



# Epidemiology Monthly Surveillance Report

## Florida Department of Health in Orange County

### Influenza 2014-2015: Elevated Activity and “drifted strain” Detected

In Orange County, and both Florida-wide and nationally, we are experiencing significantly higher flu activity than last year at this point in the season; this is reflected in several of the key flu indicators:

#### National Influenza:

Indicator:	Week 52: 2014	Week 52: 2013
% Outpatient Visits, ILI	5.9	4.6
% Flu-Positive Specimens	17.9 (weeks 40-52)	15.2 (weeks 40-52)
Pediatric Flu Mortality	21 (weeks 40-52)	6 (weeks 40-52)

#### Florida Influenza:\*

Indicator:	Week 52: 2014	Week 52: 2013
% Outpatient Visits, ILI	4.1	3.2
% Flu-Positive Specimens	55.4 (weeks 40-52)	45.3 (weeks 40-52)
Pediatric Flu Mortality	3 (weeks 40-52)	1 (weeks 40-52)

#### Circulating Viruses:

Flu A H3N2 viruses have been the most common this year, state-wide and nationally. Very few Flu A (H1N1) pdm09 viruses (the 2009 pandemic strain) have been identified this season so far; last season, it was the predominant strain; which marked the first season it was predominant since its introduction in April of 2009.

Historically, Flu A (H3N2)- predominant seasons have resulted in higher morbidity and mortality as compared with Flu A (H1N1) or Flu B predominant seasons.

#### Antigenically- Drifted Virus Identified:

Thus far this season, the majority of the circulating Flu A (H3N2) viruses characterized by CDC have been antigenically similar to A/Switzerland/9715293/2013, not to A/Texas/50/2012-like, which is the flu A H3N2 component of this season's vaccine.

These antigenically-drifted A/Switzerland-like H3N2 viruses were first identified in the United States in low numbers in March of 2014, and increased in prevalence over the spring and summer. The northern hemisphere flu vaccine virus strain recommendations for the 2014-2015 season were made in February, before this drifted strain was detected.

CDC's HAN issued on Dec 3<sup>rd</sup> discusses this situation and provides the following recommendations:

-Continue to vaccinate with the current vaccine.

-When indicated, antiviral treatment should start as soon as possible after illness onset, and decisions about initiating treatment should not wait for laboratory confirmation of influenza.

-Use of antiviral chemoprophylaxis to control outbreaks among high risk persons in institutional settings.

-Use of other preventive health practices: respiratory hygiene, cough etiquette, social distancing (e.g., staying home from work and school when ill, staying away from people who are sick) and hand washing.

\* data from [Florida Flu Review](#)    [CDC Weekly Flu Surveillance Report](#)

December 2014

Volume 5, Issue 11

### Points of Interest:

- Influenza activity increasing and drifted virus identified
- Medical marijuana in Florida
- “Bourbon Virus” identified

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## Respiratory Disease Surveillance

### Pertussis Surveillance

#### Florida

- ⇒ From January to November 2014, there has been 703 cases of pertussis reported in Florida.

#### Orange County

- ⇒ 27 cases of pertussis have been reported among Orange County residents in 2014.

Age Group	Cases
00-04	17
05-19	8
20-34	1
35-54	1
55-74	0
75+	0
Unknown	0

Pertussis Cases in Orange County, Florida, by age group, 2014.

### Pertussis Resources:

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

[Florida Department of Health Immunization Information](#)

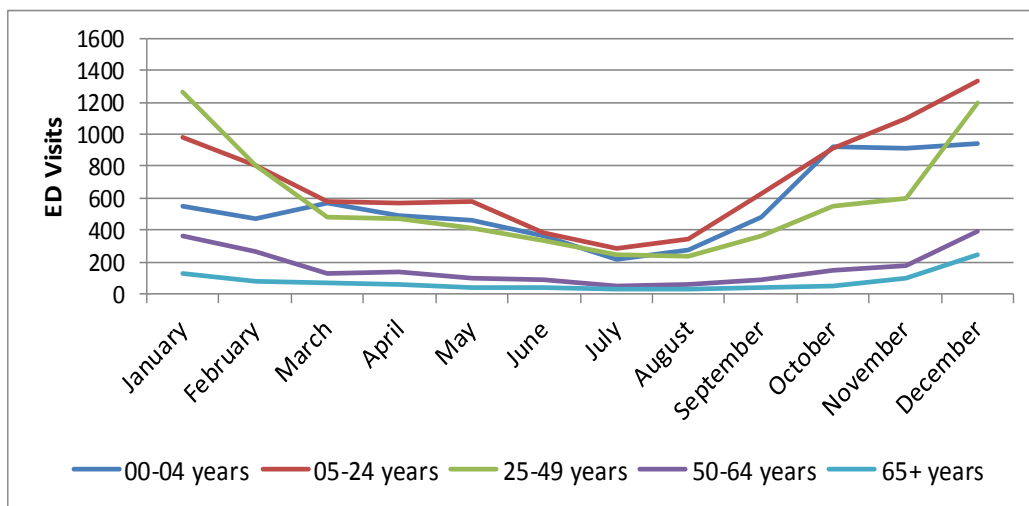
## Influenza Surveillance Week 52: December 21-27, 2014

