Epidemiology Monthly Surveillance Report

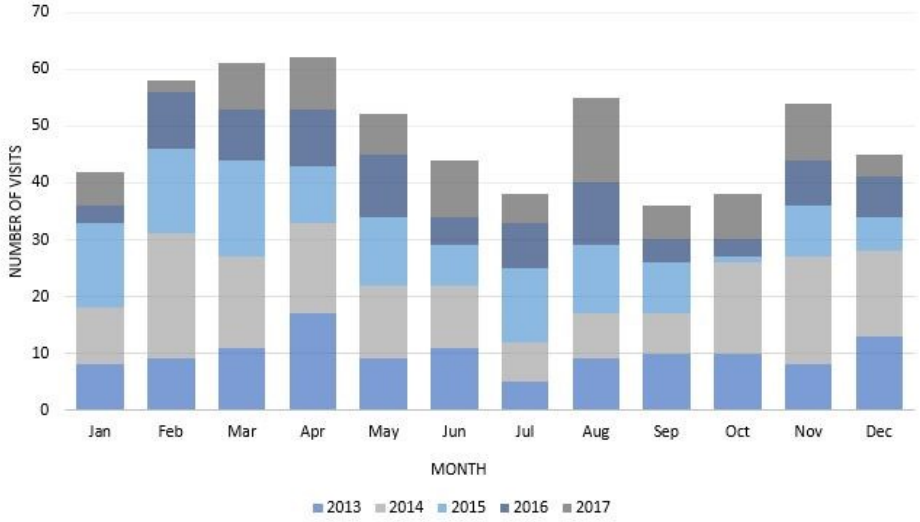
Florida Department of Health in Orange County

Norovirus Season in Orange County, FL

Norovirus is the leading cause of acute gastroenteritis worldwide, causing 19 to 21 million cases each year in the United States alone. The virus can be acquired year-round, but outbreaks are rampant during the cooler months from November to April in the US. Norovirus is a highly contagious virus characterized by onset of diarrhea, vomiting, nausea, and stomach pain. The virus can be transmitted from ingestion of stool or vomit from an infected person, contaminated food or drinks, or contact with contaminated objects or surfaces. Symptoms usually resolve after 1 to 3 days without treatment. However, in young children, older adults, and immunocompromised patients, symptoms can persist for up to 6 days. Traces of norovirus can be found in the stool even 2 to 3 weeks after symptoms resolve.

It is difficult to quantify the burden of norovirus in Orange County since it is not a reportable disease in Florida, and many hospitals and doctors' offices may not typically test for the virus. However, the number of visits to local emergency departments due to gastroenteritis or complaints of food poisoning over the past five years was greatest in February, March, and April (Figure 1). A lower number of visits can be seen during the summer months except for a peak in August. There could be many different contributing factors to the August peak in visits, such as the beginning of the school year and potential spread of gastroenteritis in schools or child care facilities.

Figure 1. Emergency Department Visits with Chief Complaint of Gastroenteritis, Associated Symptoms, or Food Poisoning, ESSENCE-FL, Orange County, 2013-2017



