Duval County Epidemiology Surveillance Report

The Florida Department of Health (FDOH) in Duval County, Epidemiology

July 2014

Public Health Surveillance

Surveillance is a key core public health function and has been defined as the regular collection, meaningful analysis, and routine dissemination of relevant data for providing opportunities for public health action to prevent and control disease. Surveillance is done for many reasons such as identifying cases of diseases posing immediate risk to communities, detecting clusters and monitoring trends of disease that may represent outbreaks, evaluating control and prevention measures and developing hypotheses for emerging diseases.

Within Duval County, surveillance data is obtained through:

- Reports of notifiable diseases and conditions by providers (Merlin)
- Laboratory data from the Bureau of Laboratories
- Emergency department (ED) syndromic surveillance as monitored through Electronic Surveillance System for the Early Notification of Community- based Epidemics (ESSENCE)
- Florida Poison Information Center Network (FPICN)
- ILINet Sentinel Provider Influenza Surveillance
- Passive reports from the community
  - Notifiable diseases
  - Outbreaks

Report Summary – July 2014

The month of July included a variety of surveillance and investigation activities within Duval County. These included monitoring enteric disease activity, influenza and RSV surveillance, and investigating numerous cases of reportable illness.

Enteric disease activity continues to increase. FDOH in Duval continues to observe low levels of respiratory viruses circulating in Duval.

The recent Ebola outbreak in Guinea, Sierra Leone and Liberia is highlighted in the *Other Notable Trends and Statistics* section, as well as, the current rise in cryptosporidiosis cases. Lastly, this edition's *notable investigation of the month* summarizes the three vibrio cases seen in Duval County in 2014.

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Notable Investigation of the Month

Three cases of vibrio wound infections in Duval County Residents

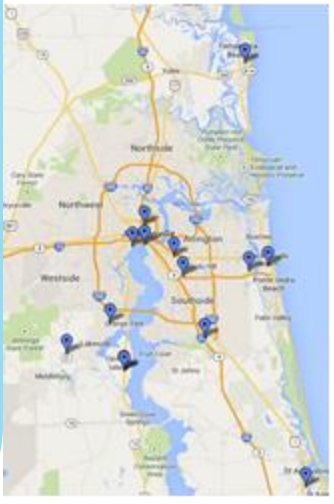
Vibrios are gram-negative, rod-shaped bacteria that occur naturally in estuarine or marine environments. Vibrio infections most commonly occur between the months of May and October. Roughly a dozen species are known to cause disease in humans, accounting for an estimated 80,000 illnesses, 500 hospitalizations and 100 deaths each year in the United States. Florida has reported 88 cases of vibriosis from January through July 2014 and 86 for the same time period in 2013. Duval county has had 3 cases from January to July 2014 and had 7 for the same time period in 2013. Infection is usually from exposure to seawater or consumption of raw or undercooked seafood. Vibriosis is characterized by diarrhea, primary septicemia, wound infections, or other extraintestinal infections. Infection with pathogenic species of the family *Vibrionaceae* can cause two distinct categories of infection: cholera and vibriosis, both of which are nationally notifiable.

Case 1: A 12 year old was diagnosed with *vibrio alginolyticus* in a wound. The patient sustained an injury by stepping on an oyster shell while playing in a marine environment.

Case 2: A 7 year old diagnosed with *vibrio vulnificus* in a wound, was exposed to a shell in brackish water. The child was treated and has recovered without complications.

Case 3: A 13 year old diagnosed with *vibrio parahaemolyticus* in a wound, was exposed when a rock fell on the child's hand in the area of brackish water. The child was treated and is recovering without complications.

Figure 1: ESSENCE Hospitals



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Report prepared by Haley Zachary, MSPH – haley.zachary@flhealth.gov All data are provisional

Enteric Disease Overview

Summary

Reported cases of salmonellosis increased in July (Figure 2). Forty-three (43) cases of salmonellosis were reported in July, which is less than the average over the previous five years (Figure 2&4). The mean number of cases for the same time period during the previous five years was 49.8 cases for July. The most represented age group of reported cases of salmonellosis for 2014 (57/139, 41.0%) occurred in the 0-4 age group. Reported cases (13) of shigellosis increased in July (Figure 2&5). The mean number of cases for the same time period during the previous five years was 19 cases for July.

Reported norovirus activity is low in Florida. During July, two outbreaks of norovirus or gastrointestinal illness (suspect viral gastroenteritis) were reported in the State of Florida. No suspected or confirmed norovirus outbreaks occurred in Duval County in the month of July. Zero outbreaks of confirmed norovirus were reported in Duval County during the month of June (Source: FDENS EpiCom & FDOH in Duval surveillance).

For prevention information, visit http://www.cdc.gov/norovirus/ & http://www.floridahealth.gov/diseases-and-conditions/norovirus-infection/index.html

ESSENCE Reportable Disease Surveillance Data

Figure 2: Reported Cases of Select Enteric Conditions by Report Month, Duval County, January 2011 – July 2014

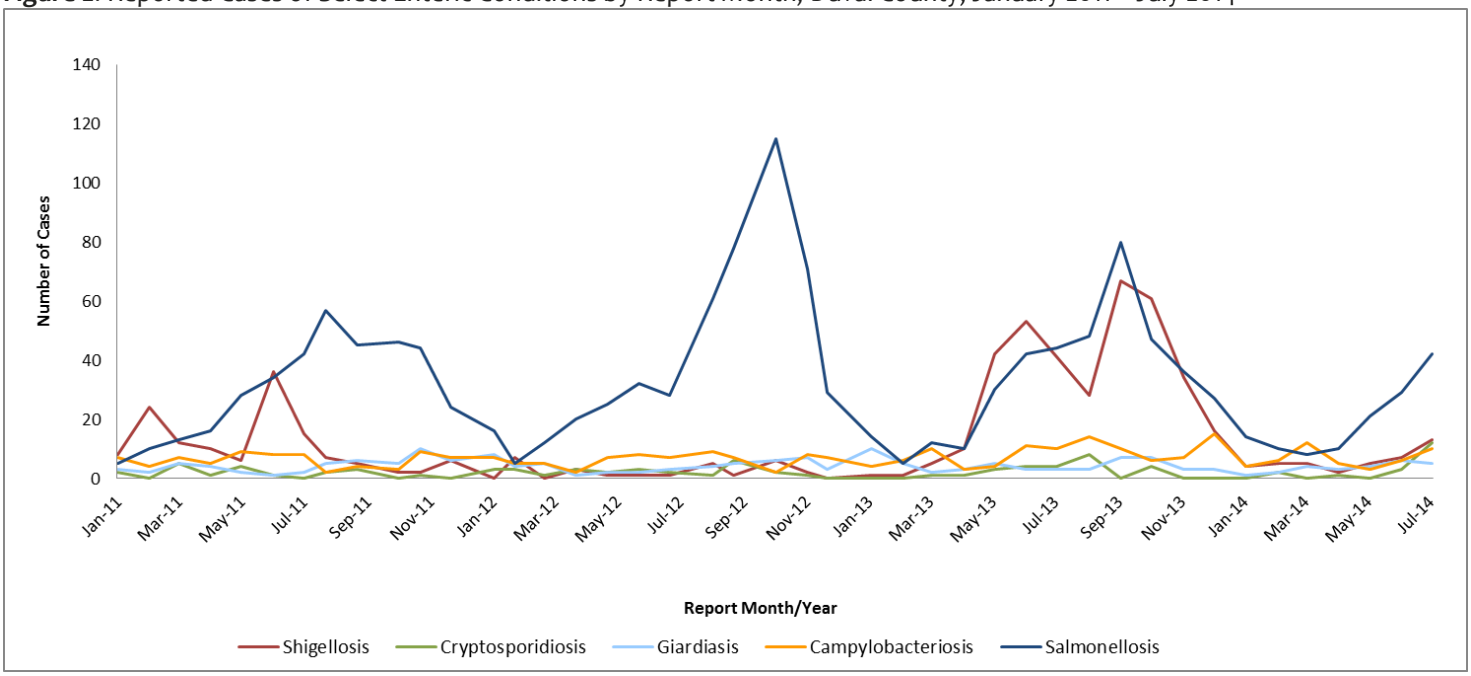
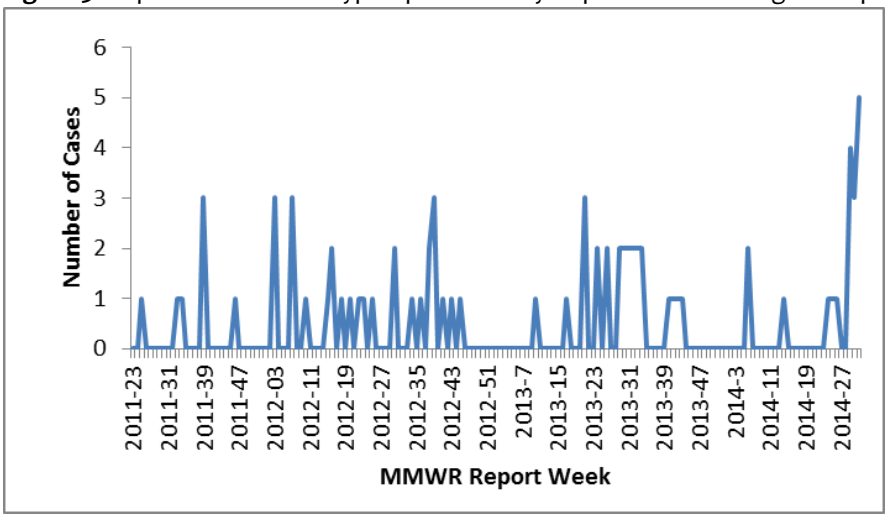
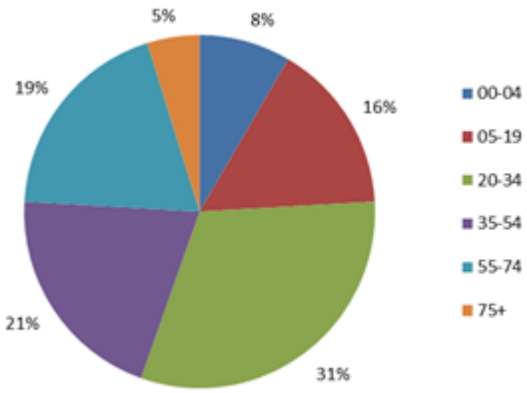


