Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

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Flu Season Is in Full Swing: Severe Influenza Illness Reported Nationally

In a Centers for Disease Control and Prevention (CDC) Health Advisory issued on Monday, February 1st, the CDC reports increasing influenza activity across the U.S. accompanied by severe influenza illness. Some localized areas of the United States are already experiencing high activity. Further increases are expected in the coming weeks. Flu activity is now increasing in Florida and in Orange County as well.

Since the beginning of the flu season, co-circulation of influenza A(H3N2), A(H1N1)pdm09, and influenza B viruses has been observed, however, H1N1pdm09 viruses have predominated in recent weeks. Severe respiratory illness among young- to middle-aged adults with H1N1pdm09 virus infection has recently been reported; some of these cases required intensive care unit (ICU) admission, and fatalities have been reported. Most of these patients were reportedly unvaccinated.

Some of these patients tested negative for influenza by rapid influenza diagnostic test (RIDT); their influenza diagnosis was made later with molecular assays.

Clinicians are urged to provide rapid antiviral treatment of very ill and high risk suspect patients without waiting for testing. This includes high-risk outpatients, those with progressive disease, and all hospitalized patients.

Early antiviral treatment works best, but treatment may offer benefit also when started up to 4-5 days after symptom onset in hospitalized patients. Early antiviral treatment can reduce influenza morbidity and mortality.

Clinicians are also urged to continue vaccination efforts for as long as influenza viruses are circulating.

Recommendations in the CDC Health Advisory, include the use of caution with RIDTs to inform treatment decisions in interpreting negative RIDT results. These tests, defined here as rapid antigen detection tests using immunoassays or immunofluorescence assays, have a high potential for false negative results.

When indicated, antiviral treatment should be started as soon as possible after illness onset, ideally within 48 hours of symptom onset, for both patients with high risk for influenza complications (listed in the Health Advisory), and in previously healthy, symptomatic outpatients not at high risk.

A history of influenza vaccination does not rule out influenza virus infection in an ill patient with clinical signs and symptoms compatible with influenza. Vaccination status should not impede the initiation of prompt antiviral treatment.

Most circulating flu viruses currently are still like the viruses recommended for the 2015-2016 influenza vaccines.

Florida Department of Health Influenza **Florida Flu Review**

Florida Weekly Flu Surveillance Reports **CDC FluView**

Points of Interest:

- **Severe Flu Cases now reported nationally**
- **Chagas Disease**
- **Zika Virus Surveillance**
- **EVD Travel Monitoring Ends**

Chagas Disease

Chagas disease, named after Carlos Chagas, the Brazilian physician who discovered the disease in 1909, is endemic in Mexico as well as Central and South America, with an estimated 8 million people infected with the protozoan causative agent Trypanosoma cruzi. In these endemic areas, the most common means of acquiring the infection is through transmission of the agent by a group of blood-sucking insects known as triatomine bugs, commonly called “kissing bugs”. T. cruzi is excreted in the feces of the bug during or after feeding on the human, and the protozoa enter the body either through the bite wound or through mucous membranes, such as the conjunctiva. The triatomine bugs thrive in poor housing settings, and are common in rural areas in these endemic areas.

Transmission has also been documented to occur congenitally, through blood transfusion or organ transplantation, through accidental lab exposure, or, rarely, through ingestion of food contaminated by infected bugs.

Transfusion-associated and congenital infection are the most common infection sources in the U.S., and because about 20-30% among the estimated 300,000 people in the U.S. who are asymptomatic will develop clinically apparent disease, Chagas disease is a significant public health concern in both Florida and the United States.

In the U.S., autochthonous transmission, in the mechanism seen in the endemic countries, is rare, with only a few cases documented in Texas, Tennessee, California, and Louisiana. infected triatomine bugs and infected reservoirs (raccoons) have been identified in Florida.

The “acute stage” of Chagas disease, lasting approximately 6-8 weeks after infection, is typically asymptomatic, but may be characterized by mild, nonspecific symptoms including fever and/or swelling at the infection site. There may be fever or swelling around the infection site (pink area around eyes, inside nose or mouth). Immunocompromised patients can have severe symptoms during the acute phase.

The “chronic phase” usually begins at four to eight weeks post-infection, and the parasite is generally not detected in the blood. As mentioned above, an estimated 30% of infected people will ultimately develop clinical disease, which is predominantly cardiac, usually decades after the acute phase. Cardiac disease usually begins with conduction abnormalities such as right bundle branch block and/or left anterior fascicular block, which may be followed years later by dilated cardiomyopathy. Later cardiac disease is sometimes accompanied by apical aneurysm and thrombus formation.