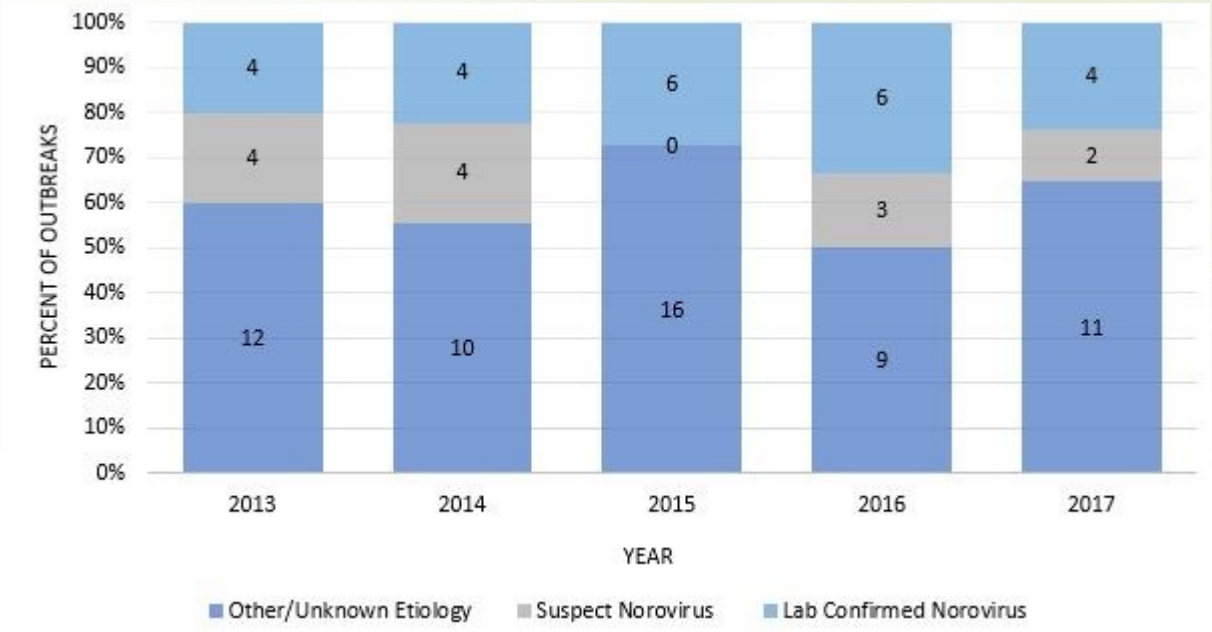
November 2017

Contents:

Outbreaks of norovirus are common in healthcare facilities, restaurants and catered events, cruise ships, schools, and other institutional settings. According to the CDC, most outbreaks occur as a result of infected people spreading the virus to others through direct contact or contact with contaminated fomites. However, contaminated food or water can also serve as the source of a norovirus outbreak. Foods that are most commonly associated with norovirus outbreaks include leafy greens, fresh fruits, and shellfish. Any food served raw or handled with bare hands after being cooked can become contaminated.

Over the past five years, 20 to 33 percent of reported gastroenteritis outbreaks in Orange County have been attributed to laboratory confirmed norovirus (Figure 2). An even greater percentage were suspected or confirmed norovirus outbreaks, ranging from 35 to 50 percent. The burden of norovirus is evident and likely underestimated, because only outbreaks reported to DOH-Orange were investigated and tracked.

Figure 2. Breakdown of Reported Gastroenteritis Outbreaks in Orange County, 2013-2017



To prevent norovirus infection and halt transmission during an outbreak, proper hand hygiene is of utmost importance. Alcohol-based hand sanitizers cannot be used as a substitution for washing with soap and water, but can be used in addition to proper handwashing. Encourage handwashing with soap and water especially after using the toilet or changing diapers, and before eating, preparing, or handling food. Another prevention method is washing fruits and vegetables before preparing and consuming them, and cooking all shellfish to at least 145 degrees Fahrenheit before consumption. Clean any surfaces contaminated with infectious bodily fluids with a bleach solution or EPA-approved disinfectant.

Health care providers should report **all outbreaks of acute gastroenteritis**, including suspected outbreaks of norovirus, to DOH-Orange at (407) 858-1420.

Resources:

CDC: Burden of Norovirus Illness and Outbreaks

CDC: Preventing Norovirus Infection

Influenza Surveillance (data from Florida Flu Review)

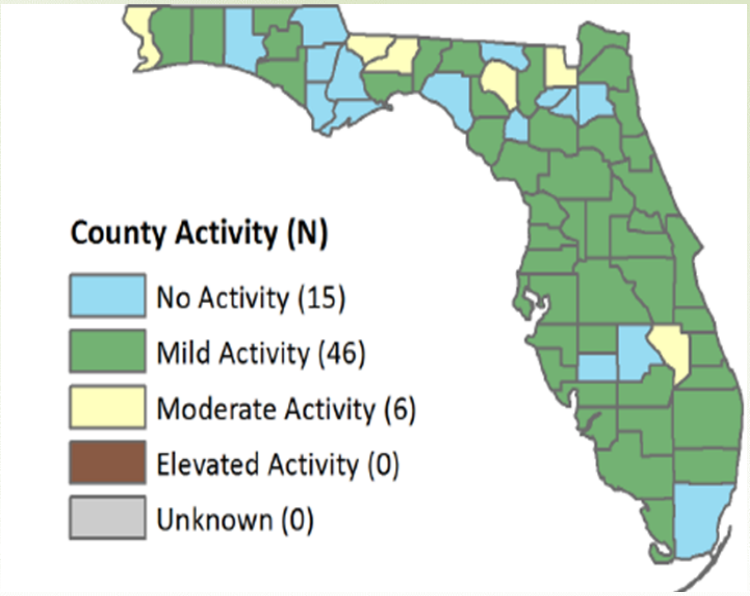
Florida

- In week 48, Influenza and ILI activity steadily increased across the state.
- Respiratory syncytial virus (RSV) activity in children <5 years increased, and has remained higher than previous seasons for several weeks in a row.
- In week 48, no influenza-associated pediatric deaths were reported.

