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Florida HEALTH Orange County

Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

June 2015

Volume 6, Issue 6

The Florida Department of Health Continues West Africa Traveler Monitoring Practice

Executive Order 14-280 issued from the Office of the Governor on October 25, 2014 warranted the Florida Department of Health (DOH) to twice daily in-person temperature and symptom monitoring of all travelers returning from Ebola impacted countries during their 21-day incubation period. Currently, this practice remains in-place statewide for all travelers from **Liberia, Guinea, and Sierra Leone**. DOH continued the practice of monitoring twice daily in-person all travelers from Liberia during their 21-day incubation period even after the World Health Organization declared Liberia Ebola-free on May 9, 2015 and the Centers for Disease Control and Prevention modified guidance on June 17, 2015. Healthcare providers should continue to make inquires of travel history of all ill patients to ascertain possible Ebola risks. As of July 6, DOH has monitored over 485 travelers statewide from Ebola impacted countries in West Africa.

Healthcare providers and community members with questions on DOH West Africa traveler monitoring practices or the current guidance from DOH respecting Ebola Virus can find information at: http://www.floridahealth.gov/diseases-and-conditions/ebola/index.html or call the Florida Department of Health in Orange County during non-holiday weekdays from 8AM to 5PM at (407)858-1420.

Healthcare providers needing consultation after following the guidance document for the Decision algorithm to assist with identifying patients with suspected Ebola Virus disease should contact the Florida Department of Health in Orange County **immediately** during non-holiday weekdays from 8AM to 5PM at (407)858-1420 or afterhours at (407)858-1400 and follow the prompts for the on-call epidemiologist.

The Florida Department of Health in Orange County will continue to provide important health alerts, including those concerning Ebola Virus, via our electronic Health Alert Network and website postings. To signup for the health alert network, please email your contact information to: CHD48.EPIRegistration@flhealth.gov

Points of Interest:

- DOH continues to monitor travelers from West Africa
- Influenza incidence within expected seasonal trends
- Education on dengue fever
- DOH-Orange County Epidemiology wins awards

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Influenza Surveillance (data from Florida Flu Review)

National

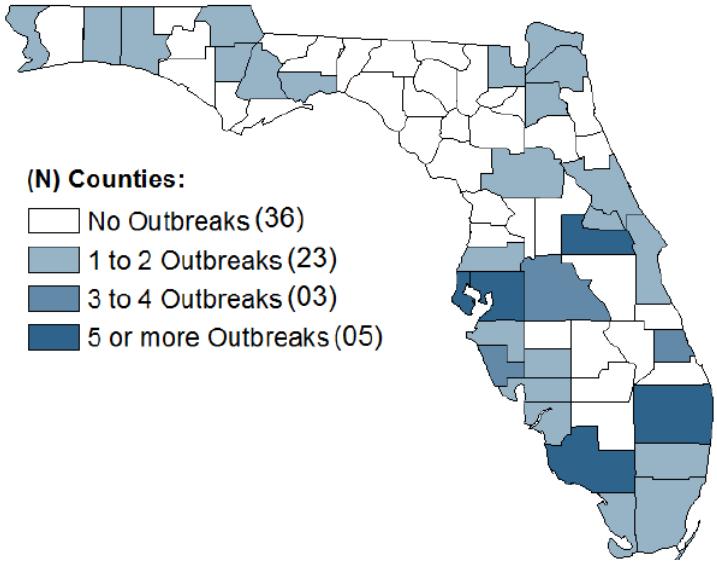
⇒ Highly pathogenic avian influenza (HPAI) has been identified in U.S. backyard and commercial flocks of birds. HPAI has not been identified in Florida birds, but identifications are anticipated. No people have been identified with HPAI in Florida or the rest of the nation. More information on the HPAI outbreak can be found here: http://www.cdc.gov/flu/avianflu/h5/index.htm

