HealthiestWeight

Florida HEALTH Orange County

Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

January, 2015

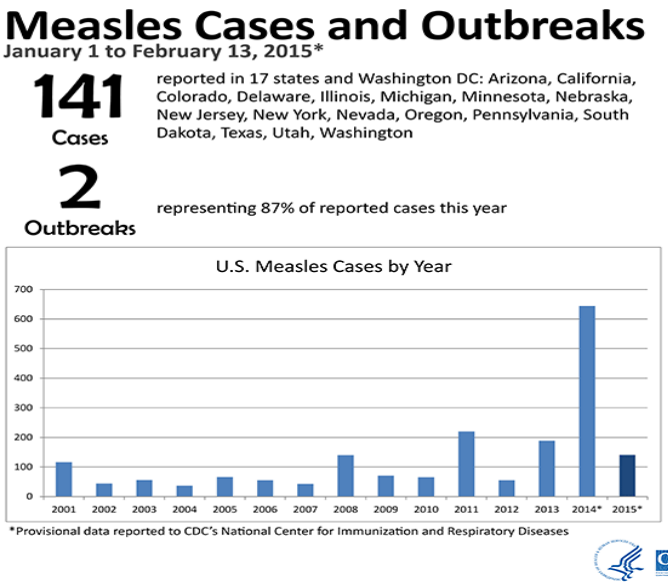
Volume 6, Issue 1

Multi-State Measles Outbreak

As of February 12th, the index patient for the multi-state measles outbreak has not been identified, although it is believed to have started from a traveler who was infected overseas, and then visited an amusement park in California. The initial confirmed cases visited the theme parks from December 17 through December 20, 2014.

Numbers and States: The case count from January 1 to February 13th is 141; with cases in 17 states and Washington DC. There have been no confirmed measles cases in Florida residents, however we have seen confirmed cases in visitors.

Epidemiology: More adult cases have been seen in these outbreaks compared to past measles outbreaks in the U.S., although there are pediatric cases as well. In most of the cases for which vaccination information is available, it was found that either both adults and children were not vaccinated, or, they did not know their status. Infections in this outbreak have occurred in a variety of settings, including: schools, day cares, emergency departments, outpatient clinics and airplanes. (second outbreak is in IL)



In 2014, the U.S. experienced the highest number of measles cases in 20 years (over 600). In January, as a result, initially, of one outbreak, we've had more cases in the U.S. than the median (60) seen over the ten-year period: 2001 through 2010.

In the 10-year period before the vaccine was introduced (1963), 3 to 4 million cases are estimated to have occurred each year in the U.S.

- This is not a situation of vaccine failure, it is a situation of people not getting vaccinated
- Vaccines are not associated with an increased risk of autism
- Most clinicians practicing today have not seen a measles case, and many with over 30 years of practice have seen no more than 3 or 4 cases
- Measles is one of the most contagious viral diseases known and is so communicable that 90% of the unvaccinated people in close contact to an infected person can become infected
- We are starting to see more adults get measles
- People are infectious from 4 days ***before*** rash onset to 4 days after
- Travelers with measles continue to bring the disease into the U.S.

Florida Department of Health Measles Measles for Healthcare Providers including MMR vaccination guidelines (CDC) U.S. Multi-state Measles Outbreak 2014-2015 Measles- Manual for Surveillance (CDC)

