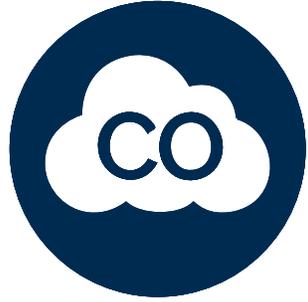


Overview of 2017



Overview of 2017

Report Background and Purpose

The *Florida Morbidity Statistics Report* is the official record of the occurrence of reportable diseases in Florida and this edition marks the 61st publication since 1945. Numerous reports describing disease burden are produced throughout the year while investigations are ongoing. This report is noteworthy as the data contained here are final, with a few exceptions. Most notably, deduplication of HIV and AIDS cases continues after the publication of this report so numbers in future reports may change. The mission of the Florida Department of Health is to protect, promote, and improve the health of all people in Florida through integrated state, county, and community efforts. Per section 381.0031, Florida Statutes, “The Department shall conduct a communicable disease prevention and control program as part of fulfilling its public health mission.” This report directly supports the Florida Health mission 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.

The Bureau of Epidemiology thanks all program areas within Florida 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 county health department 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.

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.

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.

Overview of 2017

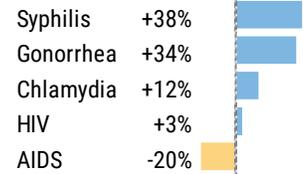
Summary of Key Disease Trends in 2017



Sexually transmitted diseases (STDs) and HIV

STDs and HIV are among the most common reportable diseases in Florida, particularly among 20- to 54-year-olds. Generally, the incidence of chlamydia, gonorrhea, and syphilis have increased over the past 10 years, while incidence of HIV and AIDS have decreased. HIV incidence has been increasing slightly each year since 2013, but still remains well below the incidence from 10 years ago. AIDS continued to decline in 2017; linkage to care plays a key role in preventing AIDS in people infected with HIV. In 2017, there were 116,944 people living with HIV in Florida, of whom 68% were retained in care and 62% had suppressed viral loads. In contrast, STDs, particularly gonorrhea and syphilis, continued to increase in 2017. The rate of gonorrhea was 34% higher than the previous five-year average and the rate of syphilis was 38% higher. Chlamydia remained the highest-volume reportable disease in Florida, with over 100,000 cases reported in 2017.

Change in rate (per 100,000 population) in 2017 compared to previous 5-year average



100,057

chlamydia cases reported in 2017.
Chlamydia is the most common reportable disease in Florida.



Tuberculosis (TB)

In the mid-1980s, tuberculosis re-emerged as a public health threat in the U.S. **Since 1994, the number of cases of TB in Florida has decreased.** Following small increases in 2015 and 2016, incidence decreased again in 2017. 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. The proportion of all TB cases in people born in a foreign country grew to 59.7% in Florida in 2016.

TB in 2017

61% of cases in foreign-borne population

11% of cases co-infected with HIV

6% of cases in homeless population



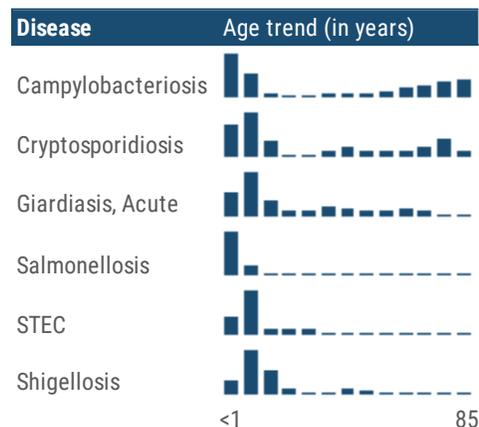
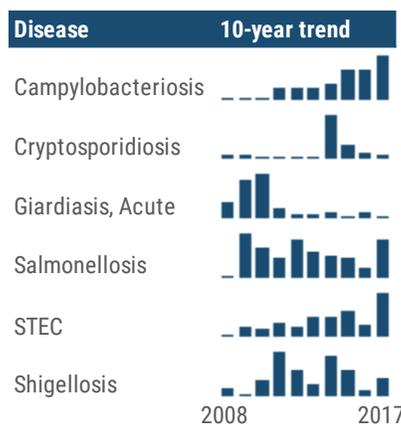
Enteric diseases

Florida consistently has one of the highest rates of enteric diseases in the nation, with 11,000 to 14,000 cases reported annually. Culture-independent diagnostic testing (CIDT) for enteric diseases has been widely implemented over the past few years, improving case detection. In 2017, campylobacteriosis, salmonellosis, and shigellosis case definitions all expanded to include positive CIDT results, regardless of symptoms, as probable cases. Campylobacteriosis cases increased by over 1,000 in 2017 compared to 2016, at least partly due to the change in case definition. Salmonellosis and shigellosis were not as impacted by changes in the case definitions.

