Epidemiology Monthly Surveillance Report

Florida Department of Health in Orange County

Chikungunya Virus Transmission in St. Martin

First local transmission in the Americas

On December 7, 2013, the World Health Organization (WHO) reported the first local (autochthonous) transmission of chikungunya virus in the Americas. Two cases of chikungunya have been confirmed by reverse transcriptase-polymerase chain reaction (RT-PCR) testing on patients who reside on the French side of St. Martin in the Caribbean; laboratory testing is pending on additional suspect cases. At this time, there are no reports of other suspect chikungunya cases in the region. However, further spread on St. Martin and to other countries in the region is likely.

Chikungunya virus is a mosquito-borne alphavirus transmitted primarily by *Aedes aegypti* and *Ae. albopictus*. Humans are the primary reservoir during epidemics. Outbreaks have been described in Africa, Southern Europe, Southeast Asia, the Indian subcontinent, and islands in the Indian and Pacific Oceans. Prior to the cases on St. Martin, the only chikungunya cases described in the Americas were in travelers returning from endemic areas.

Chikungunya virus infection should be considered in patients with acute onset of fever and polyarthralgias who recently returned from the Caribbean. Be aware of the risk of possible local transmission in areas where *Aedes* species mosquitoes are currently active. **Please report all suspect cases to your local health department; staff can assist with submitting specimens to the CDC lab.**

Additional Chikungunya guidance materials are forthcoming from the Florida Department of Health Bureau of Epidemiology.

In the meantime, more information can be found at:

- General information about chikungunya virus and disease is available from CDC at
  http://www.cdc.gov/chikungunya/
- Chikungunya information for clinicians is available at:
  http://www.cdc.gov/chikungunya/pdfs/CHIKV_Clinicians.pdf
- Travel notices related to chikungunya virus:
  http://wwwnc.cdc.gov/travel/notices
- Information about chikungunya for travelers and traveler health practitioners is available at
  http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-3-infectious-diseases-related-totravel/chikungunya

November 2013

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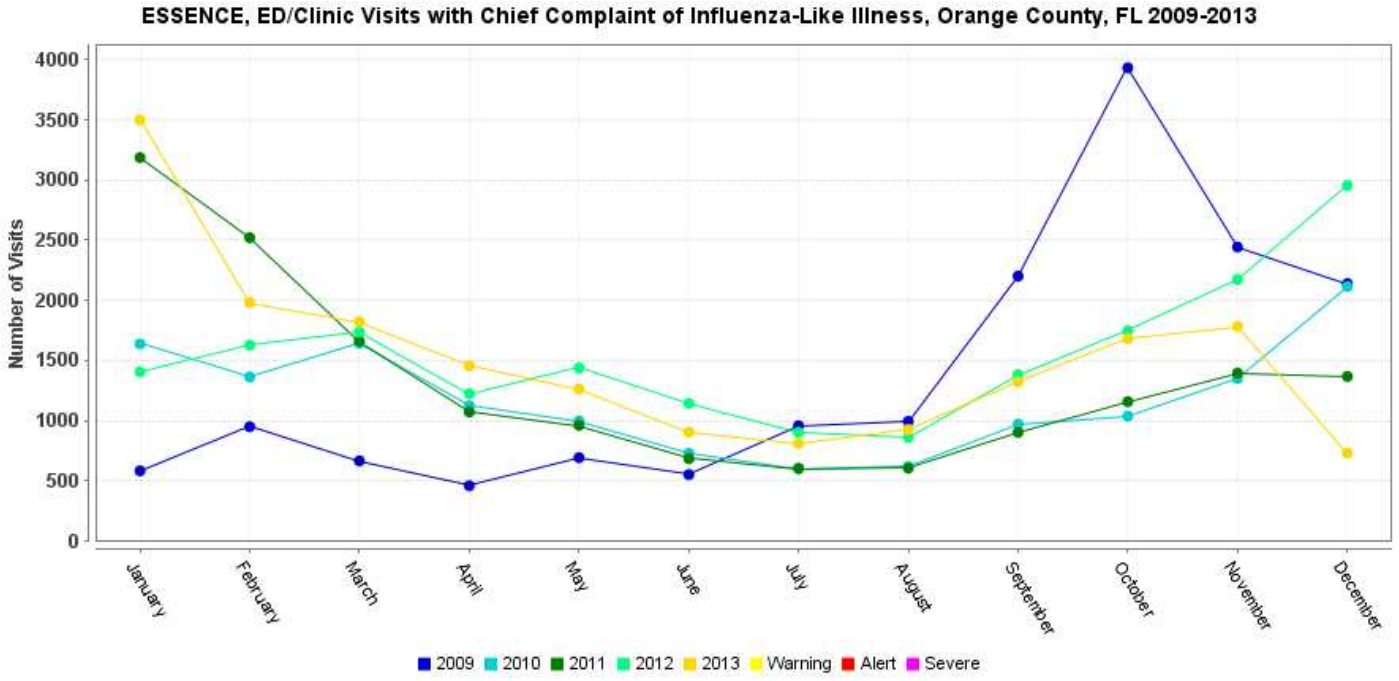
Special points of interest:

- **Influenza continues at Moderate activity level in Orange County, with Influenza A 2009 H1N1 as the dominant strain**
- **Vaccine not effective against Serogroup B Meningococcal Disease**
- **Drug resistant Atypical Mycobacterium found in Cosmetic Surgery Patients**

Contents

Influenza Surveillance



Orange

⇒ We are currently experiencing **moderate** influenza activity.

⇒ No influenza or ILI outbreaks have been reported to date this flu season.

Florida

⇒ Most Florida counties are reporting mild influenza activity. Twenty-four counties reported increasing influenza activity in Week 48.

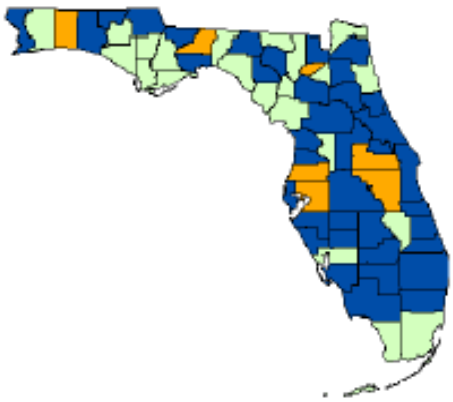
⇒ Emergency Departments and urgent care centers on ESSENCE have reported an increase in ILI visits in recent weeks. Visits are at slightly above typical levels for this time of year.

⇒ The most common influenza subtype detected in recent weeks has been influenza A (2009 H1N1).

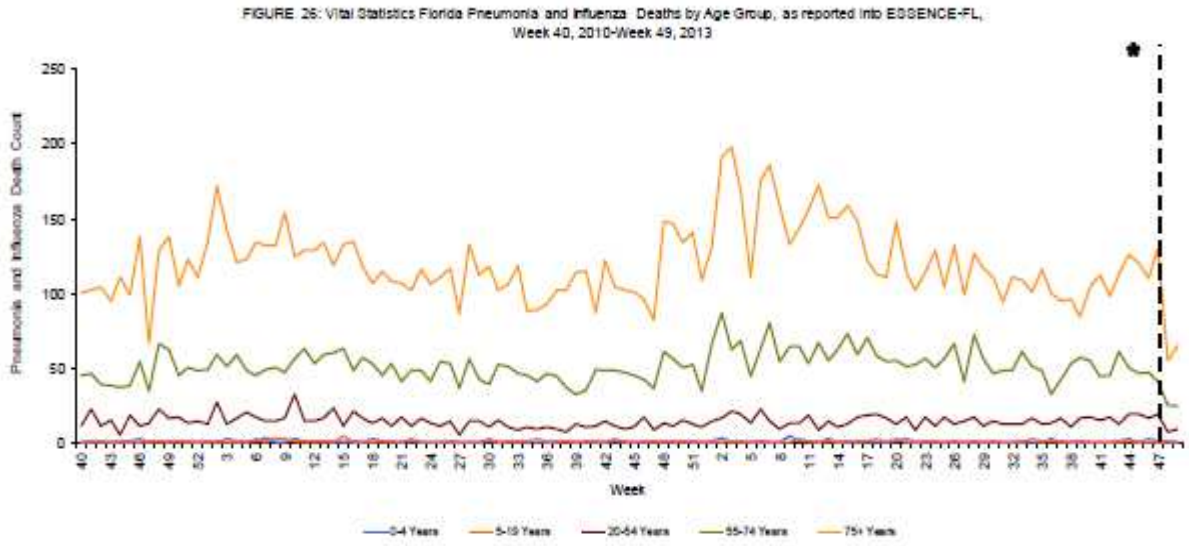
⇒ No pediatric influenza-associated deaths were reported in week 48. One pediatric influenza-associated death has been reported in the 2013-2014 season.