Less frequent clinical disease includes gastrointestinal involvement, usually megaesophagus or megacolon. Once the characteristic pathology is established (e.g., dilated cardiomyopathy, megaesophagus), antiparasitic treatment will not reverse it.

Blood donation screening for Chagas began in 2007, and since then more chronic infections in the United States are being recognized.

Physicians with patients suspected of having Chagas disease are asked to contact the Epidemiology office at 407-858-1420 for diagnostic and treatment support.

Image courtesy CDC

Triatomine Bug Occurrence by State. Courtesy: CDC

Chagas Disease Resources:

Florida Department of Health CDC Chagas Disease Triatomine Bug FAQ’s– CDC

Influenza Surveillance (data from Florida Flu Review)

National

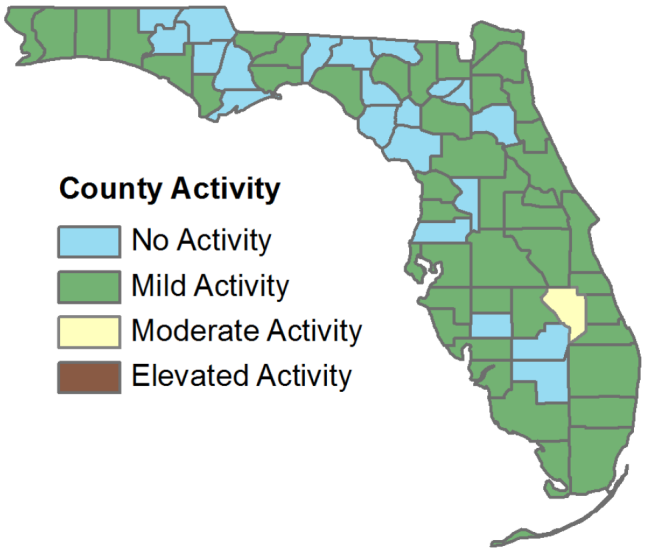
⇒ Highly pathogenic avian influenza (HPAI) H5 viruses have been identified in U.S. backyard and commercial flocks of birds during the spring and summer of 2015. HPAI H5 has not been identified in Florida birds, but identifications are anticipated. No humans have been identified with HPAI infection in Florida or the rest of the nation. To learn more about HPAI, please visit: www.floridahealth.gov/novelflu

Florida

⇒ Emergency department (ED) and urgent care center (UCC) ILI visits reported into ESSENCE-FL (Florida's syndromic surveillance system) remain similar to or below levels seen in previous years at this time, although they are highest in the south east of Florida.

⇒ In the past six weeks, influenza A (2009 H1N1) has been the most commonly identified influenza subtype by the Florida Department of Health Bureau of Public Health Laboratories.

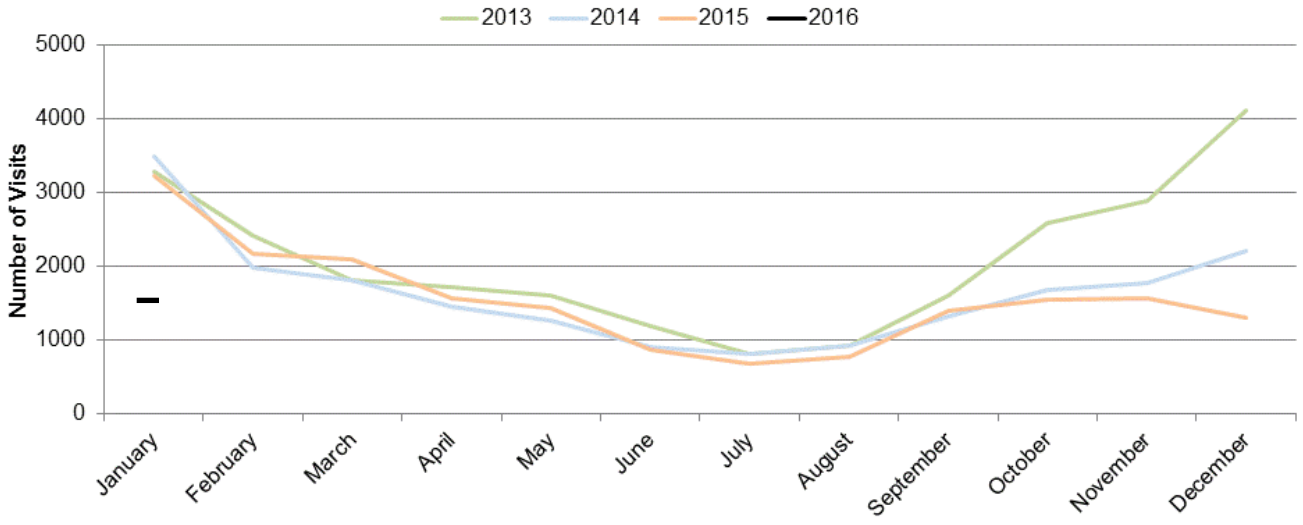
⇒ No outbreaks of influenza were reported to the Florida Department of Health in week 3 of 2016.



