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EPI EXAMINER

A Monthly Epidemiology Report

September, 2017

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Disease Summary:

In September, a total of 424 cases of various diseases were reported to the Florida Department of Health in Broward County (DOH-Broward). Among them, there were eleven cases of acute giardiasis, one case of typhoid fever (*Salmonella* serotype Typhi), four cases of hepatitis A, one case of Rocky Mountain spotted fever, one case of congenital Zika virus disease and infection, two cases of arsenic poisoning, thirty-one cases of carbon monoxide poisoning, nine cases of legionellosis, one case of mercury poisoning, three cases of pertussis, and one case of acute pesticide-related illness and injury. These were higher than the averages of the same month in the previous five years.

Food Recalls:

There were three food recalls reported in Florida for the month of September 2017.

Brand Name	Food	Recall Date	Health Risk
Country Fresh Orland LLC	Diced bell pepper, vegetable kabobs, and creole and fajita mixed diced vegetables	9/5/2017	Listeria
Garden of Life LLC	Baby Organic Liquid Formula	9/8/2017	Safety Concern
Death Wish Coffee Co.	Nitro Cold Brew Cans	9/21/2017	Clostridium Botulinum

All data are provisional.

Table 1 . Provisional Cases* of Selected Notifiable Disease, Broward County, Florida, September 2017

	BROWARD COUNTY					FLORIDA				
	September			Cumulative (YTD)		September			Cumulative (YTD)	
	2017	2016	Mean†	2017	2016	2017	2016	Mean†	2017	2016
A. Enteric Infections										
Campylobacteriosis	14	14	16.8	195	109	304	270	251.6	3268	2736
Cryptosporidiosis	5	6	7	29	17	78	92	163.8	388	416
Cyclosporiasis	1	0	0.2	5	1	6	4	2	111	36
E.Coli, Shiga Toxin-Producing Infection**	1	9	4.6	52	48	36	49	46.2	501	453
Giardiasis, Acute	11	8	7.2	75	63	87	91	107.2	772	867
Listeriosis	1	1	0.6	7	4	5	3	3	38	26
Salmonellosis	62	61	55.2	456	381	737	827	833	4395	4403
Shigellosis	8	7	9.8	87	98	97	92	135.6	999	674
Typhoid Fever (<i>Salmonella</i> Serotype Typhi)	1	0	0	1	3	5	3	1.2	37	14
B. Viral Hepatitis										
Hepatitis A	4	1	0.8	31	5	23	11	12.8	201	90
Hepatitis B, Acute	2	7	1.8	41	36	50	68	43.2	554	518
Hepatitis B, Pregnant Women	5	10	7.8	74	54	23	30	36.2	358	315
Hepatitis C, Acute	2	2	0.8	16	20	27	20	18	276	235
C. Vector Borne, Zoonoses										
Dengue Fever	1	3	1.4	2	13	3	8	14	18	53
Lyme Disease	1	2	0.8	17	15	24	36	24.4	240	168
Rabies, Possible Exposure	11	14	3.6	133	81	253	269	229	2490	2430
Rocky Mountain Spotted Fever and Spotted Fever Rickettsiosis	1	0	0	1	1	6	3	0.8	42	11
Zika Virus Disease and Infection, Congenital	1	0	0	2	0	2	1	0.2	7	3
Zika Virus Disease and Infection, Non-Congenital	3	21	4.2	39	130	28	165	33	292	813
D. Others										
Arsenic Poisoning	2	0	0	6	3	2	2	0.8	11	16
Carbon Monoxide Poisoning	31	0	1.2	42	6	328	26	22	475	193
Lead Poisoning	2	1	1.6	36	27	59	56	59.4	766	594
Legionellosis	9	4	1.6	39	17	59	46	31.4	357	238
Mercury Poisoning	1	0	0	11	3	4	0	0.4	31	16
Pertussis	3	0	0.8	21	8	22	25	40.6	294	264
Pesticide-Related Illness and Injury, Acute	1	0	0	2	0	24	14	8	51	22
Varicella (Chickenpox)	3	5	3.4	74	46	47	60	62.8	494	590
Vibriosis (Other <i>Vibrio</i> Species)	1	0	0.2	2	1	9	0	0.6	48	10
Vibriosis (<i>Vibrio cholera</i> Type Non-O1)	1	0	0.4	2	0	3	2	1.6	19	13

* Confirmed, Probable, Suspect and Unknown Cases based on date of report as reported in Merlin.

† Mean of the number of cases of the same month in the previous five years.

** Includes E. coli O157:H7; shiga-toxin positive, serogroup non-O157; and shiga-toxin positive, not serogrouped.

Highlighted diseases/conditions are higher than expected for the current month in Broward.