Enteric diseases are disproportionately reported in children less than 5 years old, though the distribution of cases within that age range varies by disease.

Salmonellosis is the most common enteric disease with more than 6,500 cases reported in 2017. The rate of salmonellosis in infants less than 1 year old was more than 4 times as high as in 1- to 4-year-olds, the next highest incidence group, and more than 15 times as high as in any other age group. Campylobacteriosis incidence rates also peak in less than 1-year-olds, but the disease is relatively more common among other age groups. Other enteric diseases, including cryptosporidiosis, giardiasis, shigellosis, and STEC infections, peak in the 1- to 4-year-old age group.

Enteric diseases have very different 10-year incidence trends. Campylobacteriosis and Shiga toxin-producing *Escherichia coli* (STEC) infections have increased dramatically over the past 10 years. Giardiasis has been relatively constant since 2011 (the last case definition change). Cryptosporidiosis incidence in 2015 was very high, and has decreased each year since. Historically, shigellosis has a cyclic temporal pattern with large, community-wide outbreaks, frequently involving daycare centers, every 3–5 years. Incidence peaked in 2007, 2011, and 2014 and started increasing again in 2017.



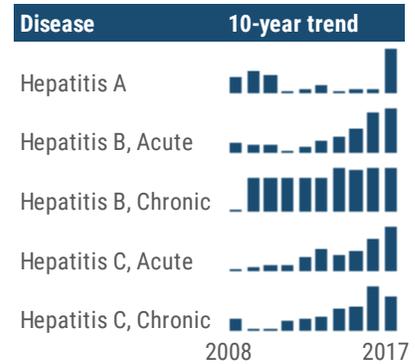
Overview of 2017



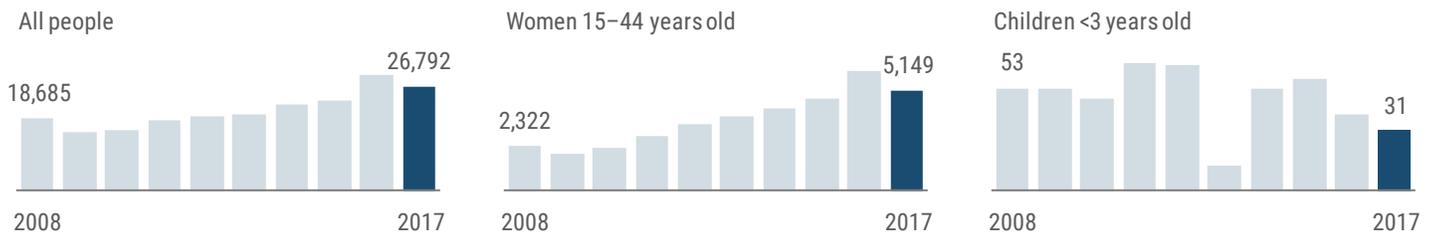
Hepatitis

Viral 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 30,000 chronic hepatitis C cases reported each year. Over the past few years, improvements in electronic laboratory reporting (ELR) and increased focus on surveillance are believed to have improved case ascertainment of chronic hepatitis. In 2014, reporting requirements were updated to include mandatory reporting of all positive and negative hepatitis results, as well as all liver function tests, to support the identification of acute hepatitis cases. In 2017, 15% of acute hepatitis B cases and 59% of acute hepatitis were determined to be acute based on negative results preceding positive results. These cases would otherwise have been misclassified as chronic. An enhanced surveillance project focusing on hepatitis in young adults was funded and implemented in 2012 in Florida, which has also likely contributed to the increases in acute hepatitis cases. Acute hepatitis B and C virus (HCB and HCV) infections are frequently associated with drug use and sharing of injection equipment.

Hepatitis A incidence increased dramatically in 2017. The incidence of acute hepatitis B and C and chronic hepatitis C have increased steadily over the past 10 years. Chronic hepatitis B has remained relatively stable since 2009.



About 6% of HCV-infected mothers transmit the infection to their infants, and that risk doubles if a woman is co-infected with HIV or has high levels of HCV. **The number of people with acute or chronic hepatitis increased by 43% from 2008 to 2017. The number of women of childbearing age with acute or chronic hepatitis increased 122% in that same period.** Despite this increase among women, the number of children less than 3 years old identified with acute, chronic, or perinatal hepatitis has not increased over the past 10 years. For more information about perinatal hepatitis C, see Section 8: Congenital and Perinatal Conditions.