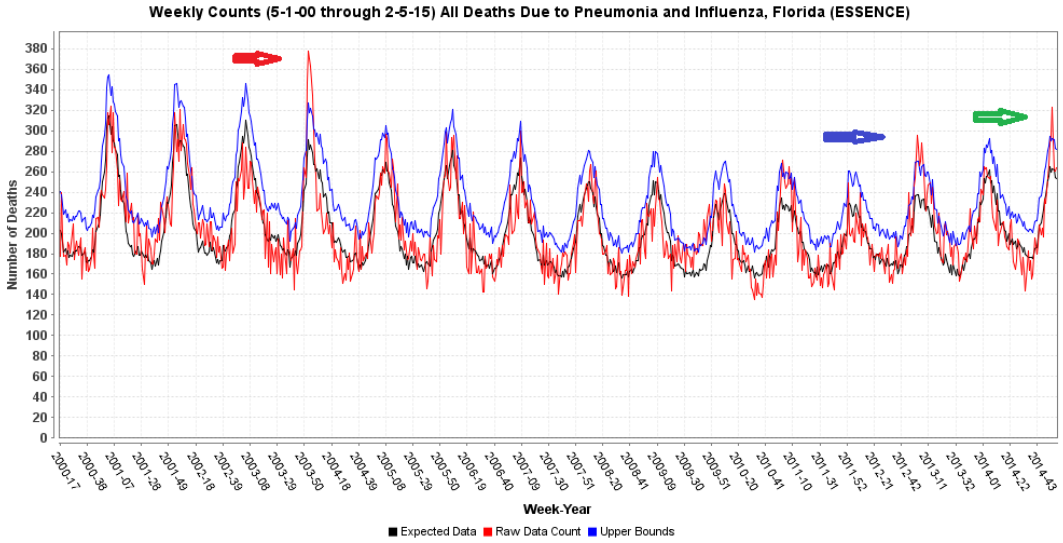
Points of Interest:

- **Influenza activity remains widespread; drifted virus still circulating**
- **Resources for diagnosing and treating TB**
- **Weekly Ebola case incidence increasing**

Contents

Respiratory Disease Surveillance

Pneumonia and Influenza Mortality



⇒ The red, blue, and green arrows indicate flu seasons 2003-2004, 2012-2013, and 2014-2015 respectively.

⇒ In each of these, the predominant flu strain has been A H3N2.

Influenza Surveillance Week 5: February1-7, 2015

National

This season's vaccine is offering limited protection, due to the "antigenically-drifted" H3N2 virus circulating nationally and in Florida. The use of neuraminidase inhibitor medications for treatment and prevention of influenza is more important than ever.

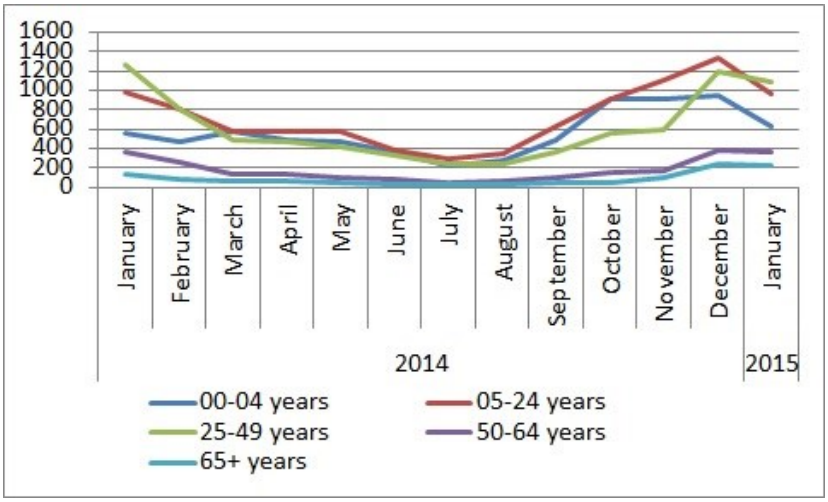
Florida

⇒ Statewide, flu activity remains widespread.

⇒ Seasons in which Flu A H3 predominates (like the present season) are commonly associated with higher morbidity and mortality, especially in the 65 and older age group.