The Merlin system is Florida's state repository of reportable disease case reports, including automated notification of staff about individual cases of high priority diseases. Data are extracted using event date which is usually the date of onset of illness, and when that is unknown, event date may be date of lab report, or date of diagnosis.

The Electronic Surveillance System for the Early Notification of Community Based Epidemics (ESSENCE) was developed by Johns Hopkins University and Walter Reed Army Institute of Research. It is a syndromic surveillance tool used to monitor potential bioterrorism threats and reportable diseases. Chief complaint data is transmitted daily to the ESSENCE system from participating hospital emergency rooms. DOH-Broward monitors a total of 17 reporting hospitals in Broward County. ESSENCE groups the chief complaint data into twelve syndrome groups, including: botulism-like, exposure, fever, gastrointestinal (GI), hemorrhagic, influenza-like-illness (ILI), neurological, rash, respiratory, shock/coma, injury, and other. ESSENCE creates automatic warnings or alerts for the monitoring of the twelve syndrome groups by comparing statistical differences in observed and predicted disease based on a 28-day average. Specialized queries have also been developed to monitor Florida state reportable diseases in Broward County. When an observed value is statistically higher at the $p < .05$ level, a yellow warning flag is generated.

Figure 1. ESSENCE Daily Emergency Department Visits, Broward, September 2017

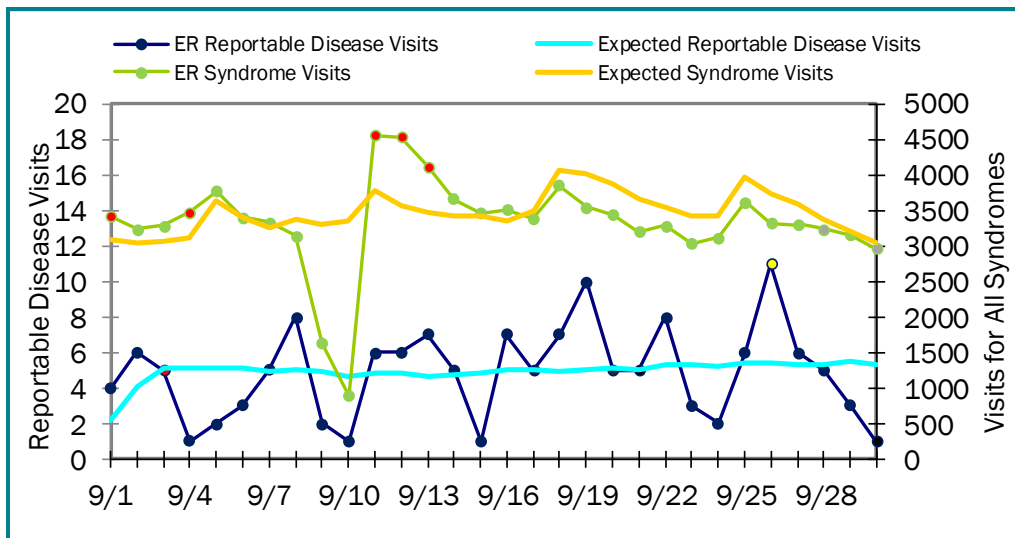


Figure 5. There are one warning and zero alerts for E.R reportable disease visits; and zero warnings and five alerts for E.R syndromic visits.

Warning - Yellow data point
Alert - Red data point

Table 2. ESSENCE Chief Complaint Alerts and Warnings for Reportable Disease and Chief Complaint Syndromes, September 2017

Disease	Alert Dates	Warning Dates	Syndrome	Alert Dates	Warning Dates
All Reportable Disease Query	None	26	Botulism-like Illness	11, 12	13, 16
Vaccine Preventable Diseases ¹	11,12	2, 13	Exposure	None	1, 8, 13
Hepatitis A and B	28	None	Fever	4, 5, 7, 8, 11	1, 3, 6, 12
Meningitis (may not be bacterial)	None	19	Gastrointestinal Illness	None	4, 16
Varicella (chicken pox)	None	None	Hemorrhagic Illness	None	None
Vector Borne Diseases	None	None	Influenza-like Illness (ILI)	4, 5, 6, 7, 8	1, 3, 17
Chikungunya	25, 28, 30	27	Injury	6, 7, 11, 12, 13	5, 8
Dengue	None	None	Neurological	None	11, 12, 13, 16
Encephalitis	None	None	Rash	12	11, 14, 15, 16
Malaria	None	None	Respiratory	3, 4, 5, 7, 8, 11, 12	1, 2, 6
Zika Infection	None	None	Shock/Coma	11, 12	8, 13
Gastrointestinal Illnesses	None	None	Other Illness	4, 11, 12, 13	1, 14
General Enterics ²	None	None			
Vomit and Diarrhea	1, 5, 11, 12	4, 13, 14			

