

Background

The *Florida Morbidity Statistics Report* is the official record of the occurrence of reportable diseases in Florida and this edition marks the 60th publication since 1945. Numerous reports describing disease burden are produced throughout the year while investigations are ongoing; however, this report is noteworthy as the data contained here are final. The mission of the Florida Department of Health (DOH) is to protect, promote, and improve the health of all people in Florida through integrated state, county, and community efforts. Per section 381.003, Florida Statutes “The Florida Department of Health shall conduct a communicable disease prevention and control program as part of fulfilling its public health mission.” This report directly supports the mission of the Florida Department of Health by identifying patterns and trends in the incidence of disease that are used as the scientific basis for development of disease control and prevention strategies and policies.

Disease control and prevention are core functions of any public health agency. Protection of the public’s health from existing, emerging, and re-emerging diseases requires diligence in all aspects of public health. The public health partners identifying and characterizing emerging trends in disease are the physicians, nurses, laboratorians, hospital infection preventionists, and other health care professionals who participate in reportable disease surveillance. Without their participation, the ability to recognize and intervene in emerging public health issues would be much more limited.

Acknowledgements

The Bureau of Epidemiology thanks all program areas within the Florida Department of Health that contributed to this report, including the sections of HIV/AIDS, Immunization, Sexually Transmitted Diseases (STDs) and Viral Hepatitis, and Tuberculosis Control. Finally, many thanks are extended to the local health office staff and other public health professionals who are involved in reportable disease surveillance, either through disease control activities, case investigations, data collection, laboratory testing, or other essential functions.

Purpose

The *Florida Morbidity Statistics Report* is compiled in a single reference document to:

- Summarize annual morbidity from reportable communicable diseases and diseases of environmental origin in Florida.
- Describe patterns of disease that can be assessed over time, compared with trends from other states, and act as an aid in directing future disease prevention and control efforts.
- Provide a resource to medical and public health authorities at county, state, and national levels.
- Serve as the final data record, describing cases and morbidity once investigations are closed and data reconciliation with the Centers for Disease Control and Prevention (CDC) is complete.

Data Sources

Data presented in this report are based on reportable disease information received by county and state health department staff from physicians, hospitals, and laboratories throughout the state obtained through passive and active surveillance. Reporting of suspected and confirmed reportable diseases and conditions in the state of Florida is mandated under section 381.0031, Florida Statutes and Florida Administrative Code Chapter 64D-3. People in charge of laboratories, hospitals, medical facilities, or other facilities providing health services (which can include schools, nursing homes, and state institutions) are required to report certain diseases and conditions and the associated laboratory test results as listed in the Table of Notifiable Diseases or Conditions to Be Reported, Florida Administrative Code Chapter 64D-3. Reporting of test results by a laboratory does not nullify a practitioner’s obligation to report the disease or condition. These data are the basis for providing useful information on reportable diseases and conditions in Florida to health care workers and policymakers, and would not be possible without the cooperation of the extensive network involving both private and public sector participants.

Data are collected by multiple means:

- Passive surveillance relies on physicians, laboratories, and other health care providers to report diseases to the Florida Department of Health (DOH) confidentially in one of three forms: electronically, by telephone, or by facsimile. Increasingly, information about cases of reportable diseases and conditions is passed from providers, especially laboratories, to DOH as electronic records. This occurs automatically, without the involvement of a person once the electronic transmission process has been established between DOH and the reporting partner.
- Active surveillance entails DOH staff regularly contacting hospitals, laboratories, and physicians in an effort to identify all cases of a given disease or condition.

References

The following references were used in many of the disease-specific chapters within Section 2: Data Summaries for Selected Reportable Diseases/Conditions of Frequent Occurrence.

Centers for Disease Control and Prevention. CDC A-Z Index. Available at www.cdc.gov/az/a.html.

Centers for Disease Control and Prevention. 2015. *Epidemiology and Prevention of Vaccine-Preventable Diseases*, 13th ed. Washington, D.C.: Public Health Foundation. Available at www.cdc.gov/vaccines/pubs/pinkbook/index.html.

Centers for Disease Control and Prevention. 2012. *Manual for the Surveillance of Vaccine-Preventable Diseases*, 5th ed. Available at www.cdc.gov/vaccines/pubs/surv-manual/index.html.

Centers for Disease Control and Prevention. 2016. *CDC Health Information for International Travel 2016*. New York: Oxford University Press.

Hill HA, Elam-Evans LD, Yankey D, Singleton JA, Dietz V. 2016. Vaccination Coverage Among Children Aged 19–35 Months — United States, 2015. *Morbidity and Mortality Weekly Report*, 65 (39):1065-1071. Available at www.cdc.gov/mmwr/volumes/65/wr/mm6539a4.htm.

Heymann DL (ed). 2015. *Control of Communicable Diseases Manual*. 20th ed. Washington, D.C.: American Public Health Association Press.

Interpreting the Data

Information in this report should be interpreted in light of the limitations below.

1. Under-Reporting

The data presented in this report are primarily based on passive reporting by health care providers and laboratories across Florida. Case reporting is most often dependent upon a person becoming ill, seeking medical attention, the health care provider ordering laboratory testing, and finally the health care provider or laboratory reporting the case. Frequently, not all steps in this process occur, so the number of reported cases represents a fraction of the true number of cases of reportable illnesses occurring in Florida each year. Evaluations of infectious disease reporting systems have indicated that the completeness of reporting varies by disease. The less common but more severe reportable diseases such as bacterial meningitis, diphtheria, polio, botulism, anthrax, tuberculosis, and congenital syphilis are more completely reported than the more common diseases with less severe symptoms such as hepatitis A or campylobacteriosis. Variation in identified disease incidence at the local level probably reflects, to varying degrees, both differences in the true incidence of disease and differences in the vigor with which surveillance is performed.

