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in Pinellas County**

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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) 727-524-4410

Increased Reports of Acute Hepatitis B and C in Pinellas County**Sharlene E. Edwards, MPH**

Beginning in January 2013, epidemiology investigators in Pinellas County have noticed an increase in the reports of acute hepatitis B and C cases. Between January 2013 and April 2013, Pinellas reported a total of 13 acute hepatitis B and 9 acute hepatitis C cases (confirmed and probable). Over the last 3 years (2010-2012), on average, Pinellas reported only 4 acute hepatitis B and 2 acute hepatitis C cases for the same time frame. This comparison led to further analysis of the epidemiological profile of these cases.

Acute viral hepatitis is a short-term illness that occurs within the first 6 months after someone is exposed to the virus (hepatitis B or hepatitis C). Acute infections usually present with discrete symptoms that include (most commonly): fever, headache, malaise, anorexia, diarrhea, vague abdominal discomfort, nausea and vomiting **and** more specifically jaundice or serum alanine aminotransferase levels > 400 IU/L. Both hepatitis B and hepatitis C can become chronic, life-long infections.

The Centers for Disease Control and Prevention (CDC) analyzed 10 years (2000-2010) of reported acute hepatitis b and c cases in the United States. According to this publication, the greatest incidence of hepatitis B was seen among the following groups: 30-39 year olds, males, Blacks and those who participated in intravenous drug activities or had multiples sex partners. Among acute hepatitis C cases reported, the greatest incidence was seen among: 40-49 year olds (2000-2005); 20-29 year olds (2005-2010), males, American Indian/Alaskan natives, and those who participated in intravenous drug activities or had multiples sex partners.

The acute hepatitis B cases reported in Pinellas County between January 2013 and April 2013 had the following profile: average age 47; 70% were male, 100% were white, and the highest risk behaviors reported were 1) contact with a person with hepatitis B (31%) and 2) intravenous drug use (15%). Symptoms among these cases included: abdominal pain (85%), nausea (70%), jaundice (70%), dark urine (62%), and vomiting (62%).

The acute hepatitis C cases reported in Pinellas County between January 2013 and April 2013 had the following profile: average age 39, 67% were male, 89% were white, and the highest risk behaviors reported were 1) intravenous drug use (56%) and 2) contact with a person with hepatitis C (33%). Symptoms among these cases included: abdominal pain (78%), jaundice(67%), dark urine (56%), vomiting (56%), and nausea (44%).

Investigators reviewed other data such as: contacts, dates of diagnosis, and location of cases to determine if the increase of acute hepatitis B and C cases indicated an outbreak. There were no common trends or linkages in the data to indicate that this increase in reports are a result of an outbreak. Pinellas epidemiologists will continue to monitor this trend and look for any evidence that might indicate a reason for this increase in reports.

May 19th is World Hepatitis Day. Globally, viral hepatitis is the cause of most (78%) cases of liver cancer, primarily hepatocellular carcinoma (HCC), the third leading cause of cancer deaths in the world. In the United States, chronic hepatitis B and hepatitis C infections that persist for decades are the major risk factors for HCC and the most common reason for liver transplantation. Additional hepatitis information is available at <http://www.cdc.gov/hepatitis>

Viral Hepatitis Surveillance – United States, 2010, Center for Disease Control and Prevention, Division of Viral Hepatitis

Imported Malaria – Pinellas County

Danielle Egger, BS, CEHP—Environmental Epidemiologist

On April 18, Florida Department of Health in Pinellas County, Epidemiology and Preparedness Program received an ELR for a positive blood smear for *Plasmodium falciparum*.

The patient's symptoms began on April 11 with fever, abdominal pain, diarrhea, and subsequently, headaches. On April 15, the patient presented to the ED and was admitted into the ICU.

Upon investigation, it was found that the patient had recent travel to a private residence in Ghana from March 23 through March 31. Malaria prophylaxis was administered twice weekly prior to travel; however, the therapy was not completed. The patient spent time outside and recalled being bitten by mosquitoes while on the beach. No protective measures (i.e. mosquito nets or repellent) were used.

The Pinellas County Mosquito Control was contacted to increase pesticide application in the vicinity of the patient's residence. The positive smear was sent on to the Bureau of Laboratories. At this time, the patient is still admitted in the ICU.

This is the first confirmed case of imported Malaria in a Pinellas resident for 2013.



Malaria is transmitted among humans by female mosquitoes of the genus Anopheles. Female mosquitoes take blood meals to carry out egg production, and such blood meals are the link between the human and the mosquito hosts in the parasite life cycle.

