PINELLAS COUNTY HEALTH DEPARTMENT

Epi Watch

A Monthly Epidemiology Newsletter

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Epi Watch is a monthly newsletter from the Pinellas County Health Department. For more information, or to add your e-mail address to the distribution list, please contact the Editor.

"The reason for collecting, analyzing and disseminating information on a disease is to control that disease. Collection and analysis should not be allowed to consume resources if action does not follow."

Foege, W.H. et al. (1976). Int. J of Epidemiology, 5:29-37.

To report diseases by phone call:
(727) 507-4346

To report diseases by fax (*other than HIV/AIDS*) use:
(727) 507-4347

Pertussis – Diagnosis and Prevention

Pertussis (whooping cough) is a highly contagious respiratory tract infection that only occurs in humans and is caused by the bacteria *Bordetella pertussis*. Although it initially resembles an ordinary cold, pertussis can eventually turn more serious, particularly in infants. Adult cases of pertussis and deaths among infants related to this disease has increased significantly since 2004. Across the U.S., case counts for 2012 surpassed the last peak year (2010), with 41,880 pertussis cases and 14 deaths in infants aged <12 months (CDC, unpublished data, 2012). In 2012, the Florida Department of Health in Pinellas County investigated and reported 10 cases of pertussis, seven of which were laboratory confirmed. Among the ten reported cases, 5 (50%) were in infants <12 months.

Pertussis is transmitted by close person-to-person contact through droplets that are produced when an infected person coughs or sneezes. The incubation period for pertussis can range from 6 to 20 days with average symptom onset at 9-10 days. Symptoms of pertussis vary throughout the progression of the disease. During the first 1-2 weeks, symptoms may include: runny nose, low-grade fever, and mild/occasional cough. The person is most contagious during this period. Following the initial stage of disease, symptoms progress to fits of numerous, rapid coughs followed by high-pitched inspiratory "whoop". In some cases ,vomiting or exhaustion may occur after these coughing episodes.

Infants are especially vulnerable to the illness as it can cause severe or life-threatening complications. About half of infants younger than 1 year of age who get the disease need treatment in the hospital. Many infants are infected by older siblings, parents or caregivers who might not even know they have the disease (Bisgard, 2004 & Wendelboe, 2007). According to the Centers for Disease Control and Prevention, four out of five babies who get pertussis catch it from someone at home. To prevent serious illness among infants who are too young to be fully vaccinated, all household residents ,such as siblings, as well as grandparents and caregivers should be vaccinated.

If a patient's history of current symptoms and physical examination indicate a possible case of pertussis, a laboratory test should always follow to confirm this diagnosis. Pertussis can be confirmed through isolation of *B. pertussis* from a clinical specimen or from a positive Polymerase Chain Reaction (PCR) test for *B. pertussis*. A nasopharyngeal (NP) swab should be obtained from all persons with suspected pertussis prior to antibiotic treatment This swab can be used for either culture or PCR testing. A properly obtained NP swab includes using a Dacron swab and inserting swab into one nostril straight back (not upwards) and continue along the floor of the nasal passage for several centimeters until reaching the nasopharynx (resistance will be met). Once the location is reached, the swab should be rotated gently for 5-10 seconds to collect the specimen needed for testing.

The Florida Department of Health uses the following definition to categorize those with possible pertussis: a cough lasting ≥ 2weeks with one of the following: paraoxyms of coughing, inspiratory "whoop" or postussive vomiting, without other apparent cause (as reported by health care professional). All probable cases of pertussis should be tested.

The best way to prevent pertussis is through vaccinations. The childhood vaccine for pertussis is called DTaP, and the pertussis booster vaccine for adolescents and adults is called Tdap. In October 2011, in an effort to reduce the burden of pertussis in infants, the Advisory Committee on Immunization Practices (ACIP) recommended that unvaccinated pregnant women receive a dose of Tdap.

In October 2012, this guidance was updated to recommend the use of Tdap for woman during every pregnancy. These updated recommendations on use of Tdap in pregnant women aim to optimize strategies for preventing pertussis morbidity and mortality in infants.

Selected Reportable Diseases in Pinellas County

Disease	2013 February	2013 Year-to-Date	2012 Year-to-Date	2012 Total
AIDS**	9	17	29	136
Animal Rabies				
Arboviral Illness (Human): Dengue				3
EEE				
SLE				
WNV				
CA/LaCrosse				
Campylobacteriosis	7	10	9	65
Chlamydia	334	696	650	3813
Creutzfeldt-Jakob Disease (CJD)				1
Cryptosporidiosis	2	2	2	29
Cyclosporiasis				1
E. coli O157:H7				
E. coli Shiga Toxin (+)				11
Giardiasis	2	4	2	32
Gonorrhea	81	223	152	1028
H. influenzae: Invasive Disease	1	1		7
Hansen's Disease				
Hemolytic Uremic Syndrome (HUS)				
Hepatitis, Acute Viral: A			2	4
B	3	5	2	17
C		4		5
Hepatitis B: Pregnant Woman +HBsAg			2	16
Hepatitis, Chronic Viral B	18	34	31	212
C	149	355	226	1749
HIV**	29	41	42	204
Lead Poisoning: Children < 6 years:				2
Legionellosis	1	3	1	4
Listeriosis			1	5
Lyme Disease	1	1		3
Malaria				2
Meningitis: Bacterial, Cryptococcal, Mycotic			1	6
Meningococcal Disease				
Mercury Poisoning				
Mumps				
Pertussis				7
Rabies, possible exposure	16	27	24	202
Salmonellosis	11	18	23	205
Shigellosis			2	19
Streptococcal Disease, Inv. Group A	2	2	2	6
S. pneumoniae, Inv. Disease (DR)		8	4	16
S. pneumoniae, Inv. Disease (Suscept)	1	4	3	25
Syphilis: Total	6	29	25	132
Infectious (P and S)	4	12	7	25
Early Latent	2	16	13	45
Congenital				
Late Syphilis (Late Latent; Neurosyphilis)		1	5	29
Tuberculosis	2	3	5	18
Vibrio Infections			2	10

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_ctrl/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. 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.