Florida

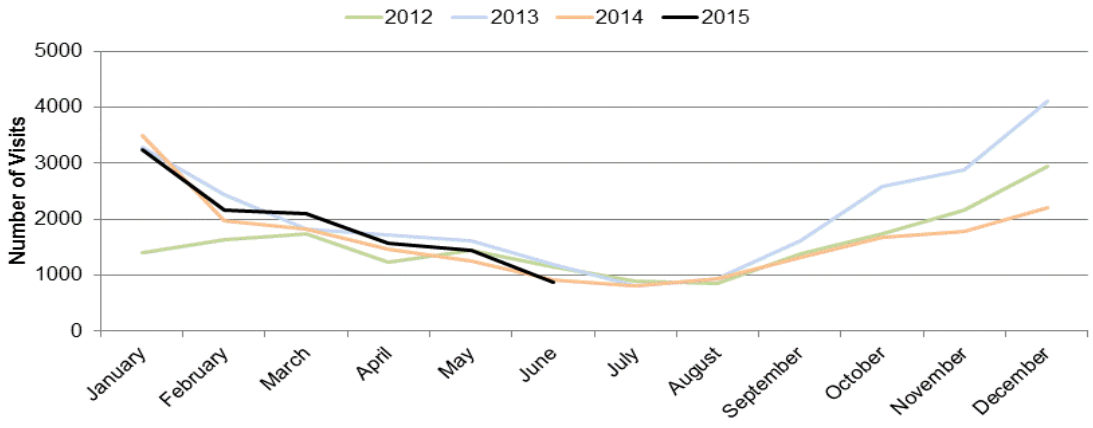
⇒ In week 24, the preliminary estimated number of deaths due to pneumonia and influenza in Florida is lower than levels seen in previous years at this time.

⇒ In weeks 23 and 24, 30 specimens were submitted to Bureau of Public Health Laboratories (BPHL) for influenza testing. Seven specimens tested PCR positive: one for influenza A (H3), six for influenza B Yamagata lineage.

The map to the left shows the number of outbreaks reported in each Florida county since week 40, 2014 (October), as reported by 11 a.m. June 24, 2015. During this time, 105 outbreaks have been reported into EpiCom. Less than half (31 or 46.3%) of counties reported at least one outbreak in the 2014-2015 influenza season. The last influenza outbreak was reported April 30, 2015.



Influenza-like Illness from Emergency Department Visits in Orange County, 2012 to 2015



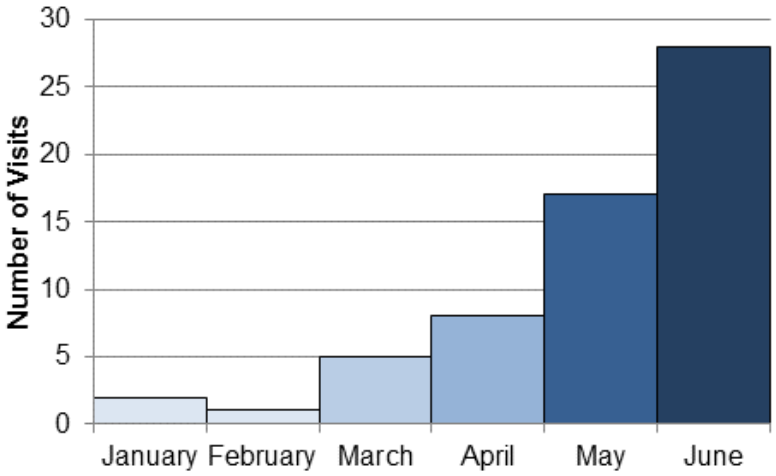
Influenza Resources:

Florida Department of Health Weekly Influenza Activity Report

Center for Disease Control and Prevention Weekly Influenza Activity Report

Excessive Heat-related Surveillance

Emergency Department Excessive Heat-related Visits, Orange County, Florida 2015



Historical Emergency Department Excessive Heat -related Visits, Orange County, Florida in June, 2011-2015

Year	June Visit
2015	28
2014	18
2013	21
2012	4
2011	16

Ebola Surveillance

Florida

⇒ Per Executive Order Number 14-280 issued by the Office of the Governor, the Florida Department of Health continues the practice of twice daily in-person temperature monitoring and symptom checking of all travelers from Guinea, Liberia, and Sierra Leone during their 21-day Ebola incubation period.

