



# EPI WATCH

Monthly Epidemiology and Preparedness Newsletter

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## Chikungunya: An Emerging Arbovirus in the Americas

BY ANDREA LEAPLEY, MPH

Florida Department of Health in Pinellas County  
205 Dr. M.L King Street N.  
St. Petersburg, FL 33701  
(727) 824-6900  
[www.PinellasHealth.com](http://www.PinellasHealth.com)

Division of Disease Control and Health Protection  
8751 Ulmerton Road  
Largo, FL 33771  
(727) 524-4410

Director  
Claude Dharamraj, MD,  
MPH, FAAP  
[claude.dharamraj@flhealth.gov](mailto:claude.dharamraj@flhealth.gov)

Editor  
JoAnne Lamb, MPH  
[joanne.lamb@flhealth.gov](mailto:joanne.lamb@flhealth.gov)

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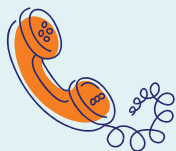
### Disease Reporting

**To report diseases and clusters of illness**

*(other than TB/STD/HIV/AIDS)*

Phone: (727) 507-4346

Fax: (727) 507-4347



**For TB, STD or HIV/AIDS Reporting**

Phone: (727) 824-6932

**Animal Bite Reporting**

Phone: (727) 524-4410  
x7665

Arthropod-borne viruses, often shortened to arboviruses, refer to a group of viruses transmitted by arthropod vectors. Arthropods are invertebrate animals that have an exoskeleton, a segmented body, and jointed appendages, and include insects, arachnids, and crustaceans. St. Louis encephalitis, West Nile, Eastern Equine encephalitis, and LaCrosse viruses are all arboviruses endemic to the southeastern United States. Other arboviruses, such as Dengue, are endemic throughout parts of Asia, Africa, and South America and occasionally travelers bring these infections to the United States.

In late 2013, the Centers for Disease Control and Prevention (CDC) announced that chikungunya virus, once endemic only in parts of Africa, Asia, and Europe, was being transmitted locally on the island of St. Martin in the Caribbean. This was the first local transmission of chikungunya in the Americas. The word chikungunya is derived from the Makonde language spoken in Tanzania and Mozambique and means "that which bends up", describing the way patients with pain in their joints often hunch over.

Since the first announcement of chikungunya in St. Martin, the virus has spread to 17 countries or territories in the Caribbean and South America. Beginning in 2014 in the United States, 38 imported cases have been reported in multiple states, including 23 cases in Florida. While some cases were imported from areas where chikungunya is endemic, there have also been cases imported from the Caribbean. At this point, there have been no locally transmitted cases of chikungunya in Florida or the United States.

Chikungunya is spread by the *Aedes aegypti* and the *Aedes albopictus* mosquitos. Symptoms begin three to seven days after being bitten by an infected mosquito. The most common symptoms are fever and joint pain, but patients may also experience headaches, muscle pain, joint swelling, and rash. The disease does not often result in death, but it can be severe and the joint pain may persist for months. There is no treatment for chikungunya. To decrease the symptoms, it is recommended that patients get plenty of rest, are well hydrated, and ibuprofen, naproxen, acetaminophen, or paracetamol may be used to treat fever and pain.

There is no available vaccine for chikungunya. The only way to prevent infection is to avoid getting bitten by an infected mosquito. *A. aegypti* and *A. albopictus* are daytime biters. To protect yourself, use air conditioning and/or window screens to keep the mosquitos out of your home. If you are not able to protect yourself from bites indoors, sleep under a bed net treated with permethrin. If you have standing water around your home, empty any containers to prevent mosquitos from breeding. Wear long sleeves and pants when outdoors. Use insect repellents containing DEET, picaridin, IR3535, oil of lemon, eucalyptus, or paramthane-diol products. If you are applying repellent and sunscreen, apply the sunscreen first.

The CDC reports that the chikungunya virus will likely continue to spread to new areas in the Americas through infected people and mosquitoes. The ecologic conditions across Florida and the southeastern United States are poised to support arboviruses normally endemic to the tropics. The *Aedes aegypti* and the *Aedes albopictus* mosquitos live throughout the region. The hot summers, rainy seasons, and periods of drought provide excellent breeding conditions for mosquitos. Florida also has several busy airports and ports of call for cruise ships that take passengers to tropical areas where diseases like Dengue and chikungunya are currently being transmitted.