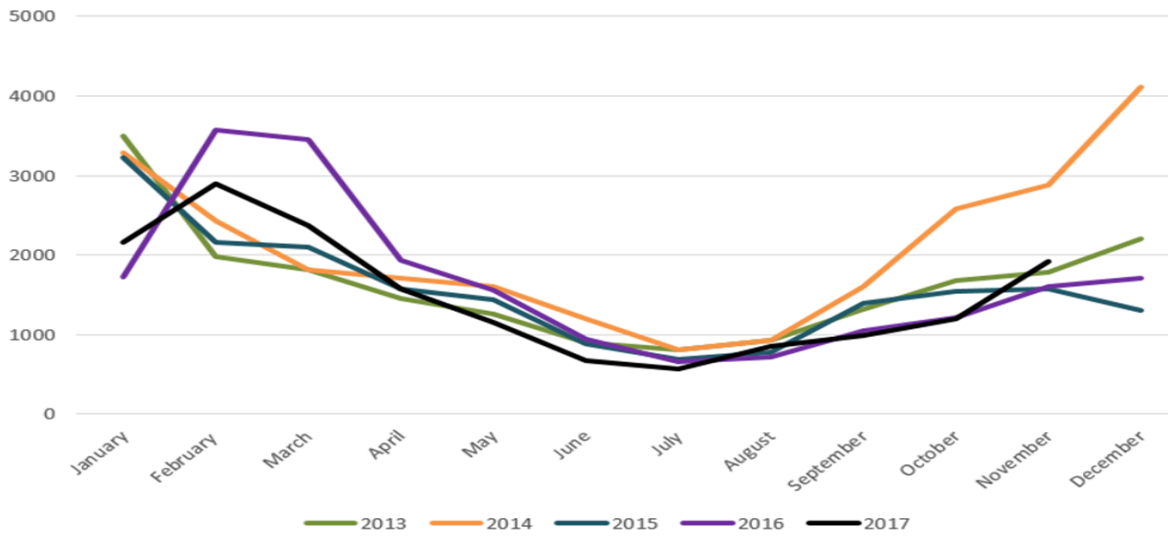
Orange County

- One outbreak of Influenza A was reported in Orange County in November 2017.
- Orange County influenza activity level for week 48 is increasing.

Influenza Activity Level, by County for Week 48, 2017



Influenza-like Illness from Emergency Department Visits in Orange County, 2013 to 2017



Influenza Resources:

Florida Department of Health Influenza

Center for Disease Control and Prevention Weekly Influenza Activity Report

ZIKA Virus Surveillance

National

- CDC deactivated its emergency response for Zika virus to transition efforts to normal program operations on September 29, 2017.
- Per the CDC MMWR published on July 28, 2017, routine testing guidance for pregnant women with possible Zika virus exposure has changed. The complete MMWR can be found here but major updates are located below in the clinician guidance/updates.
- Starting December 7, 2017, CDC will begin biweekly reporting of provisional Zika virus disease case counts to ArboNET in the United States and its territories.
- On November 23, 2017, Micronesia and Palau were added to the areas with interrupted transmission travel list, meaning Zika was previously found in these locations, but they no longer have the virus present. All travelers, including pregnant women, can visit these destinations with no known risk of contracting Zika from mosquitoes. Complete travel recommendations can be viewed here.

Florida

- **Two** cases of local Zika transmission have been reported so far in 2017: one in Manatee County (October), and one in Miami-Dade County (November).
- There is no evidence of ongoing, active transmission in the state.

Orange County

- **No** local transmission of Zika has been identified in Orange County.
- Pregnant women (with or without exposure) can get tested for free at three Health Department locations in Orange County (Tues-Thurs 9:00AM-1:30PM).
    - Lila Mitchell Clinic: 5151 Raleigh St. Suite B
    - Southside: 6101 Lake Ellenor Dr.
    - Eastside: 12050 E. Colonial Dr. Building A (Testing referrals will be given on a walk-in basis only.)

