Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

April 2019

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The Epidemiology Program conducts surveillance and investigates, controls, and prevents occurrences of acute infectious diseases and outbreaks that are reported to the program.

Surveillance is conducted primarily through required reporting from health care providers, facilities, and clinical labs, and other required reporters as required by Chapter 381, Florida Statutes.

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

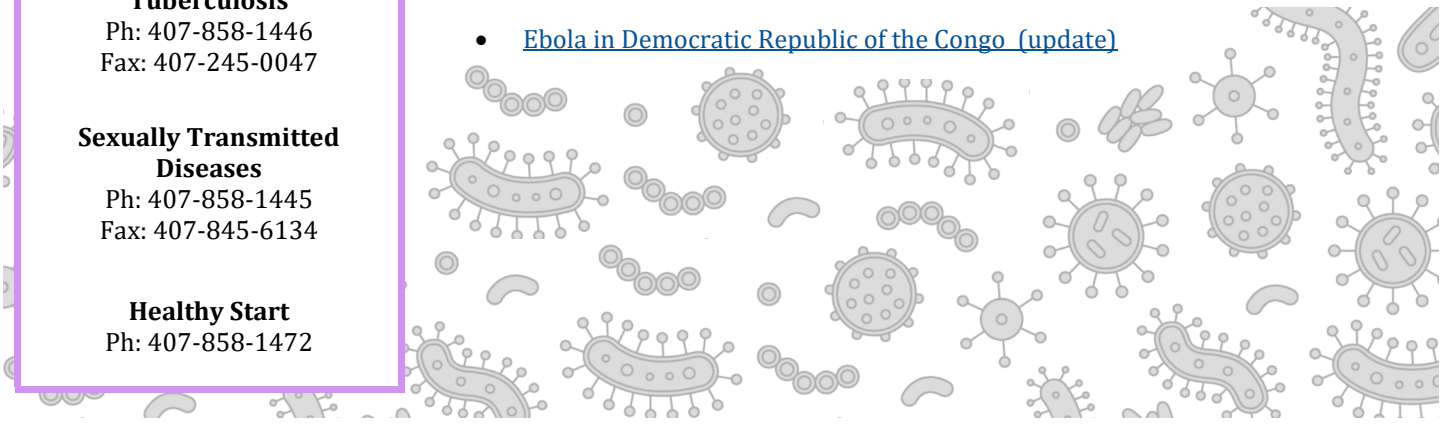
The Epidemiology Program conducts syndromic and influenza-like-illness surveillance activities through voluntary reporting from emergency departments and urgent care centers across Orange County. Syndromic surveillance is a method of determining activities in the community that could be early indicators of outbreaks and bioterrorism.

Health Advisories, News, & Alerts:

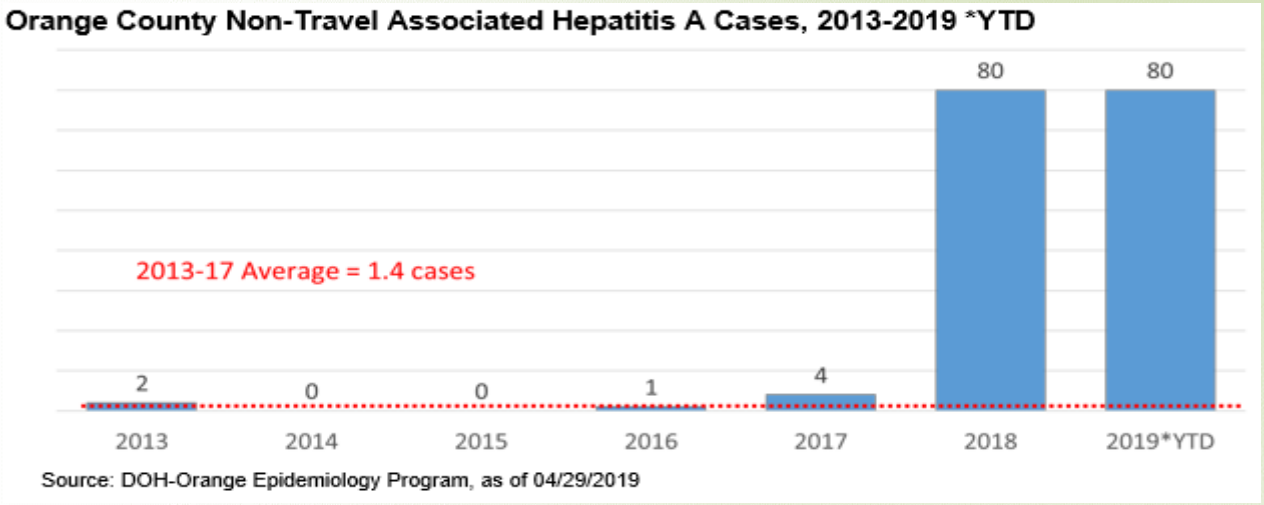
- DOH-Orange Recommends Prevention and Vaccination for Hepatitis A
- Measles Outbreak, Information for Healthcare Providers
- Appendix: Healthcare Measles Infographic and Algorithm. The documents can also be found on www.floridahealth.gov/measles

