



Office of Disease Control
and Health Protection

EPI-LOG

One Health Initiative

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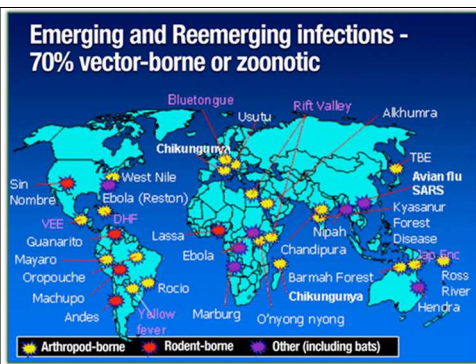
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To report a disease or outbreak:

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One Health is defined as the collaborative effort of multiple health science professions, together with their related disciplines and institutions – working locally, nationally, and globally – to attain optimal health for people, domestic animals, wildlife, plants, and our environment. What this means is that human health is affected by animals, plants, and the environment in which we live. If we want to continue to improve human health it must be looked at in the context of all other entities.



In 2007 the American Veterinary Medical Association, American Medical Association and the American Public Health Association organized a task force that eventually led to the creation of the One Health Commission. The charter of the One Health Commission is to 'Educate' and 'Create' networks to improve health outcomes and well-being of humans, animals and plants and to promote environmental resilience through a collaborative, global One Health approach.

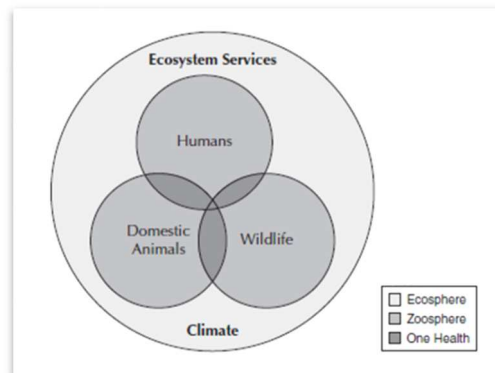
Emerging pathogens such as avian influenza, severe acute respiratory syndrome, Middle Eastern respiratory syndrome, Ebola virus, and even Zika

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virus are a constant threat to human health and can have a huge economic impact. More often than not they have their origins in the animal population. Changing environmental conditions also have an important role in the potential spread of emerging and/or re-emerging pathogens.

It is with this in mind that One Health seeks to: foster political will, support partnership and collaboration, encourage data sharing and integration, build capacity, develop communication strategies/plans, provide incentives for reporting adverse events, encourage stakeholder and community engagement, and develop supra-country approaches.

November 3, 2016 was designated as the inaugural OneHealth Day. The goal of One Health Day is to bring attention around the world to the need for One Health interactions and for the world to “see them in action.” For more information go to: <http://www.onehealthinitiative.com/>



Hurricane Matthew Reports

Carbon Monoxide Poisonings from Improper Generator Usage

A rise in carbon monoxide (CO) cases was seen in Volusia County related to improper use of generators after power outages following Hurricane Matthew. CO is a reportable condition and 13 individuals were reported to have CO exposure during that time. Twelve individuals were seen at the emergency department (ED) and there was one fatality. Among the twelve individuals, five of them were hospitalized due to severe symptoms. Seven individuals were treated and discharged from the ED. Investigation of these cases indicated they were due to use of generators in close proximity or enclosed spaces. CO is an odorless and colorless gas that causes illness if present in sufficient concentration in the ambient air.

CO effects vary between individuals and is related to duration and magnitude of exposure. Common signs and symptoms include headache, nausea, lethargy, weakness, abdominal discomfort/pain, confusion, and dizziness. Other signs and symptoms may include visual disturbances including blurred vision, numbness and tingling, ataxia, irritability, agitation, chest pain, dyspnea (shortness of breath), palpitations, seizures, and loss of consciousness.