⇒ Four influenza or ILI outbreaks have been reported in the 2013-2014 season so far.

Florida Influenza Activity Week 48



Vital Statistics Florida Pneumonia and Influenza Deaths by Age Group, ESSENCE, Week 40 2010 –Week 49, 2013



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.
- ⇒ WHO reports 142 total confirmed cases as of November 29, all in or with recent travel to China. Forty-five infected individuals have died. 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** or any countries other than China. No travel advisories 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:

http://www.cdc.gov/flu/avianflu/h7n9-virus.htm

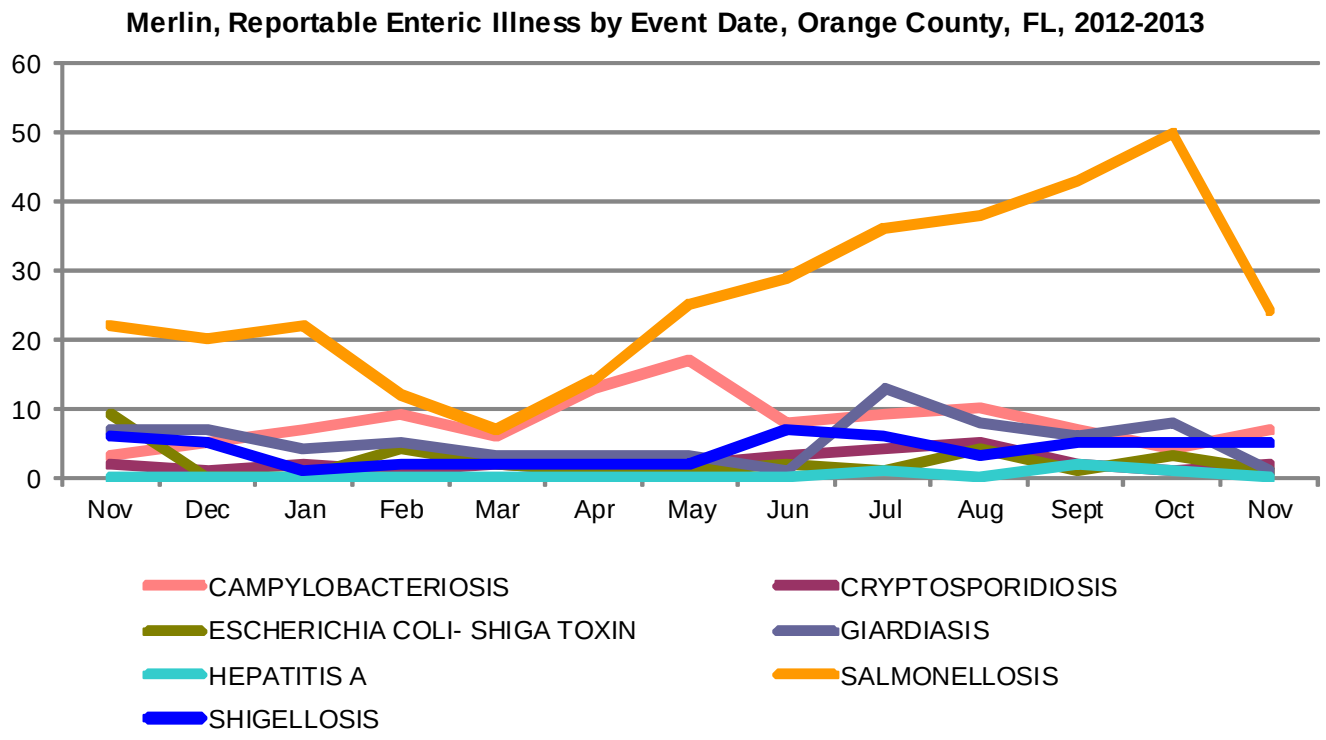
Influenza Resources:

Florida Department of Health Weekly Influenza Activity Report
http://www.doh.state.fl.us/floridaflu/reports.htm

Center for Disease Control and Prevention Weekly Influenza Activity Report
http://www.cdc.gov/flu/weekly/fluactivitysurv.htm

2011-2012 Influenza Vaccination Estimates
www.cdc.gov/flu/professionals/vaccination/coverage_1112estimates.htm

Gastrointestinal Illness Surveillance



Gastrointestinal Illness Points of Interest:

⇒ All reportable enteric disease cases are starting to decline per the typical seasonal trend.