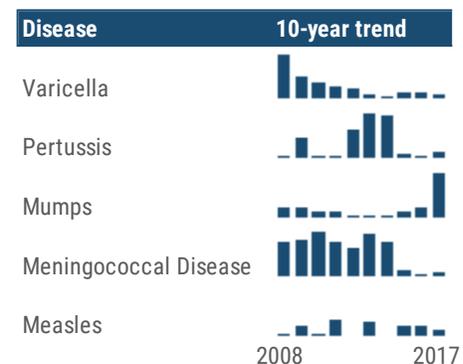
Hepatitis A incidence increased dramatically in 2017, with more than twice as many cases reported in a single year since 2010. Cases acquired in Florida increased substantially compared to previous years. Most the cases occurred in south Florida and almost half were reported in Miami-Dade County. Most cases were in adults (median of 38 years old), males, whites, and non-Hispanics. The most commonly reported risk factor was men who have sex with men in 21% of cases. Other person-to-person risk factors included non-injection drug use in 9% of cases and injection drug use in 5% of cases.



Vaccine-preventable diseases (VPDs)

Despite high vaccine coverage in Florida, vaccine-preventable diseases (VPDs) continue to occur. Vaccination coverage in Florida and nationally for 2016 was published by the CDC in 2017 (www.cdc.gov/mmwr/volumes/66/wr/mm6643a3.htm). Varicella incidence has been steadily declining since 2008 due to effective vaccination programs. Pertussis is cyclical in nature with peaks in disease every three to five years. In Florida, pertussis cases last peaked in 2013. Pertussis incidence in 2017 remained consistent with those seen during non-peak years. The number of reported meningococcal disease cases reached a historic low in 2016 and remained low in 2017 in Florida, similar to U.S. trends. Vaccines for preventing 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. Most years a few measles cases are reported. Three cases were reported in 2017, all of whom were exposed outside Florida (two in California, one during airline travel).

Varicella and meningococcal disease have decreased over the past 10 years. In 2017, three measles cases were reported, pertussis remained stable, and mumps increased dramatically.



Overview of 2017

Influenza and influenza-like illness

Nationally, the 2017–18 influenza season was classified as having a high severity overall as well as having high severity in all age groups (children, adolescents, adults, and older adults). This is the first time a season was classified as high severity in all age groups. Increased spread of influenza was observed from mid-November to late April during Florida's 2017–2018 season. Although influenza activity in Florida often differs from national influenza trends, the 2017–18 Florida season mirrored the national season with peak activity observed during week 5 (starting January 28, 2018). In the 2017-18 season, 506 outbreaks were reported, which was more outbreaks were reported during the 2017–18 season than any previous season on record, including the 2009 pandemic, underscoring the season's severity. Almost five times the average number of outbreaks were reported during the 2017–18 season.



The predominant strain was influenza A (H3).



Increased influenza spread occurred from mid-November to late April; activity peaked in late January.



Influenza activity was unprecedented in Florida and nationally.



The season was classified as having high severity overall and in all age groups nationally.

Respiratory Syncytial Virus (RSV)

Respiratory syncytial virus (RSV) is a common respiratory virus that primarily infects young children. Children less than 5 years old and older adults are at increased risk of hospitalization for complications due to RSV infection. In the U.S., RSV activity is most common during the fall, winter, and spring months, though activity varies in timing and duration regionally. RSV activity in Florida typically peaks between November and January, with an overall decrease in activity during the summer months. Although summer months typically have less RSV activity overall, RSV season in southeast Florida is considered year-round based on laboratory data. During the 2017–18 RSV season in Florida, the percent of children less than 5 years old diagnosed with RSV at emergency departments and urgent care centers in Florida's syndromic surveillance system increased from October to January and peaked in mid-November. The percent for the 2017–18 season was greater than the average of the previous three seasons.



Overall RSV activity in Florida typically peaks between November and January.



RSV activity varies by region; southeast Florida has a year-round season.



RSV in children <5 years old was higher in 2017–18 season than previous three seasons.



RSV surveillance data indicated peak activity in mid-November for 2017–18 season.

Cancer

During 2015, physicians diagnosed 112,503 primary cancers (i.e., the site or organ where the cancer starts) among Floridians, an average of 308 new cases per day. The overall rate of occurrence for all cancers combined in the state has increased from 407.8 new cases per 100,000 in 1981 to 419.0 new cases per 100,000 in 2015. However, this has not been a steady increase, as cancer patterns vary year to year. Cancer occurs predominantly among older people as age is the top risk factor. Almost 60% of the newly diagnosed cancers in 2015 occurred in people 65 years and older; this age group accounted for 18% of Florida's 2015 population.

112,503

Primary cancers diagnosed in Florida in 2015.



Cancer rate per 100,000 population increased from 408 to 419 from 1981 to 2015.



59% of newly diagnosed cancers in 2015 in Florida were in adults ≥65 years old.



4 most common cancers in 2015 in Florida:

- Lung and bronchus (14%)
- Female breast (14%)
- Prostate (10%)
- Colorectal (9%)

Overview of 2017

Focus in 2017: Hurricane Irma



In 2017, Hurricane Irma caused widespread devastation and was recorded as one of the costliest hurricanes in the Atlantic basin. On September 10, Hurricane Irma's eye wall struck the Florida Keys (Cudjoe Key) as a Category 4 hurricane and subsequently tracked up the west side of the state. Due to its size and northward path along the west side of the state, 59 of Florida's 67 counties were affected. An estimated **6.7 million** customers were without power on September 11, 2017. Almost **7 million** Florida residents evacuated to shelters, other counties, or other states to flee Irma.

