



# Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

## Multistate Outbreak of Coagulopathy Associated with Synthetic Cannabinoids Use

On May 25, 2018, the Centers for Disease Control and Prevention (CDC) distributed a health advisory via the CDC Health Alert Network (HAN) regarding a multistate outbreak associated with synthetic cannabinoids. The cannabinoids act on the same receptors as tetrahydrocannabinol (THC), the main active ingredient in marijuana, but affect the brain in different and unpredictable ways. Synthetic cannabinoids can contain harmful chemicals with unknown health risks, are widely obtainable across the U.S., and new ones are available frequently. Synthetic cannabinoids are popular because users often believe they are legal and relatively safe. They are sold under many different brand names, but are commonly referred to as synthetic marijuana, fake weed, legal weed, K2, and Spice.

In March 2018, the Illinois Department of Public Health reported cases of unexplained bleeding among patients who used synthetic cannabinoids. Drug and biological samples (more than 95) were tested and detected brodifacoum, a chemical that is used as a rodenticide and is a lethal anticoagulant (vitamin K-dependent antagonist). CDC is currently coordinating national surveillance activities for possible cases. State health departments have reported 202 cases, including 5 deaths, since the index case was identified in Illinois. Case patients have been identified in nine states with the majority being reported from Illinois (n=164). Florida has reported six or fewer cases. CDC's current working hypothesis is that brodifacoum was mixed with synthetic cannabinoid products.

Case-patients from this outbreak have presented with a variety of signs and symptoms of coagulopathy (e.g., bruising, nosebleeds, excessively heavy menstrual bleeding, hematemesis, hemoptysis, hematuria, flank pain, abdominal pain, and bleeding gums or mouth). Patients should be considered high-risk for coagulopathy if they have reported use of or are suspected of using synthetic cannabinoids. The most helpful and commonly available laboratory test to help identify cases is the International Normalized Ratio (INR) that is part of a routine coagulation profile. Case confirmation requires the detection of brodifacoum in blood, serum, plasma, or urine. Clinicians and healthcare providers should work with their healthcare facility's laboratory to determine what options are available to them for brodifacoum testing. Contact your local poison control center (1-800-222-1222) for questions on diagnostic testing and management of these patients. Promptly report possible cases to the Epidemiology Program, Florida Department of Health in Orange County at (407) 858-1420.

Recommendations for clinicians, public health officials, and the public may be found in the [CDC's health advisory](#).

Resources: [CDC Synthetic Cannabinoid General Facts](#)  
[CDC Health Advisory](#)



Photo: Indiana State Department of Health

### May 2018

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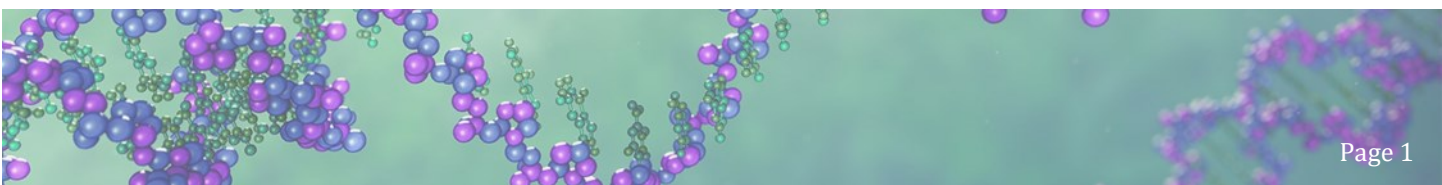
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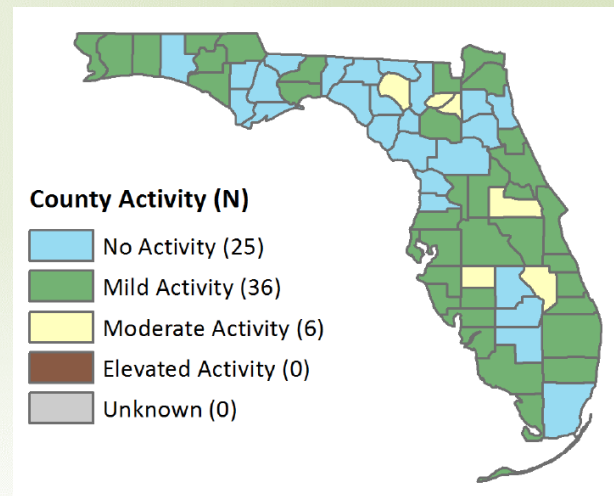


# Influenza Surveillance (data from [Florida Flu Review](#))

## Florida

- In week 20, state influenza activity continued to decrease.
- No new influenza-associated pediatric deaths were confirmed. Eight have been confirmed so far in the 2017-18 influenza season.
- Deaths due to pneumonia and influenza were below expected levels.