Orange County

⇒ No outbreaks of influenza-like illness have been reported to DOH-Orange in January 2016.

Influenza-like Illness from Emergency Department Visits in Orange County, 2013 to 2016



Influenza Resources:

Florida Department of Health Weekly Influenza Activity Report

Center for Disease Control and Prevention Weekly Influenza Activity Report

Zika Virus Surveillance

International

⇒ In January 2016, 24 countries and territories are reporting active Zika virus transmission.

Areas with Active Zika Virus Transmission

National

⇒ The CDC has issued travel recommendations concerning the Zika virus. The latest travel recommendations can be viewed here.

⇒ No locally-acquired Zika cases have been reported within the continental Untied States; however, cases have been reported in returning travelers.

Florida

⇒ In January, 2016, 3 imported cases of Zika virus were reported. Reported countries of travel were Columbia and Venezuela. Florida counties reporting the illnesses were Hillsborough and Miami-Dade.

⇒ No locally-acquired cases of Zika virus have been reported in Florida.

Orange County

⇒ No locally-acquired or imported cases of Zika virus have been reported in Orange County.

Clinician Guidance

Clinicians that suspect a patient has a Zika virus infection should:

1) Test for dengue and chikungunya viruses due to similar geographic spread of diseases and clinical presentation;

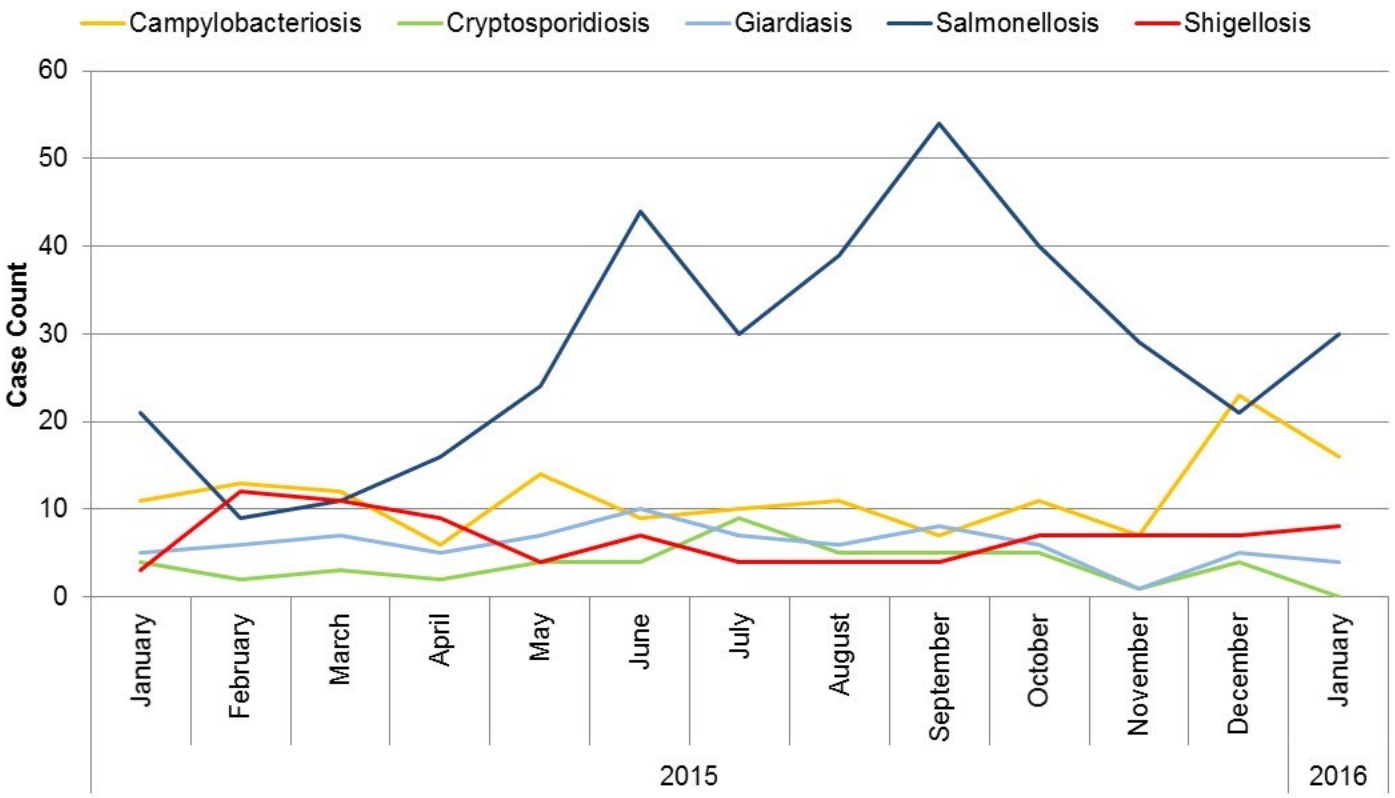
2) Contact their local county health department for consultation and specimen collection and shipment information to the Florida Department of Health Bureau of Public Health Laboratories. **Authorization must be given from the local health department prior to specimen shipment and testing.** Local health department contact information is available here.

