



Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

Middle East Respiratory Syndrome (MERS-CoV) in the US

On May 2, 2014, the first U.S. case of MERS –CoV was confirmed in a traveler from Saudi Arabia to Indiana, via London and Chicago. The patient is a healthcare worker who lives and works in Saudi Arabia. He was isolated in a hospital during the course of illness, fully recovered and was discharged. Public health officials contacted healthcare workers, family members and travelers who had close contact with the patient.

On May 11, 2014, a second U.S. imported case of MERS-CoV was confirmed in a traveler from Saudi Arabia to Florida. This patient is also a healthcare worker who traveled from Saudi Arabia to Orlando via London, Boston and Atlanta. The patient was isolated in a hospital during the course of illness, fully recovered and was discharged. Health officials are working to identify and notify all persons who may have been exposed to the patient during the initial hospitalization and air travel.

The investigation has confirmed that the two U.S. cases are not linked.

However, on May 16, 2014, the ongoing investigation of the first imported case of MERS-CoV in the U.S. identified evidence of apparent past MERS-CoV infection in an Illinois resident who had contact with the Indiana case. The Illinois resident met with the Indiana MERS –CoV patient on two occasions shortly before the patient was admitted to the hospital and identified as having MERS-CoV infection. The Illinois resident did not seek or require medical care. But local health officials have monitored his health daily since May 3 as a part of the investigation. They collected blood samples from all close contacts and on May 16, the test result was positive for the Illinois resident, showing that he has antibodies to MERS-CoV.

The MERS-CoV situation in the U.S. represents a very low risk to the general public in this country. It remains that the virus has spread from ill people to others through close contact, such as caring for, living or spending extended time with an infected person. CDC and public health officials continue to investigate and respond to the changing situation to prevent the spread of MERS-CoV in the U.S. [Abstracted]

[MERS-CoV: Frequently Asked Questions](#)

Chikungunya Fever — Brief Update for Clinicians

⇒ Please contact the Florida Department of Health in Orange (DOH-Orange) by the next business day if you suspect a patient has a chikungunya infection to ensure prompt mosquito control efforts. An infected person should avoid mosquito bites while ill to prevent infection transmission to local mosquitoes. See page 8.

April 2014

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Points of Interest:

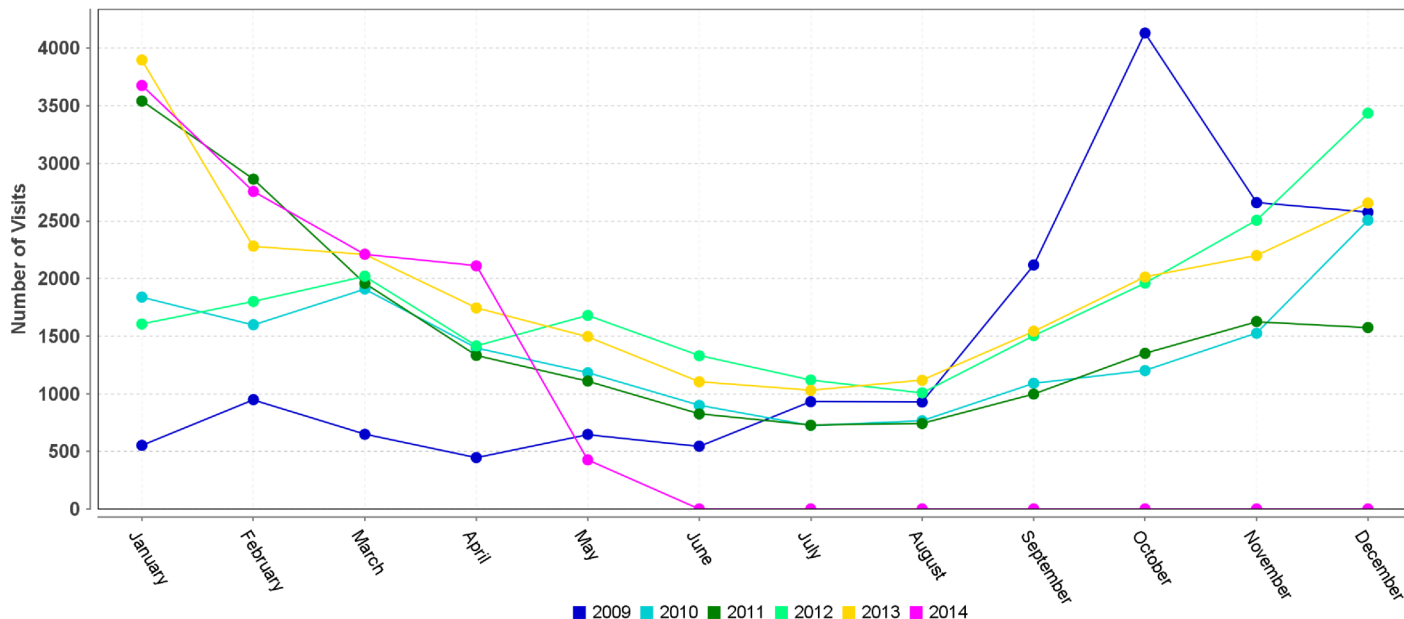
- MERS-CoV Update
- Chikungunya Update for Clinicians
- Free Hepatitis Testing and Vaccinations
- [We now offer rapid Hepatitis C screening!](#)
To schedule an appointment call (407)858-1420