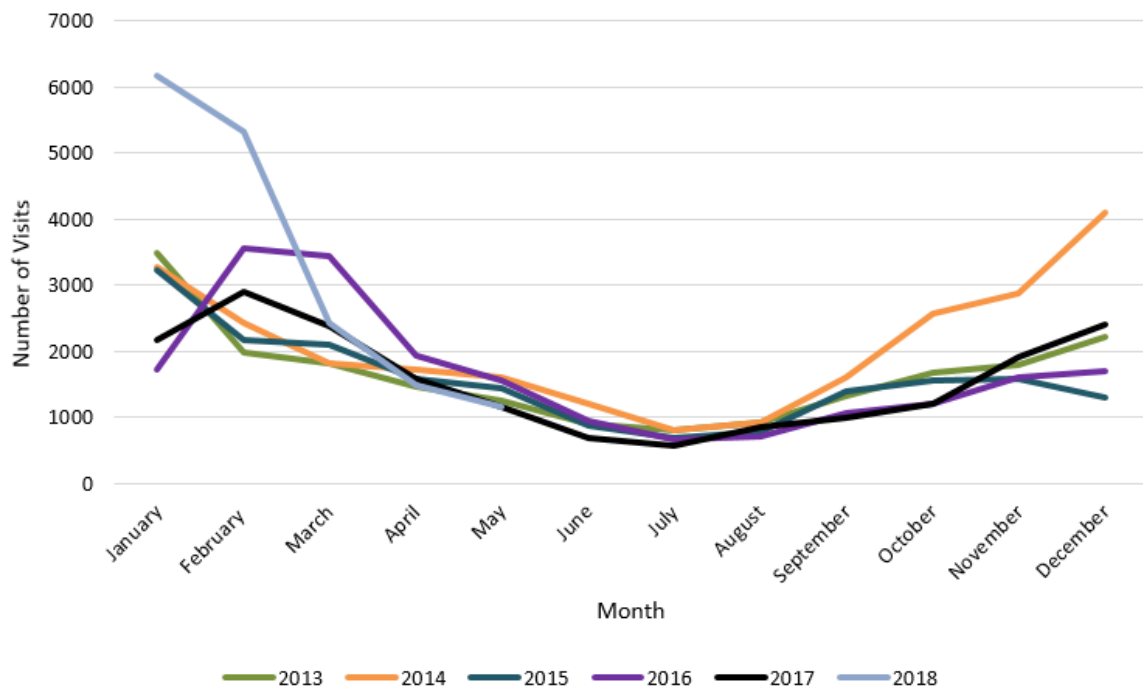
### Influenza Activity Level, by County for Week 20, 2018



## Orange County

- One influenza-like illness outbreak was reported in Orange County in May 2018.
- Orange County influenza activity level for week 20 is decreasing.

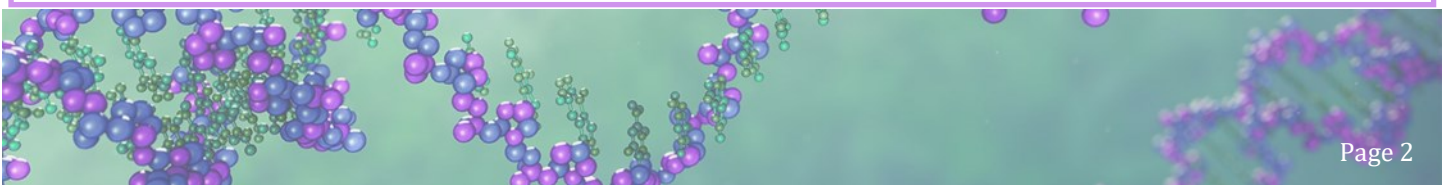
### Influenza-like Illness from Emergency Department Visits in Orange County, 2013 to 2018



