



Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

ENTEROVIRUS D-68

Initial reports: On August 19th and 23rd, the CDC was notified by Children's Mercy Hospital in Kansas City, Missouri, and University of Chicago Medicine- Comer Children's Hospital, respectively, of unusual increases in cases of severe respiratory disease.

Lab results: CDC identified Enterovirus D68 (EV-D68) from these clusters: in 19 of 22 specimens from Kansas City and in 11 of 14 specimens from Chicago. Severe respiratory illness cases continued at both facilities at rates unusually high for this time of year. Investigations of suspected clusters were begun in other areas of the country, and are ongoing.

Clinical characteristics of initial cases: Of the lab-confirmed cases from the Kansas City cluster, 68% had a history of asthma or wheezing, and of the lab-confirmed cases in Chicago, 73% had a history of asthma or wheezing. Only 26% and 18% of these initial cases in Kansas City and Chicago, respectively, were febrile.

Epidemiology and General Clinical Characteristics: As of 10/7, there have been 628 lab-confirmed cases of EV-D68-related respiratory illness, from 44 states and the District of Columbia. All cases thus far have been in children, with the exception of one adult. Many of the cases had asthma or a history of wheezing. The first 2 reported cases in Florida have occurred in Polk and Escambia Counties on 10/7/14 and 10/8/14.



Enterovirus D-68 is one of over 100 types of non-polio enteroviruses. Although EV-D68 has been reported rarely in the US, an estimated 10 to 15 million enterovirus infections from other types occur in the US each year. Infections with the other types of enteroviruses cause various clinical symptoms, including mild respiratory illness, febrile rash illness, and neurologic illness, such as aseptic meningitis and encephalitis. EV-D68, however, primarily causes respiratory illness. Summer and fall are the seasons during which enterovirus infections normally occur; we are currently in "mid-season" for these-type infections.

EV-D68 infections can cause mild (fever, rhinorrhea, sneezing, cough, and body and muscle aches) or severe (difficulty breathing, wheezing) symptoms.

Please call the Epidemiology program at Florida Department of Health in Orange County (407-858-1420 or 407-858-1400) to report outbreaks (e.g., unusual increases of disease) of any illness.

Additional information: [CDC's Home Page- Non-Polio Enterovirus](#), [CDC MMWR: Report of initial cases](#)

August 2014

Volume 5, Issue 8

Points of Interest:

- Pertussis incidence continues to increase in Florida
- Special surveillance: Ebola
- Locally-acquired cases of chikungunya reported in Florida

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Respiratory Disease Surveillance

Middle East Respiratory Syndrome-Coronavirus Surveillance

- ⇒ Only one case of MERS-CoV has been identified in Florida in 2014. There is no evidence of sustained community wide transmission of MERS-CoV in the United States. MERS represents a very low risk to the general public in the United States.
- ⇒ **Physicians should immediately call the local health department if a patient fits the criteria of a MERS Patient Under Investigation.**

MERS-CoV Resources:

[Florida Department of Health MERS-CoV Information](#)

[Centers for Disease Control and Prevention MERS-CoV Information](#)

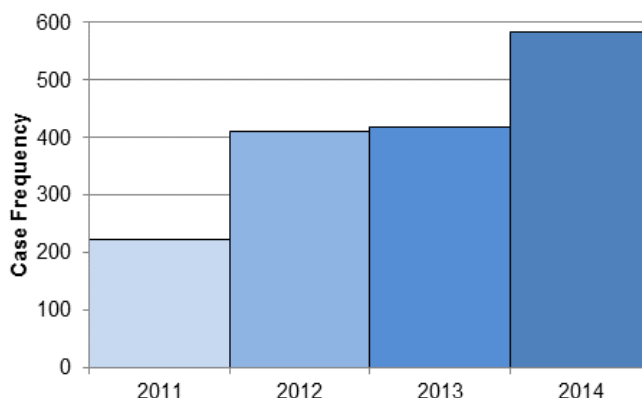
Pertussis Surveillance

Florida

- ⇒ From January to September 2014, there has been 583 cases of pertussis reported in Florida.