Diagnosis of CO poisoning can be confirmed by measuring the patient's carboxyhemoglobin (COHb) level. CO levels can be tested in whole blood or exhaled air. Hospital laboratories commonly use CO-oximeter to test venous or arterial blood. Confirmed or suspected CO poisoning management includes administering 100% oxygen for 4-5 hours until the patient is symptom free along with serial neurologic exams. Hyperbaric oxygen therapy (HBO) is considered for patients with COHb level of more than 25-30%.

In cold weather it is important to prevent CO poisoning by not using a gas range or oven to heat a home, not using a generator or any gasoline-powered engine inside a garage or other enclosed spaces, and seeking shelter with friends or at community shelter in times of severe cold weather. The importance of using a functioning CO detector cannot be overstated. If CO poisoning is suspected, call your local Poison Control Center at 1-800-222-1222 or consult a health care professional immediately.

For more information go to: <http://www.cdc.gov/disasters/cofacts.html>; <http://www.cdc.gov/co/pdfs/generators.pdf>

Increase in Animal Bites Attributed to Hurricane Matthew

Hurricane Matthew hit Volusia County on October 7. There was an apparent increase in reported animal bites around this time, so the Department of Health (DOH) analyzed the cases to determine the cause.

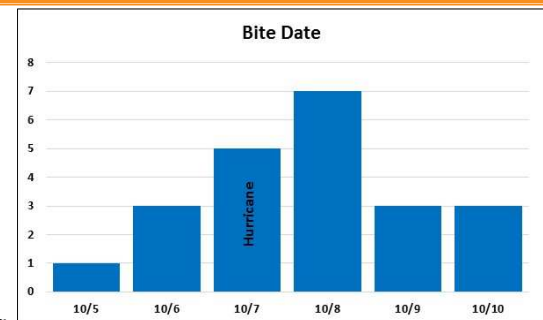
DOH established the case definition for this research as any person living in Volusia County that sustained a bite from an animal between October 5-10 and the bite had a correlation to the hurricane. By using these dates, we were able to account for all bites that were related to the storm in the many phases of the storm including preparation, during the storm, and assessment/cleanup. Twenty-two cases met the case definition representing a 38-percent increase in the number of cases typically seen in a six-day period. Among the 22 cases reported, 15 involved dogs, 6 involved cats, and 1 involved a raccoon.

The circumstances surrounding the bites can be grouped into two distinct categories: stress due to the storm and lost/displaced animal. Twelve of the cases were related to stress caused by the hurricane. Ten cases were due to the animal being lost or displaced during the storm. The most bites were observed on on Friday, October 7 (5 cases) and Saturday, October 8 (7 cases).

Rabies post-exposure prophylaxis (PEP) was recommended for three cases (a dog, cat, and raccoon bite), which was an increase over the expected number.

Every year in Florida, we are reminded of the need to prepare for tropical weather. One of the things that tends to not get the emphasis it deserves is that people need to have a plan for their pets as well as themselves. Part of that plan should include knowing that the animals will be under a lot of stress and will need to be handled differently and with more caution and respect after a disaster. People should be warned against trying to rescue animals and to take precautions if they do. All pets should be kept current on immunizations, especially rabies.

For more information call 386-281-6646.