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Influenza Surveillance

ESSENCE, ED Clinic Visits with Chief Complaint of Influenza-like Illness, Orange County, Florida, 2009-2014



Orange County

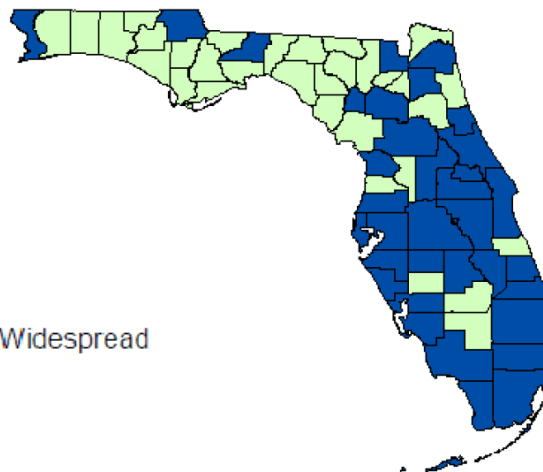
- ⇒ Orange County demonstrated mild flu activity in week 17 and 18.
- ⇒ No influenza and ILI outbreaks reported in Orange County from week 40, 2013 to week 18, 2014.

Florida

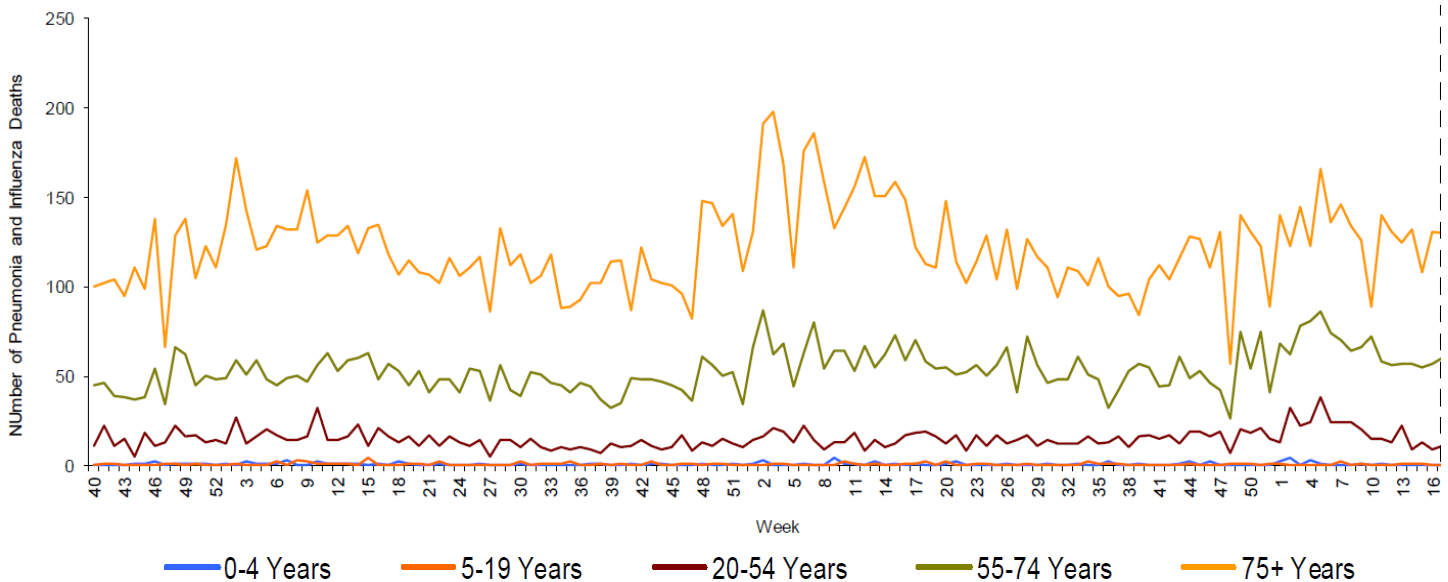
- ⇒ The most common subtype detected in recent weeks has been influenza B.
- ⇒ Influenza activity continues to decline or remain at low levels within the state.
- ⇒ The preliminary estimated number of Florida deaths due to pneumonia or influenza in week 17 is lower than the seasonal baseline, based on previous years' data.
- ⇒ No pediatric influenza-associated death was reported in week 18. Four pediatric influenza-associated deaths have been reported in the 2013-2014 season.
- ⇒ **Twenty-three** outbreaks of influenza or ILI have been reported since Week 40, 2013.

Florida Influenza Activity Week 18: April 28 – May 3

No Activity
 Mild
 Moderate
 Widespread



Vital Statistics Florida Pneumonia and Influenza Deaths by Age Group, ESSENCE-FL, Week 40 2010 – Week 17, 2014



Influenza Points of Interest: Novel Influenza A (H7N9) Virus

- ⇒ On April 1, 2013, the World Health Organization (WHO) reported that confirmed human infection with novel avian influenza A (H7N9) virus was identified in China. The first onset of illness was on February 19, 2013.
- ⇒ The Center for Infectious Disease Research and Policy (CIDRAP) reports 406 total confirmed cases and 122 deaths as of March 31, 2014, all in or with recent travel to China. DOH continues to actively monitor the situation.
- ⇒ There is no evidence that avian influenza A (H7N9) virus is capable of sustained person-to-person transmission.
- ⇒ **There is no evidence of avian influenza A (H7N9) virus infection in the United States.** No travel restrictions to China are in effect.
- ⇒ The CDC Health Advisory for testing, treatment and infection control guidelines for suspect H7N9 cases can be found at the following link:

[Human Infections with Avian Influenza A \(H7N9\) Viruses](#)

Influenza Resources:

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

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

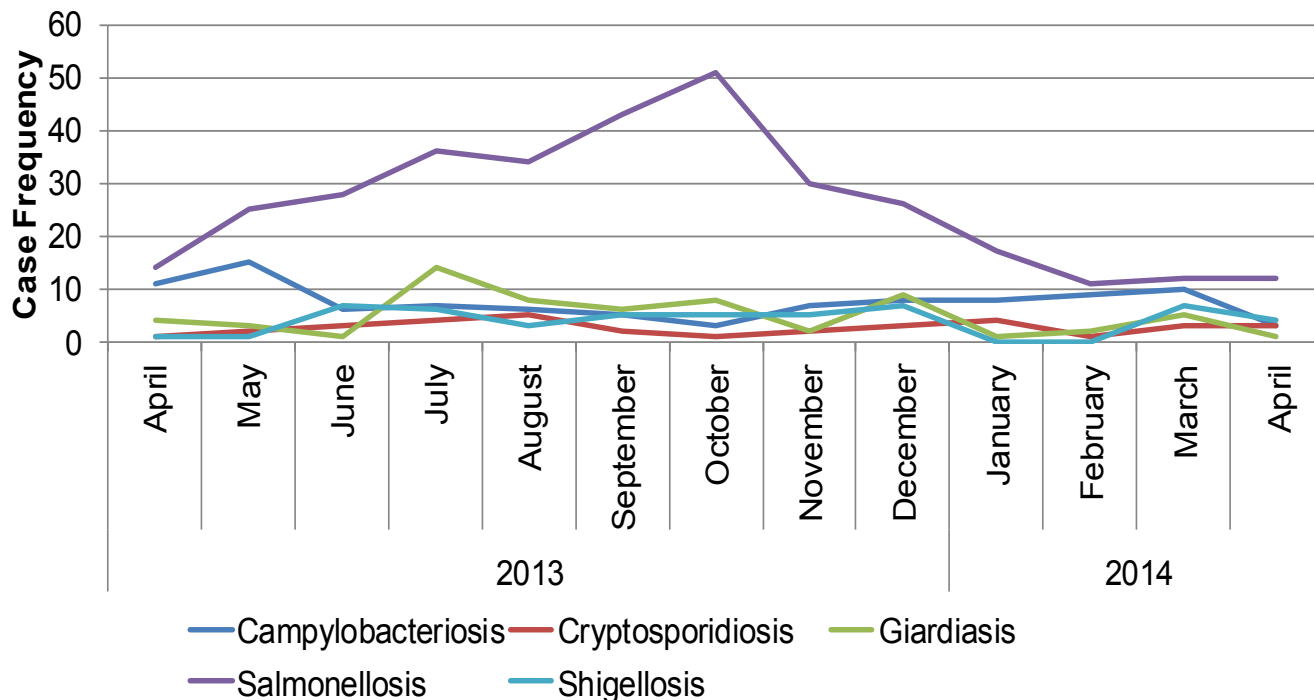
[Centers for Disease Control and Prevention 2013-2014 Influenza Season](#)

[CDC: Preventing Seasonal Flu With Vaccination](#)

["Know Flu" Campaign: Florida Department of Health in Orange County](#)

Gastrointestinal Illness Surveillance

Reportable Enteric Diseases in Orange County, Florida from April 2013 to April 2014



Gastrointestinal Illness Points of Interest:

- ⇒ Cases of reportable enteric disease continue to decline per the typical seasonal trend.
- ⇒ During April, 15 foodborne illness complaints were reported to the Florida Department of Health in Orange County (DOH-Orange) for investigation.
- ⇒ There was one reported foodborne or waterborne outbreak to DOH-Orange in April 2014.

Gastrointestinal Illness Resources:



Florida Online Foodborne Illness Complaint Form - Public Use
<http://www.floridahealth.gov/diseases-and-conditions/food-and-waterborne-disease/online-food-complaint-form.html>

[Florida Food Recall Searchable Database](#)

[Florida Department of Health - Norovirus Resources](#)

