

Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

Meningococcal Vaccination/Booster Dose

When meningococcal vaccination was first recommended for adolescents in 2005, the estimated duration of immunity was 10 years, which would provide protection against disease through the period of highest risk (ages 16-21 years).

Since then, data shows that only about 50% of all adolescents are still protected after 5 years with the single dose, putting them at risk for this rare but devastating disease, precisely when they enter the period of highest risk.

As a result, the Advisory Committee on Immunization Practices (ACIP) recommends a booster dose of meningococcal conjugate vaccine. This booster dose is recommended to be given at age 16, with the initial dose given at age 11 or 12 years.

Key points for determining if a booster dose is needed:

- ◆ In those patients receiving the first dose between the ages of 13-15 years, a 1-time booster dose is recommended; preferably between the ages of 16 and 18 years. The booster dose can be given any time after the child's 16th birthday, with a minimum of 8 week interval between initial and booster doses.
- ◆ For those adolescents who only received a first dose after the age of 16 years, the booster dose is not recommended.

Vaccines: Polysaccharide or Conjugate?

- ◆ Only the meningococcal conjugate vaccine is recommended for adolescents, but, if the first dose of meningococcal vaccine was given as polysaccharide vaccine, it is still considered as valid in the adolescent schedule.
- ◆ The booster dose of meningococcal vaccine for adolescents should always be a conjugate vaccine. Menactra® and Menveo® are the currently licensed conjugate vaccine products for this age group. If polysaccharide vaccine is inadvertently administered as the booster dose, revaccination with conjugate vaccine is recommended 8 weeks later.

Resources:

[ACIP's Latest meningococcal vaccine recommendations](#)

[CDC Meningococcal Disease Website](#)

July 2014

Volume 5, Issue 7

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:

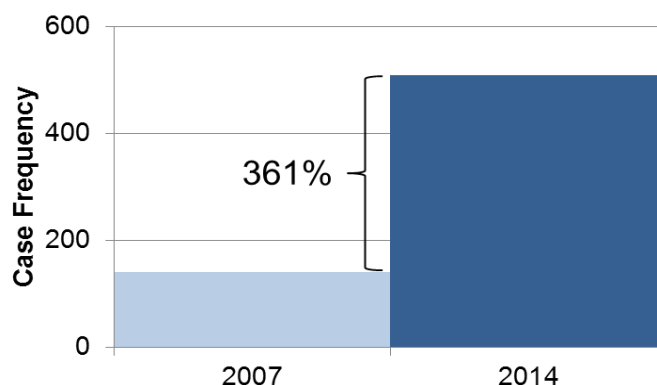
[Florida Department of Health MERS-CoV Information](#)

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

Pertussis Surveillance

Florida

- ⇒ From January to August 2014, there has been a 361 percent increase in the incidence of pertussis in Florida compared to the same time period in 2007.



Orange County

- ⇒ 21 cases of pertussis have been reported among Orange County residents in 2014.
- ⇒ 91 percent (n=19) of the Orange County pertussis cases have been children (i.e., <18 years).

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 31, the preliminary estimated number of deaths due to pneumonia or influenza in Florida is lower than the seasonal baseline, based on previous years' data.

Influenza Surveillance continued...

Orange County

⇒ No influenza or ILI outbreaks were reported in Orange County during July 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

- ⇒ No cases have been unintentionally imported to the United States. 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** (see Patient Screening Tool below).

