

# Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

April, 2015

Volume 6, Issue 4

## Outdoor Swimming Season is Here: Primary Amebic Meningoencephalitis Advisory

Now that summer is here, and our lakes, rivers, springs, and other freshwater bodies are once again popular for all types of bathing activities, the possibility of Primary Amebic Meningoencephalitis (PAM) due to infection with the ubiquitous freshwater amoeba *Naegleria fowleri* increases.

The rarity of the disease, even during the summertime, could contribute to a low index of suspicion, as early symptoms are non-specific, and quite often mimic bacterial meningitis. PAM has been diagnosed in only 27% of patients before death in documented cases in the US.

From 1962 through 2014, there have been 34 cases with exposure in Florida, and 133 total cases with exposure in the US. The organism exists virtually worldwide.

The disease is rapidly-fulminating, and almost always fatal. The median time to death after onset of symptoms is 5 days. Since 1962, however, there have been 3 well-documented survivors in the US.

In a [case report](#) relating to the most recent survivor, the authors state that the patient's survival most likely resulted from several factors, one of which was early identification and treatment.

Acute PAM can present between 1 and 9 days post-exposure; the median time to symptom expression is 5 days.

### Early symptoms

- Headache
- Fever
- Nausea
- Vomiting

### Later symptoms

- Neck stiffness
- Lethargy, Confusion/disorientation
- Photophobia
- Seizures, Cranial nerve abnormalities

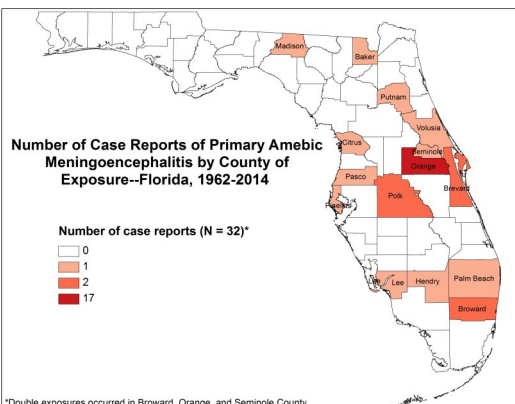
PAM is a reportable disease in Florida. Please contact the DOH-Orange Epi Office at 407-858-1420 with suspect cases.

Centers for Disease Control and Prevention (CDC) provides **diagnostic and treatment support** (which includes the investigational agent miltefosine).

Historically, cases have been confined to southern tier states; however, 4 recent cases have been reported from Minnesota (2), Kansas (1), and Indiana (1).

[Florida Department of Health PAM](#)

[CDC PAM](#)



Florida Department of Health

### Points of Interest:

- Statewide Influenza activity, as of week 19, is: "Sporadic"
- Highly Pathogenic Avian Influenza Outbreaks in Poultry Flocks– US
- Lassa fever case in US

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## Respiratory Disease Surveillance

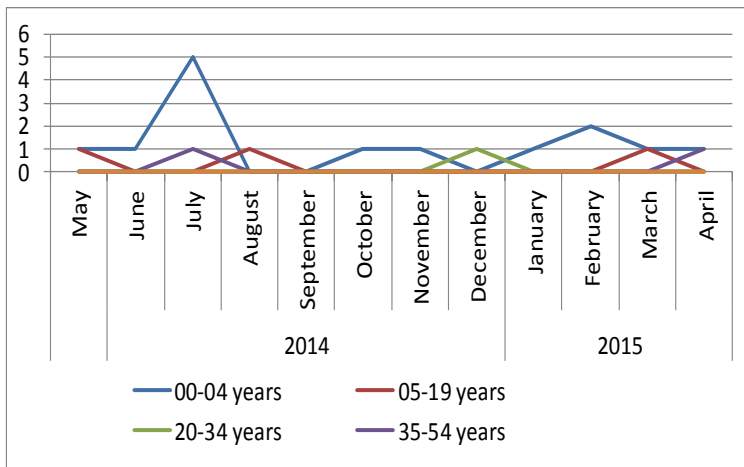
### Pertussis Surveillance

#### Florida

⇒ From January through April, there have been 114 cases of pertussis reported.