**National:** Influenza activity continues to increase. A significant proportion of "antigenically-drifted" H3N2 viruses has been detected, CDC issues a [HAN](#) on 12-3-14 emphasizing the importance of the use of flu anti-virals as adjuncts to vaccination.

#### Florida

- ⇒ Current activity levels are above levels seen during previous years at this time. Influenza activity is highest in children and overall is widespread throughout Florida.
- ⇒ In Florida, the most common influenza subtype detected at the Bureau of Public Health Laboratories (BPHL) in recent weeks has been influenza A (H3). "Antigenically-drifted" H3N2 viruses have been detected. (source for Florida data in this section: [Florida Flu Review](#))
- ⇒ Increased numbers of pregnant women with influenza presenting to EDs for care

**ESSENCE Emergency Department Visits of Influenza-like Illness by Age Group, Orange County, Florida, 2014**



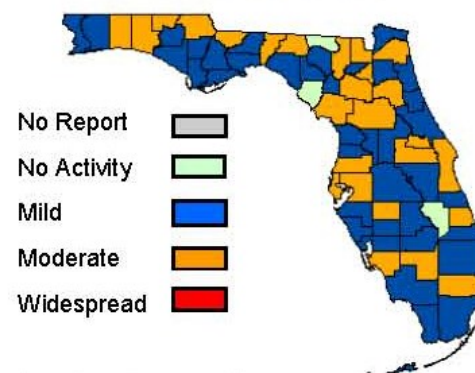
## Influenza Surveillance continued...

### Orange County

- ⇒ Orange County is reporting “moderate” influenza activity for week 52 (December 21-27, 2014)
- ⇒ One influenza outbreak was reported in December, 2014.

(Map from [Florida Flu Review](#).)

**Map 1: County Influenza Activity  
Week 52, 2014**



## Influenza Resources:

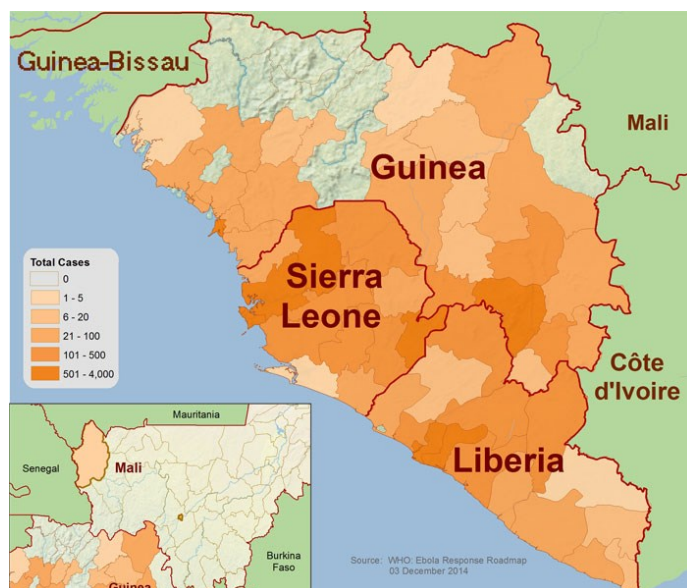
[Florida Department of Health Weekly Influenza Activity Report](#)

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

## Special Surveillance: Ebola

### National

- ⇒ As of January 6th, the Centers for Disease Control and Prevention (CDC) and the Department of Homeland Security (DHS) removed Mali from the list of Ebola-affected nations subject to enhanced visa and port-of-entry screening.
- ⇒ Ebola continues to represent 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 11/18/14**). (Mali is no longer one of the countries in the list, and the updated screening tool to be released soon will reflect this).