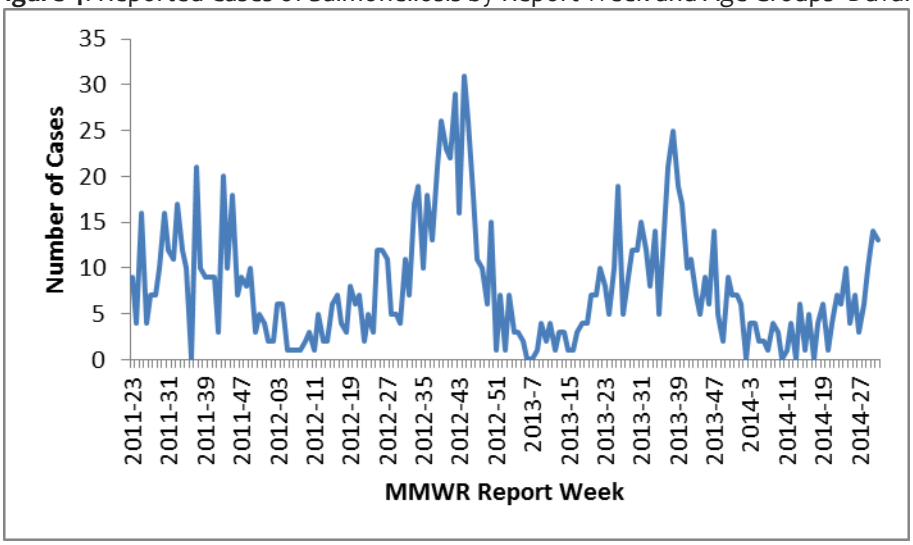
Figure 3: Reported Cases of Cryptosporidiosis by Report Week and Age Groups- Duval County – June 2011 – July 2014





Enteric Disease Overview Continued

Figure 4: Reported Cases of Salmonellosis by Report Week and Age Groups- Duval County – June 2011 – July 2014



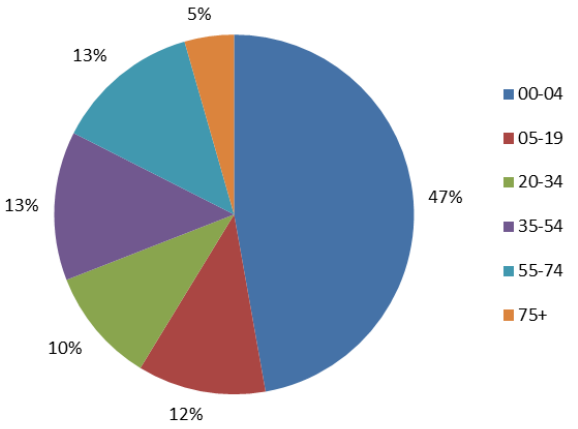
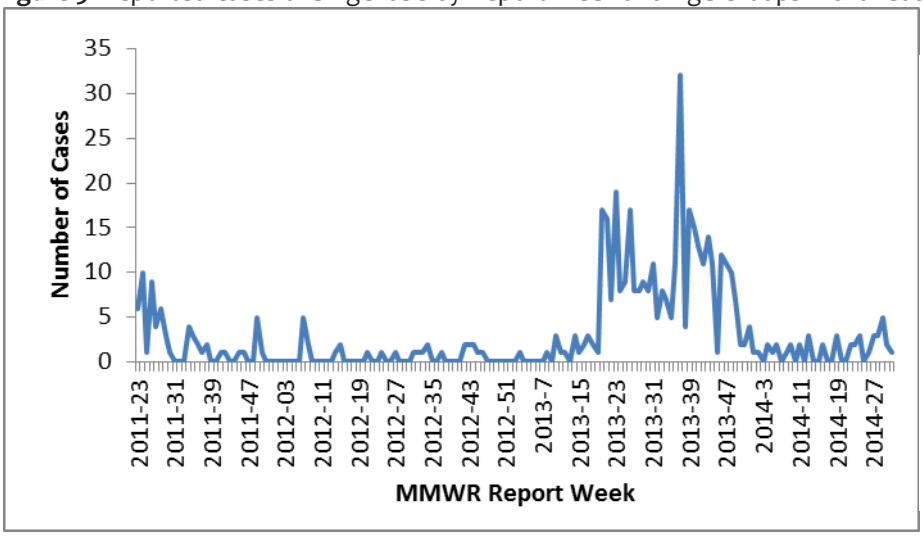


Figure 5: Reported Cases of Shigellosis by Report Week and Age Groups- Duval County - June 2011 – July 2014