Zika Virus Resources:

Florida Department of Health
Orange County Mosquito Control
Centers for Disease Control and Prevention
Latest Travel Notices
CDC Healthcare Guidance
Local Health Department Contact Information

Gastrointestinal Illness Surveillance

Select Reportable Enteric Diseases in Orange County, Florida, January 2015 to January 2016



Gastrointestinal Illness Points of Interest:

⇒ 30 cases of Salmonellosis were reported among Orange County residents in January 2016. This represents an increase from December 2015 and is above the case count experienced in January 2015, but is still within the seasonal expected disease incidence trend for Salmonellosis.

⇒ No foodborne or waterborne outbreaks were reported within Orange County during January2016.

Gastrointestinal Illness Resources:

Florida Online Foodborne Illness Complaint Form - Public Use

Florida Food and Waterborne Disease Program

Florida Food Recall Searchable Database

Florida Department of Health - Norovirus Resources

CDC: A-Z Index for Foodborne Illness CDC: Healthy Water

REPORT FOODBORNE ILLNESS ONLINE

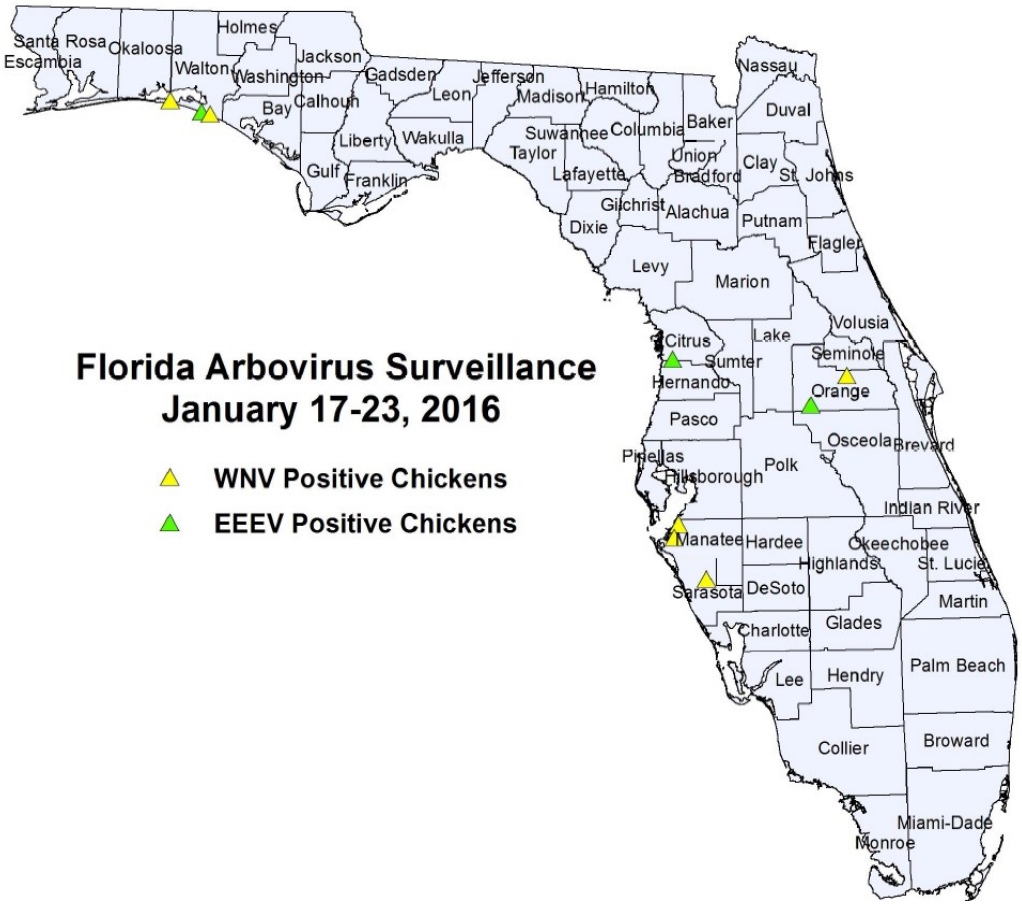
Arboviral Surveillance

Florida

⇒ No counties are currently under mosquito-borne illness advisory or alert.

⇒ No locally-acquired cases of Dengue, Chikungunya, Zika, West Nile, St. Louis Encephalitis, or Eastern Equine Encephalitis viruses have been reported in Florida during 2016.

⇒ Imported cases of Dengue and Chikungunya virus have been reported in Florida during 2016.



Orange County

⇒ No human cases of West Nile Virus, Chikungunya Virus, St. Louis Encephalitis Virus, Eastern Equine Encephalitis Virus, or Zika Virus have been reported among Orange County residents in 2016.

⇒ One imported case of dengue virus and one imported case of malaria was reported in Orange County residents in 2016.

⇒ In January 2016, sentinel chickens tested positive for West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE) in Orange County.

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

Disease	ORANGE				All Counties			
	January		Cumulative (YTD)		January		Cumulative (YTD)	
