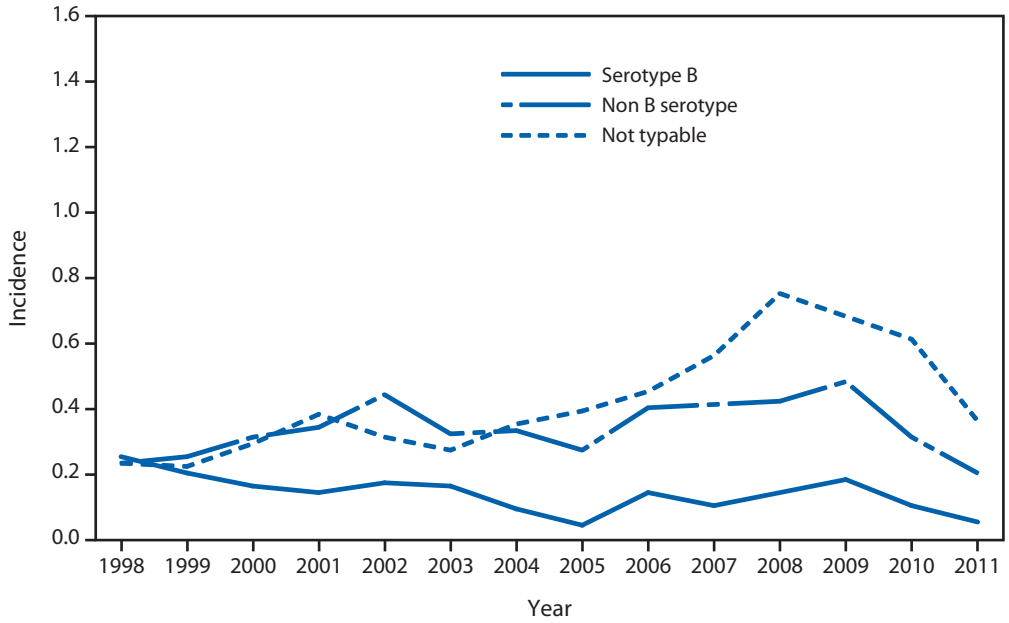
GONORRHEA. Incidence,* by race/ethnicity — United States, 1996–2011



* Per 100,000 population.
† Y-axis is log scale.

Gonorrhea incidence among blacks decreased considerably during the 1990s but continues to be the highest among all races/ethnicities. In 2011, incidence among non-Hispanic blacks was approximately 17 times greater than that for non-Hispanic whites.

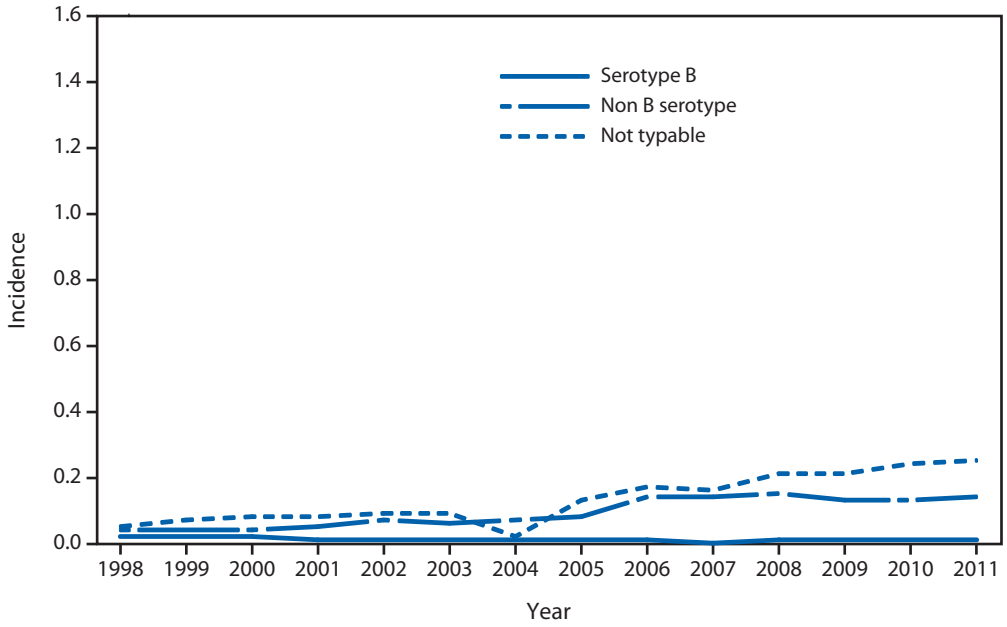
***HAEMOPHILUS INFLUENZAE*, INVASIVE DISEASE. Incidence,* by serotype among persons aged <5 years — United States, 1998–2011**



* Per 100,000 population.

This figure shows incidence rates for all invasive *Haemophilus influenzae* (serotype b (Hib), non-b, and nontypeable) among children aged <5 years. The epidemiology of invasive *Haemophilus influenzae* disease has changed in the United States in the post vaccine era. Since the introduction of conjugate Hib vaccines in 1987, the incidence of invasive Hib disease among children aged <5 years decreased by 99% to <1 case per 100,000 children. Nontypeable *Haemophilus influenzae* now causes the majority of invasive disease in all age groups. To ensure appropriate chemophrophylaxis measures for contacts of invasive Hib disease and to detect emergence of invasive non-Hib disease, serotyping of all *Haemophilus influenzae* isolates in children <5 years, and thorough and timely investigation of all cases of Hib disease are essential.

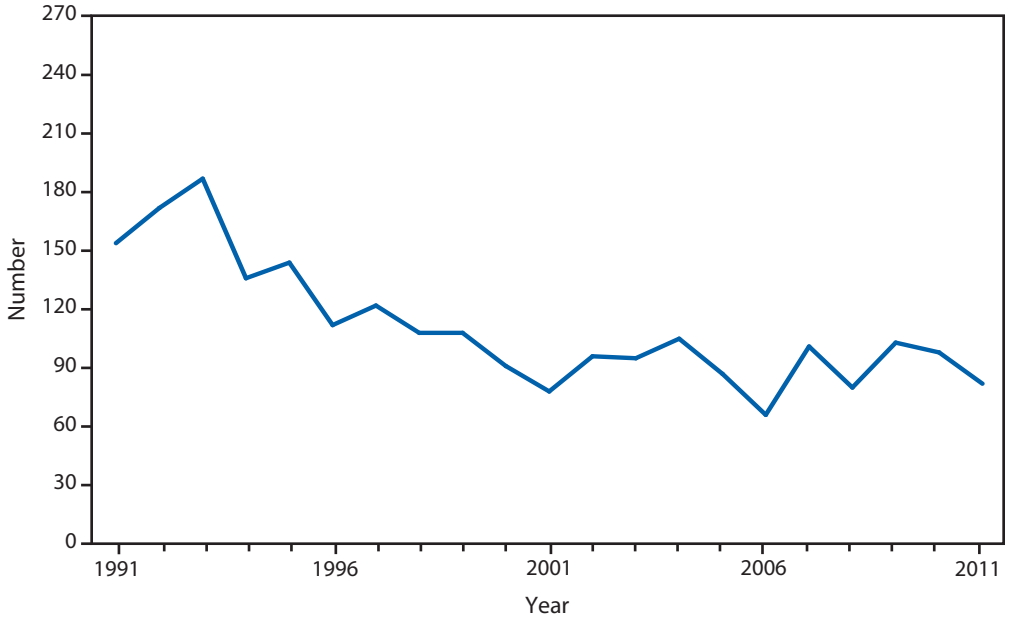
***HAEMOPHILUS INFLUENZAE*, INVASIVE DISEASE. Incidence,* by serotype among persons aged ≥5 years — United States, 1998–2011**



* Per 100,000 population.

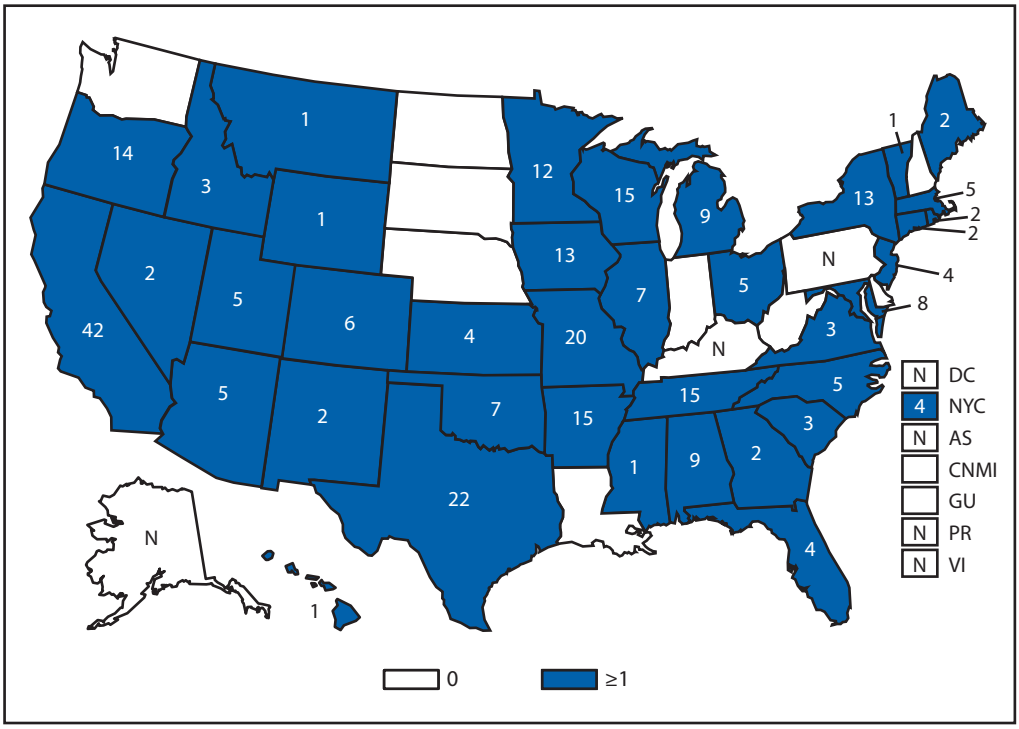
This figure shows incidence rates for all invasive *Haemophilus influenzae* (serotype b (Hib), non-b, and nontypeable) among children aged <5 years. The epidemiology of invasive *Haemophilus influenzae* disease has changed in the United States in the post vaccine era. Since the introduction of conjugate Hib vaccines in 1987, the incidence of invasive Hib disease among children aged <5 years decreased by 99% to less than one case per 100,000 children. Nontypeable *Haemophilus influenzae* now causes the majority of invasive disease in all age groups. To ensure appropriate chemophrophylaxis measures for contacts of invasive Hib disease and to detect emergence of invasive non-Hib disease, serotyping of all *Haemophilus influenzae* isolates in children <5 years and through timely investigation of all cases of Hib disease are essential.

HANSEN DISEASE (LEPROSY). Number of reported cases, by year — United States, 1991–2011



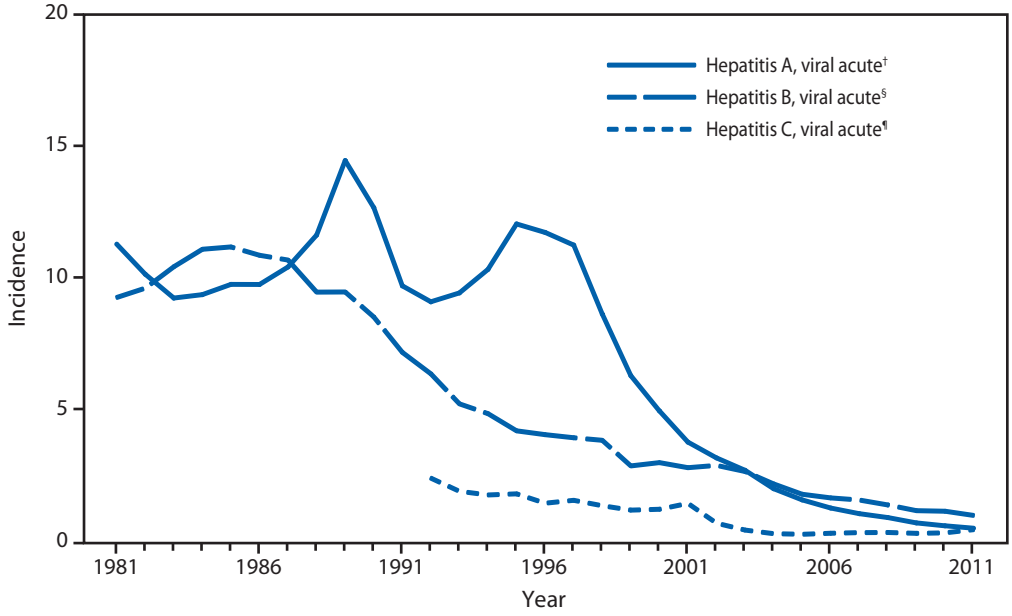
During 2011, reported Hansen disease cases decreased 16.3% compared with 2010.

HEMOLYTIC UREMIC SYNDROME, POSTDIARRHEAL. Number of reported cases — United States and U.S. territories, 2011



In 2011, cases continued to be reported from all regions of the country. Most cases of postdiarrheal hemolytic uremic syndrome (HUS) are caused by Shiga toxin-producing *Escherichia coli* (STEC), with STEC O157:H7 being the most common serotype identified in patients with HUS (based on data collected in the FoodNet surveillance system). During 2011, four cases of postdiarrheal HUS in the United States occurred in adults with recent travel to Germany whose illnesses were part of a large European outbreak associated with sprouts; STEC O104:H4 was isolated from each patient.

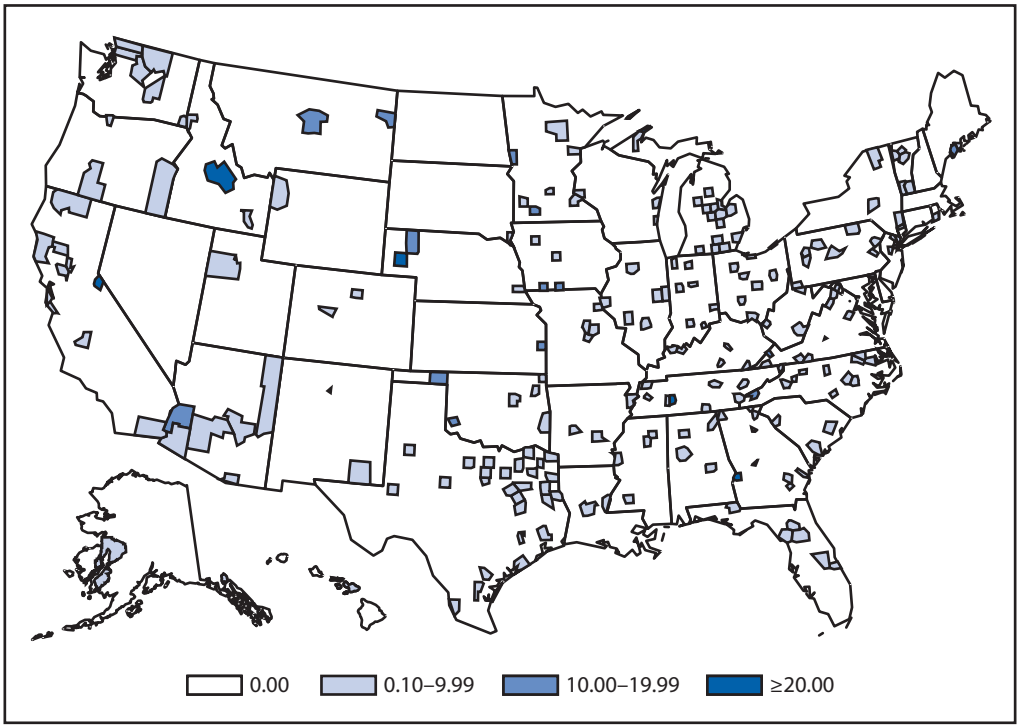
HEPATITIS, VIRAL. Incidence,* by year — United States, 1981–2011



* Per 100,000 population.
† Hepatitis A vaccine was first licensed in 1995.
§ Hepatitis B vaccine was first licensed in June 1982.
¶ An anti-hepatitis C virus (HCV) antibody test first became available in May 1990.

Since 1995, NNDSS data have shown declining rates of acute hepatitis A and B. The decline in incidence of hepatitis A is in part because of routine vaccination of children with hepatitis A vaccine. The decline in incidence of hepatitis B is primarily because of routine vaccination of infants. The number of cases and rates of acute hepatitis C have been relatively stable from 2003 through 2010. However, the rate for acute hepatitis C increased by 33.3% from 2010 to 2011. Additionally, a substantial burden of hepatitis disease remains as a result of the prevalence of both chronic hepatitis B and chronic hepatitis C.

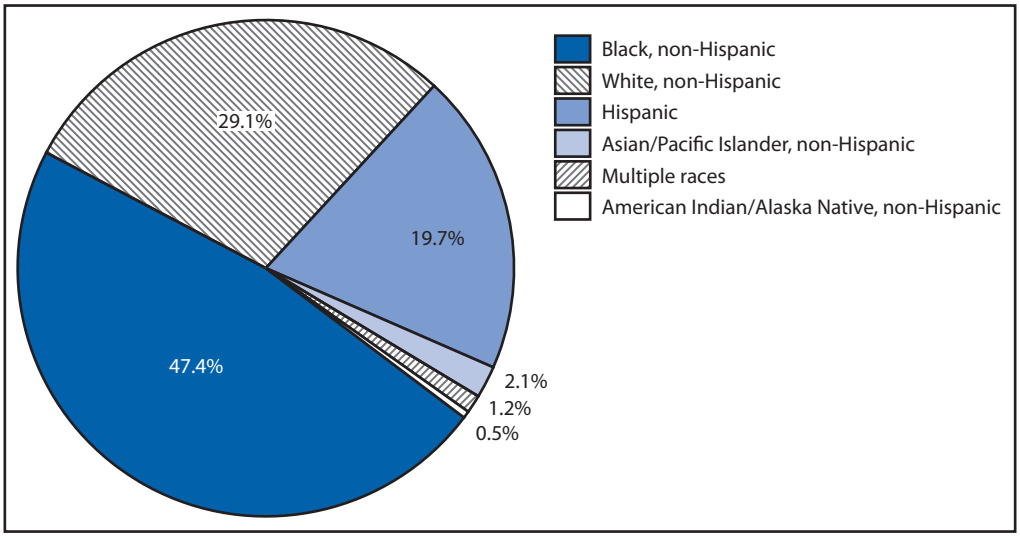
HEPATITIS A. Incidence,* by county — United States, 2011



* Per 100,000 population.

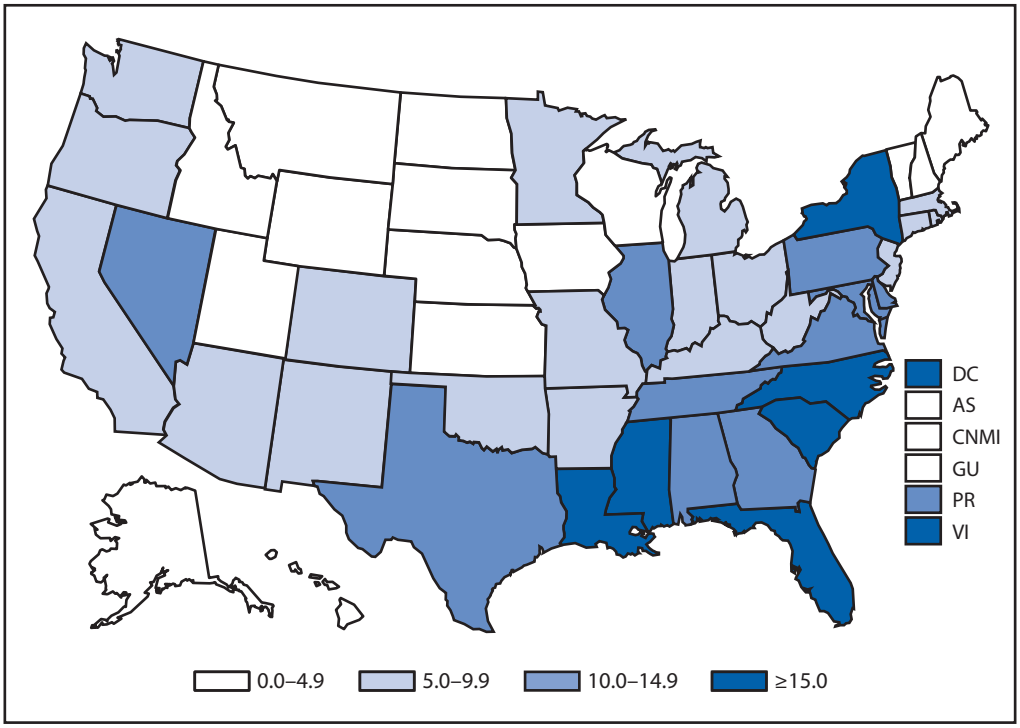
Since 1999, rates of infection with hepatitis A virus have declined in all regions, with western states showing the greatest decline. This decline is because of routine vaccination of children, beginning in 1996 in 11 states that had consistently elevated rates of disease and becoming universal for all children in 2006. Hepatitis A virus infection rates are the lowest ever reported and are similar across regions.

HUMAN IMMUNODEFICIENCY VIRUS DIAGNOSES. Percentage of diagnosed cases, by race/ethnicity — United States, 2011



Of persons diagnosed with HIV infection in 2011, the greatest percentage was among blacks/African Americans, followed by whites, Hispanics/Latinos, Asians/Pacific Islanders, persons of multiple races, and American Indians/Alaska Natives.

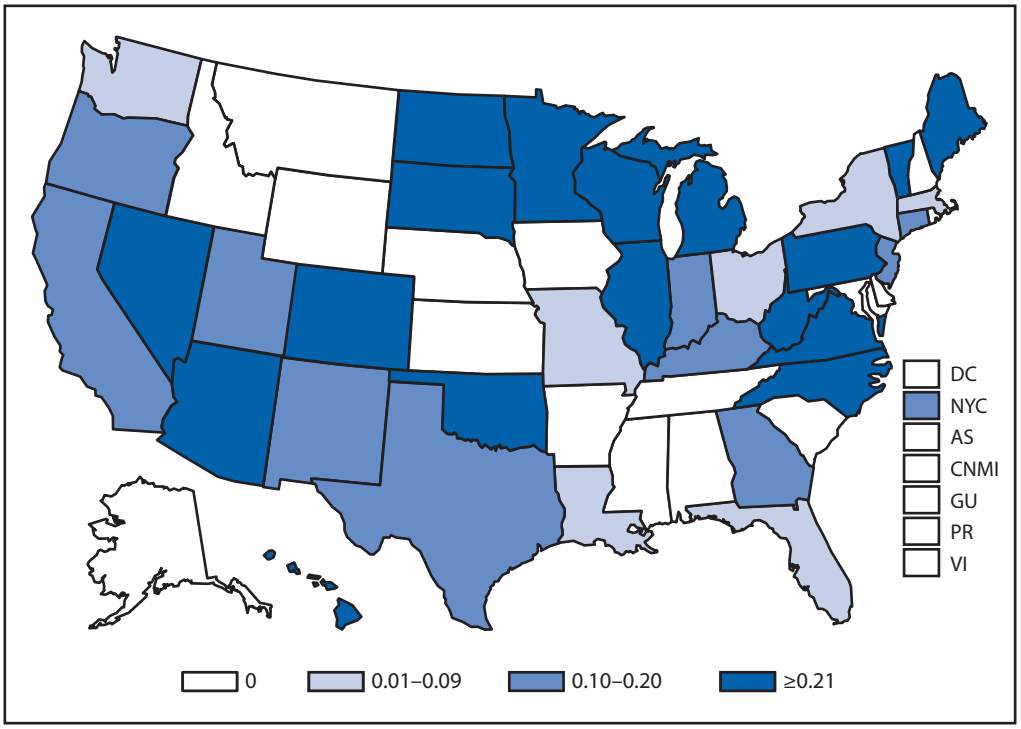
HUMAN IMMUNODEFICIENCY VIRUS DIAGNOSES. Diagnoses rates* — United States and U.S. territories, 2011



* Per 100,000 population.