⇒ The number of pneumonia and influenza deaths (especially in the 65 and older age group) has increased in recent weeks

ESSENCE Emergency Department Visits of Influenza-like Illness by Age Group, Orange County, Florida, 2014-2015



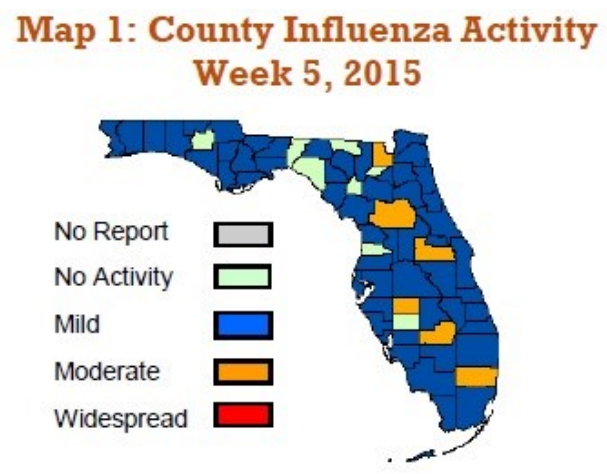
Influenza Surveillance continued...

Orange County

⇒ Orange County is reporting “moderate” influenza activity for week 5 (February 1 – February 7, 2015)

⇒ Five influenza outbreaks were reported in January, 2015.

(Map from Florida Flu Review.)



Influenza Resources:

Florida Department of Health Weekly Influenza Activity Report

Center for Disease Control and Prevention Weekly Influenza Activity Report

Special Surveillance: Ebola

National

⇒ As of February 11th, CDC reports that the weekly case incidence increased for Guinea, Liberia, and Sierra Leone for the first time this year.

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

⇒ **Physicians should immediately call the local health department if a patient fits the criteria of an Ebola Patient Under Investigation** (Patient Screening Tool below - **UPDATED 11/18/14**). (Mali is no longer one of the countries in the list, and the updated screening tool to be released soon will reflect this).

International

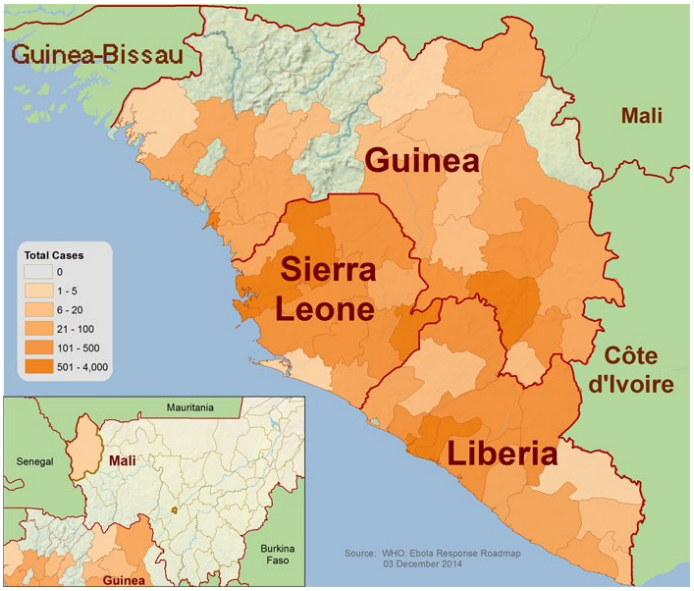
Updated February 15, 2015:

Countries impacted include Guinea, Sierra Leone, and Liberia.

⇒ Case Count: **23,253**

⇒ Deaths: **9,380**

⇒ Laboratory Confirmed Cases: **14,121**



(Map Courtesy CDC)