CDC Travel Notices: Travel notices are designed to inform travelers and clinicians about current health issues related to specific international destinations

- Cyclone Idai in Mozambique, Malawi, and Zimbabwe (update)
- Ebola in Democratic Republic of the Congo (update)



Orange County Hepatitis A Update



Deaths: 2
Hospitalized: 84% (n=160)
Age range: 2-81 years
Median = 37 years
Sex: 66% male (n=160)
Non-Hispanic: 87% (n=160)
White: 76% (n=160)
Secondary cases (contact of previously known case) = 16

Risk factors (where data are known):
MSM = 15% (n=137
DU (IV and non-IV) = 58% (n=148)
Homeless = 31% (n=137)
Hep B/C co-infected = 41% (n=155)
Incarcerated =21% (n=78)
Healthcare workers: n=4
Childcare/school age children: n=2
Food service workers/facilities: n=5

Florida Hepatitis A Update

Florida Department of Health Hepatitis A Surveillance Report

2018-To-Date Key Points

- 1,537 cases
- 21% cases linked to other cases
- 30-39 year olds had highest incidence
- 25% co-infected with hepatitis B or C

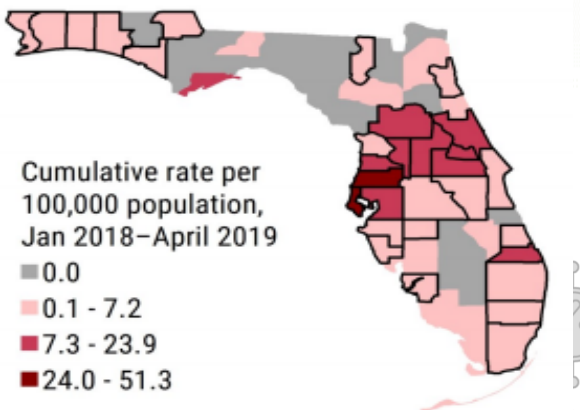
Top 5 Impacted Counties in Florida

CONFIRMED, PROBABLE, SUSPECT CASES OF HEPATITIS A WITH REPORT DATE 1/1/2018 to 4/27/2019

County	2018	2019 *YTD	TOTAL
Pinellas	113	**206**	319
Pasco	66	**202**	268
Orange	93	**86**	179
Hillsborough	84	**80**	164
Marion	15	**56**	71
TOTAL	371	**630**	1001

Source: Florida Merlin

April Map of Hepatitis A Cases noted in 31 counties, outlined in black (N=293)