Reportable diseases: Health care providers and laboratories are required to notify Florida Health of cases of reportable diseases. These data were monitored for any unexpected increases, particularly for enteric diseases, vaccine-preventable diseases, and carbon monoxide poisonings. For the list of diseases that were reportable in Florida, see Appendix V: List of Reportable Diseases/Conditions in Florida, 2017.

ED and UCC visits: ESSENCE-FL, Florida's syndromic surveillance system, captures 99% of emergency department (ED) visits and 7% of urgent care center (UCC) visits statewide and serves a vital function in providing near-real-time ED data. Data captured include chief complaints, triage notes, and discharge diagnoses. Data are categorized into syndromes and subsyndromes, which are used to monitor the number of people presenting to EDs and UCCs for respiratory and gastrointestinal illnesses, animal bites, injuries, seizures, dialysis, medication refill needs, and carbon monoxide exposures. During hurricanes, missing or late data and storm-related ED and UCC closures can be a challenge.

DMAT visits: When activated, ESSENCE-FL receives data from federal disaster medical assistance teams (DMATs). These are groups of medical professionals and para-professionals who are deployed to aid in treating and triaging illness and injury.

Poison control center calls: ESSENCE-FL also receives data on calls received by Florida's three poison control centers every 10 minutes. These data are useful for identifying carbon monoxide exposures, as well as other hurricane-related incidents such as poisonous snake bites or exposures to hydrocarbons, batteries, and cleaning agents used for toxic mold.

Shelters: Hundreds of shelters opened across the state for evacuees. While the risk of infectious disease outbreaks immediately following a disaster is low, long-term sheltering increases the risk for disease transmission. Florida Health recommended implementing shelter surveillance in shelters that were open longer than one week to identify any communicable diseases, or lack thereof, and any health needs requiring timely intervention or referrals.

Deaths: Hurricane-related deaths were identified through review of death registration data collected from vital statistics and ESSENCE-FL, reports from the Florida Medical Examiners Commission, and media reports. Text-parsing algorithms were used to query "How Injury Occurred" and "Literal Cause of Death" fields on the death certificates and stories reported through the media.

Post-hurricane surveillance

Prior to Hurricane Irma's landfall, response efforts were initiated to ensure the health needs of Floridians were being met. Daily surveillance reports were produced from September 10–22, 2017. Multiple surveillance strategies were used to track Hurricane Irma-related morbidity and mortality and are described here.

ED and DMAT highlights

- ED visits lower day before and day of impact, followed by greatly elevated visits September 12–14
- Increases in ED visits observed for:
 - ◊ Injuries
 - ◊ Carbon monoxide exposures
 - ◊ Animal bites
 - ◊ Dialysis
 - ◊ Medication refills
 - ◊ Seizures
- 1,666 DMAT visits from 16 DMAT locations captured from September 9–26
 - ◊ Feral cat bite requiring rabies post-exposure prophylaxis identified

Overview of 2017

Carbon monoxide poisonings

When power outages occur during natural disasters, the use of alternative sources of fuel or electricity for heating, cooling, or cooking may occur. These alternative sources (e.g., generators, stoves, lanterns, gas ranges) can cause carbon monoxide to build up in a home, garage, or camper and can poison the people and animals inside. With 59 of the 67 Florida counties reporting power outages on September 11 due to Hurricane Irma, the use of generators around the state was widespread.

Hurricane Irma-related carbon monoxide poisonings accounted for 64% of all confirmed, probable, and suspect carbon monoxide poisoning cases reported in 2017.

Surveillance

ED and poison control center call data in ESSENCE-FL were used to help identify carbon monoxide exposures that may have resulted in illness.



529 hurricane-related carbon monoxide poisoning cases



15 carbon monoxide-related deaths



97.5% of cases associated with generator use

- 207** case clusters (512 cases) of generator-associated carbon monoxide poisoning:
- 75%** placed generators inside or too close to home
- 84%** reported not owning a CO detector

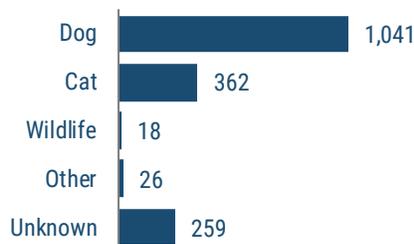
Post-hurricane response efforts regarding CO poisoning have centered around improved statewide messaging about safe generator practice with neighborhood contextual information considered. The messaging has been distributed via social media, a YouTube™ video, and Florida Health press releases.