Orange County

- ⇒ 22 cases of pertussis have been reported among Orange County residents in 2014.



Pertussis Case Frequency in Florida, by year, 2011-2014.

Pertussis Resources:

[Florida Department of Health in Florida—Pertussis](#)

[Florida Department of Health Immunization Information](#)

Influenza Surveillance

Florida

- ⇒ Influenza virus is circulating at low levels in Florida.
- ⇒ The predominant circulating strain recently has been influenza B, which is typical for this time of year.
- ⇒ In week 33, the preliminary estimated number of deaths due to pneumonia or influenza in Florida is lower than the seasonal baseline, based on previous years' data.



Orange County

⇒ No influenza or ILI outbreaks were reported in Orange County during August 2014.

[Florida Department of Health Weekly Influenza Activity Report](#)
[Center for Disease Control and Prevention Weekly Influenza Activity Report](#)

Special Surveillance: Ebola

National

⇒ The first travel-associated case of Ebola was confirmed on 9/30, in a patient who traveled from Liberia to Dallas, Texas. He died of Ebola on 10/8. Ebola represents a very low risk to the general public in the United States.

⇒ Physicians should immediately call the local health department if a patient fits the criteria of an Ebola Patient Under Investigation (Patient Screening Tool below - **UPDATED 9/5/14**).

International

As of CDC's September 30, 2014 update:

Countries impacted include Guinea, Sierra Leone, Liberia, and Nigeria.

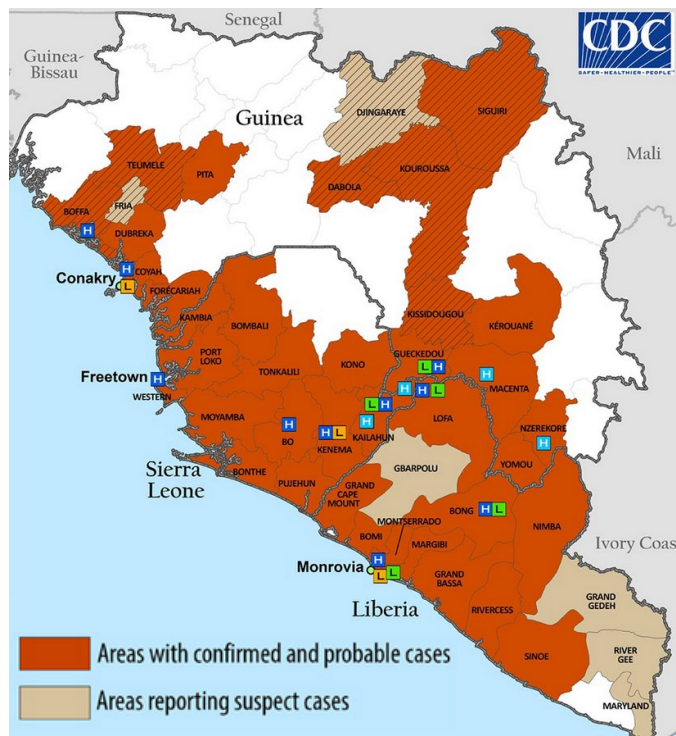
⇒ Case Count: 7492

⇒ Deaths: **3439**

⇒ Laboratory Confirmed Cases: **4108**

On August 29, 2014, CDC issued a [Travel Alert Level 2](#) (of 3) for Democratic Republic of Congo – Equateur Province (located in north west DRC).