The highest rates (i.e., ≥15 diagnoses per 100,000 population) of diagnoses of HIV infection were observed in certain states in the Southeast and Northeast. A rate ≥15 diagnoses per 100,000 population also was observed in the District of Columbia.

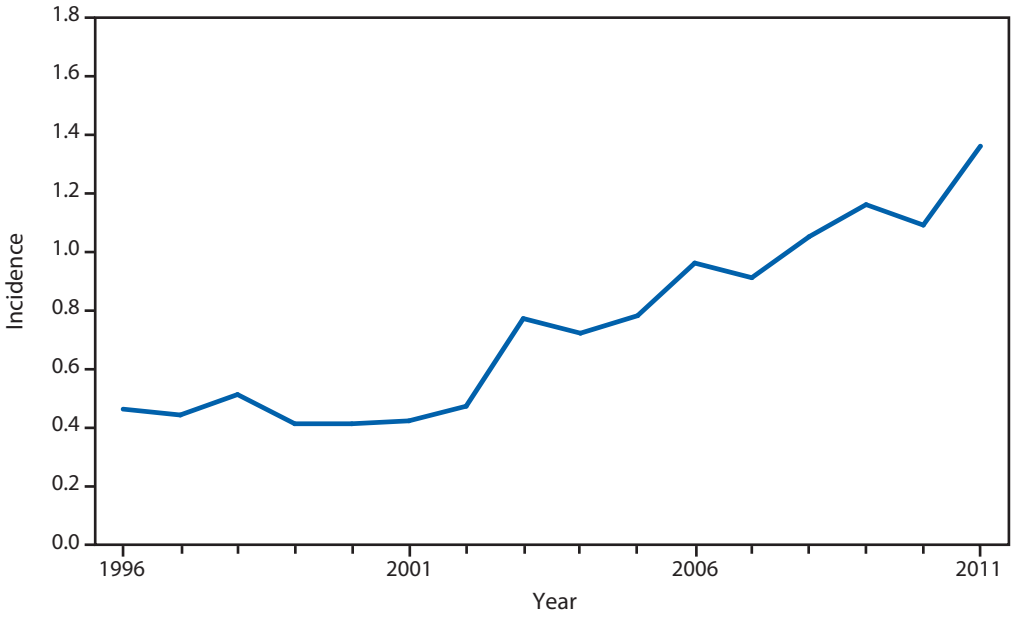
INFLUENZA–ASSOCIATED PEDIATRIC MORTALITY. Incidence* — United States and U.S. territories, 2011



* Per 100,000 population.

During 2011, a total of 34 states and New York City reported 118 influenza-associated pediatric deaths to CDC for an overall incidence rate in the United States of 0.16 deaths per 100,000 children aged <18 years. This represents an increase in the overall rate when compared with 2010 (0.08 deaths per 100,000 children aged <18 years) and a substantial decrease in the rate compared with 2009 (0.48 deaths per 100,000 children aged <18 years) when three peaks in influenza-associated deaths were seen: one from seasonal influenza activity, a small peak during the summer months because of the initial pandemic 2009 A(H1N1) activity, followed by a much larger peak associated with pandemic activity in the fall of 2009. The state-to-state variations in rates are more likely related to the small numbers of deaths in each state rather than true differences in disease burden.

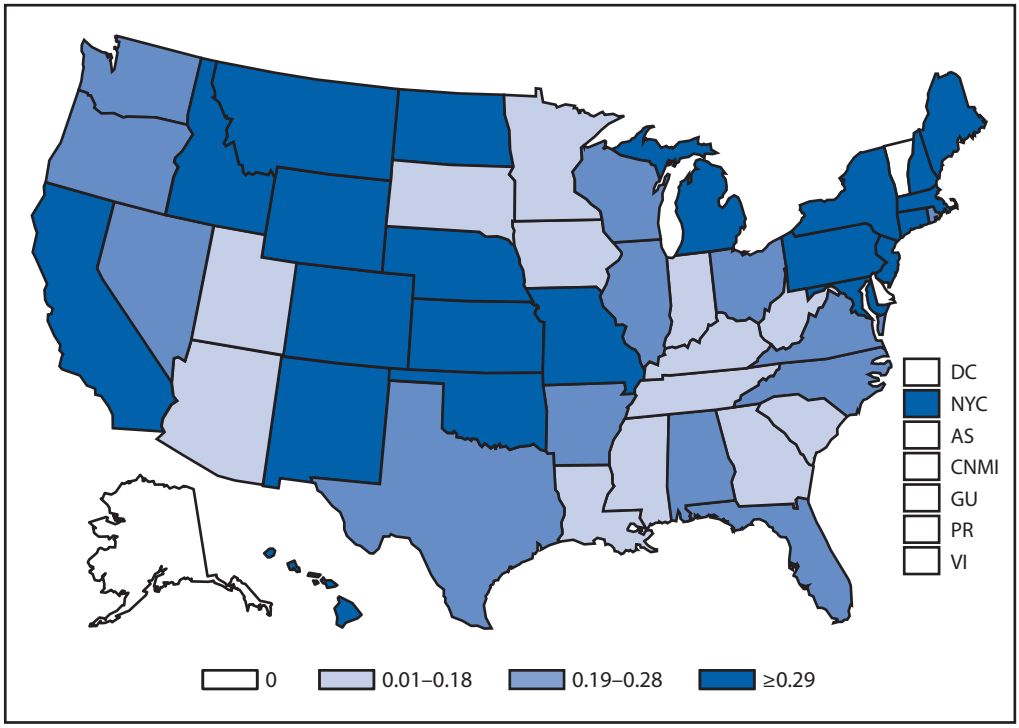
LEGIONELLOSIS. Incidence,* by year — United States, 1996–2011



* Per 100,000 population.

The incidence of legionellosis increased again in 2011, continuing a general increase that began in 2003. Factors contributing to this increase might include increased diagnostic testing or a true increase in disease transmission.

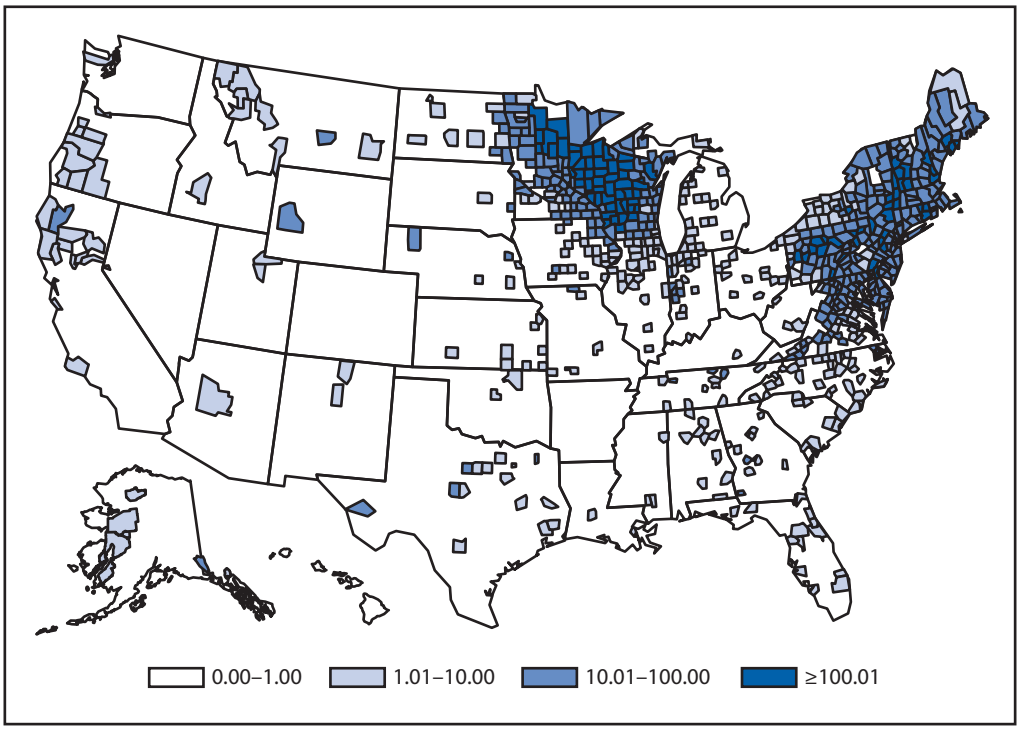
LISTERIOSIS. Incidence* — United States and U.S. territories, 2011



* Per 100,000 population.

In 2011, whole cantaloupe from a single farm was associated with the largest listeriosis outbreak in U.S. history, with 147 cases, 143 hospitalizations, and 33 deaths in 28 states. Colorado, Texas, New Mexico, Oklahoma, and Kansas reported the highest numbers of cases in this outbreak.

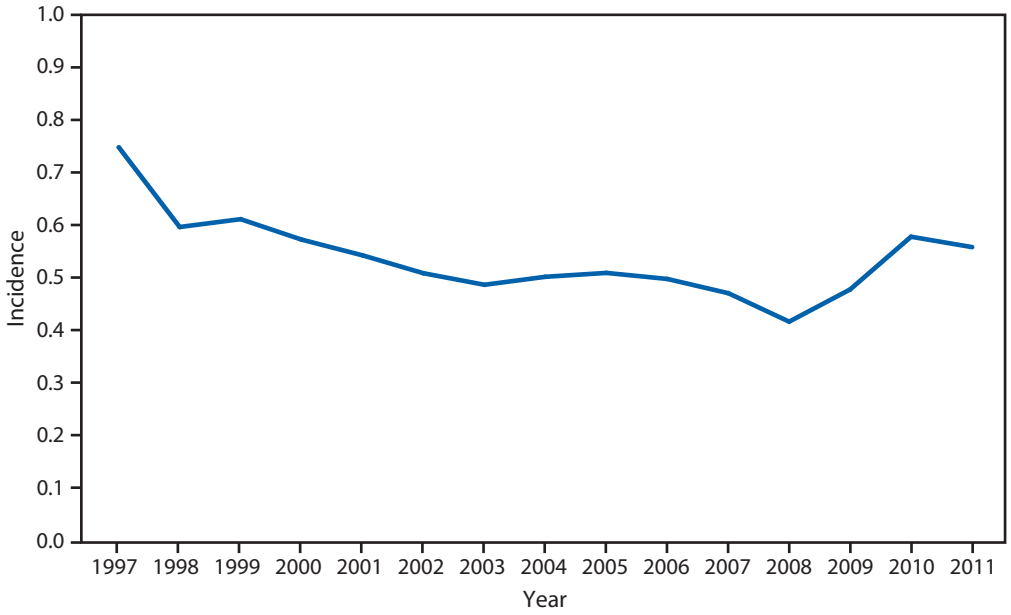
LYME DISEASE. Incidence* of reported confirmed cases, by county — United States, 2011



* Per 100,000 population.

Approximately 95% of confirmed Lyme disease cases were reported from states in the Northeast, mid-Atlantic, and upper Midwest. A rash that can be confused with early Lyme disease sometimes occurs 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.

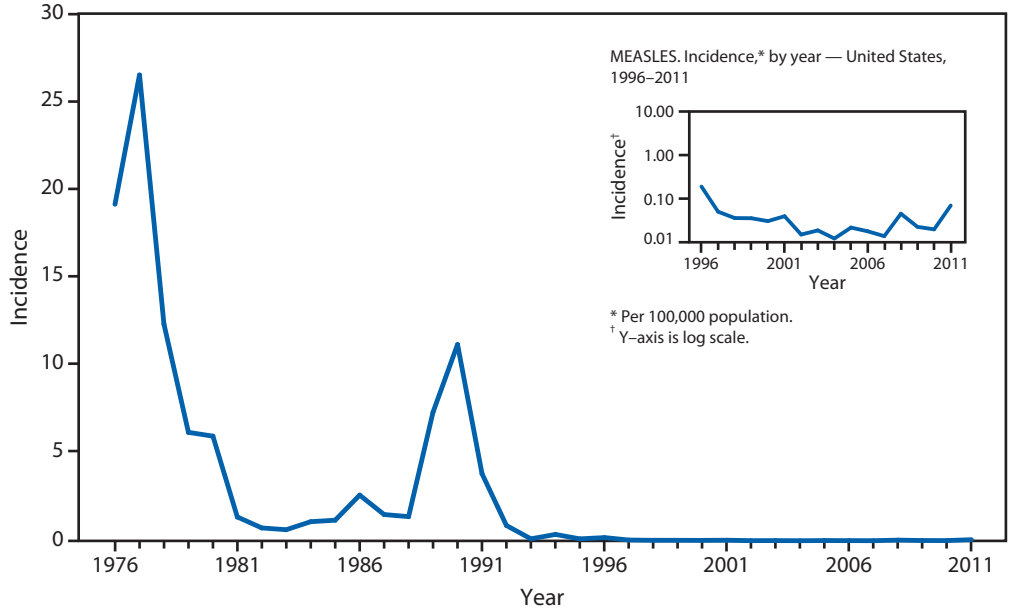
MALARIA. Incidence,* by year — United States, 1997–2011



* Per 100,000 population.

Malaria in the United States is primarily a disease of travelers, for whom protective prophylaxis is recommended. The rate of malaria infection steadily decreased from 1997 to 2008. With an increase in the number of cases beginning in 2008, the 2010 and 2011 rates of malaria infection returned to levels not seen in a decade.

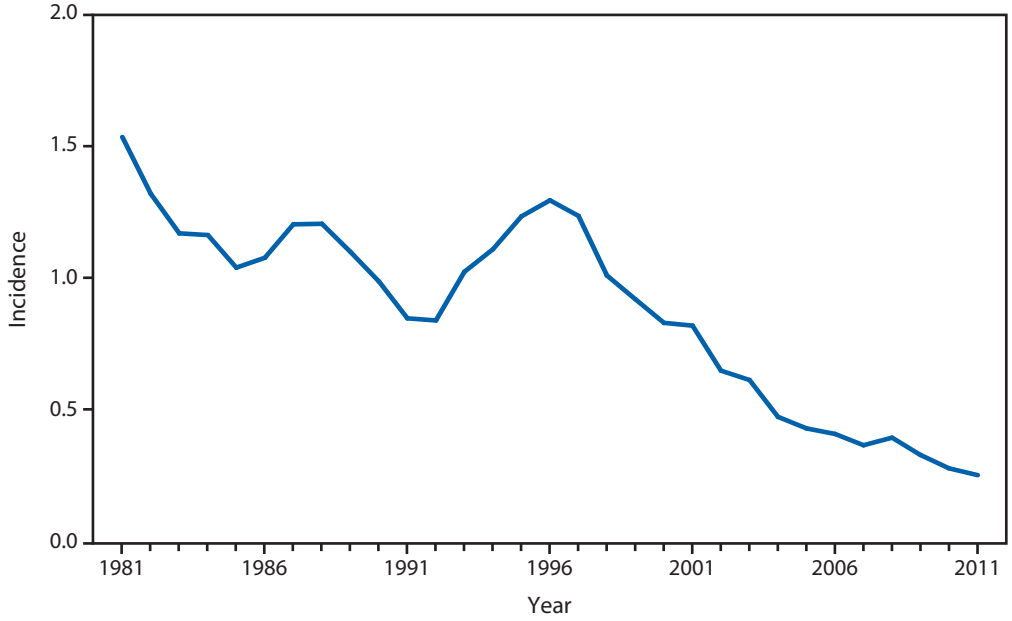
MEASLES. Incidence,* by year — United States, 1976–2011



* Per 100,000 population.

Measles vaccine was licensed in 1963. Evidence suggests that measles is no longer endemic in the United States.

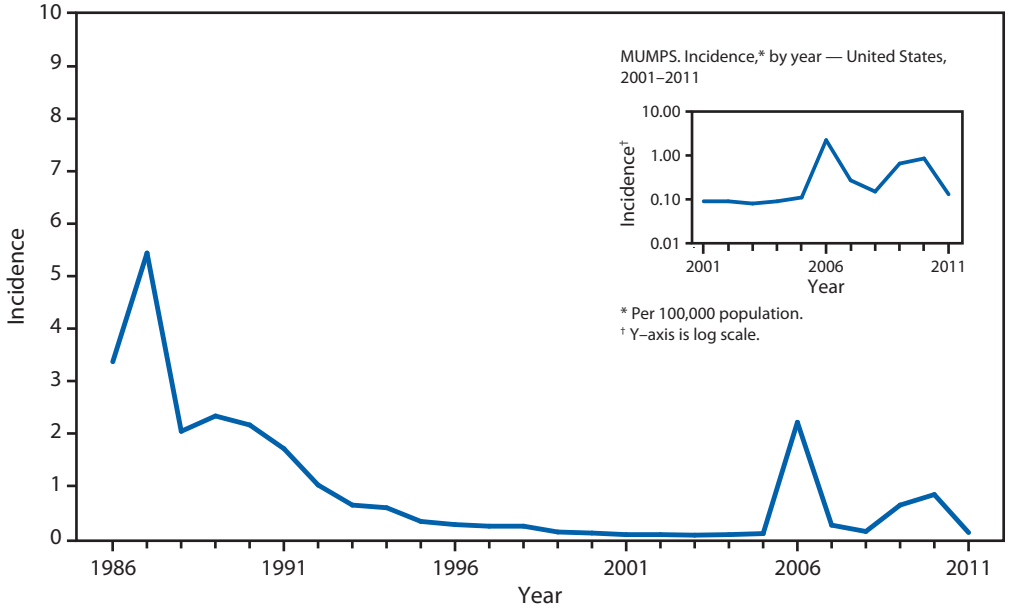
MENINGOCOCCAL DISEASE. Incidence,* by year — United States, 1981–2011



* Per 100,000 population.

Meningococcal disease incidence remained low in 2011, but it continues to cause significant morbidity and mortality in the United States. The highest incidence of meningococcal disease occurs among infants, with a second peak occurring in late adolescence. In 2005, a quadrivalent (A, C, Y, W-135) meningococcal conjugate vaccine was licensed and recommended for adolescents and others at increased risk for disease. In October 2010, a booster dose was added to recommendations for adolescents at age 16 years.

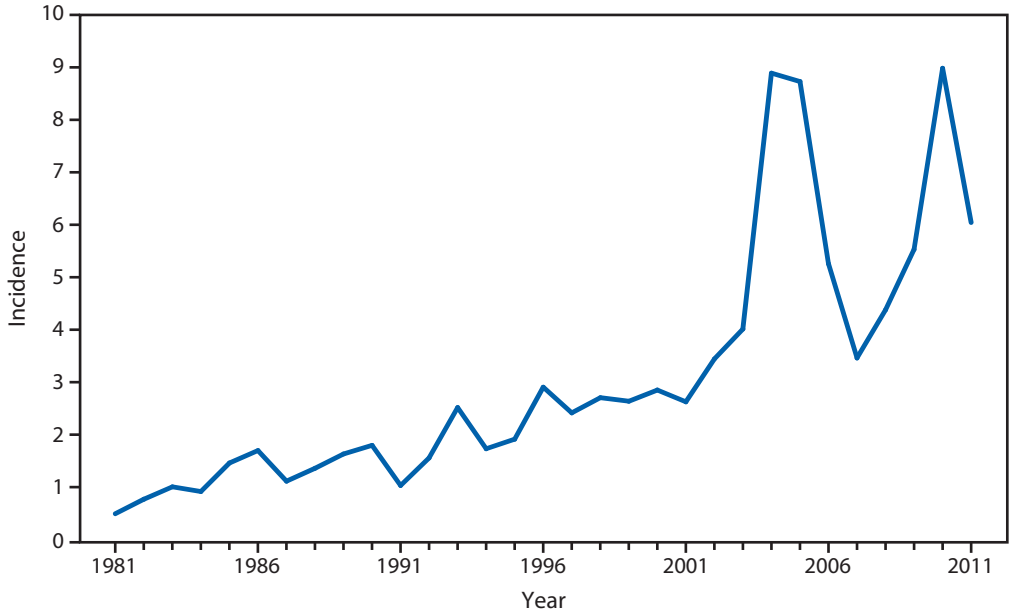
MUMPS. Incidence,* by year — United States, 1986–2011



* Per 100,000 population.

The widespread use of a second dose of mumps vaccine, beginning in 1989, was followed by historically low morbidity until 2006, when the United States experienced the largest mumps outbreak in 2 decades. The 2006 outbreak of more than 6,000 cases primarily affected college students aged 18–24 years in the Midwest. A second large outbreak occurring during 2010–2011 affected Orthodox Jewish communities in the Northeast.

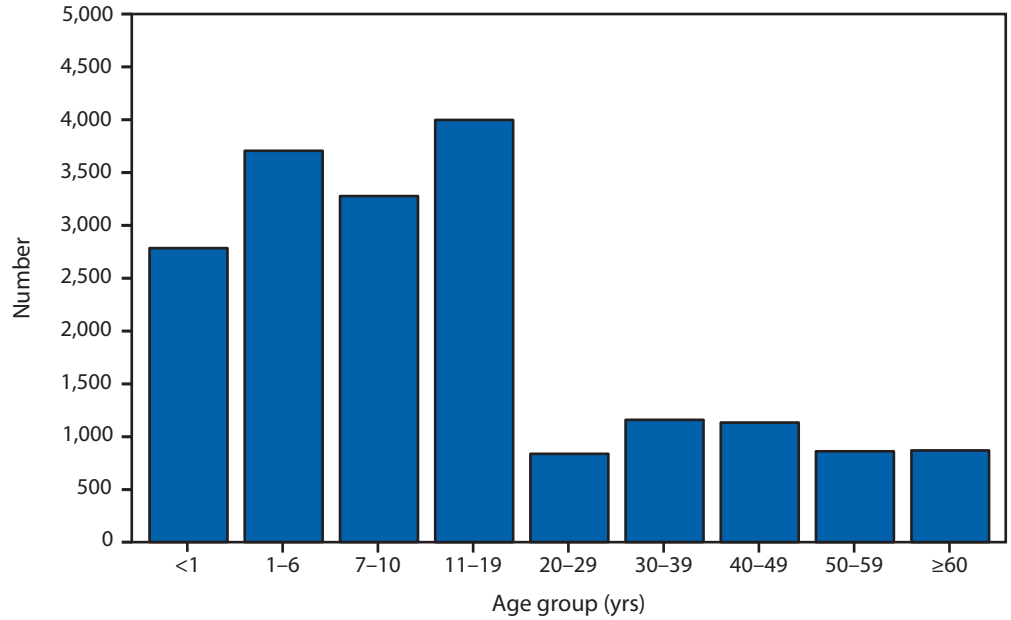
PERTUSSIS. Incidence,* by year — United States, 1981–2011



* Per 100,000 population.

Pertussis continues to have cyclic peaks every 3 to 5 years. Incidence in 2011 declined 32% following the peak in 2010.