#### Influenza Resources:

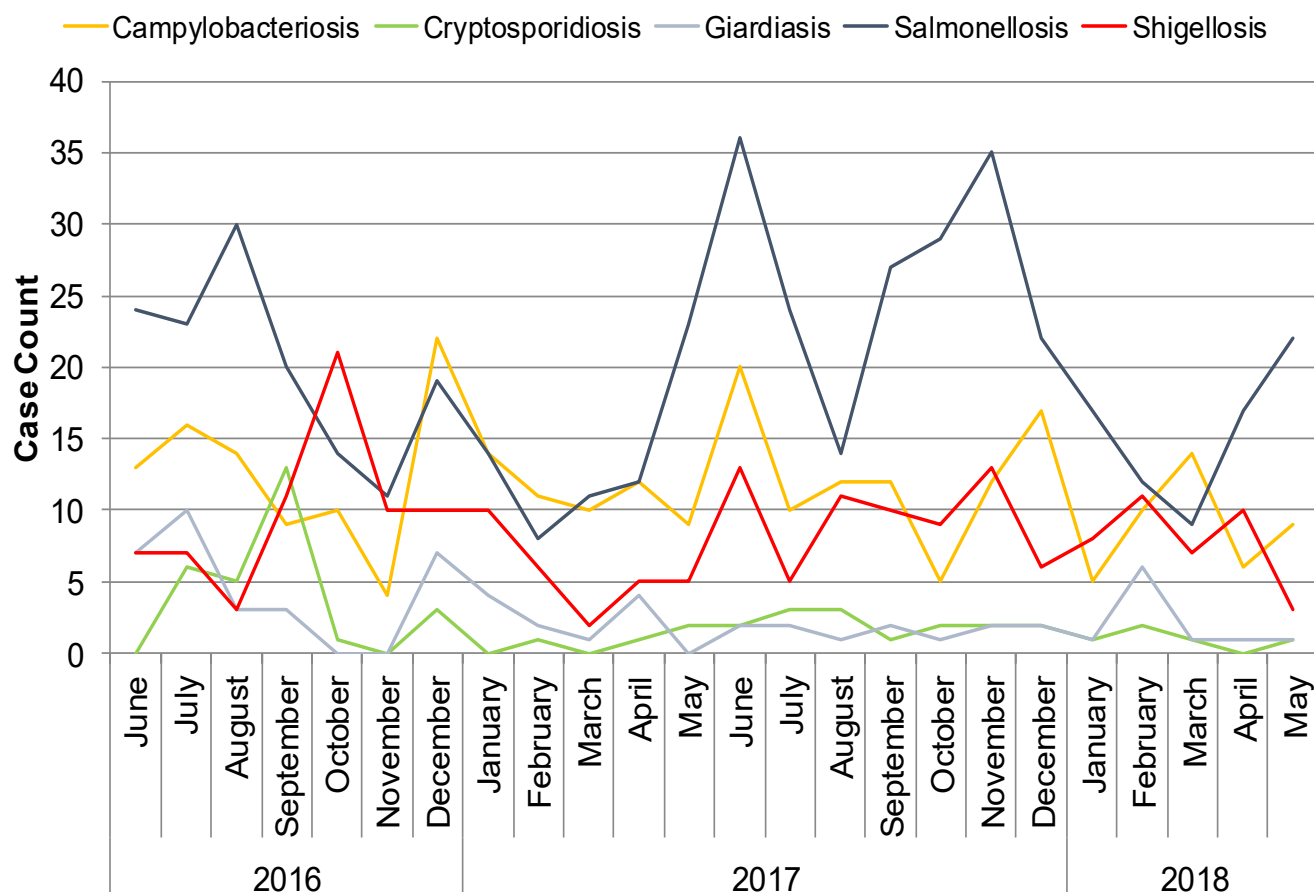
[Florida Department of Health Influenza](#)

[Center for Disease Control and Prevention Weekly Influenza Activity Report](#)



# Gastrointestinal Illness Surveillance

## Select Reportable Enteric Diseases in Orange County, Florida, June 2016 to May 2018



## Gastrointestinal Illness Points of Interest:

- Enteric reportable disease cases were normal for the month of May. As the summer months approach, we expect the number of enteric illnesses to increase.
- In May, 27 foodborne illness complaints were investigated by Orange County from various sources such as direct reporting, online reporting, social media, Department of Health, and crowd-sourced web-based reporting.

### Gastrointestinal Illness Resources:

[Florida Online Foodborne Illness Complaint Form - Public Use](#)

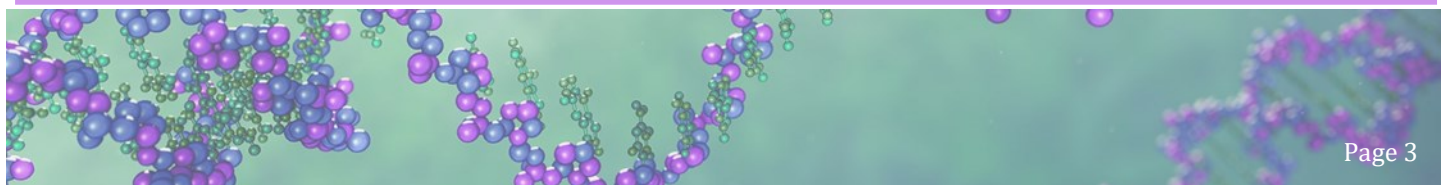
[CDC: Healthy Water](#)

[Florida Food and Waterborne Disease Program](#)

[Florida Food Recall Searchable Database](#)

[Florida Department of Health - Norovirus Resources](#)

[CDC: A-Z Index for Foodborne Illness](#)