International

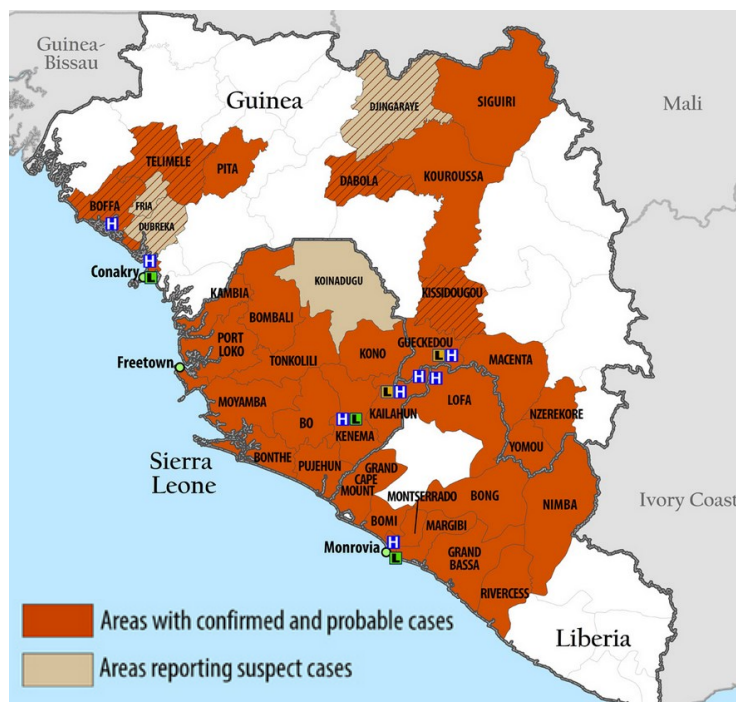
As of CDC's August 20, 2014 update:

Countries impacted include Guinea, Sierra Leone, Liberia, and Nigeria (Lagos).

- ⇒ Suspected and Confirmed Case Count: 2615
- ⇒ Suspected Case Deaths: 1427
- ⇒ Laboratory Confirmed Cases: 1528

On August 23, CDC released [guidance](#) for humanitarian aid workers traveling during an Ebola Outbreak.

A second unrelated outbreak of Ebola has recently been reported in a remote region of the Democratic Republic of Congo. Updates will be provided via Electronic Health Alerts as the situation evolves (see back cover).



[Link to Map](#)

Ebola Resources:

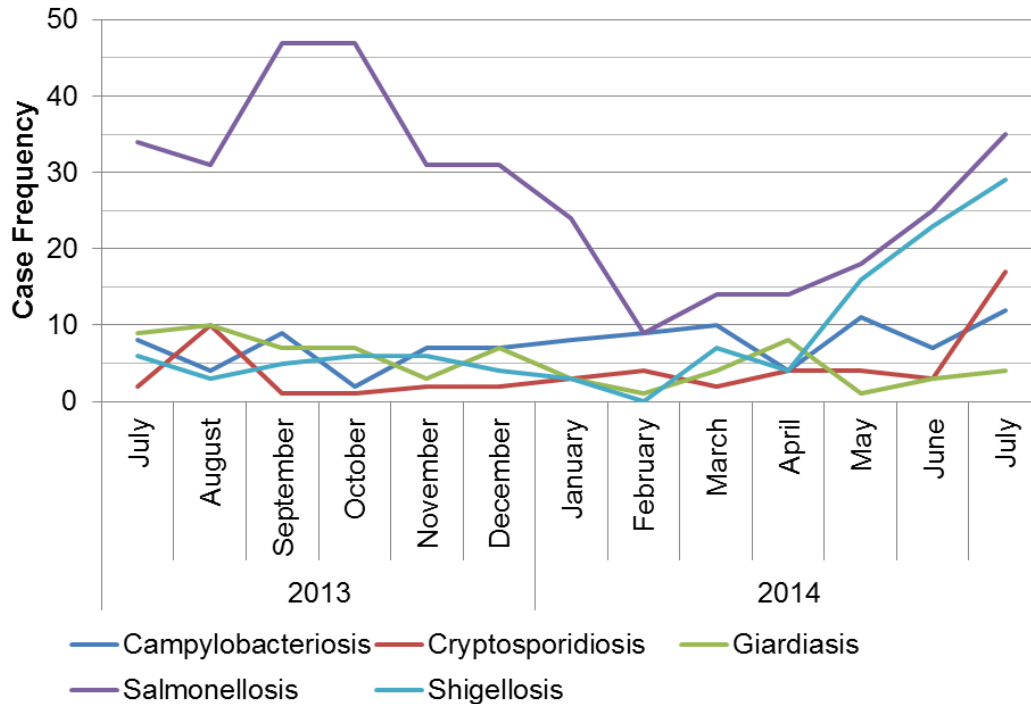
[Patient Screening Tool: Florida Department of Health](#)