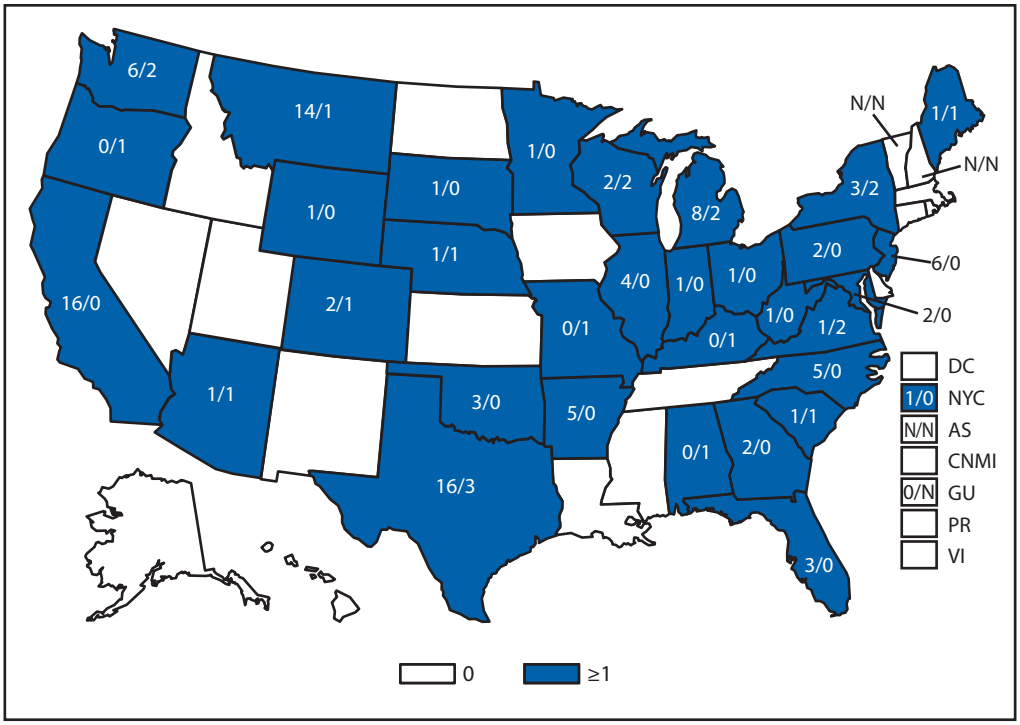
PERTUSSIS. Number of reported cases,* by age group — United States, 2011



* Of 18,719 cases, age was reported as unknown for 174 persons.

Infants, especially those who are too young to be fully vaccinated, are at greatest risk for severe disease and death from pertussis, and continue to have the highest numbers of reported disease. Similar to recent years, a large proportion of reported cases continue to be observed among school-aged children and adolescents.

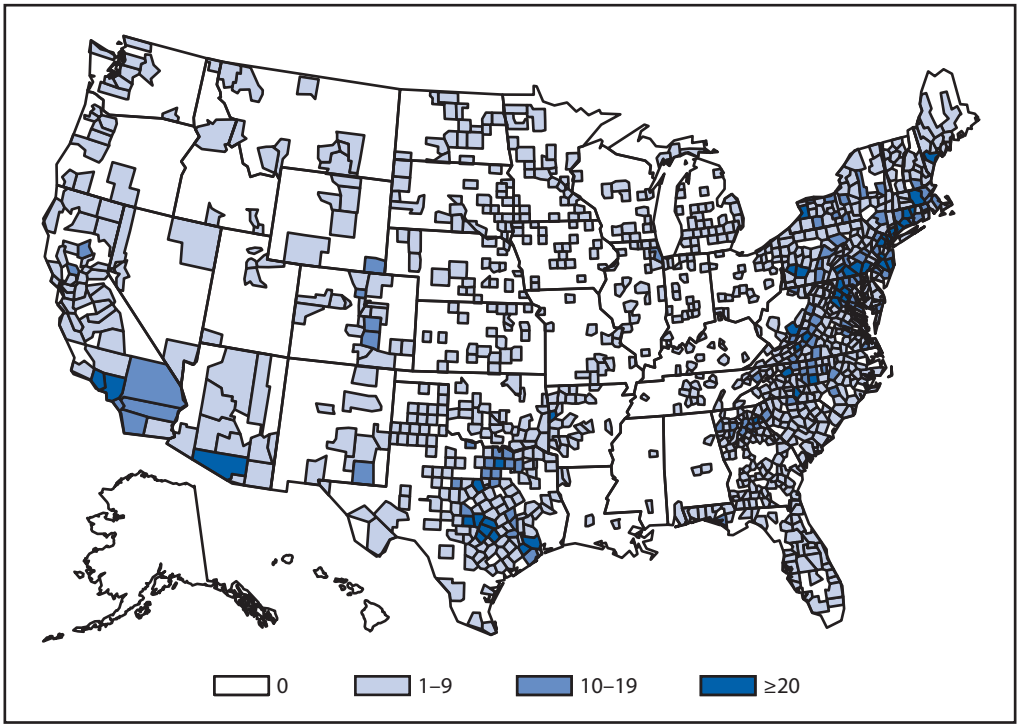
Q FEVER, ACUTE AND CHRONIC. Number of reported cases* — United States and U.S. territories, 2011



* Number of Q fever acute cases/number of Q fever chronic cases.

Q fever, caused by *Coxiella burnetii*, is reported throughout the United States. Human cases of Q fever most often result from contact with infected livestock, especially sheep, goats, and cattle. Increased number of cases reported from Montana and Washington reflect an outbreak linked to goat farms beginning in January 2011.

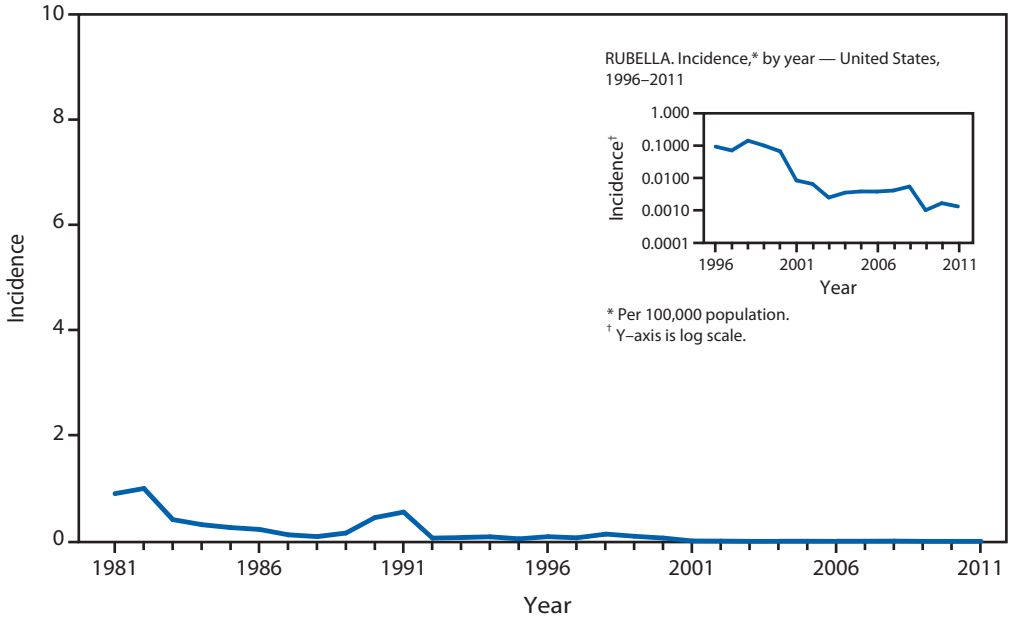
RABIES, ANIMAL. Number* of reported cases, by county — United States, 2011



* Data from the National Center for Emerging and Zoonotic Infectious Diseases, Division of High-consequence Pathogens and Pathology.

Several rabies virus variants associated with distinct reservoir species have been identified in the United States. The circulation of rabies virus variants associated with raccoons (eastern United States), skunks (central United States and California), and foxes (Texas, Arizona, and Alaska) occur over defined geographic areas. Several distinct rabies virus variants associated with different bat species are broadly distributed across the contiguous United States. Hawaii is the only state considered free of rabies.

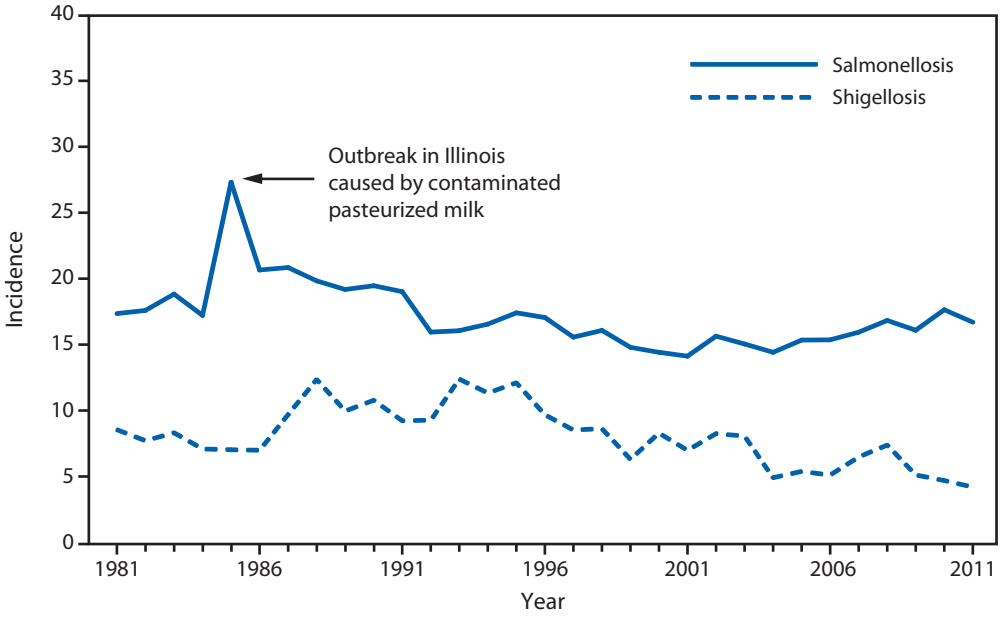
RUBELLA. Incidence,* by year — United States, 1981–2011



* Per 100,000 population.

Rubella vaccine was licensed in 1969. Evidence suggests that rubella is no longer endemic in the United States.

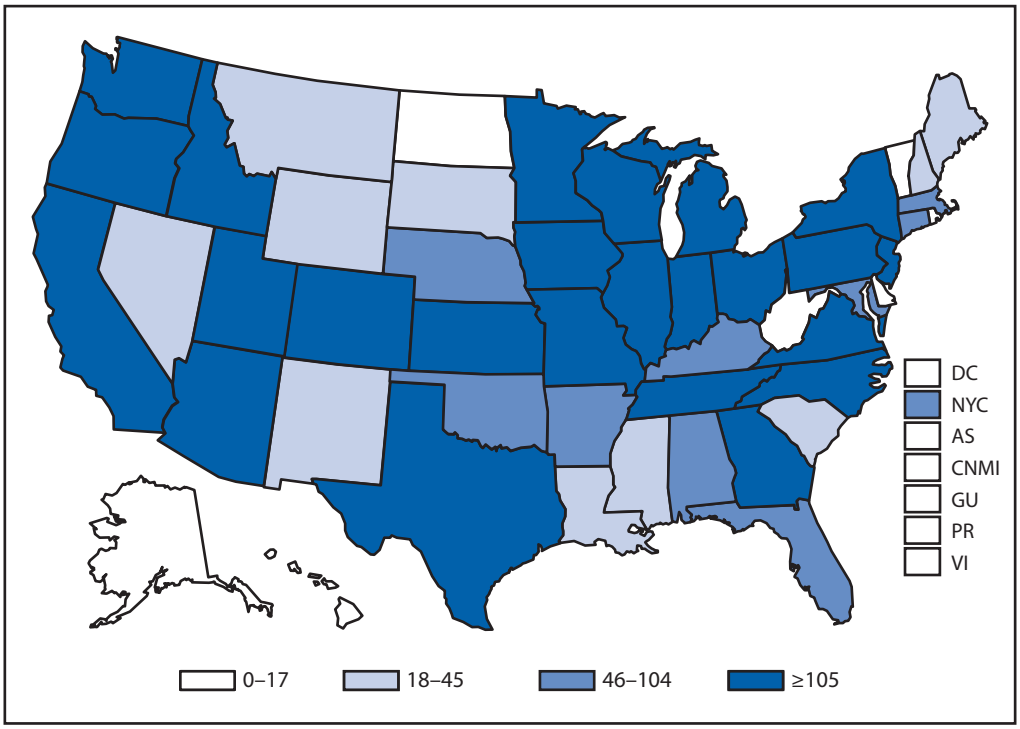
SALMONELLOSIS AND SHIGELLOSIS. Incidence,* by year — United States, 1981–2011



* Per 100,000 population.

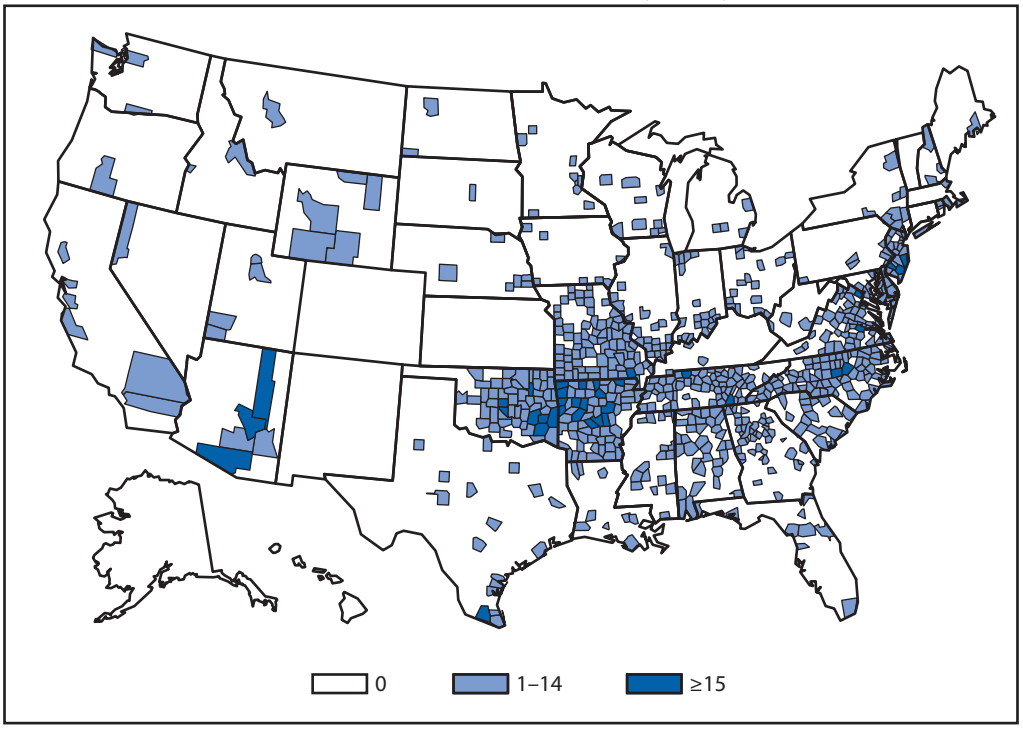
The incidence of reported salmonellosis has remained relatively stable during the past 2 decades. During 2011, multistate outbreaks of salmonellosis were linked to fresh produce, meat and poultry, other foods, and contact with animals. The incidence of reported shigellosis has gradually decreased over the past decade.

SHIGA TOXIN-PRODUCING *ESCHERICHIA COLI* (STEC). Number of reported cases — United States and U.S. territories, 2011



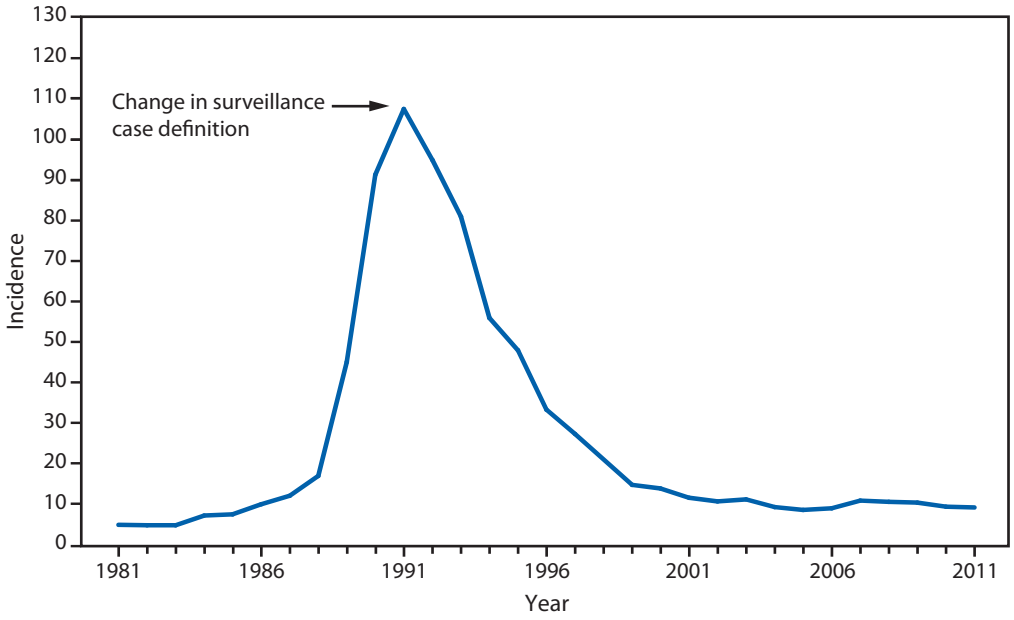
More cases of STEC infection were reported in 2011 than any other year, likely at least in part because of increasing use of Shiga toxin tests in clinical labs that help detect non-O157 STEC.

SPOTTED FEVER RICKETTSIOSIS. Number of reported cases, by county — United States, 2011



In the United States the majority of cases of spotted fever group rickettsiosis are attributed to infection with *Rickettsia ricketsii*, the causative agent of Rocky Mountain spotted fever (RMSF), but might also be from other agents such as *Rickettsia parkeri* and *Rickettsia* species 364D. RMSF is ubiquitous across the United States, which represents the widespread nature of the three tick vectors known to transmit RMSF: *Dermacentor variabilis* in the East and *Dermacentor andersonii* in the West, and *Rhipicephalus sanguineus*, recently recognized as a new tick vector in parts of Arizona. Historically, much of the incidence of RMSF has been in the Central Atlantic region and parts of the Midwest; however, continued transmission of RMSF in Arizona communities has led to substantial increases in cases reported.

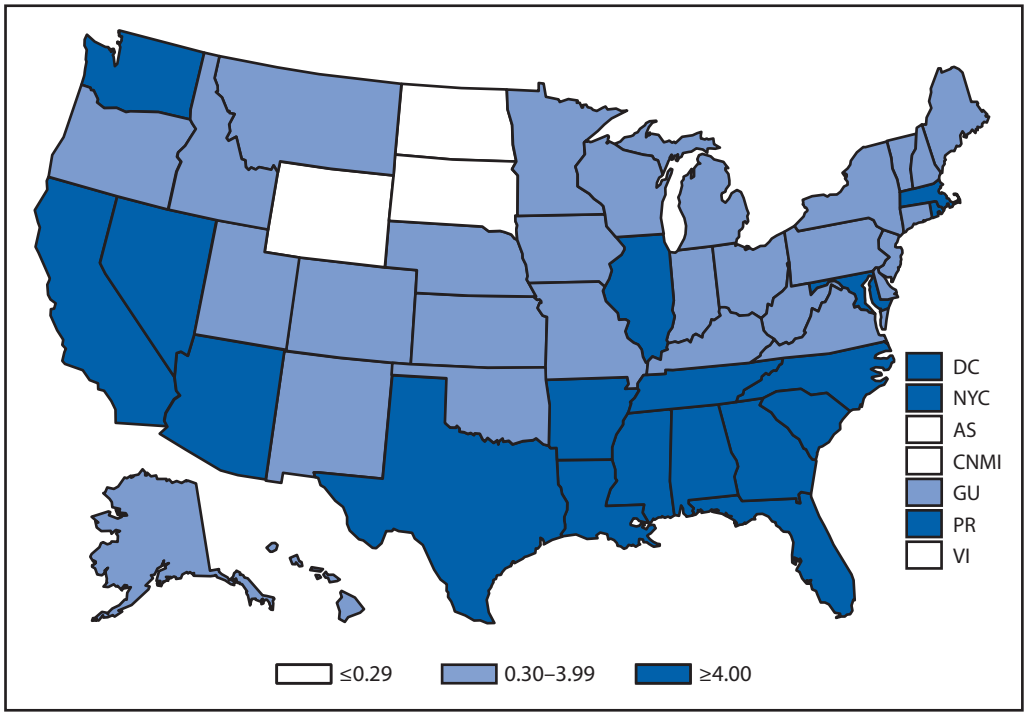
SYPHILIS, CONGENITAL. Incidence* among infants, by year of birth — United States, 1981–2011



* Per 100,000 live births.

Following a decline in the incidence of congenital syphilis since 1991, overall congenital syphilis rates decreased from 2010 to 2011, from 9.1 to 8.5 cases per 100,000 live births.

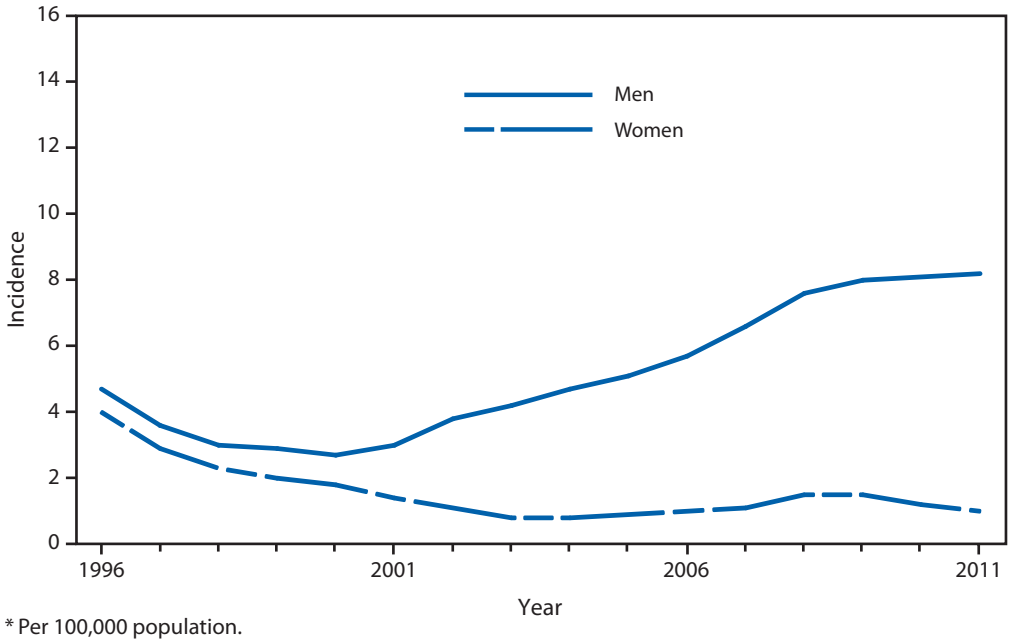
SYPHILIS, PRIMARY AND SECONDARY. Incidence* — United States and U.S. Territories, 2011



* Per 100,000 population.

In 2011, the primary and secondary syphilis rate in the United States and U.S. territories (Guam, Puerto Rico, and the Virgin Islands) was 4.5 cases per 100,000 population.