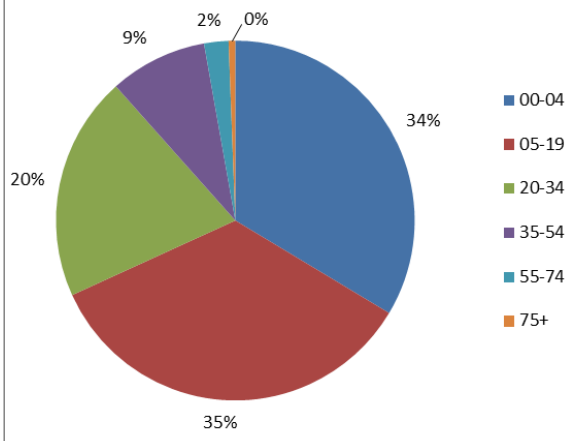
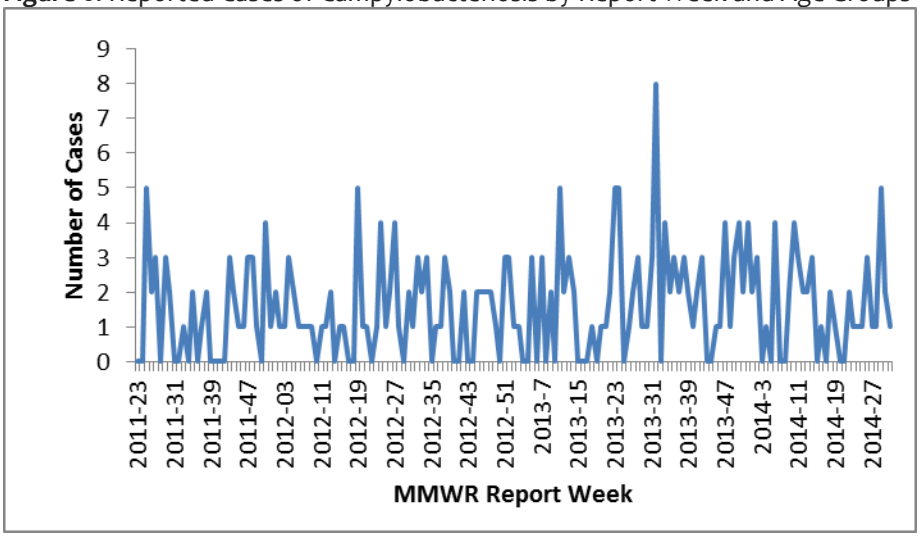
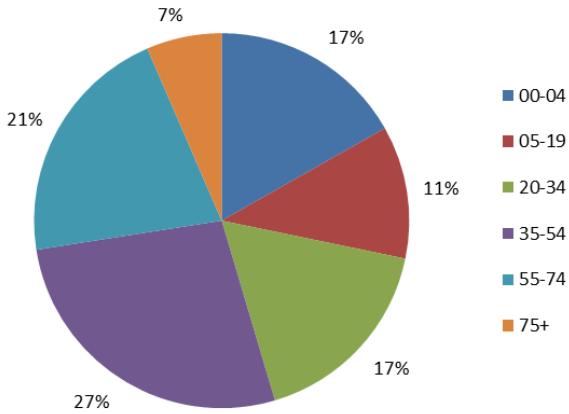


Figure 6: Reported Cases of Campylobacteriosis by Report Week and Age Groups- Duval County - June 2011 – July 2014





Respiratory Disease & ILI Overview

Summary

Currently, influenza-like illness (ILI) activity is at a low level. In Duval County, ED visits for ILI as monitored through ESSENCE remained above 2% for weeks 46-7 and week 11(Figure 7), decreased below 2% from weeks 8-10 and weeks 12-23, and have remained below 1% for weeks 24-31. During July, zero (0) specimens tested positive for influenza as tested by the Bureau of Public Health Laboratories (BPHL). Two (2) Influenza B, unspecified were detected by a private lab using rapid antigen testing during July (as reported through Electronic Lab Reporting (ELR), (Figure 8)). Other viruses known to be currently circulating, potentially causing ILI, include rhinovirus, adenovirus, parainfluenza, human metapneumovirus, and respiratory syncytial virus (RSV).

Comprehensive Statewide Influenza Surveillance: http://www.floridahealth.gov/diseases-and-conditions/influenza/Florida%20Influenza%20Surveillance%20Reports/index.html

Figure 7: Percentage of ILI from ED Chief Complaints, Florida ESSENCE - Duval County Participating Hospitals (n=8)

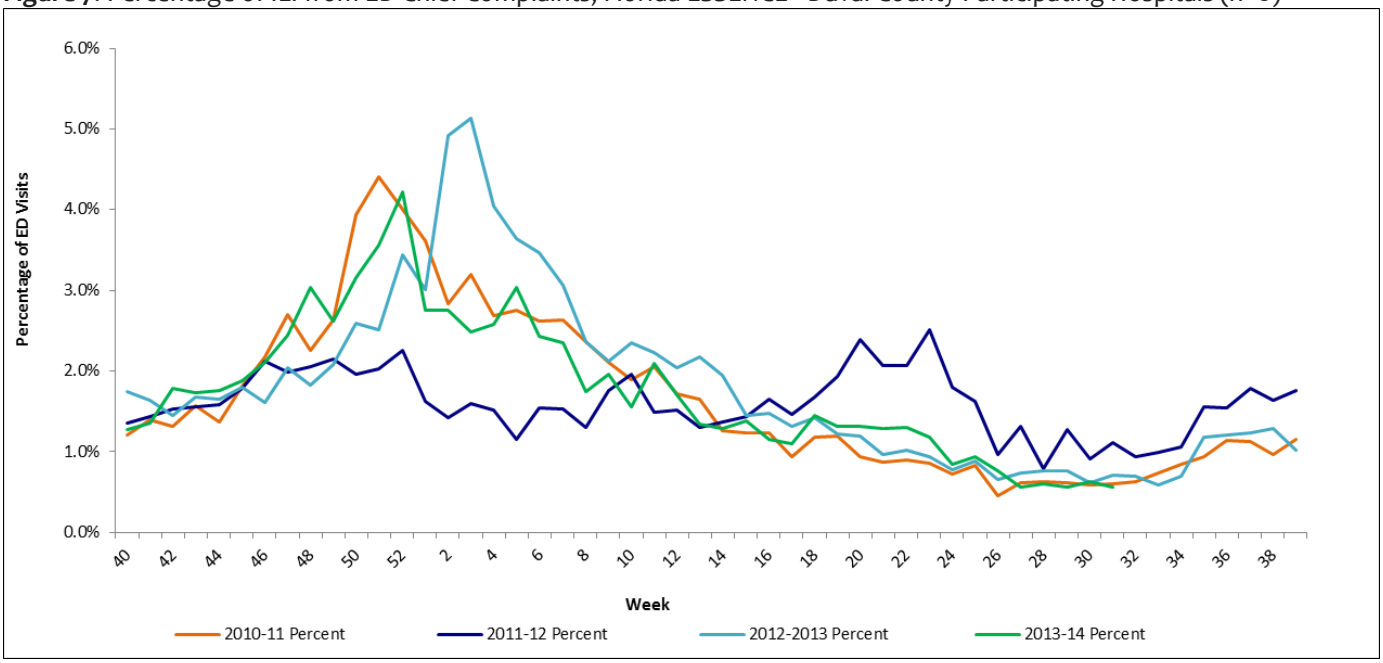
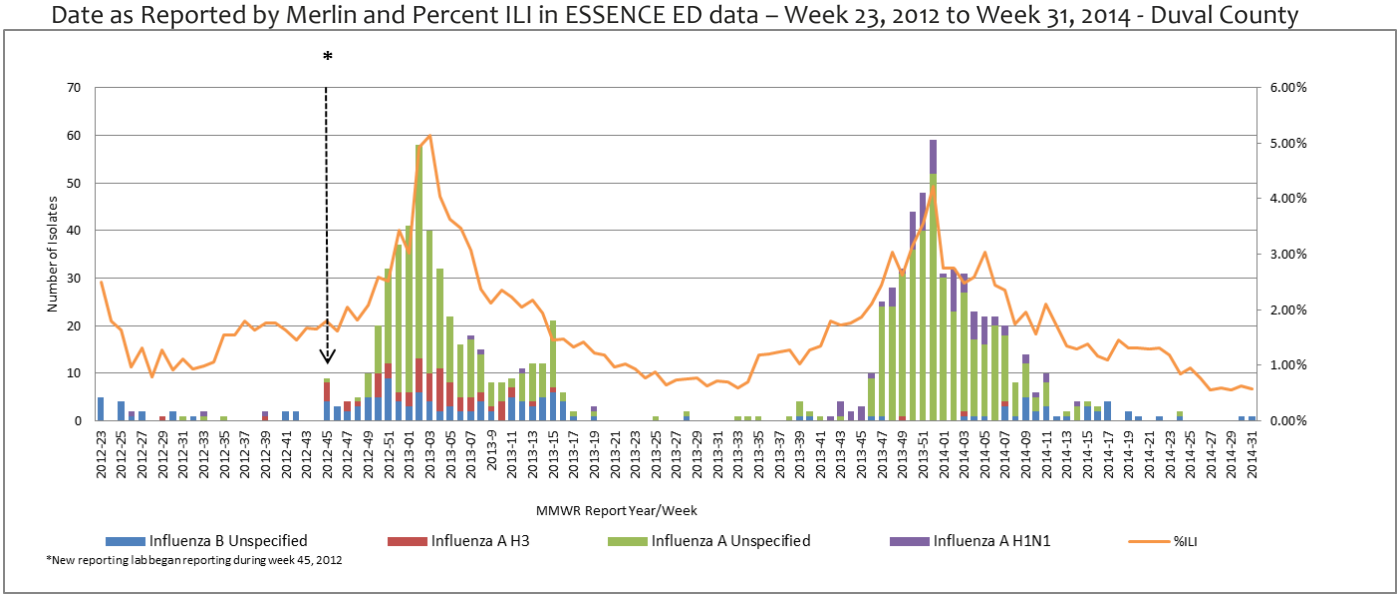