#### Orange County

⇒ 8 cases of pertussis have been reported among Orange County residents from January through April.



Pertussis Cases in Orange County

### Influenza Surveillance

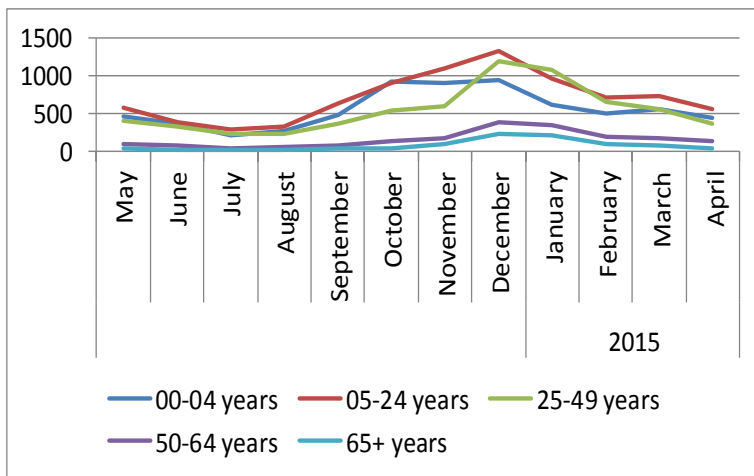
#### National

- ⇒ For week 16 (April 19th-April 25th), the percentage of patients presenting with ILI in outpatient settings continued to decrease—reaching 1.4% for this week, which is below the national baseline of 2.0%. Influenza B has been the predominant virus recovered in respiratory samples in the past several weeks, a pattern typically seen as “non-pandemic” flu seasons wind down.
- ⇒ Since December, highly pathogenic avian influenza H5N2 has been confirmed in commercial and backyard poultry flocks in multiple states (not identified in Florida). [USDA Animal and Plant Health Inspection Service](#)
- ⇒ The updated flu vaccine effectiveness estimate (2014-2015) for Flu A H3N2 is 18%. [CDC Updated Estimates](#)

#### Florida (for week 16: April 19th– April 25th)

- ⇒ Statewide, flu activity is at “Local”. There is now low activity around the state.
- ⇒ No flu or ILI outbreaks were reported in week 16. (data from [Florida Flu Review](#))

#### ESSENCE Emergency Department Visits of Influenza-like Illness by Age Group, Orange County, Florida, 2014-2015



## Influenza Surveillance continued

### Orange County

⇒ Orange County reported “Mild” influenza activity for week 16 (April 19—April 25)

Percentage of Emergency Department visits classified as “ILI” in Orange County:  
(data: ESSENCE)

| Week           | % ILI |
|----------------|-------|
| 16 (4/19-4/25) | 2.67  |
| 15 (4/12-4/18) | 2.61  |
| 14 (4/5-4/11)  | 2.59  |
| 13 (3/29-4/4)  | 2.66  |
| 12 (3/22-3/28) | 2.72  |

### Influenza Resources:

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

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

## Special Surveillance: Ebola

### National

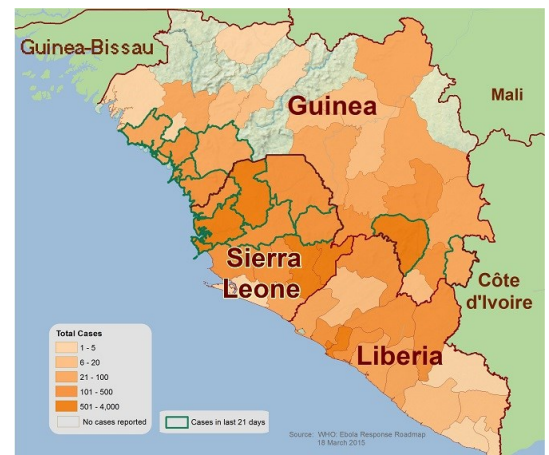
- ⇒ The Centers for Disease Control and Prevention is working with The Sierra Leone College of Medicine and Allied Health Sciences (COMAHS) and the Sierra Leone Ministry of Health and Sanitation on a candidate Ebola vaccine trial in Sierra Leone. [Sierra Leone Trial to Introduce a Vaccine against Ebola \(STRIVE\)](#)
- ⇒ 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 ).