Source: Hepatitis A Surveillance Report

****ALL DATA ARE PRELIMINARY****

Influenza Surveillance

(MMWR Week 17: April 21-27, 2019)
Season 2018-19

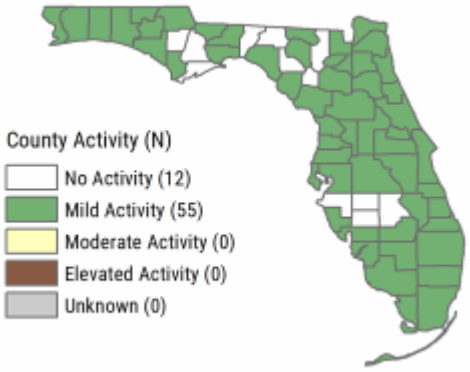
Statewide Activity

Geographic Spread: **Local**

Predominant Strain: **A (H3)**

ILI Activity Trend: **Stable**

Influenza activity by County, Week 17

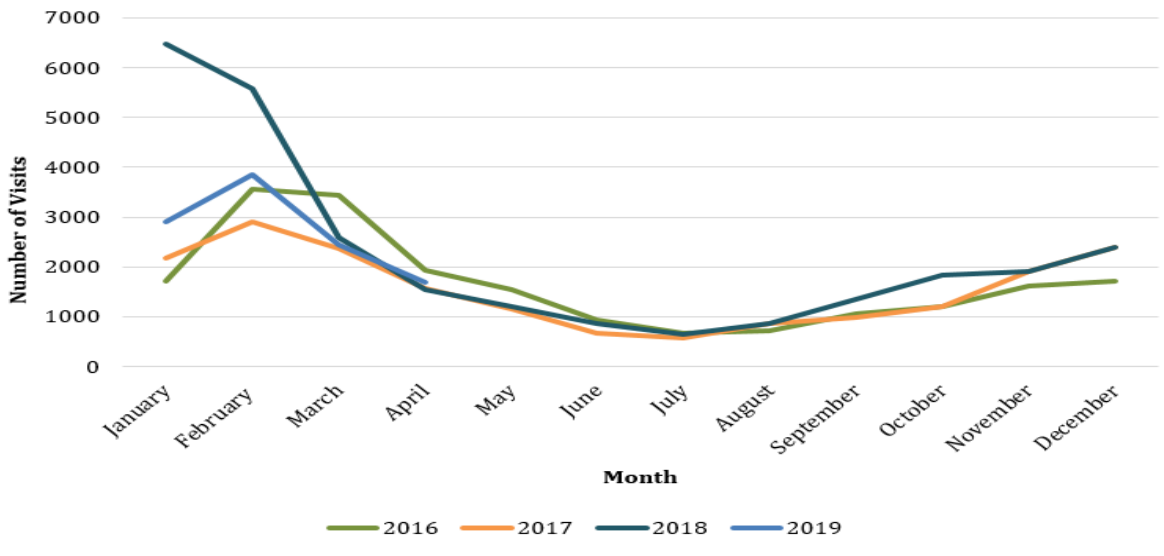


- In week 17, ILI activity was stable and was slightly above levels observed at this time in pervious seasons.
- Activity has peaked for the season, however influenza continues to circulate at low levels in Florida.
- No counties reported influenza activity in week 17.
- 2 respiratory outbreaks from various counties were reported in week 17.
- One new influenza-associated pediatric death was reported in week 17. Four influenza-associated pediatric deaths have been reported so far this season, all in unvaccinated children.

Orange County Activity

- Two influenza or influenza-like illness outbreaks were reported in Orange County for the month of April.

ILI Emergency Department Visits in Orange County, 2016 to 2019



Flu Level: **Mild**

Flu Trend: **Stable**

Source: ESSENCE

Influenza Resources:

Florida Department of Health Influenza | CDC: Influenza (Health Professionals) | CDC: Weekly US Influenza Surveillance Report | Center for Disease Control and Prevention Weekly Influenza Activity Report

Arboviral Surveillance

(MMWR Week 17: April 21-27, 2019)

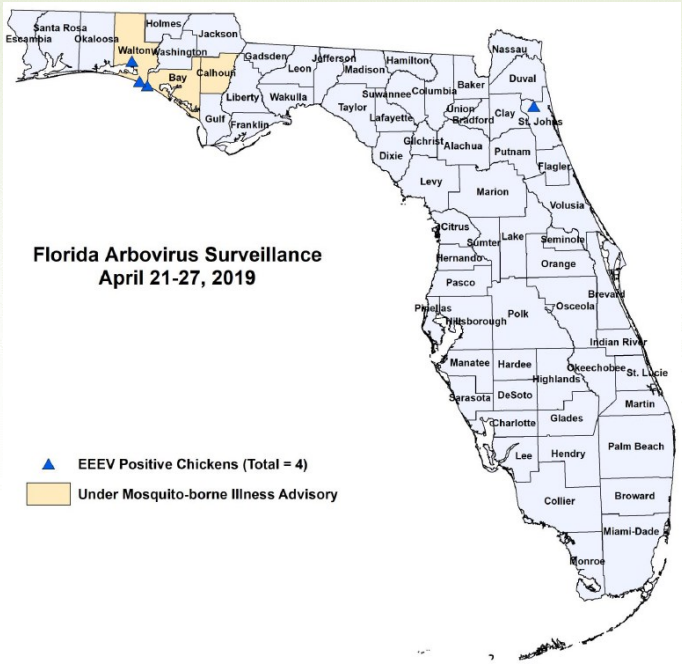
International

- There are Level 2 Travel Health Notices for Brazil and Nigeria related to the transmission of yellow fever virus. Additional information on travel health notices can be found here .

Florida

- One case of **dengue fever** was reported in week 17 in an individual with international travel. In 2019, 23 travel-associated cases and no locally acquired cases have been reported.
- No cases of **chikungunya fever** were reported this week in persons who had international travel. In 2019, two travel-associated cases and no locally acquired cases have been reported.
- No human cases of **West Nile virus** (WNV) infection were reported in week 17. In 2019, one horse and 12 sentinel chickens have been reported from eight counties.
- No human cases of **Eastern equine encephalitis virus** (EEEV) infection were reported this week. In 2019, eight horses, one emu, and 24 sentinel chickens have been reported from 11 counties.
- Two cases of **Zika fever** were reported in week 17 in persons who had international travel. In 2019, 15 travel-associated cases and no locally acquired cases have been reported.
- Bay, Calhoun, and Walton counties are currently under a **mosquito-borne illness advisory**. No other counties are currently under mosquito-borne illness advisory or alert.