2. Reliability of Rates

All incidence rates in this report are expressed as the number of reported cases of a disease or condition per 100,000 population unless otherwise specified. All population estimates are from the Community Health Assessment Resource Tool Set (CHARTS), a Florida Department of Health web-based data query system with community tools, health indicators, and data queries for public consumption (www.FLHealthCHARTS.com). Population estimates within CHARTS are provided by the Florida Department of Health, Division of Public Health Statistics and Performance Management, in consultation with the Florida Legislature's Office of Economic and Demographic Research. Estimates in CHARTS are updated at least once per year, and population data were extracted from CHARTS for this report on September 15, 2016, after the annual update in CHARTS. Note that previous editions of this report may show somewhat different populations for a given year than the ones shown here, as these estimates are revised periodically. Revisions to population estimates can also impact disease rates.

Animal rabies is not expressed as a rate; it is only expressed as the number of cases because no reliable denominators exist for animal populations.

Rates for diseases with only a few cases reported per year can be unstable and should be interpreted with caution. The observation of zero events is especially difficult to interpret. Rates were not generally calculated in this report when there were less than 20 cases, except as part of graphs and maps. In some cases, even though maps and graphs (e.g., by year, gender, race) may have small individual counts, rates were calculated. These maps include footnotes as a reminder that rates based on less than 20 cases are not reliable.

3. Determining How Cases are Counted: Reporting Period and Cases Included

There are important differences by disease that determine how cases are “counted” and summarized in this report. The date of illness onset or the date of diagnosis may not be available for all cases. Cases reported early in 2015 may have actually had onset or been diagnosed in 2014; rarely, cases reported in 2015 may have onset or diagnosis dates prior to 2014. Additionally, cases with illness onset or diagnosis late in 2015 may not have been reported to public health by the end of the 2015 report year, and thus would not be included in this report for most diseases. Information by disease is listed below.

AIDS and HIV Infection

Year: Data are aggregated by calendar year.

Cases included: HIV infection cases are assigned to a report year based on the date of the first confirmed HIV test. AIDS cases are assigned to a report year based on the date of the first AIDS defined opportunistic infection and/or a CD4 count below 200 cells/mm³ in a person with HIV infection. The 2015 AIDS and HIV infection dataset was frozen on June 30, 2016. Changes occurring after that point that affect the number of cases in 2015 or earlier will be updated in the following year's dataset.

Please note that prior to 2014, HIV infection and AIDS cases were assigned to a report year based on the date the case was entered into the surveillance system.

Sexually Transmitted Diseases (STDs)

Year: Data are aggregated by the standard reporting year as outlined by the CDC, where every year has at least 52 reporting weeks and some years have 53 (there were 52 weeks in 2015). This is referred to as the Morbidity and Mortality Weekly Report (MMWR) year.

Cases included: Cases are assigned to a report year based on the date the case was entered into the surveillance system. Occasionally, STD reports are received after the end of the reporting year that should have been included based on the laboratory result date. For these cases, the laboratory result date is used for the report date.

Tuberculosis

Year: Data are aggregated by MMWR year (see STD report year above for explanation of MMWR year).

Cases included: Cases are assigned to a report year based on the date when the suspected diagnosis is confirmed by clinical, radiographic, and laboratory testing (often referred to as “date counted”).

All Other Diseases

Year: Data are aggregated by MMWR year (see STD report year above for explanation of MMWR year).

Cases included: Cases are assigned to a report year based on the date the case was determined to have enough information to be submitted by local health office epidemiology staff to the Bureau of Epidemiology (BOE) for state-level review. In the surveillance application, Merlin, this is referred to as “date reported to BOE.”

Data in this report are consistent with national surveillance data published weekly by CDC in the MMWR. Additionally, disease-specific reports describing data by other dates, such as disease onset and diagnosis dates, may also be published and available on the Florida Department of Health website; numbers may vary from this report based on different inclusion criteria.

4. Case Definition

Cases of most diseases are classified as confirmed, probable, or suspect at the state level using a published set of surveillance case definitions consistent with national case definitions where appropriate (*Surveillance Case Definitions for Selected Reportable Diseases in Florida*, available at www.FloridaHealth.gov/DiseaseCaseDefinitions). Case classifications are reviewed at the state level for most diseases. Following CDC MMWR print criteria (available at www.cdc.gov/nndss/script/downloads.aspx), only confirmed and probable cases have been included (i.e., suspect cases are excluded) in this report unless otherwise specified.

Changes to case definitions can affect the number of cases reported, which can impact calculated incidence rates, but ultimately, case definition changes do not change the true incidence of a disease. Each year case definitions are evaluated for necessary revisions. A number of changes were made to reportable disease case definitions in 2015 as a result of position statements approved by the Council of State and Territorial Epidemiologists (CSTE) in 2014.

