

EPI Monthly Report

Florida Department of Health in Miami-Dade County

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Season's Greetings, Everyone!

As the holiday season commences and we reflect on the past year, I would like to send out a message of good tidings and thanks to those who have worked side by side with us to shape and improve the health of Miami-Dade County. All of our wonderful providers and practitioners have contributed to a truly wonderful year in public health. The Florida Department of Health in Miami Dade County is so thankful to partner with this incredible network of infection control practitioners, doctors, nurses, and other clinical staff who are committed to the prevention of disease among our residents and visitors. Thank you all for your tireless dedication, and Happy Holidays.

Sincerely,



Reynald Jean, MD, MPH, MSN, AGPCNP-BC

Florida Department of Health in Miami-Dade County

Director Tuberculosis & Epidemiology, Disease Control, Immunization Services



Epidemiology,
Disease Control &
Immunization
Services

8600 NW 17th Street
Suite 200
Miami, Florida 33126
Tel: (305) 470-5660
Fax: (305) 470-5533

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Utilizing syndromic surveillance to detect clusters of disease: An ESSENCE success story

By Danielle Fernandez, MPH

Originally conceptualized as a tool to monitor potential bioterrorism threats, syndromic surveillance refers to the use of real-time data to detect disease outbreaks and unusual public health events earlier than could be identified through traditional public health surveillance methods. Since 2005, the Florida Department of Health in Miami-Dade County has used the Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE) to monitor chief complaint data for patients arriving to the 17 largest of 23 emergency department (ED) hospitals and Urgent Care Centers in Miami-Dade County. These 17 hospitals

and urgent care centers account for 90% of all ED visits in the county.

Since 2008, newly designed chief complaint queries were created in ESSENCE to detect clusters, outbreaks and underreported diseases, as well as Category A bioterrorism agent-related or time-sensitive diseases not captured in automated syndrome methodology. This change in methodology has led to the significant improvement of EDC-IS' passive disease surveillance [1].

One such example of ESSENCE at work is highlighted in the following case study:

On October 23, 2015, the Florida Department of Health, Epidemiology, Disease Control, and Immunization Services (EDC-IS) identified a potential outbreak of rash-like illness through a review of ESSENCE data. A cluster of three males in their mid-twenties presented to a local urgent care center on October 22 with the chief complaint of rash. EDC-IS immediately initiated an investigation.

EDC-IS contacted the urgent care's Infection Control Practitioner (ICP) to request clinical notes. Upon further investigation, eight males, all having departed from Cuba on October 17, and presenting with similar symptoms, were identified. A faith-based organization was provided as the primary contact for all of the immigrants. EDC-IS reviewed clinical notes and each reported a discharge diagnosis of contact dermatitis; however, scabies could not be ruled out. Symptoms included an ulcer-like rash, characterized as being moderately painful, itchy, and burning with increased itchiness reported at night. Dates of symptom onset ranged from October 14 to October 20. Four of the individuals reported having had the rash prior to departure. All were advised to follow up with a physician.

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EDC-IS contacted the faith-based organization for additional information on the individuals and received contact information for one immigrant. On October 30, an interview with this individual revealed that a total of 16 males had traveled together, having spent five days at sea, prior to their arrival on the coast of Florida. Upon arrival to Miami, the group of immigrants was provided accommodations by the organization and was divided among two hotels and family members living in Miami-Dade and Palm Beach Counties. When questioned about the rashes, he stated that of the sixteen, 14 had a similar rash, of which eight visited the same urgent care. The remaining may or may not have visited a different, unknown healthcare facility.

Contact information for ten of sixteen immigrants was received, seven of which were interviewed. EDC-IS was unable to contact the remaining 3 individuals. One individual remained symptomatic at the time of initial interview. A follow-up interview with this individual indicated that he had sought medical treatment a second time with symptoms of fever, enlarged lymph nodes, and a progressively worsening rash. The individual received treatment and medication at a local hospital and was discharged. No cultures were collected.

The cause of the cluster of rash-like illness remains unknown; however, information gained from interviews with cases pointed to an allergic reaction to the guao plant, indigenous to Cuba and known to cause skin irritation in some individuals, as a potential cause of the rash.

On November 12, EDC-IS closed the investigation. The individuals had all recovered and have since been relocated out of state.

The field of syndromic surveillance has propagated an alliance between individuals from a variety of disciplines—public health, disaster preparedness, health care, data analytics, informatics, epidemiology—with the goal of integrating technological and human capabilities to continuously improve the health of the public. Through the systematic evaluation of ESSENCE, EDC-IS was able to identify

a cluster of an unknown rash-like illness and take all available measures to interview symptomatic and non-symptomatic individuals, follow up with healthcare providers, and mitigate further spread of the illness. This case study highlights the importance of syndromic surveillance in the practice of disease prevention and control.