### International

Updated January 2, 2015:

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

- ⇒ Case Count: **20,416**
- ⇒ Deaths: **8,004**

[\(Map Courtesy CDC\)](#)

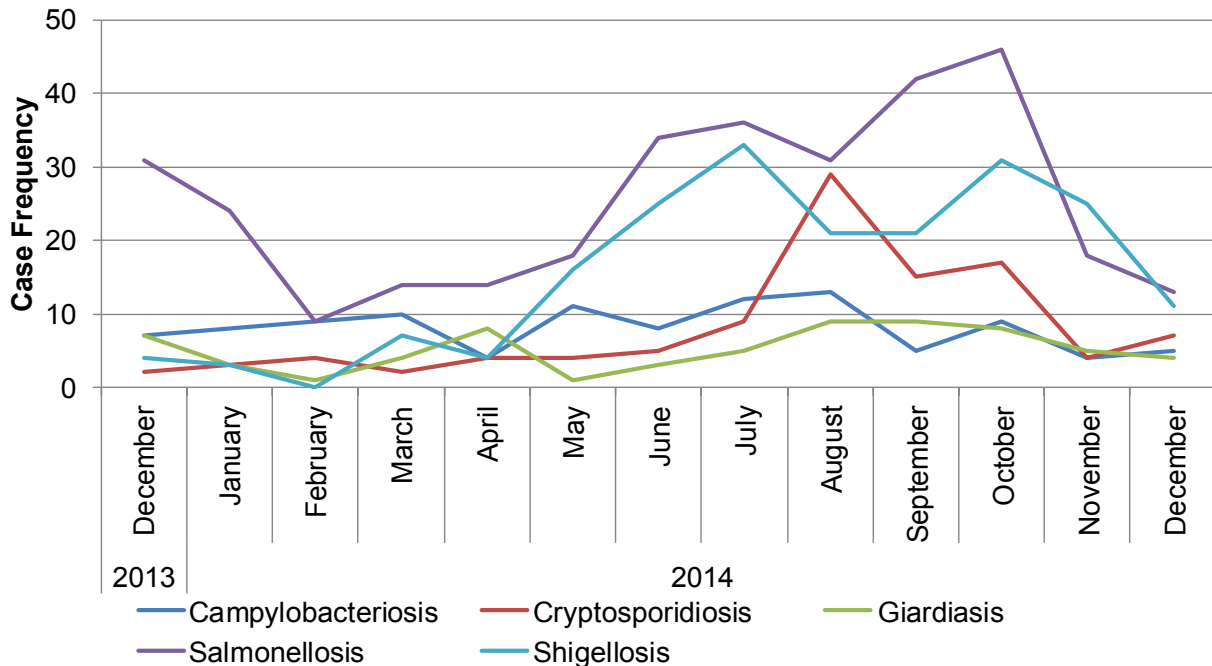
## Ebola Resources:

[Patient Screening Tool: Florida Department of Health](#)

[Centers for Disease Control and Prevention: Ebola Information and Guidance](#)

## Gastrointestinal Illness Surveillance

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



## Gastrointestinal Illness Points of Interest:

- ⇒ In December, Campylobacter and Cryptosporidium cases slightly increased in comparison to November; however, all other selected reportable enteric diseases decreased.
- ⇒ During December, 12 foodborne illness complaints were reported to the Florida Department of Health in Orange County for investigation.
- ⇒ One foodborne outbreak associated with a holiday luncheon, which catered for 700 people, was reported in Orange County during December; this outbreak is still under investigation.