[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 July 2013 to July 2014



Gastrointestinal Illness Points of Interest:

- ⇒ Cases of reportable enteric diseases continue to increase in 2014, which is expected with seasonal trends. Notable increases were seen in the incidence of cryptosporidium (n=17) and Shiga Toxin-Producing Escherichia coli (n=3).
- ⇒ During July, 12 foodborne illness complaints were reported to the Florida Department of Health in Orange County for investigation.
- ⇒ Two foodborne outbreaks in restaurants and one waterborne outbreak in a pool were reported in July 2014.

Gastrointestinal Illness Resources:



Florida Online Foodborne Illness Complaint Form - Public Use
<http://www.floridahealth.gov/diseases-and-conditions/food-and-waterborne-disease/online-food-complaint-form.html>

[Florida Food Recall Searchable Database](#)

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

Arboviral Surveillance

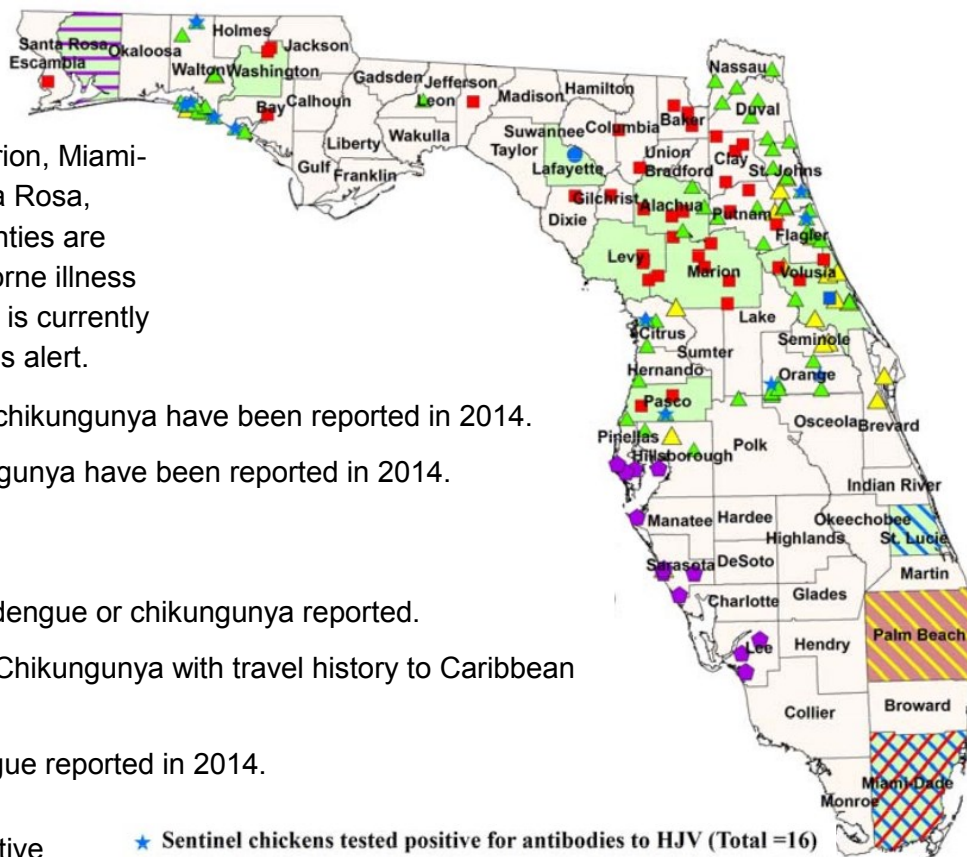
January 1 to August 16, 2014

Florida

- ⇒ Alachua, Levy, Lafayette, Marion, Miami-Dade, Pasco, St. Lucie, Santa Rosa, Volusia and Washington Counties are currently under a mosquito-borne illness advisory. Palm Beach County is currently under a mosquito-borne illness alert.
- ⇒ Six locally-acquired cases of chikungunya have been reported in 2014.
- ⇒ 171 cases of imported chikungunya have been reported in 2014.

Orange County

- ⇒ No locally-acquired cases of dengue or chikungunya reported.
- ⇒ 17 human cases of imported Chikungunya with travel history to Caribbean countries since May 1, 2014.
- ⇒ Three cases of imported dengue reported in 2014.
- ⇒ Sentinel chickens tested positive for Eastern Equine Encephalitis Virus (EEEV) in Orange County during July 2014.



- ★ Sentinel chickens tested positive for antibodies to HJV (Total =16)
- ◆ Sentinel chickens tested positive for antibodies to SLEV (Total =23)
- ▲ Sentinel chickens tested positive for antibodies to WNV (Total =24)
- Confirmed Deer EEE (Total =2)
- Confirmed Equine WNV (Total =1)
- Confirmed Equine EEE (Total =39)
- ▨ One Positive Asymptomatic Blood Donor WNV (Total=1)
- ▨ One Positive Human with Locally-Acquired Dengue (Total=1)
- ▨ One Positive Human with Locally-Acquired Chikungunya