Animal-related injuries

Domestic and wild animals are often displaced during natural disasters; they are removed from normal habitats and can be left with little access to food, water, or supervision for extended periods of time. The resultant fear and stress in the animals can manifest as aggressive behavior. For this reason, and because of increased instances of individuals initiating contact with unknown animals, these natural disasters are related to a higher risk of injuries due to bites and scratches and potential rabies exposure.

The rate of bite or scratch injuries reported by EDs increased for all age groups and in all counties impacted by the hurricane. Excess morbidity related to animal bites and scratches was quantified using ED chief complaint and discharge diagnosis data captured in ESSENCE-FL. A three-fold increase in injuries to the hands and head was also noted.

Animal bite/scratch injuries September 8–16



3,920 ED visits for animal-related injuries in September 2017

44% visits were September 8–16

85% higher than normal during this time

Shelter surveillance

In response to Hurricane Irma, hundreds of shelters opened across the state for evacuees. Florida Health recommended implementing shelter surveillance in shelters that were open longer than one week to identify any communicable diseases, or lack thereof, and any health needs requiring timely intervention or referrals. Florida Health developed two surveys, a cot-to-cot survey and a clinic survey, to monitor the constantly changing shelter populations. Both surveys were designed for use on mobile phones using SurveyMonkey,™ which allowed for real-time analysis of results and production of daily summary reports.

Overview of 2017

Between both surveys, Florida Health gathered **508** total responses. Shelter surveillance was successful at identifying unmet health maintenance needs such as needing a prescription refill, a blood pressure check, or medication. In addition, real-time analysis of responses detected an increase in respiratory illness, later confirmed as an influenza A outbreak, and allowed for prompt implementation of infection control measures, including providing chemoprophylaxis and administering seasonal influenza vaccines to the shelter population.

Rapid data collection and analysis of results were key to timely public health action and prioritization of resources. Now that survey tools have been developed and tested, Florida Health is prepared to implement shelter surveillance more quickly and more broadly in the event of future shelter openings.

Cot-to-cot survey

- Each person in the shelter interviewed daily
- Administered in Monroe, Osceola, and St. Lucie county shelters
- Administered 33 times in 7 shelters in 2-week period

Clinic survey



- Each person who visited the shelter's medical clinic interviewed
- Administered in Monroe County shelters
- Administered 4 times in 2 shelters in 3-day period

Zika response for hurricane evacuees

In 2016, the Centers for Disease Control and Prevention (CDC) created a U.S. Zika Pregnancy and Infant Registry to monitor the effect of Zika virus infection during pregnancy on fetal and infant outcomes. This registry includes information from all U.S. states and territories that reported pregnant women with laboratory evidence of Zika virus. Follow-up on these cases to track pregnancy outcomes and developmental milestones continues until infants are 24 months of age. As part of the registry, any pregnant women or infants who move from one U.S. state or territory to another prior to follow-up completion are transferred to their new jurisdiction.

In addition to Florida, Hurricane Irma impacted 10 countries and territories in 2017, including Puerto Rico. Subsequent to Hurricane Irma, Hurricane Maria made landfall in Dominica on September 19 as a Category 5 storm and made landfall the following day in Puerto Rico as a strong Category 4 storm. Other Caribbean Islands, including the U.S. Virgin Islands, were affected by Hurricane Maria.

After the 2017 hurricane season, many families living in U.S. territories previously impacted by Zika evacuated to Florida, resulting in Zika cases in women and infants being transferred to Florida for completion of follow-up.

Vital Statistics and Florida SHOTS, Florida's voluntary immunization registry, were used to identify counties of residence for cases that were transferred from these territories. These tools helped obtain information on 10 pregnancies that resulted in a live birth in Florida.

Pregnant women and their infants were eligible for free Zika virus testing. They were also referred to Healthy Start, a no-cost program available to all pregnant women and children up to the age of 3 years. Infants were Referred to Early Steps, an early intervention program, if they presented with congenital Zika-related symptoms or developmental delays. As infant follow-ups continue, infants are referred to additional services if any delayed symptoms are identified.

Vital Statistics

- Database consisting of official birth, death, and fetal death records
- Used to identify pregnancies with outcomes occurring in Florida
- Retrieved date of outcome, facility where it occurred, name of infant
- Identified **10** pregnancies resulting in live births in Florida

109 Zika cases in pregnant women and infants were transferred to Florida

103 cases transferred from Puerto Rico

6 cases transferred from U.S. Virgin Islands

Florida SHOTS

- Centralized online immunization registry
- Identified infants transferred post-birth
- Retrieved infant's provider, date of last visit, recent address, contact information
- Located **56** infants who were transferred to Florida

Overview of 2017

Hurricane-related deaths

Most of the 123 deaths related to Hurricane Irma were indirectly related to the storm. Exacerbation of existing medical conditions was the most common cause of death. An additional three deaths were possibly related to the storm (not shown below).



Of the 123 hurricane-related deaths, 72% were male and the median age of the decedents was 63 years.