### International

Updated April 26, 2015:

Countries impacted include Guinea, Sierra Leone, and Liberia.

- ⇒ Case Count: **26,277**
- ⇒ Deaths: **10,884**
- ⇒ Laboratory Confirmed Cases: **14,895**
- ⇒ During the week 4/20/15 through 4/26/15, WHO reports there were 33 new confirmed cases from the affected countries: Guinea– 22, Sierra Leone– 11. There were no new cases reported in Liberia (fifth



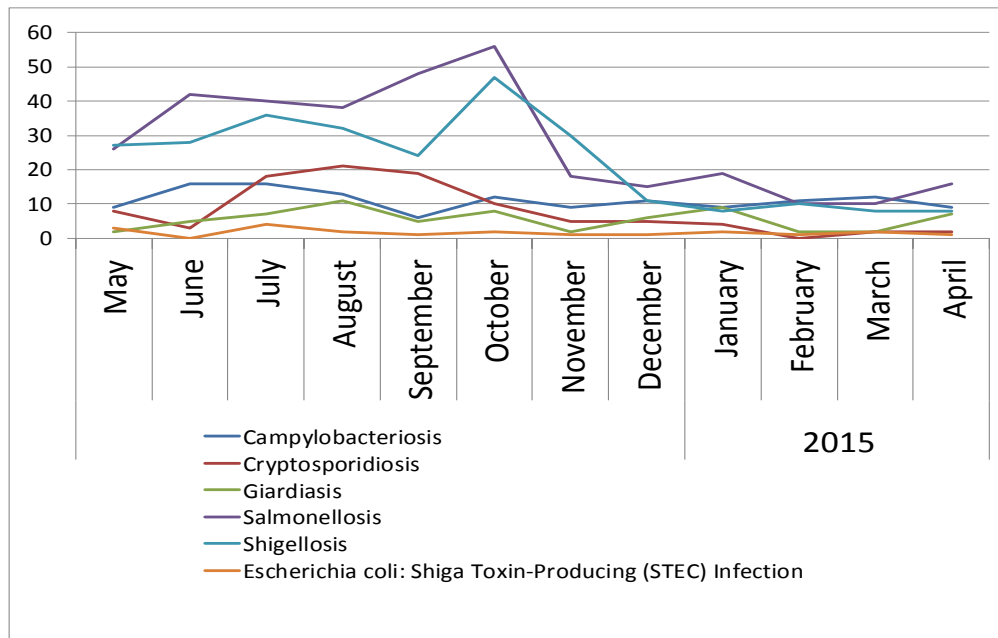
(Map Courtesy CDC)

### Ebola Resources:

Patient Screening Tool: [Florida Department of Health](#) [Florida Department of Health EVD Resources](#)  
 Centers for Disease Control and Prevention: [Ebola Information and Guidance](#)  
 World Health Organization: [Global Alert and Response Situation Reports](#)

## Gastrointestinal Illness Surveillance

Select Reportable Enteric Diseases in Orange County, Florida, May, 2014 to April, 2015



### Gastrointestinal Illness Points of Interest:

- ⇒ In April, Salmonellosis and Giardiasis case numbers increased from those seen in March: from 10 cases to 16 for Salmonellosis and from 2 to 7 cases for Giardiasis. Shigellosis cases remained at 8. Campylobacter cases decreased from 12 in March to 9 in April.
- ⇒ During April, 19 foodborne illness complaints were reported to the Florida Department of Health in Orange County for investigation.
- ⇒ No lab-confirmed Norovirus foodborne outbreaks were reported in April in Orange County.