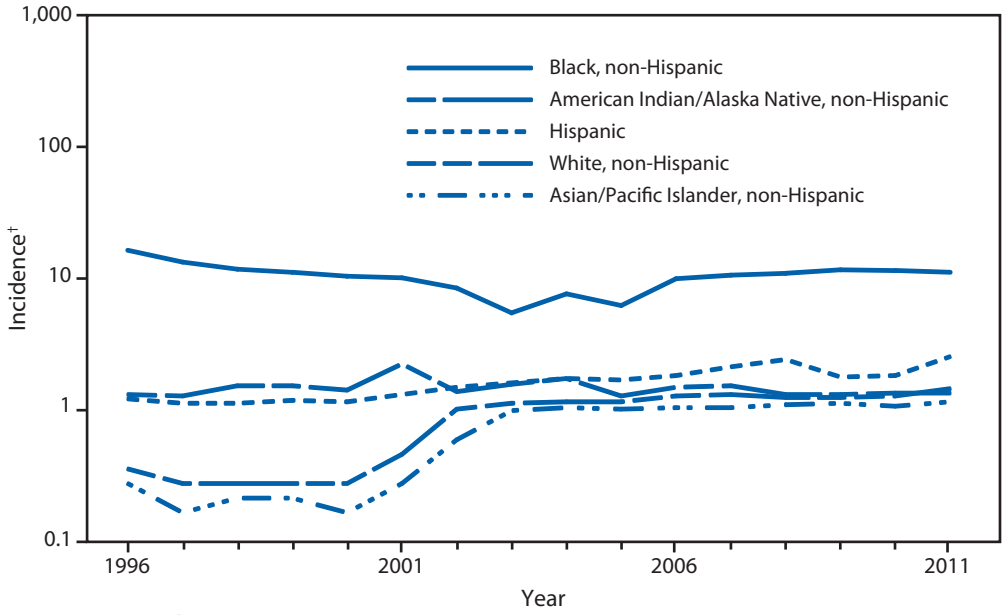
SYPHILIS, PRIMARY AND SECONDARY. Incidence*, by sex — United States, 1996–2011



* Per 100,000 population.

During 2010–2011, the incidence of primary and secondary syphilis in the United States remained constant at 4.5 cases (women: decreased from 1.1 to 1.0; men: increased from 7.9 to 8.2) per 100,000 population.

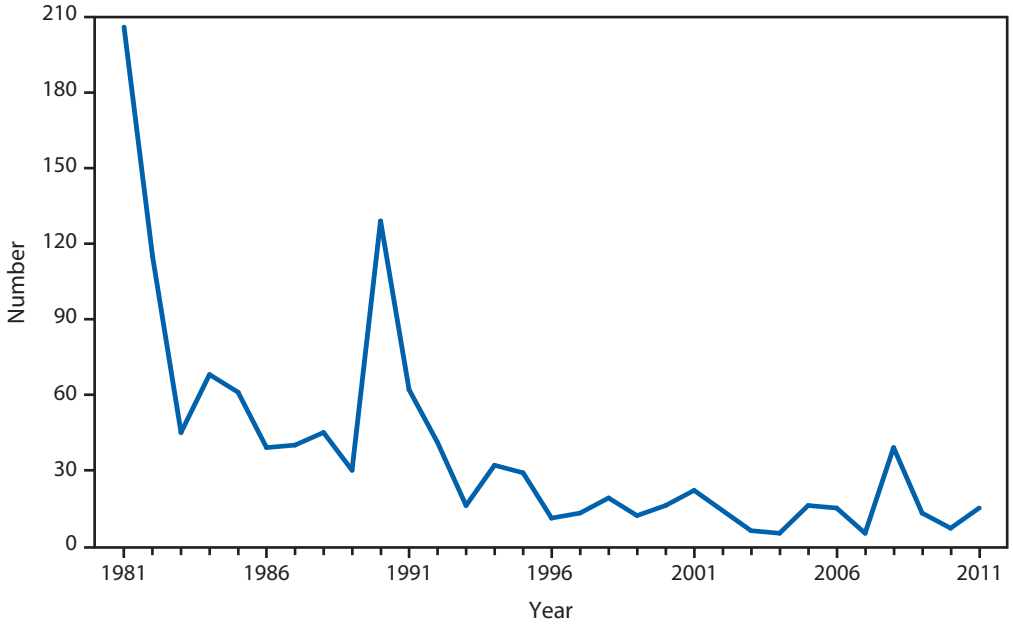
SYPHILIS, PRIMARY AND SECONDARY. Incidence,* by race/ethnicity — United States, 1996–2011



* Per 100,000 population.
† Y-axis is log scale.

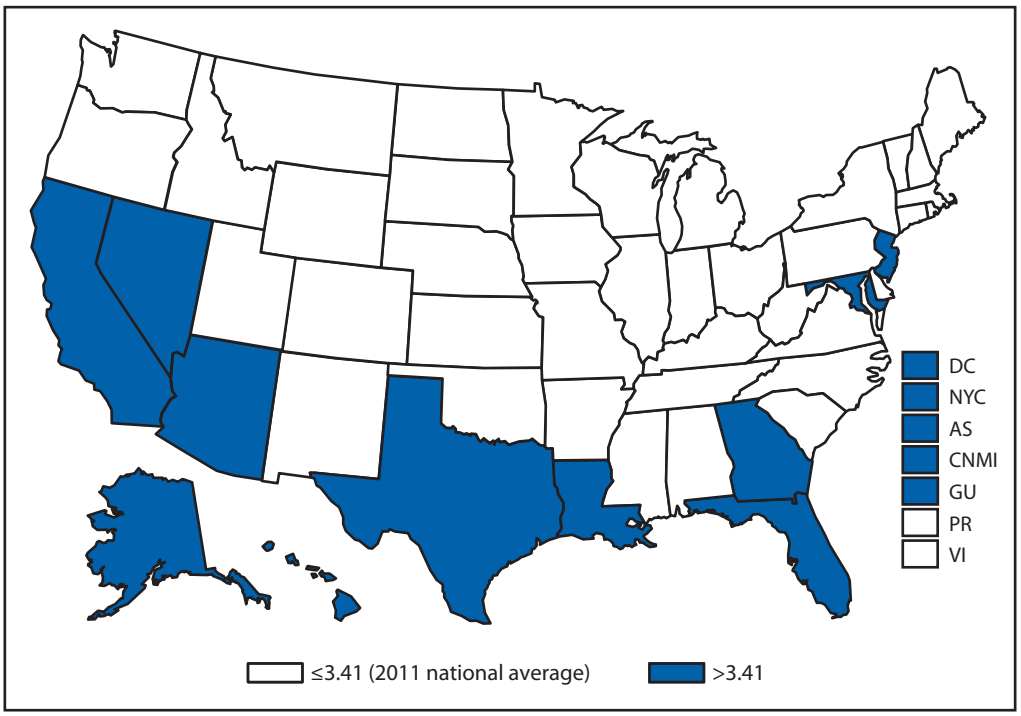
During 2010–2011, incidence of primary and secondary syphilis increased among all races/ethnicities except non-Hispanic blacks. Incidence per 100,000 population increased from 2.1 to 2.3 among non-Hispanic whites; from 4.4 to 4.6 among Hispanics; from 2.5 to 2.7 among American Indians/Alaska Natives; from 1.2 to 1.6 among Asians/Pacific Islanders; and decreased from 16.6 to 15.5 among non-Hispanic blacks.

TRICHINELLOSIS. Number of reported cases, by year — United States, 1981–2011



In 2011, one outbreak of trichinellosis was reported involving two members of a family of six, all of whom consumed meat from a boar that was hunted on a wild game preserve in a neighboring state. Wild game preserves offer a unique alternative to traditional hunting, but as evidenced here, can be venues for the transmission of *Trichinella* infection to humans. Owners and patrons should be aware that animals procured from these establishments also are at risk for disease, and this risk should be included in public health messages regarding food safety.

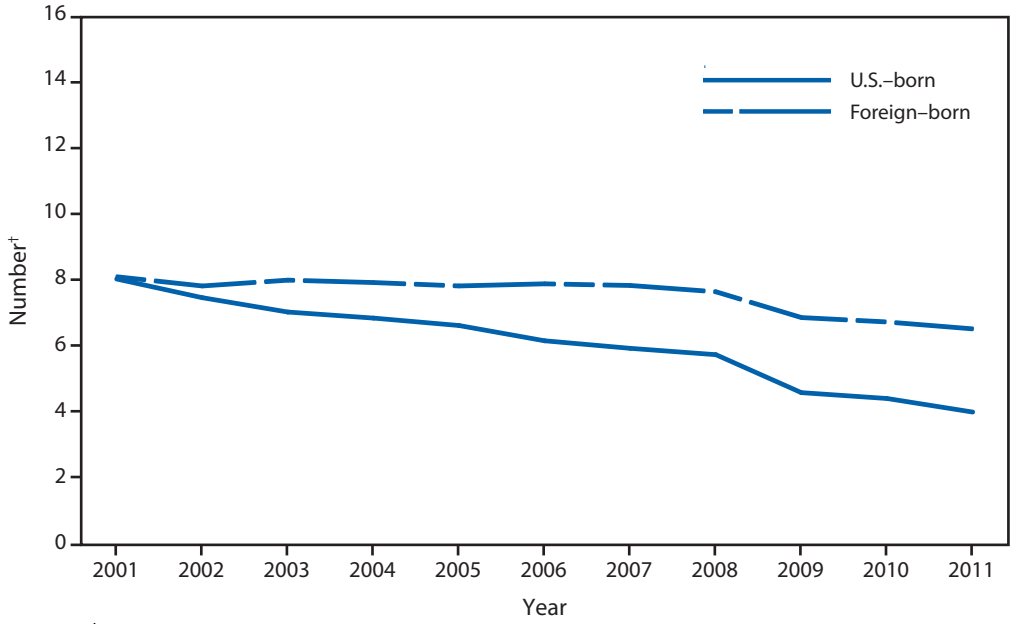
TUBERCULOSIS. Incidence* — United States and U.S. territories, 2011



* Per 100,000 population. Data from the Division of Tuberculosis Elimination, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.

For the first time, the national incidence rate has fallen below the interim goal of 3.5 cases. Eleven states, New York City, and the District of Columbia continue to have an incidence rate above the national average.

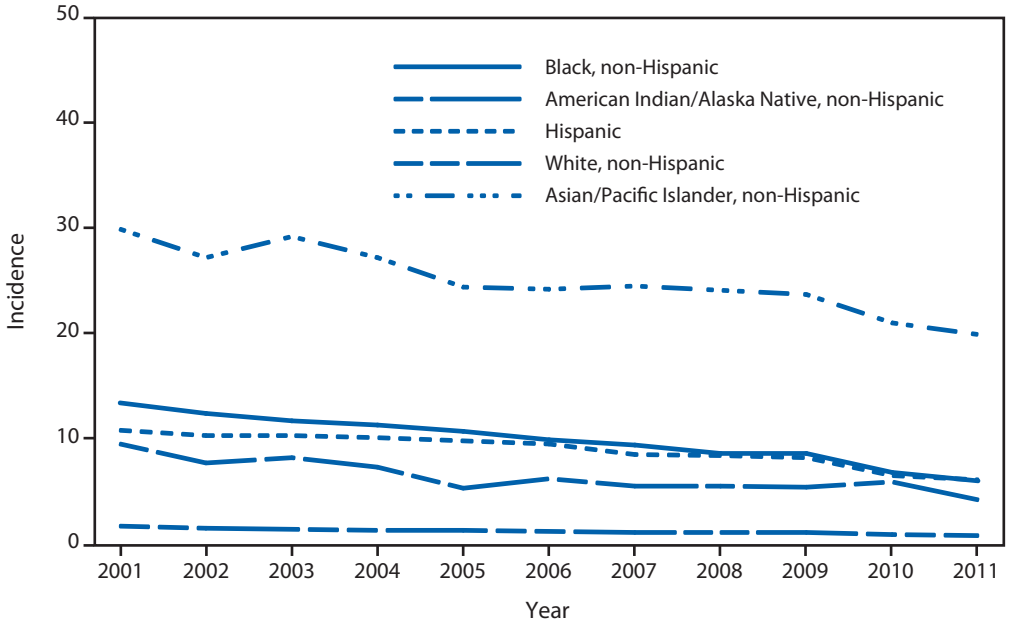
TUBERCULOSIS. Number of reported cases among U.S.-born and foreign-born persons,* by year — United States, 2001–2011



* Cases in U.S.-born tuberculosis (TB) patients continue to decline, continuing a trend begun in 1993.
† In thousands. Data from the Division of Tuberculosis Elimination, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.

After years of relative stability in the number of foreign-born TB cases, in 2011 the number of cases declined significantly and continues to decrease.

TUBERCULOSIS. Incidence,* by race/ethnicity† — United States, 2001–2011

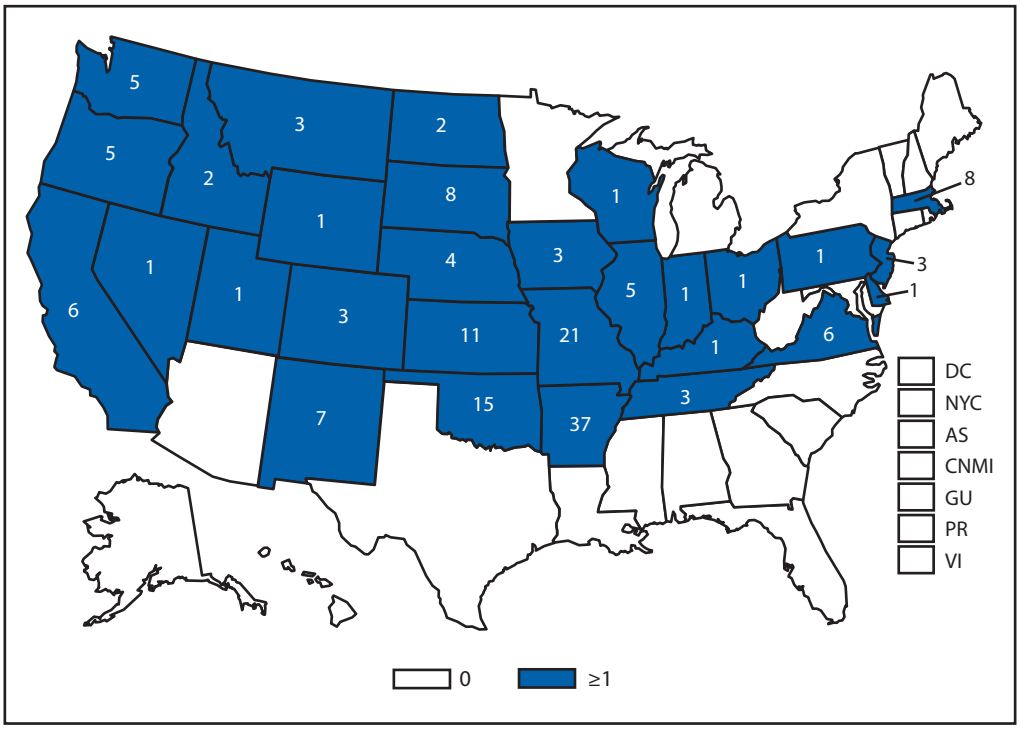


* Per 100,000 population.

† Data from the Division of Tuberculosis Elimination, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention.

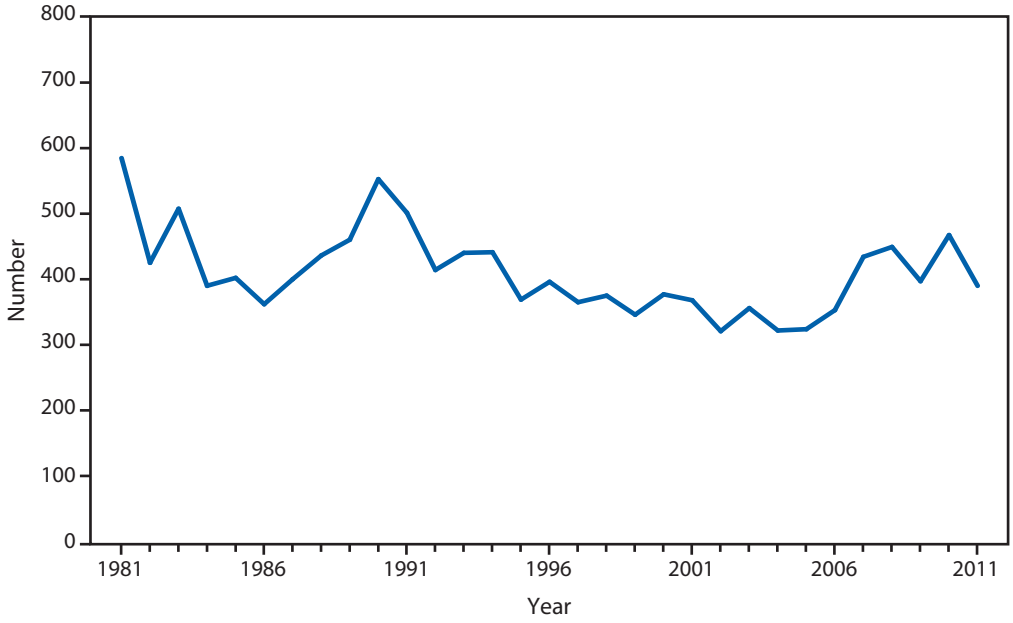
Tuberculosis incidence rates have declined for all races/ethnicities. TB incidence among Asians/Pacific Islanders continues to be much higher than for other ethnicities and has declined at a slower rate since 2001.

TULAREMIA. Number of reported cases — United States and U.S. territories, 2011



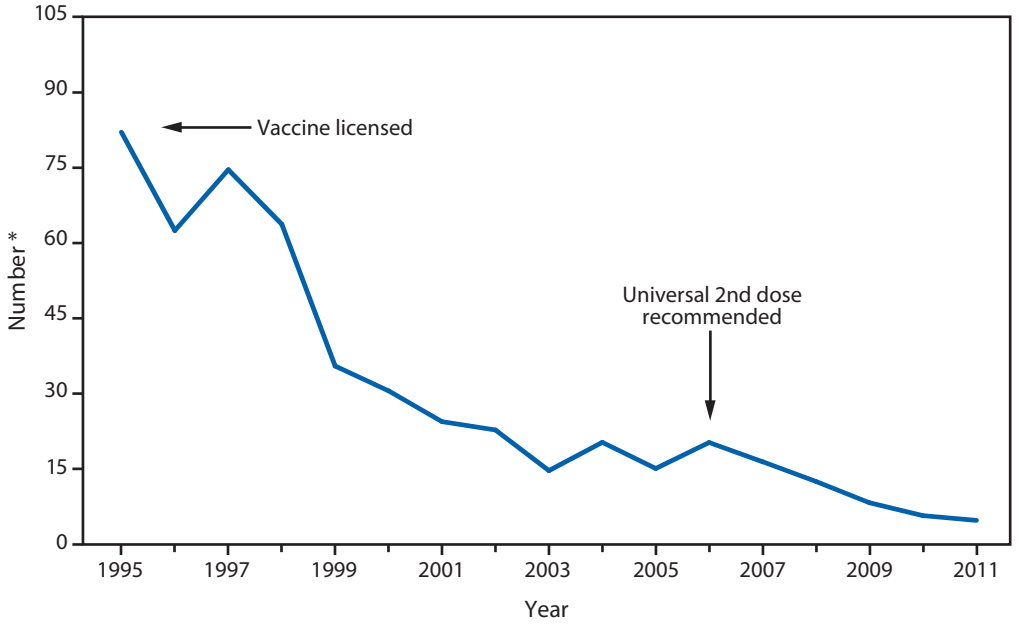
To better define the geographic distribution of *Francisella tularensis* subspecies, CDC requests that isolates be forwarded to the CDC laboratory in Fort Collins, Colorado.

TYPHOID FEVER. Number of reported cases, by year — United States, 1981–2011



Typhoid fever in the United States remains primarily a disease of travelers to countries where typhoid fever is endemic; CDC recommends vaccination against typhoid fever for travelers to endemic areas. CDC recently removed pretravel typhoid vaccination recommendations for 26 low-risk destinations; the most recent pretravel vaccination guidelines can be found at www.cdc.gov/travel.

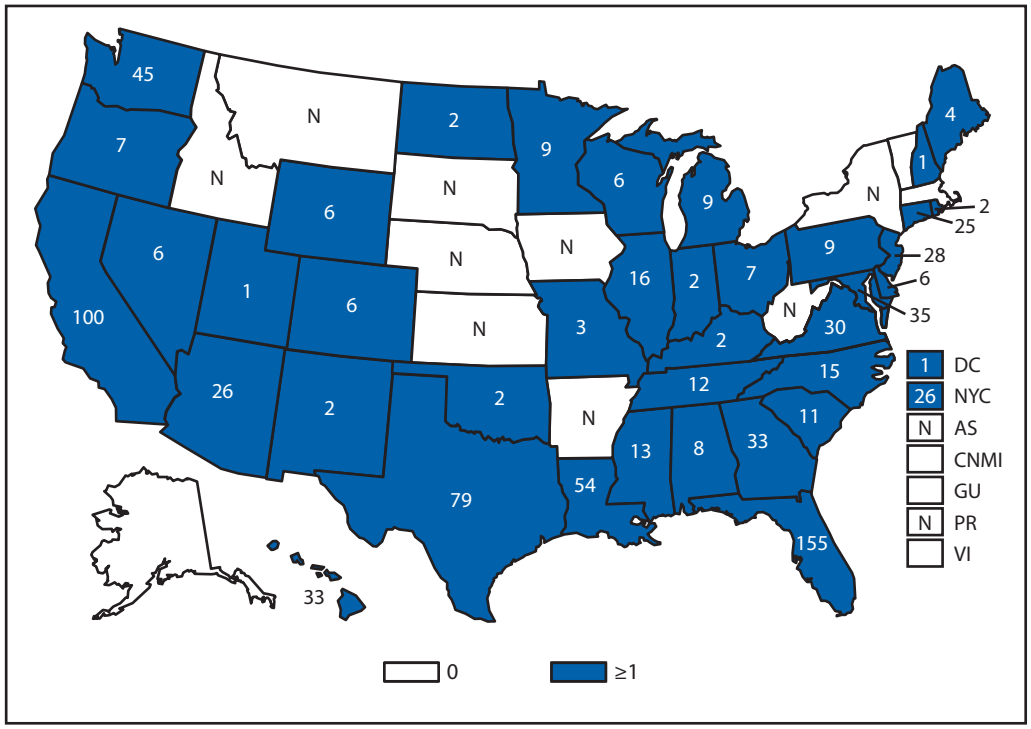
VARICELLA (CHICKENPOX). Number of reported cases — Illinois, Michigan, Texas, and West Virginia, 1995–2011



* In thousands.

In four states (Illinois, Michigan, Texas, and West Virginia), the number of cases reported in 2011 was 16% lower than 2010 and 94% less than the number reported during the prevaccine years 1993–1995.

VIBRIOSIS. Number of reported cases — United States and U.S. territories, 2011



Consumption of raw or undercooked seafood, especially molluscan shellfish, is a risk factor for vibriosis. In 2011, a multistate outbreak of toxigenic (i.e., producing cholera toxin) *V. cholerae* O75 infections was associated with consumption of raw oysters harvested from Apalachicola Bay, Florida.

PART 3

Historical Summaries of Notifiable Diseases in the United States, 1980–2011

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, 2011 might differ from data in other CDC surveillance reports because of differences in the timing of reports, the source of the data, the use of different case definitions, and print criteria.