Volusia County Disease Activity*	3rd Quarter 2016	3rd Quarter 2015	YTD 2016 (Sep 30)	Full Year 2015
Vaccine Preventable				
Mumps	0	0	0	0
Pertussis	3	0	3	2
Varicella	0	9	0	16
CNS Diseases and Bacteremias				
Creutzfeldt-Jakob disease (CJD)	0	0	0	0
Haemophilus influenzae (invasive)‡	1	1	23	3
Meningitis (bacterial, cryptococcal, mycotic)	0	0	0	1
Meningococcal disease	0	0	0	1
Staphylococcus aureus (GISA/VISA)	0	0	0	0
Streptococcus pneumoniae (invasive disease)‡	4	1	30	9
Enteric Infections				
Campylobacteriosis	20	19	56	75
Cryptosporidiosis	6	16	14	37
Cyclosporiasis	1	0	1	1
Escherichia coli, shiga-toxin producing (STEC)	3	1	11	7
Giardiasis	6	3	19	17
Listeriosis	0	0	1	1
Salmonellosis	41	57	92	154
Shigellosis	3	1	16	13
Typhoid Fever	0	0	0	0
Viral Hepatitis				
Hepatitis A	0	0	0	0
Hepatitis B, acute	6	1	13	11
Hepatitis B, chronic	29	24	70	88
Hepatitis C, acute	2	1	8	4
Hepatitis C, chronic	291	199	759	788
Hepatitis E	0	0	0	0
Hepatitis +HBsAg in pregnant women	0	2	2	3
Vector Borne, Zoonoses				
Brucellosis	0	0	0	1
Chikungunya	0	2	0	5
Dengue Fever	1	0	1	0
Ehrlichiosis/Anaplasmosis	2	0	3	3
Lyme disease	5	3	6	8
Malaria	2	0	2	0
Monkey bite	0	0	0	0
Q Fever, acute	0	0	0	0
Rabies, animal	0	1	1	3
Rabies (possible exposure)	37	32	109	146
Rocky Mountain spotted fever/Spotted Fever Rickettsiosis	0	1	1	6
West Nile virus, neuroinvasive	0	1	0	1
Zika virus disease	6	0	8	0
HIV/AIDS†				
HIV	34	33	89	123
AIDS	7	7	27	36
STDs†				
Chlamydia	637	614	1890	2064
Gonorrhea	237	204	635	652
Syphilis				
Infectious (Primary and Secondary)	9	3	30	21
Early latent (Infection for <1 year)	10	6	36	21
Late latent (Tertiary)	12	10	35	17
Latent, unknown duration	0	1	0	5
Others				
Carbon monoxide poisoning	9	6	25	30
Ciguatera Fish Poisoning	2	0	2	0
Hansen's Disease (Leprosy)	0	0	1	2
Hemolytic Uremic Syndrome	0	0	0	0
Influenza due to novel or pandemic strains	0	0	0	0
Influenza-associated pediatric mortality	0	0	0	0
Lead poisoning	5	5	15	16
Legionellosis	0	1	5	2
Pesticide related illness or injury	0	0	0	0
Tuberculosis	-	-	5	8
Vibriosis	3	0	6	1

*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 Update

The 2016-2017 flu season is underway. The season characteristically begins in the fall and winter with the peak of activity occurring in January or February. According to the Centers for Disease Control and Prevention (CDC), seasonal flu activity can begin as early as October and can last until next May.

The CDC's recommendation is for everyone six months of age and older to receive the annual flu vaccine to offer the best protection against the main flu viruses throughout the year. Additional consideration should be given for those at high risk of complications from the flu. Additional prevention methods include frequent hand washing, avoiding contact with others who are symptomatic, keeping hands away from your eyes, nose and mouth, and getting plenty of rest and exercise (flu.gov).

The live attenuated influenza vaccine (LAIV) is not recommended this season due to effectiveness concerns. This year a new vaccine with adjuvant (FLUAD™) is approved for older adults and helps create a stronger immune response. Also new this season is the flu shot FLUCELVAX™ that offers protection for four flu viruses and recommended for those four years of age and older. Health care providers should be sure to maintain an adequate supply of all vaccines.

Currently, per the Florida Flu Review, influenza activity remains low statewide. All Florida counties have reported mild or no influenza activity for the most current reporting period. Influenza A (H3) has been the most commonly identified virus circulating this season as reported by the Bureau of Public Health Labs (BPHL). In addition, no influenza-associated pediatric deaths have been reported and pneumonia and influenza associated deaths are below average levels. Volusia County has been relatively mild for the duration of the flu season. For the county, the percentage of those with influenza like illness (ILI) admitted as inpatients has remained slightly below seasonal average, electronic flu reporting indicates low activity, and the percentage of persons seen at emergency departments with ILI is stable at 2.7% of total patients seen.

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



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