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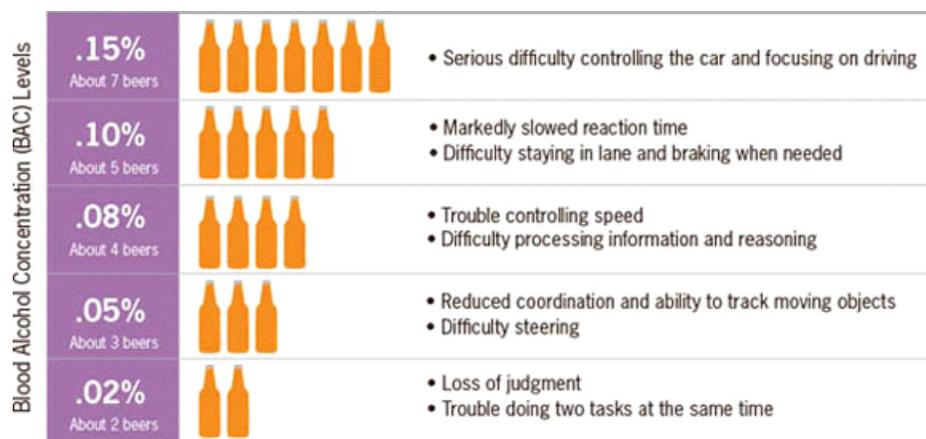


Think Before You Drink

By Emily Moore, MPH

If you and your family are planning to hit the road during this holiday season, keep in mind that December has been designated as National Drunk & Drugged Driving Prevention Month. According to the Centers for Disease Control & Prevention (CDC) an average of 30 people died every day during 2015 in the United States due to motor vehicle crashes involving an alcohol-impaired driver. In the past, this rate has been shown to increase during the holiday season. In 2005, The National Highway Traffic Safety Administration (NHTSA) found that the number of fatalities involving an alcohol-impaired driver increased to 45 per day during the 3-day Christmas period, and rose to 54 per day over New Year's. This equated to a life lost almost every 25 to 30 minutes over the course of the holidays that year.

The infographic below shows the effects that different blood alcohol levels have on your driving (These calculations are based on the response that a healthy, 160 lb. male would have over the course of one hour. The effects of alcohol vary based on sex, weight, and the amount of time in which the drinks are consumed):



Thankfully, there are measures that you and your loved ones can take to prevent further injuries or fatalities due to drunk driving:

Before you attend your family gathering or holiday work socials, designate a non-drinking driver to take everyone home. If you do drink and did not attend the gathering in a group, call a taxi or ask a non-drinking friend for a ride.

Don't let your friends or family members drive home if you see that they have been drinking; take their keys away from them if you have to. It is worth enduring their momentary annoyance if your actions save their life or the life of another person.

Driving drunk is never okay, but it is particularly crucial to avoid such risky behavior during this time of year. Think before you drink and encourage others to do the same.

For more information and data regarding drunk driving, visit CDC's Vital Signs at <http://www.cdc.gov/vitalsigns/drinkinganddriving/index.html>

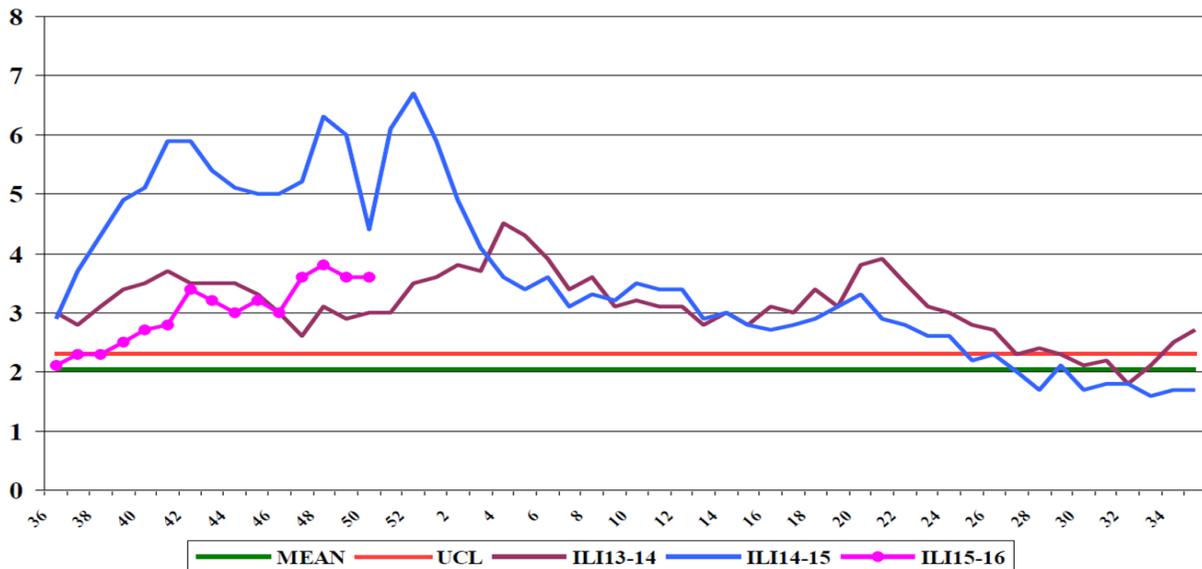


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Percentage of Emergency Department Visits Attributable to Influenza-Like Illness
Miami-Dade County, 2013-2016



During this period, there were 21,998 ED visits; among them 785 (3.6%) were ILI. At the same week of last year, 4.4% of ED visits were ILI.