TABLE 7. Reported incidence* of notifiable diseases — United States, 2001–2011

Disease	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
AIDS	14.88	15.29	15.36	15.28	14.00	12.87	12.53	13.00	†	†	†
Anthrax	0.01	0	—	—	—	0	0	0	0	0	0.00
Arboviral diseases											
California serogroup viruses											
neuroinvasive	—	—	—	—	0.02	0.02	0.02	0.02	0.02	0.02	0.04
nonneuroinvasive	§	§	§	§	0	0	0	0	0	0	0.01
Eastern equine encephalitis viruses											
neuroinvasive	—	—	—	—	0	0	0	0	0	0	0
nonneuroinvasive	§	§	§	§	0	0	0	0	0	0	0
Powassan viruses											
neuroinvasive	—	—	—	—	0	0	0	0	0	0	0
nonneuroinvasive	§	§	§	§	0	0	0	0	0	0	0
St. Louis encephalitis viruses											
neuroinvasive	—	—	—	—	0	0	0	0	0	0	0
nonneuroinvasive	§	§	§	§	0	0	0	0	0	0	0
West Nile virus											
neuroinvasive	—	—	—	—	0.45	0.50	0.41	0.23	0.13	0.20	0.16
nonneuroinvasive	§	§	§	§	0.58	0.94	0.80	0.22	0.11	0.13	0.7
Western equine encephalitis virus											
neuroinvasive	—	—	—	—	0	0	0	0	0	0	0
nonneuroinvasive	§	§	§	§	0	0	0	0	0	0	0
Babesiosis	§	§	§	§	§	§	§	§	§	§	0.52
Botulism, total (includes wound and unspecified)	0.06	0.03	0.01	0.02	0.01	0.02	0.05	0.05	0.04	0.04	0.05
foodborne	0.01	0	0.01	0.01	0.01	0.01	0.01	0.01	0	0	0.01
infant	2.55	1.79	1.87	2.12	2.09	2.35	2.05	2.56	1.92	1.88	2.34
Brucellosis	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.04	0.04	0.03
Chancroid	0.01	0.02	0.02	0	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Chlamydia trachomatis infections	278.32	296.55	304.71	319.61	332.51	347.80	370.20	401.34	409.19	426.01	457.14
Cholera	0	0	0	0	0	0	0	0	0	0	0.01
Coccidioidomycosis	6.71	3.03	2.57	4.14	6.24	6.79	14.39	7.76	13.24	§	16.49
Cryptosporidiosis¶	1.34	1.07	1.22	1.23	1.93	2.05	3.73	3.02	2.52	2.91	3.00
confirmed	§	§	§	§	§	§	§	§	2.43	2.73	1.98
probable	§	§	§	§	§	§	§	§	0.09	0.19	1.01
Cyclosporiasis	0.07	0.06	0.03	0.14	0.24	0.06	0.04	0.05	0.05	0.07	0.05
Dengue virus infection											
Dengue fever	§	§	§	§	§	§	§	§	§	0.22	0.08
Dengue hemorrhagic fever	§	§	§	§	§	§	§	§	§	0	0
Diphtheria	0	0	0	—	—	—	—	—	—	—	—
Ehrlichiosis											
human granulocytic (HGE)	0.10	0.18	0.13	0.20	0.28	0.23	0.31	**	**	**	**
human monocytic (HME)	0.05	0.08	0.11	0.12	0.18	0.20	0.30	**	**	**	**
human (other and unspecified)††	—	—	—	—	0.04	0.08	0.12	**	**	**	**
Ehrlichiosis/Anaplasmosis											
Ehrlichia chaffeensis	§	§	§	§	§	§	§	0.35	0.34	0.26	0.29
Ehrlichia ewingii	§	§	§	§	§	§	§	0	0	0	0
Anaplasma phagocytophilum	§	§	§	§	§	§	§	0.43	0.42	0.61	0.88
Undetermined	§	§	§	§	§	§	§	0.06	0.06	0.04	0.05
Encephalitis/meningitis, arboviral§§											
California serogroup viruses	0.05	0.06	0.06	0	§§	§§	§§	§§	§§	§§	§§
Eastern equine virus	0	0	0	0	§§	§§	§§	§§	§§	§§	§§
Powassan virus	§	0	0	0	§§	§§	§§	§§	§§	§§	§§
St. Louis virus	0.03	0.01	0.01	0	§§	§§	§§	§§	§§	§§	§§
West Nile virus	§	1.01	1.00	0.43	§§	§§	§§	§§	§§	§§	§§
Western equine virus	0	0	0	—	§§	§§	§§	§§	§§	§§	§§
Enterohemorrhagic *Escherichia coli*											
O157:H7	1.22	1.36	0.93	0.87	0.89	§	§	§	§§	§§	§§
non–O157	0.19	0.08	0.09	0.13	0.19	§	§	§	§§	§§	§§
not serogrouped	0.06	0.02	0.05	0.13	0.16	§	§	§	§§	§§	§§
Giardiasis	§	8.06	6.84	8.35	7.82	7.28	7.66	7.41	7.37	7.64	6.42
Gonorrhea	128.53	125.03	116.37	113.52	115.64	120.90	118.90	111.64	99.05	100.76	104.14

See table footnotes on page 98.

TABLE 7. (*Continued*) Reported incidence* of notifiable diseases — United States, 2001–2011

Disease	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Haemophilus influenzae, invasive disease											
all ages, serotypes	0.57	0.62	0.70	0.72	0.78	0.82	0.85	0.96	0.99	1.03	1.15
age<5 yrs											
serotype b	§	0.18	0.16	0.03	0.04	0.14	0.11	0.14	0.18	0.11	0.06
nonserotype b	§	0.75	0.59	0.04	0.67	0.86	0.97	1.18	1.17	0.94	0.57
unknown serotype	§	0.80	1.15	0.97	1.08	0.88	0.88	0.79	0.79	1.05	0.89
Hansen disease (leprosy)	0.03	0.04	0.03	0.04	0.03	0.03	0.04	0.03	0.04	0.04	0.03
Hantavirus pulmonary syndrome	0	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Hemolytic uremic syndrome, postdiarrheal	0.08	0.08	0.06	0.07	0.08	0.11	0.10	0.12	0.09	0.09	0.10
Hepatitis, viral, acute											
A	3.77	3.13	2.66	1.95	1.53	1.21	1.00	0.86	0.65	0.54	0.45
B	2.79	2.84	2.61	2.14	1.78	1.62	1.51	1.34	1.12	1.10	0.94
C	1.41	0.65	0.38	0.31	0.23	0.26	0.28	0.29	0.27	0.29	0.42
HIV diagnoses†	—	—	—	—	—	—	—	—	12.13	11.64	11.32
Influenza–associated pediatric mortality	§	§	§	§	0.02	0.07	0.10	0.12	0.48	0.08	0.17
Legionellosis	0.42	0.47	0.78	0.71	0.78	0.96	0.91	1.05	1.16	1.09	1.36
Listeriosis	0.22	0.24	0.24	0.32	0.31	0.30	0.27	0.25	0.28	0.27	0.28
Lyme disease, total¶¶	6.05	8.44	7.39	6.84	7.94	6.75	9.21	11.67	12.71	9.86	10.78
confirmed	¶¶	¶¶	¶¶	¶¶	¶¶	¶¶	¶¶	9.59	9.85	7.38	7.92
probable	¶¶	¶¶	¶¶	¶¶	¶¶	¶¶	¶¶	2.08	2.80	2.49	2.84
Malaria	0.55	0.51	0.49	0.51	0.51	0.50	0.47	0.42	0.48	0.58	0.56
Measles	0.04	0.02	0.02	0.01	0.02	0.02	0.01	0.05	0.02	0.02	0.06
Meningococcal disease, invasive											
all serogroups	0.83	0.64	0.61	0.47	0.42	0.40	0.36	0.39	0.32	0.27	0.25
serogroup A, C, Y, & W—135	***	***	***	***	0.10	0.11	0.11	0.11	0.10	0.09	0.08
serogroup B	***	***	***	***	0.05	0.07	0.06	0.06	0.06	0.04	0.05
other serogroup	***	***	***	***	0.01	0.01	0.01	0.01	0.01	0	0.01
serogroup unknown	***	***	***	***	0.26	0.22	0.18	0.20	0.16	0.13	0.10
Mumps	0.10	0.10	0.08	0.09	0.11	2.22	0.27	0.15	0.65	0.85	0.13
Novel influenza A virus infections	§	§	§	§	§	§	0	0	14.37	0	0
Pertussis	2.69	3.47	4.04	8.88	8.72	5.27	3.49	4.40	5.54	8.97	6.06
Plague	0	0	0	0	0	0.01	0	0	0	0	0
Poliomyelitis, paralytic	0	0	0	0	0	0	—	—	0	—	—
Poliovirus infection, nonparalytic	§	§	§	§	§	§	—	—	—	—	—
Psittacosis	0.01	0.01	0	0	0.01	0.01	0	0	0	0	0
Q fever†††	0.01	0.02	0.02	0.03	0.05	0.06	0.06	0.04	0.04	0.04	0.04
acute	†††	†††	†††	†††	†††	†††	†††	0.04	0.03	0.04	0.04
chronic	†††	†††	†††	†††	†††	†††	†††	0	0.01	0.01	0.01
Rabies, human	0	0	0	0	0	0	0	0	0	0	0
Rubella	0.01	0.01	0	0	0	0	0	0.01	0	0	0
Rubella, congenital syndrome	0	0	0	0	0	0	—	—	0		—
Salmonellosis	14.39	15.73	15.16	14.47	15.43	15.45	16.03	16.92	16.18	17.73	16.79
SARS–CoV§§§	§	§	0	—	—	—	—	—	—	—	—
Shiga toxin–producing *Escherichia coli* (STEC)	§	§	§	§	§	1.71	1.62	1.76	1.53	1.78	1.96
Shigellosis	7.19	8.37	8.19	4.99	5.51	5.23	6.60	7.50	5.24	4.82	4.32
Spotted fever rickettsiosis, total¶¶¶	0.25	0.39	0.38	0.60	0.66	0.80	0.77	0.85	0.60	0.65	0.91
confirmed	¶¶¶	¶¶¶	¶¶¶	¶¶¶	¶¶¶	¶¶¶	¶¶¶	0.06	0.05	0.05	0.08
probable	¶¶¶	¶¶¶	¶¶¶	¶¶¶	¶¶¶	¶¶¶	¶¶¶	0.78	0.55	0.60	0.83
Smallpox	§	§	§	—	—	—	—	—	—	—	—
Streptococcal disease, invasive, group A	1.60	1.69	2.04	1.82	2.00	2.24	1.89	2.30	2.13	§	§
Streptococcal, toxic shock syndrome	0.04	0.05	0.06	0.06	0.07	0.06	0.06	0.07	0.08	0.07	0.09
Streptococcus pneumoniae, invasive disease(IPD)****											
all ages	****	****	****	****	****	****	****	****	****	8.83	8.52
age <5 yrs	****	****	****	****	****	****	****	****	****	14.15	7.64
Streptococcus pneumoniae, invasive disease											
drug resistant, all ages	2.11	1.14	0.99	1.49	1.42	2.19	1.49	1.60	1.75	****	****
age <5 yrs	—	—	—	—	—	—	3.73	3.51	4.54	****	****
non–drug resistant, age <5 yrs	1.03	3.62	8.86	8.22	8.21	11.93	13.59	13.36	12.93	****	****
Syphilis, congenital, age <1 yr	12.52	11.44	10.56	9.12	8.24	9.07	10.46	10.12	9.90	8.85	8.68

See table footnotes on page 98.

TABLE 7. (*Continued*) Reported incidence* of notifiable diseases — United States, 2001–2011

Disease	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Syphilis, primary and secondary	2.17	2.44	2.49	2.71	2.97	3.29	3.83	4.48	4.60	4.49	4.52
Syphilis, total, all stages	11.45	11.68	11.90	11.94	11.33	12.46	13.67	15.34	14.74	14.93	14.90
Tetanus	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Toxic–shock syndrome	0.05	0.05	0.05	0.04	0.04	0.05	0.04	0.03	0.03	0.04	0.03
Trichinellosis	0.01	0.01	0	0	0.01	0.01	0	0.01	0	0	0.01
Tuberculosis	5.68	5.36	5.17	5.09	4.80	4.65	4.44	4.28	3.80	3.64	3.41
Tularemia	0.05	0.03	0.04	0.05	0.05	0.03	0.05	0.04	0.03	0.04	0.05
Tyhoid fever	0.13	0.11	0.12	0.11	0.11	0.12	0.14	0.15	0.13	0.15	0.13
Vancomycin–intermediate *Staphylococcus aureus*	§	§	§	—	0	0	0.02	0.03	0.03	0.04	0.04
Vancomycin–resistant *Staphylococcus aureus*	§	§	§	0	0	0	0	0	0	0	—
Varicella (chickenpox)††††	19.51	10.27	7.27	18.41	19.64	28.65	18.68	13.56	8.71	6.46	5.79
Vibriosis	§	§	§	§	§	§	0.25	0.24	0.30	0.30	0.29
Viral hemorrhagic fevers	§	§	§	§	§	§	§	§	§	0	0
Yellow fever	0	0	—	—	—	—	—	—	—	—	—

* Per 100,000 population.

† In 2008, CDC published a revised HIV case definition. This combined separate surveillance case definitions for HIV infection and AIDS into a single case definition for HIV infection that includes AIDS (and incorporates the HIV infection classification system). The revised HIV case definition provides a more complete presentation of the HIV epidemic on a population level. See CDC. Revised surveillance case definitions for HIV infection among adults, adolescents, and children aged <18 months and for HIV infection and AIDS among children aged 18 months to <13 years—United States, 2008. MMWR 2008;57(No.RR-10):1–12. These case counts can be found under HIV Diagnoses in this table. The total number of HIV Diagnoses includes all cases reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), through December 31, 2011. AIDS: Acquired Immunodeficiency Syndrome. HIV: Human Immunodeficiency Virus.

§ Not nationally notifiable.

¶ Revision of National Surveillance Case Definition distinguishing between confirmed and probable cases.

** As of January 1, 2008, these categories were replaced with codes for *Anaplasma phagocytophilum*. Refer to Ehrlichiosis/Anaplasmosis.

†† Data for ehrlichiosis attributable to other or unspecified agents were being withheld from publication pending the outcome of discussions concerning the reclassification of certain *Ehrlichia* species, which will probably affect how data in this category were reported.

§§ See also "Arboviral Diseases" incidence rates. In 2005, the arboviral disease surveillance case definitions and categories were revised. The nationally notifiable arboviral encephalitis and meningitis conditions continued to be nationally notifiable in 2005 and 2006, but under the category of arboviral neuroinvasive disease. In addition, in 2005, nonneuroinvasive domestic arboviral disesases for the six domestic arboviruses listed above were added to the list of nationally notifiable diseases.

¶¶ National surveillance case definition revised in 2008; probable cases not previously reported.

*** To help public health specialists monitor the impact of the new meningococcal conjugate vaccine (Menactra®, licensed in the United States in January 2005), the data display for meningococcal disease was modified to differentiate the fraction of the disease that is vaccine preventable (serogroups A,C,Y, W-135) from the nonpreventable fraction of disease (serogroup B and others).

††† In 2008, Q fever acute and chronic reporting categories were recognized as a result of revision to the Q fever case definition. Before that time, case counts were not differentiated relative to acute and chronic Q fever cases.

¶¶¶ Revision of National Surveillance Case Definition distinguishing between confirmed and probable cases; total case count includes two case reports with unknown case status.

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

**** The previous categories of invasive pneumococcal disease among children less than 5 years and invasive, drug-resistant *Streptococcus pneumoniae* were eliminated. All cases of invasive *Streptococcus pneumoniae* disease, regardless of age or drug resistance are reported under a single disease code.

†††† Varicella became a nationally notifiable disease in 2003.

TABLE 8. Reported cases of notifiable diseases — United States, 2004–2011

Disease	2004	2005	2006	2007	2008	2009	2010	2011
AIDS*	44,108	41,120	38,423	37,503	39,202	†	†	†
Anthrax	—	—	1	1	—	1	—	1
Arboviral diseases§								
California serogroup viruses								
neuroinvasive	—	73	64	50	55	46	68	120
nonneuroinvasive	¶	7	5	5	7	9	7	17
Eastern equine encephalitis virus								
neuroinvasive	—	21	8	3	4	3	10	4
nonneuroinvasive	¶	—	—	1	—	1	—	
Powassan viruses								
neuroinvasive	—	1	1	7	2	6	8	12
nonneuroinvasive	¶	—	—	—	—	—	—	4
St. Louis encephalitis virus								
neuroinvasive	—	7	7	8	8	11	8	4
nonneuroinvasive	¶	6	3	1	5	1	2	2
Western equine encephalitis virus								
neuroinvasive	—	—	—	—	—	—	—	—
nonneuroinvasive	¶	—	—	—	—	—	—	—
West Nile virus								
neuroinvasive	—	1,309	1,495	1,227	689	386	629	486
nonneuroinvasive	¶	1,691	2,744	2,403	667	334	392	226
Babesiosis	¶	¶	¶	¶	¶	¶	¶	1,128
Botulism, total (includes wound and unspecified)	133	135	165	144	145	118	112	153
foodborne	16	19	20	32	17	10	7	24
infant	87	85	97	85	109	83	80	97
other	—	—	—	—	—	—	—	32
Brucellosis	114	120	121	131	80	115	115	79
Chancroid**	30	17	33	23	25	28	24	8
Chlamydia trachomatis infections**	929,462	976,445	1,030,911	1,108,374	1,210,523	1,244,180	1,307,893	1,412,791
Cholera	5	8	9	7	5	10	13	40
Coccidioidomycosis	6,449	6,542	8,917	8,121	7,523	12,926	¶	22,634
Cryptosporidiosis, total††	3,577	5,659	6,071	11,170	9,113	7,654	8,944	9,250
confirmed	††	††	††	††	††	7,393	8,375	6,130
probable	††	††	††	††	††	261	569	3,120
Cyclosporiasis	171	543	137	93	139	141	179	151
Dengue virus infection								
Dengue fever	¶	¶	¶	¶	¶	¶	690	251
Dengue hemorrhagic fever	¶	¶	¶	¶	¶	¶	10	3
Diphtheria	—	—	—	—	—	—	—	—
Ehrlichiosis								
human granulocytic (HGE)	537	786	646	834	§§	§§	§§	§§
human monocytic (HME)	338	506	578	828	§§	§§	§§	§§
human (other and unspecified)	¶¶	112	231	337	§§	§§	§§	§§
Ehrlichiosis/Anaplasmosis								
Ehrlichia chaffeensis	¶	¶	¶	¶	957	944	740	850
Ehrlichia ewingii	¶	¶	¶	¶	9	7	10	13
Anaplasma phagocytophilum	¶	¶	¶	¶	1,009	1,161	1,761	2,575
Undetermined	¶	¶	¶	¶	132	155	104	148
Encephalitis/Meningitis, arboviral								
California serogroup viruses	112	***	***	***	***	***	***	***
Eastern equine virus	6	***	***	***	***	***	***	***
Powassan virus	1	***	***	***	***	***	***	***
St. Louis virus	12	***	***	***	***	***	***	***
West Nile virus	1,142	***	***	***	***	***	***	***
Western equine virus	—	***	***	***	***	***	***	***
Enterohemorrhagic *Escherichia coli* infection								
Shiga toxin-positive								
O157:H7	2,544	2,621	¶	¶	¶	¶	¶	¶
non-O157	316	501	¶	¶	¶	¶	¶	¶
not serogrouped	308	407	¶	¶	¶	¶	¶	¶
Giardiasis	20,636	19,733	18,953	19,417	18,908	19,399	19,811	16,747
Gonorrhea**	330,132	339,593	358,366	355,991	336,742	301,174	309,341	321,849

See table footnotes on page 101.

TABLE 8. (*Continued*) Reported cases of notifiable diseases — United States, 2004–2011

Disease	2004	2005	2006	2007	2008	2009	2010	2011
Haemophilus influenzae, invasive disease								
all ages, serotypes	2,085	2,304	2,496	2,541	2,886	3,022	3,151	3,539
age <5 yrs								
serotype b	19	9	29	22	30	38	23	14
nonserotype b	135	135	175	199	244	245	200	145
unknown serotype	177	217	179	180	163	166	223	226
Hansen disease (leprosy)	105	87	66	101	80	103	98	82
Hantavirus pulmonary syndrome	24	26	40	32	18	20	20	23
Hemolytic uremic syndrome, postdiarrheal	200	221	288	292	330	242	266	290
Hepatitis, viral, acute†††								
A	5,683	4,488	3,579	2,979	2,585	1,987	1,670	1,398
B	6,212	5,119	4,713	4,519	4,033	3,405	3,374	2,903
C	720	652	766	845	877	782	849	1,229
HIV diagnoses†	—	—	—	—	—	36,870	35,741	35,266
Influenza-associated pediatric mortality§§§	¶	45	43	77	90	358	61	118
Legionellosis	2,093	2,301	2,834	2,716	3,181	3,522	3,346	4,202
Listeriosis	753	896	884	808	759	851	821	870
Lyme disease, total¶¶¶	19,804	23,305	19,931	27,444	35,198	38,468	30,158	33,097
confirmed	¶¶¶	¶¶¶	¶¶¶	¶¶¶	28,921	29,959	22,561	24,364
probable	¶¶¶	¶¶¶	¶¶¶	¶¶¶	6,277	8,509	7,597	8,733
Malaria	1,458	1,494	1,474	1,408	1,255	1,451	1,773	1,724
Measles	37	66	55	43	140	71	63	220
Meningococcal disease, invasive****								
all serogroups	1,361	1,245	1,194	1,077	1,172	980	833	759
serogroup A, C, Y, & W-135	—	297	318	325	330	301	280	257
serogroup B	—	156	193	167	188	174	135	159
other serogroup	—	27	32	35	38	23	12	20
serogroup unknown	—	765	651	550	616	482	406	323
Mumps	258	314	6,584	800	454	1,991	2,612	404
Novel influenza A virus infections	¶	¶	¶	[4]	2	43,696	4	14
Pertussis	25,827	25,616	15,632	10,454	13,278	16,858	27,550	18,719
Plague	3	8	17	7	3	8	2	3
Poliomyelitis, paralytic††††	—	1	—	—	—	1	—	—
Poliovirus infection, nonparalytic	—	—	—	—	—	—	—	—
Psittacosis	12	16	21	12	8	9	4	2
Q fever§§§§	70	136	169	171	120	113	131	134
acute	§§§§	§§§§	§§§§	§§§§	106	93	106	110
chronic	§§§§	§§§§	§§§§	§§§§	14	20	25	24
Rabies								
animal	6,345	5,915	5,534	5,862	4,196	5,343	4,331	4,357
human	7	2	3	1	2	4	2	6
Rubella	10	11	11	12	16	3	5	4
Rubella, congenital syndrome	—	1	1	—	—	2	—	
Salmonellosis	42,197	45,322	45,808	47,995	51,040	49,192	54,424	51,887
SARS-CoV¶¶¶¶	—	—	—	—	—	—	—	—
Shiga toxin–producing Escherichia coli (STEC)	¶	¶	4,432	4,847	5,309	4,643	5,476	6,047
Shigellosis	14,627	16,168	15,503	19,758	22,625	15,931	14,786	13,352
Spotted fever rickettsiosis, total*****	1,713	1,936	2,288	2,221	2,563	1,815	1,985	2,802
confirmed	*****	*****	*****	*****	190	151	156	234
probable	*****	*****	*****	*****	2,367	1,662	1,835	2,562
Streptococcal disease, invasive, group A	4,395	4,715	5,407	5,294	5,674	5,279	¶	¶
Streptococcal toxic-shock syndrome	132	129	125	132	157	161	142	168
Streptococcus pneumoniae invasive disease								
all ages	†††††	†††††	†††††	†††††	†††††	†††††	16,569	17,138
age <5 yrs	†††††	†††††	†††††	†††††	†††††	†††††	2,186	1,459
Streptococcus pneumoniae invasive disease,								
drug resistant, all ages	2,590	2,996	3,308	3,329	3,448	3,370	†††††	†††††
age <5 yrs	—	—	—	563	532	583	†††††	†††††
non-drug resistant age <5 yrs	1,162	1,495	1,861	2,032	1,998	1988	†††††	†††††
Syphilis, all stages**	33,401	33,278	36,935	40,920	46,277	44,828	45,834	46,042
congenital (age <1 yr)	375	339	382	430	431	427	377	360
primary and secondary	7,980	8,724	9,756	11,466	13,500	13,997	13,774	13,970
Tetanus	34	27	41	28	19	18	26	36

See table footnotes on page 101.