Figure 8: Number of Influenza-Positive Specimens Reported through Electronic Lab Reporting by Subtype by Lab Event Date as Reported by Merlin and Percent ILI in ESSENCE ED data – Week 23, 2012 to Week 31, 2014 - Duval County



Respiratory Virus Surveillance (Local Hospital Data)

Summary

Circulation of influenza and RSV remained at low levels for the month of July. RSV season for the North Region of Florida traditionally runs from September to March. The percent positive for influenza reported by local hospital data is 0.52% (1/193) (Figure 9 and Figure 10). The percent positive for RSV specimens during the month of July was 2.10% (5/238) (Figure11). In June, the percent positive for influenza was 0% and for RSV was 2.99%.

Figure 9: Local Weekly Hospital Influenza A Surveillance Data- Reported From 1/20/2014-8/2/2014

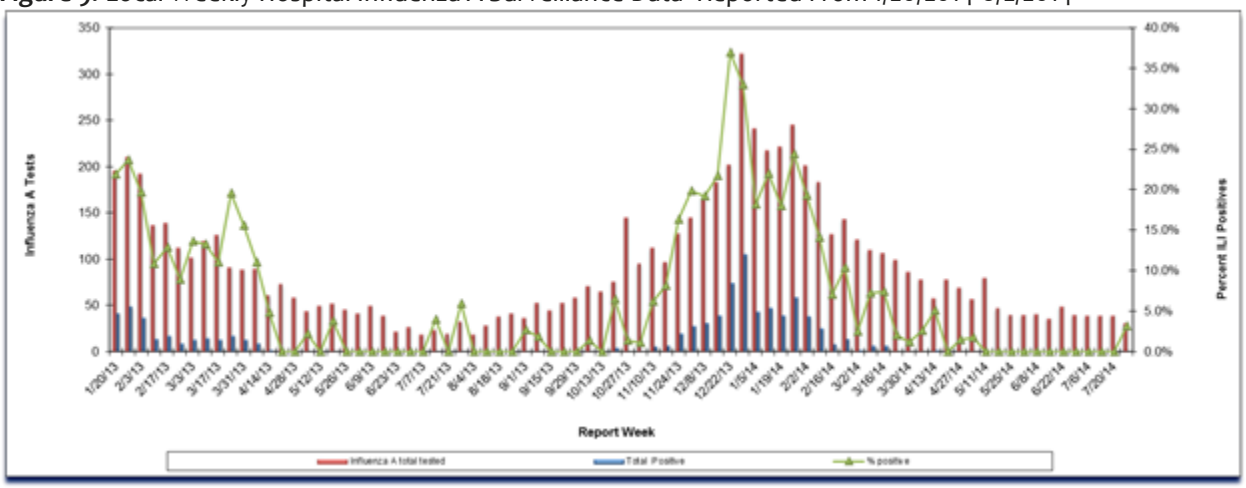


Figure 10: Local Weekly Hospital Influenza B Surveillance Data- Reported From 1/20/2014-8/2/2014

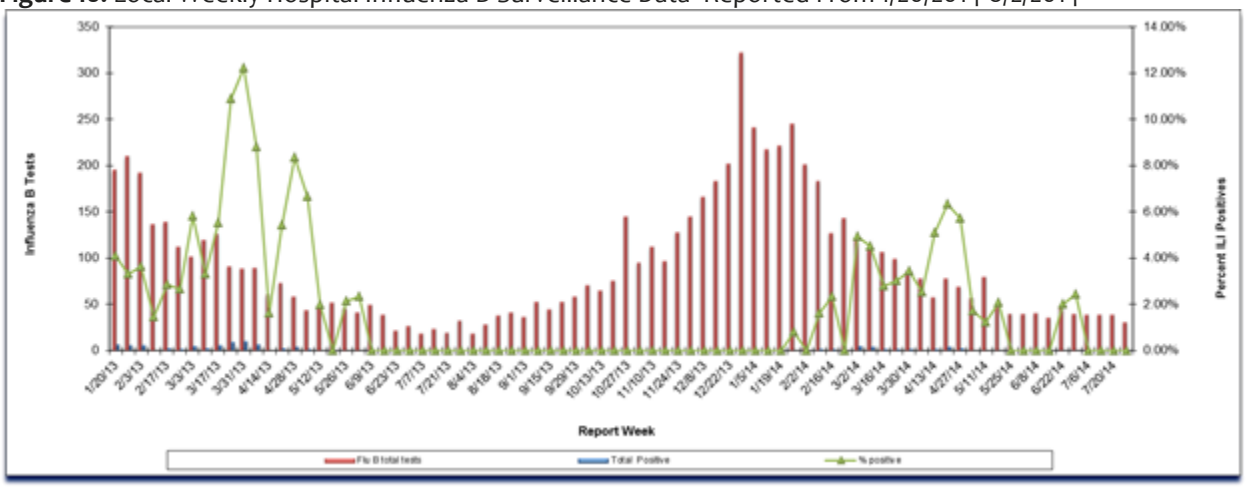
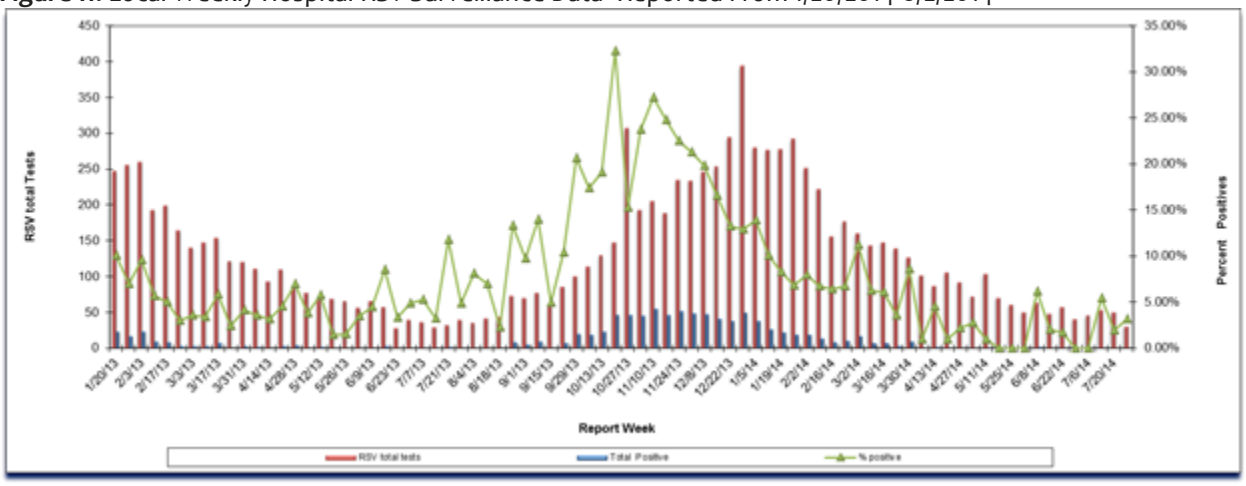


Figure 11: Local Weekly Hospital RSV Surveillance Data- Reported From 1/20/2014-8/2/2014



Florida Mosquito-Borne Disease Summary

Summary

MBI surveillance utilizes monitoring of arboviral seroconversions in sentinel chicken flocks, human surveillance, monitoring of mosquito pools, veterinary surveillance, and wild bird surveillance. MBI surveillance in Florida includes endemic viruses West Nile Virus (WNV), Eastern Equine Encephalitis Virus (EEEV), St. Louis Encephalitis Virus (SLEV), and Highlands J Virus (HJV), and exotic viruses such as Dengue Virus (DENV) and California Encephalitis Group Viruses (CEV).

