



# Florida Department of Health in Broward County

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# EPI EXAMINER

## A Monthly Epidemiology Report

April, 2017

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### Disease Summary:

In April, a total of 438 cases of various diseases were reported to the Florida Department of Health in Broward County (DOH-Broward). Among them, there were nine cases of Shiga-toxin producing *E. coli* infection, one case of listeriosis, forty-three cases of salmonellosis, one case of possible herpes B virus exposure, one case of acute Q fever (*Coxiella burnetii*), twenty-three cases of possible rabies exposure, five cases of non-congenital Zika virus disease and infection, one case of influenza-associated pediatric mortality, three cases of mumps, and seven cases of varicella (chickenpox). These were higher than the averages of the same month in the previous five years.

### Food Recalls:

There were 9 food recalls reported in Florida for the month of April 2017.

Brand Name	Food	Recall Date	Health Risk
Conagra Brands, Inc.	Hunt's Chili Kits	04/02/2017	Salmonella
Lakeside Foods, Inc.; ALDI	Season's Choice Frozen Sweet Peas	04/06/2017	Listeria
Fresh Express	Organic Marketside Spring Mix Salad	04/08/2017	Foreign matter contamination
Lakeside Foods, Inc.; ALDI	Expanded Recall Season's Choice Frozen Sweet Peas	04/11/2017	Listeria
Frito-Lay	Jalapeño Flavored Lay's and Miss Vickie's Kettle Cooked potato chips	04/21/2017	Salmonella
Conagra Brands, Inc.	Banquet Chicken Nuggets with Mac & Cheese and Brownie	04/21/2017	Salmonella
WFSP Foods LLC.	Ready-To-Eat Chicken Breast Products	04/25/2017	Undercooked
Phoenix Food, LLC	Dip Trio Mix	04/27/2017	Salmonella
Lords Organics	Ginger Powder	04/27/2017	Salmonella

All data are provisional.

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

	BROWARD COUNTY					FLORIDA				
	April		Mean†	Cumulative (YTD)		April		Mean†	Cumulative (YTD)	
	2017	2016		2017	2016	2017	2016		2017	2016
<b>A. Enteric Infections</b>										
Campylobacteriosis	15	9	14.8	60	43	307	256	240	1156	1067
Cryptosporidiosis	3	2	1.6	13	6	47	21	31.8	123	141
E.Coli, Shiga-Toxin Producing Infection**	9	6	6	25	19	59	35	36.4	204	176
Giardiasis, Acute	12	6	8	30	23	96	114	90	348	352
Listeriosis	1	0	0	2	1	5	4	3.2	16	8
Salmonellosis	43	24	27.2	144	108	357	357	329.2	1209	1291
Shigellosis	10	13	19.4	35	36	91	57	147.8	313	243
<b>B. CNS Diseases &amp; Bacteremias</b>										
Streptococcus Pneumoniae Invasive Disease, < 6 years old:										
Drug Resistant	1	1	0.6	3	2	2	2	4	14	11
Drug Susceptible	1	0	0.2	4	1	3	2	2.8	16	14
<b>C. Viral Hepatitis</b>										
Hepatitis A	3	2	1.2	8	3	21	10	9.2	76	34
Hepatitis B, Acute	1	4	2.6	16	11	43	60	37.2	200	200
Hepatitis B, Pregnant Women	6	13	7.6	40	25	30	41	38.4	158	148
Hepatitis C, Acute	2	1	1	5	3	22	18	16.4	96	80
<b>D. Vector Borne, Zoonoses</b>										
Chikungunya Fever	1	0	1.6	1	2	3	1	2.8	3	6
Herpes B Virus, Possible Exposure	1	0	0	1	0	3	0	0.6	4	1
Lyme Disease	1	1	0.2	5	4	35	6	6.4	163	33
Q Fever, Acute (Coxiella burnetii)	1	0	0	1	0	1	0	0	1	0
Rabies, Possible Exposure	23	6	1.4	72	9	248	311	256.6	1000	1004
Zika Virus Disease and Infection, Non-Congenital	5	4	0.8	28	22	18	26	5.2	148	118
<b>E. Others</b>										
Carbon Monoxide Poisoning	1	5	2.4	3	6	9	29	16.4	55	92
Influenza-Associated Pediatric Mortality	1	0	0	1	1	4	1	0.2	11	5
Lead Poisoning	2	1	1	26	13	83	94	62.6	286	238
Legionellosis	3	0	1.8	9	6	28	18	18.2	123	85
Mercury Poisoning	1	0	0.2	4	0	5	3	1.4	14	8
Mumps	3	0	0	5	1	5	2	1	15	8
Pertussis	3	3	5	10	7	42	27	39.2	120	123
Varicella (Chickenpox)	7	2	1.8	40	22	64	72	78.4	259	315

