EPI-GAZETTE

FLORIDA DEPARTMENT OF HEALTH

HEALTH SEMINOLE COUNTY HEALTH DEPARTMENT

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Seminole County Health Department
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Outbreak Notice: Dengue in The Bahamas

From information released by CDC, September 15, 2011, and from the Florida Department of Health

Situation Information

The government of the Bahamas issued a public service advisory announcing heightened dengue activity in New Providence. This island is the most populous and includes the city of Nassau. As a result, the US Embassy in Nassau issued an emergency message for US citizens in the Bahamas related to dengue.

In August, the Ministry of Health reported that more than 100 cases were being reported daily. Approximately 1,000 cases of dengue-like symptoms had been reported as of August 9. Mosquito bite prevention measures, such as fogging and communication campaigns, are under way in densely populated areas.

Dengue fever is the most common cause of fever in travelers returning from the Caribbean, Central America, and South Central Asia.[1] Dengue is reported commonly from most tropical and subtropical countries of Oceania, Asia, the Caribbean, the Americas, and occasionally Africa. This disease is caused by four similar viruses (DENV-1, -2, -3, and -4) and is spread through the bites of infected mosquitoes.

Dengue virus transmission occurs in both rural and urban areas; however, dengue is most often reported from urban settings. For the most up-to-date information on dengue worldwide, see the DengueMap on the CDC website at http://www.cdc.gov/dengue/.

Symptoms and Treatment

Symptoms of dengue include:

- fever
- headache
- pain behind the eyes
- joint and muscle pain
- rash
- nausea/vomiting
- mild bleeding, such as nose or gum bleeding or easy bruising

Usually dengue is a mild illness, but it can lead to severe dengue, which can be fatal if not treated. People who have been infected with dengue in the past, even if they did not have symptoms or feel sick, are at increased risk of getting severe dengue if they are infected again. People with dengue fever that progresses to severe dengue usually experience warning signs within 48 hours of

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their fever ending. Anyone with dengue who experiences these warning signs should go to a doctor or emergency room immediately:

- Severe abdominal pain or persistent vomiting
- Red spots or patches on the skin
- Bleeding from nose or gums
- Vomiting blood
- Black, tarry stools (feces, excrement)
- Drowsiness or irritability
- Pale, cold, or clammy skin
- Difficulty breathing

There is no specific medicine to cure illness caused by dengue viruses. People who think they have dengue should use pain relievers with acetaminophen (such as Tylenol) to lessen discomfort and reduce fever. Avoid drugs that contain ibuprofen, naproxen, and aspirin. People with dengue should also rest, drink plenty of fluids, and talk to a doctor about their symptoms.

In some cases of severe dengue, hospitalization to replace lost fluids may be needed. Early recognition and treatment of severe dengue can reduce the risk of death.

If you return from a trip abroad and get sick with a fever, you should seek medical care right away. Be sure to tell the doctor or other health care provider about your recent travel.

Information for Health Care Providers

Early and proper diagnosis of dengue is important, as many other diseases may mimic dengue. Health care providers should consider dengue, malaria, chikungunya, and leptospirosis, depending on the itinerary and exposure, in the differential diagnosis of patients who have fever and a history of travel to tropical areas during the 2 weeks before symptom onset.

Laboratory testing is necessary to confirm whether local transmission is occurring and to identify circulating virus types (PCR). Serum samples collected during the first five days post onset should be submitted for PCR testing to the Florida Department of Health (DOH) Tampa Laboratory. Most convalescent serum samples (>6 days onset) should be submitted for IgM antibody detection by ELISA at a commercial laboratory. Either PCR or ELISA samples can be collected in a red or tiger top tube. The Seminole County Health Department can provide guidance on how and when to submit samples to DOH Laboratories. The Florida Department of Health is relying on physicians to identify suspect cases of dengue and report them to their county health department. **Please contact the Seminole County Health Department by the next business day if you suspect dengue to ensure prompt mosquito control efforts.**

References

1. Freedman DO, Weld LH, Kozarsky PE, Fisk T, Robins R, von Sonnenburg F, et al., for the GeoSentinel Surveillance Network. Spectrum of disease and relation to place of exposure among ill returned travelers. N Engl J Med 2006;354:119-130.

http://wwwnc.cdc.gov/travel/notices/outbreak-notice/dengue-bahamas.htm

Resources

Seminole County Health Department, Epidemiology Program phone number: 407-665-3266

CDC guidelines for clinical management of dengue infection:
http://www.cdc.gov/dengue/clinicallab/clinical.html

FL DOH dengue and general arbovirus information:
http://myfloridaeh.com/medicine/arboviral/index.html