⇒ Ebola continues to represent a very low risk to the general public in Florida and the United States.

⇒ **Physicians should immediately call the local health department if a patient fits the criteria of an Ebola Patient Under Investigation** (link to Patient Screening Tool below).

International

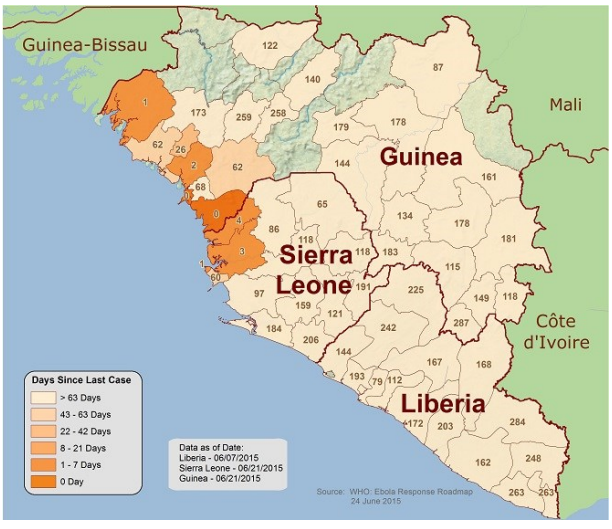
Updated July 1, 2015:

⇒ Liberia, originally declared Ebola-free on May 9, has reported several new cases outside Monrovia.

⇒ Guinea and Sierra Leone continue to experience disease transmission during the past 21 days.

⇒ Total Cases (Updated June 30, 2015):

- Liberia: 10,666
- Sierra Leone: 13,119
- Guinea: 3,729



(Map Courtesy CDC)

Ebola Resources:

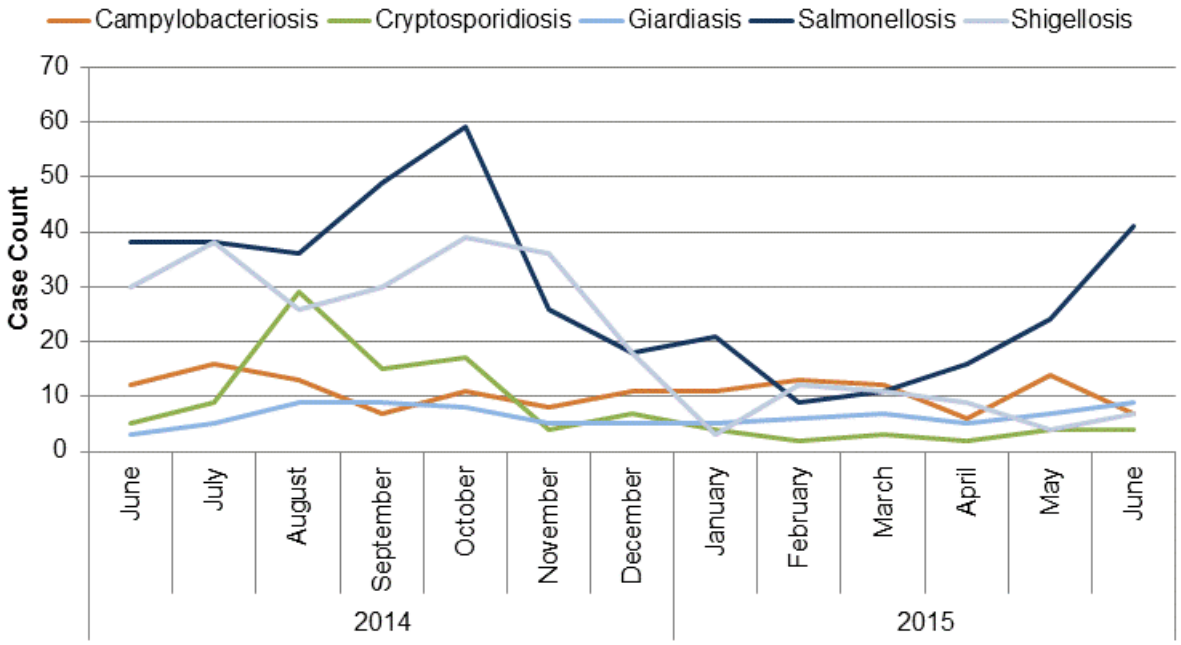
Patient Screening Tool: Florida Department of Health Florida Department of Health EVD Resources