Arbovirus Surveillance by County, Week 17



Source: DOH Arboviral Report

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 2019.
- No new cases of **Zika fever** have been reported in April 2019. Our total count as of week 17 is 3 cases.
- **We are no longer offering free Zika testing at DOH-Orange for insured pregnant women. Testing for Zika may be ordered through commercial labs. Please notify DOH-Orange of symptomatic patients with a history of travel. Please refer to the following letter regarding updates on Zika virus testing at BPHL.**

Arboviral Resources:

Weekly Florida Arboviral Activity Report (Released on Mondays)

Orange County Mosquito Control

Additional Resources:

Florida Department of Health Zika

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

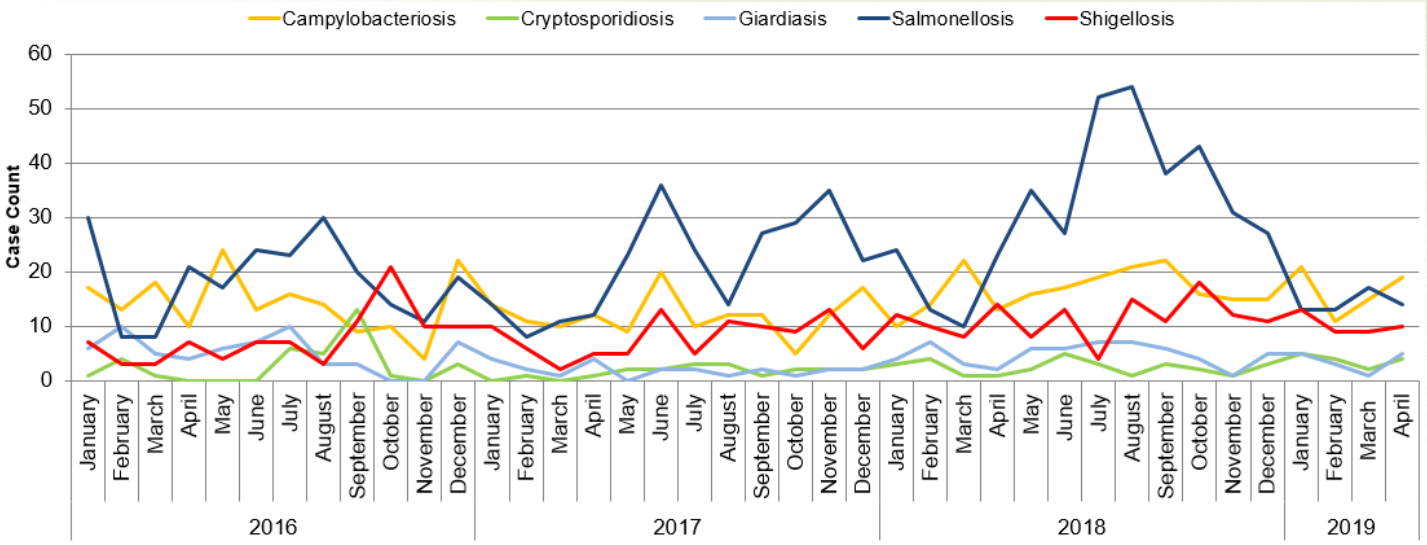
Florida Department of Health Mosquito-Borne Disease Education Materials

Gastrointestinal Illness Surveillance

Points of Interest:

- The counts for enteric reportable disease cases were as expected for the month of April.
- In April, 33 foodborne illness complaints were investigated by DOH-Orange from various sources such as direct reporting, online reporting, social media, Department of Health, and crowd-sourced web-based reporting.

Select Reportable Enteric Diseases in Orange County, Florida, January 2016 to April 2019



Source: ESSENCE

A Public Health Message for Fruit and Vegetable Safety:

Source: CDC Fruit and Vegetable Safety

Gastrointestinal Illness Resources:

Florida Online Foodborne Illness Complaint Form - Public Use

Florida Food and Waterborne Disease Program

Florida Department of Health - Norovirus Resources

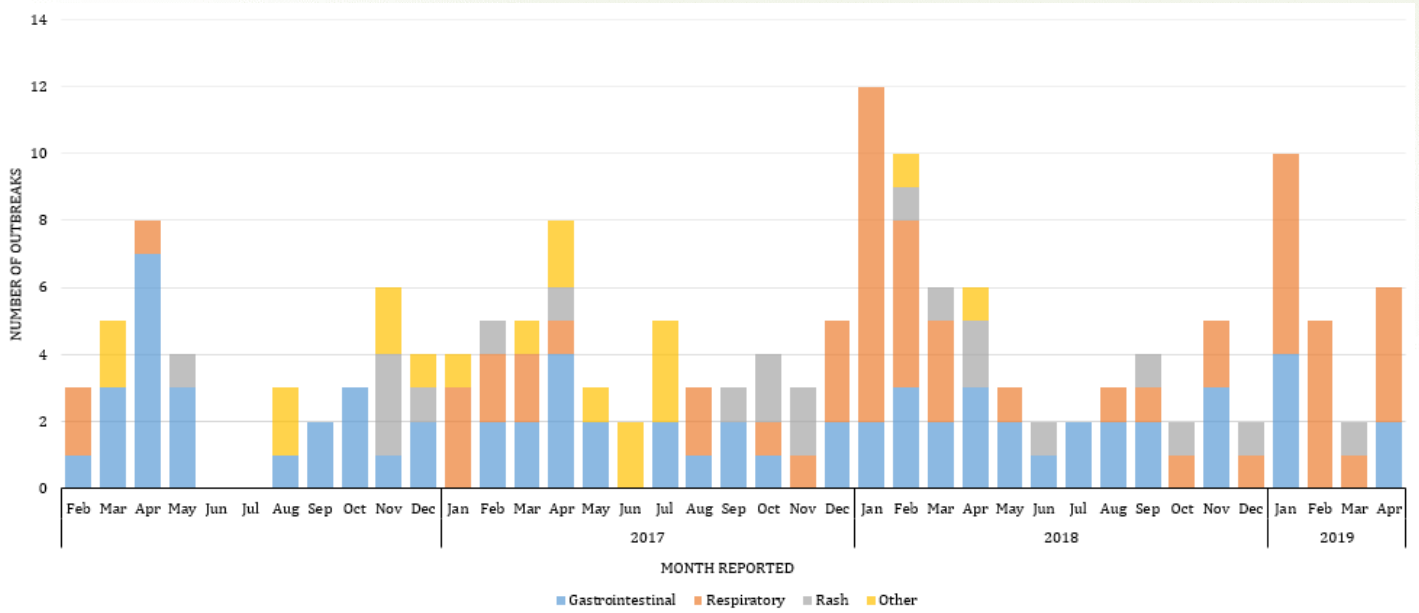
CDC: Healthy Water

CDC: A-Z Index for Foodborne Illness

Outbreaks in Orange County

- In April 2019, the following outbreaks were investigated:
  - One gastrointestinal illness outbreak in a school
  - One gastrointestinal illness outbreak in a long-term care facility
  - Four respiratory outbreaks in long-term care facilities

Number of Outbreaks Reported in Orange County, FL, by Month from 2016-2019



Source: DOH-Orange Epidemiology Program

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 here of urgent public health significance should be reported.

For more information on reporting, please follow this link.: Reportable Disease Form