### 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](#)

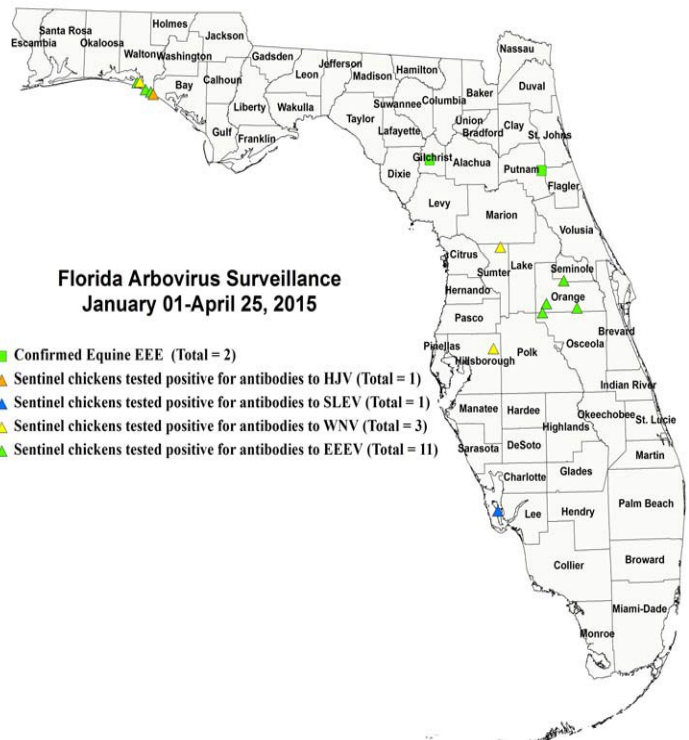
**REPORT  
FOODBORNE  
ILLNESS  
ONLINE**

## Arboviral Surveillance

January 1– April 25, 2015

### Florida

- ⇒ Between March 29 and April 25 no counties were under a mosquito-borne illness advisory or alert.
- ⇒ There have been nine International Travel-Associated Dengue Fever cases reported in Florida in 2015.
- ⇒ Sixteen cases of imported Chikungunya have been reported in Florida in 2015.
- ⇒ No cases of locally acquired Dengue Fever or Chikungunya have been reported YTD.
- ⇒ Fourteen cases of Malaria with onset in 2015 have been reported. Countries of origin were: Angola, Cameroon (2), Egypt, Gabon, Guatemala, Haiti (3), India (2), Malawi, Nigeria, and Sudan. Counties reporting cases were: Broward (4), Charlotte, Collier, Hillsborough, Lee, Miami-Dad (3), Orange and Palm Beach (2). Five of these cases were reported in non-Florida residents.



### Orange County

- ⇒ No locally-acquired cases of Dengue or Chikungunya reported.
- ⇒ Four cases of International Travel-Associated Chikungunya Fever Cases were reported between April 5, 2015 to April 25, 2015 (international travel history two weeks prior to symptom onset).
- ⇒ Two cases of International Travel-Associated Dengue Fever were reported between March 29, 2015 to April 25, 2015.

## 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](#)

## Highly Pathogenic Avian Influenza (HPAI) H5 Outbreaks Affecting Bird Populations in the US: Updated Public Health Guidance from CDC

Highly pathogenic avian influenza (HPAI) H5 detections began in December of 2014 and January of this year in backyard flocks and commercial flocks, respectively, in the northwestern part of the US. Outbreaks have continued to date. As of May, 2015, Florida is not reporting HPAI H5 outbreaks. The following is a situation overview from Centers for Disease Control and Prevention (CDC):

- The CDC is working closely with the U.S. Department of Agriculture to support the response to HPAI H5 viruses affecting bird populations across the United States.
- As of May 20, 2015, 20 states have reported outbreaks of HPAI H5 among commercial poultry or infections among wild birds.
- Despite aggressive control measures, the number of affected states has increased since outbreaks began in December 2014.
- Public health efforts are geared to preventing human exposures and decreasing the risk of human infection with these viruses, both with the owners or caretakers of the birds and among persons engaged in implementing control measures, such as those culling affected flocks.
- Local and state health departments are working with CDC to monitor humans exposed to infected birds for signs of illness consistent with avian influenza.
- CDC considers the risk to the general public from these HPAI H5 viruses in wild birds, backyard flocks, and commercial poultry, to be low.
- People with close or prolonged unprotected contact with infected birds or contaminated environments may be at greater risk of infection.