PARTICIPATE IN INFLUENZA SENTINEL PROVIDER SURVEILLANCE

Florida Department of Health in Miami-Dade County **NEEDS Influenza Sentinel Providers!**

TO REPORT ANY DISEASE AND FOR INFORMATION CALL:

Epidemiology, Disease Control & Immunization Services

Childhood Lead Poisoning

Prevention Program305-470-6877
Hepatitis305-470-5536
Immunizations or outbreaks305-470-5660
HIV/AIDS Program305-623-7420

STD Program305-575-5430
Tuberculosis Program305- 575-5415

Immunization Service305-470-5660

To make an appointment.....786-845-0550

Sentinel providers are key to the success of the Florida Department of Health's Influenza Surveillance System. Data reported by sentinel providers gives a picture of the influenza virus and ILI activity in the U.S. and Florida which can be used to guide prevention and control activities, vaccine strain selection, and patient care.

- Providers of any specialty, in any type of practice, are eligible to be sentinel providers.
- Most providers report that it takes **less than 30 minutes a week** to compile and report data on the total number of patients seen and the number of patients seen with influenza-like illness.
- Sentinel providers can submit specimens from a subset of patients to the state laboratory for virus isolation **free of charge**.

For more information, please contact

Lakisha Thomas at 305-470-5660.

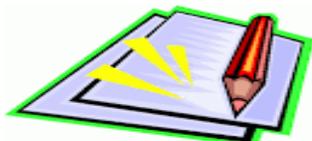
About the Epi Monthly Report

The Epi Monthly Report is a publication of the Florida Department of Health in Miami-Dade County: Epidemiology, Disease Control & Immunization Services. The publication serves a primary audience of physicians, nurses, and public health professionals. Articles published in the Epi Monthly Report may focus on quantitative research and analysis, program updates, field investigations, or provider education. For more information or to submit an article, please contact Emily Moore at (305) 470-6918.

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Miami-Dade County Monthly Report Select Reportable Disease/Conditions November 2015

Diseases/Conditions	2015 Current Month	2015 Year to Date	2014 Year to Date	2013 Year to Date
HIV/AIDS				
AIDS*	24	435	489	630
HIV	83	1412	1286	1217
STD				
Infectious Syphilis*	33	303	304	333
Chlamydia*	1077	9706	8891	9087
Gonorrhea*	246	1975	1944	2126
TB				
Tuberculosis**	10	109	110	110
Epidemiology, Disease Control & Immunization Services				
Epidemiology				
Campylobacteriosis	23	334	326	328
Chikungunya Fever	1	26	70	0
Ciguatera Poisoning	0	15	22	25
Cryptosporidiosis	2	45	36	20
Cyclosporiasis	0	3	1	3
Dengue Fever	4	27	37	41
Escherichia coli, Shiga Toxin-Producing	2	6	25	10
Encephalitis, West Nile Virus	0	0	0	0
Giardiasis, Acute	17	188	203	249
Influenza Novel Strain	0	0	0	0
Influenza, Pediatric Death	0	0	1	1
Legionellosis	2	25	18	21
Leptospirosis	0	1	0	0
Listeriosis	2	6	5	2
Lyme disease	0	7	8	5
Malaria	1	7	6	8
Meningitis (except aseptic)	1	7	25	30
Meningococcal Disease	0	6	11	15
Salmonella serotype Typhi (Typhoid Fever)	0	2	1	2
Salmonellosis	59	646	593	554
Shigellosis	10	138	640	66
Streptococcus pneumoniae, Drug Resistant	0	1	40	79
Toxoplasmosis	0	0	0	0
Vibriosis	0	16	6	10
West Nile Fever	0	0	0	0
Immunization Preventable Diseases				
Measles	0	0	0	0
Mumps	0	3	0	0
Pertussis	1	29	31	41
Rubella	0	0	0	0
Tetanus	0	0	0	0
Varicella	6	49	40	62
Hepatitis				
Hepatitis A	1	33	31	31
Hepatitis B (Acute)	0	11	11	19
Lead				
Lead Poisoning	5	80	71	78

*Data is provisional at the county level and is subject to edit checks by state and federal agencies.

** Data on tuberculosis are provisional at the county level.