TABLE 8. (*Continued*) Reported cases of notifiable diseases — United States, 2004–2011

Disease	2004	2005	2006	2007	2008	2009	2010	2011
Toxic-shock syndrome	95	90	101	92	71	74	82	78
Trichinellosis	5	16	15	5	39	13	7	15
Tuberculosis§§§§§	14,517	14,097	13,779	13,299	12,904	11,545	11,182	10,528
Tularemia	134	154	95	137	123	93	124	166
Typhoid fever	322	324	353	434	449	397	467	390
Vancomycin-intermediate Staphylococcus aureus	—	3	6	37	63	78	91	82
Vancomycin-resistant Staphylococcus aureus	1	2	1	2	—	1	2	
Varicella (chickenpox)¶¶¶¶¶	32,931	32,242	48,445	40,146	30,386	20,480	15,427	14,513
Varicella (deaths)******	9	3	—	6	2	2	4	5
Vibriosis (noncholera Vibrio species infections)	¶	¶	¶	549	588	789	846	832
Viral hemorrhagic fever	¶	¶	¶	¶	¶	¶	1	
Yellow fever††††††	—	—	—	—	—	—	—	

* Acquired Immunodeficiency syndrome (AIDS). The total number of AIDS cases includes all cases reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP).

† In 2008, CDC published a revised HIV case definition. This combined separate surveillance case definitions for HIV infection and AIDS into a single case definition for HIV infection that includes AIDS (and incorporates the HIV infection classification system). The revised HIV case definition provides a more complete presentation of the HIV epidemic on a population level. See CDC. Revised surveillance case definitions for HIV infection among adults, adolescents, and children aged <18 months and for HIV infection and AIDS among children aged 18 months to <13 years — United States, 2008. MMWR 2008;57(No.RR-10):1–12. These case counts can be found under "HIV Diagnoses" in this table. The total number of HIV Diagnoses includes all cases reported to the Division of HIV/AIDS Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), through December 31, 2009. HIV: Human Immunodeficiency Virus.

§ Totals reported to the Division of Vector-Borne Diseases (DVBD), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID) (ArboNET Surveillance), as of April 17, 2012.

¶ Not nationally notifiable

** Totals reported to the Division of STD Prevention, NCHHSTP, as of June 7, 2012.

†† Revision of national surveillance case definition distinguishing between confirmed and probable cases.

§§ As of January 1, 2008, these categories were replaced with codes for *Anaplasma phagocytophilum*. Refer to Ehrlichiosis/Anaplasmosis.

¶¶ Data for Ehrlichiosis attributable to other or unspecified agents were being withheld from publication pending the outcome of discussions concerning the reclassification of certain *Ehrlichia* species, which will probably affect how data in this category were reported.

*** See also "Arboviral Diseases" incidence rates. In 2005, the Arboviral disease surveillance case definitions and categories were revised. The nationally notifiable Arboviral encephalitis and meningitis conditions continued to be nationally notifiable in 2005 and 2006, but under the category of Arboviral neuroinvasive disease. In addition, in 2005, nonneuroinvasive domestic Arboviral diseases for the six domestic arboviruses listed above were added to the list of nationally notifiable diseases.

††† The antihepatitis C virus antibody test became available in May 1990. Data on hepatitis B, perinatal infection, hepatitis B chronic, and hepatitis C virus infection (past or present) are not included because they are undergoing data quality review.

§§§ Totals reported to the Division of Influenza, National Center for Immunization and Respiratory Diseases (NCIRD), as of December 31, 2011.

¶¶¶ National surveillance case definition revised in 2008; probable cases not previously reported.

**** To help public health specialists monitor the impact of the new meningococcal conjugate vaccine (Menactra®, licensed in the United States in January 2005), the data display for meningococcal disease was modified to differentiate the fraction of the disease that is potentially vaccine preventable (serogroups A, C, Y, W-135) from the nonvaccine preventable fraction of disease (serogroup B and others).

†††† Cases of vaccine-associated paralytic poliomyelitis caused by polio vaccine virus. Numbers might not reflect changes based on retrospective case evaluations or late reports (CDC. Poliomyelitis United States, 1975–1984. MMWR 1986;35:180–2).

§§§§ In 2008, Q fever acute and chronic reporting categories were recognized as a result of revision to the Q fever case definition. Before that time, case counts were not differentiated relative to acute and chronic Q fever cases.

¶¶¶¶ Severe acute respiratory syndrome–associated coronavirus disease (SARS-CoV). The total number of SARS–CoV cases includes all cases reported to the Division of Viral Diseases, National Center for Immunization and Respiratory Disease (NCIRD).

***** Revision of national surveillance case definition distinguishing between confirmed and probable cases; total case count includes two case reports with unknown case status.

††††† The previous categories of invasive pneumococcal disease among children <5 years and invasive, drug-resistant *Streptococcus pneumoniae* were eliminated. All cases of invasive *Streptococcus pneumoniae* disease, regardless of age or drug resistance, are reported under a single disease code.

§§§§§ Totals reported to the Division of Tuberculosis Elimination, NCHHSTP, as of July 25, 2012.

¶¶¶¶¶ Varicella was removed from the nationally notifiable disease list in 1981. Varicella became nationally notifiable again in 2003.

****** Totals reported to the Division of Viral Diseases, National Center for Immunization and Respiratory Diseases (NCIRD), as of June 30, 2012.

†††††† The last indigenous case of yellow fever was reported in 1911; all other case reports since 1911 have been imported.

TABLE 9. 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 (including 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 trachomatis infections†	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	§	§	§	§	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
human (other and unspecified)	§	§	§	¶	¶	¶	¶	¶
Encephalitis/Meningitis								
California serogroup viruses	123	129	97	70	114	128	164	108
Eastern equine virus	5	14	4	5	3	9	10	14
Powassan virus	§	§	§	§	§	§	1	—
St. Louis virus	2	13	24	4	2	79	28	41
West Nile virus	§	§	§	§	§	§	2,840	2,866
Western equine virus	2	—	—	1	—	—	—	—
Enterohemorrhagic *Escherichia coli* infection								
Shiga toxin-positive								
O157:H7	2,741	2,555	3,161	4,513	4,528	3,284	3,840	2,671
Non-O157	§	§	§	§	§	171	194	252
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
Haemophilus influenzae, invasive disease								
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
nonserotype b	§	§	§	§	§	§	144	117
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, viral, acute								
A	31,032	30,021	23,229	17,047	13,397	10,609	8,795	7,653
B	10,637	10,416	10,258	7,694	8,036	7,843	7,996	7,526
C/non-A, non-B**	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	§	§	§	§	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, invasive	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
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
Rubella	238	181	364	267	176	23	18	7
Rubella, congenital syndrome	4	5	7	9	9	3	1	1
Salmonellosis, excluding typhoid fever	45,471	41,901	43,694	40,596	39,574	40,495	44,264	43,657
SARS-CoV	—	—	—	—	—	—	—	8

See table footnotes on page 103.

TABLE 9. (*Continued*) Reported cases of notifiable diseases — United States, 1996–2003

Disease	1996	1997	1998	1999	2000	2001	2002	2003
Shigellosis	25,978	23,117	23,626	17,521	22,922	20,221	23,541	23,581
Spotted Fever Rickettsiosis	831	409	365	579	495	695	1,104	1,091
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
Streptococcus pneumoniae, invasive disease,								
drug-resistant, all ages	1,514	1,799	2,823	4,625	4,533	2,896	2,546	2,356
non-drug resistant, 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
congenital (age <1 yr)	1,282	1,081	843	579	580	504	460	432
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 (chickenpox)§§	83,511	98,727	82,455	46,016	27,382	22,536	22,841	20,948
Varicella (deaths)¶¶	§	§	§	§	§	§	9	2
Yellow fever***	1	—	—	—	—	—	1	—

* Acquired immunodeficiency syndrome.
† Cases were reported to the Division of STD Prevention, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP).
§ Not nationally notifiable.
¶ Data for ehrlichiosis attributable to other or unspecified agents were being withheld from publication pending the outcome of discussions concerning the reclassification of certain *Ehrlichia* species, which will probably affect how data in this category were reported.
** The anti-hepatitis C virus antibody test became available in May 1990.
†† Cases were updated through the Division of TB Elimination, NCHHSTP.
§§ Varicella was removed from the nationally notifiable disease list in 1981. Certain states continued to report these cases to CDC.
¶¶ Totals reported to the Division of Viral Diseases, National Center for Immunization and Respiratory Diseases (NCIRD).
*** The last indigenous case of yellow fever was reported in 1911; all other case reports since 1911 have been imported.

TABLE 10. 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 (including 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 trachomatis infections	—	—	—	—	—	—	—	447,638
Cholera	8	—	6	26	103	18	39	23
Coccidioidomycosis	—	—	—	—	—	—	—	1,212
Crytosporidiosis	—	—	—	—	—	—	—	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	**
Enterohemorrhagic *Escherichia coli* infection								
Shiga toxin-positive								
O157:H7	**	**	**	**	**	**	1,420	2,139
Non-O157	**	**	**	**	**	**	**	—
not serogrouped	**	**	**	**	**	**	**	—
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	—
Haemophilus influenzae, invasive disease,								
All ages, serotypes	**	**	**	**	1,412	1,419	1,174	1,180
Hansen disease (leprosy)	184	163	198	154	172	187	136	144
Hemolytic uremic syndrome, postdiarrheal	—	—	—	—	—	—	—	72
Hepatitis, viral, acute								
A	28,507	35,821	31,441	24,378	23,112	24,238	26,796	31,582
B	23,177	23,419	21,102	18,003	16,126	13,361	12,517	10,805
C/ non-A, non-B††	2,619	2,529	2,553	3,582	6,010	4,786	4,470	4,576
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
Meningococcal disease, invasive	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	9,337	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
Rubella, congenital syndrome	6	3	11	47	11	5	7	6
Salmonellosis	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	—	—	—	—	—	—	—	613
Streptococcal toxic-shock syndrome	—	—	—	—	—	—	—	10
Streptococcus pneumonia, invasive disease								
drug-resistant, all ages	—	—	—	—	—	—	—	309

See table footnotes on page 105.

TABLE 10. (*Continued*) Reported cases of notifiable diseases* — United States, 1988–1995

Disease	1988	1989	1990	1991	1992	1993	1994	1995
Syphilis,								
total, all stages	103,437	110,797	134,255	128,569	112,581	101,259	81,696	68,953
congenital (age <1 yr)	741	1,837	3,865	4,424	4,067	3,420	2,452	1,863
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
Trichinosis	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

* No cases of yellow fever were reported during 1988–1995.
† Acquired immunodeficiency syndrome.
§ Cutaneous diphtheria ceased being notifiable nationally after 1979.
¶ Beginning in 1984, data were recorded by date of report to state health departments. Before 1984, data were recorded by onset date.
** Not nationally notifiable.
†† The anti-hepatitis C virus antibody test became available in May 1990.

TABLE 11. 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 (including 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 (infectious)	29,087	25,802	23,403	21,532	22,040	23,210	23,430	25,280
B (serum)	19,015	21,152	22,177	24,318	26,115	26,611	26,107	25,916
C/ non-A, non-B	§	§	§	§	3,871	4,184	3,634	2,999
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, invasive	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	9
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
Rubella, 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	9,859	18,129	19,719	17,371	17,057	17,138	23,860
Syphilis								
congenital (age <1 yr)	277	287	259	239	305	329	410	480
primary and secondary	27,204	31,266	33,613	32,698	28,607	27,131	27,883	35,147
total, all stages	68,832	72,799	75,579	74,637	69,888	67,563	68,215	86,545
Tetanus	95	72	88	91	74	83	64	48
Toxic-shock syndrome	§	§	§	§	482	384	412	372
Trichinosis	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

* No cases of yellow fever were reported during 1980–1987.
† Acquired immunodeficiency syndrome.
§ Not nationally notifiable.

TABLE 12. Number of deaths from selected nationally notifiable infectious diseases — United States, 2003–2009

Cause of death	ICD-10* Cause of death code	No. of deaths						
		2003	2004	2005	2006	2007	2008	2009
AIDS†	B20–B24	13,658	13,063	12,543	12,133	11,295	10,285	9,406
Anthrax	A22	0	0	0	0	0	0	0
Encephalitis, arboviral								
California serogroup viruses	A83.5	0	0	1	1	1	0	0
Eastern equine encephalitis virus	A83.2	1	2	2	2	0	0	2
Powassan virus	A84.8	0	0	0	0	0	0	0
St. Louis encephalitis virus	A83.3	2	2	1	2	1	2	0
Western equine encephalitis virus	A83.1	0	0	0	0	0	0	0
Botulism, foodborne	A05.1	6	0	5	3	6	4	3
Brucellosis	A23	0	0	2	2	1	0	1
Chancroid	A57	0	0	0	0	0	0	0
Chlamydia trachomatis infections	A56	0	0	0	0	0	0	0
Cholera	A00	0	0	0	0	1	0	1
Coccidioidomycosis	B38	73	100	76	110	99	72	87
Cryptosporidiosis	A07.2	0	1	2	2	2	3	2
Cyclosporiasis	A07.8	0	0	0	0	0	0	0
Diphtheria	A36	1	0	0	0	0	0	0
Ehrlichiosis	A79.8	1	0	0	0	0	0	0
Giardiasis	A07.1	0	1	0	1	0	1	0
Gonoccocal infections	A54	6	2	3	3	6	2	1
Haemophilus influenzae	A49.2	5	11	4	4	10	3	7
Hansen disease (leprosy)	A30	2	5	1	1	2	2	1
Hantavirus pulmonary syndrome	A98.5	0	0	0	8	6	2	0
Hemolytic uremic syndrome, postdiarrheal	D59.3	29	27	30	29	20	32	25
Hepatitis A, viral, acute	B15	54	58	43	34	34	37	26
Influenza-associated pediatric mortality	J10, J11	146	51	61	62	71	78	165
Legionellosis	A48.1	98	72	78	91	67	92	104
Listeriosis	A32	33	37	31	30	34	28	29
Lyme disease	A69.2, L90.4	4	6	7	5	8	10	12
Malaria	B50-B54	4	8	6	9	5	5	3
Measles	B05	1	0	1	0	0	0	2
Meningococcal disease	A39	161	138	123	105	87	102	99
Mumps	B26	0	0	0	1	0	2	2
Pertussis	A37	11	16	31	9	9	20	15
Plague	A20	0	1	1	3	2	0	1
Poliomyelitis	A80	0	0	0	0	0	0	0
Psittacosis	A70	0	0	0	0	0	0	0
Q fever	A78	1	1	2	2	4	0	1
Rabies, human	A82	2	3	1	2	1	2	4
Rocky Mountain spotted fever	A77.0	9	5	6	4	4	4	8
Rubella	B06	0	1	0	0	1	0	1
Rubella, congenital syndrome	P35.0	4	5	8	2	4	5	4
Salmonellosis	A02	43	30	30	34	30	42	26
Shiga toxin-producing *Escherichia coli* (STEC)	A04.0–A04.4	2	4	5	3	3	1	3
Shigellosis	A03	2	0	9	3	4	3	4
Smallpox	B03	0	0	0	0	0	0	0
Streptococcal disease, invasive, group A	A40.0, A49.1	115	121	118	117	144	143	148
Streptococcus pneumoniae, invasive disease (restricted to age <5 years)	A40.3, B95.3, J13	15	13	12	22	12	20	18
Syphilis, total, all stages	A50–A53	34	43	47	38	42	34	34
Tetanus	A35	4	4	1	4	5	3	6
Toxic-shock syndrome (other than streptococcal)	A48.3	71	71	55	57	18	20	21
Trichinellosis	B75	0	0	0	1	0	0	0
Tuberculosis	A16–A19	711	657	648	652	554	585	529
Tularemia	A21	2	1	0	0	2	1	3
Typhoid fever	A01.0	0	0	0	0	0	2	0
Varicella	B01	16	19	13	18	14	18	22
Yellow fever§	A95	0	0	0	0	0	0	0

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, 2003–2009. Underlying causes of death are classified according to ICD 10. Data for 2010–2012 are not available. Data are limited by the accuracy of the 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 Diseases and Related Health Problems. Tenth Revision, 1992.

† Acquired immunodeficiency syndrome.

§ For one fatality, the cause of death was erroneously reported as yellow fever in the National Center for Health Statistics dataset for 2003. Subsequent investigation has determined that this death did not result from infection with wild-type yellow fever virus, and it is therefore not included in this table.

Selected Reading for 2011

General

Adekoya N. Nationally notifable disease surveillance (NNDSS) and the Healthy People 2010 objectives. The eJournal of the South Carolina Medical Association 2005;101:e68–72. Available at http://www.scmanet.org/Downloads/e-Journal/SCMA_eJournal_March05.pdf.

Armstrong KE, McNabb S, Ferland LD, et al. Capacity of public health surveillance to comply with revised international health regulations, USA. Emerg Infect Dis 2010;5:804–8.

Baker MG, Fidler DP. Global public health surveillance under new international health regulations. Emerg Infect Dis 2006;12:1058–65.

Bayer R, Fairchild AL. Public health: surveillance and privacy. Science 2000;290:1898–9.

CDC. Automated detection and reporting of notifiable diseases using electronic medical records versus passive surveillance—Massachusetts, June 2006–July 2007. MMWR 2008;57:373–6.

CDC. Racial disparities in nationally notifiable diseases—United States, 2002. MMWR 2005;54:9–11.

CDC. Progress in improving state and local disease surveillance—United States, 2000–2005. MMWR 2005;54:822–5.

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).

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. 3rd ed. Atlanta, GA: US Department of Health and Human Services, Public Health Service, CDC; 2002. Available at http://www.cdc.gov/nip/publications/surv-manual.

CDC. National Electronic Disease Surveillance System (NEDSS): a standards-based approach to connect public health and clinical medicine. J Public Health Manag Practice 2001;7:43–50.

CDC. Public Health Information Network (PHIN): overview. Atlanta, GA: US Department of Health and Human Services, CDC; 2006. Available at http://www.cdc.gov/phin/overview.html.

CDC. Reporting race and ethnicity data—National Electronic Telecommunications System for Surveillance, 1994–1997. MMWR 1999;48:305–12.

CDC. Sexually transmitted disease surveillance, 2010. Atlanta, GA: US Department of Health and Human Services, CDC; 2011. Available at http://www.cdc.gov/std/stats.

CDC. Sexually transmitted diseases treatment guidelines, 2010. MMWR 2010;59(No. RR-12).

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).

CDC. Use of race and ethnicity in public health surveillance: summary of the CDC/ATSDR workshop. MMWR 1993;42(No. RR-10).

CDC. Potential effects of electronic laboratory reporting on improving timeliness of infectious disease notification—Florida, 2002–2006. MMWR 2008;57:1325–8.

Chang M-H, Glynn MK, Groseclose SL. Endemic, notifiable bioterrorismrelated 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.

Cronquist AB, Mody RK, Atkinson R, et al. Impacts of culture-independent diagnostic practices on public health surveillance for bacterial enteric pathogens. Clin Infect Dis 2012;54 (Suppl 5):S432–9.

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, Ieong 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.

German R. Sensitivity and predictive value positive measurements for public health surveillance systems. Epidemiology 2000;11:720–7.

Gould LH, Seys S, Everstine K, et al. Recordkeeping practices of beef grinding activities at retail establishments. J Food Prot 2011;74:1022–4.

Government Accountability Office. Emerging infectious diseases: review of state and federal disease surveillance efforts. Washington, DC: Government Accountability Office; 2004. GAO-04-877. Available at http://www.gao.gov/new.items/d04877.pdf.

Hale CR, Scallan E, Cronquist AB, et al. Estimates of enteric illness attributable to contact with animals and their environments in the United States. Clin Infect Dis 2012;54 (Suppl 5):S472–9.

Hopkins RS. Design and operation of state and local infectious disease surveillance systems. J Public Health Manag Practice 2005;11:184–90. Jajosky RA, Groseclose SL. Evaluation of reporting timeliness of public health surveillance systems for infectious diseases. BMC Public Health 2004;4:29.

Jajosky R, Rey A, Park M, Aranas A, Macdonald S, Ferland L. Findings from the Council of State and Territorial Epidemiologists' 2008 assessment of state reportable and nationally notifiable conditions in the United States and considerations for the future. J Public Health Manag Practice, 2011;17:255–64.

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. J Public Health Manag Pract 1996;2:4–10.

Krause G, Brodhun B, Altmann D, Claus H, Benzler J. Reliability of case definitions for public health surveillance assessed by round-robin test methodology. BMC Public Health 2006;6:129.

Lazarus R, Klompas M, Campion F, et al. Electronic support for public health: validated case finding and reporting for notifiable diseases using electronic medical data. J Am Med Inform Assoc 2009;16:18–24.

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.

McNabb S, Chungong S, Ryan M, et al. Conceptual framework of public health surveillance and action and its application in health sector reform. BMC Public Health 2002;2:2.
McNabb S, Surdo A, Redmond A, et al. Applying a new conceptual framework to evaluate tuberculosis surveillance and action performance and measure the costs, Hillsborough County, Florida, 2002. Ann Epidemiol 2004;14:640–5.
Miller MA, Sentz J, Rabaa MA, et al. Global epidemiology of infections due to *Shigella*, *Salmonella* serotype Typhi, and enterotoxigenic *Escherichia coli*. Epidemiol Infect 2008;136:433–5.
Niskar AS, Koo D. Differences in notifiable infectious disease morbidity among adult women—United States, 1992–1994. J Womens Health 1998;7:451–8.
Overhage JM, Grannis S, McDonald CJ. A comparison of the completeness and timeliness of automated electronic laboratory reporting and spontaneous reporting of notifiable conditions. Am J Public Health 2008;98:344–50.
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.
Pinner RW, Jernigan DB, Sutliff SM. Electronic laboratory-based reporting for public health. Mil Med 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.
Roush S, Murphy T. Historical comparisons of morbidity and mortality for vaccine-preventable diseases in the United States. JAMA 2007;298:2155–63. Silk, BJ, Berkelman RL. A review of strategies for enhancing the completeness of notifiable disease reporting. J Public Health Manag Practice 2005;11:191–200.
Scallan E, Hoekstra RM, Angulo FJ, et al. Foodborne illness acquired in the United States—major pathogens. Emerg Infect Dis 2011;17:7–15.
Scallan E, Griffin PM, Angulo FJ, et al. Foodborne illness acquired in the United States—unspecified agents. Emerg Infect Dis 2011;17:16–22.
Taylor EV, Holt KG, Mahon BE, et al. Ground beef consumption patterns in the United States, FoodNet, 2006 through 2007. J Food Prot 2012;75:341–6.
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.

Anthrax

CDC. Use of anthrax vaccine in the United States: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2009. MMWR 2010;59(No. RR-6).
Blackburn JK, McNyset KM, Curtis A, Hugh-Jones ME. Modeling the geographic distribution of *Bacillus anthracis,* the causative agent of anthrax disease, for the contiguous United States using predictive ecological niche modeling. Am J Trop Med Hyg 2007;77:110–10.
Stern EJ, Uhde KB, Shadomy SV, Messonnier N. Conference report on public health and clinical guidelines for anthrax. Emerg Infect Dis 2008;14. Available at http://www.cdcnc.gov/eid/article/14/4/07-0969_article.htm.

