

# Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

## 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 ameba *Naegleria fowleri* increases.

Because the infection is uncommon, even during the summertime, there is often 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 33 cases with exposure in Florida, and 133 total cases with exposure in the US. The organism exists virtually worldwide.

The infection 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.

PAM can present between 1 and 9 days post-exposure; the median time to symptom expression is 5 days. **Freshwater exposure history is the key!**

### Early symptoms

- Headache
- Fever
- Nausea
- Vomiting

### Later symptoms

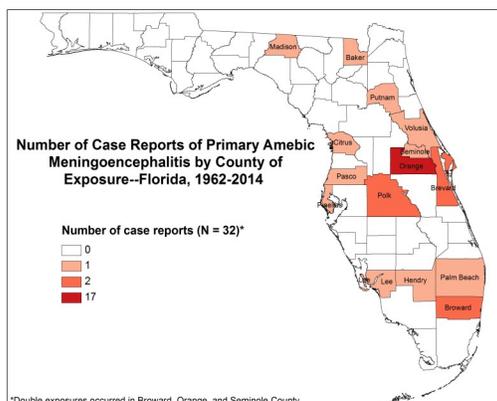
- Neck stiffness
- Lethargy, Confusion/disorientation
- Photophobia
- Seizures, Cranial nerve abnormalities

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 24/7 [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](#)



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### Points of Interest:

- Primary Amebic Meningoencephalitis Awareness
- Commercial Labs Now Offering Zika RT-PCR testing
- First Reported Isolation in U.S. of *E. coli* with mcr-1 gene

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## Commercial Laboratories Now Offering Zika Virus Testing

Quest Diagnostics and LabCorp are now offering reverse-transcriptase polymerase chain reaction (RT-PCR) Zika virus detection for both urine and serum specimens.

Zika Fever updates to clinicians, including Obstetricians, as well as an informational letter from Anna M. Likos, MD, MPH, Acting Deputy Secretary for Health, Florida Department of Health concerning the recently–available RT-PCR tests and comprehensive testing guidance were faxed to Orange County health care providers on June 13th from our office. (if you are not receiving our faxed health alerts and informational faxes, please contact us with your fax number at: [CHD48.EPIRegistration@flhealth.gov](mailto:CHD48.EPIRegistration@flhealth.gov)).

These documents are available for viewing at: [Florida Health– Zika Virus](#)

Florida Department of Health Laboratories will continue to provide Zika IgM testing on serum and RT-PCR testing on specimen types such as amniotic fluid, placenta, semen, and cerebrospinal fluid for patients meeting testing criteria.

The Epidemiology Office at the Florida Department of Health in Orange County reminds our health care providers that, while RT-PCR testing for Zika virus detection is now available from the two commercial laboratories listed in the letter from Dr. Likos, clinicians are still required to report suspected Zika fever cases to our office at the time that testing is ordered, regardless of which laboratory performs the testing (The Florida Department of Health laboratory, or the listed commercial laboratories).

This reporting requirement serves, in addition to several functions, to ensure that appropriate mosquito control actions are taken as a result of communication between our office and Orange County Mosquito Control.



CDC/ Prof. Frank Hadley Collins, Dir., Cntr. for Global Health and Infectious Diseases, Univ. of Notre Dame



CDC

## CDC Health Advisory Issued Concerning the First *mcr-1* Gene in *E. coli* Found in a Human In the United States

On June 13th, The Centers for Disease Control and Prevention (CDC) issued an [alert to U.S. healthcare facilities](#) in a coordinated public health response to the Department of Defense (DOD) announcement on May 26th concerning the isolation of *E. coli* carrying the *mcr-1* gene from a urine specimen from a patient in Pennsylvania presenting to a clinic with a urinary tract infection.

This gene confers resistance to colistin, which is used as a “last resort” drug to treat patients with infections caused by multidrug-resistant bacteria, including carbapenem–resistant Enterobacteriaceae.

