FLORIDA DEPARTMENT OF HEALTH NASSAU COUNTY

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EPIGRAM

PRODUCED BY THE DISEASE CONTROL SERVICES
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VIBRIO INFECTIONS

Vibrios are opportunistic gram-negative bacteria naturally-occurring in the salt and brackish waters along Florida's coasts. During summer months, warm marine and estuarine water temperatures promote the proliferation of the bacteria. Because of our close proximity to environments that harbor this potential pathogen, and the considerable use of these environments for commercial and recreational purposes, it is imperative that the clinical community be aware of the epidemiology and clinical features of infection with *Vibrio sp.*, or vibriosis.

Pic.1 Vibrio vulnificus bacteria

Although a number of *Vibrio sp.* are causative agents of vibriosis, a majority of clinically significant cases are caused by *V. parahaemolyticus* and *V. vulnificus*, with the later species being most invasive (see Fig. 1). Vibriosis most often occurs following consumption of raw or undercooked shellfish contaminated with the bacteria, causing an acute gastrointestinal illness characterized by vomiting, diarrhea, and abdominal pain. Because the gastrointestinal form of the disease is self-limiting in immune competent patients, cases are likely underreported. Additionally, skin and soft tissue infections can occur following wound exposure to waters that harbor the bacteria.

Those with pre-existing medical conditions, especially chronic liver disease (chronic hepatitis, cirrhosis, hepatocellular carcinoma), are at greatest risk for infection and serious complications. Skin and soft tissue infections can progress to severe cellulitis, hemorrhagic bullae, and necrotizing fasciitis; septicemia may occur following both the gastrointestinal and wound forms of the infection. Case-fatality rates for *V. vulnificus* infection approach 50% in septicemic cases with underlying medical conditions.

When patients present with the aforementioned signs and symptoms, the Florida Department of Health in Nassau County recommends that clinicians include vibriosis in their (Cont. on pg. 2)

DISEASE REPORTING

Phone: (904) 548-1800

Confidential Fax Line:
(904) 277-7286

After Hours Lines:
(866) 535-0420 (toll free)

Bureau of Epidemiology
24 Hour Reporting Line:
(850) 245-4401

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FLORIDA DEPARTMENT OF HEALTH NASSAU COUNTY CLINIC SITES

Fernandina Beach Clinic
1620 Nectarine Street
Fernandina Beach, FL 32034
(904) 548-1860

Callahan Clinic
208 Mickler Street
Callahan, FL 32011
(904) 879-2306

Yulee Clinic
528 Page's Dairy Road
Yulee, FL 32097
(904) 548-1880

Hilliard Clinic
37203 Pecan Street
Hilliard, FL 32046
(904) 845-5761

(Cont. from pg.1)

Cases of Vibriosis Acquired in Florida, 2011-2015					
Year	2015*	2014	2013	2012	2011
Cases	96	165	191	147	155
V. vulnificus (%)	19 (20)	32 (19)	41 (21)	26 (18)	35 (23)
Deaths	10	8	12	10	18
V. vulnificus (%)	8 (80)	7 (88)	12 (100)	9 (90)	13 (72)

Data courtesy of FDOH *Year to date

differential diagnosis, and assess for risk by ascertaining a food and water exposure history. Furthermore, clinicians should discourage those at greatest risk from consuming raw or undercooked shellfish, and participating in water activities with open wounds in environments where the bacteria maybe present.

All cases of vibriosis should be promptly reported to the Florida Department of Health. For additional information regarding vibriosis, please visit: http://www.floridahealth.gov/diseases-and-conditions/vibrio-infections/index.html or http://www.cdc.gov/vibrio/.

Ebola Virus Disease Outbreak Update

Pic. 2 Ebola worker with infected child.

Nearly two months after being declared free of Ebola virus transmission, Liberia has experienced a surge in new cases of the disease. On June 29, 2015 a seventeen year old boy in a suburb of Liberia's capitol, Monrovia, died of unknown causes. He was later discovered to be infected with the Ebola virus, ushering in an emergency epidemiological response. Contact tracing by the Liberian Ministry of Health has identified over 140 people who were exposed to the new index case. On July 15, 2015 a second death was reported in a close contact of the index case shortly after being admitted to an Ebola treatment facility. A total of six confirmed cases have been identified, all associated with the new focus of disease. Additional contacts are being quarantined and observed for the development of symptoms at an area Ebola treatment facility.