Domestic Arboviral, Neuroinvasive and Nonneuroinvasive

CDC. West Nile virus disease and other arboviral diseases—United States, 2011. MMWR 2012;61:510–4.
Gibney KB, Colborn J, Baty S, et al. Modifiable risk factors for West Nile virus infection during an outbreak—Arizona, 2010. Am J Trop Med Hyg 2012;86:895–901.
Lindsey NP, Brown JA, ArboNET Evaluation Working Group, et al. State health department perceived utility of and satisfaction with ArboNET, the U.S. national arboviral surveillance system. Public Health Rep 2012;127:383–90.
Lindsey NP, Staples JE, Lehman JA, Fischer M. Medical risk factors for severe West Nile virus disease, United States, 2008–2010. Am J Trop Med Hyg 2012;87:179–84.
Lindsey NP, Sejvar JJ, Bode AV, Pape WJ, Campbell GL. Delayed mortality in a cohort of persons hospitalized with West Nile virus disease in Colorado in 2003. Vector Borne Zoonotic Dis 2012;12:230–5.
Lindsey NP, Staples JE, Lehman JA, Fischer M. Surveillance for West Nile virus disease—United States, 1999–2008. MMWR 2010;59.
Reimann CA, Hayes EB, DiGuiseppi C, et al. Epidemiology of neuroinvasive arboviral disease in the United States, 1999–2007. Am J Trop Med Hyg 2008;79:974–9.
Weber I, Lindsey N, Bunko-Patterson A, et al. Completeness of West Nile virus testing among patients with meningitis and encephalitis during an outbreak in Arizona. Epidemiol Infect 2012;140:1632–6.

Botulism

Arnon SS, Barzilay EJ. Clostridial infections: botulism and infant botulism. In: Pickering LK, Baker CJ, Kimberlin DW, Long SS, eds. The Red Book: 2009 report of the Committee on Infectious Diseases. Elk Grove Village, IL: American Academy of Pediatrics; 2009:259–62.
Barzilay, EJ. Botulism and intestinal botulism. In: DL Heymann, ed. Control of communicable diseases manual. Washington, DC: American Public Health Association Press; 2008.
CDC. Infant botulism—New York City, 2001–2002. MMWR 2003;52:21–4.
Newkirk RW, Hedberg CW. Rapid detection of foodborne botulism outbreaks facilitated by epidemiological linking of cases: implications for food defense and public health response. Foodborne Pathog Dis 2012;9:150–5.
Sobel J. Botulism. Clin Infect Dis 2005;41:1167–73.
Sobel J, Tucker N, McLaughlin J, Maslanka S. Foodborne botulism in the United States, 1990–2000. Emerg Infect Dis 2004;10:1606–12.
Shapiro RL, Hatheway C, Swerdlow DL. Botulism in the United States: a clinical and epidemiologic review. Ann Intern Med 1998;129:221–8.
Shapiro RL, Hatheway C, Becher J, Swerdlow DL. Botulism surveillance and emergency response: a public health strategy for a global challenge. JAMA 1997;278:433–5.

Brucellosis

Ashford DA, di Pietra J, Lingappa J, et al. Adverse events in humans associated with accidental exposure to the livestock brucellosis vaccine RB51. Vaccine 2004;22:3435–9.
CDC. Brucellosis (*Brucella melitensis*, *abortus*, *suis*, and *canis*). Atlanta, GA: US Department of Health and Human Services, CDC; 2010. Available at http://www.cdc.gov/nczved/divisions/dfbmd/diseases/brucellosis.
CDC. Brucellosis case definition. Atlanta, GA: US Department of Health and Human Services, CDC; 2010. Available at http://www.cdc.gov/osels.
CDC. *Brucella suis* infection associated with feral swine hunting—three states, 2007–2008. MMWR 2009;58:618–21.
CDC. Public health consequences of a false-positive laboratory test result for Brucella—Florida, Georgia, and Michigan, 2005. MMWR 2008;57:603–5.
CDC. Laboratory-acquired brucellosis—Indiana and Minnesota, 2006. MMWR 2008;57:39–42.
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.

Glynn MK, Lynn TV. Brucellosis. J Am Vet Med Assoc 2008;233:900–8.
Yagupsky P, Baron EJ. Laboratory exposures to *Brucellae* and implications for bioterrorism. Emerg Infect Dis 2005;11:1180–5.

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 infection

CDC. Sexually transmitted disease surveillance, 2011. Atlanta, GA: US Department of Health and Human Service; 2012.
CDC. Sexually transmitted diseases treatment guidelines, 2010. MMWR 2010;59(No. RR-12).
Datta SP, Sternberg M, Johnson RE, et al. Gonorrhea and chlamydia in the United States among persons 14 to 39 years of age, 1999 to 2002. Ann Intern Med 2007;147:89–96.
Satterwhite CL, Joesoef MR, Datta SD, Weinstock H. Estimates of *Chlamydia trachomatis* infections among men: United States. Sex Transm Dis 2007;35:S3–7.
Satterwhite CL, Tian LH, Braxton J, Weinstock H. Chlamydia prevalence among women and men entering the National Job Training Program: United States, 2003–2007. Sex Transm Dis 2010;37:63–7.

Cholera

Besser RE, Feikin DR, Eberhart-Phillips JE, Mascola L, Griffin PM. Diagnosis and treatment of cholera in the United States. Are we prepared? JAMA 1994;272:1203–5.
Newton AE, Heiman KE, Schmitz A, et al. Cholera in United States associated with epidemic in Hispaniola. Emerg Infect Dis 2011;17:2166–8.
Siddique AK, Nair GB, Alam M, et al. El Tor cholera with severe disease: a new threat to Asia and beyond. Epidemiol Infect 2010;138:347–52.
Steinberg EB, Greene KD, Bopp CA, et al. Cholera in the United States, 1995–2000: trends at the end of the twentieth century. J Infect Dis 2001;184:799–802.
Tappero J, Tauxe RV. Lessons learned during public health response to cholera epidemic in Haiti and the Dominican Republic. Emerg Infect Dis 2011;17:2087–93.
World Health Organization. Cholera, 2011. Wkly Epidemiol Rec 2012;87: 289–304.

Coccidioidomycosis

Chen S, Erhart L, Anderson S, et al. Coccidioidomycosis: knowledge, attitudes, and practices among healthcare providers—Arizona, 2007. Medical Mycol 2011;49:649–56.
Hector RF, Rutherford GW, Tsang CA, et al. The public health impact of coccidioidomycosis in Arizona and California. Int J Environ Res Public Health 2011;4:1150–73.
Seitz AE, Prevots R, Holland SM. Hospitalizations associated with disseminated coccidioidomycosis, Arizona and California, USA. Emerg Infect Dis 2012;18:1476–8.

Cryptosporidiosis

CDC. Diagnostic procedures for stool specimens. Atlanta, GA: US Department of Health and Human Services, CDC; 2009. Available at http://www.dpd.cdc.gov/dpdx/HTML/DiagnosticProcedures.htm.
Hlavsa MC, Roberts VA, Anderson AR, et al. Surveillance for waterborne disease outbreaks and other health events associated with recreational water—United States, 2007–2008. MMWR 2011;60:1–32.
Roy SL, DeLong SM, Stenzel S, 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.
Yoder JS, Beach MJ. *Cryptosporidium* surveillance and risk factors in the United States. Exp Parasitol 2010;124:31–9.
Yoder JS, Wallace RM, Collier SA, Beach MJ, Hlavsa MC. Cryptosporidiosis surveillance—United States, 2009–2010. MMWR 2012;61:1–12.

Cyclosporiasis

Hall RL, Jones JL, Hurd S, et al. Population-based active surveillance for *Cyclospora* infection—United States, Foodborne Diseases Active Surveillance Network (FoodNet), 1997–2009. Clin Infect Dis 2012;54 (Suppl 5):S411–7.
Hall RL, Jones JL, Herwaldt BL. Surveillance for laboratory-confirmed sporadic cases of cyclosporiasis—United States, 1997–2008. MMWR 2011;60:(No. SS-2).
Ortega YR, Sanchez R. Update on *Cyclospora cayetanensis*, a food-borne and waterborne parasite. Clin Microbiol Rev 2010;23:218–34.
Herwaldt BL. The ongoing saga of US outbreaks of cyclosporiasis associated with imported fresh produce: what *Cyclospora cayetanensis* has taught us and what we have yet to learn. In: Institute of Medicine. Addressing foodborne threats to health: policies, practices, and global coordination. Washington, DC: The National Academies Press; 2006:85–115, 133–40.
Herwaldt BL. *Cyclospora cayetanensis*: a review, focusing on the outbreaks of cyclosporiasis in the 1990s. Clin Infect Dis 2000;31:1040–57.

Diphtheria

Dewinter LM, Bernard KA, Romney MG. Human clinical isolates of *Corynebacterium diphtheriae* and *Corynebacterium ulcerans* collected in Canada from 1999 to 2003 but not fitting reporting criteria for cases of diphtheria. Clin Microbiol 2005;43:3447–9.

Ehrlichiosis and Anaplasmosis

CDC. Anaplasmosis and Ehrlichiosis—Maine, 2008. MMWR 2009: 58:1033–6.
Walker D. Rickettsiae and rickettsial infections: the current state of knowledge. Clin Infect Dis 2007 ;45 (Suppl 1):539–44.
Dumler JS, Madigan JE, Pusterla N, Bakken JS. Ehrlichioses in humans: epidemiology, clinical presentation, diagnosis, and treatment. Clin Infect Dis 2007;45 (Suppl 1):545–51.
CDC. Diagnosis and management of tickborne rickettsial diseases: Rocky Mountain spotted fever, ehrlichioses, and anaplasmosis—United States. MMWR 2006;55(No. RR-4).
Demma LJ, Holman RC, McQuiston JH, Krebs JW, Swerdlow DL. Epidemiology of human ehrlichiosis and anaplasmosis in the United States, 2001–2002. Am J Trop Med Hyg 2005;73:400–9.

Giardiasis

Brunkard JM, Ailes E, Roberts VA, et al. Surveillance for waterborne disease outbreaks associated with drinking water—United States, 2007–2008. MMWR 2011;60(No. SS-12):38–68.
Cantey PT, Roy S, Lee B, et al. Study of nonoutbreak giardiasis: novel findings and implications for research. Am J Med. 2011;124:1175.e1–8.
Clinical and Laboratory Standards Institute. Procedures for the recovery and identification of parasites from the intestinal tract; approved guideline. CLSI document M28-A2 Second Edition ed. Wayne, PA: Clinical and Laboratory Standards Institute; 2005.
Yoder JS, Gargano JY, Wallace RM, Beach MJ. Giardiasis surveillance—United States, 2009–2010. MMWR 2012;61(No. SS-5):13–23.

Gonorrhea

CDC. Sexually transmitted disease surveillance, 2011. Atlanta, GA: US Department of Health and Human Services; 2012.

CDC. Update to CDC's sexually transmitted diseases treatment guidelines, 2010: oral cephalosporins no longer a recommended treatment for gonococcal infections. MMWR 2012;61:590–4.

CDC. Update to CDC's sexually transmitted diseases guidelines, 2006: fluoroquinolones no longer recommended for treatment of gonococcal infections. MMWR 2007;56:332–6.

CDC. Sexually transmitted diseases treatment guidelines, 2010. MMWR 2010;59(No. RR-12).

Datta SD, Sternberg M, Johnson RE, et al. Gonorrhea and chlamydia in the United States among persons 14 to 39 years of age, 1999 to 2002. Ann Int Med 2007;147:89–96.

Haemophilus influenzae, Invasive Disease

MacNeil JR, Cohn AC, Farley M, et al. Current epidemiology and trends in Invasive Haemophilus influenzae disease—United States, 1989–2008. Clin Infect Dis 2011:53:1230–6.

Briere E, Jackson M, Shah S, et al. *Haemophilus influenzae* type b disease and vaccine booster dose deferral, United States, 1998–2009. Pediatrics 2012;130:1–7.

Schuchat A, Messonnier NR. From pandemic suspect to the postvaccine era: the *Haemophilus influenzae* story. Clin Infect Dis 2007;44:817–9.

Hansen Disease (Leprosy)

Britton WJ, Lockwood NJ. Leprosy. Lancet 2004;363:1209–19.

Bruce S, Schroeder TL, Ellner K, et al. Armadillo exposure and Hansen's disease: an epidemiologic survey in southern Texas. J Am Acad Dermatol 2000;43(2 Pt 1):223–8.

Hartzell JD, Zapor M, Peng S, Straight T. Leprosy: a case series and review. South Med J 2004;97:1252–6.

Hastings R, ed. Leprosy. 2nd ed. New York, NY: Churchill Livingstone; 1994.

Joyce MP, Scollard DM. Leprosy (Hansen's disease). In: Rakel RE, Bope ET, eds. Conn's current therapy 2004: latest approved methods of treatment for the practicing physician. 56th ed. Philadelphia, PA: Saunders; 2004:100–5.

Ooi WW, Moschella SL. Update on leprosy in immigrants in the United States: status in the year 2000. Clin Infect Dis 2001;32:930–7.

Scollard DM, Adams LB, Gillis TP, et al. The continuing challenges of leprosy. Clin Microbiol Rev 2006;19:338–81.

Hantavirus pulmonary syndrome

CDC. Hantavirus pulmonary syndrome—United States: updated recommendations for risk reduction. MMWR 2002;51(No.RR-9):1–13.

Khan AS, Khabbaz RF, Armstrong LR, et al. Hantavirus pulmonary syndrome—the first 100 US cases. J Infect Dis 1996;173:1297–1303.

Knust B, MacNeil A, Rollin PE. Hantavirus pulmonary syndrome clinical findings: evaluating a surveillance case definition. Vector Borne Zoonotic Dis 2012;12:393–9.

MacNeil A, Ksiazek TG, Rollin PE. Hantavirus pulmonary syndrome, United States, 1993–2009. Emerg Infect Dis 2011;1195–1201.

MacNeil A, Nichol ST, Spiropoulou CF. Hantavirus pulmonary syndrome. Virus Res 2011;138–47.

Hemolytic Uremic Syndrome, Postdiarrheal

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.

Gould L, Demma L, Jones TF, et al. Hemolytic uremic syndrome and death in persons with *Escherichia coli* O157:H7 infection, Foodborne Diseases Active Surveillance Network Sites, 2000–2006. Clin Infect Dis 2009; 49:1480–5.

Ong KL, Apostal M, Comstock N, et al. Strategies for surveillance of pediatric hemolytic uremic syndrome: Foodborne Diseases Active Surveillance Network (FoodNet), 2000–2007. Clin Infect Dis 2012;54 (Suppl 5):S424–31.

Tarr PI, Gordon CA Chandler WL. Shiga toxin-producing *Escherichia coli* and haemolytic uraemic syndrome. Lancet 2005;365:1073–86.

Hepatitis A

Klevens RM, Kruszon-Moran D, Wasley A, et al. Seroprevalence of Hepatitis A virus antibodies in the United States: results from the National Health and Nutrition Examination Survey. Public Health Rep 2011;126:522–32.

Hepatitis B

CDC. Updated CDC recommendations for the management of hepatitis B virus–infected health-care providers and students. MMWR 2012;61(No. RR-3):1–12.

Kowdley KV, Wang CC, Welch S, Roberts H, Brosgart CL. Prevalence of chronic hepatitis B among foreign-born persons living in the United States by country of origin. Hepatology 2011;422–33.

Ott JJ, Stevens GA, Groeger J, Wiersma ST. Global epidemiology of hepatitis B virus infection: new estimates of age-specific HBsAg seroprevalence and endemicity. Vaccine 2012;30:2212–9.

Hepatitis C

CDC. Recommendations for the identification of chronic hepatitis C virus infection among persons born during 1945–1965. MMWR 2012;61(No. RR-4):1–32.

Denniston MM, Klevens RM, McQuillan GM, Jiles RB. Awareness of infection, knowledge of hepatitis C, and medical follow-up among individuals testing positive for hepatitis C: National Health and Nutrition Examination Survey 2001–2008. Hepatology 2012;55:1652–61.

Klevens RM, Hu DJ, Jiles R, Holmberg SD. Evolving epidemiology of hepatitis C virus in the United States. Clin Infect Dis 2012 (Suppl 1);55:S3–9.

Moorman AC, Gordon SC, Rupp LB, et al. Baseline population characteristics and mortality among people in care for chronic viral hepatitis, 2006–2008: The Chronic Hepatitis Cohort Study (CHeCS). Clin Infect Dis 2013;56:40–50.

Spradling PR, Rupp L, Moorman AC, et al. Hepatitis B and C virus infection among 1.2 million persons with access to care: factors associated with testing and infection prevalence. Clin Infect Dis 2012;55:1047–55.

Influenza-Associated Pediatric Mortality

Bhat N, Wright JG, Broder KR, et al. Influenza-associated deaths among children in the United States, 2003–2004. N Engl J Med 2005;352:2559–67.

Blanton, L, Peacock G, Cox CM, et al. Neurologic disorders among pediatric deaths associated with the 2009 pandemic influenza. Pediatrics 2012; 130:390–6.

CDC. Update: Influenza-associated deaths reported among children aged <18 years—United States, 2003–04 influenza season. MMWR 2004;52:1254–5.

CDC. Update: influenza-associated deaths reported among children aged <18 years—United States, 2003–04 influenza season. MMWR 2004;52:1286–8.

CDC. Mid-year addition of influenza-associated pediatric mortality to the list of nationally notifiable diseases, 2004. MMWR 2004;53:951–2.

CDC. Prevention and control of influenza: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2011;60:1128–32.

Council of State and Territorial Epidemiologists. Influenza-associated pediatric mortality, 2004. Atlanta, GA: Council of State and Territorial Epidemiologists; 2004. Available at http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PDFs/CSTENotifiableConditionListA.pdf.

Council of State and Territorial Epidemiologists. Position statement 04-ID-04: influenza-associated pediatric mortality 2004. Atlanta, GA: Council of State and Territorial Epidemiologists; 2004. Available at http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PDFs/CSTENotifiableConditionListA.pdf.

Cox CM, Blanton L, Dhara R, Brammer L, Finelli L. 2009 pandemic influenza A (H1N1) deaths among children—United States, 2009–2010. Clin Infect Dis 2011;52:S69–74.

Guarner J, Paddock CD, Shieh WJ, et al. Histopathologic and immunohistochemical features of fatal influenza virus infection in children during the 2003–2004 season. Clin Infect Dis 2006:43;132–4.

Finelli L, Fiore A, Dhara R, et al. Influenza-associated pediatric mortality in the United States: increase of *Staphylococcus aureus* coinfection. Pediatrics 2008;122:805–11.

Peebles PJ, Dhara R, Brammer L, Fry AM, Finelli L. Influenza-associated mortality among children—United States: 2007–2008. Influenza Other Respi Viruses 2011;5:25–31.

Legionellosis

CDC. Legionellosis—United States, 2000–2009. MMWR 2011;60:1083–6.

CDC. Surveillance for waterborne disease outbreaks associated with drinking water—United States, 2007–2008. MMWR 2011;60(No. SS-12):38–68.

CDC. Surveillance for waterborne disease outbreaks and other health events associated with recreational water—United States, 2007–2008. MMWR 2011;60(No. SS-12):1–32.

CDC. Surveillance for travel-associated legionnaires' disease—United States, 2005–2006. MMWR 2007;56:1261–3.

European Centre for Disease Prevention and Control. Legionnaires disease in Europe, 2010. Stockholm, ECDC; 2012. Available at http://ecdc.europa.eu/en/publications/Publications/SUR-Legionnaires-disease-surveillance-2010.pdf.

European Working Group on Legionella Infections (EWGLI). EWGLI technical guidelines for the investigation, control, and prevention of travel associated Legionnaires' disease. London, UK: United Kingdom Health Protection Agency; 2011. Available at http://ecdc.europa.eu/en/activities/surveillance/ELDSNet/Documents/EWGLI-Technical-Guidelines.pdf.

Fields BS, Benson RF, Besser RE. *Legionella* and Legionnaires' disease: 25 years of investigation. Clin Microbiol Rev 2002;15:506–26.

Marston BJ, Lipman HB, Breiman RF. Surveillance for Legionnaires' disease: risk factors for morbidity and mortality. Arch Intern Med 1994;154:2417–22.

Neil K, Berkelman R. Increasing incidence of legionellosis in the United States: changing epidemiological trends. Clin Infect Dis 2008;47:591–9.

Listeriosis

Gottlieb SL, Newbern EC, Griffin PM, et al. Multistate outbreak of listeriosis linked to turkey deli meat and subsequent changes in US regulatory policy. Clin Infect Dis 2006;42:29–36.

Jackson KA, Biggerstaff M, Tobin-D'Angelo M, et al. Multistate outbreak of *Listeria monocytogenes* associated with Mexican-style cheese made from pasteurized milk among pregnant, Hispanic women. J Food Prot 2011;74:949–53.

Jackson KA, Iwamoto M, Swerdlow DL. Pregnancy-associated listeriosis. Epidemiol Infect 2010;138:1503–9.

Laksanalamai P, Joseph LA, Silk BJ, et al. Genomic characterization of *Listeria monocytogenes* strains involved in a multistate listeriosis outbreak associated with cantaloupe in US. PloS ONE 2012;7:e42448.

Pouillot R, Hoelzer K, Jackson KA, et al. Relative risk of listeriosis in Foodborne Diseases Active Surveillance Network (FoodNet) sites according to age, pregnancy, and ethnicity. Clin Infect Dis 2012;54:S396–404.

Scallan E, Hoekstra RM, Angulo FJ, et al. Foodborne illness acquired in the United States— major pathogens. Emerg Infect Dis 2011;17:7–15.

Silk BJ, Date KA, Jackson KA, et al. Invasive listeriosis in the Foodborne Diseases Active Surveillance Network (FoodNet), 2004–2009: Further targeted prevention needed for higher-risk groups. Clin Infect Dis 2012;54:S395–404.

Slutsker L, Schuchat A. Listeriosis in humans. In: Ryser ET Marth EH, eds. *Listeria*, listeriosis, and food safety. 2nd ed. New York, NY: Marcel Dekker, Inc.; Little, Brown and Company; 1999:75–95.

Swaminathan B, Gerner-Smidt P. The epidemiology of human listeriosis. Microbes Infect 2007;9:1236–43.

Voetsch AC, Angulo FJ, Jones TF, et al. Reduction in the incidence of invasive listeriosis in Foodborne Diseases Active Surveillance Network Sites, 1996–2003. Clin Infect Dis 2007;44:513–20.

Lyme disease

Stafford KC III. Tick management handbook: an integrated guide for homeowners, pest control operators, and public health officials for the prevention of tick-associated disease. New Haven, CT: Connecticut Agricultural Experiment Station; 2004. Available at http://www.cdc.gov/ncidod/dvbid/lyme/resources/handbook.pdf.

Connally NP, Durante AJ, Yousey-Hindes KM, et al. Peridomestic Lyme disease prevention: results of a population-based case-control study. Am J Prev Med 2009;37:201–6.

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

Bacon RM, Kugeler KJ, Mead PS. Surveillance for Lyme disease—United States, 1992–2006. MMWR 2008;57(No. SS-10):1–9.

CDC. Caution regarding testing for Lyme disease. MMWR 2005;54:125.

Wormser GP, Dattwyler RJ, Shapiro ED, et al. The clinical assessment, treatment, and prevention of Lyme disease, human granulocytic, anaplasmosis, and babesiosis: clinical practice guidelines by the Infectious Disease Society of America. Clin Infect Dis 2006;43:1089–1134.

Malaria

Mali S, Kachur SP, Arguin PM. Malaria surveillance—United States, 2010. MMWR 2012. 61(SS02);1–17.

Abanyie FA, Agguin PM, Gutman J. State of malaria diagnostic testing at clinical laboratories in the United States, 2010: a nationwide survey. Malar J 2011;10:340.

Krause G. et al. Chemoprophylaxis and malaria death rates. Emerg Infect Dis 2006;12:447–51.

Jensenius M, Han PV, Schlagenhauf P, et al. Acute and potentially life-threatening tropical diseases in western travelers—a GeoSentinel multicenter study, 1996–2011. Am J Trop Med 2013;88:397–404.

Measles

CDC. Measles—United States, January–July 2008. MMWR 2008;57:893–6.