Summary of case definition changes effective January 2015:

- a. Arboviral disease: removed fever as a clinical requirement for neuroinvasive disease and added additional symptoms.
- b. Campylobacteriosis: moved culture-independent testing in the presence of symptoms and absence of another organism from suspect to probable case classification.
- c. Dengue fever: updated clinical description to include those with just fever, combined symptoms of dengue hemorrhagic fever and dengue shock syndrome into a severe dengue category, and added additional symptoms.

- d. *Haemophilus influenzae*: expanded confirmatory laboratory criteria to include polymerase chain reaction (PCR), eliminated clinically compatible illness from the confirmed case classification, and specified that meningitis is required to meet the clinical criteria for probable case classification.
- e. Hantavirus infection: expanded to include hantavirus infections that do not progress to hantavirus pulmonary syndrome (HPS).
- f. Meningococcal disease: eliminated clinically compatible illness from case classifications when laboratory evidence is present and moved PCR from presumptive laboratory criteria to confirmatory laboratory criteria.

5. Assigning Cases to Counties

Cases are assigned to Florida counties following national guidance and based on the county of residence at the time of the disease identification, regardless of where they became ill or were hospitalized, diagnosed, or exposed. Cases who reside outside of Florida are not counted as Florida cases regardless of whether they became ill or were hospitalized, diagnosed, or exposed in Florida. Cases in out-of-state residents are not included in this report, unless specifically noted. These cases are referred through an interstate reciprocal notification system to the state where the person resides.

6. Population Estimates

All population estimates are from the Community Health Assessment Resource Tool Set (CHARTS), a Florida Department of Health web-based data query system with community tools, health indicators, and data queries for public consumption (www.FLHealthCHARTS.com). Population estimates within CHARTS are provided by the Florida Department of Health Division of Public Health Statistics and Performance Management, in consultation with the Florida Legislature's Office of Economic and Demographic Research. Estimates in CHARTS are updated at least once per year, and population data were extracted from CHARTS for this report on September 15, 2016. Note that previous editions of this report may show somewhat different populations for a given year than the ones shown here, as these estimates are revised periodically. Revisions to population estimates can also impact disease rates.

7. Florida Disease Codes in Merlin

Reported case data for most reportable diseases (excluding HIV/AIDS, STDs, and tuberculosis) are stored in Merlin, Florida's web-based reportable disease surveillance system. When entering case data into Merlin, users assign a Florida Disease Code based on the disease. Due to changes in case definitions over time, new codes have been added and outdated codes have expired. In addition, some diseases have multiple disease codes that represent different clinical manifestations.

Diseases that include cases from **multiple or expired** Florida Disease Codes in this report:

- a. California Serogroup Virus Disease
 - California Serogroup Virus Neuroinvasive Disease - 06250
 - California Serogroup Virus Non-Neuroinvasive Disease - 06251
- b. Dengue Fever
 - Dengue Fever - 06100
 - Dengue Fever, Severe - 06101
- c. Eastern Equine Encephalitis
 - Eastern Equine Encephalitis Neuroinvasive Disease - 06220
 - Eastern Equine Encephalitis Non-Neuroinvasive Disease - 06221
- d. Ehrlichiosis
 - Ehrlichiosis (*Ehrlichia ewingii*) - 08383
 - Ehrlichiosis, HME (*Ehrlichia chaffeensis*) - 08382

Introduction

- e. *Haemophilus influenzae* Invasive Disease in Children <5 Years Old
Haemophilus influenzae Invasive Disease - 03841
Cellulitis (*Haemophilus influenzae*) - 69290 (EXPIRED)
Epiglottitis (*Haemophilus influenzae*) - 46430 (EXPIRED)
Meningitis (*Haemophilus influenzae*) - 32000 (EXPIRED)
Pneumonia (*Haemophilus influenzae*) - 48220 (EXPIRED)
Septic Arthritis (*Haemophilus influenzae*) - 71100 (EXPIRED)
- f. Hantavirus Infection
Hantavirus Infection, Non-Pulmonary Syndrome - 07870
Hantavirus Pulmonary Syndrome - 07869
- g. Listeriosis
Listeriosis - 02700
Meningitis (*Listeria monocytogenes*) - 32070 (EXPIRED)
- h. Plague
Plague, Bubonic - 02000
Plague, Pneumonic - 02050
- i. Poliomyelitis
Poliomyelitis, Nonparalytic - 04520
Poliomyelitis, Paralytic - 04590
- j. Q Fever (*Coxiella burnetii*)
Q Fever, Acute (*Coxiella burnetii*) - 08301
Q Fever, Chronic (*Coxiella burnetii*) - 08302
Q Fever - 08300 (EXPIRED)
- k. Rocky Mountain Spotted Fever and Spotted Fever Rickettsiosis
Rocky Mountain Spotted Fever and Spotted Fever Rickettsiosis - 08309
Rocky Mountain Spotted Fever - 08200 (EXPIRED)
- l. Rubella
Rubella - 05690
Rubella, Congenital Syndrome - 77100
- m. Shiga Toxin-Producing *Escherichia coli* Infection
Escherichia coli, Shiga Toxin-Producing (STEC) Infection - 00800
Shiga Toxin-Producing *Escherichia coli* (STEC) Infection, Non-O157 - 41602 (EXPIRED)
Shiga Toxin-Producing *Escherichia coli* (STEC) Infection, O157:H7 - 41601 (EXPIRED)
- n. St. Louis Encephalitis
St. Louis Encephalitis Neuroinvasive Disease - 06230
St. Louis Encephalitis Non-Neuroinvasive Disease - 06231
- o. Typhus Fever
Typhus Fever, Epidemic (*Rickettsia prowazekii*) - 08000
Typhus Fever, Endemic (*Rickettsia typhi*) - 08100 (EXPIRED)
Typhus Fever - 08190 (EXPIRED)
- p. Venezuelan Equine Encephalitis
Venezuelan Equine Encephalitis Neuroinvasive Disease - 06620
Venezuelan Equine Encephalitis Non-Neuroinvasive Disease - 06621