	2016	Median 5yr	2016	Median 5yr	2016	Median 5yr	2016	Median 5yr
Arsenic Poisoning	0	0	0	0	1	1	1	1
Brucellosis	0	0	0	0	1	0	1	0
Campylobacteriosis	16	8	16	8	280	239	280	239
Carbon Monoxide Poisoning	0	0	0	0	22	9	22	9
Chikungunya Fever	0	0	0	0	3	0	3	0
Cholera (Vibrio cholerae Type O1)	0	0	0	0	0	0	0	0
Ciguatera Fish Poisoning	0	0	0	0	0	1	0	1
Creutzfeldt-Jakob Disease (CJD)	0	0	0	0	0	1	0	1
Cryptosporidiosis	0	2	0	2	42	34	42	34
Cyclosporiasis	0	0	0	0	0	0	0	0
Dengue Fever	1	0	1	0	13	5	13	5
Eastern Equine Encephalitis Neuroinvasive Disease	0	0	0	0	0	0	0	0
Escherichia coli: Shiga Toxin-Producing (STEC) Infection	2	1	2	1	44	39	44	39
Giardiasis: Acute	4	5	4	5	72	84	72	84
Haemophilus influenzae Invasive Disease	1	1	1	1	25	26	25	26
Hansen's Disease (Leprosy)	1	0	1	0	8	0	8	0
Hemolytic Uremic Syndrome (HUS)	0	0	0	0	2	0	2	0
Hepatitis A	1	0	1	0	15	7	15	7
Hepatitis B: Acute	0	1	0	1	38	28	38	28
Hepatitis B: Chronic	29	28	29	28	382	340	382	340
Hepatitis B: Perinatal	0	0	0	0	0	0	0	0
Hepatitis B: Surface Antigen in Pregnant Women	6	5	6	5	23	39	23	39
Hepatitis C: Acute	0	1	0	1	23	13	23	13
Hepatitis C: Chronic	179	130	179	130	2838	2467	2838	2467
Hepatitis D	0	0	0	0	0	0	0	0
Hepatitis E	1	0	1	0	2	0	2	0
Influenza-Associated Pediatric Mortality	0	0	0	0	0	0	0	0
Lead Poisoning	1	2	1	2	45	44	45	44
Legionellosis	1	2	1	2	29	25	29	25
Listeriosis	0	0	0	0	1	5	1	5
Lyme Disease	0	0	0	0	27	7	27	7
Malaria	1	0	1	0	5	10	5	10
Measles (Rubeola)	0	0	0	0	0	1	0	1
Meningitis: Bacterial or Mycotic	0	1	0	1	12	15	12	15
Meningococcal Disease	0	0	0	0	1	5	1	5
Mercury Poisoning	0	0	0	0	2	1	2	1
Mumps	0	0	0	0	3	2	3	2
Pertussis	5	2	5	2	35	28	35	28
Rabies: Possible Exposure	2	5	2	5	153	202	153	202
Rubella	0	0	0	0	1	0	1	0
Salmonellosis	30	22	30	22	412	324	412	324
Shigellosis	8	3	8	3	77	102	77	102
Strep pneumoniae Invasive Disease: Drug-Resistant	1	7	1	7	16	66	16	66
Strep pneumoniae Invasive Disease: Drug-Susceptible	5	4	5	4	57	80	57	80
Tetanus	0	0	0	0	0	1	0	1
Typhoid Fever (Salmonella Serotype Typhi)	1	0	1	0	2	1	2	1
Varicella (Chickenpox)	2	3	2	3	80	64	80	64
Vibriosis (Vibrio alginolyticus)	1	0	1	0	2	0	2	0
Vibriosis (Vibrio vulnificus)	0	0	0	0	1	0	1	0
West Nile Virus Non-Neuroinvasive Disease	0	0	0	0	0	0	0	0