CDC has updated its interim guidance pertaining to Novel Influenza A Viruses in the areas of:

- ◆ Use of antiviral medications for treatment of human infections with novel influenza A viruses associated with severe human disease (avian influenza A H7N9, Asian-Origin H5N1, and the newly-detected avian influenza H5 viruses in the US: H5N2, H5N8, and the new reassortant H5N1 virus)
- ◆ Chemoprophylaxis of persons with exposure to birds with these novel Flu A viruses
- ◆ Follow-up of close contacts of persons infected with these novel Flu A viruses and chemoprophylaxis of these close contacts
- ◆ Testing, specimen collection, and processing for patients with suspected infection with these novel Flu A viruses

These guidelines and additional information are found on CDC's:

[Avian Influenza: Information for Health Professionals and Laboratorians site.](#)

[Florida Department of Health: Novel Influenza Viruses](#)   [USDA: Avian Influenza Disease](#)



| Disease  | ORANGE |            |                  |            | All Counties |            |                  |            |
|--|--------|------------|------------------|------------|--------------|------------|------------------|------------|
|  | April  |            | Cumulative (YTD) |            | April        |            | Cumulative (YTD) |            |
|  | 2015   | Mean, 5 yr | 2015             | Mean, 5 yr | 2015         | Mean, 5 yr | 2015             | Mean, 5 yr |
| Brucellosis  | 0      | 0          | 0                | 0.2        | 1            | 2.4        | 2                | 3.8        |
| Campylobacteriosis   | 6      | 7.6        | 43               | 30.2       | 304          | 187.8      | 1141             | 685.8      |
| Carbon Monoxide Poisoning                                    | 0      | 0.6        | 3                | 1.8        | 14           | 7.2        | 87               | 51.6       |
| Chikungunya Fever  | 1      | 0          | 2                | 0          | 10           | 0.2        | 71               | 0.4        |
| Cholera (Vibrio cholerae Type O1)                            | 0      | 0          | 2                | 0          | 1            | 0.4        | 4                | 1.8        |
| Ciguatera Fish Poisoning                                     | 0      | 0          | 1                | 0.2        | 1            | 1.8        | 10               | 6          |
| Creutzfeldt-Jakob Disease (CJD)                              | 0      | 0.2        | 0                | 0.2        | 0            | 2          | 12               | 5.4        |
| Cryptosporidiosis  | 2      | 3.6        | 11               | 9.4        | 33           | 34.2       | 191              | 131.4      |
| Cyclosporiasis   | 0      | 0.2        | 0                | 0.4        | 0            | 0.8        | 0                | 7          |
| Dengue Fever   | 0      | 0.4        | 0                | 2          | 3            | 3.6        | 14               | 23.6       |
| Ehrlichiosis/Anaplasmosis: HME (Ehrlichia chaffeensis)       | 0      | 0          | 0                | 0          | 2            | 2.2        | 3                | 4.2        |
| Escherichia coli: Shiga Toxin-Producing (STEC) Infection     | 2      | 0.4        | 7                | 3.4        | 44           | 27.6       | 140              | 116        |
| Giardiasis: Acute  | 5      | 5.4        | 23               | 20.4       | 56           | 103.2      | 299              | 396.2      |
| Haemophilus influenzae Invasive Disease                      | 0      | 1.2        | 2                | 5          | 19           | 27.4       | 70               | 100.4      |
| Hansen's Disease (Leprosy)                                   | 0      | 0.2        | 0                | 0.2        | 2            | 1.4        | 8                | 2.6        |
| Hemolytic Uremic Syndrome (HUS)                              | 0      | 0          | 1                | 0.2        | 0            | 0.4        | 3                | 2          |
| Hepatitis A  | 0      | 0.8        | 1                | 2.2        | 11           | 10.2       | 40               | 38.4       |
| Hepatitis B: Acute   | 2      | 0.2        | 6                | 3.4        | 36           | 29.6       | 146              | 100.2      |
| Hepatitis B: Chronic   | 46     | 34.8       | 195              | 122.8      | 546          | 396.2      | 2006             | 1428.2     |
| Hepatitis B: Perinatal                                       | 0      | 0          | 0                | 0.2        | 0            | 0          | 0                | 0.6        |
| Hepatitis B: Surface Antigen in Pregnant Women               | 6      | 6.8        | 29               | 21         | 24           | 41.4       | 133              | 168.4      |
| Hepatitis C: Acute   | 0      | 0.8        | 2                | 3.8        | 12           | 15         | 57               | 50.8       |