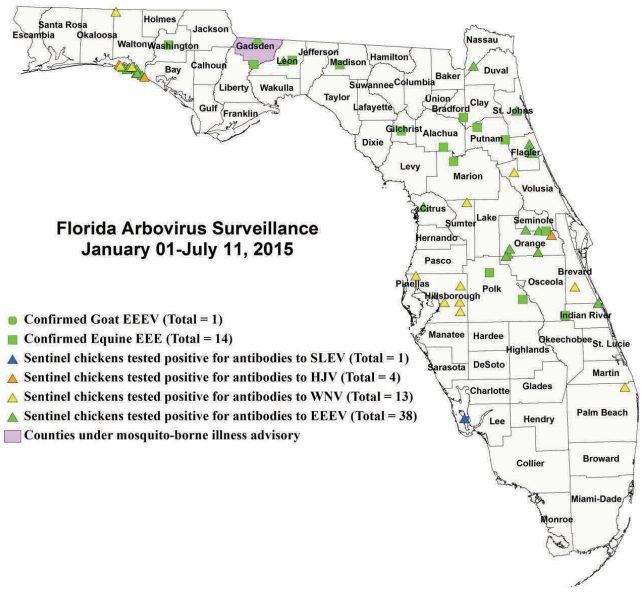
The resurgence in cases has puzzled the medical and public health communities. Genetic sequencing of the virus isolated from the index case, indicates that the circulating strain is similar to previously identified strains in that region of Liberia. The genetic similarities indicate that the virus was not imported from Sierra Leonne or Guinea, where disease transmission is ongoing, or due to zoonotic transmission from an infected animal.

A theory accounting for the virus's resurgence lies in its ability to hide within the human body undetected by the immune system. Studies have demonstrated that Ebola virus can be found in the seminal fluid of males up to 90 days following infection, allowing for sexual transmission of the virus. According to Liberian officials, Ebola survivors have been encouraged to practice safe sexual practices for 90 days following infection. Other plausible theories cite the possibility of ongoing transmission via asymptomatic cases, a scenario documented in previous outbreaks of Ebola virus disease, or the unusual occurrence of incubation periods longer than 21 days.

The Florida Department of Health has continued to monitor travelers from Liberia, despite being declared free of Ebola virus transmission, and will continue to monitor travelers from Sierra Leonne and Guinea. As of July 15, 2015, the total number of cases associated with the 2014 Outbreak of Ebola in West Africa total 27,678, with 11,276 deaths.

Arbovirus Surveillance Update: July 5-11, 2015

Arbovirus surveillance in Florida includes endemic mosquito-borne viruses such as West Nile virus (WNV), Eastern equine encephalitis virus (EEEV), and St. Louis encephalitis virus (SLEV), as well as exotic viruses such as dengue virus (DENV), chikungunya virus (CHIKV) and California encephalitis group viruses (CEV). Malaria, a non-viral mosquito-borne disease is also included. During the period of July 5-11, 2015 the following arboviral activity was recorded in Florida.



WNV activity: No human cases of WNV infection were reported this week. No horses with WNV infection were reported this week. Three sentinel chickens tested positive for antibodies to WNV this week in Brevard, Pinellas, and Walton Counties. In 2015, positive samples from 13 sentinel chickens have been received from seven counties.

SLEV activity: No human cases of SLEV infection were reported this week. No sentinel chickens tested positive for antibodies to SLEV this week. In 2015, a positive sample from one sentinel chicken has been received from one county.

EEEV activity: No human cases of EEEV infection were reported this week. Six horses with EEEV infection were reported this week in Gadsden, Madison, Polk, Putnam, and Washington Counties. Three sentinel chickens tested positive for antibodies to EEEV this week in Flagler and Walton Counties. In 2015, positive samples from 38 sentinel chickens, 14 horses, and one goat have been received from 19 counties.

International Travel-Associated Dengue Fever Cases: Two cases of dengue fever were reported this week in persons that had international travel. In 2015, 21 travel-associated cases have been reported.

Dengue Fever Cases Acquired in Florida: No cases of locally acquired dengue fever were reported this week. In 2015, no cases of locally acquired dengue fever have been reported.

International Travel-Associated Chikungunya Fever Cases: One case of chikungunya fever was reported this week in a person that had international travel. In 2015, 28 travel-associated cases have been reported.