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, June 2014 to June 2015



Gastrointestinal Illness Points of Interest:

⇒ 41 cases of Salmonellosis were reported among Orange County residents in June 2015. This represents an increase from May 2015, but is still within the seasonal expected disease incidence trend for Salmonellosis.

⇒ During June, 16 foodborne illness complaints were reported to the Florida Department of Health in Orange County for investigation.

⇒ One foodborne outbreak following salmonellosis contamination at a catered event was reported in June.

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

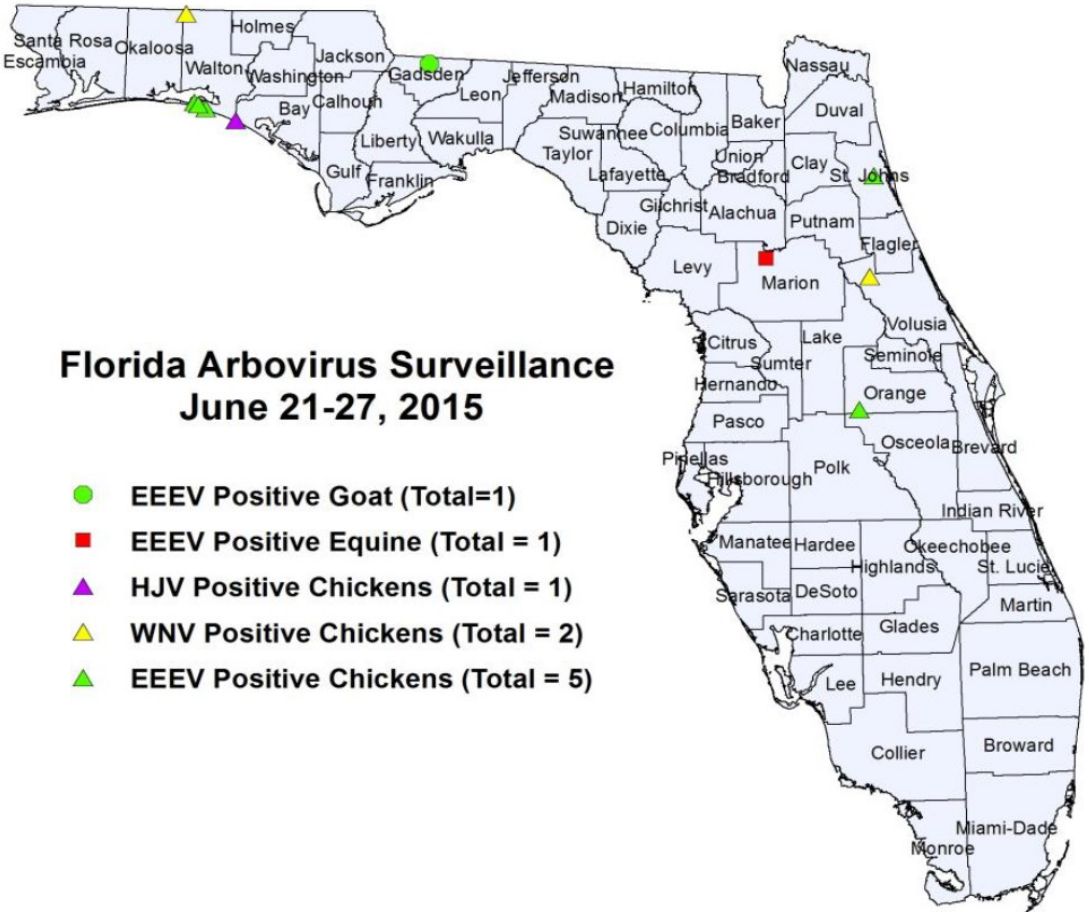
Arboviral Surveillance

Florida

⇒ In Florida, no human cases of West Nile Virus, St. Louis Encephalitis Virus, or Eastern Equine Encephalitis Virus were reported.

⇒ One case of Dengue Virus was imported from Cuba.

⇒ Two cases of Chikungunya Fever were imported from Columbia and Ecuador.



Orange County

⇒ No human cases of West Nile Virus, St. Louis Encephalitis Virus, Eastern Equine Encephalitis Virus , Dengue Virus, or Chikungunya Virus were reported during June 2015.

⇒ In June, one sentinel chicken tested positive for Eastern Equine Encephalitis Virus (EEEV) in Orange County.

⇒ During 2015, 10 sentinel chickens and 1 horse have tested positive for EEEV in Orange County.

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

Dengue Virus Education

There are four serotypes (DENV 1-4) of the dengue virus that can cause dengue fever. Antibodies produced as a result of an infection with one of the dengue serotypes offers limited protection against the other serotypes; therefore, an individual can have dengue fever four times during their lifetime. Dengue virus is spread through the bite of an infected *Aedes aegypti* or *Aedes albopictus* mosquito.

Currently in Florida, both *Aedes aegypti* or *Aedes albopictus* are present; however, dengue virus is not circulating within the local mosquito population. Risk for dengue fever in Florida are primarily from disease importations. Physicians should ask patients about travel to known dengue risk areas (see below map). Appropriate laboratory testing to confirm dengue virus infection is necessary and dependent on when onset of symptoms occurred (see next page).

Dengue fever cases should be reported to the Florida Department of Health by the end of the next business day. Public health will interview the case to assess the risk for disease transmission. This information is relayed to Orange County Mosquito Control to conduct a field assessment with possible mosquito spraying and trapping to reduce the risk of local dengue virus transmission.

Image Source: Centers for Disease Control and Prevention

Dengue Fever Epidemiology Quick Guide

Worldwide Disease Burden: 50 to 100 million cases annually (WHO)

Florida Disease Burden (2014): 79 imported cases & 7 locally acquired cases

Orange County Disease Burden (2014): 4 imported cases & zero locally acquired cases

Incubation Period: 3 to 14 days

Communicability Period: People can transmit the virus to other mosquitoes if bitten while viremic; the viremic stage usually begins the day before symptom onset and continues for five days.

Dengue Fever Clinical Description

Dengue fever (DF) is most commonly an acute febrile illness defined by the presence of fever and two or more of the following, retro-orbital or ocular pain, headache, rash, myalgia, arthralgia, leukopenia, or hemorrhagic manifestations (e.g., positive tourniquet test, petechiae; purpura/ ecchymosis; epistaxis; gum bleeding; blood in vomitus, urine, or stool; or vaginal bleeding) but not meeting the case definition of dengue hemorrhagic fever. Anorexia, nausea, abdominal pain, and persistent vomiting may also occur but are not case-defining criteria for DF.