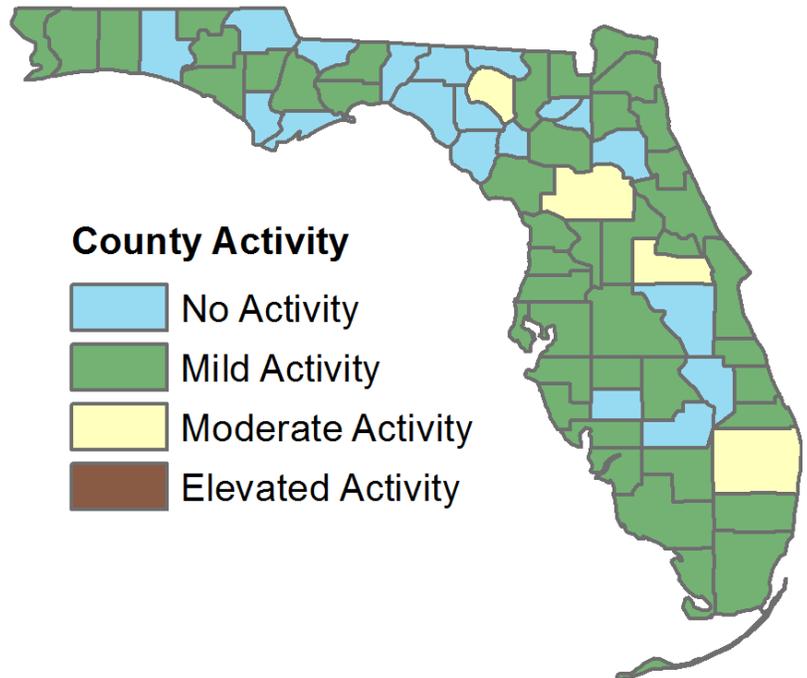
Bacteria with this resistance mechanism have been isolated from: humans, food, environmental samples, and food animals in at least 20 countries around the world.

A goal of national, state, and local public health agencies is to reduce levels of antibiotic resistance. Healthcare providers are requested to report any unusual patterns of antibiotic resistance to our office.

## Influenza Surveillance (data from Florida Flu Review)

### Florida

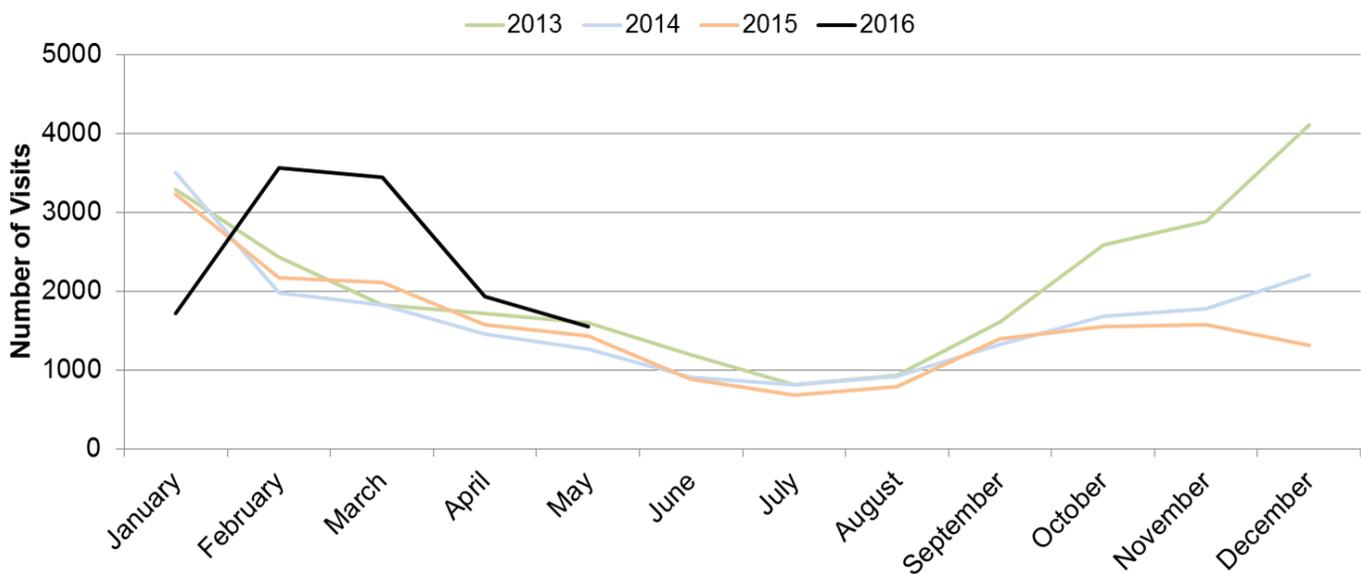
- ⇒ Influenza activity this season peaked between weeks 7-11. This peak in activity has occurred later than in the past six seasons.
- ⇒ In recent weeks, the preliminary estimated number of deaths due to pneumonia and influenza decreased and is below levels seen in previous seasons at this time.
- ⇒ In recent weeks, the most common influenza subtype detected at the Bureau of Public Health Laboratories has been influenza B, although influenza A 2009 (H1N1) has been the predominately circulating strain for the majority of the season.