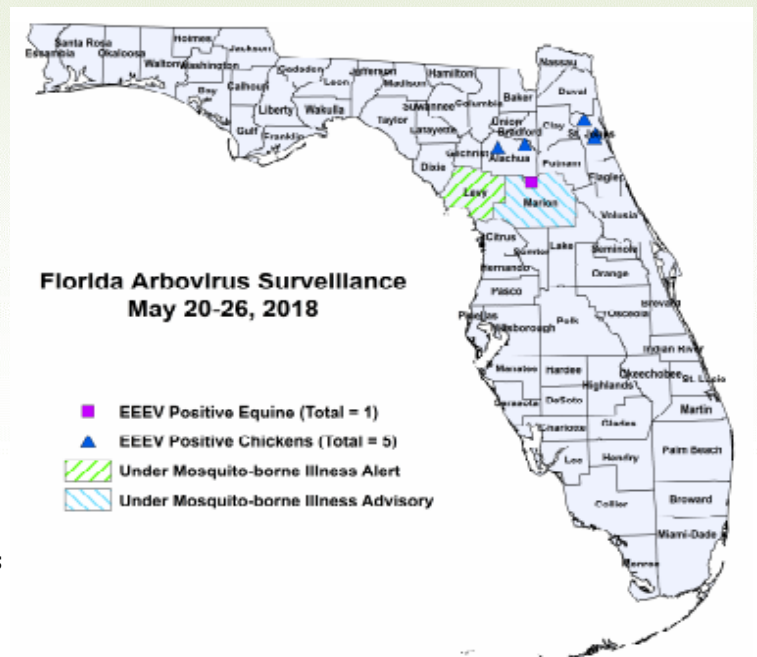
# Arboviral Surveillance

## International

- There is a Level 2 (Alert) Travel Health Notice from the CDC for multiple countries in the Caribbean, Central and South America, Mexico, Cape Verde, Southeast Asia, and Pacific Islands related to Zika virus transmission and an association with poor pregnancy outcomes. Pregnant women should consider postponing travel to these areas.
- There is a CDC Level 2 Travel Health Notice for Brazil and a Level 1 Travel Health Notice in Nigeria related to the transmission of yellow fever virus.
- There is a CDC Level 1 Travel Health Notice for Sri Lanka related to the transmission of dengue virus.

## Florida

- Three case of dengue associated with international travel have been reported year to date.
- One case of chikungunya has been reported year to date in a person that had international travel.
- No human cases of West Nile virus were reported this week. Positive samples from 24 sentinel chickens have been reported in 2018.
- **Marion County is currently under a mosquito-borne illness advisory. Levy County is currently under a mosquito-borne illness alert.** No other counties are currently under mosquito-borne illness advisory or alert.



## Orange County

- **No locally acquired** cases of Zika virus, West Nile virus, dengue virus, chikungunya virus, St. Louis encephalitis virus, or Eastern equine encephalitis virus have been identified in Orange County in 2018.
- Nine cases of Zika fever have been reported year to date in individuals with travel history to a country or area experiencing Zika virus activity.
- **We are no longer offering free Zika testing at DOH-Orange for insured pregnant women. Testing for Zika may be ordered through commercial labs. Please notify DOH-Orange of symptomatic patients with a history of travel. Please refer to the following [letter](#) regarding updates on Zika virus testing at BPHL.**

### Arboviral Resources:

[Weekly Florida Arboviral Activity Report \(Released on Mondays\)](#)

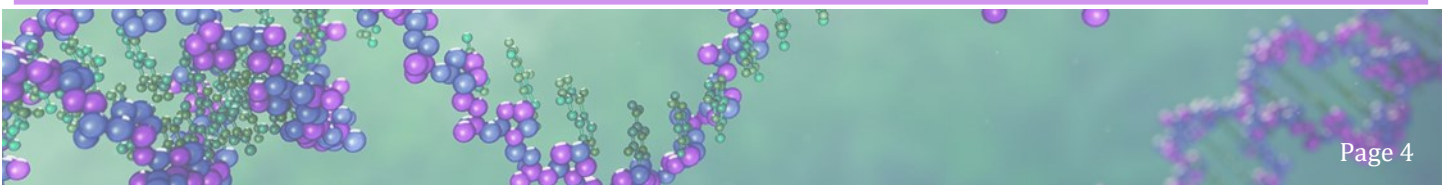
[Orange County Mosquito Control](#)

### Additional Resources:

[Florida Department of Health Zika](#)

[Florida Department of Health Mosquito-Borne and Other Insect-Borne Diseases Information](#)