As of September 28, 2014, 70 cases with 42 deaths



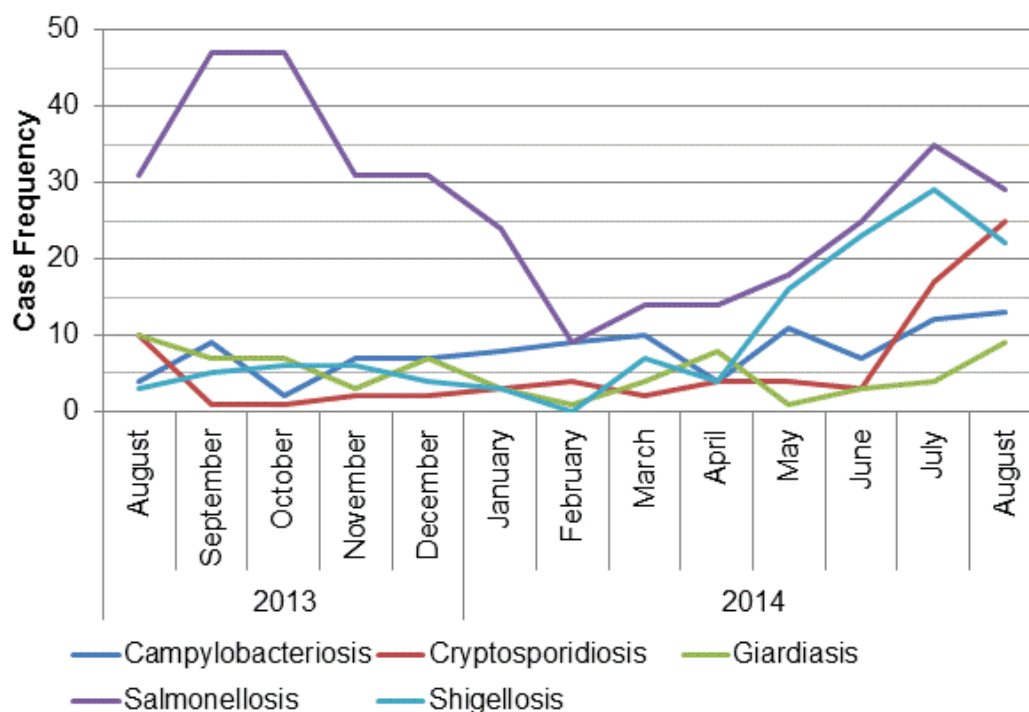
[Link to Map](#)

Ebola Resources:

[Patient Screening Tool: Florida Department of Health](#)
[Florida Department of Health: Ebola Information](#)
[Centers for Disease Control and Prevention: Ebola Information and Guidance](#)

Gastrointestinal Illness Surveillance

Select Reportable Enteric Diseases in Orange County, Florida from August 2013 to August 2014



Gastrointestinal Illness Points of Interest:

- ⇒ In August, Salmonella and Shigella cases decreased compared to July; however, the dramatic increase in cryptosporidium cases continues with 25 reported in August.
- ⇒ During August, 6 foodborne illness complaints were reported to the Florida Department of Health in Orange County for investigation.
- ⇒ One gastrointestinal foodborne outbreak in a restaurant and one waterborne outbreak of cryptosporidium in a pool were reported in August 2014.

Gastrointestinal Illness Resources:

Florida Online Foodborne Illness Complaint Form - Public Use
<http://www.foodandwaterbornedisease.com>

[Florida Food Recall Searchable Database](#)