Laboratory-confirmed symptomatic Zika virus disease cases (2015-2017)

Top 3 States	Total Case Count
Florida	1212
New York	1063
California	475

As of November 29, 2017

Travel-Related Zika Cases in FL by County

County	Case Count 2016	Case Count 2017
Miami-Dade	350	99
Broward	182	31
Orange	167	15
Palm Beach	65	9
Hillsborough	46	9
Osceola	38	0
Polk	31	3
Seminole	28	4
Collier	28	10
Pinellas	25	2
Brevard	17	0

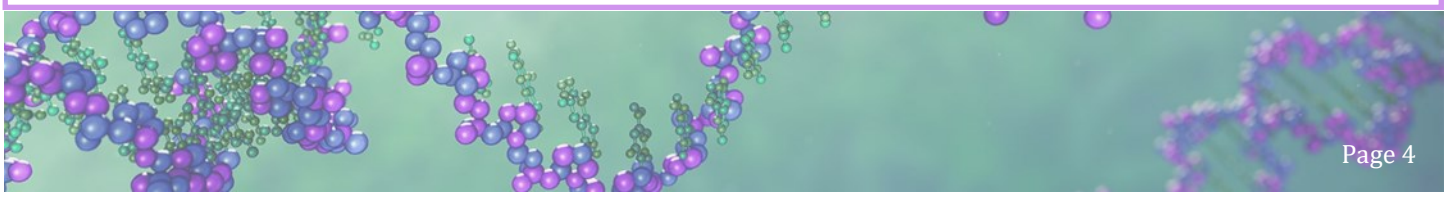
As of December 4, 2017

Clinician Guidance/Updates

- All pregnant women in the United States and U.S. territories should be asked about possible Zika virus exposure *before* and *during* the current pregnancy, at every prenatal care visit.
- Pregnant women with **recent possible Zika virus exposure and/or who are symptomatic** should be tested to rule out Zika infection. Contact the local CHD if a patient is symptomatic.
- Asymptomatic pregnant women ***with ongoing*** possible Zika virus exposure, meaning women who currently live in an endemic area, should be offered Zika virus PCR/NAT testing three times during pregnancy via commercial lab.
- Asymptomatic pregnant women ***without ongoing*** possible Zika virus exposure (i.e., through travel or sexual exposure) are not routinely recommended to have Zika virus testing. Zika testing can be ordered by commercial lab if testing is desired by physician.
- Pregnant women who have recent possible Zika virus exposure and who have a fetus with prenatal ultrasound findings consistent with congenital Zika virus syndrome should receive Zika virus testing to assist in establishing the etiology of the birth defects.

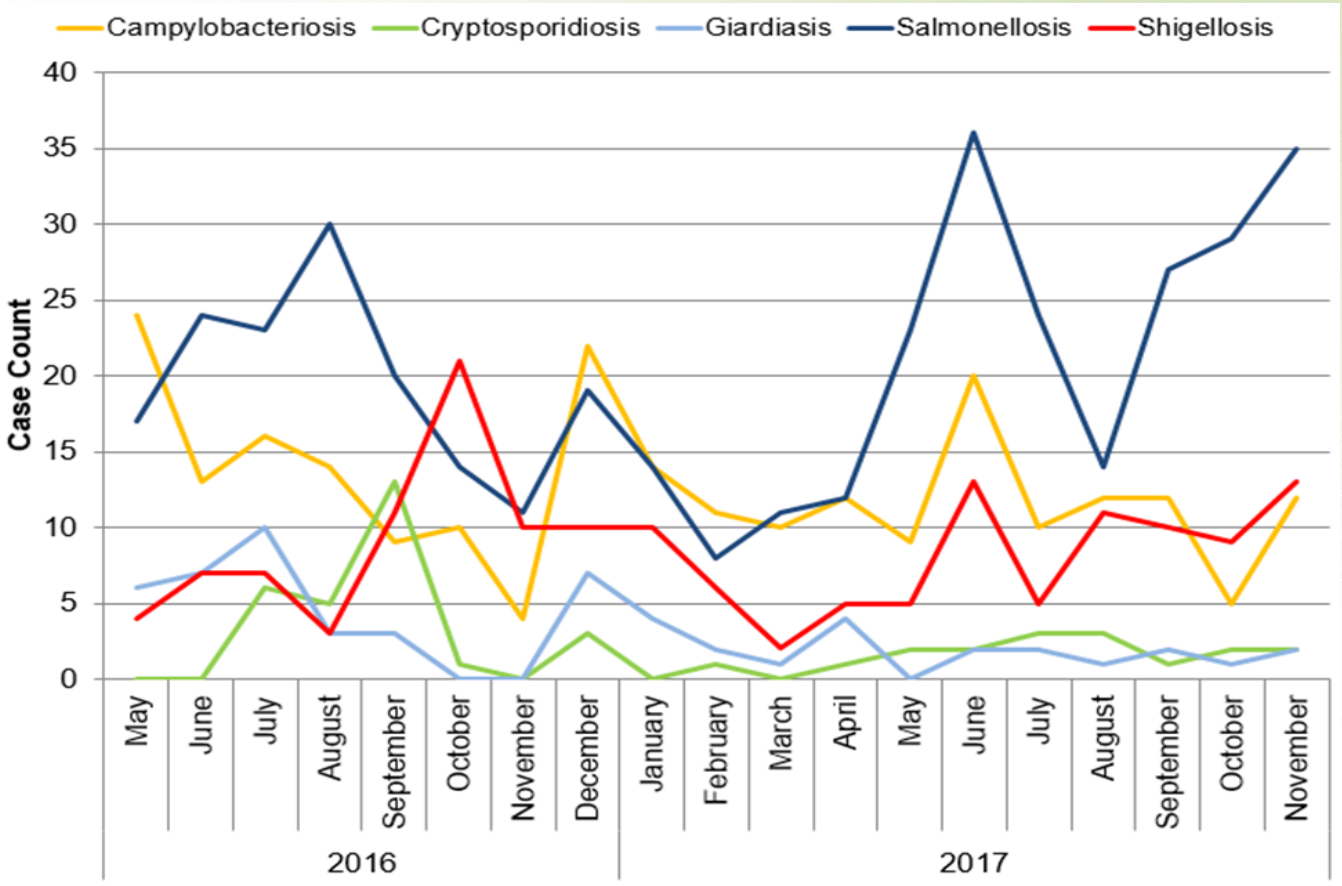
Zika Virus Resources:

Florida Department of Health
Local Health Department Contact Information
Latest Travel Notices
CDC Healthcare Guidance
CDC Deactivation Emergency Operations for Zika
CDC MMWR: July 28, 2017



Gastrointestinal Illness Surveillance

Select Reportable Enteric Diseases in Orange County, Florida, May 2016 to November 2017



Gastrointestinal Illness Points of Interest:

REPORT FOODBORNE ILLNESS ONLINE

- Enteric reportable disease cases remain within seasonally expected levels.
- In November, 10 foodborne illness complaints were investigated by Orange County from various sources such as direct reporting, online reporting, social media, Department of Health, and crowd-sourced web-based reporting.

Gastrointestinal Illness Resources:

Florida Online Foodborne Illness Complaint Form - Public Use

Florida Food and Waterborne Disease Program

CDC: Healthy Water

CDC: A-Z Index for Foodborne Illness

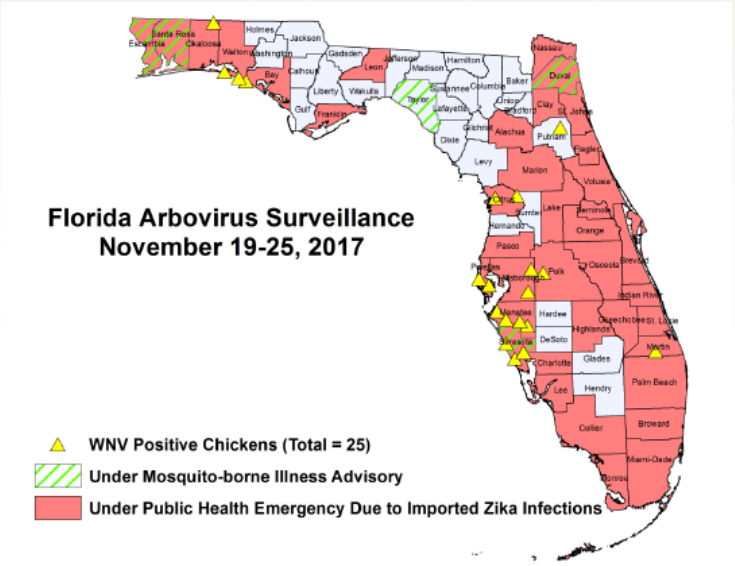
Arboviral Surveillance

International

- There is a CDC Level 2 (Alert) Travel Health Notice for multiple countries in the Caribbean, Central and South America, Mexico, Cape Verde, Southeast Asia, and Pacific Islands related to Zika and poor pregnancy outcomes.
- There is a CDC Level 1 (Watch) Travel Health Notice for Brazil and Italy, related to the transmission of chikungunya virus.
- There is a CDC Level 1 Travel Health Notice for Sri Lanka and Vietnam related to the transmission of dengue virus.