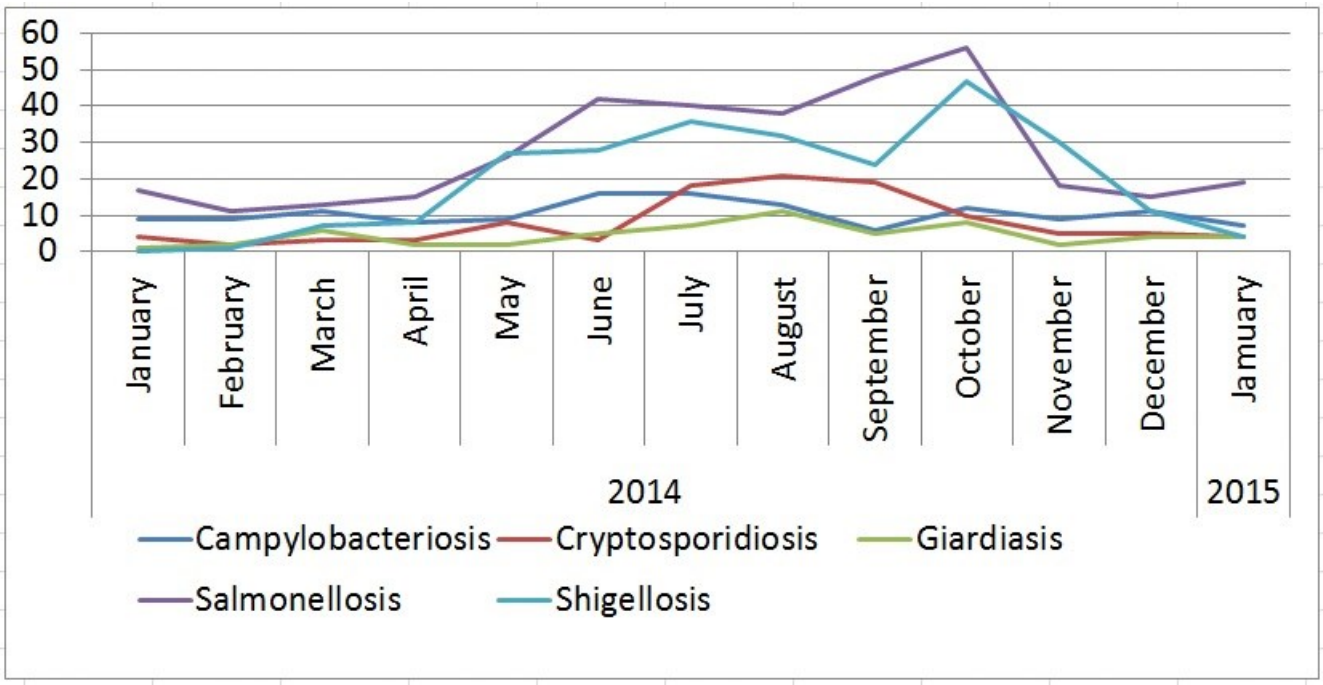
Ebola Resources:

Patient Screening Tool: Florida Department of Health

Centers for Disease Control and Prevention: Ebola Information and Guidance

Gastrointestinal Illness Surveillance

Select Reportable Enteric Diseases in Orange County, Florida, January 2014 to January 2015



Gastrointestinal Illness Points of Interest:

⇒ In January, Campylobacter, Cryptosporidium, and Shigellosis case numbers decreased in comparison to December. Salmonellosis cases increased, while Giardia cases remained unchanged.

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

⇒ One lab-confirmed Norovirus GII foodborne outbreak investigation relating to 6 individuals dining

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

Arboviral Surveillance

Florida

⇒ For week 5 (February 1-7), no counties were under a mosquito-borne illness advisory or alert.

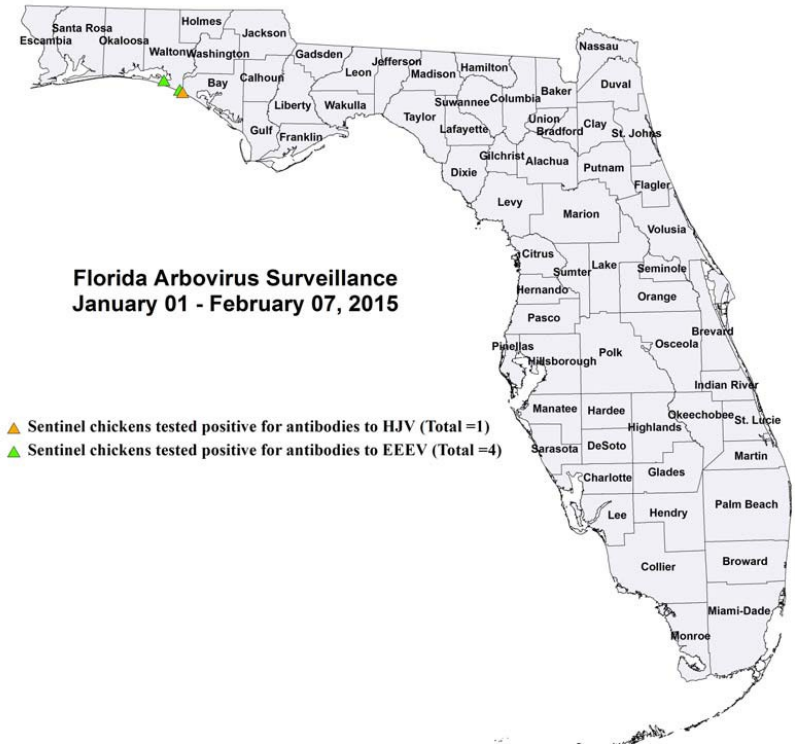
⇒ One case of imported dengue fever in a non-Florida resident has been reported with onset in 2015.