Florida Department of Health Discontinues Travel Monitoring of Persons Arriving From Countries Recently Impacted by Ebola Virus Disease

The following announcement was made on February 1st, 2016 by Anna Marie Likos, MD, MPH, State Epidemiologist and Director, Division of Disease Control and Health Protection, Florida Department of Health:

As of December 30, 2015, the Florida Department of Health is no longer receiving notification from the Centers for Disease Control and Prevention of persons arriving from the countries in West Africa (i.e. Guinea, Liberia, and Sierra Leone) most recently impacted by Ebola Virus disease (EVD). As a result, the Department will no longer conduct 21-day monitoring of persons arriving from these countries.

The threat of EVD among travelers from West Africa has diminished greatly. However, Florida will continue to have a large number of residents and visitors who travel internationally and providers are encouraged to always collect travel histories from patients. Patient travel history and risk behavior information can facilitate diagnosis as well as help ensure implementation of appropriate personal protective and infection control precautions early in patient assessment. Additionally, please continue to notify your county health department of all patients with reportable conditions, such as malaria, dengue, or suspected EVD. The Department remains available to assist health care providers in ruling out and testing for EVD among patients with risk factors for infection at any time.

Please contact your county health department at any time if you have questions.

Florida Department of Health EVD Resources **CDC EVD Resources**

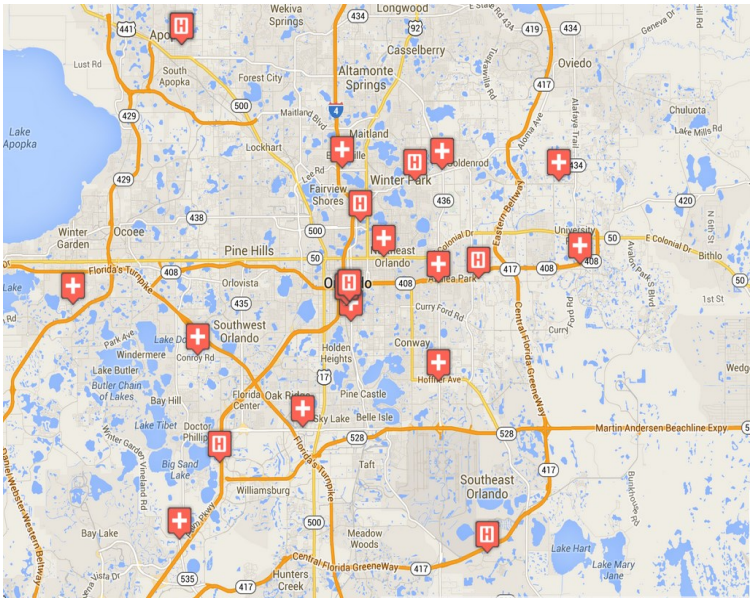
Other Disease Resources

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 228 emergency departments and 34 urgent care centers reporting to ESSENCE-FL for a total of 262 facilities.

Florida Department of Health in Orange County

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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