Spring 2015

Florida Department of Health Volusia County

Office of Disease Control and Health Protection

EPI-LOG

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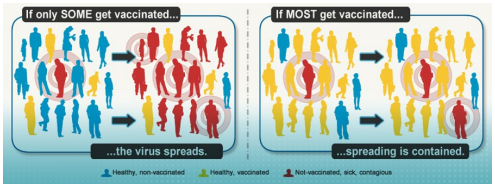
Vaccine Preventable Diseases

By: Jyothi Praveen, MPH

The World Health Organization estimates two to three million deaths can be prevented annually through immunization. The success of vaccine use is extended from children to adolescents and adults thus providing protection against serious and life-threatening illnesses. Routine childhood vaccination can prevent 14 diseases including measles, mumps, rubella, diphtheria, pertussis, tetanus, polio, haemophilus influenza B, pneumococcal disease, varicella, influenza, rotavirus, hepatitis A and hepatitis B. Even though most infants and toddlers have received all recommended vaccines by age two, many under-immunized children still remain, leaving the potential for outbreaks of disease.



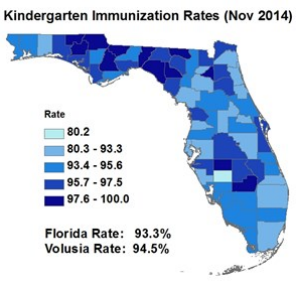
The United States, Florida, and Volusia County have very low rates of vaccine-preventable diseases. However, low vaccination rates leave children and communities vulnerable to these diseases. This is quite evident recently with the large outbreak of measles in California where at least 147 people in seven states contracted measles related to the Disneyland theme park The majority of people who got measles were unvaccinated. Measles is still common in many parts of the world including some countries in Europe, Asia, the Pacific and Africa. Travelers with measles continue to bring the disease into the U.S. Measles can spread when it reaches a community in the U.S. where groups of people are unvaccinated. For additional information on measles, see the following link http://www.cdc.gov/measles/hcp/

Florida Shots is a free, statewide, centralized online immunization registry that assists healthcare providers, schools, and parents with keeping track of immunization records. It is a good tool for physicians and hospitals to use to track and maintain immunization records for their patients . For more information go to http://flshotsusers.com/

Local providers play a vital role towards reaching recommended immunization rates through monitoring and encouraging immunizations. Apart from routine childhood vaccinations it is important for the providers to recommend adult vaccines. Adult vaccines are determined by factors such as age, lifestyle, health conditions, job, international travel, and previous vaccine history. Special consideration should be given to pregnant women who in general should receive flu vaccine and Tdap. For more information on vaccines for pregnant women, visit http://www.cdc.gov/vaccines/adults/rec-vac/pregnant.html.

The recommendations for routine use of vaccines in children, adolescents and adults in the United States are developed by the Advisory Committee on Immunization Practices (ACIP). Each year there could be updates or changes to the recommended vaccine schedule. Health care providers should visit: http://www.floridahealth.gov/programs-and-services/immunization/children-and-adolescents/schedules-andrequirements/index.html

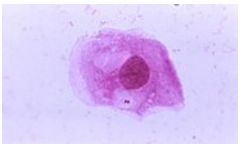
All vaccine preventable diseases are reportable. Providers are required to report the disease either via phone or fax. We must all work together toward the goal of reducing and eliminating vaccine-preventable illnesses.



This Issue:

Meningococcal Meningitis

Courtesy: Military Health System Communication Office



Spring is in the air, which means that high school seniors are preparing for finals and making plans for college. These students and their parents are also facing a decision to get immunized against a major health threat on college campuses: bacterial meningitis.
"College freshmen are at a heightened risk for contracting bacterial meningitis because of their community settings, such as living in dorms and residence halls," said Army Col. Margaret Yacovone, chief of the Immunization Healthcare Branch at the Defense Health Agency. Yacovone noted the military recruit population is similar to the college population in age and close living quarters, which is why meningococcal vaccination is required for recruits at all U.S. military basic training centers.
Meningitis is an infection of the membrane covering the brain and the spinal cord. It is spread through coughing and sneezing, and direct contact with someone who is infected. Direct contact can include the sharing of eating utensils, cigarettes, cups, lip balm or a kiss. Any item an infected person touches by mouth can pass on the disease.
"Between 9 and 12 percent of people who develop invasive meningococcal infections can die from it, even with appropriate antibiotic therapy," Yacovone said. "Up to 19 percent will have permanent complications, including hearing loss, neurologic damage, loss of a limb, or other complications."
Meningococcal sepsis, a bloodstream infection, occurs in 5 to 20 percent of invasive meningococcal infections, and has a fatality rate of nearly 40 percent.
Anyone can get meningococcal disease, but it often occurs in infants less than a year old and people 16-21 years of age. Because of the increased rate of bacterial meningitis in adolescents, the Centers for Disease Control and Prevention (CDC) recommend routine vaccination of everyone aged 11-18.
"Meningococcal disease rates in active duty military personnel were far above the general population at one time," said Yacovone. "But with the introduction of the vaccine, rates have decreased more than 90 percent since the early 1970s."
The CDC reports the most effective way to protect people from certain types of bacterial meningitis is to complete the recommended vaccine schedule as follows:

- Meningococcal conjugate vaccine (MCV4) is the preferred vaccine for people 2-55 years of age. Two doses of MCV4 are recommended for adolescents 11-18 years of age; first dose at 11 or 12, with a booster dose at age 16.
- Meningococcal polysaccharide vaccine (MPSV4) has been available since the 1970s and remains the only vaccine licensed for people older than 55. This is a single-dose vaccine with a booster every five years for those in a high-risk setting.