⇒ Six cases of imported Chikungunya have been reported with onset in 2015.

⇒ No cases of locally acquired dengue or Chikungunya have been reported YTD

⇒ Seven cases of international travel-associated malaria with onset in 2015 have been reported

January 1– February 7, 2015



Orange County

⇒ No locally-acquired cases of Dengue or Chikungunya reported.

⇒ No cases of imported Chikungunya with an international travel history two weeks prior to symptom onset have been reported in 2015.

⇒ No cases of imported Dengue were reported in 2015.

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

World TB Day Approaching– Tuesday, March 24th

On the evening of March 24th, 1882, at the monthly Physiological Society meeting in Berlin, Dr. Robert Koch delivered a lecture and demonstration simply entitled “Ueber Tuberculose” (“On Tuberculosis”). At the end of the presentation, as the story goes, instead of the usual lively discussions and Q&A sessions following most presentations at the society, there was stunned silence- the audience grasped immediately the significance of his findings. Not only had Dr. Koch succeeded in confirming tuberculosis (TB) as an infectious disease by isolating and identifying the causative agent, but in the process, he developed specific culturing and staining techniques for the fastidious organism, which opened the doors to future work. His work is considered to be the foundation of medical bacteriology.

Equally as important, Koch’s work redirected the prevailing thoughts that tuberculosis was an inherited disease, associated with poverty, and an inevitable product of industrialization. As a result, the public health benefits of his findings were immeasurable.

At the time of his work with this organism, infection rates were believed to be near 100% in some European cities and TB caused about one-third of all adult deaths.

Today, an estimated one-third of the world’s population has latent TB, and in 2013, 9 million people world-wide had TB. Over 1 million deaths occur from TB globally. TB is a leading cause of mortality in people co-infected with HIV.

In 2013, a total of 9,588 new tuberculosis cases were reported in the United States, with an incidence rate of 3.0 cases per 100,000; a decrease of 4.2 percent from 2012.

Many patients have the misconception that the tuberculosis epidemic is an issue of the past. However, in the US today, it is estimated that more than 11 million people have latent tuberculosis infection (LTBI). At least 5-10% of this latently infected group will progress to active tuberculosis disease if not treated. Active tuberculosis is highly contagious.

In 2013, 652 tuberculosis cases were reported in Florida. This characterizes a (4 percent) decrease in cases since 2012 (678). The TB case rate in 2013 was 3.4 per 100,000.

Orange County TB Cases

Year	Cases	Incidence*
2010	57	5.1
2011	56	4.8
2012	72	6.1
2013	57	4.8
2014	65	TBD

* per 100,000

Identifying and treating those at highest risk for TB disease, including patients with HIV infection, will help move toward elimination of the disease. Primary care providers play a key role in achieving the goal of TB elimination because of their access to high-risk populations.

Recent advances in medical technology provide clinicians with the means to both identify and treat LTBI. The interferon gamma release assays (IGRAs- 1.QuantiFERON®–TB Gold In-Tube test (QFT-GIT) and 2.T-SPOT®.TB test (T-Spot)) provide advantages over the traditional tuberculin skin test.

Additionally, because of actual and perceived toxicity and adherence issues with isoniazid, and as a result of recent efficacy data with rifampin-based regimens, updated treatment guidelines have been issued which include those regimens.