Figure 12: Florida Arbovirus Surveillance (January 1- August 9, 2014)

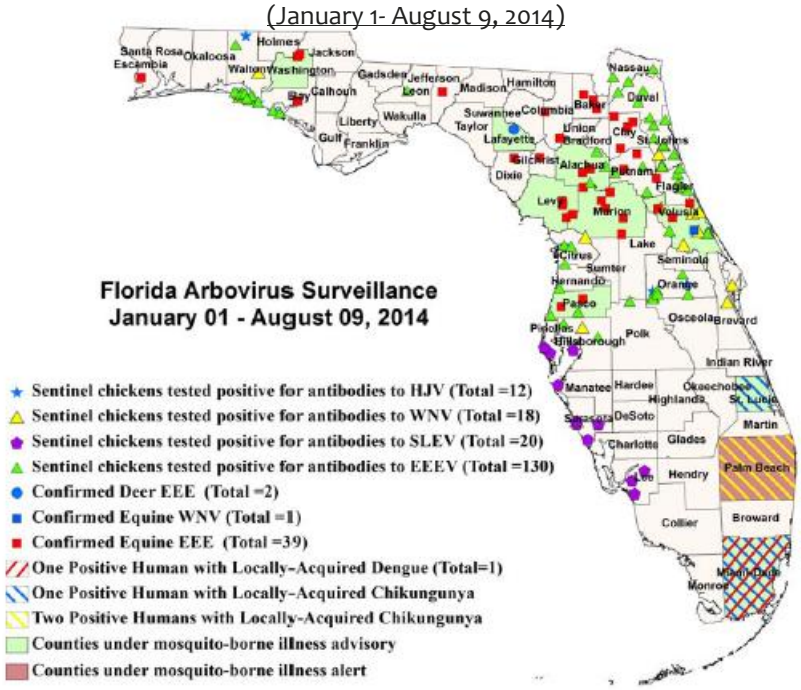


Table 1: Florida Mosquito-Borne Disease Surveillance Summary

Year to Date (through August 9, 2014)

Mosquito-Borne Disease	Human	Horses	Sentinel Chickens	Birds
West Nile Virus	-	1	18	-
St. Louis Encephalitis Virus	-	-	20	-
Highlands J Virus	-	-	12	-
California Encephalitis Group Viruses	-	-	-	-
Eastern Equine Encephalitis Virus	-	39	130	-

State of Florida 2014 Human Case Summary

International Travel-Associated Dengue Fever Cases: Forty-one cases of dengue with onset in 2014 have been reported in individuals with travel history to a dengue endemic country in the two weeks prior to onset. Countries of origin were: Bolivia, Brazil (2), Caribbean, Columbia, Costa Rica (2), Cuba (15), Dominican Republic (6) Guadeloupe, Haiti, Honduras (2), Mexico, Puerto Rico (3), Sri Lanka, Trinidad (2), and Venezuela (2). Counties reporting cases were: Alachua, Brevard, Broward (4), Clay, Highlands, Hillsborough (3), Manatee (2), Marion, Miami-Dade (17), Orange (3), Osceola (3), Pinellas, Seminole, St. Lucie, and Volusia. Five of the cases were reported in non-Florida residents. In 2014, 20 of the 41 cases of dengue reported in Florida have been serotyped by PCR. Additional serotyping and strain typing are being conducted.

Dengue Fever Cases Acquired in Florida: In 2014, a total of one case of locally acquired dengue fever has been reported. One case of dengue in a Miami-Dade resident with onset in June, 2014 has been reported as acquired in Miami-Dade County.

International Travel-Associated Chikungunya Fever Cases: One hundred and fifty cases of chikungunya with onset in 2014 have been reported in individuals with travel history to a chikungunya endemic country or area experiencing an outbreak in the two weeks prior to onset. Countries of origin were: Dominica, Dominican Republic (45), Guyana (2), Haiti (90), Martinique (2), and Puerto Rico (10). Counties reporting cases were: Alachua (2), Brevard (2), Broward (30), Charlotte (2), Clay (2), Duval (3), Escambia, Flagler, Hernando, Hillsborough (9), Indian River, Lake, Lee (3), Leon (2), Miami-Dade (26), Okaloosa, Orange (15), Osceola (4), Palm Beach (25), Pasco (2), Pinellas (3), Polk (6), Santa Rosa, Sarasota, Seminole (3), St. Lucie (2), and Volusia. Twelve of the cases were reported in non-Florida residents.

Chikungunya Fever Cases Acquired in Florida: In 2014, a total of four cases of locally acquired chikungunya fever have been reported. One case of chikungunya fever in a Miami-Dade resident with onset in June, 2014 has been reported as acquired in Miami-Dade County. Two cases of chikungunya fever in Palm Beach residents with onset in July, 2014 have been reported as acquired in Palm Beach County. One case of chikungunya fever in a St. Lucie resident with onset in July, 2014 has been reported as acquired in St. Lucie County.

International Travel-Associated Malaria Cases: Thirty-two cases of malaria with onset in 2014 have been reported. Countries of origin were: Angola (3), Cameroon, Dominican Republic, Equatorial New Guinea (2), Ghana, Guatemala, Guyana (2), Haiti, India (2), Ivory Coast (2), Kenya (2), Nigeria (3), Peru, Sierra Leone (5), Sudan, Uganda (2), and multiple sub-Saharan African countries (3). Counties reporting cases were: Broward (5), Duval, Escambia, Hernando, Hillsborough (7), Miami-Dade (5), Okaloosa, Orange (3), Osceola (2), Palm Beach (3), Pasco, Pinellas (2), and Santa Rosa. Seven of the cases were reported in non-Florida residents.

Twenty-four cases (75%) were diagnosed with Plasmodium falciparum. Five cases (16%) were diagnosed with Plasmodium vivax. Two case (6%) was diagnosed with Plasmodium malariae. One case (3%) was diagnosed with Plasmodium ovale.

Resources *See the following web site for more information:* http://www.doh.state.fl.us/Environment/medicine/arboviral/index.html

Other notable trends and statistics

Notable Trends and Statistics-Ebola Outbreak Update August 4, 2014 (Source: CDC.gov)

The World Health Organization, in partnership with the Ministries of Health in Guinea, Sierra Leone, Liberia, and Nigeria announced a cumulative total of 1779 suspect and confirmed cases of Ebola virus disease (EVD) and 961 deaths, as of August 6, 2014. Of the 1779 clinical cases, 1134 cases have been laboratory confirmed for Ebola virus infection.

In Guinea, 495 cases, including 367 fatal cases and 355 laboratory confirmations of EVD, were reported by the Ministry of Health of Guinea and WHO as of August 6, 2014. Active surveillance continues in Conakry, Guéckédou, Pita, Siguiri, Kouroussa, Macenta, and Nzerekore Districts.

In Sierra Leone, WHO and the Ministry of Health and Sanitation of Sierra Leone reported a cumulative total of 717 suspect and confirmed cases of EHF as of August 6, 2014. Of these 717, 631 cases have been laboratory confirmed and 298 were fatal. All districts are now reporting clinical EVD patients. Reports, investigations, and testing of suspect cases continue across the country.