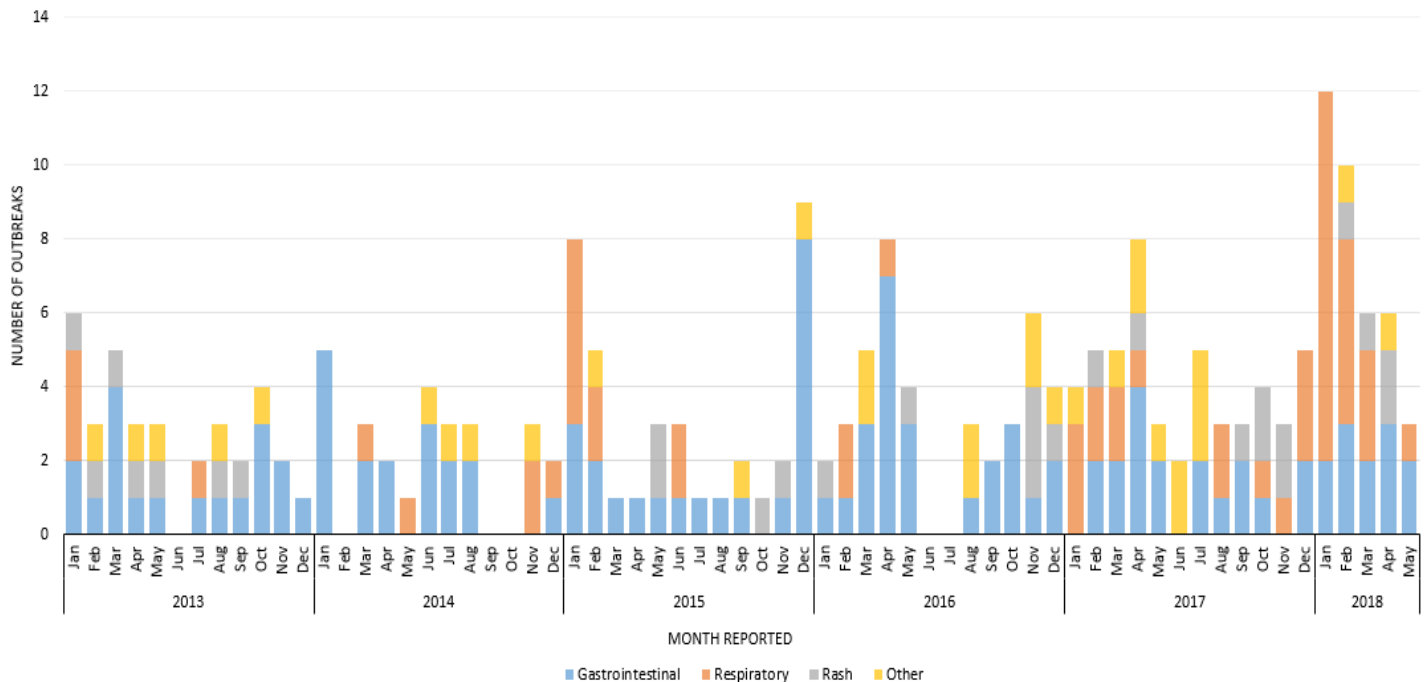
[Florida Department of Health Mosquito-Borne Disease Education Materials](#)



# Outbreaks in Orange County

- In May 2018, the following outbreaks were investigated:
  - One influenza-like illness outbreak in a school.
  - One norovirus outbreak in a hotel.
  - One gastrointestinal illness outbreak in a hotel.

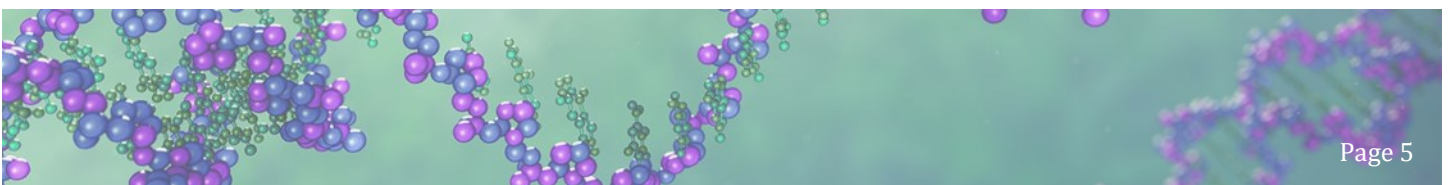
## Number of Outbreaks Reported in Orange County, FL, by Month from 2013-2018



\*\*\* All Data are Preliminary \*\*\*



**Reminder:** Outbreaks of any disease, any case, cluster of cases, or exposure to an infectious or non-infectious disease, condition, or agent found in the general community or any defined setting (e.g., hospital, school, or other institution) not listed that is of urgent public health significance should be reported.