MCV4 and MPSV4 protect against four main strains of meningococcal disease—A, C, W and Y. This year, two new vaccinations to protect against a fifth, meningococcal type B, were licensed by the Food and Drug Administration. Currently 40 percent of all meningococcal disease cases in the U.S. are caused by type B. New guidelines from CDC recommend the meningococcal B vaccine for people 10 years of age and older who are at high risk due to certain chronic medical conditions or increased exposure .

Reported Meningococcal Disease Florida 2010-Present						
	2010	2011	2012	2013	2014	2015 YTD
Total	59	51	49	61	49	14
Deaths	8	10	9	7	6	6
<25 Yrs	26	15	17	25	18	7
Deaths<25	2	3	1	4	3	5

Travel Medicine

By: Paul Rehme, DVM, MPH

Traveling outside the country can bring a lot of enjoyment and adventure but can also expose you to health threats that aren't present here in the U.S. You can take some simple precautions to help prevent these threats from upsetting your travel plans.
First, review your vaccination records, ensure your routine immunizations are current, and go to the Yellow Book on the CDC website to see if any additional vaccinations are needed/recommended: http://wwwnc.cdc.gov/travel/yellowbook/2014/table-of-contents
Some vaccinations not routinely given here in the U.S. that you might want to consider are: hepatitis A, hepatitis B, meningococcal, typhoid, Japanese encephalitis, and yellow fever. The recommendations vary depending on factors such as where you are going, where you are staying when you get there, what you will be doing, and how long you will be there.
There are mosquito-borne diseases that are of concern outside the U.S. including, malaria, dengue, chikungunya, Japanese encephalitis (JEV), and yellow fever. For malaria, there is preventive medication which can be taken to significantly decrease the risk; consult with your primary care provider if it is recommended where you are going. For yellow fever and JEV, there is an immunization, but for the remaining two diseases, no specific prevention except for mosquito avoidance.
Contaminated food and water often pose a risk for travelers. To avoid illness, travelers should be advised to select food with care. All raw food is subject to contamination. Raw or undercooked meat, fish, and shellfish can carry various intestinal pathogens. Travelers should be advised to eat only food that is fully cooked and served hot and fruit that has been washed in clean water and then peeled by the traveler. Raw fruits that are eaten unpeeled (such as strawberries) or cut should be avoided, and fruits that are eaten peeled (such as bananas) should be peeled by the person who eats them. In many parts of the world, particularly where water treatment, sanitation, and hygiene are inadequate, tap water may contain disease-causing contaminants, including viruses, bacteria, and parasites. As a result, tap water in some places may be unsafe for drinking, preparing food and beverages, making ice, cooking, and brushing teeth. Travelers should avoid drinking or otherwise ingesting tap water unless they are reasonably certain it is not contaminated. In areas where tap water may be contaminated, commercially bottled water from an unopened, factory-sealed container or water that has been adequately disinfected should be used for brushing teeth and other oral hygiene. Beverages made with boiled water and served steaming hot (such as tea and coffee) are generally safe to drink. When served in unopened, factory-sealed cans or bottles, carbonated beverages, commercially prepared fruit drinks, water, alcoholic beverages, and pasteurized drinks generally can be considered safe.
Non-disease risks, such as motor vehicle accidents or drowning, account for a much higher percentage of deaths among travelers than infectious diseases.
A useful website to review prior to travel for non disease related information is: http://travel.state.gov/content/travel/english.html You can look at all alerts and warnings for areas around the world as well as enter your specific destination(s) for up to date information.
Safe travels!

For specific destination health information see: http://wwwnc.cdc.gov/travel/destinations/list