¹ Varicella, Measles, Mumps, Rubella, Diphtheria, Tetanus, Pertussis, Polio

² Cryptosporidium, cyclospora, shigellosis, shigella, salmonellosis, salmonella, ciguatera, campylobacteriosis, cholera, E. coli, and vibrio

During the month of September, influenza and influenza-like illness (ILI) activity continued to circulate at low levels nationally. Statewide activity has remained low although activity started to increase one month ago. Florida reported local ILI with the peak of the season to have passed in week 8. There were no positive influenza tests detected by the Bureau of Public Health Laboratories in recent weeks in Broward County. Broward influenza activity peaked in week 52 and remains sporadic.

Figure 2. ESSENCE ILI Visits, Broward, 2016-2017

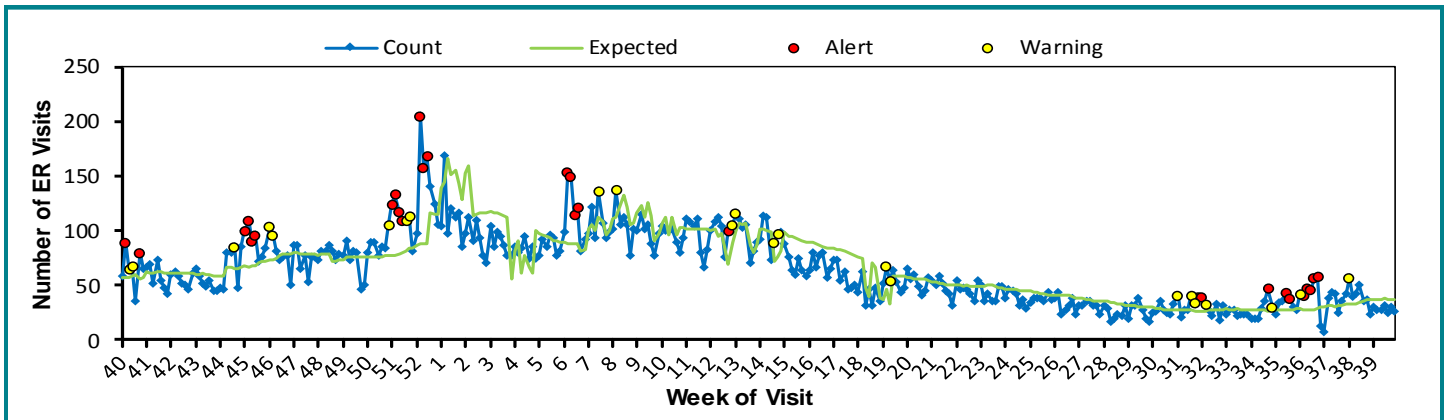


Figure 3. ESSENCE Reported ILI Visits, Broward, 2016-2017

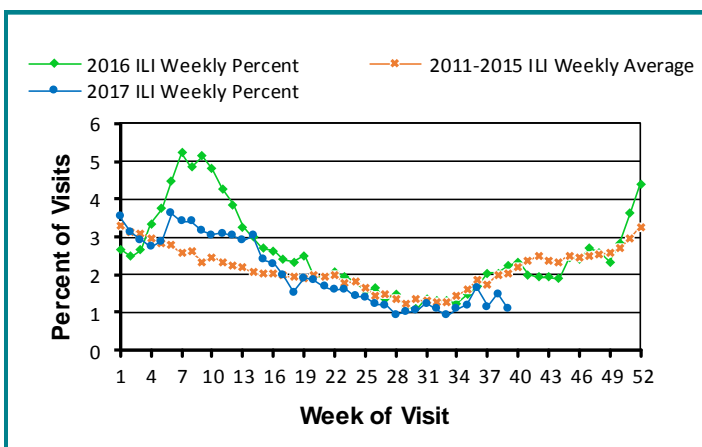
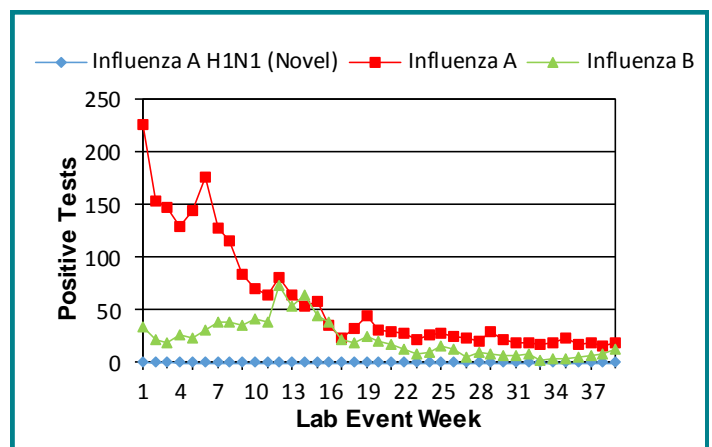