Chikungunya Fever Cases Acquired in Florida: No cases of locally acquired chikungunya fever were reported this week. In 2015, no cases of locally acquired chikungunya fever have been reported.

Advisories/Alerts: Gadsden County is currently under mosquito-borne illness advisory. No other counties are currently under mosquito-borne illness advisory or alert. A CDC Health Alert Network (HAN) health advisory was issued in December 2013 for the Caribbean region announcing the first locally acquired cases of chikungunya fever in the Americas. There is a Level 1 (Watch) Travel Health Notice from the CDC for multiple countries in the Caribbean, Mexico, Central and South America, as well as the Pacific Islands, related to the transmission of chikungunya. There are also similar CDC Travel Health Notices for dengue transmission in Brazil and Malaysia. Additional information on travel health notices can be found at the following link: http://wwwnc.cdc.gov/travel/notices.

FDOH-Nassau Health Bulletins, Advisories and Alerts Issued

Alerts:

- FDOH: Rabies Alert. June 4, 2015. FDOH Nassau

For additional information regarding bulletins, advisories and alerts visit our website or the Department of Health's Online Newsroom at: http://www.nassau.floridahealth.gov *and* http://newsroom.doh.state.fl.us.

June 2015: Reported Cases in Nassau County

Confirmed, Probable, Suspect, Unkown Cases of Multiple Diseases with Report Date 06/01/2015 to 06/30/2015 with Three-Year Period Comparison for Nassau County

	Selection Date 06/01/15 - 06/30/15		Comparison Date 1 06/01/14 - 06/30/14		Comparison Date 2 06/01/13- 06/30/13		Comparison Date 3 06/01/12 - 06/30/12	
Disease Name	Cases	Percent	Cases	Percent	Cases	Percent	Cases	Percent
County: NASSAU								
Campylobacteriosis	0	0.00	1	5.26	1	12.50	2	14.29
Ehlichiosis/Anaplasmosis, HME (Ehrlichia chaffeensis)	1	4.76	0	0.00	0	0.00	0	0.00
Giardiasis, Acute	0	0.00	0	0.00	0	0.00	1	7.14
Haemophilus influenzae Invasive Disease	0	0.00	1	5.26	0	0.00	0	0.00
Hepatitis B, Chronic	0	0.00	0	0.00	0	0.00	1	7.14
Hepatitis C, Chronic	13	61.90	7	36.84	2	25.00	7	50.00
Lead Poisoning	0	0.00	2	10.53	1	12.50	1	7.14
Rabies, Animal	1	4.76	0	0.00	0	0.00	0	0.00
Rabies, Possible Exposure	4	19.05	0	0.00	0	0.00	1	7.14
Salmonellosis	2	9.52	4	21.05	3	37.50	1	7.14
Shigellosis	0	0.00	3	15.79	1	12.50	0	0.00
Typhoid Fever (Salmonella Serotype Typhi)	0	0.00	1	5.26	0	0.00	0	0.00
TOTAL:	**21**	100.00	**19**	100.00	**8**	100.00	**14**	100.00
STATEWIDE TOTAL								
Campylobacteriosis	418	8.80	274	7.36	262	8.07	256	5.37
Ehlichiosis/Anaplasmosis, HME (Ehrlichia chaffeensis)	6	0.13	5	0.13	2	0.06	0	10.28
Giardiasis, Acute	100	2.11	94	2.52	63	1.94	83	0.26
Haemophilus influenzae Invasive Disease	15	0.32	24	0.64	30	0.92	21	58.72
Hepatitis B, Chronic	447	9.41	407	10.93	357	10.99	467	0.15
Hepatitis C, Chronic	2488	52.38	1823	48.97	1610	49.58	2564	0.10
Lead Poisoning	63	1.33	44	1.18	51	1.57	127	0.18
Rabies, Animal	5	0.11	1	0.03	1	0.03	3	0.28
Rabies, Possible Exposure	355	7.47	247	6.63	257	7.91	213	5.55
Salmonellosis	584	12.29	487	13.08	520	16.01	503	10.84
Shigellosis	269	5.66	316	8.49	93	2.86	203	6.57
Typhoid Fever (Salmonella Serotype Typhi)	0	0.00	1	0.03	1	0.03	1	1.71
TOTAL:	**4750**	100.00	**3723**	100.00	**3247**	100.00	**4441**	100.00