Of the 45 exacerbation deaths, 17 were heat-related (attributed to lack of air conditioning); 14 deaths occurred among geriatric patients with existing chronic disease residing at a south Florida assisted-living facility that was without power for several days. Fourteen of the 15 carbon monoxide poisoning deaths were attributed to generator use.

Locations with vulnerable populations, including the elderly and people prone to heat-related illness, should be prioritized when restoring power during outages. Public health messages emphasizing generator safety and widespread use of carbon monoxide detectors could help reduce generator-related carbon monoxide poisoning.

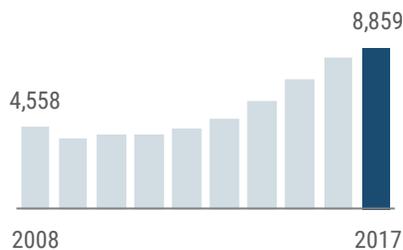
For additional information about hurricane-related deaths, see the full article at www.cdc.gov/mmwr/volumes/67/wr/mm6730a5.htm.

Focus in 2017: Syphilis

Why do we care about syphilis?

Syphilis, a genital ulcerative disease caused by *Treponema pallidum* bacteria, is associated with significant complications if left untreated and can facilitate the transmission and acquisition of HIV infection. Once on the verge of elimination, syphilis is increasing dramatically both nationally and in Florida.

The number of all syphilis cases reported in Florida increased from 4,558 in 2008 to 8,859 in 2017.



National and state trend

From 2013 to 2017, the rate per 100,000 population of primary and secondary syphilis increased:

51% in Florida

73% in the U.S.

In 2017, the rate per 100,000 population of primary and secondary syphilis was:

11.6 in Florida

9.5 in the U.S.



Congenital syphilis

National historical data show that pregnant women with untreated syphilis acquired during the four years before delivery may lead to an infection of the fetus in up to 80% of cases. Additionally, this may result in stillbirth or death in the infant in up to 40% of cases.

Infants born with congenital syphilis can develop symptoms, including:

- Failure to thrive
- Skeletal deformities
- Facial deformities
- Watery fluid from the nose
- Rash
- Blindness
- Joint swelling
- Death

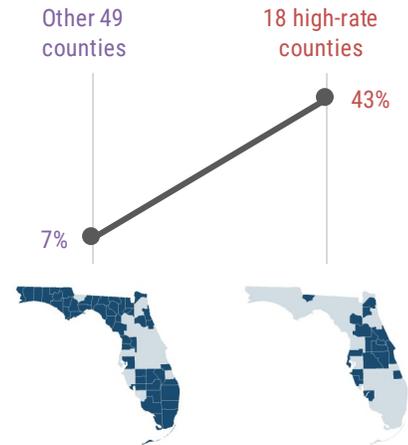
Overview of 2017

Reported syphilis cases in females have increased in Florida by **67%** since 2012. The statewide increase is focused in 18 counties, primarily in central Florida.

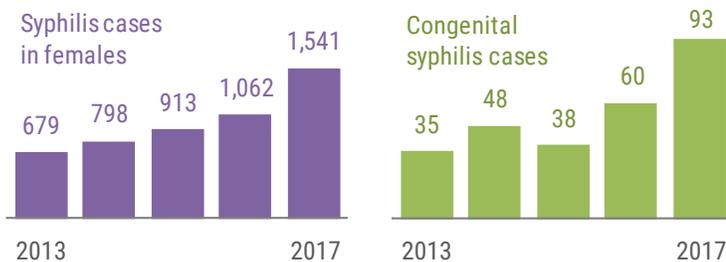
The 18 counties with large increases include Alachua, Brevard, Clay, Duval, Gadsden, Lake, Lee, Manatee, Marion, Orange, Osceola, Pasco, Pinellas, Polk, Saint Lucie, Sarasota, Seminole, and Volusia.

Within Florida, a link between the increase in incidence and the high-risk behaviors of infected people, such as drug use or prostitution, has not been established using self-reported risk data from the mothers.

Compared to the previous 5-year average, the number of syphilis cases in females has increased by **43% in 18 counties** and only **7% in the other 49 counties**.



The increase in **females with syphilis** has led to a **166% increase in congenital syphilis cases** in Florida from 2013 to 2017.



What counts as congenital syphilis?

An infant can be reported as a congenital syphilis case based on either:

- An infected mother not adequately treated >30 days prior to delivery or
- An infant with signs or symptoms or a positive culture result.

What is Florida doing to control congenital syphilis?

In 2017, Florida was awarded a congenital syphilis-specific supplemental grant to help combat the increase in congenital syphilis cases the state is experiencing. These funds were allocated to five high-burden counties to pilot a variety of tools that could help decrease the number of congenital syphilis cases before implementing these techniques statewide. Counties included Duval, Orange, Palm Beach, Broward, and Miami-Dade.