⇒ Statewide, five alerts of outbreaks of norovirus or norovirus-like illness were reported in EPICOM (DOH's Health Alert Network) in November 2013

⇒ During November, nine foodborne illness complaints were reported to the Florida Department of Health in Orange County (DOH-Orange) for investigation.

Gastrointestinal Illness Resources

Florida Online Foodborne Illness Complaint Form - Public Use
http://www.doh.state.fl.us/Environment/medicine/foodsurveillance/Online_Foodborne_Complaint_Form.html

Florida Food Recall Searchable Database
http://doh.state.fl.us/environment/medicine/foodsurveillance/Recalls_Page.htm

Florida Department of Health - Norovirus Outbreak Control Documents
http://www.doh.state.fl.us/Disease_ctrl/epi/Norovirus.htm

Arboviral Surveillance

Arboviral Activity in Orange County, Florida, November 2013						
Disease	Bird/Sentinel Chicken		Horse Case		Human Case	
	Month	Cumulative (YTD)	Month	Cumulative (YTD)	Month	Cumulative (YTD)
Eastern equine encephalitis virus	2	27	—	—	—	—
St. Louis encephalitis virus	—	—	—	—	—	—
West Nile virus	1	1	—	—	—	—
Dengue virus	—	—	—	—	2	17

Statewide:

⇒ 23 cases of locally acquired dengue have been reported in 2013.

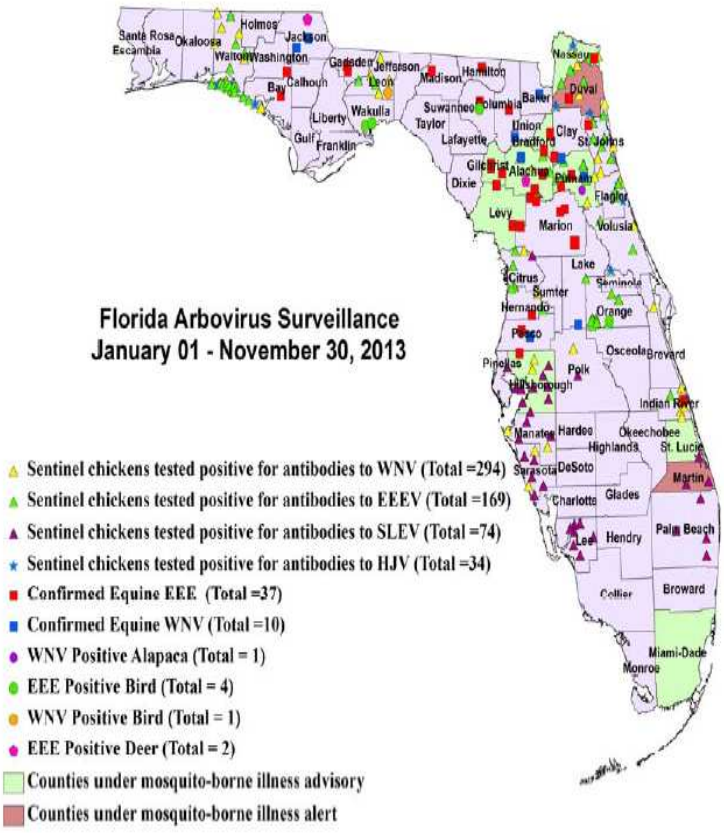
⇒ 108 cases of imported dengue have been reported in 2013.

⇒ 45 cases of imported malaria have been reported in 2013.

Orange County:

⇒ 17 cases of imported dengue have been reported in Orange County in 2013.

⇒ 8 cases of imported malaria have been reported in Orange County in 2013.



Arboviral Resources

Weekly Florida Arboviral Activity Report (Released on Monday's)
http://www.doh.state.fl.us/Environment/medicine/arboviral/surveillance.htm

Orange County Mosquito Control
http://www.orangecountyfl.net/FamiliesHealthSocialSvcs/MosquitoSafety.aspx

Meningococcal Disease University Outbreaks

The Centers for Disease Control and Prevention (CDC), the New Jersey Department of Health (NJDOH), Princeton University officials, and local health authorities have been working closely since the first case of meningococcal disease associated with Princeton University was reported in March 2013. CDC, the California Department of Public Health, UCSB officials and local health authorities have also been collaborating since the first case of meningococcal disease associated with University of California at Santa Barbara (UCSB) was reported in November 2013.