Dengue Laboratory Testing

Detailed information on clinical specimens and laboratory criteria to confirm dengue virus infection can be found here: http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/_documents/mosquito-guide-2013.pdf

If dengue virus infection is suspected, testing for chikungunya virus infection is recommended. Chikungunya virus will be covered in the July 2015 EPI Surveillance Report.

Guide to Interpretation and Classification of Common Dengue Laboratory Tests

Laboratory test	Days post-onset of sample collection	Interpretation of positive result	Explanation
Real Time-PCR	≤ 5 days	Confirmatory (*Note)	Patient viremic while febrile; days 0-7
IgM (paired specimens, acute and convalescent)	≤ 5 days for acute specimen, > 5 days for convalescent. (ideally 2 weeks apart)	Confirmatory	Negative IgM in an acute specimen followed by a positive IgM in a convalescent speciment
IgG (paired specimens, acute and convalescent)	≤ 5 days for acute specimen, > 5 days for convalescent. (ideally 2 weeks apart)	Confirmatory	Must be 4 fold increase in titer between acute and convalescent specimen
IgM (single serum specimen)	> 5 days	Probable	IgM can remain positive for ≥ 3 months in cases of acute dengue infection
*Note: Only PCR for dengue or IgM ELISA-based antibody test can be used for diagnosis of dengue in single serum specimens			
NB: Previous flavivirus infections and the high prevalence of dengue IgG antibody in some population (e.g., those resident in, or long-term visitors of dengue endemic countries) complicate interpretation of dengue serological test results. Therefore, a single serum sample tested using a dengue-specific IgG or combined IgM/IgG ("all antibody") test is generally not helpful for diagnosis of confirmed or probable cases of dengue. For this reason suspect cases are defined clinically and epidemiologically, without IgG or combined IgG/IgM serological testing. If only a single serum sample is available for testing, a test for dengue-specific IgM antibody is preferred.			

Acute and/or convalescent sera from individuals with infections believed to be Florida-acquired must be forwarded to the Florida Department of Health Bureau of Public Health Laboratories (BPHL). Acute sera from individuals with infections believed to be acquired outside Florida should also be forwarded to BPHL. For instructions on how to forward specimens to BPHL, please contact the Florida Department of Health in Orange County during non-holiday weekdays at (407)858-1420.

Dengue Virus Resources: Florida Department of Health Disease Reporting and Management; Centers for Disease Control and Prevention