**If Chikungunya is suspected, your county health department should be notified immediately to ensure prompt mosquito control efforts.**



Source: www.cdc.gov

**For more information on Chikungunya, please visit the Centers for Disease Control and Prevention website: <http://www.cdc.gov/chikungunya/index.html>**

# 2013-2014 Influenza Season Review — Pinellas County

BY MICHAEL COSBY, MPH

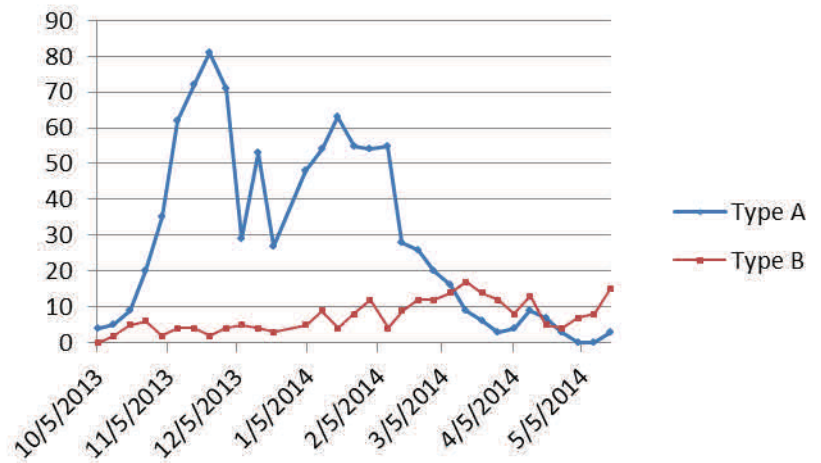
Florida Department of Health in Pinellas County conducts influenza surveillance, one of the more crucial aspects of population health protection and disease control, to monitor disease trends, detect and investigate specific cases, and manage outbreaks in the community. Surveillance is conducted by gathering reports from hospitals, clinical providers, and labs, collecting absenteeism data from schools, and influenza-like illness (ILI) summaries from nursing homes, assisted living facilities, and other community entities during influenza season (September through May).

During the 2013-2014 influenza season, the predominant circulating strain in Florida, as well as the US, was influenza A (2009 H1N1). Nationally (including Florida), most circulating influenza is a good match for the vaccine. Pinellas county, similar to the rest of the counties in Florida, observed an increase in influenza A cases in the beginning of the season followed by an increase in influenza B around March 2014 (figure 1). Between September 2013 and May 2014, there were a total of 1,185 cases of influenza, substantially higher than the 657 total cases observed during the 2012-2013 flu season. Among the confirmed cases, 931 (78%) were influenza A, 233 (20%) B, and 21 (2%) A+B co-infection.

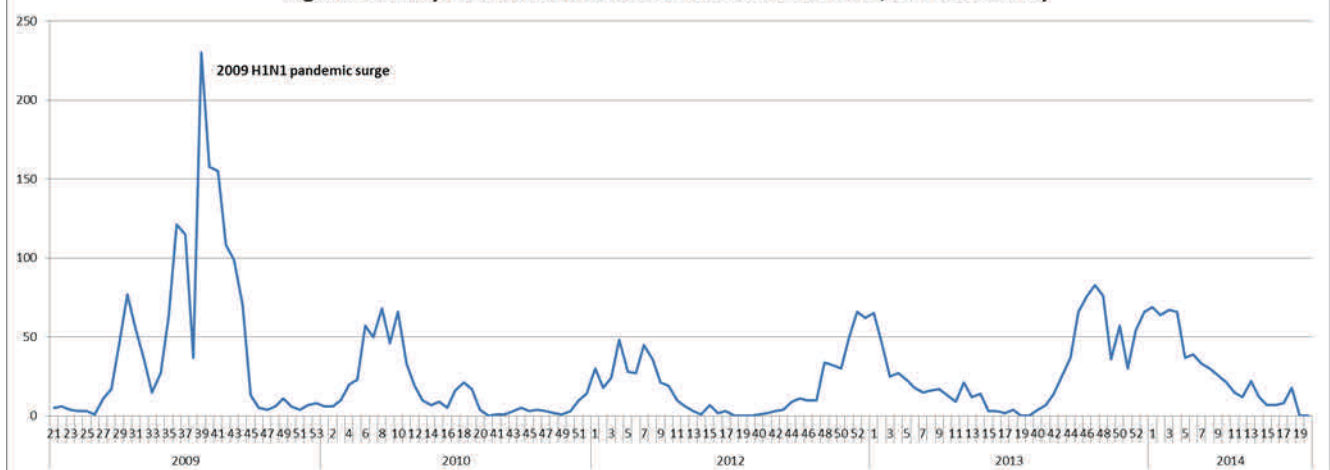
Influenza incidence varies from year to year in terms of timing, intensity, variety, and location. Pinellas county saw a relatively early season (cases spiking at week 44 or 45, late October) with incidence remaining high through week 9- a relatively long and intense season when compared to the previous

(figure 2). Although influenza activity is currently declining, it is important to remain vigilant as the influenza virus circulates at low levels throughout the year and outbreaks or clusters of cases are still possible.