Florida

- Seventeen travel-associated cases of dengue have been reported in 2017. Two travel-associated cases of chikungunya were reported in 2017.
- Three human cases of West Nile virus (WNV) acquired in Florida have been reported in 2017; one in Escambia County, one in Santa Rosa County, and one in Taylor County.
- In September 2017, one human case of eastern equine encephalitis (EEEV) was reported in Duval County.
- **Duval, Escambia, Santa Rosa, Sarasota, and Taylor counties are currently under a mosquito-borne illness advisory.**



Orange County

- **No locally acquired** cases of Zika virus, West Nile virus, dengue virus, chikungunya virus, St. Louis encephalitis virus, or eastern equine encephalitis virus have been identified in Orange County in 2017.
- No travel-related cases of Zika virus were reported in November 2017. In total, there are 15 travel-related cases of Zika virus in 2017.

Arboviral Resources:

Weekly Florida Arboviral Activity Report (Released on Mondays)

Orange County Mosquito Control

Additional Resources:

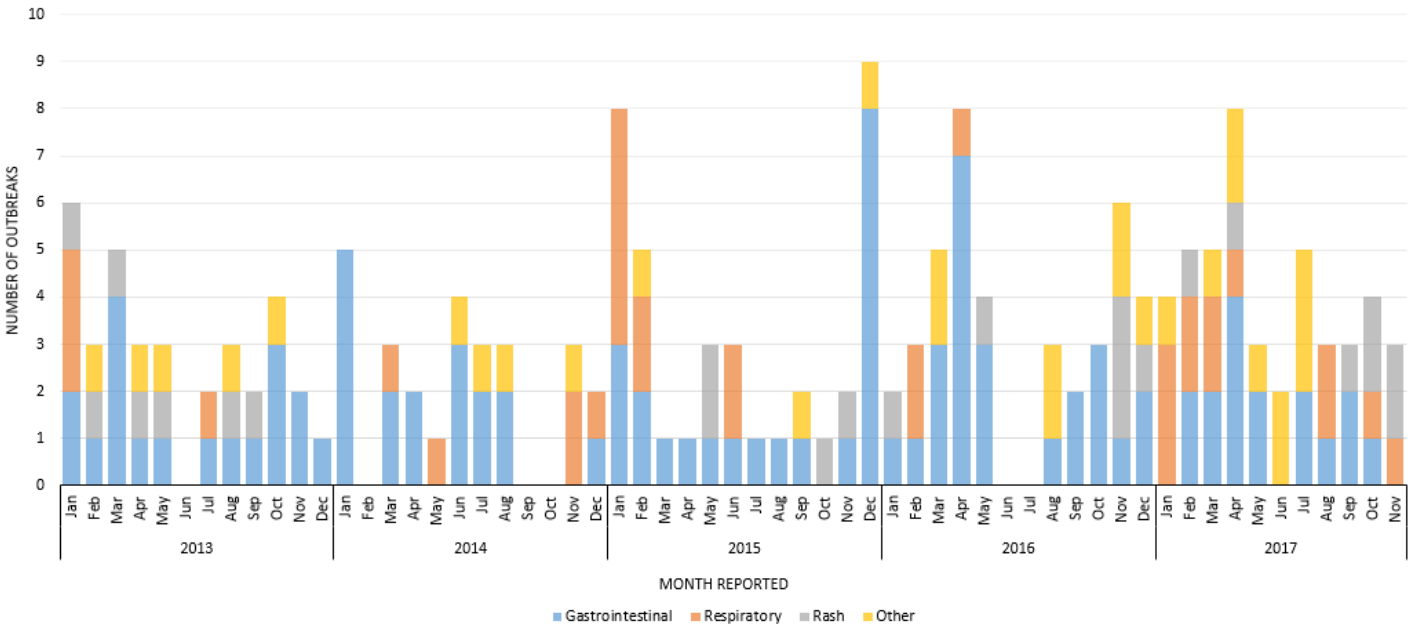
Florida Department of Health Mosquito-Borne and Other Insect-Borne Diseases Information

Florida Department of Health Mosquito-Borne Disease Education Materials

Outbreaks in Orange County

- In November 2017, the following outbreaks were investigated:
  - Hand, foot, and mouth disease outbreak at a daycare.
  - Scabies outbreak at a long term care facility
  - Influenza A outbreak at a long term care facility

Number of Outbreaks Reported in Orange County, FL, by Month from 2015-2017



*** All Data are Preliminary ***

Reminder: Outbreaks of any disease, any case, cluster of cases, or exposure to an infectious or non-infectious disease, condition, or agent found in the general community or any defined setting (e.g., hospital, school, or other institution) not listed that is of urgent public health significance should be reported.