## 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](#)

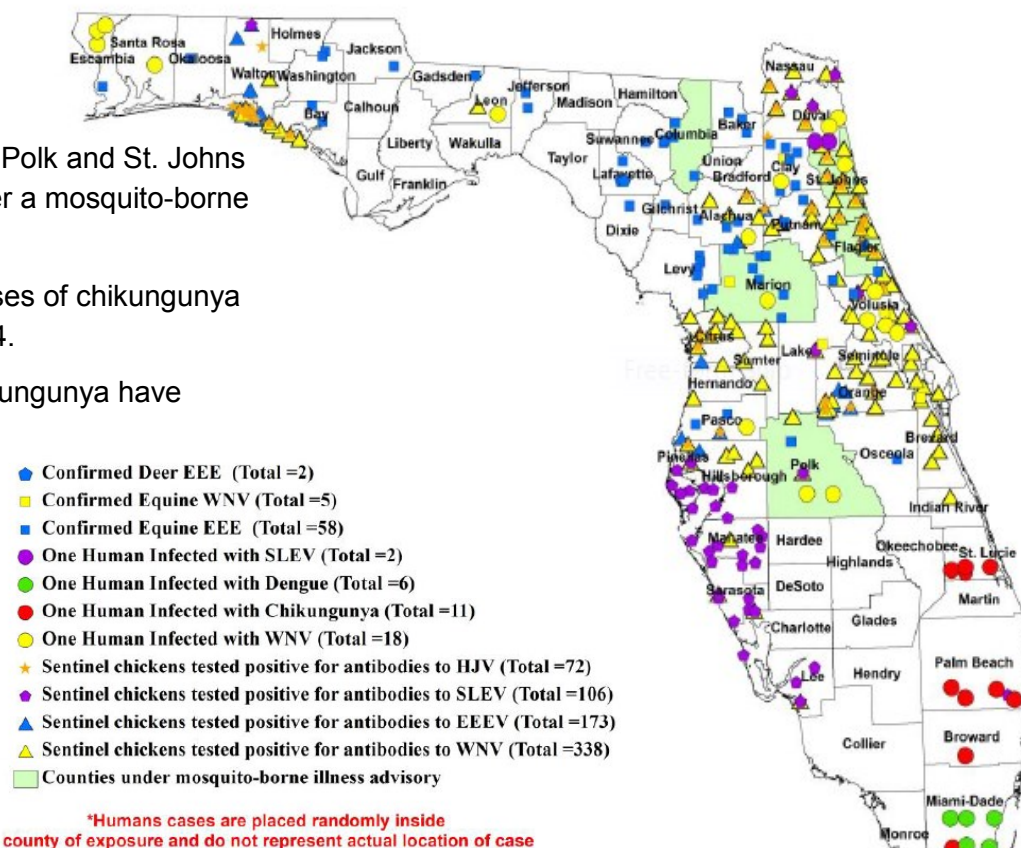


## Arboviral Surveillance

December 21-27, 2014

### Florida

- ⇒ Columbia, Flagler, Marion, Polk and St. Johns counties are currently under a mosquito-borne illness advisory.
- ⇒ Eleven locally-acquired cases of chikungunya have been reported in 2014.
- ⇒ 437 cases of imported chikungunya have been reported in 2014.



### Orange County

- ⇒ No locally-acquired cases of dengue or chikungunya reported.
- ⇒ 55 cases of imported chikungunya with an international travel history two weeks prior to symptom onset has been reported in 2014.
- ⇒ Four cases of imported dengue were 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](#)



## Medical Marijuana in Florida

The Florida Department of Health's *Office of Compassionate Use* recently held a state-wide public workshop for medical marijuana rule-development at the Florida Department of Health- Orange County's administrative offices in Orlando.

The purpose of the workshop, held on December 30<sup>th</sup>, was to establish the regulatory structure supporting the Compassionate Medical Cannabis Act of 2014, including creation of dispensing regions, applications and selection procedures for dispensing organizations, and access requirements for the Compassionate Use Registry.

The meeting can be viewed from [this page of Florida Channel's website](#).

During the 2014 session, the Florida Legislature passed Senate Bill 1030, entitled the "Compassionate Medical Cannabis Act of 2014." The bill was signed into law by Governor Rick Scott on June 16, 2014.

This act directs the Florida Department of Health to establish an Office of Compassionate Use (OCU) under the Deputy Secretary for Health, to implement and manage the various aspects of the program, which include:

- Establishment of an online compassionate use registry for physicians and patients that will also be accessible to law enforcement.
- Authorizing the establishment of five dispensing organizations ; they will be located in the Northeast, Northwest, Central, Southeast, and Southwest regions of the state.
- Creating a network of state universities and medical centers to enhance access to investigational new drugs for Florida patients through approved clinical treatment plans or studies.
- Adopting rules necessary to implement the law.

This act authorizes the ordering of low THC cannabis by doctors licensed under Chapter 458 and Chapter 459 of Florida Statutes for their qualified patients beginning on January 1, 2015, and is unrelated to the initiated constitutional amendment, Amendment 2 ("Florida Right to Medical Marijuana Initiative") that was on the November ballot this past year and did not win.