- q. Vibriosis (Excluding Cholera)
 - Vibriosis (*Grimontia hollisae*) - 00196
 - Vibriosis (*Vibrio alginolyticus*) - 00195
 - Vibriosis (*Vibrio cholerae* Type Non-O1) - 00198
 - Vibriosis (*Vibrio fluvialis*) - 00194
 - Vibriosis (*Vibrio mimicus*) - 00197
 - Vibriosis (*Vibrio parahaemolyticus*) - 00540
 - Vibriosis (*Vibrio vulnificus*) - 00199
 - Vibriosis (Other *Vibrio* Species) - 00193

- r. Viral Hemorrhagic Fever
 - Crimean-Congo Hemorrhagic Fever - 06591
 - Ebola Hemorrhagic Fever - 06592
 - Guanarito Hemorrhagic Fever - 06593
 - Junin Hemorrhagic Fever - 06594
 - Lassa Fever - 06595
 - Lujo Virus - 06596
 - Machupo Hemorrhagic Fever - 06597
 - Marburg Fever - 06598
 - Sabia-Associated Hemorrhagic Fever - 06599
 - Viral Hemorrhagic Fever - 06590 (EXPIRED)

- s. West Nile Virus Disease
 - West Nile Virus Neuroinvasive Disease - 06630
 - West Nile Virus Non-Neuroinvasive Disease - 06631

- t. Western Equine Encephalitis
 - Western Equine Encephalitis Neuroinvasive Disease - 06210
 - Western Equine Encephalitis Non-Neuroinvasive Disease - 06211

Summary of Key Disease Trends in 2015

Sexually transmitted diseases (STDs), HIV infection, and AIDS are among the most common reportable diseases in Florida, particularly among 20- to 54-year-olds. Generally, incidence of chlamydia and syphilis have been increasing over the past 10 years, while incidence of gonorrhea, HIV infection, and AIDS have been decreasing. However, in 2015, both gonorrhea and HIV infection increased, in addition to chlamydia and syphilis. Gonorrhea increased in 2013, decreased slightly in 2014, then increased more dramatically in 2015 (15.3% over the previous 5-year average rate). The largest proportional rate increase was for syphilis, which has been increasing since 2009; the 2015 incidence rate was 45.1% higher than the previous 5-year average rate. Chlamydia is the highest-volume reportable disease in Florida, with over 90,000 cases reported in Florida in 2015. HIV infection increased slightly in 2014 and increased slightly again in 2015 partially due to a statewide increase in infected men who have sex with men; the 2015 incidence rate was 2.5% higher than the previous 5-year average rate. AIDS continued to decrease in 2015 and the incidence rate was 25.1% lower than the previous 5-year average rate.

In the mid-1980s, tuberculosis (TB) re-emerged as a public health threat in the U.S. Since 1994, the number of cases of TB in Florida has decreased every year and remained stable in 2015. The incidence rate in 2015 is 17.6% lower than the previous 5-year average rate. Over the past 20 years, the number of TB cases counted in foreign-born people has remained relatively constant while decreasing dramatically in U.S.-born people. In 2015, the proportion of all Florida TB cases in people born in a foreign country has grown to 59.1% of all TB cases in 2015.

Florida consistently has one of the highest rates of enteric disease in the nation, with 11,000 to 14,000 cases reported annually. Enteric diseases are disproportionately reported in children <5 years old, though the distribution of cases within that age range varies by disease. Salmonellosis is the most

common enteric disease with almost 6,000 cases reported in 2015. However, the rate of salmonellosis in infants <1 year old is >3.5 times as high as in 1- to 4-year-olds, the next highest incidence group, and >12 times as high as in any other age group. No other reportable enteric disease has such a dramatic decrease in incidence rates with age. Campylobacteriosis incidence rates also peak in <1-year-olds, but the difference in rates between this age group and other age groups is not as great. Unlike other enteric diseases, the distribution of campylobacteriosis cases is bimodal, with peaks in young children and increasing incidence with age starting around age 45 years. Other enteric diseases, including cryptosporidiosis, giardiasis, shigellosis, and Shiga toxin-producing *E. coli* (STEC), peak in the 1- to 4- year-old age group. While salmonellosis incidence remained relatively stable in 2015, incidence of campylobacteriosis and STEC continued to increase. Incidence rates for both campylobacteriosis and STEC have increased over the past 10 years, though the rate of campylobacteriosis increased dramatically in 2015 (71.3% compared to the previous 5-year average rate). Culture-independent diagnostic testing for both diseases has been widely implemented over the past few years, improving case detection. Historically, shigellosis has a cyclic temporal pattern with large, community-wide outbreaks, frequently involving daycare centers, every three to five years. Shigellosis activity peaked in 2007, 2011, and again in 2014. As expected, incidence decreased in 2015. Incidence of cryptosporidiosis decreased in 2015 following a very large peak in activity in 2014 concentrated in the central western part of the Florida peninsula. Activity in 2015 remained focused in the same part of the state.