	ORANGE				All Counties			
Disease	**November**		**Cumulative (YTD)**		**November**		**Cumulative (YTD)**	
	2017	**Median (2012 - 2016)**	**2017**	**Median (2012 - 2016)**	**2017**	**Median (2012 - 2016)**	**2017**	**Median (2012 - 2016)**
Campylobacteriosis	15	8	181	115	352	204	4100	2858
Carbon Monoxide Poisoning	9	0	42	12	38	17	778	167
Creutzfeldt-Jakob Disease (CJD)	0	0	1	1	1	2	24	24
Cryptosporidiosis	4	2	31	38	52	51	521	558
Cyclosporiasis	0	0	4	2	0	0	113	33
Ehrlichiosis - HME (Ehrlichia chaffeensis)	0	0	1	0	0	1	20	23
Escherichia coli: Shiga Toxin-Producing (STEC) Infection	2	1	29	18	50	33	609	446
Giardiasis: Acute	2	4	46	63	78	86	948	1028
Haemophilus influenzae Invasive Disease	1	1	17	14	26	16	276	246
Hemolytic Uremic Syndrome (HUS)	0	0	1	0	1	1	11	6
Hepatitis A	2	0	12	4	27	12	276	116
Hepatitis B: Acute	3	0	32	10	61	42	729	376
Hepatitis B: Chronic	37	36	400	404	387	363	4694	4438
Hepatitis B: Surface Antigen in Pregnant Women	2	2	53	56	36	31	422	453
Hepatitis C: Acute	4	0	25	7	31	15	375	194
Hepatitis C: Chronic	86	120	1257	1350	2205	2123	22689	27039
Herpes B Virus: Possible Exposure	2	0	2	0	6	0	20	5
Influenza-Associated Pediatric Mortality	0	0	1	0	1	0	14	5
Lead Poisoning	5	4	24	28	40	49	921	837
Legionellosis	5	1	45	22	46	22	510	286
Listeriosis	0	0	2	2	3	2	55	40
Lyme Disease	1	1	8	5	21	17	263	168
Malaria	0	0	3	7	6	3	64	61
Measles (Rubeola)	0	0	1	0	0	0	4	5
Meningitis: Bacterial or Mycotic	0	0	1	2	7	8	104	122
Meningococcal Disease	0	0	3	0	2	5	22	47
Mercury Poisoning	0	0	1	0	6	1	44	11
Mumps	1	0	7	0	15	2	97	17
Neurotoxic Shellfish Poisoning	0	0	2	0	0	0	2	0
Pertussis	2	2	24	34	23	33	343	554
Q Fever: Acute (Coxiella burnetii)	0	0	1	0	0	0	2	2
Rabies: Possible Exposure	3	5	78	80	272	220	3146	2755
Rocky Mountain Spotted Fever and Spotted Fever Rickettsiosis	0	0	1	0	4	0	50	17
Salmonellosis	46	27	331	313	711	625	6267	5936
Shigellosis	16	8	124	98	84	105	1233	1741
Strep pneumoniae Invasive Disease: Drug-Resistant	0	4	17	22	22	19	227	364
Strep pneumoniae Invasive Disease: Drug-Susceptible	4	1	23	19	48	24	347	389
Typhoid Fever (Salmonella Serotype Typhi)	0	0	2	1	5	0	57	11
Varicella (Chickenpox)	2	2	47	19	57	40	608	697
Vibriosis (Vibrio alginolyticus)	0	0	6	2	3	4	71	59
Vibriosis (Vibrio parahaemolyticus)	0	0	1	1	0	3	43	43
Vibriosis (Vibrio vulnificus)	0	0	1	1	5	2	55	44
Zika Virus Disease and Infection- Non-Congenital	0	0	24	0	15	0	310	0
Total	254	229	2912	2750	4747	4181	51464	52221