"Low-THC cannabis", as defined by the bill, means "a plant of the genus *Cannabis*, the dried flowers of which contain 0.8 percent or less of tetrahydrocannabinol and more than 10 percent of cannabidiol weight for weight; the seeds thereof; the resin extracted from any part of such plant; or any compound, manufacture, salt, derivative, mixture, or preparation of such plant or its seeds or resin that is dispensed only from a dispensing organization."

The Florida Department of Health's [Office of Compassionate Use](#) website provides several resources, including links to: Senate Bill 1030, FAQ and facts on "Low-THC cannabis", the draft rule (Florida Administrative Code 64-4) which outlines specific components, and other information.



	ORANGE				All Counties			
Disease	December		Cumulative (YTD)		December		Cumulative (YTD)	
	2014	Mean, 5yr	2014	Mean, 5yr	2014	Mean, 5 yr	2014	Mean, 5yr
Amebic Encephalitis	0	0	0	0.2	0	0	2	1
Arsenic Poisoning	0	0	0	0	1	1.2	3	9.4
Brucellosis	0	0	0	0.6	0	0.6	7	10.4
Campylobacteriosis	11	7.2	126	99.6	208	159.8	3069	2009
Carbon Monoxide Poisoning	0	1.8	8	7.2	26	14	189	123.4
Cholera (Vibrio cholera, Type O1)	0	0	0	0.4	0	0.6	3	5.8
Ciguatera Fish Poisoning	0	0	7	0.2	3	2.8	76	39.2
Creutzfeldt-Jakob Disease (CJD)	0	0.2	0	1	0	2.6	21	19.4
Cryptosporidiosis	7	1.8	103	25.4	96	32.4	1899	448.2
Cyclosporiasis	0	0	3	2.6	0	1	33	47.2
Dengue Fever	0	0.6	4	12.2	5	12.4	110	129.4
Giardiasis	5	4.4	61	82.4	76	123.4	1160	1509.4
H. influenzae Invasive Disease	2	1.6	21	11.6	16	21.6	259	233.2
Hansens Disease (Leprosy)	1	0	1	0.4	1	1	9	10.2
Hemolytic Uremic Syndrome	0	0	1	0.4	0	1.2	6	6.6
Hepatitis A	0	0.2	3	8	12	11	111	148.4
Hepatitis B, Acute	0	1.6	10	16	28	25.2	428	309
Hepatitis B, Chronic	36	29.4	454	401.6	397	340.6	5061	4264
Hepatitis B, HBsAg in Pregnant Women	6	3.4	46	69.8	16	31.2	484	482.2
Hepatitis B, Perinatal	0	0	0	0.2	0	0.2	1	0.8
Hepatitis C, Acute	0	1.6	6	10	7	12	184	135.4
Hepatitis C, Chronic	153	134.8	1767	1644.8	2619	2073.6	34266	25269.4
Influenza-Associated Pediatric Mortality	0	0	2	0	1	0.4	7	5.8
Lead Poisoning	2	2.2	18	27	39	84	796	826.6
Legionellosis	3	1.4	25	20.2	23	18.4	309	218.2
Leptospirosis	0	0	0	0.6	0	0	0	1.8
Listeriosis	0	0.4	4	2.6	3	2.8	47	38.4
Lyme Disease	1	0.4	2	4.8	23	8.4	201	131.6
Malaria	0	0.6	7	9.6	7	6.8	68	92.8
Measles	0	0	0	2.2	0	0	0	4.8
Meningitis (Bacterial, Cryptococcal, Mycotic)	0	0.4	2	11.6	15	16.6	138	186.4
Meningococcal Disease	0	0	3	1	3	3.6	53	58.4
Mercury Poisoning	0	0	0	0	3	0.8	13	11.6
Middle East Respiratory Syndrome (MERS)	0	0	1	0	1	0	2	0
Mumps	0	0	0	0.8	1	3.2	18	18
Pertussis	0	1	26	28	20	31.2	723	491
Pesticide-Related Illness Or Injury	0	0.6	1	5.8	2	2.2	69	71.2
Q Fever, Acute	0	0	0	0.2	0	0.2	3	1.8
Rabies, Possible Exposure	2	7.4	82	92	248	181	2973	2318.6
Rocky Mountain Spotted Fever	0	0	0	0.6	0	1.2	23	19.4
S. pneumoniae Invasive Disease, Drug-Resistant	2	2.8	20	37.6	16	63.6	330	652.4
S. pneumoniae Invasive Disease, Drug-Susceptible	3	2.2	26	25.6	33	65.6	465	640.8
Salmonellosis	18	25.4	347	341.2	397	457.6	6429	6427.2
Shiga Toxin-Producing E. coli (STEC) Infection	1	1.8	19	14.4	32	27.4	523	354.8
Shigellosis	18	5.8	254	93	161	109.8	2577	1447.8
St. Louis Encephalitis Virus Neuroinvasive Disease	0	0	0	0	0	0	2	0
St. Louis Encephalitis Virus Non-Neuroinvasive Disease	0	0	0	0	0	0	0	0
Staphylococcus Enterotoxin B Poisoning	0	0	0	0	0	0	0	0.2
Streptococcus Invasive Disease (Group A)	0	0.6	8	14	0	27.6	182	271.6
Tetanus	0	0	0	0	0	0.2	2	3.6
Typhoid Fever	0	0	1	1.4	1	0.8	15	14.4
Varicella	0	1	19	36.4	55	52.8	578	889.6
Vibriosis (Vibrio alginolyticus)	0	0.2	0	1.4	2	1.2	67	46
Vibriosis (Vibrio parahaemolyticus)	0	0	1	0.4	0	2.2	33	38.2
Vibriosis (Vibrio vulnificus)	0	0	1	0.4	2	0.6	36	33
Viral Hemorrhagic Fever	0	0	0	0	0	0	0	0
<b>Total</b>	<b>271</b>	<b>242.8</b>	<b>3490</b>	<b>3167.4</b>	<b>4599</b>	<b>4038.6</b>	<b>64063</b>	<b>50527</b>