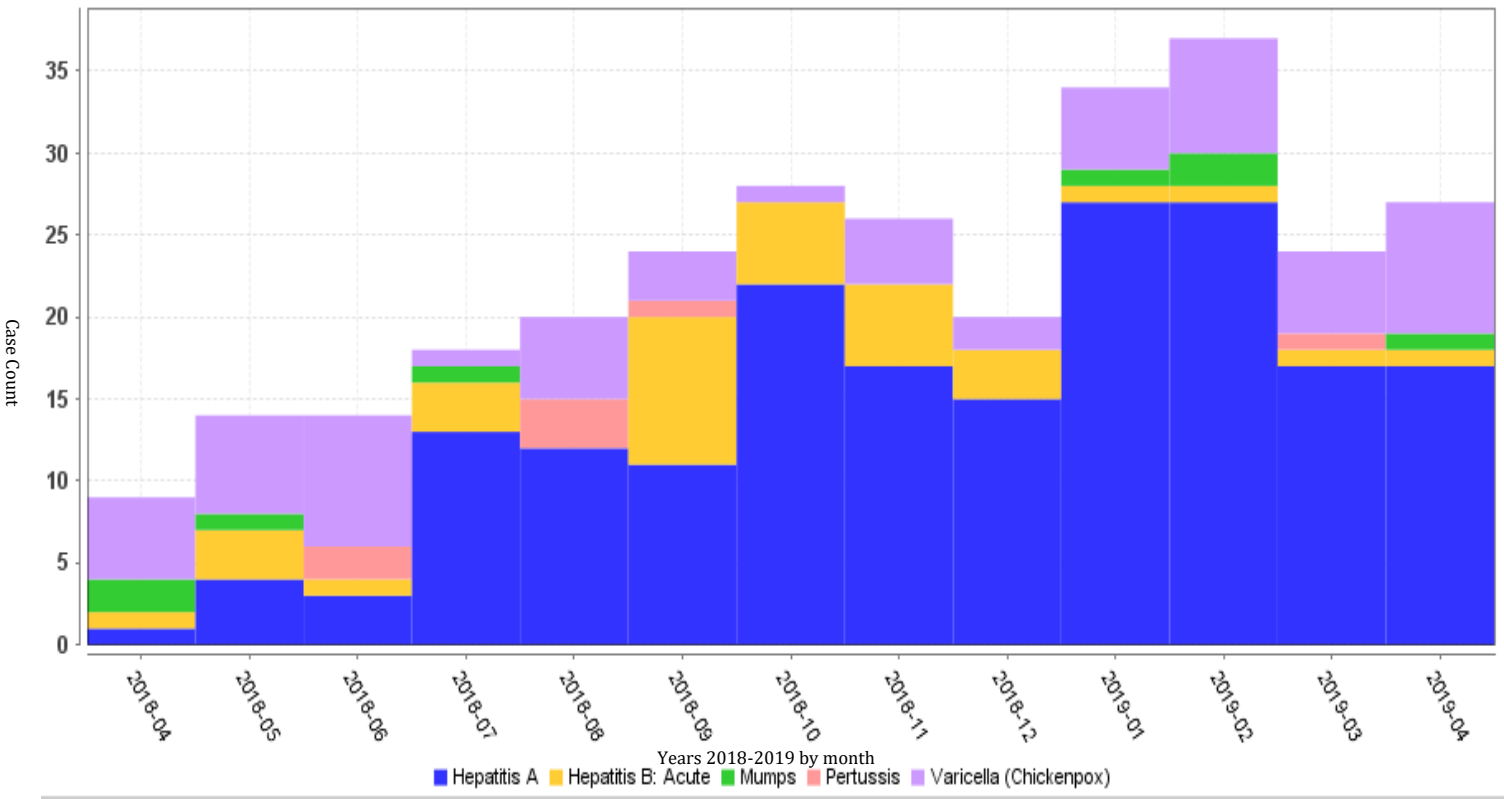
Food Recalls

Brand Name	Food/Food Product	Date of Recall	Health Risk	
Grant Park Packing	Raw Ground Beef Products	24-April-19	*E. coli* O103	Details
K2D Foods	Raw Ground Beef Products	23-April-19	*E. coli* O103	Details
Great American Marketing, Inc.	Meat and Poultry Wrap and Salad Products	9-April-19	*Listeria*	Details

Source: U.S. Food & Drug Administration

Vaccine Preventable Disease Surveillance

Orange County top 5 vaccine preventable disease cases by illness to include confirmed, probable and suspect cases, counted monthly, April 2018-2019



Source: ESSENCE

Resources:

U.S. Food and Drug Administration Recalls

Florida Department of Health- Vaccine Preventable Diseases

Disease	Orange			All Counties		
	April 2019	Cumulative (YTD) 2019	Cumulative 2018	April 2019	Cumulative (YTD) 2019	Cumulative 2018
Amebic Infections (Acanthamoeba)	0	0	0	0	0	1
Amebic Infections (Balamuthia mandrillaris)	0	0	0	0	0	3
Anaplasmosis, HGA (Anaplasma phagocytophilum)	0	0	1	0	0	20
Arboviral Disease, Other	0	0	0	0	0	1
Arsenic Poisoning	0	0	0	0	4	16
Babesiosis	0	0	0	0	0	19
Botulism, Infant	0	0	0	0	0	1
Brucellosis	0	0	0	0	3	15
California Serogroup Virus Neuroinvasive Disease	0	0	0	0	0	3
Campylobacteriosis	19	65	205	403	1611	4733
Carbon Monoxide Poisoning	0	10	7	5	79	238
Chikungunya Fever	0	0	1	0	2	5
Ciguatera Fish Poisoning	0	0	3	3	31	69
Creutzfeldt-Jakob Disease (CJD)	0	0	0	0	4	19
Cryptosporidiosis	4	15	27	48	207	586
Cyclosporiasis	0	1	8	4	7	76
Dengue Fever	0	0	4	4	32	84
Dengue Fever, Severe	0	0	0	0	1	4
Eastern Equine Encephalitis Neuroinvasive Disease	0	0	0	0	0	3
Ehrlichiosis, HME (Ehrlichia chaffeensis)	0	0	1	3	5	45
Escherichia coli, Shiga Toxin-Producing (STEC) Infection	11	25	63	73	252	860
Flavivirus Disease and Infection	0	0	0	1	3	6
Giardiasis, Acute	5	13	59	112	391	1100
Haemophilus influenzae Invasive Disease	0	5	22	33	145	311
Hansen's Disease (Leprosy)	0	0	1	2	6	20
Hemolytic Uremic Syndrome (HUS)	0	0	0	1	2	8
Hepatitis A	18	96	93	318	1126	555
Hepatitis B, Acute	1	4	36	86	291	771
Hepatitis B, Chronic	32	137	463	447	1813	4906
Hepatitis B, Perinatal	0	0	0	0	0	2
Hepatitis B, Pregnant Women	4	19	28	22	126	391
Hepatitis C, Acute	1	5	19	86	274	406
Hepatitis C, Chronic	186	617	1760	1676	7226	21304
Hepatitis C, Perinatal	0	0	1	2	12	46
Hepatitis D	0	0	1	0	1	5
Hepatitis E	0	0	0	0	3	7
Influenza-Associated Pediatric Mortality	0	0	0	0	2	9
Lead Poisoning	7	22	132	153	584	4111
Legionellosis	5	10	48	62	231	656
Leptospirosis	0	1	0	0	3	7
Listeriosis	0	0	5	2	6	53
Lyme Disease	1	2	4	4	37	197
Malaria	1	1	3	4	11	59
Measles (Rubeola)	0	0	0	1	2	15
Meningitis, Bacterial or Mycotic	0	0	3	9	26	112
Meningococcal Disease	0	1	4	5	12	18
Mercury Poisoning	0	0	0	1	7	38
Mumps	1	4	7	14	56	178
Neurotoxic Shellfish Poisoning	0	0	0	0	0	1
Pertussis	0	1	10	27	118	327
Pesticide-Related Illness and Injury, Acute	0	1	4	1	9	51
Q Fever, Acute (Coxiella burnetii)	0	0	0	0	0	1
Q Fever, Chronic (Coxiella burnetii)	0	0	0	0	0	1
Rabies, Possible Exposure	9	45	68	304	1327	4071
Ricin Toxin Poisoning	0	0	0	0	1	4
Rocky Mountain Spotted Fever and Spotted Fever Rickettsiosis	0	0	0	6	12	38
Salmonella Paratyphi Infection	0	3	0	2	8	0
Salmonella Typhi Infection	2	4	19	12	57	176
Salmonellosis	14	68	379	389	1546	7262
Saxitoxin Poisoning (Paralytic Shellfish Poisoning)	0	0	0	0	0	4
Scombroid Poisoning	0	0	1	8	27	32
Shigellosis	10	39	137	115	529	1513
Staphylococcus aureus Infection, Intermediate Resistance to Vancomycin	0	0	0	0	0	2
Strep pneumoniae Invasive Disease, Drug-Resistant	1	11	21	37	144	205
Strep pneumoniae Invasive Disease, Drug-Susceptible	1	15	20	40	222	370
Tetanus	0	0	0	0	1	1
Tularemia (Francisella tularensis)	0	0	0	0	0	2
Varicella (Chickenpox)	8	25	42	91	367	867
Vibriosis (Grimontia hollisae)	0	0	0	1	2	7
Vibriosis (Other Vibrio Species)	0	0	1	7	32	64
Vibriosis (Vibrio alginolyticus)	0	0	2	5	12	70
Vibriosis (Vibrio cholerae Type Non-O1)	0	0	0	2	4	5
Vibriosis (Vibrio fluvialis)	0	0	0	0	2	12
Vibriosis (Vibrio mimicus)	0	0	0	1	3	0
Vibriosis (Vibrio parahaemolyticus)	1	2	1	5	17	43
Vibriosis (Vibrio vulnificus)	0	0	0	1	3	42
West Nile Virus Neuroinvasive Disease	0	0	0	0	1	34
West Nile Virus Non-Neuroinvasive Disease	0	0	0	0	0	11
Zika Virus Disease and Infection, Congenital	0	0	0	0	1	1
Zika Virus Disease and Infection, Non-Congenital	0	4	43	3	34	172
Total	342	1271	3757	4641	19113	57481

Florida Department of Health in Orange County

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Sign up for Electronic Health Alerts & Epidemiology Monthly Surveillance Reports

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Follow the FL Department of Health in Orange County on **Twitter** @GOHealthyOrange!

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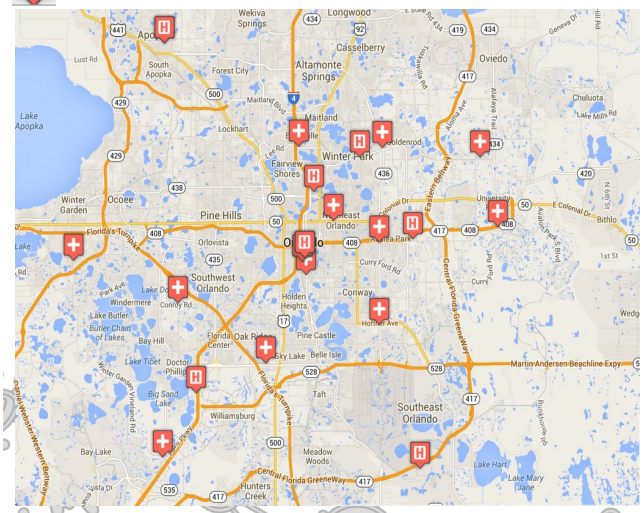


Florida Department of Health: ESSENCE

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.