***** All Data are Preliminary *****

Pass the Gravy, Hold the Germs

An estimated 48 million foodborne illness occur annually in the US, which results in an estimated 128,000 hospitalizations and 3,000 deaths each year. Foodborne illness may cause symptoms of diarrhea, fever, vomiting, abdominal pain, and nausea which could take anywhere from hours to days to develop depending on the incubation period of the pathogen in question. Those at higher risk for becoming ill include infants/toddlers, older adults, pregnant women, and immunocompromised individuals. Foodborne illness due to pathogens such as bacteria, viruses, parasites, or natural toxins can be prevented by following four food safety steps:

Safe Minimum Cooking Temperatures

145°F for whole cuts of beef, pork, veal, and lamb (then allow the meat to rest for 3 minutes before carving or eating)
160°F for ground meats, such as beef and pork
165°F for all poultry, including ground chicken and turkey
165°F for leftovers and casseroles

- CLEAN: Practice hand hygiene before, during, after food preparation, and before food consumption. Clean and disinfect surfaces/utensils.
- SEPARATE: Avoid cross-contamination by using separate cutting boards for raw meat, poultry, seafood.
- COOK: Use a food thermometer to ensure food is cooked to appropriate temperatures and pathogens are killed.
- CHILL: Refrigerate perishable food within 1-2 hours depending on outdoor temperature.

Please report all cases or clusters of gastrointestinal illness to the Florida Department of Health Epidemiology Program by calling 407-858-1420.

Resources: **FDA Foodborne Illness** **Foodsafety.gov** **CDC Food Safety**

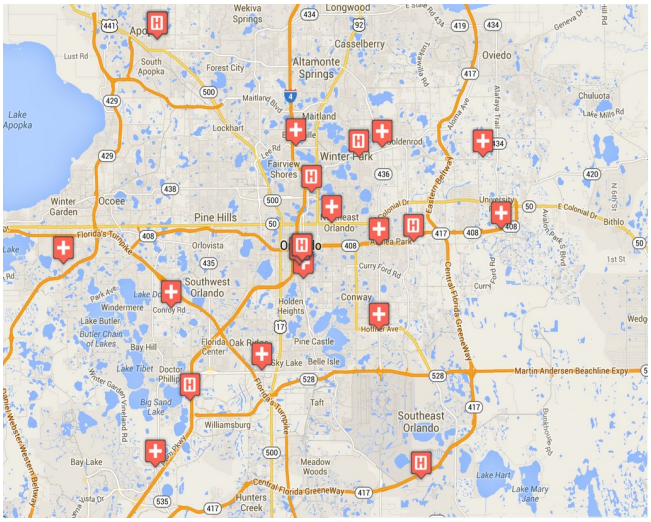
Other Disease Resources

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).

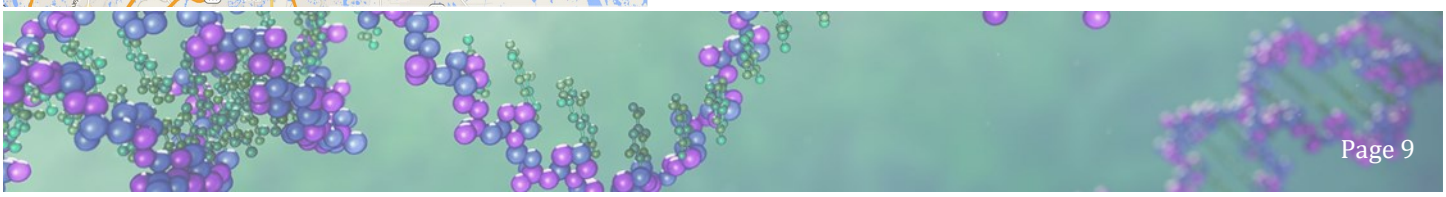
Florida Department of Health: ESSENCE

Hospital linked to ESSENCE

Florida Hospital Centra Care Clinic linked to ESSENCE



Since 2007, the Florida Department of Health has operated the Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE-FL), 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 following 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 via 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

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Monthly Surveillance Reports

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The Epidemiology Program conducts disease surveillance and investigates, controls, and prevents infectious diseases and conditions that are reported to DOH-Orange.

Surveillance is primarily conducted through passive reporting from the medical community as required by Chapter 381, Florida Statutes.

Data are collected and analyzed to track disease trend, and identify outbreaks and unusual occurrences for response and mitigation, to identify targets for prevention and reduction efforts.

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 ensure 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 ARE PROVISIONAL