Arboviral Surveillance

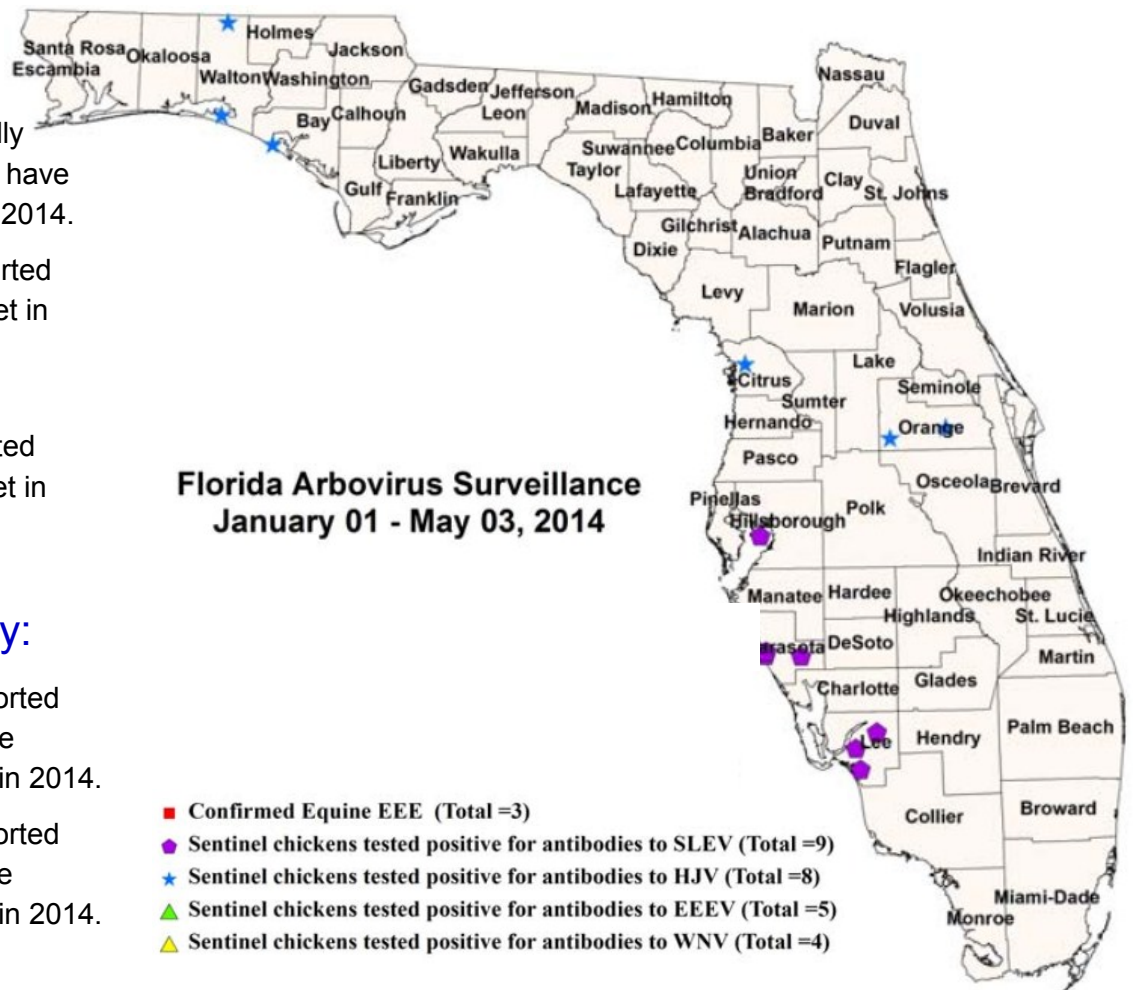
Arboviral Activity in Orange County, Florida, April 2014						
Disease	Bird/Sentinel Chicken		Horse Case		Human Case	
	Month	Cumulative (YTD) 2014	Month	Cumulative (YTD) 2014	Month	Cumulative (YTD) 2014
Eastern equine encephalitis virus	-	-	-	-	-	-
St. Louis encephalitis virus	-	-	-	-	-	-
West Nile virus	-	-	-	-	-	-
Dengue virus	-	-	-	-	1	2

Statewide:

- ⇒ No cases of locally acquired dengue have been reported in 2014.
- ⇒ 20 cases of imported dengue with onset in 2014 have been reported.
- ⇒ 7 cases of imported malaria with onset in 2014 have been reported.

Orange County:

- ⇒ One case of imported dengue in Orange County reported in 2014.
- ⇒ One case of imported malaria in Orange County reported in 2014.