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

**REPORT
FOODBORNE
ILLNESS
ONLINE**

Arboviral Surveillance

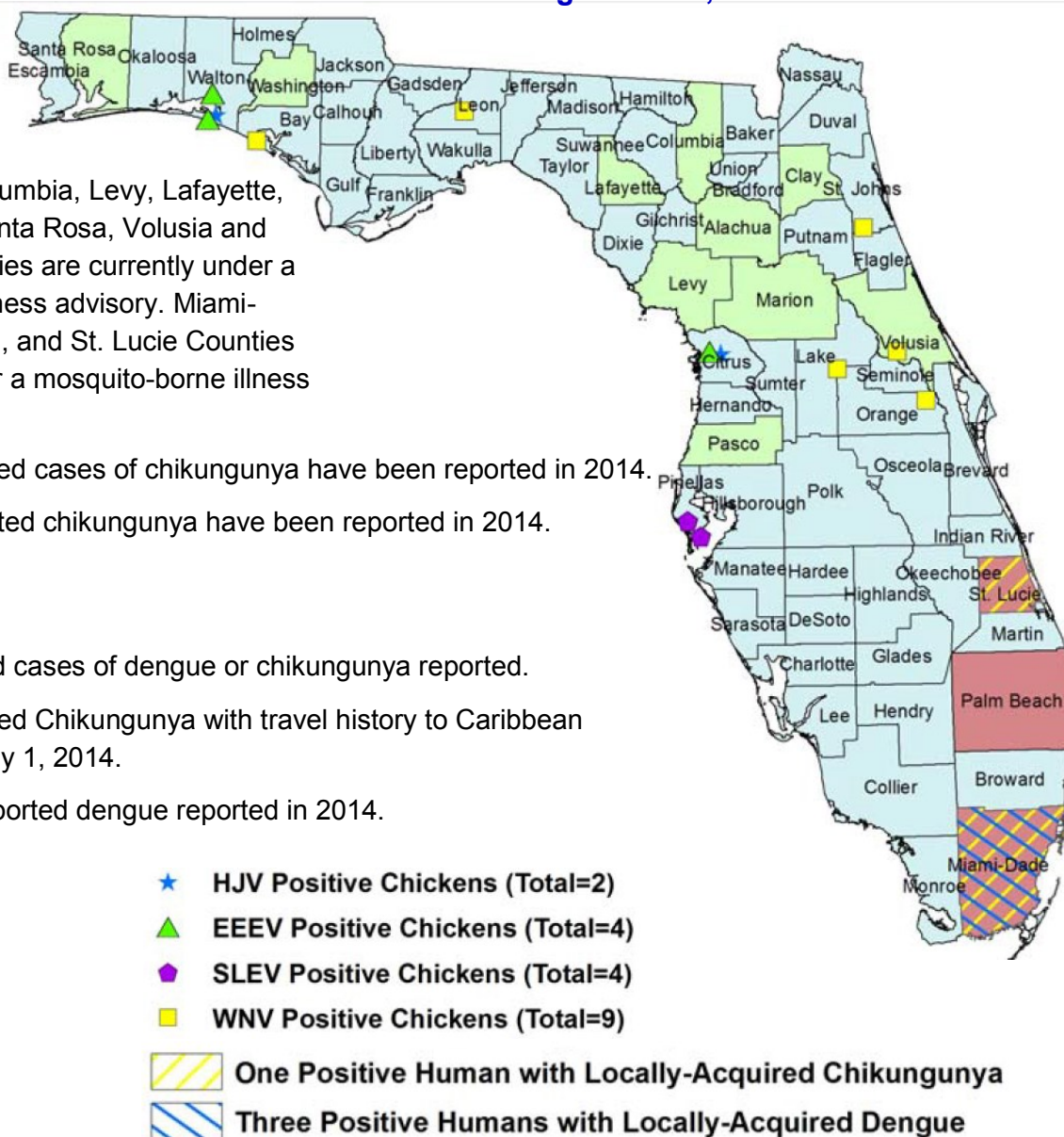
August 24-30, 2014

Florida

- ⇒ Alachua, Clay, Columbia, Levy, Lafayette, Marion, Pasco, Santa Rosa, Volusia and Washington Counties are currently under a mosquito-borne illness advisory. Miami-Dade, Palm Beach, and St. Lucie Counties are currently under a mosquito-borne illness alerts.
- ⇒ Eight locally-acquired cases of chikungunya have been reported in 2014.
- ⇒ 188 cases of imported chikungunya have been reported in 2014.