Hepatitis continues to account for a large bulk of infectious disease burden in Florida with 4,000 to 5,000 chronic hepatitis B cases and 19,000 to 23,000 chronic hepatitis C cases reported each year. The rate of reported chronic hepatitis B has been relatively stable since 2009 and decreased just slightly in 2015. The overall rate of reported chronic hepatitis C has increased very slightly each year for the past 10 years, and continued to increase in 2015. The increase in chronic hepatitis C in 2014 and 2015 is likely due to improved case ascertainment from electronic laboratory reporting and automated case classification and reporting logic added to the reportable disease surveillance system, Merlin. Collection of risk factor information has also been improved for chronic hepatitis C cases. Although the overall rate of chronic hepatitis C has gradually increased, the rate in young adults increased substantially. In response to the increased rate in young adults, an enhanced surveillance project focusing on chronic hepatitis in young adults was funded and implemented in 2012 in Florida. The additional follow-up has resulted in identifying acute cases that would otherwise have been misclassified as chronic. The incidence of both acute hepatitis B and acute hepatitis C increased in 2015. A large number of new hepatitis C infections in young adults in Florida are due to injection drug use (IDU). In Florida and other states, the dual increases in newly identified hepatitis C infections and IDU among young adults has been associated with the proliferation of highly addictive prescription opioid painkillers. Disease-specific chapters for chronic hepatitis B and C have been added to the *2015 Florida Morbidity Statistics Report* in Section 2: Summaries for Selected Reportable Diseases/ Conditions of Frequent Occurrence. Acute hepatitis A incidence has declined drastically over the past 15 years, largely due to increased vaccination coverage. Though there was a slight increase in hepatitis A in 2015 compared to 2014, the incidence rate was still 9.2% below the previous 5-year average. Approximately 40% of hepatitis A infections in 2015 were acquired in other countries where transmission is higher due to lower vaccination coverage.

Despite high vaccine coverage in Florida, vaccine-preventable diseases (VPDs) continue to occur. Vaccination coverage in Florida and nationally for 2015 was published by the CDC in 2016 (see references for full citation). Overall, VPD incidence in Florida decreased slightly in 2015 compared to 2014, though there was variation in that trend by disease. The number of reported meningococcal disease cases reached a historic low in 2015 in Florida, similar to U.S. trends. Vaccines for prevention of the five common serogroups of *Neisseria meningitidis* that cause meningococcal disease are recommended for targeted populations. The explanation for the decrease in cases in Florida and the U.S. is unknown, but it is likely partially attributable to vaccination rates among some subgroups. Varicella incidence has been steadily declining since 2008 due to effective vaccination programs. Beginning with the 2008-2009 school year, children entering kindergarten were required to receive two doses of varicella vaccine. Incidence increased in 2015 for the first time since 2008. The increase was most noticeable in infants <1 year old, where the 2015 incidence rate was 46% higher in 2015 than

the previous 5-year average rate. Factors contributing to the increase are not well understood. Pertussis incidence has generally increased nationwide over the past decade, despite routine vaccine use. However, incidence in Florida decreased dramatically in 2015, with less than half the number of reported cases compared to 2014. Factors contributing to the decrease are not well understood.

Tick-borne diseases continued to be a threat in Florida in 2015. Lyme disease is the most common illness transmitted by ticks and incidence continued to increase in 2015. Consistent with past years, most infections identified in 2015 were acquired in other states (primarily in the Northeast and upper Midwest U.S.). The same number of cases acquired in Florida were reported in 2014 and 2015; the increase in cases was due to infections acquired outside Florida. Mosquito-borne diseases also continued to occur in Florida in 2015. The most commonly reported mosquito-borne illness in Florida in 2015 was chikungunya fever. The first autochthonous transmission of chikungunya virus in the Americas was reported on the island of St. Martin in December 2013. Since then, local transmission has been identified in countries throughout the Caribbean and the Americas. In 2014, Florida was the only continental U.S. state to report local cases of chikungunya fever, with 12 cases reported. No locally acquired cases were identified in 2015. There was a large decrease in imported chikungunya fever cases reported in 2015 compared to 2014. Unlike dengue fever, infection with chikungunya virus leads to lifetime immunity, which is believed to be the biggest reason for this decrease. Extensive spread in Central and South America and the Caribbean in 2014 resulted in immunity for many people in those areas. Incidence of both dengue fever and malaria decreased in 2015. One dengue virus infection was acquired in Broward County in Florida; no additional transmission was identified related to that case. No locally acquired malaria cases were identified. Malaria cases were most commonly acquired in Africa (60.0%); in contrast, dengue fever cases were primarily acquired in Central America or the Caribbean (70.5%).

Neonatal abstinence syndrome (NAS) became reportable in Florida on June 4, 2014. NAS is a condition in which a neonate experiences withdrawal symptoms following exposure to certain substances during the prenatal period. Substances may include prescription medications (such as opioids or benzodiazepines) or certain illicit drugs. For more information about NAS, please visit www.floridahealth.gov/diseases-and-conditions/neonatal-abstinence-syndrome/index.html. A summary of NAS from 2011 to 2013 is available on the Florida Birth Defects Registry Publications website (www.fbdr.org/Data_Research/publications.html).