Pilot county efforts

Counties that received funding:

- Formed congenital syphilis review boards with selected county health department employees and community partners
- Reviewed cases within their counties
- Identified potential missed opportunities or gaps in services that may have contributed to congenital cases

Statewide efforts

- Reviewed data quality on maternal and congenital cases
- Improved trainings and oversight
- Implemented automated reminders
- Performed quarterly searches of vital statistics data to identify females listed as not pregnant or unknown pregnancy status to ensure no potentially exposed infants were overlooked

The new and enhanced county and statewide efforts resulted in positive statewide improvements for females infected with syphilis who know their pregnancy status. The percentage of females infected with syphilis who listed unknown as a pregnancy status was reduced from 22% in 2016 to 5% in 2017.

For more information about congenital syphilis, see Section 8: Congenital and Perinatal Conditions.

Overview of 2017

Men who have sex with men (MSM) community

Florida's MSM community has long been disproportionately impacted by syphilis.

The most common high-risk behaviors reported by MSM with syphilis in 2017 were:

- Sex with anonymous partners
- Meeting partners through the internet or mobile dating apps
- A history of STDs

Syphilis infections create opportunity for coinfection. Primary lesions during the infectious period can work as a conduit for HIV transmission and put either the person displaying the lesion or their sexual partners at risk of HIV infection if either partner is living with HIV. An individual coinfecting with syphilis and HIV is considered a high priority for timely treatment, and if a newly diagnosed HIV case, linkage to care.

Fast data

60% of syphilis cases in 2017 self-reported as MSM

61% of MSM diagnosed with syphilis in 2017 were also living with HIV

What causes syphilis and what are the symptoms?

Syphilis is caused by spirochete bacteria *T. pallidum*. The infection is generally transmitted sexually; however, any contact with an open syphilitic lesion can cause transmission. The spirochete burrows into the skin of any individual it encounters and causes an open painless sore at the initial point of entry, called a primary lesion. An individual presenting with one of these lesions is in the primary stage of syphilis. After the lesion disappears, an individual is generally asymptomatic for a brief time, a period called latency. Following this, the infected individual may develop a rash and, at this point, is in the secondary stage. An individual infected within the past year, with or without symptoms, is said to have early syphilis. Any individual who was infected more than one year ago has late stage syphilis. If left untreated, syphilis is associated with severe complications and may facilitate the transmission of HIV.

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Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance 2017. www.cdc.gov/std/stats17/default.htm. Accessed November 25, 2018.

Focus in 2017: HIV/AIDS

Why do we care about HIV?

Human immunodeficiency virus (HIV) is a life-threatening infection that attacks the body's immune system and leaves a person vulnerable to opportunistic infections. HIV can be transmitted through condomless anal or vaginal sex, sharing injection drug needles, or from mother to child during pregnancy, delivery, or breastfeeding. Untreated, HIV can continue to weaken the immune system and develop into Acquired Immunodeficiency Syndrome (AIDS). The Centers for Disease Control and Prevention (CDC) estimates that 1.2 million people are living with HIV in the U.S., nearly half of whom live in the southern U.S. Florida is a large state in the south with a diverse population, substantial HIV morbidity, and unique challenges with respect to HIV/AIDS surveillance, prevention, and patient care.

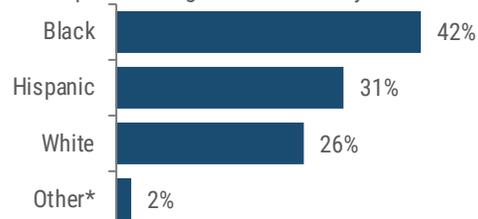
Florida 2017

4,949 people received an HIV diagnosis

2,044 people received an AIDS diagnosis

Blacks represented the highest proportion of persons who diagnosed with HIV in 2017, followed by Hispanics then whites.

Percent of persons diagnosed with HIV by race/ethnicity



Overview of 2017

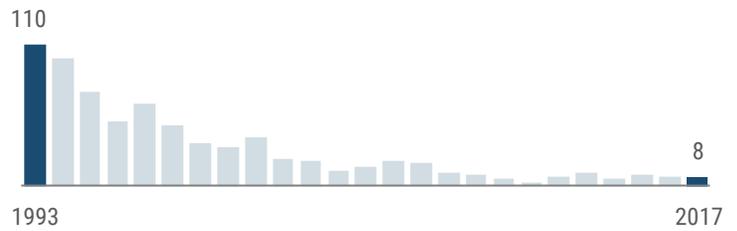
Perinatal HIV

Perinatal HIV transmission, also known as vertical HIV transmission, has decreased substantially in Florida over the past few decades. The initiation of antiretroviral therapy (ART) between 1992 and 1994 played a significant role in the annual drop of infants born with perinatally acquired HIV. When pregnant mothers living with HIV are treated with ART, they achieve a suppressed viral load (less than 200 copies/mL), which greatly reduces HIV transmission to the infant.