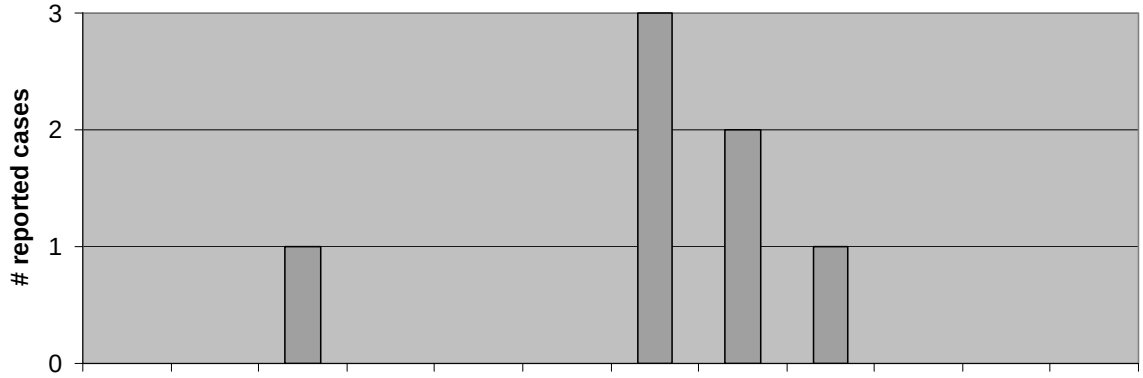
Dengue Fever Cases in Seminole County, 2005 to 2011 (as of October 3)

During the years 2005 to 2010, there were a total of seven cases of dengue fever reported to the Seminole County Health Department, all of which were imported: one in 2005, three in 2007, and three in 2010. Five of the cases included a recent travel history to Puerto Rico, one to the Dominican Republic, and one to Colombia. No cases have been reported in Seminole County during 2011, as of October 3. The age and sex distribution for all cases from 2005 to 2010 is shown below in Table 1. The distribution of all seven cases by symptom onset month for all seven cases is shown below in Figure 1.

Table 1. Age and sex distribution of dengue fever cases reported among Seminole County residents, cumulative from 2005 to 2010

Age Group	Count	Sex
5-9	1	M
20-24	1	F
25-29	1	M
40-49	1	M
50-59	1	M
60+	2	M, F

Figure 1. Distribution of Reported Dengue Fever Cases among Seminole County Residents by Disease Onset Month, 2005 to 2010



Thank You For Your Participation!

The Epidemiology Program would like to thank the following healthcare providers for their diligence in timely reporting from Florida's "List of Reportable Diseases/Conditions":

Joanne Barnett, RN, Central Florida Regional Hospital
Veronica Butler, RN, Florida Hospital, Altamonte and Apopka
Sandra Delahoz, RN, South Seminole Hospital

For more information about Florida's List of Reportable Diseases/Conditions, please contact Gregory Danyluk, PhD at 407-665-3266.

Selected Diseases/Conditions Reported to the Seminole County Health Department	2011 through Week 34	2010 through Week 34	2009 through Week 34	2008-2010 Average through Week 34
AIDS*	28	32	37	33.3
Animal Bite to Humans**	**15**	8	19	**12.0**
Animal Rabies	2	2	4	2.7
Campylobacteriosis	**25**	8	8	**7.3**
Chlamydia	**990**	781	716	**732.3**
Cryptosporidiosis	2	3	2	3.7
Cyclosporiasis	1	1	3	1.3
Dengue	0	2	0	0.7
***E. coli* Shiga toxin-producing**	**6**	0	1	**0.3**
Giardiasis	9	23	14	18.0
Gonorrhea	136	209	225	215.0
***Haemophilus influenzae* (invasive)**	**2**	1	1	**0.7**
Hepatitis A	2	0	4	1.7
Hepatitis B (acute and chronic)	**62**	44	37	**41.0**
Hepatitis C (acute and chronic)	**213**	201	150	**181.0**
Hepatitis B in Pregnant Women	9	6	4	7.3
HIV*	40	32	42	45.0
Lead poisoning	2	3	1	2.0
Legionellosis	0	2	7	4.3
Lyme Disease	**2**	1	4	**1.7**
Meningococcal Disease	0	0	1	0.3
Pertussis	**2**	1	3	**1.3**
Salmonellosis	48	63	61	58.7
Shigellosis	**9**	7	2	**5.7**
S. pneumoniae – drug resistant	7	13	5	9.3
Syphilis	22	9	32	30.3
Tuberculosis	**13**	5	5	**4.7**
Varicella	12	20	15	16.3

***** HIV data includes those cases that have converted to AIDS. These HIV cases cannot be added with AIDS cases to get combined totals since the categories are not mutually exclusive. Current AIDS/HIV data are provisional at the county level.