As of August 6, 2014, the Ministry of Health and Social Welfare of Liberia and WHO reported 554 clinical cases of EVD, including 148 laboratory confirmations and 294 fatal cases. Suspect and confirmed cases have been reported in 9 of 13 Counties. Laboratory testing is being conducted in Monrovia.

In Nigeria, WHO and the Nigerian Ministry of Health reported 13 suspect cases, including 2 fatal cases, as of August 6, 2014.

CDC is in regular communication with all of the Ministries of Health (MOH), WHO, MSF, and other partners regarding the outbreak. Currently CDC has personnel in all four countries assisting the respective MOHs and the WHO-led international response to this Ebola outbreak.

Based on reports from the Ministry of Heath of Guinea, the Ministry of Health and Sanitation of Sierra Leone, the Ministry of Health and Social Welfare of Liberia, the Ministry of Health of Nigeria, and WHO 8 August 2014.

Increase in the amount of Cryptosporidiosis cases in Duval County July and August 2014

During the month of July, Duval county observed an increase in the amount of cryptosporidiosis cases with twelve (12) cases and twelve (12) cases reported thus far, in the month of August. In 2013, there were four (4) reported cases in the month of July and eight (8) reported cases in the month of August.

Cryptosporidium is a microscopic parasite that causes the diarrheal disease cryptosporidiosis. There are many species of Cryptosporidium that infect humans and animals. The parasite is protected by an outer shell that allows it to survive outside the body for long periods of time and makes it very tolerant to chlorine disinfection. While this parasite can be spread in several different ways, water (drinking water and recreational water) is the most common method of transmission. Cryptosporidium is one of the most frequent causes of waterborne disease among humans in the United States.

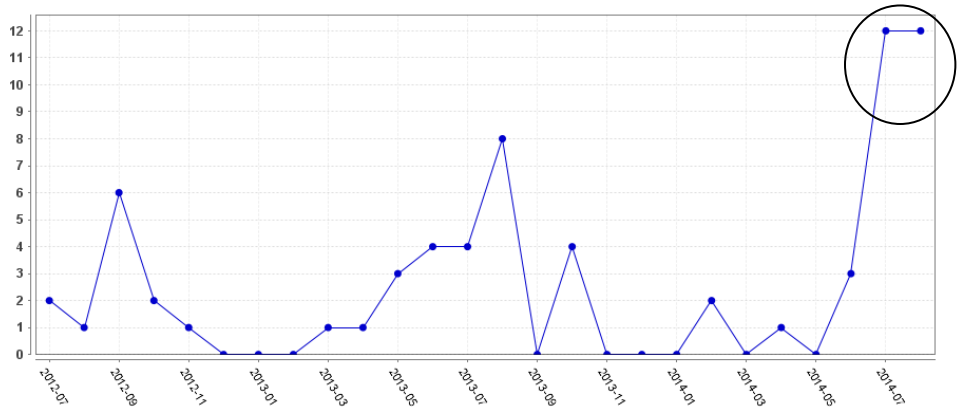


Figure 13: Reported cases of Cryptosporidiosis in Duval County- July 2012-August 2014 (Source ESSENCE)

Recently Reported Diseases/Conditions in Florida

Table 2: Provisional Cases* of Selected Notifiable Disease, Duval County, Florida, July 2014

	Duval County						Florida					
	Month				Cumulative (YTD)		Month				Cumulative (YTD)	
	2014	2013	Mean†	Median¶	2014	2013	2014	2013	Mean†	Median¶	2014	2013
A. Vaccine Preventable Diseases												
Diphtheria	**0**	0	0	0	0	0	**0**	0	0	0	0	0
Measles	**0**	0	0	0	0	0	**0**	1	0.4	0	0	9
Mumps	**0**	0	0	0	0	0	**0**	2	0.6	0	0	2
Pertussis	**8**	8	7.4	8	38	14	**112**	76	54.8	46	526	349
Rubella	**0**	0	0	0	0	0	**0**	0	0	0	0	0
Tetanus	**0**	0	0	0	0	1	**0**	0	0.2	0	2	4
Varicella	**5**	5	3.4	3	29	35	**30**	28	35.8	37	350	411
B. CNS Diseases & Bacteremias												
Creutzfeldt-Jakob Disease	**0**	1	0.2	0	0	1	**3**	3	1.2	1	15	14
H. influenzae (invasive)	**0**	0	0.6	1	11	16	**16**	21	15.8	15	194	187
Meningitis (bacterial, cryptococcal, mycotic)	**3**	0	1	1	13	9	**13**	18	17	17	84	92
Meningococcal Disease	**0**	0	0.4	0	2	0	**2**	1	4.2	5	28	37
Staphylococcus aureus (VISA, VRSA)	**0**	0	0.2	-	1	1	**0**	2	0.6	-	2	3
Streptococcus pneumoniae (invasive disease)												
Drug resistant	**0**	1	1.6	1	14	23	**16**	29	27	29	328	381
Drug susceptible	**1**	3	1.2	1	20	22	**14**	28	28.6	28	338	405
Streptococcal Disease, Group A, Invasive	**0**	1	0.8	1	8	6	**0**	30	25.4	23	184	181
C. Enteric Infections												
Campylobacteriosis	**11**	10	7.2	7	49	51	**265**	264	190.6	188	1365	1185
Cryptosporidiosis	**12**	4	2	2	18	13	**158**	32	38.4	36	413	198
Cyclosporiasis	**0**	6	1.6	1	0	6	**18**	32	19	10	22	34
Giardiasis	**5**	3	7.8	3	25	35	**110**	105	138.4	105	629	601
Hemolytic Uremic Syndrome	**0**	0	0	0	0	0	**1**	2	0.6	0	5	5
Listeriosis	**0**	0	0.2	0	1	0	**6**	2	2.6	3	20	21
Salmonellosis	**44**	45	49.8	45	139	160	**670**	683	673.2	683	2734	2701
Shiga Toxin-Producing E. coli (STEC) Infection	**0**	0	0	0	1	2	**11**	10	7.8	8	71	73
Shigellosis	**13**	41	19	15	43	153	**220**	77	128	120	1557	386
Typhoid Fever	**0**	0	0.2	0	0	1	**0**	3	2.4	2	10	7

Recently Reported Diseases/Conditions in Florida

	Duval County						Florida					
	Month				Cumulative (YTD)		Month				Cumulative (YTD)	
	2014	2013	Mean†	Median¶	2014	2013	2014	2013	Mean†	Median¶	2014	2013
D. Viral Hepatitis												
Hepatitis A	**0**	0	0.4	0	0	3	**12**	12	11	12	73	54
Hepatitis B +HBsAg in pregnant women	**5**	5	3.8	4	36	30	**57**	47	43	46	319	314
Hepatitis B, Acute	**0**	2	0.8	1	13	9	**28**	33	24.8	26	238	203
Hepatitis C, Acute	**0**	1	0.2	0	7	2	**14**	24	12.4	10	117	142
E. Vector Borne, Zoonoses												
Animal Rabies	**0**	1	0.8	1	0	2	**5**	17	13.4	16	48	61
Ciguatera	**0**	0	0	0	0	0	**5**	6	5.6	6	28	21
Dengue Fever	**0**	1	0.2	0	0	2	**21**	16	13.4	13	60	73
Eastern Equine Encephalitis††	**0**	0	0	-	0	0	**0**	0	0.8	-	1	2
Ehrlichiosis/Anaplasmosis¶¶	**0**	0	0.2	-	1	0	**10**	7	9.2	-	26	14
Leptospirosis	**0**	0	0	0	0	0	**0**	0	0	0	0	1
Lyme Disease	**1**	0	0	0	1	1	**16**	25	13.6	12	51	55
Malaria	**0**	1	1.2	1	1	2	**8**	6	10	11	38	36
St. Louis Encephalitis††	**0**	0	0	-	0	0	**0**	0	0	-	0	0
West Nile Virus††	**0**	0	1	-	0	0	**0**	0	1.2	-	1	0
F. Others												
Botulism-infant	**0**	0	0	0	0	0	**0**	0	0	0	0	1
Brucellosis	**0**	0	0	0	1	0	**0**	1	1.8	1	3	5
Carbon Monoxide Poisoning	**0**	12	2.6	0	1	23	**14**	17	11	11	84	92
Hansens Disease (Leprosy)	**0**	0	0	0	0	0	**1**	1	1	1	3	5
Legionellosis	**1**	5	1.8	1	7	11	**30**	42	21.4	17	166	136
Vibrios	**2**	2	0.8	-	3	7	**24**	25	20.8	-	84	85

***** Confirmed and probable cases based on date of report as reported in Merlin to the Bureau of Epidemiology. Incidence data for 2014 is provisional. May include Non-Florida Cases.