Cancer, excluding non-melanoma skin cancer and including benign and borderline intracranial and central nervous system tumors, is also reportable in Florida. For information about cancer surveillance, please see the Florida Cancer Registry website (www.floridahealth.gov/diseases-and-conditions/cancer/cancer-registry/index.html).

For additional information on disease-specific trends, see Section 1: Summary of Selected Reportable Diseases/Conditions, Section 2: Data Summaries for Selected Reportable Diseases/Conditions of Frequent Occurrence and Section 3: Narratives for Selected Reportable Diseases/Conditions of Infrequent Occurrence.

References

- Suryaprasad AG, White JZ, Xu F, Eichler BA, Hamilton J, Patel A, et al. 2014. Emerging Epidemic of Hepatitis C Virus Infections Among Young Non-Urban Persons who Inject Drugs in the United States, 2006–2012. *Clinical Infectious Diseases*, 59(10):1411-1419.
- Zibbell JE, Iqbal K, Patel RC, Suryaprasad A, Sanders KJ, Moore-Moravian L, et al. 2015. Increases in Hepatitis C Virus Infection Related to Injection Drug Use Among Persons Aged ≤30 Years — Kentucky, Tennessee, Virginia, and West Virginia, 2006–2012. *Morbidity and Mortality Weekly Report*, 64(17):453-458. Available at www.cdc.gov/mmwr/preview/mmwrhtml/mm6417a2.htm.
- Hill HA, Elam-Evans LD, Yankey D, Singleton JA, Dietz V. 2016. Vaccination Coverage Among Children Aged 19–35 Months — United States, 2015. *Morbidity and Mortality Weekly Report*, 65(39):1065-1071. Available at www.cdc.gov/mmwr/volumes/65/wr/mm6539a4.htm.

List of Reportable Diseases/Conditions in Florida, 2015

Section 381.0031 (2), Florida Statutes, provides that “Any practitioner licensed in this state to practice medicine, osteopathic medicine, chiropractic medicine, naturopathy, or veterinary medicine; any hospital licensed under part I of Chapter 395, Florida Statutes; or any laboratory licensed under Chapter 483, Florida Statutes that diagnoses or suspects the existence of a disease of public health significance shall immediately report the fact to the Department of Health.” This list of reportable diseases and conditions is maintained in Florida Administrative Code Rule 64D-3.029. The list below reflects diseases and conditions that were reportable in 2015.

Any disease outbreak	Malaria
Any grouping or clustering of disease	Measles (rubeola)
Acquired immune deficiency syndrome (AIDS)	Melioidosis
Amebic encephalitis	Meningitis, bacterial or mycotic
Anthrax	Meningococcal disease
Arsenic poisoning	Mercury poisoning
Arboviral diseases not otherwise listed	Mumps
Botulism	Neonatal abstinence syndrome (NAS)
Brucellosis	Neurotoxic shellfish poisoning
California serogroup virus disease	Pertussis
Campylobacteriosis	Pesticide-related illness and injury, acute
Cancer (excluding non-melanoma skin cancer and including benign and borderline intracranial and CNS tumors)	Plague
Carbon monoxide poisoning	Poliomyelitis
Chancroid	Psittacosis (ornithosis)
Chikungunya fever	Q Fever
Chlamydia	Rabies (human, animal, possible exposure)
Cholera (<i>Vibrio cholerae</i> type O1)	Ricin toxin poisoning
Ciguatera fish poisoning	Rocky Mountain spotted fever and other spotted fever rickettsioses
Congenital anomalies	Rubella
Conjunctivitis in neonates <14 days old	St. Louis encephalitis
Creutzfeldt-Jakob disease (CJD)	Salmonellosis
Cryptosporidiosis	Saxitoxin poisoning (paralytic shellfish poisoning)
Cyclosporiasis	Severe acute respiratory disease syndrome associated with coronavirus infection
Dengue fever	Shigellosis
Diphtheria	Smallpox
Eastern equine encephalitis	Staphylococcal enterotoxin B poisoning
Ehrlichiosis/anaplasmosis	<i>Staphylococcus aureus</i> infection, intermediate or full resistance to vancomycin (VISA, VRSA)
<i>Escherichia coli</i> infection, Shiga toxin-producing	<i>Streptococcus pneumoniae</i> invasive disease in children <6 years old (all ages for electronic laboratory reporting laboratories)
Giardiasis, acute	Syphilis
Glanders	Tetanus
Gonorrhea	Trichinellosis (trichinosis)
Granuloma inguinale	Tuberculosis (TB)
<i>Haemophilus influenzae</i> invasive disease in children <5 years old (all ages for electronic laboratory reporting laboratories)	Tularemia
Hansen’s disease (leprosy)	Typhoid fever (<i>Salmonella</i> serotype Typhi)
Hantavirus infection	Typhus fever, epidemic
Hemolytic uremic syndrome (HUS)	Vaccinia disease
Hepatitis A	Varicella (chickenpox)
Hepatitis B, C, D, E, and G	Venezuelan equine encephalitis
Hepatitis B surface antigen in pregnant women or children <2 years old	Vibriosis (infections of <i>Vibrio</i> species and closely related organisms, excluding <i>Vibrio cholerae</i> type O1)
Herpes B virus, possible exposure	Viral hemorrhagic fevers
Herpes simplex virus (HSV) in infants <60 days old with disseminated infection and liver involvement; encephalitis; and infections limited to skin, eyes, and mouth; anogenital HSV in children <12 years old	West Nile virus disease
Human immunodeficiency virus (HIV) infection	Yellow fever
HIV, exposed infants <18 months old born to an HIV-infected woman	
Human papillomavirus (HPV), associated laryngeal papillomas or recurrent respiratory papillomatosis in children <6 years old; anogenital papillomas in children <12 years old (all HPV DNA for electronic laboratory reporting laboratories)	Electronic laboratory reporting laboratories only:
Influenza A, novel or pandemic strains	Antimicrobial susceptibility results for isolates from a normally sterile site for <i>Acinetobacter baumannii</i> , <i>Citrobacter</i> species, <i>Enterococcus</i> species, <i>Enterobacter</i> species, <i>Escherichia coli</i> , <i>Klebsiella</i> species, <i>Pseudomonas aeruginosa</i> , and <i>Serratia</i> species
Influenza-associated pediatric mortality in children <18 years old	Hepatitis B, C, D, E, and G viruses, all test results (positive and negative) and all liver function tests
Lead poisoning	Influenza virus, all test results (positive and negative)
Legionellosis	Respiratory syncytial virus, all test results (positive and negative)
Leptospirosis	<i>Staphylococcus aureus</i> isolated from a normally sterile site
Listeriosis	
Lyme disease	
Lymphogranuloma venereum (LGV)	