Arboviral Resources:

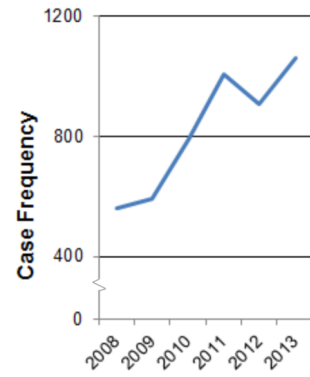
[Weekly Florida Arboviral Activity Report \(Released on Mondays\)](#)

[Orange County Mosquito Control](#)

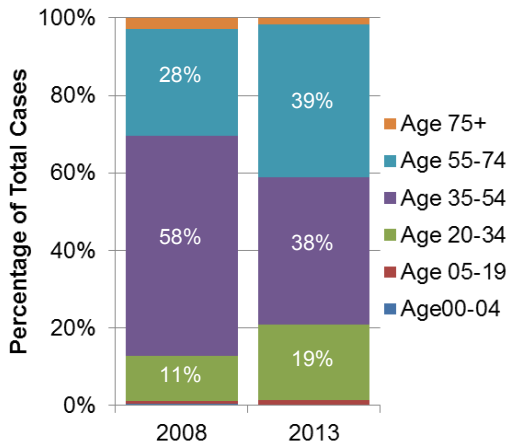
Hepatitis C: Understanding the Burden of Disease

Between 2008 and 2013, the incidence of chronic hepatitis C cases in Orange County has **increased by 89 percent**. The increase is likely due to a combination of both ongoing transmission within the community and increased testing for hepatitis C virus infection. One of the efforts to provide more testing in the community has been through the Florida Department of Health Hepatitis 09 Prevention Program that started in Orange County in 2007.

Hepatitis C is a contagious viral disease that is primarily contracted through contact with blood from an infected person. Chronic hepatitis C is a serious long-term illness that can lead to liver dysfunction, including cirrhosis or liver cancer.



Chronic Hepatitis C Cases in Orange County, Florida 2008-2013



Chronic Hepatitis C Cases by Age Group in Orange County, Florida 2008 & 2013

The Centers for Disease Control and Prevention (CDC) estimates 3.2 million people are infected with hepatitis C in the United States. Most of these individuals do not know they are infected as they have not been tested and do not look or feel ill.

Testing for hepatitis C virus infection did not begin until 1992. As a result, the CDC recommends that all adults born between 1945 and 1965 are tested without regard for risk of infection. More information on CDC Hepatitis C testing recommendations can be found at: <http://www.cdc.gov/hepatitis/hcv/>

Recently, a concerning trend of increasing chronic hepatitis C infections have been observed among individuals aged 20-34 years. One of the most commonly attributed risk factors among this age group has been intravenous drug use. Physicians are advised to consider testing for hepatitis C virus infection or refer the patient to the health department.

The Florida Department of Health in Orange County (DOH-Orange) now offers rapid hepatitis C virus testing, which takes 20 minutes to complete. Hepatitis Panel serology for Hepatitis A, B and C is also available.

Free Hepatitis Testing & Hepatitis B Vaccinations

When: **By Appointment Only**—Call (407) 858-1420

Where: 6101 Lake Ellenor Drive, Orlando at the Florida Department of Health in Orange County

Hepatitis Outreach:

Where: 832 W. Central Boulevard, Orlando at DOH-Orange Immunizations

When: Every Wednesday from 8:00am—10:30am

Disease	ORANGE					All Counties				
	April		Cumulative (YTD)			April		Cumulative (YTD)		
	2014	2013	2014	2013	Mean (2009-13)	2014	2013	2014	2013	Mean (2009 - 2013)
Amebic Encephalitis	0	0	0	0	0	0	0	0	0	0
Brucellosis	0	0	0	1	0.2	2	2	2	3	4
Campylobacteriosis	6	8	34	30	25.4	241	230	947	739	554
Carbon Monoxide Poisoning	0	1	3	3	1.2	15	5	66	63	39.6
Cholera (Vibrio cholera, Type O1)	0	0	0	0	0	1	0	2	0	1.4
Ciguatera Fish Poisoning	0	0	0	0	0.2	0	1	9	1	5
Creutzfeldt-Jakob Disease (CJD)	0	0	0	0	0.4	2	3	5	7	5.4
Cryptosporidiosis	4	2	13	6	8.4	38	24	149	104	118.6
Cyclosporiasis	0	0	0	0	0.6	0	0	2	1	8.6
Dengue Fever	1	2	2	7	2.4	5	10	34	48	19.8
Eastern Equine Encephalitis Virus Neuroinvasive Disease	0	0	0	0	0	0	0	1	2	0.4
Eastern Equine Encephalitis Virus Non-Neuroinvasive Disease	0	0	0	0	0	0	0	0	0	0
Giardiasis	8	2	16	21	22.8	94	105	341	351	440
H. influenzae Invasive Disease	0	2	6	10	4.2	26	29	125	107	96.2
Hemolytic Uremic Syndrome	0	0	0	0	0.2	2	0	4	1	1.6
Hepatitis A	1	0	2	0	2.2	10	13	41	30	46.6
Hepatitis B, Acute	1	0	3	3	4.8	39	35	130	112	98.4
Hepatitis B, Chronic	38	28	118	139	133.8	466	344	1530	1509	1451.6
Hepatitis B, HBsAg in Pregnant Women	0	8	16	25	24.6	38	46	172	165	172.2
Hepatitis B, Perinatal	0	0	0	1	0.2	0	0	1	2	0.4
Hepatitis C, Acute	2	0	4	2	3.2	23	24	64	76	40
Hepatitis C, Chronic	131	137	579	524	555.6	2864	2557	11161	10135	8280
Influenza-Associated Pediatric Mortality	0	0	1	0	0	0	0	3	6	2.4
Lead Poisoning	2	2	6	9	12.4	35	42	318	213	242.8
Legionellosis	1	0	4	2	4.4	28	13	103	60	54.2
Leptospirosis	0	0	0	0	0	0	0	0	0	0
Listeriosis	0	0	0	2	0.6	3	2	9	14	10.6
Lyme Disease	1	1	1	2	1	12	3	31	23	21.6
Malaria	0	1	1	3	2.6	5	4	14	22	28.6
Measles	0	0	0	5	1	0	0	0	8	2.8
Melioidosis	0	0	0	0	0	0	0	0	0	0
Meningitis (Bacterial, Cryptococcal, Mycotic)	0	0	1	6	4.2	16	10	51	44	62.8
Meningococcal Disease	0	0	0	0	0	2	3	17	31	27.6
Mumps	0	0	0	0	0	1	0	6	0	4.6
Pertussis	3	7	12	15	6.8	57	49	261	147	118.8
Pesticide-Related Illness Or Injury	0	1	0	1	0.6	0	1	9	17	26
Rabies, Animal	0	0	0	0	0	0	0	0	0	0
Rabies, Possible Exposure	6	3	34	28	30.6	240	235	846	910	726.4
Rocky Mountain Spotted Fever	0	0	0	0	0	7	2	10	3	3.4
S. aureus Infection, Intermediate Resistance to Vancomycin (VISA)	0	0	0	0	0	0	0	0	1	1.6
S. aureus, Community-Associated Mortality	0	0	0	0	0.2	0	1	3	7	5.2
S. pneumoniae Invasive Disease, Drug-Resistant	5	5	15	19	19.8	53	50	246	266	328.4
S. pneumoniae Invasive Disease, Drug-Susceptible	2	5	15	16	14.8	45	65	269	296	313.2
Salmonellosis	16	10	63	56	51.6	317	321	1228	1142	1091
Shiga Toxin-Producing E. coli (STEC) Infection	1	1	3	7	2.8	44	36	151	141	97.2
Shigellosis	5	3	16	8	19.8	269	52	753	153	340.6
Streptococcus Invasive Disease (Group A)	2	1	5	6	5.8	28	36	146	96	100.2
Typhoid Fever	1	0	1	0	0.8	2	0	4	1	3.6
Varicella	0	3	4	21	17.6	57	83	220	283	421.8
Vibriosis (Vibrio alginolyticus)	0	0	0	0	0	4	7	14	8	6.6
Vibriosis (Vibrio parahaemolyticus)	0	0	1	0	0	3	6	4	11	9.4
Vibriosis (Vibrio vulnificus)	0	0	0	0	0	0	0	2	0	1.8
Total	237	233	980	978	992	5109	4460	19541	17402	15507

The Top 10 Reported Disease and Conditions in Orange County Year-To-Date are Highlighted in GREY.