Figure 4. Merlin Reported Circulating Flu Types, Broward, 2017



Summary of Influenza and Respiratory Diseases Data

The number of visits to the emergency department for ILI was decreasing and was below the number of expected visits at this time for the month of September (week 35 to week 39) with seven alerts and two warnings (Fig. 2). The percentage of emergency department visits due to ILI was decreasing, and was at lower levels when compared to the weekly average for the last five years (Fig. 3) The decrease is not considered to be a true decrease but more likely due to a lack of people seeking care for influenza due to Hurricane Irma. According to Merlin Flu Lab Reports, the number of positive tests for Influenza A has decreased and was similar to the number of positive tests for Influenza B. Positive results for Influenza B were increasing, compared to the month of August (Fig. 4).

Influenza Prevention Recommendations

Florida Department Health in Broward County recommends that everyone take precautions to prevent the spread of influenza. The flu is a contagious disease, caused by the influenza virus, and spreads to others when infected persons cough, sneeze or talk. Common symptoms of the flu include: fever (usually high), headache, extreme tiredness, cough, sore throat, runny or stuffy nose, muscle aches, nausea, vomiting, and diarrhea (more common among children than adults). Influenza vaccines have protected millions of people safely for decades. The CDC recommends an annual flu vaccine as the first and best way to protect against influenza. This recommendation is the same even during years when the vaccine composition (the viruses the vaccine protects against) remains unchanged from the previous season. Everyone 6 months and older is encouraged to get vaccinated against the flu even if they got vaccinated last season.

Other recommendations include:

- Wash your hands often with soap and water or an alcohol-based hand sanitizer.
- Avoid touching your eyes, nose, or mouth.
- Stay home when you are sick, keep sick children home and check with a health care provider, as needed.
- Do not share eating utensils, drinking glasses, towels or other personal items.
- Avoid close contact with people who are sick, if possible.



The Florida Department of Health has implemented 4 key components to reduce the rate of new HIV infection in the state of Florida. The key components are:

1. Implement routine HIV and STI screening in health care settings and priority testing in non-health care settings
2. Provide HIV testing, rapid access to treatment and ensure retention in care (Test and Treat)
3. Improve access to antiretroviral pre-exposure prophylaxis (PrEP) and non-occupational post-exposure prophylaxis (nPEP)
4. Increase HIV awareness and community response through outreach, engagement, and messaging

The Test and Treat component in Broward County started May 1st, 2017. The purpose of the Test and Treat program is to provide immediate care to a newly diagnosed HIV client or, re-introduce a previously diagnosed client that has fallen out of care. Once an HIV client has been identified at a registered HIV test site (currently there are 13 registered sites) a Linkage Retention Specialist (LRS) will accompany the client for linkage to care.

Linkage to care consists of: paperwork completion for the new client, a blood draw, meeting with the infectious disease (ID) doctor and getting antiretroviral drugs in hand. The entire process takes place within the same day and the LRS must stay with the client through the entire ordeal.

To date, the Broward County Test and Treat program has had 539 clients referred to the Test and Treat program. Of the 539 clients, 472 have been enrolled: 216 new and 256 previously positive.

Of the 472 clients enrolled, all are on Antiretroviral Therapy (ART) with the exception of eight that have upcoming appointments, three that are undetectable, one unable to locate and one that has other medical conditions that prevent her from being able to see an ID doctor at this time.

Please see the below table for a visual breakdown:

Test and Treat Program Totals as of May 1st - October 11th, 2017		
TOTAL NUMBER REFERRED TO TEST AND TREAT	539	
Enrolled	472	88%
Newly diagnosed (% of those enrolled)	216	46%
Previous positives (% of those enrolled)	256	54%
On ART (% of those enrolled)	459	97%
Not on ART (% of those enrolled)	13	3%
Refused	29	5%
Ineligible	38	7%
Jail (% of those ineligible)	5	13%
OOJ (% of those ineligible)	25	66%
Negative (% of those ineligible)	7	18%
Deceased (% of those ineligible)	1	3%
Week 23 (October 5th – October 11th, 2017)		
TOTAL NUMBER REFERRED TO TEST AND TREAT	38	
Enrolled	37	97%
Newly diagnosed (% of those enrolled)	18	49%
Previous positives (% of those enrolled)	19	51%
On ART (% of those enrolled)	29	78%
Not on ART (% of those enrolled)	8	22%
Refused	1	3%
Ineligible	0	0%