CDC HAN000357 summarizes the following:

Increased awareness and prompt early case recognition among healthcare providers is critical. If a Princeton or UCSB student or a person who has had close contact with someone from those university communities develops a fever and headache or rash, meningococcal disease should be suspected; empiric treatment should be considered; blood or cerebrospinal fluid (CSF) cultures should be collected. **If you have a high degree of clinical suspicion for meningococcal disease, even if CSF or blood specimens are sterile, suspect cases should still be reported to your local health department.**

The CDC considers the risk of transmission of these strains beyond the university communities to be low. **However, to monitor potential transmission of these strains, CDC is requesting that all healthcare providers report serogroup B meningococcal disease cases whether or not they are linked to these universities.**

CDC does not recommend a change in normal activity to avoid contact with the affected universities or their students. Good hygiene practices such as handwashing, and coughing or sneezing into the arm are recommended. The licensed quadrivalent meningococcal vaccines are recommended for all adolescents 11 through 18 years old and first year college students living in residence halls, but these vaccines do not protect against serogroup B, the serogroup that is causing the Princeton University and UCSB cases. A serogroup B meningococcal vaccine, which is only licensed for use in Europe and Australia, will be offered at Princeton University. FDA has allowed the use of the vaccine at Princeton University under an Investigational New Drug application.

Guidance on recommendations for prophylactic use of antibiotics in close contacts of persons with meningococcal disease is available at

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6202a2.htm?s_cid=rr6202a2_w

Additional information on meningococcal disease is available at:

http://www.cdc.gov/meningococcal/index.html

Orange County Select Reportable Disease Incidence Table November 2013

Disease	ORANGE					All Counties				
	November		Cumulative (YTD)			November		Cumulative (YTD)		
	2013	2012	2013	2012	Mean (2008 - 2012)	2013	2012	2013	2012	Mean (2008 - 2012)
AMEBIC ENCEPHALITIS	0	0	0	0	0.2	0	0	1	0	0.8
ANIMAL RABIES	0	0	0	0	0	0	0	0	0	0
BRUCELLOSIS	1	0	3	0	0	2	1	9	17	10
CAMPYLOBACTERIOSIS	9	4	99	172	80.4	186	182	2443	2498	1565.2
CARBON MONOXIDE POISONING	0	0	16	6	2.2	3	11	169	85	76
CIGUATERA	0	0	0	0	0.2	8	0	52	21	37.2
CREUTZFELDT-JAKOB DISEASE (CJD)	0	0	1	0	0.8	1	1	19	25	17.2
CRYPTOSPORIDIOSIS	2	1	24	14	24.4	32	29	396	431	439.8
CYCLOSPORIASIS	0	0	1	0	2.6	0	0	48	24	48
DENGUE FEVER	2	4	19	17	7.8	13	17	176	113	89.4
EASTERN EQUINE ENCEPHALITIS- NEUROINVASIVE	0	0	0	0	0	0	0	2	2	1.4
EASTERN EQUINE ENCEPHALITIS- NON-NEUROINVASIVE	0	0	0	0	0	0	0	0	0	0
ESCHERICHIA COLI- SHIGA TOXIN PRODUCING	1	4	20	15	9.6	39	31	497	393	258.4
GIARDIASIS	3	4	63	60	81.4	82	94	1021	1028	1430.8
HAEMOPHILUS INFLUENZAE (INVASIVE DISEASE)	1	0	18	10	7.8	16	17	245	216	197
HEMOLYTIC UREMIC SYNDROME	0	0	0	0	0.4	0	0	10	1	4.2
HEPATITIS A	0	0	4	6	8.2	15	12	131	116	141.8
HEPATITIS B (posHBsAg IN PREGNANT WOMEN)	2	2	57	61	68	25	24	427	379	473.8
HEPATITIS B- ACUTE	0	0	7	10	20	41	23	347	269	277.6
HEPATITIS B- CHRONIC	38	30	374	318	393	339	363	4118	3813	3866.6
HEPATITIS B- PERINATAL	0	0	1	0	0.2	0	0	2	1	0.6
HEPATITIS C- ACUTE	0	0	4	13	9	15	12	210	156	90.2
HEPATITIS C- CHRONIC	157	128	1542	1278	1619.8	3009	2251	28882	24277	21903
INFLUENZA-ASSOCIATED PEDIATRIC MORTALITY	0	0	0	0	0	0	1	8	3	4.4
LEAD POISONING	4	0	19	36	27	67	37	636	935	720.8
LEGIONELLOSIS	1	1	23	17	17	21	32	253	217	176.4
LEPTOSPIROSIS	0	0	0	0	0.6	0	0	1	1	1.6
LISTERIOSIS	0	0	2	1	2	1	0	38	29	36.4
LYME DISEASE	1	0	5	3	4.4	10	13	187	122	110.8
MALARIA	0	0	8	7	8.8	3	2	56	61	86.4
MEASLES	0	0	6	0	1	0	0	9	0	3
MELIOIDOSIS	0	0	0	1	0.2	0	0	0	1	0.4
MENINGITIS (BACTERIAL, CRYPTOCOCCAL, MYCOTIC)	0	1	9	10	16.4	13	30	139	177	188.4
MENINGOCOCCAL DISEASE	0	0	2	0	1.6	5	4	59	47	53
MUMPS	0	0	1	0	0.6	2	2	7	7	18.4
PERTUSSIS	2	4	55	40	18.4	58	37	675	554	382
PESTICIDE-RELATED ILLNESS OR INJURY	1	2	5	12	4.2	10	5	69	71	55.6
RABIES- POSSIBLE EXPOSURE	10	5	77	83	86.4	206	178	2484	2232	1908.4
ROCKY MOUNTAIN SPOTTED FEVER	0	0	2	1	0.2	1	1	31	32	16.6
SALMONELLOSIS	32	27	301	314	296.8	627	636	5920	6365	5750.2
SHIGELLOSIS	6	8	41	99	92.4	105	86	987	1741	1287.6
STAPHYLOCOCCUS AUREUS- COMMUNITY ASSOCIATED MORTALITY	0	0	0	0	0.2	2	1	16	8	9.6
STREP PNEUMONIAE- INVASIVE DISEASE- DRUG-R	2	4	34	23	35.2	36	46	489	427	622.4
STREP PNEUMONIAE- INVASIVE DISEASE- SUSCEPT	1	2	24	21	23.4	36	66	531	491	587
STREPTOCOCCAL DISEASE INVASIVE GROUP A	2	0	18	11	13	19	28	273	226	238
VARICELLA	2	3	36	28	38.8	34	40	617	767	1013.4
VIBRIO ALGINOLYTICUS	0	0	1	2	1	3	7	47	56	40.4
VIBRIO CHOLERAE TYPE O1	0	0	0	1	0.4	1	0	5	7	4.4
VIBRIO PARAHAEMOLYTICUS	0	0	1	0	0.2	3	3	50	43	29.4
VIBRIO VULNIFICUS	0	0	1	0	0.2	3	2	46	26	26.4
Total	280	234	2926	2696	3111	5101	4346	53001	48720	45595.8

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

Call for cases of atypical mycobacterium infections following cosmetic surgery in the Dominican Republic:

In recent months, seven cases of atypical mycobacterium infections have been confirmed in patients who received elective cosmetic surgery performed in the Dominican Republic during July–August 2013. Five (72%) are known to have visited the same surgical clinic. Symptom severity has varied, but symptoms have included abdominal abscesses, pain, wound discharge, and fevers. Four wound cultures have been positive for Mycobacterium abscessus. These

cultures exhibit intermediate or resistant susceptibility to all classes of antibiotics. Treatment has included hospitalization, surgical debridement, and continuing IV antibiotic treatment. Although a proven link to a single clinic facility cannot be confirmed at this time, these cases are further evidence of a potential larger problem in which other U.S. residents may have undergone procedures in the Dominican Republic and may be at risk for similar infections.

If potentially related cases are identified, please notify DOH-Orange Epidemiology at:

(407) 858-1420

The Florida Department of Health has implemented a new email address format for all DOH users. The new email address format took effect on October 1, 2013. The format for the new address is:

firstname.lastname@flhealth.gov (i.e. John.Doe@flhealth.gov)

The old email addresses will continue to be functional for one year. In the interim, please update your email contacts and list serves that include DOH contacts.

Other Disease Resource

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 the **below link** for surveillance information on these diseases in Florida and Orange County.

http://www.doh.state.fl.us/Disease_ctrl/aids/trends/msr/msr.html

Florida Department of Health: ESSENCE

Hospital linked to ESSENCE

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 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