Despite these successes, prevention of vertical transmission continues to pose a challenge in Florida. Florida's strategic goal aims to reduce the annual number of infants born in Florida with perinatally acquired HIV to less than five.

For more information about perinatally acquired HIV, see Section 8: Congenital and Perinatal Conditions.

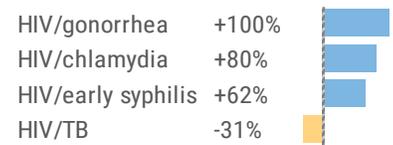
There was a 93% decrease in perinatally acquired HIV diagnoses from 1993 to 2017. In 2017, eight infants were born in Florida with perinatally acquired HIV (same as in 2016).



Co-infection risk

Persons living with HIV are at increased risk of acquiring additional infections, also known as co-infections. HIV and early syphilis co-infection diagnoses have been steadily increasing from 2013 to 2017. These diagnoses disproportionately affected men who have sex with men, who accounted for 95% of the HIV/early syphilis co-infections in 2017. HIV/chlamydia and HIV/gonorrhea co-infections also increased from 2013 to 2017. However, Florida has seen a decrease in HIV and tuberculosis (TB) co-infections from 2013 to 2017, following decreases in TB in Florida during the same time period.

HIV co-infections increased for early syphilis, chlamydia, and gonorrhea, but decreased for TB from 2013 to 2017.



Florida's progress

Over the past decade, Florida has had success in reducing the morbidity and mortality of HIV. The number of HIV diagnoses **decreased 18%** from 2008 to 2017, despite small increases in the overall number of diagnoses from 2015 to 2016 and from 2016 to 2017. In the last year, the number of HIV diagnoses has decreased in some of Florida's highest morbidity counties. At the end of 2017, there were 116,944 persons living with an HIV diagnosis in Florida, in addition to an estimated 18,300 (13.5%) persons unaware of their HIV status.

Florida has seen encouraging trends since 2008 that highlight the progress being made in the state.

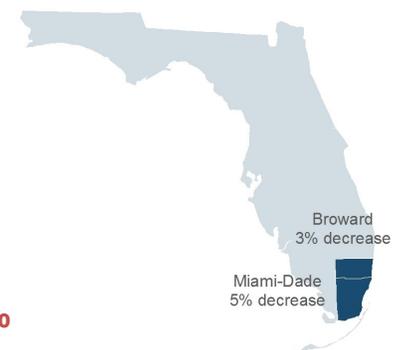
24.1

HIV rate per 100,000 population **decreased from 32.5 to 24.1** from 2008 to 2017

51%

AIDS diagnoses **decreased 51%** from 2008 to 2017

HIV diagnoses decreased from 2016 to 2017 in two high morbidity counties.



47%

Resident HIV deaths **decreased by 47%** from 2008 to 2017

13.3%

Resident HIV deaths **decreased by 13.3%** in the last year alone

13.5

Resident HIV death rates per 100,000 population **among blacks decreased from 30.1 to 13.5** from 2008 to 2017.

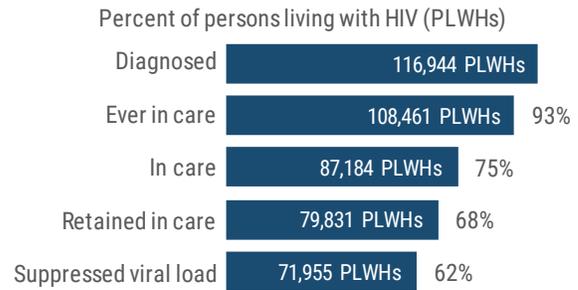
Overview of 2017

The HIV care continuum reflects the series of steps a person living with an HIV diagnosis (PLWH) takes from initial diagnosis to being retained in care and achieving a very low level of HIV in the body (viral suppression). A PLWH with a suppressed viral load is highly unlikely to transmit the virus. Ensuring that persons living with HIV are retained in care and have a suppressed viral load is paramount to the reduction of HIV transmission, AIDS diagnoses, and HIV-related deaths.

In 2017, 68% of persons living with an HIV diagnosis in Florida were retained in care (documented HIV-related care at least two times at least three months apart in 2017), and 62% were virally suppressed. At the end of 2017, 25% of persons living with an HIV diagnosis in Florida were not in HIV-related care. Among persons who received an HIV diagnosis in Florida in 2017, 88% had documented HIV-related care within three months of diagnosis and 75% received care within 30 days of diagnosis.

To learn more about HIV resources in Florida, visit the following websites:
www.floridaaids.org
www.knowyourhivstatus.com
www.prelocator.org

There were 116,944 PLWHs in Florida in 2017, 68% of whom were retained in care and 62% of whom had a suppressed viral load.



HIV care continuum definitions

Ever in care: documented HIV-related care at least once from HIV diagnosis

In care: documented HIV-related care at least once in 2017

Retained in care: documented HIV-related care at least two times, at least three months apart in 2017

Suppressed viral load: less than 200 copies/mL