Reportable Diseases	ORANGE				All Counties			
	June		Cumulative (YTD)		June		Cumulative (YTD)	
	2015	Mean (2010 - 2014)	2015	Mean (2010 - 2014)	2015	Mean (2010 - 2014)	2015	Mean (2010 - 2014)
Arsenic Poisoning	0	0	0	0	2	0.8	8	4.4
Botulism: Infant	0	0	0	0	0	0	0	0.2
Brucellosis	0	0	0	0.2	0	0.4	3	5
Campylobacteriosis	9	10.8	66	53.6	411	231.8	1877	1130.6
Carbon Monoxide Poisoning	0	0	3	2.4	12	13.4	109	72.2
Chikungunya Fever	1	1	3	1.2	6	9.6	79	14.6
Cholera (Vibrio cholerae Type O1)	0	0	2	0	0	0.8	4	2.6
Ciguatera Fish Poisoning	0	0	1	0.2	3	4	14	13.6
Creutzfeldt-Jakob Disease (CJD)	0	0	0	0.2	0	1.8	14	10.2
Cryptosporidiosis	4	1.6	19	12.4	56	43.8	296	208.4
Cyclosporiasis	0	0.8	0	1.2	1	5.4	1	13.2
Dengue Fever	0	0.2	0	3	5	5.4	20	34.2
Dengue Fever: Severe	0	0	0	0	0	0.2	0	0.4
Eastern Equine Encephalitis Neuroinvasive Disease	0	0	0	0	0	0	0	0.6
Ehrlichiosis/Anaplasmosis: HGA (Anaplasma phagocytophilum)	0	0	0	0	0	0.6	1	1.8
Ehrlichiosis/Anaplasmosis: HME (Ehrlichia chaffeensis)	0	0.2	0	0.4	6	3.2	13	10.4
Ehrlichiosis/Anaplasmosis: Undetermined	0	0	0	0	0	0	0	0.2
Escherichia coli: Shiga Toxin-Producing (STEC) Infection	1	0.8	9	5.2	38	36.8	217	186.6
Giardiasis: Acute	10	4.2	40	30	107	102.4	478	606.4
Haemophilus influenzae Invasive Disease	0	2.4	3	9	15	21.8	92	145.8
Hansen's Disease (Leprosy)	0	0	0	0.2	2	1.2	11	4.2
Hemolytic Uremic Syndrome (HUS)	0	0	1	0.2	0	0.8	3	2.8
Hepatitis A	0	1	1	3.4	10	10.4	60	59
Hepatitis B: Acute	0	1	8	5.8	39	28	233	159.4
Hepatitis B: Chronic	34	32.6	282	186	417	373.4	2879	2175.4
Hepatitis B: Perinatal	0	0	0	0.2	0	0	0	0.6
Hepatitis B: Surface Antigen in Pregnant Women	4	4.8	35	30.6	20	39	194	252.6
Hepatitis C: Acute	0	0.4	2	5	10	12.4	83	79.8
Hepatitis C: Chronic	166	140	1007	824.6	3054	2387.4	18458	13685.6
Hepatitis D	0	0	0	0	0	0	0	0.2
Hepatitis E	0	0	1	0.2	0	0.2	2	1.8
Hepatitis G	0	0	0	0.2	0	0	0	0.2
Herpes B Virus: Possible Exposure	0	0	0	0	0	0.4	1	3.6
Influenza A: Novel or Pandemic Strains	0	0	0	2.4	0	0.2	0	29