| Disease   | ORANGE |                      |                  |                      | All Counties |                      |                  |                      |
|---|--------|----------------------|------------------|----------------------|--------------|----------------------|------------------|----------------------|
|   | May    |                      | Cumulative (YTD) |                      | May          |                      | Cumulative (YTD) |                      |
|   | 2018   | Median (2013 - 2017) | 2018             | Median (2013 - 2017) | 2018         | Median (2013 - 2017) | 2018             | Median (2013 - 2017) |
| Amebic Infections (Balamuthia mandrillaris)                                   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 1                | 0                    |
| Anaplasmosis - HGA (Anaplasma phagocytophilum)                                | 0      | 0                    | 0                | 0                    | 0            | 0                    | 1                | 1                    |
| Arsenic Poisoning   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 5                | 4                    |
| Bruceellosis  | 0      | 0                    | 0                | 0                    | 0            | 0                    | 7                | 2                    |
| Campylobacteriosis  | 0      | 1                    | 63               | 43                   | 19           | 9                    | 1441             | 1125                 |
| Carbon Monoxide Poisoning   | 0      | 0                    | 4                | 3                    | 0            | 0                    | 93               | 66                   |
| Chikungunya Fever   | 0      | 0                    | 1                | 0                    | 0            | 0                    | 1                | 2                    |
| Ciguatera Fish Poisoning  | 0      | 0                    | 3                | 0                    | 0            | 0                    | 25               | 9                    |
| Creutzfeldt-Jakob Disease (CJD)   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 5                | 7                    |
| Cryptosporidiosis   | 0      | 0                    | 9                | 7                    | 1            | 1                    | 161              | 143                  |
| Cyclosporiasis  | 0      | 0                    | 0                | 0                    | 0            | 0                    | 1                | 0                    |
| Dengue Fever  | 0      | 0                    | 0                | 1                    | 0            | 0                    | 1                | 31                   |
| Ehrlichiosis - HME (Ehrlichia chaffeensis)                                    | 0      | 0                    | 0                | 0                    | 0            | 0                    | 7                | 2                    |
| Escherichia coli: Shiga Toxin-Producing (STEC) Infection                      | 0      | 0                    | 17               | 7                    | 2            | 1                    | 295              | 149                  |
| Giardiasis: Acute   | 0      | 0                    | 17               | 21                   | 2            | 3                    | 359              | 354                  |
| Haemophilus influenzae Invasive Disease                                       | 0      | 0                    | 9                | 6                    | 1            | 0                    | 151              | 108                  |
| Hansen's Disease (Leprosy)  | 0      | 0                    | 0                | 0                    | 0            | 0                    | 5                | 8                    |
| Hepatitis A   | 0      | 0                    | 4                | 2                    | 0            | 0                    | 65               | 40                   |
| Hepatitis B: Acute  | 0      | 0                    | 10               | 6                    | 1            | 2                    | 270              | 161                  |
| Hepatitis B: Chronic  | 3      | 1                    | 187              | 158                  | 17           | 16                   | 1848             | 1630                 |
| Hepatitis B: Perinatal  | 0      | 0                    | 0                | 0                    | 0            | 0                    | 1                | 1                    |
| Hepatitis B: Surface Antigen in Pregnant Women                                | 0      | 0                    | 11               | 20                   | 0            | 2                    | 143              | 170                  |
| Hepatitis C: Acute  | 0      | 0                    | 5                | 3                    | 1            | 1                    | 138              | 77                   |
| Hepatitis C: Chronic  | 3      | 5                    | 619              | 498                  | 94           | 101                  | 8705             | 9896                 |
| Hepatitis C: Perinatal  | 0      | 0                    | 1                | 0                    | 0            | 0                    | 10               | 0                    |
| Hepatitis D   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 2                | 1                    |
| Hepatitis E   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 1                | 2                    |
| Herpes B Virus: Possible Exposure   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 6                | 2                    |
| Influenza-Associated Pediatric Mortality                                      | 0      | 0                    | 0                | 0                    | 0            | 0                    | 7                | 5                    |
| Lead Poisoning  | 0      | 0                    | 58               | 9                    | 71           | 1                    | 1521             | 298                  |
| Legionellosis   | 0      | 0                    | 7                | 7                    | 2            | 0                    | 200              | 106                  |
| Leptospirosis   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 3                | 0                    |
| Listeriosis   | 0      | 0                    | 1                | 0                    | 0            | 0                    | 22               | 10                   |
| Lyme Disease  | 0      | 0                    | 2                | 2                    | 1            | 0                    | 40               | 28                   |
| Malaria   | 0      | 0                    | 1                | 2                    | 2            | 0                    | 19               | 17                   |
| Meningitis: Bacterial or Mycotic  | 0      | 0                    | 0                | 1                    | 0            | 0                    | 41               | 44                   |
| Meningococcal Disease   | 0      | 0                    | 1                | 0                    | 0            | 0                    | 13               | 15                   |
| Mercury Poisoning   | 0      | 0                    | 0                | 0                    | 1            | 0                    | 13               | 8                    |
| Mumps   | 0      | 0                    | 6                | 0                    | 1            | 0                    | 96               | 9                    |
| Pertussis   | 0      | 0                    | 5                | 12                   | 1            | 2                    | 89               | 129                  |
| Pesticide-Related Illness and Injury: Acute                                   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 11               | 7                    |
| Rabies: Possible Exposure   | 0      | 0                    | 27               | 28                   | 17           | 7                    | 1385             | 1067                 |
| Ricin Toxin Poisoning   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 4                | 0                    |
| Rocky Mountain Spotted Fever and Spotted Fever Rickettsiosis                  | 0      | 0                    | 0                | 0                    | 1            | 0                    | 12               | 4                    |
| Rubella   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 0                | 1                    |
| Salmonellosis   | 0      | 1                    | 75               | 62                   | 18           | 18                   | 1380             | 1251                 |
| Shigellosis   | 0      | 0                    | 41               | 21                   | 7            | 6                    | 458              | 321                  |
| Staphylococcus aureus Infection: Intermediate Resistance to Vancomycin (VISA) | 0      | 0                    | 0                | 0                    | 0            | 0                    | 1                | 1                    |
| Strep pneumoniae Invasive Disease: Drug-Resistant                             | 0      | 0                    | 10               | 10                   | 0            | 1                    | 140              | 105                  |
| Strep pneumoniae Invasive Disease: Drug-Susceptible                           | 0      | 0                    | 10               | 11                   | 0            | 0                    | 200              | 220                  |
| Tetanus   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 0                | 2                    |
| Typhoid Fever (Salmonella Serotype Typhi)                                     | 0      | 0                    | 6                | 0                    | 1            | 0                    | 58               | 4                    |
| Varicella (Chickenpox)  | 0      | 0                    | 10               | 5                    | 2            | 2                    | 252              | 284                  |
| Vibriosis (Grimontia hollisae)  | 0      | 0                    | 0                | 0                    | 0            | 0                    | 3                | 2                    |
| Vibriosis (Other Vibrio Species)  | 0      | 0                    | 0                | 0                    | 1            | 0                    | 14               | 3                    |
| Vibriosis (Vibrio alginolyticus)  | 0      | 0                    | 1                | 1                    | 0            | 0                    | 19               | 9                    |
| Vibriosis (Vibrio cholerae Type Non-O1)                                       | 0      | 0                    | 0                | 0                    | 0            | 0                    | 0                | 4                    |
| Vibriosis (Vibrio fluvialis)  | 0      | 0                    | 0                | 0                    | 0            | 0                    | 5                | 2                    |
| Vibriosis (Vibrio parahaemolyticus)   | 0      | 0                    | 0                | 0                    | 1            | 0                    | 13               | 12                   |
| Vibriosis (Vibrio vulnificus)   | 0      | 0                    | 0                | 0                    | 0            | 0                    | 4                | 4                    |
| Zika Virus Disease and Infection- Non-Congenital                              | 0      | 0                    | 15               | 0                    | 0            | 0                    | 78               | 0                    |
| Total   | 28     | 34                   | 5737             | 4427                 | 734          | 604                  | 69108            | 57429                |