Introduction

Florida County Boundaries



Introduction

Florida Population Estimates by Year, Age Group, Gender, Race, and Ethnicity

Year	Population	Gender	2014 Population	2015 Population	Percent Change
2006	18,237,596	Female	9,992,462	10,142,821	+1.5%
2007	18,500,958	Male	9,555,569	9,717,984	+1.7%
2008	18,636,837	Race	2014 Population	2015 Population	Percent Change
2009	18,711,844	White	15,286,521	15,480,568	+1.3%
2010	18,820,280	Black	3,263,817	3,343,371	+2.4%
2011	18,934,175	Other	997,693	1,036,866	+3.9%
2012	19,042,458	Ethnicity	2014 Population	2015 Population	Percent Change
2013	19,318,859	Non-Hispanic	14,861,999	15,006,422	+1.0%
2014	19,548,031	Hispanic	4,686,032	4,854,383	+3.6%
2015	19,860,805	Total	19,548,031	19,860,805	+1.6%

In 2015, the population increased 1.6% from 2014. Note that increases are not uniform across all demographic groups. Groups where the population change was substantially different from the overall 1.6% increase are highlighted in gray (i.e., groups that increased more than 3.2% or decreased more than 1.6%). There was a disproportionate increase in the elderly population, other races, and Hispanics. The only group that decreased was the 45- to 54-year-old population.

Age	2014 Population	2015 Population	Percent Change
<1	217,026	221,322	+2.0%
1-4	886,618	891,687	+0.6%
5-9	1,132,972	1,141,762	+0.8%
10-14	1,146,040	1,157,969	+1.0%
15-19	1,192,611	1,198,941	+0.5%
20-24	1,312,024	1,319,476	+0.6%
25-34	2,448,462	2,491,941	+1.8%
35-44	2,345,727	2,348,023	+0.1%
45-54	2,699,859	2,676,660	-0.9%
55-64	2,574,936	2,627,167	+2.0%
65-74	1,951,625	2,043,744	+4.7%
75-84	1,142,703	1,220,148	+6.8%
85+	497,428	521,965	+4.9%
Total	19,548,031	19,860,805	+1.6%

All population estimates are from the Community Health Assessment Resource Tool Set (CHARTS), a Florida Department of Health web-based data query system with community tools, health indicators, and data queries for public consumption (www.FLHealthCHARTS.com). Population estimates within CHARTS are provided by the Florida Department of Health, Division of Public Health Statistics and Performance Management, in consultation with the Florida Legislature's Office of Economic and Demographic Research. Estimates in CHARTS are updated at least once per year, and population data were extracted from CHARTS for this report on September 15, 2016, after the annual update in CHARTS. Note that previous editions of this report may show somewhat different populations for a given year than the ones shown here, as these estimates are revised periodically. Revisions to population estimates can also impact disease rates.

Introduction

Florida Morbidity Statistics Report Editors and Contributors

Editors

Leah Eisenstein, MPH (Lead Editor)	Bureau of Epidemiology
Janet Hamilton, MPH (Senior Editor)	Bureau of Epidemiology
Jamie DeMent, MNS (Section Editor)	Bureau of Epidemiology
German Gonzalez, MD, MPH (Section Editor)	Bureau of Epidemiology
Julia Munroe, MS (Section Editor)	Bureau of Epidemiology
Scott Pritchard, MPH (Section Editor)	Bureau of Epidemiology
Heather Rubino, PhD, MS (Section Editor)	Bureau of Epidemiology
Jon Teter (Section Editor)	Bureau of Epidemiology
Michael Wydotis (Reviewer)	Bureau of Epidemiology
Chad Bailey (Reviewer)	Bureau of Epidemiology
Russell Eggert, MD, MPH, FACPM, FAAFP	Bureau of Epidemiology, Chief
Carina Blackmore, DVM, PhD, Dipl ACVPM	Division of Disease Control and Health Protection, Acting Director Bureau of Public Health Laboratories, Chief Deputy State Epidemiologist
Anna Likos, MD, MPH	Division of Disease Control and Health Protection, Interim Deputy Secretary for Health State Epidemiologist