† Mean of the same month in the previous five years

¶ Median for 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, (Please note that suspect cases are not included in this report)

†† Includes neuroinvasive and non-neuroinvasive

¶¶ Includes *E. ewingii*, HGE, HME, and undetermined

Recently Reported Diseases/Conditions in Florida

Table 3: Duval County Reported Sexually Transmitted Disease for Summary for July 2014

Infectious and Early Latent Syphilis Cases

Sex	Area 4	%	Duval	%
Male	9	69%	9	69%
Female	4	31%	4	31%
Race	**Area 4**	**%**	**Duval**	**%**
White	4	31%	4	31%
Black	9	69%	9	69%
Hispanic	0	0%	0	0%
Other	0	0%	0	0%
Age	**Area 4**	**%**	**Duval**	**%**
0-14	0	0%	0	0%
15-19	1	8%	1	8%
20-24	4	31%	4	31%
25-29	4	31%	4	31%
30-39	1	8%	1	8%
40-49	3	23%	3	23%
50+	0	0%	0	0%
Total Cases	13		13	

Chlamydia Cases

Sex	Area 4	%	Duval	%
Male	165	32%	136	34%
Female	353	68%	259	66%
Race	**Area 4**	**%**	**Duval**	**%**
White	96	19%	55	14%
Black	247	48%	222	56%
Hispanic	17	3%	15	4%
Other	158	31%	103	26%
Age	**Area 4**	**%**	**Duval**	**%**
0-14	2	0%	1	0%
15-19	139	27%	98	25%
20-24	193	37%	145	37%
25-29	100	19%	81	21%
30-39	65	13%	54	14%
40-54	15	3%	12	3%
55+	4	1%	4	1%
Total Cases	518		395	

Gonorrhea Cases

Sex	Area 4	%	Duval	%
Male	107	55%	91	55%
Female	89	45%	74	45%
Race	**Area 4**	**%**	**Duval**	**%**
White	38	19%	25	15%
Black	114	58%	109	66%
Hispanic	4	2%	3	2%
Other	40	20%	28	17%
Age	**Area 4**	**%**	**Duval**	**%**
0-14	0	0%	0	0%
15-19	36	18%	30	18%
20-24	69	35%	55	33%
25-29	42	21%	37	22%
30-39	34	17%	29	18%
40-54	15	8%	14	8%
55+	0	0%	0	0%
Total Cases	196		165	

Please note that STD numbers are provisional.

* Area 4 consists of Baker, Clay, Duval, Nassau, and St. Johns

For more STD surveillance data see: http://www.floridahealth.gov/diseases-and-conditions/sexually-transmitted-diseases/std-statistics/

Tuberculosis (TB) Surveillance – Duval County - 1/1/2014 through 6/30/2014 – All Data are Provisional

Fifty-three (53) cases of TB were reported by Duval County in 2013.

Table 4: Demographics and risk factors of TB cases reported year-to-date for 2014.

	Count	Total Cases	Percent
Gender			
Male	17	27	63.0%
Female	10	27	37.0%
Country of Origin			
U.S.	17	27	63.0%
Non-U.S.	10	27	37.0%
Drug Resistance to isoniazid			
Resistant	2	27	7.4%

For more tuberculosis surveillance data see:
http://www.floridahealth.gov/diseases-and-conditions/tuberculosis/tb-statistics/

Data Dictionary

Merlin: The Merlin system is essential to the control of disease in Florida. It serves as the state's repository of reportable disease case reports, and features automated notification of staff about individual cases of high-priority diseases. All reportable disease data presented for this report has been abstracted from Merlin, and as such are provisional. Data collected in Merlin can be viewed using http://www.floridacharts.com/merlin/freqrpt.asp.

Event Date: Reportable diseases and conditions presented within this report are reported by event date. This is the earliest date associated with the case. In most instances, this date represents the onset of illness. If this date is unknown, the laboratory report date is utilized as the earliest date associated with a case.

ILINet (previously referred to as the *Sentinel Provider Influenza Surveillance Program*): The Outpatient Influenza-like Illness Surveillance Network (ILINet) consists of more than 3,000 healthcare providers in all 50 states, the District of Columbia, and the U.S. Virgin Islands reporting over 25 million patient visits each year. Each week, approximately 1,400 outpatient care sites around the country report data to CDC on the total number of patients seen and the number of those patients with ILI by age group. For this system, ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a KNOWN cause other than influenza. The percentage of patient visits to healthcare providers for ILI reported each week is weighted on the basis of state population. This percentage is compared each week with the national baseline of 2.5%. Duval County has 5 ILInet providers that contribute to the state and national data.

NREVSS: The National Respiratory and Enteric Virus Surveillance System (NREVSS) is a laboratory-based system that monitors temporal and geographic patterns associated with the detection of respiratory syncytial virus (RSV), human parainfluenza viruses (HPIV), respiratory and enteric adenoviruses, and rotavirus.

MMWR week: The week of the epidemiologic year for which the National Notifiable Diseases Surveillance System (NNDSS) disease report is assigned by the reporting local or state health department for the purposes of *Morbidity and Mortality Weekly Report* (*MMWR*) disease incidence reporting and publishing. Values for *MMWR* week range from 1 to 53, although most years consist of 52 weeks.

Syndromic Surveillance: An investigational approach where epidemiologists use automated data acquisition and generation of statistical signals, monitor disease indicators continually (real time) or at least daily (near real time) to detect outbreaks of diseases earlier and more completely than might otherwise be possible with traditional public health surveillance (e.g., reportable disease surveillance and telephone consultation).

ESSENCE: The Electronic Surveillance System for the Early Notification of Community-Based Epidemics (**ESSENCE**) is a syndromic surveillance system for capturing and analyzing public health indicators for early detection of disease outbreaks. ESSENCE utilizes hospital emergency department chief complaint data to monitor disease indicators in the form of syndromes for anomalies. ESSENCE performs automatic data analysis, establishing a baseline with a 28-day average. Daily case data is then analyzed against this baseline to identify statistically significant increases. A yellow flag indicates a warning and a red flag indicates an alert. Currently, all eight Duval County Hospitals are sending ED data to the ESSENCE system; an additional 5, three in Clay, one in St Johns, and one in Nassau County, provide regional coverage. The 13 reporting hospitals in our region include Baptist Beaches (Duval), Baptist Clay (Clay), Baptist Downtown (Duval), Baptist Nassau (Nassau), Baptist South (Duval), Flagler (St. Johns), Memorial (Duval), Mayo (Duval), Orange Park (Clay), Shands Jacksonville (Duval), St. Vincent's (Duval), St. Vincent's Clay (Clay), and St. Vincent's Southside (Duval).

Chief Complaint (CC): The concise statement describing the symptom, problem, condition, diagnosis, physician recommended return, or other factor that is the reason for a medical encounter.

Syndrome: A set of chief complaints, signs and/or symptoms representative of a condition that may be consistent with a CDC defined disease of public health significance. ESSENCE syndrome categories include botulism-like, exposure, fever, gastrointestinal, hemorrhagic, ILI, neurological, rash, respiratory, shock/coma, injury, and other.

Count: The number of emergency department visits relating to a syndrome of query.