\* 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, April 2017

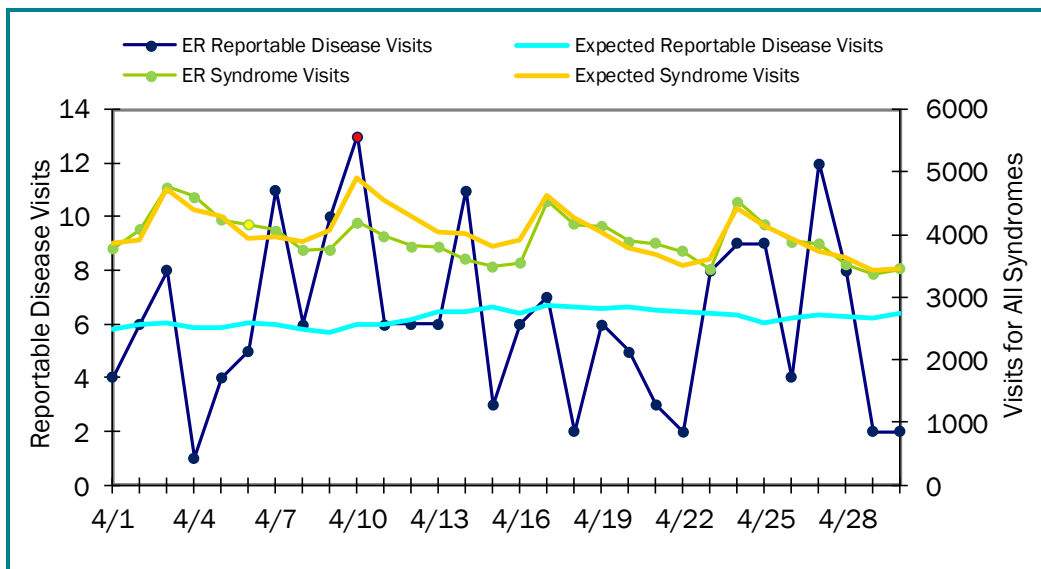


Figure 5. There is zero warning and one alert for E.R reportable disease visits; and one warning and zero alert for E.R syndromic visits.

Warning - Yellow data point  
Alert - Red data point

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

Disease	Alert Dates	Warning Dates	Syndrome	Alert Dates	Warning Dates
All Reportable Disease Query	10	None	Botulism-like Illness	4, 5	25
Vaccine Preventable Diseases <sup>1</sup>	None	2, 7	Exposure	None	10, 25, 27, 28
Hepatitis A and B	None	None	Fever	None	4
Meningitis (may not be bacterial)	None	None	Gastrointestinal Illness	None	6
Varicella (chicken pox)	None	9	Hemorrhagic Illness	3, 4, 5	None
Vector Borne Diseases	None	None	Influenza-like Illness (ILI)	6	None
Chikungunya	None	None	Injury	3, 24	27, 29
Dengue	None	None	Neurological	None	4, 6
Encephalitis	None	None	Rash	3, 4, 24	5, 10, 11, 25
Malaria	None	None	Respiratory	None	22
Zika Infection	None	None	Shock/Coma	None	4, 21
Gastrointestinal Illnesses	26, 27	28	Other Illness	None	17
General Enterics <sup>2</sup>	26, 27	28			
Vomit and Diarrhea	None	3, 4, 18			

<sup>1</sup> Varicella, Measles, Mumps, Rubella, Diphtheria, Tetanus, Pertussis, Polio

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

During the month of April, Influenza and ILI activity decreased nationally to levels below those observed in previous seasons at this time. Florida reported local Influenza Like Illness (ILI) activity throughout the month with the peak of the season believed 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