Florida Department of Health (DOH) Contributors

David Atrubin, MPH	Bureau of Epidemiology
Kat Beedie, CEHP	DOH-Okaloosa
Andrea Bingham, PhD, MSPH	Bureau of Epidemiology
Grethel Clark, MPH	DOH-Martin
Maura Comer, MPH	Bureau of Communicable Diseases, STD and Viral Hepatitis Section
Jenny Crain, MS, MPH, CPH	Bureau of Epidemiology
Emily Davenport	DOH-Miami-Dade
David Dekevich, MPH	Bureau of Epidemiology
Maria Deluca	DOH-Hillsborough
Jamie DeMent, MNS	Bureau of Epidemiology
Samir Elmir, PhD, PE, BCEE, CEHP	DOH-Miami-Dade
Maureen Feaster, RN	DOH-Indian River
Danielle Fernandez, MPH	DOH-Miami-Dade
Tricia Foster, MPH	Bureau of Epidemiology
Mike Friedman, MPH	Bureau of Epidemiology
Grace Gifford, RN	DOH-Hernando
German Gonzalez, MD, MPH	Bureau of Epidemiology
Eliot Gregos, MPH, RS	DOH-Hillsborough
Albert Grey	DOH-Hernando

Introduction

Florida DOH Contributors (Continued)

Robert Griffin.....	Bureau of Communicable Diseases, Immunization Section
Isabel Griffin, MPH.....	DOH-Miami-Dade
Megan Gumke, MPH.....	Bureau of Epidemiology
Shaiaasia Itwaru-Womack, MPH.....	Bureau of Epidemiology
William L. Jackson, MD.....	Bureau of Epidemiology
Reynald Jean, MD.....	DOH-Miami-Dade
Lori Johnston.....	Bureau of Communicable Diseases, Tuberculosis Control Section
Deborah Kahn, RN.....	Bureau of Communicable Diseases, Immunization Section
Ken Kampert, MS, MPH.....	Bureau of Communicable Diseases, STD and Viral Hepatitis Section
Nicole Kikuchi, MPH.....	Bureau of Epidemiology
Kim Kossler, MPH, RN, CPH.....	DOH-St. Lucie
Anthoni Llau, PhD.....	DOH-Miami-Dade
Tammy Lynn, RN.....	DOH-St. Lucie
Lorene Maddox, MPH.....	Bureau of Communicable Diseases, HIV/AIDS Section
James Matthias, MPH.....	Bureau of Communicable Diseases, STD and Viral Hepatitis Section
Laura Matthias, MPH.....	Bureau of Epidemiology
Alvaro Mejia-Echeverry, MD.....	DOH-Miami-Dade
Madgene Moise, MPH.....	Bureau of Communicable Diseases, HIV/AIDS Section
Emily Moore, MPH.....	DOH-Miami-Dade
Angela Morgan, RN, BSN.....	DOH-Duval
Prakash Mulay, MBBS, MPH.....	Bureau of Epidemiology
Bonnie Mull, MPH.....	Bureau of Epidemiology
William Nowlin.....	DOH-Duval
Christine Oliver, CEHP.....	DOH-Miami-Dade
David Parfitt, MPH.....	DOH-Volusia
Jim Phillips.....	DOH-Hillsborough
Scott Pritchard, MPH.....	Bureau of Epidemiology
Barbara Progulske, DVM, MPH, Dipl ACVPM.....	DOH-Indian River
Sudha Rajagopalan, MPH.....	Bureau of Epidemiology
Brandon Ramsey, MS.....	Bureau of Epidemiology
Laura Reeves.....	Bureau of Communicable Diseases, HIV/AIDS Section
Ashley Rendon.....	DOH-Okaloosa

Florida DOH Contributors (Continued)

Edhelene Rico, MPH.....	DOH-Miami-Dade
Amy Rikken, RN, BSN.....	Bureau of Communicable Diseases, Immunization Section
Jennifer Roth, MSPH.....	DOH-Lee
Pat Ryder, MD, MPH.....	Bureau of Communicable Diseases
Barbara Sailor, MSN, RN.....	Bureau of Communicable Diseases, Immunization Section
Ann Schmitz, DVM.....	Bureau of Epidemiology
Samantha Spoto, MSPH, CPH.....	DOH-Hillsborough
Danielle Stanek, DVM.....	Bureau of Epidemiology
Juan Suarez.....	Bureau of Epidemiology
Robin Terzagian.....	Bureau of Epidemiology
MacKenzie Tewell, MA, MPH, CPH.....	DOH-Hillsborough
Dearline Thomas-Brown, MPH, RN, BSN.....	Bureau of Communicable Diseases, Immunization Section
Michael Wiese, MPH, CPH.....	DOH-Hillsborough
Craig Wilson.....	Bureau of Communicable Diseases, STD and Viral Hepatitis Section Tuberculosis Control Section
Tiffany Winston, MPH.....	Bureau of Epidemiology
Guoyan Zhang, MD.....	DOH-Miami-Dade

Introduction

Selected Division of Disease Control and Health Protection Contacts

Bureau of Epidemiology
(850) 245-4401 (accessible 24 hours a day, 7 days a week, 365 days a year)

Bureau of Communicable Diseases

HIV/AIDS Section
(850) 245-4334

Immunization Section
(850) 245-4342

Sexually Transmitted Diseases and Viral Hepatitis Section
(850) 245-4303

Tuberculosis Control Section
(850) 245-4350