\*\*ALL DATA ARE PRELIMINARY\*\*

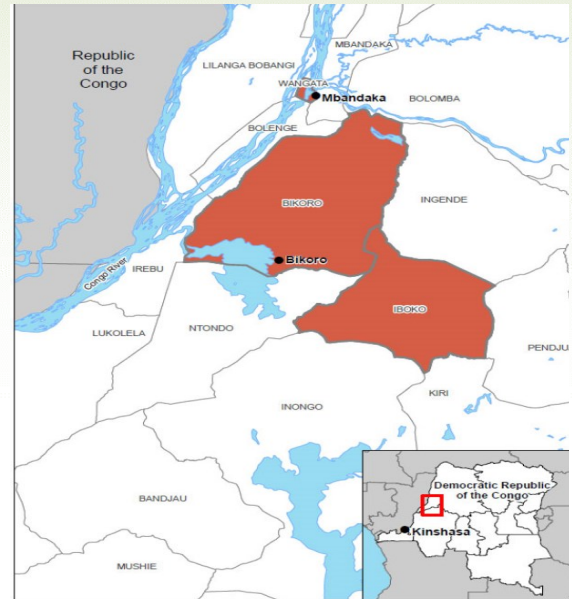
# Ebola Outbreak Declared in the Democratic Republic of the Congo

On May 8, 2018 the World Health Organization (WHO) reported that the government of the Democratic Republic of the Congo (DRC) has declared an outbreak of Ebola Virus Disease (EVD) in the Equateur Province currently affecting the Bikoro, Iboko, and Wangata health zones. As of May 21, a total of 58 cases (28 confirmed, 21 probable, and 9 suspect) have been reported, including 27 deaths within the three health zones. The outbreak comes after two cases were laboratory confirmed for *Zaire ebolavirus* by the Institut National de Recherche Biomedical in Kinshasa on May 3, 2018 after medical teams collected samples from active cases in the area. This is the ninth EVD outbreak in the DRC over the past 40 years. In response to the May 2018 Ebola outbreak, the DRC has approved the administration of a highly effective but unlicensed rVSV-ZEBOV Ebola vaccine to more than 420 eligible people in the DRC for compassionate use. As a response to the outbreak, twenty countries have implemented entry screening for international travelers coming from the DRC.

EVD is a severe and deadly disease that can affect humans and nonhuman primates with case fatality rates ranging from 32%-88%. Clinical features of severe acute viral illness include: sudden onset of fever, malaise, myalgia, severe headache, vomiting, diarrhea, and unexplained hemorrhage. Symptoms appear anywhere from 2 to 21 days after contact with the virus. Transmission can occur if a person encounters an infected fruit bat, nonhuman primate, or consumes bushmeat. Person to person transmission occurs when there is direct contact with body fluids (blood, mucous, emesis, stool, urine, etc.) and organs. Healthcare-acquired infections have been associated with contaminated needles and syringes from a person infected with EVD and the virus can remain in certain body fluids after a person has recovered from the infection. EVD cannot spread to others if a person shows no signs or symptoms and under natural conditions, airborne transmission amongst humans has not been documented. Currently there have been no reports of confirmed, probable, or suspect EVD cases in Florida.