Other Links and Resources:
Florida Department of Health, Bureau of Epidemiology: http://www.doh.state.fl.us/disease_ctrl/epi/index.html
Florida Annual Morbidity Reports: http://www.floridahealth.gov/diseases-and-conditions/disease-reporting-and-management/disease-reporting-and-surveillance/data-and-publications/fl-amsr1.html
Influenza Surveillance Reports:
http://www.floridahealth.gov/diseases-and-conditions/influenza/florida-influenza-weekly-surveillance.html

Reportable Diseases/Conditions in Florida

Laboratory List (Practitioner Requirements Differ)

Effective June 4, 2014

Did you know that you are required* to report certain laboratory results to your county health department?

DOH-Duval Disease reporting telephone numbers:
AIDS, HIV - (904) 253-2989, (904) 253-2955
STD - (904) 253-2974, Fax - (904) 253-2601
TB Control - (904) 253-1070, Fax - (904) 253-1943
All Others- (904) 253-1850, Fax - (904) 253-1851, After Hours Emergency - (904) 434-6035

! Report immediately 24/7 by phone upon initial suspicion or laboratory test order
☎ Report immediately 24/7 by phone
• Report next business day
+ Other reporting timeframe
✉ Submit isolate or specimen for confirmation

! Detection in one or more specimens of etiological agents of a disease or condition not listed that is of urgent public health significance; agents suspected to be the cause of a cluster or outbreak

Arboviruses

- Arboviruses not otherwise listed, including but not limited to: Flaviviridae, Togaviridae (e.g., Western equine encephalitis virus), and Bunyaviridae ✉
- California serogroup viruses (e.g., Jamestown Canyon, Keystone, Lacrosse) ✉
- Chikungunya virus
- Dengue virus ✉
- Eastern equine encephalitis virus ✉
- St. Louis encephalitis virus ✉
- West Nile virus ✉

! Venezuelan equine encephalitis virus ✉

General

☎ *Acanthamoeba* species
- *Anaplasma* species ✉
- Any bacterial or fungal species in CSF
- Arsenic results indicative of poisoning

! *Bacillus anthracis* ✉
☎ *Balamuthia mandrillaris*
☎ *Bordetella pertussis*
- *Borrelia burgdorferi*

☎ Brevetoxin associated with neurotoxic shellfish poisoning

! *Brucella* species ✉
! *Burkholderia mallei* ✉
! *Burkholderia pseudomallei* ✉
- *Campylobacter* species
+ Cancer, pathological or tissue diagnosis of cancer, excluding non-melanoma skin cancer and including benign and borderline intracranial and CNS tumors (see Rule 64D-3.034, *Florida Administrative Code*)
- Carbon monoxide, volume fraction ≥0.09 (9%) of carboxyhemoglobin in blood
+ CD-4 absolute count and percentage of total lymphocytes
- *Chlamydia trachomatis*
- *Chlamydophila psittaci* ✉
- CJD, 14-3-3 or tau protein detection in CSF or immunohistochemical test or any brain pathology suggestive of CJD

! *Clostridium botulinum* and botulinum toxin from food, wound or unspecified source ✉
- *Clostridium botulinum* and botulinum toxin from infants <12 months old ✉
- *Clostridium tetani*

! Coronavirus associated with severe acute respiratory disease ✉
! *Corynebacterium diphtheriae* ✉
- *Coxiella burnetii* ✉
- *Cryptosporidium* species
- *Cyclospora cayetanensis* ✉
- *Ehrlichia* species ✉
- *Escherichia coli*, Shiga toxin-producing ✉

! *Francisella tularensis* ✉
- *Giardia* species
- *Haemophilus ducreyi*

! *Haemophilus influenzae* isolated from a normally sterile site from children <5 years old ✉

☎ Hantavirus ✉
☎ Hepatitis A
- Hepatitis B, C, D, E, and G viruses
- Hepatitis B surface antigen (HBsAg)
- Herpes simplex virus (HSV) 1 and HSV 2 from children <12 years old
+ Human immunodeficiency virus (HIV) test results (e.g., positive and negative immunoassay, positive and negative virologic tests) from children <18 months old
+ HIV, repeatedly reactive enzyme immunoassay, followed by a positive confirmatory test (e.g., Western blot, IFA). Positive result on any HIV virologic test (e.g., p24 AG, Nucleic Acid Test (NAT/NAAT) or viral culture). All viral load (detectable and undetectable) test results.

☎ Influenza virus from children <18 years old who died (if known) ✉

! Influenza virus, novel or pandemic strain isolated from humans ✉

- *Klebsiella granulomatis*
- Lead, all blood results (positive and negative)
- *Legionella* species
- *Leptospira interrogans*

☎ *Listeria monocytogenes* ✉

! Measles virus ✉

- Mercury results indicative of poisoning
- Mumps virus
- *Mycobacterium leprae*
- *Mycobacterium tuberculosis* complex ✉

☎ *Naegleria fowleri*
- *Neisseria gonorrhoeae*

☎ *Neisseria meningitidis* isolated from a normally sterile site ✉

- Pesticide results indicative of related illness and injury
- *Plasmodium* species ✉

! Poliovirus ✉
! Rabies virus from animal or human
! Ricinine (from *Ricinus communis* castor beans) ✉
! *Rickettsia prowazekii* ✉
- *Rickettsia rickettsii* and other spotted fever *Rickettsia* species ✉

! Rubella virus ✉

☎ *Salmonella* serotype Typhi ✉
- *Salmonella* species
- Saxitoxin associated with paralytic shellfish poisoning
- Shiga toxin ✉
- *Shigella* species

☎ Staphylococcal enterotoxin B ✉
☎ *Staphylococcus aureus*, intermediate or full resistance to vancomycin (VISA, VRSA) ✉
- *Streptococcus pneumoniae* isolated from a normally sterile site from children <6 years old
- *Treponema pallidum*

☎ *Treponema pallidum* from pregnant women and neonates
- *Trichinella spiralis*

! Vaccinia virus ✉
- Varicella virus

! Variola virus (orthopox virus) ✉

☎ Yellow fever virus ✉

! *Yersinia pestis* ✉

Vibrio and related species

! *Vibrio cholerae* type O1 ✉
- *Vibrio* species excluding *Vibrio cholerae* type O1 ✉
- *Photobacterium damselae* (formerly *Vibrio damsela*) ✉
- *Grimontia hollisae* (formerly *Vibrio hollisae*) ✉

Viral hemorrhagic fever

! Viruses not listed that cause viral hemorrhagic fever ✉
! Arenaviruses (e.g., Lassa, Machupo, Lujo, new world) ✉
! Filoviruses (e.g., Ebola, Marburg) ✉

Only reportable for laboratories participating in electronic laboratory reporting (ELR)

- Antimicrobial susceptibility results for isolates from a normally sterile site for *Acinetobacter baumannii*, *Citrobacter* species, *Enterococcus* species, *Enterobacter* species, *Escherichia coli*, *Klebsiella* species, *Pseudomonas aeruginosa*, and *Serratia* species
- *Haemophilus influenzae* isolated from a normally sterile site, all ages
- Hepatitis B, C, D, E, and G viruses, all test results (positive and negative) and all liver function tests
- Human papillomavirus (HPV) DNA
- Influenza virus, all test results (positive and negative)
- Respiratory syncytial virus, all test results (positive and negative)
- *Staphylococcus aureus* isolated from a normally sterile site
- *Streptococcus pneumoniae* isolated from a normally sterile site, all ages

*Section 381.0031 (2), *Florida Statutes* (*F.S.*), provides that "Any practitioner licensed in this state to practice medicine, osteopathic medicine, chiropractic medicine, naturopathy, or veterinary medicine; any hospital licensed under part I of chapter 395; or any laboratory licensed under chapter 483 that diagnoses or suspects the existence of a disease of public health significance shall immediately report the fact to the Department of Health." Florida's county health departments serve as the Department's representative in this reporting requirement. Furthermore, Section 381.0031 (4), *F.S.* provides that "The department shall periodically issue a list of infectious or noninfectious diseases determined by it to be a threat to public health and therefore of significance to public health and shall furnish a copy of the list to the practitioners..."