| Hepatitis C: Chronic   | 155    | 136.8      | 638              | 547.2      | 3083         | 2294.8     | 12037            | 8948       |
| Hepatitis E  | 0      | 0          | 1                | 0.2        | 0            | 0.4        | 2                | 1.2        |
| Influenza-Associated Pediatric Mortality                     | 0      | 0          | 0                | 0.2        | 0            | 0          | 0                | 2.6        |
| Lead Poisoning   | 0      | 3          | 7                | 12.2       | 92           | 48.8       | 311              | 276.2      |
| Legionellosis  | 1      | 1          | 6                | 4          | 22           | 16.2       | 111              | 65.6       |
| Listeriosis  | 0      | 0          | 0                | 0.6        | 5            | 2.2        | 9                | 12         |
| Lyme Disease   | 1      | 0.4        | 2                | 1.2        | 13           | 5          | 44               | 24.2       |
| Malaria  | 0      | 0.2        | 1                | 2.6        | 2            | 5.2        | 17               | 25.4       |
| Measles (Rubeola)  | 0      | 0          | 0                | 1          | 5            | 0.6        | 11               | 2.6        |
| Meningitis: Bacterial or Mycotic                             | 0      | 0.4        | 0                | 3.2        | 12           | 13         | 41               | 57.4       |
| Meningococcal Disease  | 0      | 0          | 0                | 0          | 1            | 5.6        | 15               | 25         |
| Mercury Poisoning  | 0      | 0          | 0                | 0          | 2            | 0.8        | 6                | 2.2        |
| Mumps  | 0      | 0          | 0                | 0          | 1            | 2          | 9                | 4.8        |
| Pertussis  | 4      | 2.4        | 8                | 8.4        | 27           | 35         | 118              | 142.4      |
| Pesticide-Related Illness and Injury: Acute                  | 0      | 0.2        | 0                | 0.6        | 1            | 4.2        | 2                | 28.2       |
| Q Fever: Acute (Coxiella burnetii)                           | 0      | 0          | 0                | 0          | 0            | 0.2        | 1                | 0.4        |
| Q Fever: Chronic (Coxiella burnetii)                         | 0      | 0          | 0                | 0          | 0            | 0          | 0                | 0          |
| Rabies: Possible Exposure                                    | 10     | 7.2        | 33               | 31.2       | 244          | 215.2      | 1008             | 798.6      |
| Rocky Mountain Spotted Fever and Spotted Fever Rickettsiosis | 0      | 0          | 0                | 0          | 3            | 1.2        | 11               | 2          |
| Salmonellosis  | 16     | 12         | 57               | 53.6       | 366          | 311.6      | 1183             | 1128.6     |
| Shigellosis  | 9      | 9          | 35               | 22.6       | 148          | 163.8      | 621              | 463.4      |
| Strep pneumoniae Invasive Disease: Drug-Resistant            | 0      | 3.6        | 2                | 18.4       | 9            | 58.4       | 35               | 297.8      |
| Strep pneumoniae Invasive Disease: Drug-Susceptible          | 4      | 2.4        | 13               | 12.8       | 26           | 56         | 161              | 297.4      |
| Tetanus  | 0      | 0          | 0                | 0          | 0            | 0.4        | 1                | 2.2        |
| Typhoid Fever (Salmonella Serotype Typhi)                    | 0      | 0.2        | 0                | 0.6        | 1            | 0.8        | 4                | 3.4        |
| Varicella (Chickenpox)                                       | 0      | 2.2        | 2                | 12         | 75           | 100.6      | 308              | 341.6      |
| Vibriosis (Other Vibrio Species)                             | 1      | 0          | 1                | 0          | 2            | 0.4        | 3                | 2          |
| Vibriosis (Vibrio alginolyticus)                             | 0      | 0          | 0                | 0          | 1            | 4.4        | 6                | 8.6        |
| Vibriosis (Vibrio cholerae Type Non-O1)                      | 0      | 0.2        | 0                | 0.2        | 1            | 2.2        | 3                | 2.4        |
| Vibriosis (Vibrio parahaemolyticus)                          | 0      | 0          | 0                | 0.2        | 7            | 5          | 15               | 9.2        |
| Vibriosis (Vibrio vulnificus)                                | 0      | 0          | 0                | 0          | 1            | 0.8        | 4                | 2          |
| Total  | 271    | 246        | 1134             | 968        | 5277         | 4288.4     | 20553            | 16463.2    |