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

## “Bourbon Virus” Isolated from Patient in Kansas

A virus never previously isolated and identified in the US is suspected to have caused the death of a farmer in Kansas. The patient, reported to be healthy pre-infection, died after ten days in the hospital; the infection is said to have caused lung and kidney failure as well as shock.

The patient's history of numerous tick bites as well as presenting signs and symptoms in the Spring of 2014 which included high fever, muscle aches, and anorexia as well as hematology results, led investigators to suspect a tick-borne illness, but the patient tested negative for these infections.

The virus was ultimately identified by CDC as a member of the thogotovirus genus in the family Orthomyxoviridae. Interestingly enough, other genera in this family include the Influenza viruses.

Thogotoviruses are found in certain ticks in parts of Africa, Europe, and Asia, and primarily infect and produce disease in livestock. It is not known at this time if ticks were the vectors in this case. The virus was initially called the “Bourbon Virus”, after the patient's county of residence.

An ongoing epidemiologic study by CDC and The Kansas Department of Health and Environment (KDHE) is being planned which will include specimen collection from other residents and studies of potential vectors. Investigators do not suspect high risk of further infection at this time, due to vector inactivity during the winter. [News release from Kansas Department of Health and Environment](#) [New York Times 12/23/14](#)

## 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](#).



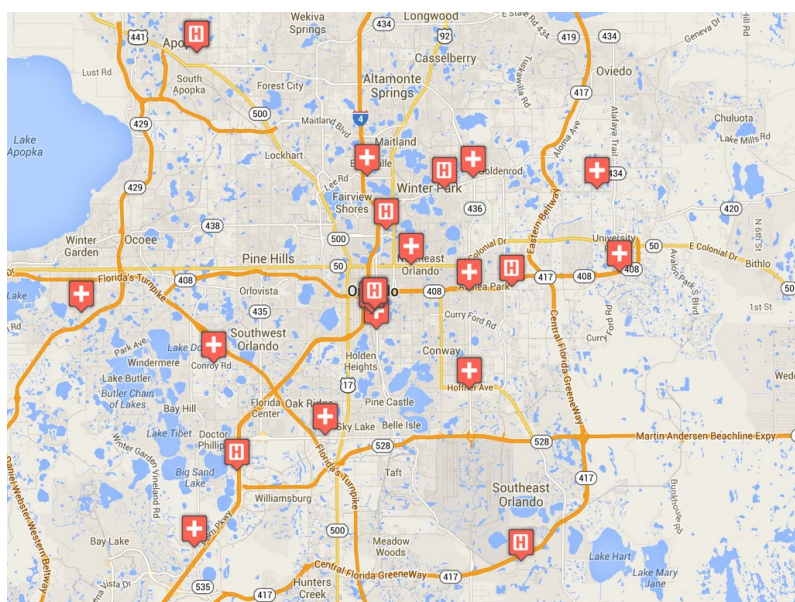
## Florida Department of Health: ESSENCE



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**