One of the most recent advances is the technology provided with the Cepheid Xpert TB/RIF Assay- to help physicians determine if patients with suspected tuberculosis (TB) can be removed from airborne infection isolation.

Complete information on diagnosis and treatment of LTBI for Primary Health Care Providers is found at:

CDC’s: Latent Tuberculosis Infection: A Guide for Primary Health Care Providers.

Florida Department of Health Tuberculosis Information Florida TB Fact sheet (2013)

CDC Tuberculosis CDC World TB Day

Disease	ORANGE				All Counties			
	January		Cumulative (YTD)		January		Cumulative (YTD)	
	2015	Mean, 5yr	2015	Mean, 5yr	2015	Mean, 5yr	2015	Mean, 5yr
Amebic Encephalitis	0	0	0	0	0	0	0	0
Arsenic Poisoning	0	0	0	0	0	1.2	0	1.2
Brucellosis	0	0.2	0	0.2	0	1	0	1
Campylobacteriosis	11	8.8	11	8.8	279	176.2	279	176.2
Carbon Monoxide Poisoning	0	0.6	0	0.6	21	17.8	21	17.8
Cholera (Vibrio cholera, Type O1)	2	0	2	0	3	1	3	1
Ciguatera Fish Poisoning	0	0.2	0	0.2	1	1.2	1	1.2
Creutzfeldt-Jakob Disease (CJD)	0	0	0	0	1	1	1	1
Cryptosporidiosis	4	2.4	4	2.4	53	32.2	53	32.2
Cyclosporiasis	0	0.2	0	0.2	0	1.2	0	1.2
Dengue Fever	0	0.6	0	0.6	6	12	6	12
Giardiasis	5	4.8	5	4.8	68	102.8	68	102.8
H. influenzae Invasive Disease	0	1.2	0	1.2	21	24.8	21	24.8
Hansens Disease (Leprosy)	0	0	0	0	1	0.2	1	0.2
Hemolytic Uremic Syndrome	1	0	1	0	1	0.4	1	0.4
Hepatitis A	1	0.4	1	0.4	11	7.8	11	7.8
Hepatitis B, Acute	0	1.2	0	1.2	26	25.8	26	25.8
Hepatitis B, Chronic	40	29.6	40	29.6	451	313.2	451	313.2
Hepatitis B, HBsAg in Pregnant Women	8	4.2	8	4.2	18	41.2	18	41.2
Hepatitis B, Perinatal	0	0	0	0	0	0.2	0	0.2
Hepatitis C, Acute	0	1.4	0	1.4	13	12.6	13	12.6
Hepatitis C, Chronic	150	135.8	150	135.8	2718	2109.4	2718	2109.4
Influenza A, Novel or Pandemic Strains	0	0.6	0	0.6	0	6.6	0	6.6
Influenza-Associated Pediatric Mortality	0	0.2	0	0.2	0	1	0	1
Lead Poisoning	1	3.2	1	3.2	39	55.6	39	55.6
Legionellosis	2	1.2	2	1.2	27	19.8	27	19.8
Leptospirosis	0	0	0	0	0	0	0	0
Listeriosis	0	0.6	0	0.6	0	6.6	0	6.6
Lyme Disease	0	0	0	0	11	6	11	6
Malaria	0	0.8	0	0.8	10	10.6	10	10.6
Measles	0	0.8	0	0.8	3	1	3	1
Meningitis (Bacterial, Cryptococcal, Mycotic)	0	1.4	0	1.4	12	15.2	12	15.2
Meningococcal Disease	0	0	0	0	4	6.6	4	6.6
Mercury Poisoning	0	0	0	0	2	0.8	2	0.8
Middle East Respiratory Syndrome (MERS)	0	0	0	0	0	0	0	0
Mumps	0	0	0	0	2	1.2	2	1.2
Pertussis	2	2	2	2	24	38.2	24	38.2
Pesticide-Related Illness Or Injury	0	0.2	0	0.2	1	5	1	5
Q Fever, Acute	0	0	0	0	0	0	0	0
Rabies, Possible Exposure	10	5.8	10	5.8	217	180.8	217	180.8
Rocky Mountain Spotted Fever	0	0	0	0	0	0.8	0	0.8
S. pneumoniae Invasive Disease, Drug-Resistant	1	6.8	1	6.8	14	85.8	14	85.8
S. pneumoniae Invasive Disease, Drug-Susceptible	2	4.4	2	4.4	39	89.4	39	89.4
Salmonellosis	21	19.2	21	19.2	346	322	346	322
Shiga Toxin-Producing E. coli (STEC) Infection	2	0.4	2	0.4	22	30.6	22	30.6
Shigellosis	3	5.8	3	5.8	77	84.2	77	84.2
St. Louis Encephalitis Virus Neuroinvasive Disease	0	0	0	0	0	0	0	0
St. Louis Encephalitis Virus Non-Neuroinvasive Disease	0	0	0	0	0	0	0	0
Staphylococcus Enterotoxin B Poisoning	0	0	0	0	0	0	0	0
Streptococcus Invasive Disease (Group A)	0	1.4	0	1.4	0	28.6	0	28.6
Tetanus	0	0	0	0	1	0.6	1	0.6
Typhoid Fever	0	0.2	0	0.2	0	1	0	1
Varicella	0	3.4	0	3.4	58	67.6	58	67.6
Vibriosis (Vibrio parahaemolyticus)	0	0	0	0	3	2.2	3	2.2
Vibriosis (Vibrio vulnificus)	0	0	0	0	0	0	0	0
Viral Hemorrhagic Fever	0	0	0	0	0	0	0	0
Total	266	250	266	250	4611	3957	4611	3957