Orange County

- ⇒ No locally-acquired cases of dengue or chikungunya reported.
- ⇒ 17 cases of imported Chikungunya with travel history to Caribbean countries since May 1, 2014.
- ⇒ Three cases of imported dengue reported in 2014.



Arboviral Resources:

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

[Orange County Mosquito Control](#)

Chikungunya Resources

[Florida Department of Health Chikungunya Information](#)

[CDC Chikungunya Information](#)

[CDC Chikungunya MMWR](#)

Another Flu Season is Here!

First, A look back: 2013-2014 season:

Epidemiology: Nationally, people between the ages of 18-64 years had a significantly higher hospitalization rate than in previous seasons (nearly 60% of all flu hospitalizations for last season vs about 35% for this age group for the 3 prior seasons). More deaths than usual also occurred for this age group. Many of these were infected with 2009 H1N1 (see “Circulating strains”, below). Interestingly, the flu hospitalization rate for this age group during the pandemic season (2009-2010) was about 56%.

In December, the Florida Department of Health received reports of a cluster of cases of severe influenza illness among pregnant women, including hospitalizations requiring ICU care. All 6 women had not received the current flu vaccination, and all 6 were infected with 2009 influenza A (H1N1).

Circulating strains: As if a reminder of the unpredictability of flu seasons was needed, this past season has the distinction of being the first one since the 2009 pH1N1 pandemic in which that virus (2009 influenza A (H1N1)) was the predominate strain for the season (in Florida and nationally). Influenza B viruses and flu A (H3N2) also circulated during last year's season; flu A (H3N2) has been the predominant A virus for recent seasons until last year.

Vaccine effectiveness: As of February 2014, CDC's estimate (mid- season estimate) of vaccine effectiveness was 61% for all age groups.

2014-2015 season:

Vaccine: The virus composition of the vaccine for this season is the same as it was for 2013-2014; the trivalent vaccine is derived from an A/California/7/2009 (H1N1)-like virus, A/Texas/50/2012 (H3N2)-like virus, and B/Massachusetts/2/2012-like (Yamagata lineage) virus. Quadrivalent influenza vaccines will contain these antigens, and also B/Brisbane/60/2008-like (Victoria lineage) virus.

Children and nasal spray vaccine (2 years to through 8 years): Beginning this season, CDC is recommending the nasal spray vaccine in healthy children 2 through 8 years of age when it is immediately available and if the patient has no contraindications or precautions to that vaccine. If this vaccine is not immediately available and the flu shot is, CDC recommends that the flu shot be given, so as not to delay vaccination. (see link below for more information on this new recommendation)

Adults and children: There are several options for this season including different types of trivalent and quadrivalent shots, nasal spray, and the high-dose trivalent shot for people 65 and older. CDC has not expressed a preference for which flu vaccine people should get this season, except for the recommendation above (“Children and nasal spray vaccine (2 years to through 8 years)”).

Florida Flu Review:

This is a concise, influenza surveillance report produced by the Bureau of Epidemiology, Florida Department of Health; it covers all aspects of flu and other respiratory virus activity both statewide and by regions. It's published weekly during flu season, and bi-weekly during non-flu season months. To request to be placed on the mailing list, please use the e-mail address on page 8 of this report. (see “Florida Influenza Reports, below”)

[Nasal Spray Flu Vaccine in Children 2 through 8 years old](#) [CDC Seasonal Influenza Resources](#)
[CDC Influenza Mobile APP](#) [CDC Flu Activity and Surveillance](#) [Florida Health.gov Influenza](#)
[Florida Influenza Reports](#)