Syndromic Surveillance Data

JoAnne Lamb, MPH—Surveillance Epidemiologist

The Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) is a web based system that collects and analyzes Emergency Department (ED) chief complaint data from participating hospitals in Pinellas. The syndromic classification of ED data in ESSENCE is based on the patient's chief complaint, which is generally some variation on what the patient said was the reason for visiting the ED.

The data collected is clustered into broad syndrome groups including: Respiratory, Shock-coma, Hemorrhagic Illness, Gastrointestinal, Botulism-like-illness, Neurological, Fever, Influenza-like-illness, Records of Interest, Rash, Injury, Exposure, and Other. In addition, non-syndromic data can also be found in ESSENCE. This includes: call data from the Florida Poison Information Center Network (FL- PICN) , reportable disease data from the Merlin database, and mortality data from the Florida Office of Vital Statistics.

In Pinellas, we receive data from 12 emergency departments spread throughout the county. The data is currently uploaded into ESSENCE every 2-12 hours, with the exception of the FL – PICN data, which is updated every 20 minutes. ESSENCE performs automatic data analysis, establishing a baseline with a 28-day average. Data is then analyzed against this baseline to identify statistically significant increases.

The de-identified data is reviewed and analyzed daily/seven days a week by the Florida Department of Health, to identify any outbreaks or unusual cases that require a public health response.



Hospitals Currently Reporting in ESSENCE

Bayfront Medical Center
Edward White Hospital
Florida Hospital North Pinellas
Largo Medical Center
Largo Medical Center/Indian Rocks
Morton Plant Mease Hospital
Mease Dunedin
Mease Countryside
Northside Hospital
Palms of Pasadena
St. Anthony's Hospital
St. Petersburg General Hospital

Selected Reportable Diseases in Pinellas County

Disease	2013 April	2013 YTD	Pinellas 3 YR YTD-AVG	Florida 2013 YTD
A. Vaccine Preventable				
Mumps				
Pertussis	2	3	2	142
B. CNS Diseases & Bacteremias				
Creutzfeldt-Jakob Disease (CJD)				9
<i>H. influenzae (Invasive Disease)</i>	2	4	5	102
Meningitis (Bacterial, Cryptococcal, Mycotic)		2	2	45
Meningococcal Disease			1	31
Streptococcal Disease, Group A, Invasive	2	4	1	87
<i>S. Pneumoniae, Invasive Disase, Drug Resistant</i>		10	9	241
<i>S. Pneumoniae, Invasive Disase, Susceptible</i>	2	7	7	301
C. Enteric Infections				
Campylobacteriosis	8	23	17	555
Cryptosporidiosis	3	7	8	93
Cyclosporiasis				1
<i>E. coli O157:H7</i>				
<i>E. coli Shiga Toxin (+)</i>	3	3	2	63
Giardiasis	4	9	8	344
Hemolytic Uremic Syndrome (HUS)				1
Listeriosis			1	
Salmonellosis	9	33	35	1079
Shigellosis		1	16	129
D. Viral Hepatitis				
Hepatitis A			1	32
Hepatitis B: Pregnant Woman +HBsAg	2	6	11	172
Hepatitis B, Acute	5	13	4	101
Hepatitis C, Acute	4	9	2	71
E. Vector Borne, Zoonoses				
Animal Rabies				33
Dengue			1	41
Eastern Equine Encephalitis				2
Lyme Disease		1	1	23
Malaria	1	1	1	21
Rabies, possible exposure	37	90	29	842
St. Louis Encephalitis				
West Nile Virus				1
F. Others				
AIDS**	20	45	48	Not Available
Chlamydia	413	1432	1182	
Gonorrhea	143	464	322	
Hansen's Disease				1
HIV**	22	72	76	Not Available
Lead Poisoning: Children < 6 years:			1	45
Legionellosis		3	4	13
Mercury Poisoning				
Syphilis, Total	3	48	39	Not Available
Syphilis, Infectious (Primary and Secondary)	3	19	16	Not Available
Syphilis, Early Latent		21	14	Not Available
Syphilis, Congenital		8		
Syphilis, Late Syphilis (Late Latent; Neurosyphilis)			9	Not Available
Tuberculosis	3	7	9	Not Available
<i>Vibrio Infections</i>			2	24

Provisional cases reported by the Pinellas County Health Department. Blank cells indicate no cases reported. For a complete list of reportable diseases and guidelines for reporting, please visit: http://www.doh.state.fl.us/disease_ctr/epi/index.html

** 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. Previous reports of HIV data reflected *only* newly reported HIV cases, which were HIV (not AIDS) at the time of report. 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 HIV/AIDS Program: 727-824-6932.