### Orange County

- ⇒ Orange County reported moderate influenza activity in week 20 of 2016.
- ⇒ No influenza or respiratory outbreaks were reported in Orange County during May 2016.
- ⇒ Influenza-like illness, while elevated from February through April, has returned to seasonally expected levels in Orange County during May.

**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](#)

As of May 25 2016:

Top 10 States	Travel-associated Cases
New York	127
Florida	121
California	44
Texas	36
Pennsylvania	19
Maryland	17
Minnesota	17
Illinois	16
Massachusetts	16
Georgia	15

As of June 1, 2016:

FL County	Travel-associated Cases
Alachua	4
Brevard	3
Broward	17
Clay	2
Collier	2
Hillsborough	3
Lee	5
Martin	1
Miami-Dade	49
Orange	10
Osceola	5
Palm Beach	7
Pasco	1
Pinellas	4
Polk	3
Santa Rosa	1
Seminole	3
St Johns	2
Volusia	2

## Zika Virus Surveillance

### 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 United States.
- ⇒ 591 cases have been imported into US states as of May 25, 2016.
- ⇒ The national case definition recently changed. For more information please click on link to the [National Notifiable Disease Surveillance System](#).

### Florida

- ⇒ **No locally-acquired cases of Zika virus have been reported in Florida.**
- ⇒ 19 counties are currently under a declared state of emergency due to identification of travel-associated Zika infections (see table for counties).
- ⇒ As of June 1, 2016:
  - ⇒ **A total of 162 confirmed imported cases have been identified in Florida.**
  - ⇒ 38 imported confirmed cases of Zika have been among pregnant women in Florida.

### 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 to report the disease upon suspicion. The local health department will be able to provide consultation for laboratory testing recommendations.

### Zika Virus Resources:

[Florida Department of Health](#)

[Orange County Mosquito Control](#)

[Centers for Disease Control and Prevention](#)

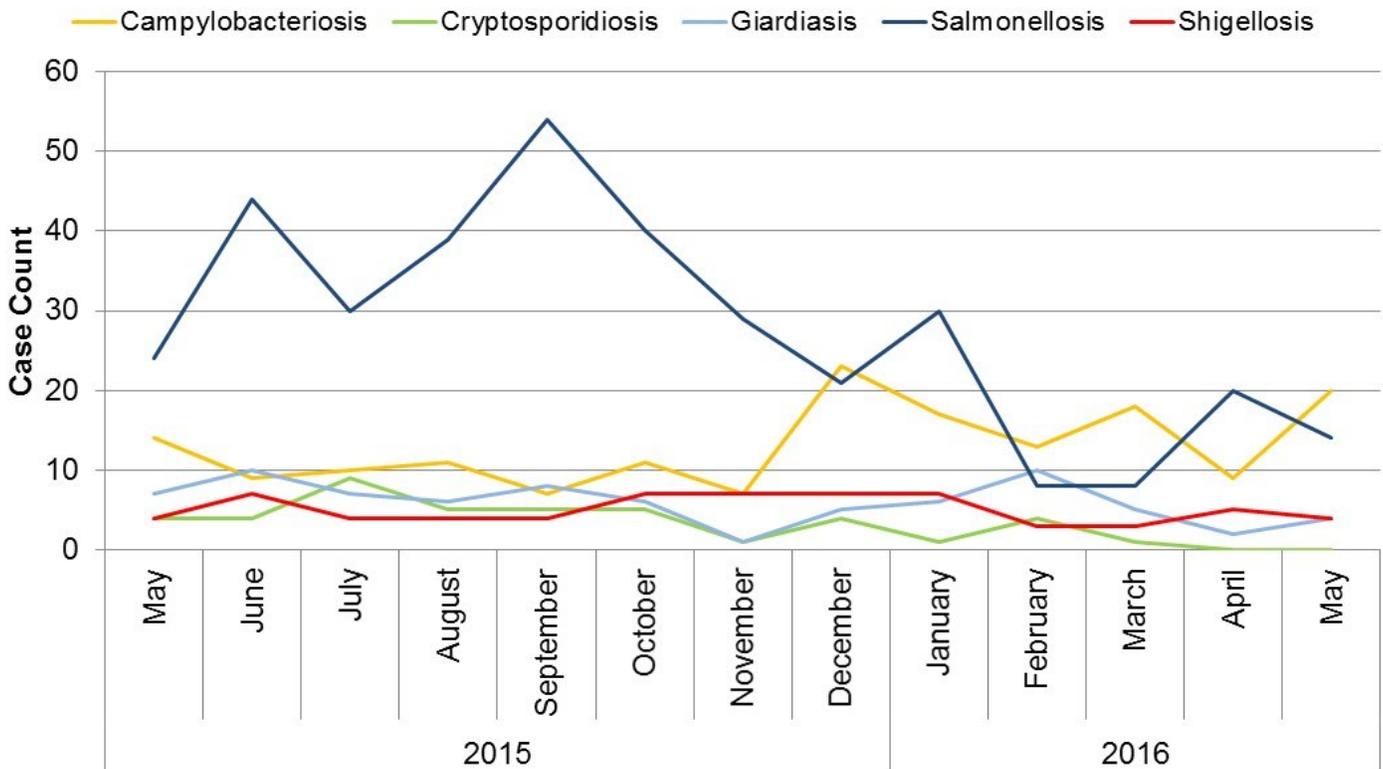
[Latest Travel Notices](#)