### Figure 1: 2013-2014 Laboratory-confirmed influenza cases in Pinellas County



### Figure 2: Five-year incidence of confirmed influenza cases, Pinellas County



For current information on statewide influenza visit: The Florida Department of Health:

<http://www.floridahealth.gov/diseases-and-conditions/influenza/florida-influenza-weekly-surveillance.html>  
and the CDC Flu View <http://www.cdc.gov/flu/weekly/fluactivitysurv.htm>

# Selected Reportable Diseases in Pinellas County

Disease	Pinellas	Year-to-Date		Pinellas County Annual Totals		
	May 2014	Pinellas 2014	Florida 2014	2013	2012	2011
<b>A. Vaccine Preventable</b>						
Measles						
Mumps						
Pertussis	2	7	321	17	10	10
Varicella		10	280	19	16	21
<b>B. CNS Diseases &amp; Bacteremias</b>						
Creutzfeldt-Jakob Disease (CJD)			8		2	3
<i>H. influenzae</i> (Invasive Disease)	2	6	153	12	7	10
Meningitis (Bacterial, Cryptococcal, Mycotic)		1	63	5	6	7
Meningococcal Disease			21	1		
<i>S. Pneumoniae</i> , Invasive Disease, Drug Resistant		9	283	24	16	22
<i>S. Pneumoniae</i> , Invasive Disease, Susceptible	1	10	292	11	25	11
<b>C. Enteric Infections</b>						
Campylobacteriosis	12	54	888	63	59	83
Cryptosporidiosis	2	10	181	19	29	19
Cyclosporiasis			2	5	1	2
<i>E. coli</i> Shiga Toxin (+)	1	2	46	7	8	2
Giardiasis	3	13	429	34	32	27
Hemolytic Uremic Syndrome (HUS)			5	1		
Listeriosis			12		5	3
Salmonellosis	10	57	1598	203	203	225
Shigellosis	1	13	1055	5	18	93
<b>D. Viral Hepatitis</b>						
Hepatitis A		2	54	6	4	5
Hepatitis B: Pregnant Woman +HBsAg	9	13	218	17	16	29
Hepatitis B, Acute	1	7	166	39	16	10
Hepatitis C, Acute	2	9	89	17	5	13
<b>E. Vector Borne, Zoonoses</b>						
Animal Rabies			43			2
Rabies, possible exposure	7	74	1066	193	201	217
Dengue		1	32	2	3	1
Eastern Equine Encephalitis			1			
Lyme Disease		1	27	8	6	9
Malaria			15	1	2	1
St. Louis Encephalitis						
West Nile Virus						
<b>F. Others</b>						
AIDS**	14	54	n/a	118	130	123
HIV**	22	99	n/a	194	177	189
Chlamydia	326	1613	n/a	4141	3812	3863
Gonorrhea	109	524	n/a	1424	1029	1034
Hansen's Disease						
Lead Poisoning: Children < 6 years:		2	61	4	2	4
Legionellosis	1	5	60	10	13	13
Mercury Poisoning		2	3			2
Syphilis, Total	15	80	n/a	114	141	132
Syphilis, Infectious (Primary and Secondary)	2	24	n/a	52	61	66
Syphilis, Early Latent	9	30	n/a	37	47	35
Syphilis, Congenital			n/a			1
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)	4	26	n/a	25	33	30
Tuberculosis	3	6	n/a	30	17	9
<i>Vibrio</i> Infections	2	3	41	11	10	11

n/a = not available at this time. Blank cells indicate no cases reported. Reportable diseases include confirmed and probable cases only. All case counts are provisional. Data is collected from the Merlink Reportable Disease database, surveillance systems maintained at the Florida Department of Health in Pinellas County, and Florida CHARTS <http://www.floridacharts.com/charts/default.aspx>.

\*STD data is current as of 6/13/2014. STD data in PRISM is continually updated. Please note, data from the previous month takes up to an additional month or more to be correctly updated.

\*\*Current HIV Infection data reflects any case meeting the CDC definition of "HIV infection" which includes all newly reported HIV cases and newly reported AIDS cases with no previous report of HIV. Newly reported HIV Infection cases do not imply they are all newly diagnosed cases. For a more detailed explanation on changes in reporting and changes in trends, please contact the Bureau of HIV/AIDS, Data Analysis Section.