**Resources:** [Ebola Vaccine](#)  
[CDC Ebola Virus Disease Information](#)  
[WHO Ebola Outbreak Information](#)

## Ebola Affected Areas in Democratic Republic of the Congo

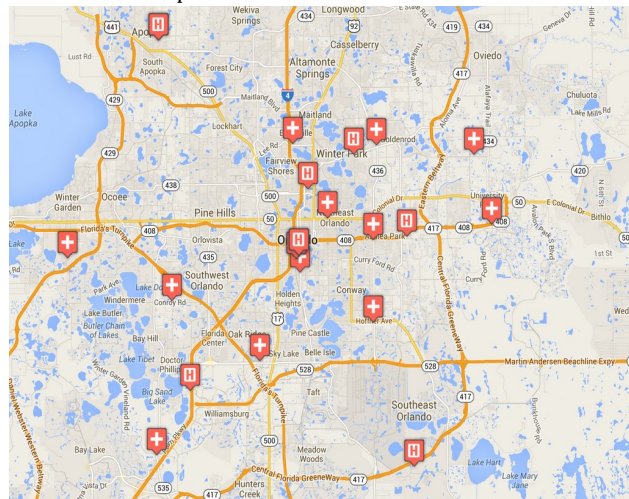


## Other Disease Resources

In the structure of DOH-Orange, tuberculosis, sexually transmitted infections, and human immunodeficiency virus are housed in separate programs from the Epidemiology Program. We recognize the importance of these diseases for our community partners and for your convenience have provided a link for surveillance information on these diseases in Florida and Area 7 HIV & AIDS Program.

 Hospital linked to ESSENCE

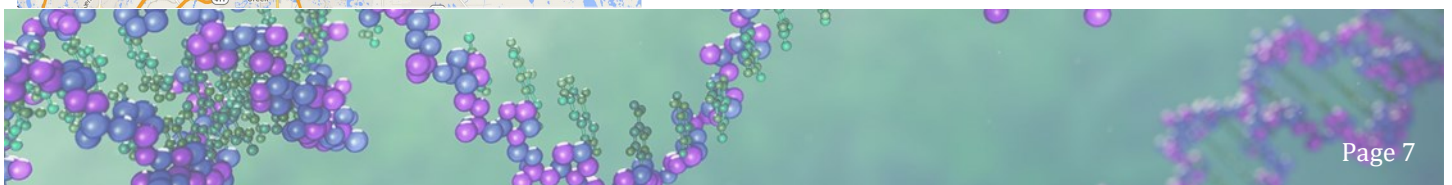
Florida Hospital Centra Care Clinic linked to ESSENCE



Resources: <http://orange.floridahealth.gov/programs-and-services/index.html>

 Florida Department of Health: ESSENCE

Since 2007, the Florida Department of Health has operated the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL), a state-wide electronic bio-surveillance system. The initial scope of ESSENCE was to aid in rapidly detecting adverse health events in the community based on Emergency Department (ED) chief complaints. In the following years, ESSENCE capabilities have continually evolved to currently allow for rapid data analysis, mapping, and visualization across several data sources, including ED record data, Merlin reportable disease data, Florida Poison Information Network consultations, and Florida Office of Vital Statistics death records. The majority of the information presented in this report comes via ESSENCE. Florida currently has 228 emergency departments and 35 urgent care centers reporting to ESSENCE-FL for a total of 263 facilities.



# Florida Department of Health in Orange County

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## Sign up for Electronic Health Alerts & Epidemiology Monthly Surveillance Reports

Email Contact Information to:

[CHD48.EPIRegistration@flhealth.gov](mailto:CHD48.EPIRegistration@flhealth.gov)

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The Epidemiology Program conducts disease surveillance and investigates, controls, and prevents infectious diseases and conditions that are reported to DOH-Orange.

Surveillance is primarily conducted through passive reporting from the medical community as required by Chapter 381, Florida Statutes.

Data are collected and analyzed to track disease trend, and identify outbreaks and unusual occurrences for response and mitigation, to identify targets for prevention and reduction efforts.

In cooperation with the Office of Emergency Operations, the Epidemiology Program conducts syndromic and influenza-like-illness surveillance activities. Syndromic surveillance was added to the disease reporting process as an active method of determining activities in the community that could be early indicators of outbreaks and bioterrorism.

Our staff ensure that action is taken to prevent infectious disease outbreaks from occurring in Orange County communities and area attractions. Along with many public and private health groups, we work for the prevention of chronic and long-term diseases in Central Florida.

**ALL DATA ARE PROVISIONAL**