| Disease | ORANGE | | | | All Counties | | | |
|--|--------|----------------|------------|----------------|--------------|----------------|------------|----------------|
| | August | | Cumulative | | August | | Cumulative | |
| | 2014 | Mean (2009-13) | 2014 | Mean (2009-13) | 2014 | Mean (2009-13) | 2014 | Mean (2009-13) |
| Campylobacteriosis | 13 | 5.2 | 75 | 49.2 | 208 | 186.8 | 1594 | 1183.4 |
| Cryptosporidiosis | 25 | 3.8 | 56 | 16.6 | 411 | 58.2 | 866 | 280.2 |
| Cyclosporiasis | 0 | 0.2 | 3 | 2.4 | 5 | 6 | 28 | 41 |
| Dengue Fever | 0 | 1.4 | 3 | 6.8 | 13 | 24 | 72 | 67.6 |
| Giardiasis | 9 | 9.4 | 34 | 53.6 | 129 | 156.2 | 775 | 971.6 |
| H. influenzae Invasive Disease | 1 | 0.4 | 16 | 8.6 | 8 | 16.2 | 200 | 169.8 |
| Hepatitis A | 0 | 1.4 | 2 | 5 | 7 | 14 | 78 | 93 |
| Hepatitis B, Acute | 1 | 1 | 6 | 9.6 | 30 | 23.8 | 274 | 201.6 |
| Hepatitis B, Chronic | 46 | 35.8 | 288 | 275.2 | 607 | 352.6 | 3480 | 2939.2 |
| Hepatitis B, HBsAg in Pregnant Women | 3 | 6 | 34 | 47.6 | 20 | 38.4 | 329 | 340.2 |
| Hepatitis C, Acute | 0 | 0.8 | 5 | 6.4 | 12 | 12.6 | 132 | 90.8 |
| Hepatitis C, Chronic | 84 | 75.2 | 694 | 613.2 | 1916 | 1536.6 | 15073 | 12058 |
| Influenza-Associated Pediatric Mortality | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 3 |
| Lead Poisoning | 0 | 1.6 | 9 | 18.2 | 58 | 75.6 | 472 | 477.2 |
| Legionellosis | 6 | 2.6 | 14 | 11.6 | 29 | 21.8 | 201 | 124.2 |
| Listeriosis | 0 | 0 | 4 | 1.6 | 4 | 5 | 25 | 25.6 |
| Malaria | 2 | 1 | 5 | 7.6 | 8 | 13.8 | 48 | 65.6 |
| Measles | 0 | 0 | 0 | 2.2 | 0 | 0 | 0 | 4.8 |
| Meningitis (Bacterial, Cryptococcal, Mycotic) | 0 | 0.8 | 2 | 8 | 9 | 13.2 | 93 | 124.2 |
| Meningococcal Disease | 1 | 0.2 | 1 | 1 | 1 | 2.6 | 29 | 40.2 |
| Middle East Respiratory Syndrome (MERS) | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Mumps | 0 | 0.6 | 0 | 0.8 | 0 | 1.2 | 0 | 5.4 |
| Pertussis | 4 | 7.8 | 23 | 21.2 | 50 | 64.4 | 585 | 335.4 |
| Rabies, Possible Exposure | 6 | 8 | 62 | 61.4 | 204 | 213 | 1834 | 1588.8 |
| S. pneumoniae Invasive Disease, Drug-Resistant | 0 | 2.2 | 20 | 28 | 6 | 22 | 323 | 464.8 |
| S. pneumoniae Invasive Disease, Drug-Susceptible | 1 | 1.2 | 18 | 19.2 | 8 | 21.4 | 346 | 449.2 |
| Salmonellosis | 28 | 42.4 | 177 | 173 | 657 | 791 | 3492 | 3465.8 |
| Shiga Toxin-Producing E. coli (STEC) Infection | 4 | 0.6 | 7 | 3.4 | 25 | 12.4 | 98 | 70 |
| Shigellosis | 19 | 9.8 | 107 | 65.6 | 152 | 148.6 | 1695 | 922.8 |
| Streptococcus Invasive Disease (Group A) | 0 | 1.2 | 8 | 10.6 | 0 | 20.2 | 182 | 190.4 |
| Toxoplasmosis | 0 | 0 | 1 | 0.4 | 0 | 0.4 | 10 | 5.2 |
| Typhoid Fever | 0 | 0.2 | 1 | 1.2 | 2 | 2.2 | 12 | 10.2 |
| Varicella | 1 | 1.8 | 10 | 28 | 28 | 40.4 | 379 | 663.2 |
| Total | 254 | 226.6 | 1692 | 1641.4 | 4700 | 4121 | 33197 | 28794.2 |

The Top 10 Reported Disease and Conditions in Orange County Year-To-Date are Highlighted in GREY.