Sugerman DE, Barskey AE. Measles outbreak in a highly vaccinated population, San Diego 2008: role of the intentionally unvaccinated. Pediatrics 2010;125:747–55.

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 local area vaccination coverage among children aged 19–35 months—United States, 2006. MMWR 2007;56:880–5.

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.

CDC. Outbreak of measles—San Diego, California, January–February 2008. MMWR 2008;57:203–6.

Meningococcal Disease

CDC. Prevention and control of meningococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2005;54(No.RR-7).

Rosenstein NE, Perkins BA, Stephens DS, et al. Meningococcal disease. N Engl J Med 2001;334:1378–88.

Cohn AC, MacNeil JR, Harrison LH, et al. Changes in *Neisseria meningitidis* disease epidemiology in the United States, 1998–2007: implications for prevention of meningococcal disease. Clin Infect Dis 2010;50:184–91.

Mumps

CDC. Mumps outbreak—New York, New Jersey, Quebec, 2009. MMWR 2009;58:1270–4.

Barskey AE, Glasser JW, LeBaron CW. Mumps resurgence in the United States: a historical perspective on unexpected elements. Vaccine 2009; 27:6186–95.

CDC. Updated recommendations of the Advisory Committee on Immunization Practices (ACIP) for the control and elimination of mumps. MMWR 2006;55:629–30.

Dayan G, Quinlisk P, Parker AA, et al. Recent resurgence of mumps in the United States. New Engl J Med 2008;358:1580–9.

Anderson LJ, Seward JF. Mumps epidemiology and immunity: the anatomy of a modern epidemic. Pediatr Infect Dis J 2008;27(Suppl 10):S75–9.

Bitsko RH, Cortese MM, Dayan GH, et al. Detection of RNA of mumps virus during an outbreak in a population with high level of measles, mumps, and rubella vaccine coverage. J Clin Microbiol 2008;46:1101–3.

Marin M, Quinlisk P, Shimabukuro T, et al. Mumps vaccination coverage and vaccine effectiveness in a large outbreak among college students—Iowa, 2006. Vaccine 2008;26:3601–7.

CDC. Updated recommendations for isolation of persons with mumps. MMWR 2008;57:1103–5.

Novel influenza A virus

CDC. Update: Influenza A (H3N2)v transmission and guidelines—five states, 2011. MMWR 2012;60:1741–4.

CDC. Antibodies cross-reactive to Influenza A (H3N2) variant virus and impact of 2010–11 seasonal influenza vaccination on cross-reactive antibodies—United States. MMWR 2012;61:237–41.

CDC. Evaluation of rapid influenza diagnostic tests for influenza A (H3N2) v virus and updated case count—United States, 2012. MMWR 2012;61:619–21.

Duchatez MF, Hause B, Stigger-Rosser E, et al. Multiple reassortment between pandemic (H1N1) 2009 and endemic influenza viruses in pigs, United States. Emerg Infect Dis 2011;17:1624–9.

Myers KP, Olsen CW, Gray GC. Cases of swine influenza in humans: a review of the literature. Clin Infect Dis 2007;44:1084–8.

Olsen CW. The emergence of novel swine influenza viruses in North America. Virus Res 2002;85:199–210.

Shinde V, Bridges CB, Uyeki TM, et al. Triple-reassortant swine influenza A (H1) in humans in the United States, 2005–2009. N Engl J Med 2009; 360:2616–25.

Vincent AL, Swenson SL, Lager KM, et al. Characterization of an influenza A virus isolated from pigs during an outbreak of respiratory disease in swine and people during a county fair in the United States. Vet Microbiol 2009;137:51–9.

Vincent AL, Ma W, Lager KM, et al. Swine influenza viruses: a North American perspective. Adv Virus Res 2008;72:127–54.

Pertussis

Clark TA, Messonnier NE, Hadler SC. Pertussis control: time for something new? Trends Microbiol 2012 May;20:211–3. [Epub ahead of print]

CDC. Updated recommendation for use of tetanus toxoid, reduced diphtheria toxoid and acellular pertussis (Tdap) vaccine in Adults 65 years and older—Advisory Committee on Immunization Practices (ACIP), 2012. MMWR 2012;61:468–70.

CDC. Updated recommendations for use of tetanus toxoid, reduced diphtheria toxoid and acellular pertussis vaccine (Tdap) in pregnant women and persons who have or anticipate having close contact with an infant aged <12 months—Advisory Committee on Immunization Practices (ACIP), 2011. MMWR 2011;60:1424–6.

Mandal S, Tatti KM, Woods-Stout D, et al. Pertussis pseudo-outbreak linked to specimens contaminated by Bordetella pertussis DNA from clinic surfaces. Pediatrics 2012;129:e424–30.

Skoff TH, Cohn AC, Clark TA, Messonnier NE, Martin SW. Early impact of the US Tdap vaccination program on pertussis trends. Arch Pediatr Adolesc Med 2012;166:344–9.

Plague

CDC. Human plague—four states, 2006. MMWR 2006;55:940–3.

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

Gould LH, Pape J, Ettestadt P, et al. Dog-associated risk factors for human plague. Zoonoses Public Health 2008;55:448–54.

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

Tourdjman M, Ibraheem M, Brett M, et al. Misidentification of *Yersinia pestis* by automated systems resulting in delayed diagnosis of human plague infections—Oregon and New Mexico, 2010–2011. Clin Infect Dis 2012;55:e58–60.

Poliomyelitis

CDC. Poliovirus infections in four unvaccinated children—Minnesota, August–October 2005. MMWR 2005;54:1053–5.

Alexander LN, Seward JF, Santibanez TA, et al. Vaccine policy changes and epidemiology of polio in the United States. JAMA 2004;292:1696–702.

CDC. Progress toward interruption of wild poliovirus transmission—worldwide, January 2006–May 2007. MMWR 2007;56:682–5.

CDC. Laboratory surveillance for wild and vaccine-derived polioviruses—worldwide, January 2006–June 2007. MMWR 2007;56:965–9.

CDC. Update on vaccine-derived polioviruses—worldwide, January 2006–August 2007. MMWR 2007;56:996–1001.

CDC. Progress towards interruption of wild poliovirus transmission—worldwide, January 2006–May 2007. MMWR 2008;57:489–94.

Psittacosis

Mitchell SL, Wolff BJ, Thacker WL, et al. Genotyping of *Chlamydophila psitttaci* by real time PCR and high resolution melt analysis. J Clin Microbiol 2008;47:175–81.

Q Fever

Angelakis E, Raoult D. Q fever. Vet Micro 2010;140:2–309.

Tissot-Dupont D, Raoult D. Q fever. Infect Dis Clin North Am 2008;22:505–14.

Parker N, Barralet J, Bell A. Q fever. Lancet 2006;367:679–88.

McQuiston JH, Holman RC, McCall CL, et al. National surveillance and the epidemiology of Q fever in the United States, 1978–2004. Am J Trop Med Hyg 2006;75:36–40.

Rabies

CDC. Compendium of animal rabies prevention and control, 2011: National Association of State Public Health Veterinarians, Inc. MMWR 2011;60(RR-6).

CDC. Use of a reduced (4-dose) vaccine schedule for postexposure prophylaxis to prevent human rabies: recommendations of the Advisory Committee on Immunization Practices. MMWR 2010;59(No. RR-2):1–9.
CDC. Human rabies prevention—United States, 2008: recommendation of the Advisory Committee on Immunizaiton Practices (ACIP). MMWR 2008;57(No.RR-3).

Rubella, Congenital Rubella Syndrome

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).
Reef S, Cochi S, eds. The evidence for the elimination of rubella and congenital rubella syndrome in the United States: a public health achievement. Clin Infect Dis 2006;43 (Suppl 3):S123–68.
CDC. Achievements in public health: elimination of rubella and congenital rubella syndrome—United States, 1969–2004. MMWR 2005;54:279–82.

Salmonellosis

Barton Behravesh C, Mody RK, Jungk J, et al. 2008 outbreak of *Salmonella* Saintpaul infections associated with raw produce. N Engl J Med 2011; 364:918–27.
Cavallaro E, Date K, Medus C, et al. *Salmonella* Typhimurium Infections associated with peanut products. N Engl J Med 2011;365:601–10.
CDC. Notes from the field: outbreak of salmonellosis associated with pet turtle exposures—United States, 2011. MMWR 2012;61:79.
CDC. Notes from the field: multistate outbreak of *Salmonella* Altona and Johannesburg infections linked to chicks and ducklings from a mail-order hatchery—United States, February–October 2011. MMWR 2012;61:195.
CDC. Notes from the field: infections with *Salmonella* I 4,[5],12:i:- linked to exposure to feeder rodents—United States, August 2011–February 2012. MMWR 2012;61:277.
CDC. Notes from the field: update on human *Salmonella* typhimurium infections associated with aquatic frogs—United States, 2009–2011. MMWR 2011;60:628.
Chai SJ, White PL, Lathrop SL, et al. *Salmonella* enterica serotype Enteritidis: increasing incidence of domestically acquired infections. Clin Infect Dis 2012;54 (Suppl 5):S488–97.
Guo C, Hoekstra RM, Schroeder CM, et al. Application of Bayesian techniques to model the burden of human salmonellosis attributable to US food commodities at the point of processing: adaptation of a Danish model. Foodborne Pathog Dis 2011;8:509–16. [Epub 2011 ahead of print]
Jones TF, Ingram LA, Cieslak PR, et al. Salmonellosis outcomes differ substantially by serotype. J Infect Dis 2008;198:109–14.
Majowicz SE, Musto J, Scallan E, et al. The global burden of nontyphoidal *Salmonella* gastroenteritis. Clin Infect Dis 2010;50:882–9.
Olsen SJ, Bishop R, Brenner FW, et al. The changing epidemiology of *Salmonella*: trends in serotypes isolated from humans in the United States, 1987–1997. J Infect Dis 2001;183:756–61.
Scallan E, Hoekstra RM, Angulo FJ, et al. Foodborne illness acquired in the United States—major pathogens. Emerg Infect Dis 2011;17:7–15.
Sjolund-Karlsson M, Howie R, Krueger A, et al. CTX-M-producing non-Typhi *Salmonella* spp. isolated from humans, United States. Emerg Infect Dis 2011;17:97–9.

Severe Acute Respiratory Syndrome (SARS)

CDC. Severe Acute Respiratory Syndrome. Available at http://www.cdc.gov/sars/index.html.
World Health Organization. Severe Acute Respiratory Syndrome. Available at http://www.who.int/csr/sars/en.
Council of State and Territorial Epidemiologists. 2009 Position statement-09-ID-11: National Surveillance for Severe Acute Respiratory Syndrome. Available at http://c.ymcdn.com/sites/www.cste.org/resource/resmgr/PS/09-ID-11.pdf.

Shiga Toxin-Producing *Escherichia coli*

Brooks JT, Sowers EG, Wells JB, et al. Non-O157 Shiga toxin-producing *Escherichia coli* infections in the United States, 1983–2002. J Infect Dis 2005;192:1422–9.
CDC. Notes from the field: *Escherichia coli* O157:H7 gastroenteritis associated with a State Fair—North Carolina, 2011. MMWR 2012;60:1745–6.
Hadler JL, Clogher P, Hurd S, et al. Ten-year trends and risk factors for non-O157 shiga toxin–producing *Escherichia coli* found through shiga toxin testing, Connecticut, 2000–2009. Clin Infect Dis 2011;53:269–76.
Hedican EB, Medus C, Besser JM, et al. Characteristics of O157 versus non-O157 shiga toxin-producing *Escherichia coli* infections in Minnesota, 2000–2006. Clin Infect Dis 2009;49:358–64.
Hoefer D, Hurd S, Medus C, et al. Laboratory practices for the identification of Shiga toxin-producing *Escherichia coli* in the United States, FoodNet sites, 2007. Foodborne Pathog Dis 2011;8:555–60. [Epub ahead of print]
Neil KP, Biggerstaff G, MacDonald JK, et al. A novel vehicle for transmission of *Escherichia coli* O157:H7 to humans: multistate outbreak of *E. coli* O157:H7 infections associated with consumption of ready-to-bake commercial prepackaged cookie dough—United States, 2009. Clin Infect Dis 2012;54:511–8. [Epub ahead of print]
Lathrop S, Edge K, Bareta J, et al. Shiga toxin–producing *Escherichia coli*, New Mexico, USA, 2004–2007. Emerg Infect Dis 2009;15:1289–91.
Tarr PI, Gordon CA, Chandler WL. Shiga-toxin-producing *Escherichia coli* and haemolytic uraemic syndrome. Lancet 2005;365:1073–86.

Shigellosis

Arvelo W, Hinkle CJ, Nguyen TA, et al. Transmission risk factors and treatment of pediatric shigellosis during a large daycare center-associated outbreak of multidrug resistant *Shigella sonnei*: implications for the management of shigellosis outbreaks among children. Pediatr Infect Dis J 2009;28:976–80.
Borg ML, Modi A, Tostmann A, et al. Ongoing outbreak of *Shigella flexneri* serotype 3a in men who have sex with men in England and Wales, data from 2009–2011. Eurosurveill 2012;17:pii 20137.
CDC. Notes from the field: emergence of *Shigella flexneri* 2a resistant to ceftriaxone and ciprofloxacin—South Carolina, October 2010. MMWR 2010;59:1619.
CDC. Outbreaks of multidrug-resistant *Shigella sonnei* gastroenteritis associated with day care centers—Kansas, Kentucky, and Missouri, 2005. MMWR 2006;55:1068–71.
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.
Haley CC, Ong KL, Hedberg K, et al. Risk factors for sporadic shigellosis, FoodNet 2005. Foodborne Pathog Dis 2010;7:741–7.
Howie RL, Folster JP, Bowen A, et al. Reduced azithromycin susceptibility in *Shigella sonnei*, United States. Microb Drug Resist 2010;16:245–8. [Epub ahead of print]
Nygren B, Schilling K, Blanton E, et al. Foodborne outbreaks of shigellosis in the USA, 1998–2008. Epidemiol Infect 2012:1–9.
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.
Sivapalasingam S, Nelson JM, Joyce K, et al. A high prevalence of antimicrobial resistance among *Shigella* isolates in the United States, 1999–2002. Antimicrob Agents Chemother 2006;50:49–54.

Spotted Fever Rickettsiosis

Dahlgren FS, Holman RC, Paddock CD, Callinan LS, McQuiston JH. Fatal Rocky Mountain spotted fever in the United States, 1999–2007. Am J Trop Med Hyg 2012;86:713–9.

CDC. Diagnosis and management of tickborne rickettsial diseases: Rocky Mountain spotted fever, ehrlichioses, and anaplasmosis—United States. MMWR 2006;55(No. RR-4).
Chapman AS, Murphy SM, Demma LJ, et al. Rocky Mountain spotted fever in the United States, 1997–2002. Vector Borne Zoonotic Dis 2006; 6:170–8.
Demma LJ, Traeger MS, Nicholson WL, et al. Rocky Mountain spotted fever from an unexpected tick reservoir in Arizona. N Engl J Med 2005; 353:587–94.
Openshaw JJ, Swerdlow DL, Krebs JW, et al. Rocky Mountain spotted fever in the United States, 2000–2007: interpreting contemporary increases in incidence. Am J Trop Med Hyg 2010;83:174–82.
Walker D. Rickettsiae and rickettsial infections: the current state of knowledge. Clin Infect Dis 2007:45(Suppl 1):539–44.

Streptococcal Toxic-Shock Syndrome

CDC. Active bacterial core surveillance report. 2010. Emerging Infections Program Network. Group A *Streptococcus*, 2009-Provisional. Atlanta, GA: US Department of Health and Human Services, CDC; 2010. Available at http://www.cdc.gov/abcs/reports-findings/survreports/gas09.pdf.
Martin JM, Green M. Group A *Streptococcus*. Seminars in pediatric infectious diseases 2006;17:140–8.
CDC. Investigating clusters of group A streptococcal disease. Atlanta, GA: US Department of Health and Human Services, CDC; 2009. Available at www.cdc.gov/strepAcalculator.
Prevention of Invasive Group A Streptococcal Infections Workshop Participants. Prevention of invasive group A streptococcal disease among household contacts of case patients among postpartum and postsurgical patients: recommendations from the Centers for Disease Control and Prevention. Clin Infect Dis 2002;35:950–9.
O'Loughlin RE, Roberson A, Cieslak PR, et al. The epidemiology of invasive group A streptococcal infections and potential vaccine implications, United States, 2000–2004. Clin Infect Dis 2007;45:853–62.

Streptococcus pneumoniae, Invasive, Drug-Resistant

CDC. Updated recommendations for prevention of invasive pneumococcal disease among adults using the 23-valent pneumococcal polysaccharide vaccine (PPSV23). MMWR 2010;59:1102–6.
CDC. Licensure of a 13-valent pneumococcal conjugate vaccine (PCV13) and recommendations for use among children, 2010. MMWR 2010;59:258–61.
CDC. Licensure of 13-valent pneumococcal conjugate vaccine for adults aged 50 years and older. MMWR 2012;61:394–5.

Syphilis, Primary and Secondary

CDC. Sexually transmitted disease surveillance, 2011. Atlanta, GA: US Department of Health and Human Services; 2012.
CDC. Together we can. The national plan to eliminate syphilis from the United States. Atlanta, GA: US Department of Health and Human Services, CDC; 2006.
Heffelfinger JD, Swint EB, Berman SB, Weinstock HS. Trends in primary and secondary syphilis among men who have sex with men in the United States. Am J Public Health 2007;97:1076–83.
CDC. Sexually transmitted disease surveillance, 2009. Atlanta, GA: US Department of Health and Human Services, CDC; 2009.
CDC. Primary and secondary syphilis—Jefferson County, Alabama, 2002–2007. MMWR 2009;58:463–7.

Tetanus

Pascual FB, McGinley EL, Zanardi LR, Cortese MM, Murphy TV. Tetanus surveillance—United States, 1998–2000. MMWR 2003;52(No. SS-3).
CDC. Tetanus—Puerto Rico, 2002. MMWR 2002;51:613–5.
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

Hall RL, Lindsay A, Hammond C, et al. Outbreak of human trichinellosis in Northern California caused by *Trichinella murrelli*. Am J Trop Med Hyg 2012;87:297–302.
Gottstein B, Pozio E, Nockler K. Epidemiology, diagnosis, treatment, and control of trichinellosis. Clin Microbiol 2009;22:127–45.
Kennedy ED, Hall RL, Montgomery SP, Pyburn DG, Jones JL. Trichinellosis surveillance—United States, 2002–2007. MMWR 2009;58:1–7.
Roy SL, Lopez AS, Schantz PM. Trichinellosis surveillance—United States, 1997–2001. MMWR 2003;52:1–8.
Gamble HR, Bessonov AS, Cuperlovic K, et al. International Commission on Trichinellosis: recommendations on methods for the control of *Trichinella* in domestic and wild animals intended for human consumption. Vet Parasitol 2000;93:393–408.

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—United States, 2004. MMWR 2005;54: 245–9.
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. 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.
CDC. Tularemia—Missouri, 2000–2007. MMWR 2009;58:744–8.
Kugeler KJ, Mead PS, Janusz AM, et al. Molecular epidemiology of *Francisella tularensis* in the United States. Clin Infect Dis 2009;48:863–70.
Tarnvik A. WHO Guidelines on Tularemia. Vol. WHO/CDS/EPR/2007.7. Geneva, Switzerland: World Health Organization; 2007.

Typhoid Fever

Loharikar A, Newton A, Rowley P, et al. Typhoid fever outbreak associated with frozen mamey pulp imported from Guatemala to the western United States, 2010. Clin Infect Dis 2012;55:61–6.
Lynch MF, Blanton EM, Bulens S, et al. Typhoid fever in the United States, 1999–2006. JAMA 2009;302:898–9.
Olsen SJ, Bleasdale SC, Magnano AR, et al. Outbreaks of typhoid fever in the United States, 1960–1999. Epidemiol Infect 2003;130:13–21.
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.

Varicella

CDC. Evolution of varicella surveillance—selected states, 2000–2010. MMWR 2012;61:609–12.
CDC. Prevention of varicella: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2007;56(RR-4).
Kattan JA, Sosa LE, Bohnwagner HD, Hadler JL. Impact of 2-dose vaccination on varicella epidemiology: Connecticut—2005–2008. J Infect Dis 2011;203:509–12.

Lopez AS, Zhang J, Brown C, Bialek S. Varicella-related hospitalizations in the United States, 2000–2006: the 1-dose varicella vaccination era. Pediatrics 2011;127:238–45.
Marin M, Zhang JX, Seward JF. Near elimination of varicella deaths in the US after implementation of the vaccination program. Pediatrics 2011;128:214–20.

Vibriosis

CDC. *Vibrio mimicus* infection from consuming crayfish—Spokane, Washington. MMWR 2010;59:1374.
Daniels NA, MacKinnon L, Bishop R, et al. *Vibrio parahaemolyticus* infections in the United States, 1973–1998. J Infect Dis 2000;181:1661–6.
Dechet A, Yu PA, Koram N, Painter J. Nonfoodborne *Vibrio* infections: an important cause of morbidity and mortality in the United States, 1997–2006. Clin Infect Dis 2008;46:970–6.
McLaughlin JB, DePaola A, Bopp CA, et al. Outbreak of *Vibrio parahaemolyticus* gastroenteritis associated with Alaskan oysters. N Engl J Med 2005;353:1463–70.
Newton A, Kendall M, Vugia DJ, Henao OL, Mahon BE. Increasing rates of vibriosis in the United States, 1996–2010: review of surveillance data from 2 systems. Clin Infect Dis 2012;54 (Suppl 5):S391–95.
Shapiro RL, Altekruse S, Hutwagner L, et al. The role of Gulf Coast oysters in warmer months in *Vibrio vulnificus* infections in the United States, 1998–1996. J Infect Dis 1998;178:752–9.
Tobin-D'Angelo M, Smith AR, Bulens SN, et al. Severe diarrhea caused by cholera toxin-producing *Vibrio cholerae* serogroup O75 infections acquired in the southeastern United States. Clin Infect Dis 2008;47:1035–40.

Viral hemorrhagic fever

Rollin PE, Nichol ST, Zaki S, Ksiazek TG. Arenaviruses and filoviruses. In: Murray PR, Baron EJ, Landry ML, Jorgensen JH, Pfaller MA, editors. Manual of Clinical Microbiology, 9th edition. Washington, DC: ASM Press; 2007:1510–22.
Fichet-Calvet E, Rogers DJ. Risk maps of Lassa fever in West Africa. PLoS Negl Trop Dis 2009;3:e388.
Ergonul O. Crimean-Congo Haemorrhagic Fever. Lancet 2006;6:203–14.
Amorosa V, MacNeil A, McConnell R, et al. Imported Lassa fever, Pennsylvania, USA, 2010. Emerg Infect Dis 2010;16:1598–600.
CDC. Imported case of Marburg Hemorrhagic fever—Colorado, 2008. MMWR 2009; 58:1377–81.

Viral Hepatitis

Ly KN, Xing J, Klevens RM, et al. The increasing burden of mortality from viral hepatitis in the United States between 1999 and 2007. Ann Intern Med 2012;156:271–8.
Spradling PR, Xing J, Phippard A, et al. Acute viral hepatitis in the United States-Mexico border region: data from the Border Infectious Disease Surveillance (BIDS) Project, 2000–2009. J Immigr Minor Health 2012. [Epub ahead of print].

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. To receive an electronic copy each week, visit MMWR's free subscription page at *http://www.cdc.gov/mmwr/mmwrsubscribe.html.* Paper copy subscriptions are available through the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone 202-512-1800.

Address all inquiries about the *MMWR* Series, including material to be considered for publication, to Editor, *MMWR* Series, Mailstop E-90, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333 or to *mmwrq@cdc.gov.*

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.

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.

U.S. Government Printing Office: 2013-623-210/81637 Region IV ISSN: 1546-0738