- ▨ Four Positive Humans with Locally-Acquired Chikungunya
- Counties under mosquito-borne illness advisory
- Counties under mosquito-borne illness alert

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](#)

Patients With Travel to Countries in Africa Associated with Current or Past Ebola Outbreaks

The early signs and symptoms of Ebola Virus Disease (EVD) are nonspecific and may include fever, chills, myalgia, and malaise. Fever, anorexia, asthenia/weakness are the most common signs and symptoms. Patients may develop a diffuse erythematous maculopapular rash by day 5 to 7 (usually involving the face, neck, trunk, and arms) that can desquamate.

Because of these nonspecific symptoms, particularly early in the course of disease, EVD can often be confused with other more common infectious diseases found in travelers from the same countries in Africa associated with current or past Ebola outbreaks such as: malaria, typhoid fever, meningococemia, and other bacterial infections (e.g., pneumonia, pyelonephritis). Many of these include rapidly progressing diseases which also potentially impact public health, and many are reportable diseases to the health department.

The list of potential diagnoses is long, and the critical role of a complete history in a differential diagnosis along with appropriate tests can't be overstated.

Diseases endemic in west Africa include: malaria, typhoid, yellow fever, rabies, meningococcal disease, hepatitis a, hepatitis b, cholera, african sleeping sickness, african tick-bite fever, hiv, dengue, chikungunya, tuberculosis in addition to EVD.

Resources to assist in the differential diagnosis of diseases in travelers returning from countries in Africa associated with current or past Ebola outbreaks (or other countries world-wide) can be found at CDC.gov, in particular [The Clinician Information Center at Travelers' Health](#).

A [decision algorithm \(Patient Screening Tool\) for EVD](#) has been developed by Florida Department of Health.

Please call the Epidemiology program at Florida Department of Health in Orange County (407-858-1420) if you have any questions, or to notify us of suspect EVD cases.

Please see "Special Surveillance: Ebola" on page 3 for EVD surveillance information and additional resource links.