Volusia County Disease Activity*	1st Quarter 2015	1st Quarter 2014	Full Year 2014
Vaccine Preventable			
Mumps	0	0	1
Pertussis	2	0	17
Varicella	0	3	8
CNS Diseases and Bacteremias			
Creutzfeldt-Jakob disease (CJD)	0	0	2
Haemophilus influenzae (invasive)‡	0	3	6
Meningitis (bacterial, cryptococcal, mycotic)	0	0	1
Meningococcal disease	1	0	0
Staphylococcus aureus (GISA/VISA)	0	0	0
Streptococcus pneumoniae (invasive disease)‡	3	20	34
Enteric Infections			
Campylobacteriosis	17	13	61
Cryptosporidiosis	6	5	49
Cyclosporiasis	0	0	1
Escherichia coli, shiga-toxin producing (STEC)	0	6	17
Giardiasis	1	3	16
Listeriosis	0	0	0
Salmonellosis	26	14	146
Shigellosis	0	0	19
Typhoid Fever	0	0	0
Viral Hepatitis			
Hepatitis A	0	0	2
Hepatitis B, acute	2	2	6
Hepatitis B, chronic	19	23	84
Hepatitis C, acute	2	2	2
Hepatitis C, chronic	179	**174**	**745**
Hepatitis E	0	0	0
Hepatitis +HBsAg in pregnant women	0	1	7
Vector Borne, Zoonoses			
Brucellosis	0	0	1
Chikungunya	3	0	4
Dengue Fever	0	0	1
Ehrlichiosis/Anaplasmosis	0	0	2
Lyme disease	2	2	11
Malaria	0	1	2
Monkey bite	0	0	0
Q Fever, acute	0	0	0
Rabies, animal	0	0	3
Rabies (possible exposure)	12	22	116
Rocky Mountain spotted fever/Spotted Fever Ricikettsiosis	1	0	0
West Nile virus, neuroinvasive	0	0	4
HIV/AIDS†			
HIV	41	31	119
AIDS	15	13	54
STDs†			
Chlamydia	397	368	1672
Gonorrhea	132	91	438
Syphilis			
Infectious (Primary and Secondary)	3	4	17
Early latent (Infection for <1 year)	3	1	11
Late latent (Tertiary)	4	2	32
Latent, unknown duration	0	0	8
Others			
Carbon monoxide poisoning	9	5	27
Ciguatera Fish Poisoning	0	0	1
Hansen's Disease (leprosy)	0	0	2
Hemolytic Uremic Syndrome	0	0	0
Influenza due to novel or pandemic strains	0	0	0
Influenza-associated pediatric mortality	0	0	0
Lead poisoning	0	0	6
Legionellosis	0	1	7
Pesticide related illness or injury	0	0	0
Tuberculosis	2		8
Vibriosis	0	0	4

*Includes reported confirmed/probable cases. Data is provisional and subject to change.
† Numbers are for Area 12 (Volusia/Flagler)
‡ Only reportable for young children

Influenza Season Wrap-Up

By: David Parfitt, MPH

Volusia County:

The 2014-2015 flu season has shown a significant decline in activity over recent weeks here in Volusia County. According to surveillance tools, the percentage of those patients reporting to local emergency rooms, as well as the individuals requiring hospital admittance, for influenza like illness (ILI) has decreased. This trend is the same for paper and electronic based laboratory reports of specimens tested by both the state lab as well as by local health care providers. At the height of influenza activity we had upwards of 30 samples testing positive for influenza in a week by the Bureau of Public Health Labs (BPHL) in Jacksonville. During this current week we had only three samples come back as positive. All three of these samples were typed as influenza B. In addition, the severity of symptoms has been relatively mild. Here in Volusia we had no pediatric deaths reported and limited numbers of patients requiring intensive care for treatment.

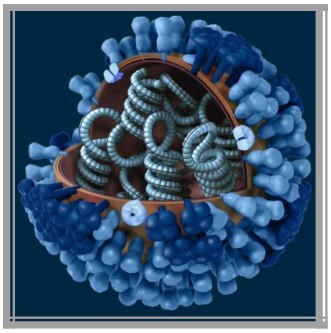
State:

According to the Bureau of Epidemiology in Tallahassee 38 counties throughout Florida are currently reporting mild influenza activity while 29 counties have reported that their influenza activity has plateaued. Emergency departments have indicated a decrease in ILI visits and are below typical seasonal levels for this time of year. In Florida, there were no reported pediatric influenza-associated deaths and only one reported ILI outbreak for the most current reporting week. Influenza A (H3) has been the dominant seasonal strain although the state has seen a sudden increase in influenza B as of late.

National:

According to the Centers for Disease Control and Prevention (CDC) influenza activity continues to decrease with ILI below national baseline levels. The only three states currently reporting widespread influenza activity were Connecticut, Massachusetts and New York. For the most current influenza reporting week, eight percent of samples submitted to collaborating labs were positive for influenza. Of the 795 specimens that were positive, 94 were typed as influenza A (22 were subtyped as H3) and 701 returned as influenza B. In addition, the proportion of outpatient visits for ILI (1.4%) was below the national baseline.

The health department continues to recommend that everyone 6 months of age or older receive the annual flu vaccine. Per the CDC recommendations, even though activity has weakened, vaccination should continue to be administered as long as the virus is circulating. Those with chronic conditions, the elderly, pregnant women and young children all more susceptible to complications should be made a priority.



For more information regarding the flu or the current vaccine please contact the Florida Department of Health in Volusia County at 386-274-0651.

References:

Centers for Disease Control and Prevention: www.cdc.gov/flu/
Florida Flu Review Week 15: April 12 – 18, 2015: www.floridahealth.gov/floridaflu

Florida Department of Health in Volusia County
Office of Disease Control and Health Protection