Pediatric Neurologic Illness of Unknown Etiology—Colorado

CDC is working with the Colorado Department of Public Health and Environment, and Children's Hospital Colorado to investigate reports of 10 children hospitalized for focal limb weakness and spinal cord abnormalities (MRI). Some of the patients also had acute cranial nerve dysfunction.

A [CDC HAN advisory](#) was issued on September 26th to provide awareness of this investigation and to help determine if children with similar clinical pictures are being seen in other parts of the country.

In this HAN, 9 cases are described. The cases were identified from August 9 through September 17, 2014, and included children aged 1–18 years (median age 10 years).

Among the lab results, 6 out of 8 patients were tested for rhinovirus/enterovirus. Four of these six were typed as EV-D68. The other 2 patient results were pending at the time of the HAN publication.

A [COCA conference call](#) will be held on Friday, October 3rd. These are recorded for post-call listening.

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 links for surveillance information on these diseases in [Florida](#) and [Orange County](#).

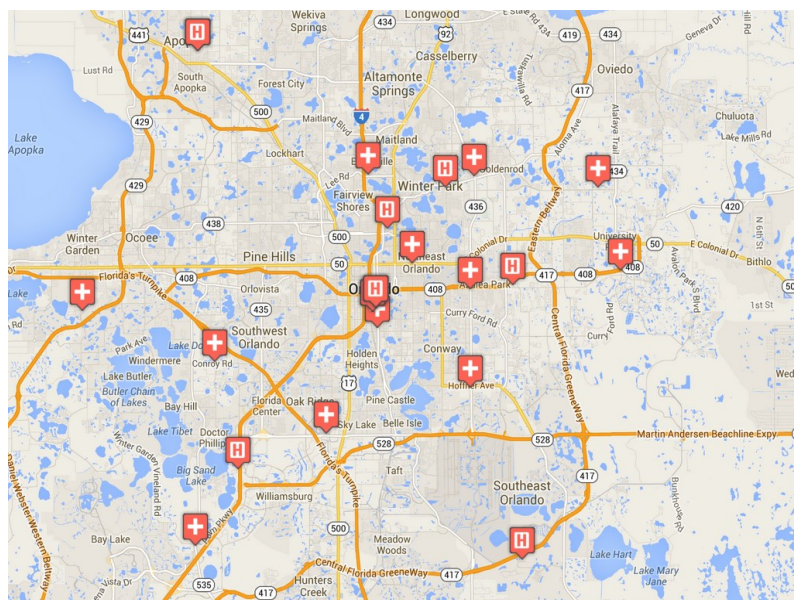


Florida Department of Health: ESSENCE



Hospital linked to ESSENCE

Florida Hospital Centra Care Clinic linked to ESSENCE



Since 2007, the Florida Department of Health has operated the Early Notification of Community-based Epidemics (ESSENCE), 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 past seven 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 from ESSENCE. Florida currently has 186 emergency departments and 30 urgent care centers (Florida Hospital Centra Care) reporting to ESSENCE-FL for a total of 216 facilities.

Florida Department of Health in Orange

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The Epidemiology Program conducts disease surveillance and investigates suspected occurrences of infectious diseases and conditions that are reported from physician's offices, hospitals, and laboratories.

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

Data is collected and examined to determine the existence of trends. 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 ensures 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 IS PROVISIONAL