Measles: Identification and Management of Suspected Cases

(Version 2.0, May 7, 2019)

Triage febrile rash illnesses by phone, or immediately upon arrival, to assess need for control measures.

Does the Patient Have Signs and Symptoms of Measles?

Prodrome with;

- fever (at least 101°F),
- cough,
- coryza,
- conjunctivitis,

Followed in 3-5 days by;

- generalized descending maculopapular rash, and
- Koplik spots (may not be present).

AND

Have risk factors for measles (history of international travel, contact with travelers or links to a known outbreak or case, or no/unknown immunity).

Note: one dose of measles vaccine is 93% effective and two doses are 97% effective at preventing measles (www.cdc.gov/measles)

NO →

Manage as clinically indicated

Consider other differential diagnoses for the illness and address as indicated

Seek commercial testing for pathogens of concern as desired (i.e., Influenza, Group A Streptococcus)

YES ↓

Minimize Risk of Transmission

- Measles is a highly infectious airborne illness.
- Identify febrile rash illnesses prior to, or immediately upon, arrival to expedite evaluation in a private room and minimize patient exposures.
  - Have the patient avoid the waiting room (use a side/back entrance).
  - Have the patient wear a surgical mask.
  - Conduct patient evaluation in a room that can be left vacant for at least 2 hours after the patient's visit.

↓

Call Immediately (24/7) Upon Suspicion for Public Health Reporting and Follow-Up
County Health Department (www.floridahealth.gov/CHDEpiContact) or
Bureau of Epidemiology (850-245-4401)

Laboratory Testing

- Nasopharyngeal (NP) or oropharyngeal (OP) swab* in universal viral transport media for measles RT-PCR

AND

- Urine* in a sterile cup for measles RT-PCR**

AND

- Serum for measles specific IgG and IgM***

* **Preferred specimens**

**Measles RT-PCR is not available at commercial laboratories and is available at the Bureau of Public Health Laboratories, after prior authorization by the County Health Department.

*** Serum specimens should be collected ≥72 hours after rash onset. In a vaccinated patient, a negative measles IgM does NOT exclude measles, RT-PCR is preferred.

Suspect Case Management

- Isolate patient immediately
- Exclude from childcare/ school/workplace for at least 4 days after the onset of rash.
- Reassess isolation based on diagnosis.
- Provide supportive treatment and treatment of complications.

↓

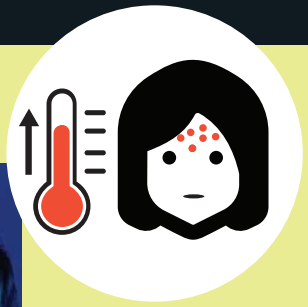
Positive measles test (PCR or IgM) OR high suspicion for active measles infection after public health consultation?

- Notify receiving facilities of diagnosis.
- Identify patients/visitors and staff that shared the same airspace with the case, up to 2 hours later.
- Review the measles evidence of immunity status of patients and staff potentially exposed at your practice.
- Provide vaccine within 3 days or immunoglobulin within 6 days of exposure, as indicated.
- Exclude all healthcare staff without evidence of immunity from day 5 through day 21 following the exposure.

Suspecting Measles

Florida Department of Health • Find county contact information at: FloridaHealth.gov

1. IDENTIFY



Prodrome: fever of at least 101°F, cough, coryza and conjunctivitis.

Rash onset within 3–5 days:

- Red, maculopapular rash that may become confluent—typically starts at hairline, then face and spreads down body.
- The rash may be difficult to see on darker skin.
- Koplik's spots—small, red, irregularly-shaped spots with blue-white centers found on the oral mucosa—may be present in a small number of cases.

Photos courtesy of the Centers for Disease Control and Prevention.

RISK FACTORS:

- History of international travel, contact with international travelers or domestic travel to locations with known measles outbreaks.
- No or unknown MMR vaccine status. History of MMR vaccine does not exclude a measles diagnosis.
- Contact with a person that had a febrile rash illness.

2. ISOLATE

- Encourage patients and families to call ahead first.
- Avoid placing patient in waiting room.
- Implement airborne infection control precautions, mask and isolate patient in a negative pressure room, if available.
- Permit only immune proven staff to be in contact with patient.
- Collect nasopharyngeal swab, urine and serum for measles IgG, IgM and PCR.

3. INFORM

IMMEDIATELY REPORT ALL SUSPECTED MEASLES INFECTIONS TO YOUR COUNTY HEALTH DEPARTMENT.

NOTIFY other facilities of suspected measles before transport.

EXCLUDE patient from school for up to 4 days after onset of rash.

VACCINATION PROTECTS AGAINST MEASLES: A single dose is 93% effective and two doses are 97% effective.

Florida Department of Health, Office of Communications 05-08-19