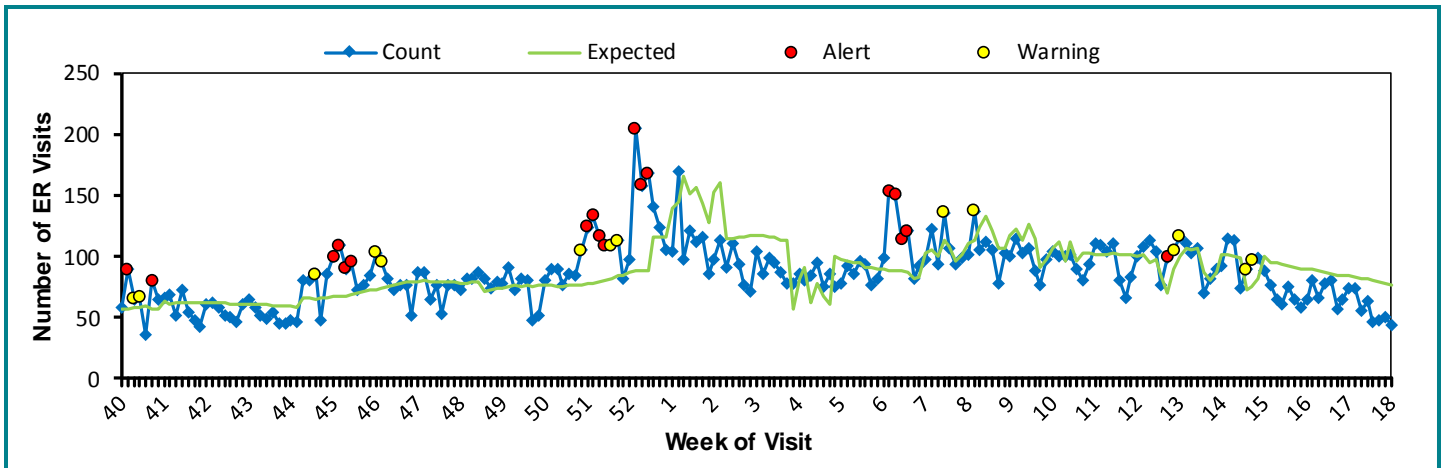


Figure 3. ESSENCE Reported ILI Visits, Broward, 2016-2017

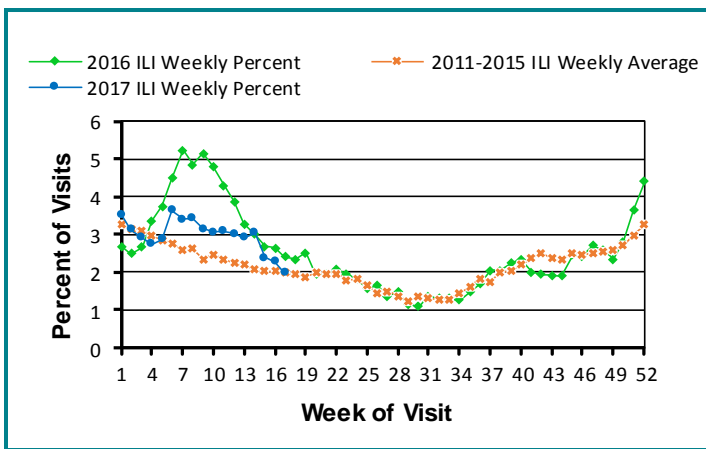
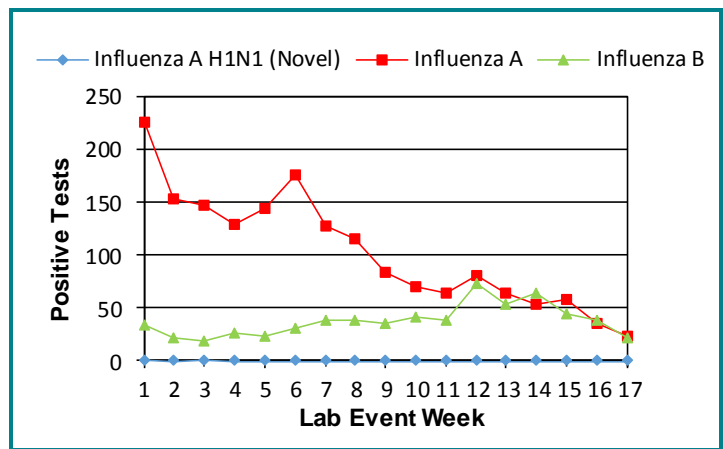


Figure 4. Merlin Reported Circulating Flu Types, Broward, 2017



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 April (week 14 to week 17) with zero alerts and two warnings (Fig. 2). The percentage of emergency department visits due to ILI was decreasing, but was above the weekly average for the last five years and lower than this time in 2016 (Fig. 3). According to Merlin Flu Lab Reports, the number of positive tests for Influenza A has been decreasing and was similar to the number of positive tests for Influenza B. Positive results for Influenza B are decreasing, compared to the month of March (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.