Top 8 diseases with respect to case counts in January are shaded in gray

Call for Nominations
The Alfred L. Bookhardt, MD Award For Health Equity

This award honors Dr. Alfred L. Bookhardt (1928-2014) who began his medical practice in Orlando during the Civil Rights movement. He treated African American patients who were refused care by white physicians. He also co-founded the Central Florida Medical Society and Guardian Care, the first long term care facility in Orlando for African Americans.

This annual *Award for Health Equity* was created by the Florida Department of Health in Orange County as a way of recognizing an Orange County physician for their dedication and commitment to increasing access to healthcare with a goal of achieving health equity in Central Florida.

For eligibility criteria, and to nominate a physician for the award, please visit:

www.orange.floridahealth.gov

Nominations due March 6, 2015

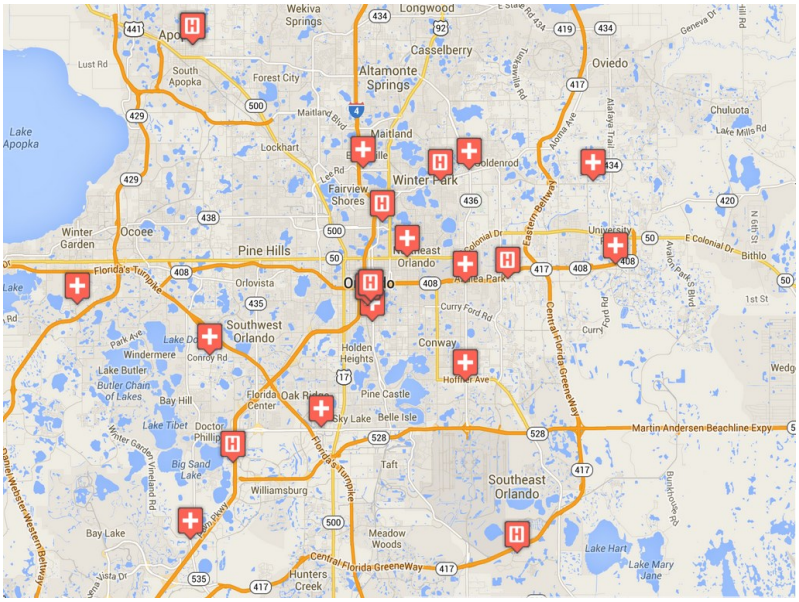
Other Disease Resources

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.

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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