Influenza-Associated Pediatric Mortality	0	0	0	0	0	0	0	2.8
Lead Poisoning	1	1.6	13	15.6	72	71.4	455	399.6
Legionellosis	1	0.6	8	6	15	19.6	153	99.2
Leptospirosis	0	0	0	0	0	0	1	0.4
Listeriosis	0	0	0	1	2	2.6	13	18.6
Lyme Disease	0	0.4	2	1.8	21	10.6	81	40.8
Malaria	0	1.6	2	4.8	3	9.4	24	40
Measles (Rubeola)	0	0	0	1.2	0	0.2	11	3.2
Meningitis: Bacterial or Mycotic	0	1.6	0	5.8	14	18	65	88.8
Meningococcal Disease	0	0.4	0	0.4	1	4.4	16	34.4
Mercury Poisoning	0	0	0	0	2	1	10	4.4
Middle East Respiratory Syndrome (MERS)	0	0	0	0.2	1	0	1	0.2
Mumps	0	0	0	0	1	0.6	13	6.6
Pertussis	0	1.2	9	12	8	52	160	251
Pesticide-Related Illness and Injury: Acute	0	0.4	0	1.4	2	7.4	5	41.6
Q Fever: Acute (Coxiella burnetii)	0	0	0	0	0	0.6	1	1.4
Rabies: Human	0	0	0	0	0	0	0	0.2
Rabies: Possible Exposure	7	8	48	46	253	236.2	1611	1258
Ricin Toxin Poisoning	0	0	0	0	0	0	2	0.2
Rocky Mountain Spotted Fever and Spotted Fever Rickettsiosis	0	0	0	0	5	0.2	18	3
Rubella	0	0	0	0	0	0	1	0
Salmonellosis	41	29.2	122	102.8	604	523	2266	2063
Shigellosis	7	21	46	60.8	268	221.2	1143	895.2
Staphylococcus aureus Infection: Intermediate Resistance to Vancomycin (VISA)	0	0	0	0	0	0	4	1.4
Strep pneumoniae Invasive Disease: Drug-Resistant	1	1.6	7	22.8	9	35.4	94	377.2
Strep pneumoniae Invasive Disease: Drug-Susceptible	1	1	11	15	22	35	168	376.2
Tetanus	0	0	0	0	1	0	2	2.8
Typhoid Fever (Salmonella Serotype Typhi)	0	0	0	0.6	0	0.8	5	6.2
Vaccinia Disease	0	0	0	0	0	0	1	0.2
Varicella (Chickenpox)	1	2	6	17.8	45	46.8	414	481.4
Vibriosis (Grimontia hollisae)	0	0	0	0	0	0	1	1
Vibriosis (Other Vibrio Species)	0	0	0	0	2	0.8	7	3.2
Vibriosis (Vibrio alginolyticus)	0	0.2	1	0.8	7	7.4	28	22.8
Vibriosis (Vibrio cholerae Type Non-O1)	0	0.2	0	0.4	0	1.8	4	5.4
Vibriosis (Vibrio fluvialis)	0	0	0	0	1	1	4	1.8
Vibriosis (Vibrio mimicus)	0	0	0	0	3	0.4	8	1.8
Vibriosis (Vibrio parahaemolyticus)	0	0	0	0.2	2	3.2	22	17.6
Vibriosis (Vibrio vulnificus)	0	0	0	0	5	2.8	15	8.4
West Nile Virus Non-Neuroinvasive Disease	0	0	0	0	0	0	0	0.4