Table 5-02. Common causes of fever, by geographic area (table from cdc.gov/travel/yellowbook/2014/chapter-5)

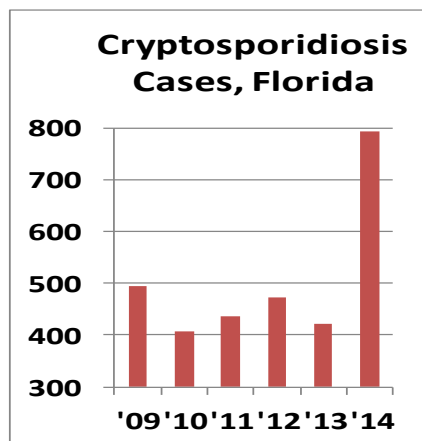
GEOGRAPHIC AREA	COMMON TROPICAL DISEASE CAUSING FEVER	OTHER INFECTIONS CAUSING OUTBREAKS OR CLUSTERS IN TRAVELERS
Caribbean	Dengue, malaria (Haiti)	Acute histoplasmosis, leptospirosis
Central America	Dengue, malaria (primarily <i>Plasmodium vivax</i>)	Leptospirosis, histoplasmosis, coccidioidomycosis
South America	Dengue, malaria (primarily <i>P. vivax</i>)	Bartonellosis, leptospirosis, histoplasmosis
South-central Asia	Dengue, enteric fever, malaria (primarily non-falciparum)	Chikungunya virus infection
Southeast Asia	Dengue, malaria (primarily non-falciparum)	Chikungunya virus infection, leptospirosis
Sub-Saharan Africa	Malaria (primarily <i>P. falciparum</i>), tickborne rickettsiae, acute schistosomiasis, filariasis	African trypanosomiasis



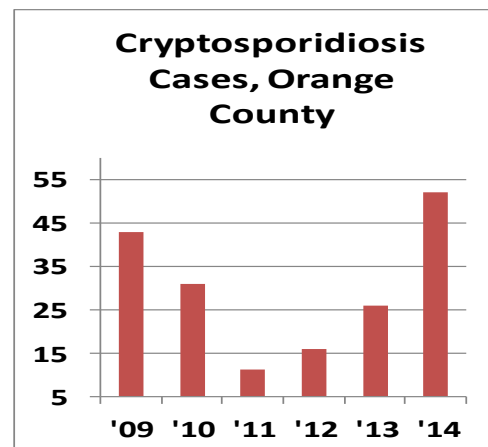
	ORANGE				All Counties			
Disease	July		Cumulative (YTD)		July		Cumulative (YTD)	
	2014	Mean (2009-13)	2014	Mean (2009-13)	2014	Mean (2009-13)	2014	Mean (2009-13)
Brucellosis	0	0	0	0	0	0.8	3	6.6
Campylobacteriosis	12	8.4	63	45	234	199.8	1390	1029
Cryptosporidiosis	17	2.6	39	14	290	43.2	575	234.8
Cyclosporiasis	1	0.2	3	2.2	6	8.6	23	37.8
Dengue Fever	1	2.4	3	6.2	12	20.6	54	51.8
Giardiasis	4	10.6	20	46.4	101	153.8	595	838
H. influenzae Invasive Disease	4	0.8	15	8.4	13	15	187	150
Hansens Disease (Leprosy)	0	0	0	0.2	0	0.6	1	4.6
Hemolytic Uremic Syndrome	0	0.2	0	0.4	0	1	3	3.6
Hepatitis A	0	0.6	2	4	7	14.4	74	83
Hepatitis B, Acute	0	0.6	5	8.4	30	23	242	177.8
Hepatitis B, Chronic	51	35.6	241	230.8	502	339.8	2931	2437
Hepatitis B, HBsAg in Pregnant Women	9	5.2	31	39.6	32	38.8	282	289.4
Hepatitis B, Perinatal	0	0	0	0.2	0	0	0	0.6
Hepatitis C, Acute	0	0.8	5	5.6	11	11.2	113	79.6
Hepatitis C, Chronic	73	74.6	602	527	1871	1508.8	13037	10404.4
Lead Poisoning	0	1.8	8	16.8	46	65.2	314	457.8
Legionellosis	3	1.6	9	9	31	20	177	102.4
Leptospirosis	0	0	0	0	0	0.2	0	0.6
Listeriosis	3	0.4	4	1.6	7	4	19	20.6
Malaria	2	1.4	4	7	9	9.6	41	52.8
Measles	0	0.2	0	2	0	0.6	0	4.4
Meningitis (Bacterial, Cryptococcal, Mycotic)	0	0.8	2	7	7	15.2	79	110.2
Meningococcal Disease	0	0.2	0	0.8	2	3.6	28	36.4
Middle East Respiratory Syndrome (MERS)	0	0	1	0	0	0	1	0
Mumps	0	0.8	0	0.8	0	1.2	0	4.6
Pertussis	6	5.2	21	16.6	81	60.4	509	288.4
Rabies, Possible Exposure	9	6.6	53	53.4	262	219.6	1621	1379.6
S. pneumoniae Invasive Disease, Drug-	0	1.6	19	24.6	9	23.6	311	423.8
S. pneumoniae Invasive Disease, Drug-	1	0.4	17	15.8	13	24	320	408.6
Salmonellosis	35	37.2	149	138.2	708	733	2848	2819.8
Shiga Toxin-Producing E. coli (STEC) Infection	3	0.4	5	3.2	17	11.8	78	59.2
Shigellosis	29	9	89	56.4	188	131.4	1549	793.8
Streptococcus Invasive Disease (Group A)	0	1.6	7	9.4	0	23.4	172	167
Total	263	258.6	1436	1414.4	4598	4255.2	28342	24834.4