Diseases with highest number of cases are highlighted

## Confirmed Death Due to Lassa Fever In a U.S. Traveler

A confirmed death due to Lassa fever was **announced by CDC** and the New Jersey Department of Health on Monday, May 25th. The traveler had returned to the U. S. on May 17th, travelling from Liberia to Morocco and then to JFK International Airport. Reports relate that the patient did not have symptoms upon arrival.

The patient presented to a hospital in New Jersey on May 18th with complaints of sore throat, fever, and “tiredness”. According to the hospital, the patient denied travel to West Africa at the time of that visit. The patient returned to the hospital on May 21st with worsening symptoms, and was transferred to a second hospital which was prepared to treat hemorrhagic fevers.

Specimens submitted to CDC tested positive on May 25th for Lassa fever and negative for Ebola and other hemorrhagic fevers. The patient died on the evening of May 25th.

There has been no documented transmission of this disease in the U.S. The last reported case in this country was in Minnesota in 2014 a traveler returning from West Africa. [CDC Lassa Fever](#)

Viral hemorrhagic fevers are reportable diseases in Florida. Please contact the DOH-Orange Epi Office at 407-858-1420 with suspect cases.

## 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](#).



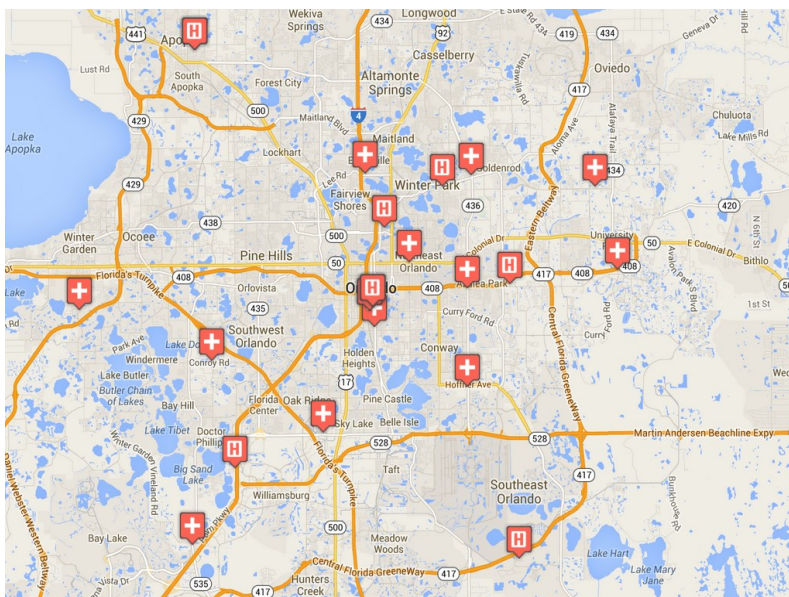
## Florida Department of Health: ESSENCE



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**