Left to Right: Danielle Knight, Maritza Godwin, Jennifer Conaway, Debra Mattas, Lori Theisen, Ben Klekamp, Karen Coombs, Toni Hudson, Sarah Matthews, Jennifer Jackson
Not Pictured: Jack Tracy, Charlene McCarthy, Debbie Andrews, Saadia Stephan

2015 Florida Department of Health Statewide Training
Congratulations DOH-Orange Epidemiology!!!

Awards

1. Excellence in Epidemiology - Sarah Matthews

2. Teamwork within a County Health Department for the May 2014 MERS-CoV Response

3. Teamwork Across County Health Departments for Response to Foodborne Illness Outbreak at a Holiday Lunch Buffet in Orange and Seminole Counties

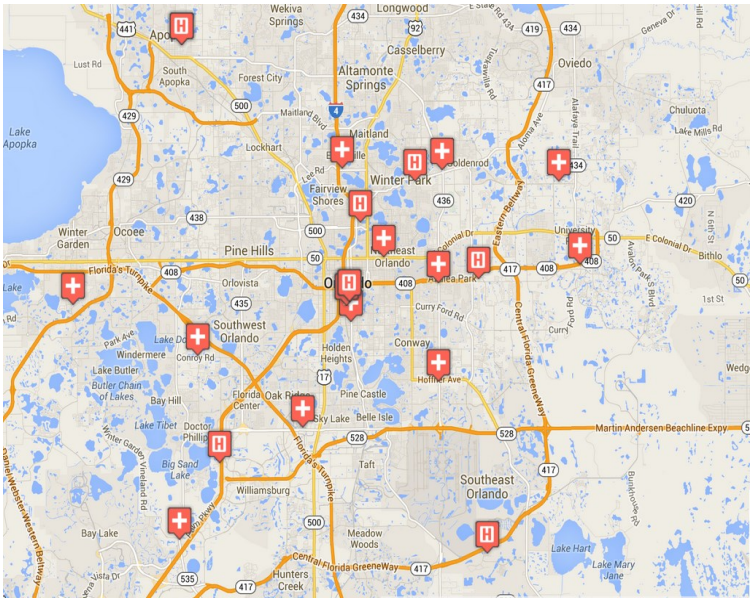
4.Teamwork Across County Health Departments for Response to a case of Measles in Orange, Sarasota, Osceola, and Miami/Dade Counties

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 County

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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