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

Cryptosporidiosis Cases Increasing Across Florida



During 2014, Florida, including Orange County, has experienced a significant increase in the number of reported cryptosporidium cases. Links to individuals swimming in public venues while symptomatic with cryptosporidium have been identified. **Individuals that experience diarrhea, from any infectious pathogen, should not swim until two weeks after last episode of diarrhea.**



Other Disease Resources

In the structure of FDOH-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](#).



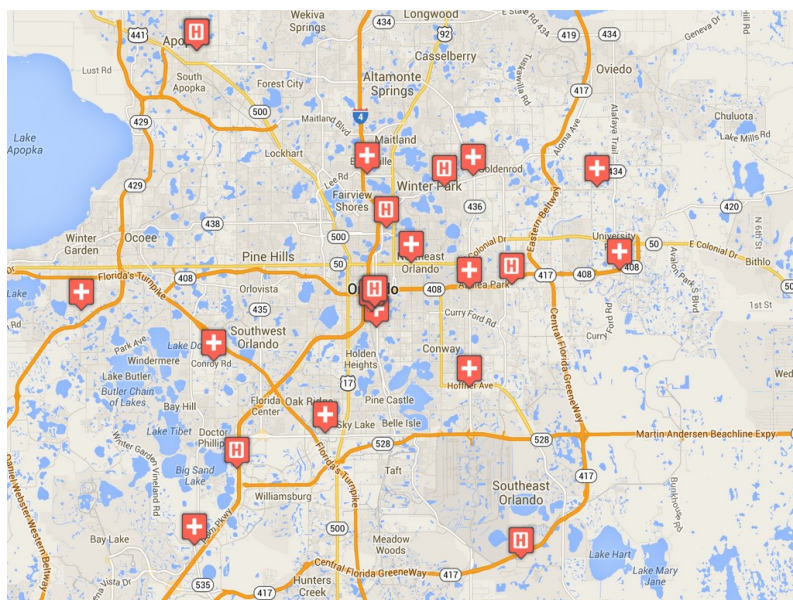
Florida Department of Health: ESSENCE



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 172 emergency departments and 25 urgent care centers (Florida Hospital Centra Care) reporting to ESSENCE-FL for a total of 197 facilities.

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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