Chikungunya Fever — Update for Clinicians

- ⇒ Please contact DOH-Orange if you have a patient that has an acute onset of high fever and polyarthralgia with or without recent (2 weeks prior to onset) travel to an endemic area including the Caribbean. Infection is characterized by acute fever and polyarthralgia. Incubation: 1-12 days
- ⇒ Laboratory Testing: Polymerase Chain Reaction (PCR) can be used to detect viral RNA in serum samples collected during the first week post-symptom onset. Virus-specific IgM and neutralizing antibody testing should be requested for serum specimens taken >1 week post-onset. Both acute (<1 week post-onset) and convalescent (>1 week post onset) sera should be collected. DOH-Orange can provide guidance on how and when to submit samples to the Florida Department of Health-Bureau of Public Health Laboratories. For more detailed information, see: [CDC: chikungunya](http://www.cdc.gov/chikungunya)

Kevin Sherin, MD Honored During National Public Health and National Volunteer Week

Dr. Sherin, Health Officer and Director of the Florida Department of Health in Orange County, was recently awarded the 2014 Volunteer Award by Shepherd's Hope, a federally-recognized volunteer free clinic. He was honored for his commitment and expertise providing volunteer medical care to Florida families and children.

On May 6th, Dr. Sherin was presented the "Guardian of the Mission" Award by the students at Florida State University, College of Medicine, Orlando Campus. The students nominate and vote on the faculty member whom they feel best represents the ideals of the mission of FSU College of Medicine. Many of these students volunteer with Dr. Sherin at Shepherd's Hope. [Shepherd's Hope](http://www.shepherds-hope.org)

Other Disease Resources

In the structure of FDOH-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](#).



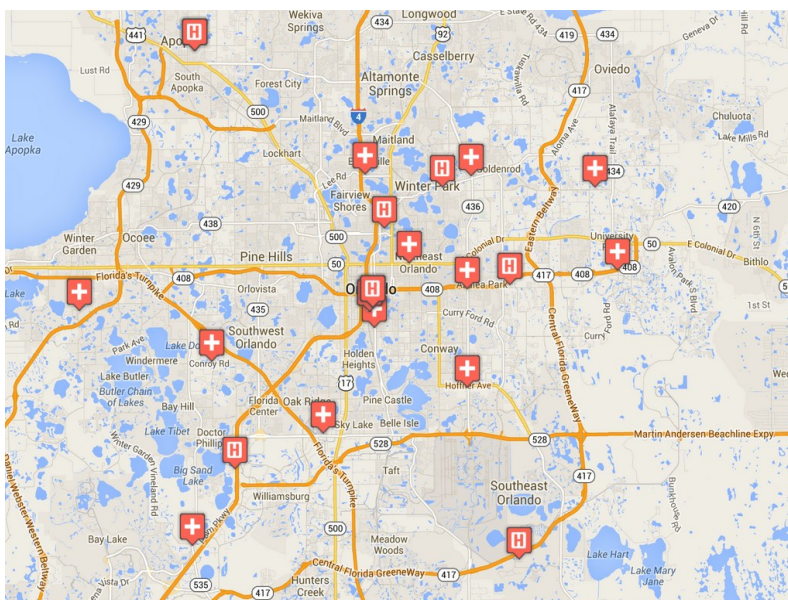
Florida Department of Health: ESSENCE



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 172 emergency departments and 25 urgent care centers (Florida Hospital Centra Care) reporting to ESSENCE-FL for a total of 197 facilities.

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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