[CDC Healthcare Guidance](#)

[Local Health Department Contact Information](#)

## Gastrointestinal Illness Surveillance

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



### Gastrointestinal Illness Points of Interest:

- ⇒ Enteric reportable diseases cases remain at seasonally expected levels.
- ⇒ No waterborne disease outbreaks were identified in May 2016.
- ⇒ 3 gastrointestinal illness outbreaks were reported in May 2016. One of these outbreaks has been confirmed to have been caused by Norovirus within a long-term care facility.

### 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**





## Hemorrhagic Fever Syndrome of Unknown Etiology in South Sudan

The World Health Organization (WHO) is reporting, through its May 19th article in *Disease Outbreak News*, an outbreak of hemorrhagic fever syndrome of unknown etiology in **South Sudan**.

There were 51 suspected cases as of May 9th, including 10 deaths. These cases are from the northern counties of Aweil North and Aweil West. The majority of the suspected cases (74.5%) are under 20 years of age.

Symptoms, although not severe, include unexplained bleeding, fever, fatigue, headache and vomiting. Supportive treatment results in rapid resolution of symptoms. There is no evidence to date of person to person transmission.

Samples from 33 patients have been negative for the most common hemorrhagic fevers, as well as Rift Valley fever, yellow fever, West Nile virus, and Zika virus; 3 samples were positive for Chikungunya, and 1 was positive for Dengue virus.

Additional lab testing is ongoing. Other etiologies considered include Leptospirosis and food intoxication (mycotoxins).

### 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 [Area 7 HIV & AIDS Program](#) (Brevard, Orange, Osceola, and Seminole Counties).



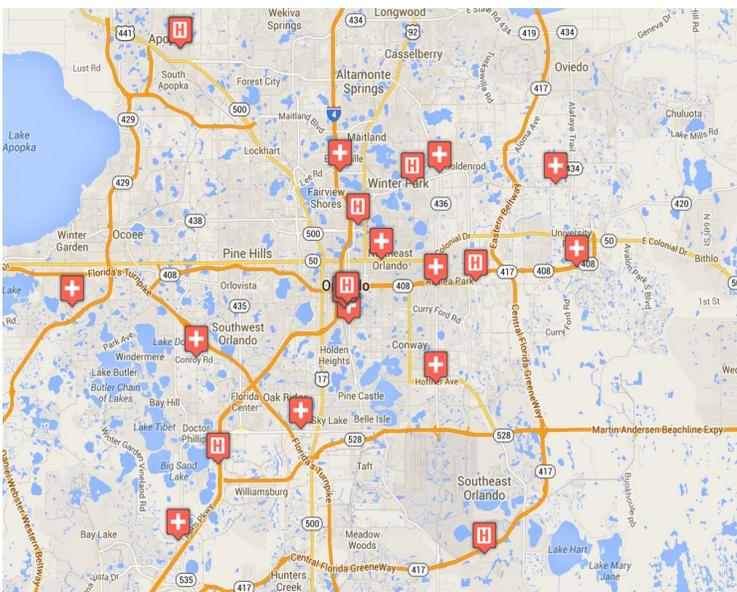
### Florida



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 35 urgent care centers reporting to ESSENCE-FL for a total of 263 facilities.

## Florida Department of Health in Orange County

Epidemiology Program  
6101 Lake Ellenor Drive  
Orlando, Florida 32809

Phone: 407-858-1420

Fax: 407-858-5517

<http://orange.floridahealth.gov/>

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### Monthly Surveillance Reports

Email Contact Information to:

[CHD48.EPIRegistration@flhealth.gov](mailto:CHD48.EPIRegistration@flhealth.gov)



### Issue Contributors

**Sarah Matthews, MPH**  
Epidemiology Program Manager

**Ben Klekamp, MSPH, CPH**  
Epidemiologist

**Jack Tracy, M Ed**  
Influenza Surveillance Coordinator

**Charlene McCarthy**  
Administrative Assistant

*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**