****** Animal bite to humans by a potentially rabid animal resulting in a county health department or state health office recommendation for post-exposure prophylaxis (PEP), or a bite by a non-human primate.

Reported cases of diseases/conditions in **Bold** are >10% higher than the previous three year average for the same time period.

Respiratory Syncytial Virus Surveillance by Month October 1, 2009—October 1, 2011

A statewide Respiratory Syncytial Virus (RSV) surveillance system was implemented in Florida in 1999 to support clinical decision-making for prophylaxis of premature infants. RSV infections usually occur during the late fall, winter, or early spring months (CDC). Data collected by the Florida RSV surveillance system from 1999 - present allow us to identify geographical regions where high infection rates also occur during the summer months.

Data are collected weekly from 12 sentinel hospitals throughout Florida. Each site reports the total number of RSV tests performed and the total number positive to the Bureau of Epidemiology via email or fax. Regional and statewide data are made available to public health professionals, health care providers and the public via the RSV website at http://www.doh.state.fl.us/disease_ctrl/epi/RSV/rsv.htm.

Figure 1 shows trends from October 1, 2008 to October 1, 2011 for the Central Region shown in Figure 2 below, which consists of the following counties: Brevard, Citrus, Flagler, Hernando, Hillsborough, Lake, Marion, Orange, Osceola, Pasco, Pinellas, Seminole, Sumter, and Volusia. Note that the bar for October 2011 represents data from one day only.

Figure 1. Central Region RSV Surveillance

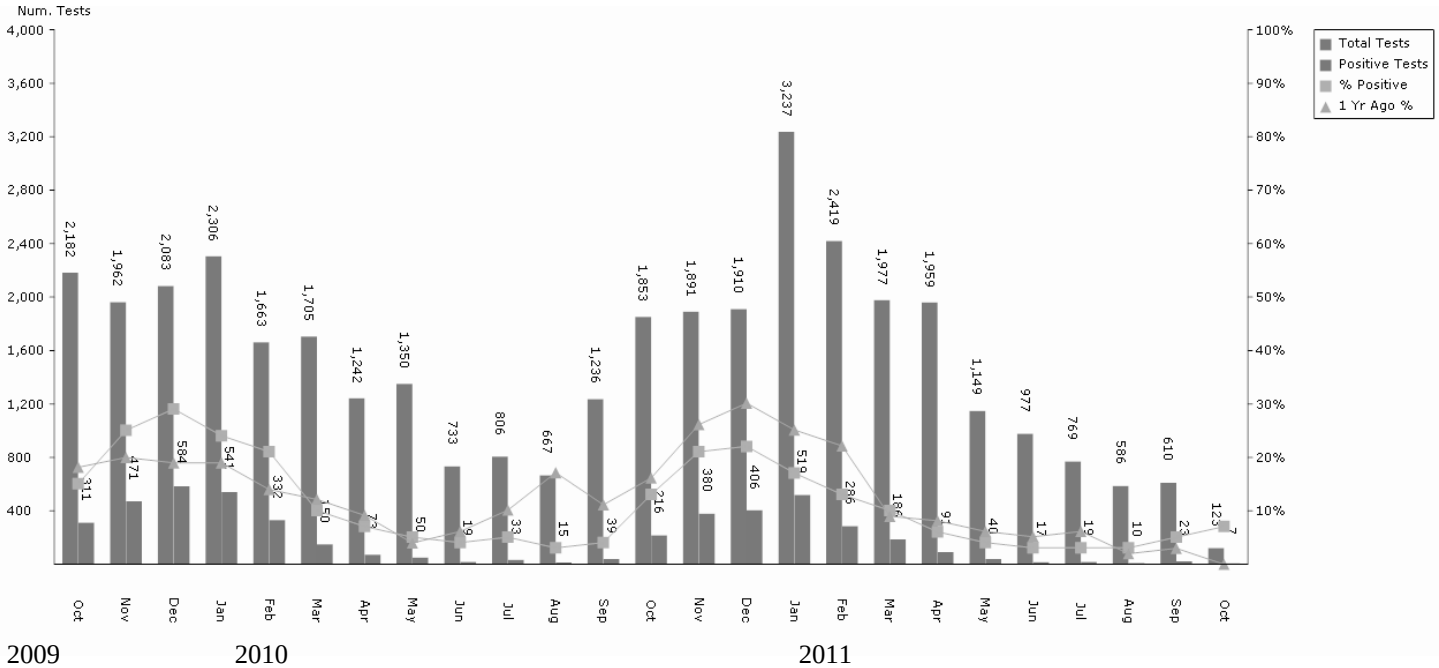


Figure 2. RSV Surveillance Regional Breakdown