Florida Department of Health in St. Lucie County
Disease Control and Health Protection
Epidemiology Program

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Spotlight on Rabies

A rabies exposure is typically any bite, scratch, or other situation in which saliva from a suspect or known rabid animal or person enters an open wound or comes into contact with mucous membranes of another animal or person. Rabies is a preventable viral disease. When exposed to the virus a series of shots received on a specific schedule can prevent a rabies infection, but once there is an onset of symptoms, in animals or humans, it is nearly 100% fatal.

Before 1960, most rabies cases in the United States were domestic animals, now over 90% of animal cases are wildlife. Currently in Florida, rabies in raccoons, bats, foxes, and other wildlife is considered endemic. In 2017, a total of 78 animals in 33 Florida counties were found to be rabid. Raccoons and bats accounted for the majority of these cases, however rabies virus in feral cats appears to be on the rise. These wild or feral animals can expose humans as well as pets and other wildlife.

In the United States, cases of human rabies have decreased significantly from an average of over 100 per year in the 1900's to only one or two a year now. Unusually, two fatal cases of human rabies occurred in Florida recently; one in 2017 and one in 2018. Both had exposure to bats and neither received post-exposure prophylaxis (PEP). Prior to these two cases, the last case of human rabies acquired in Florida occurred in 1948.

Every day, the Florida Department of Health in St. Lucie County Epidemiology Program (EPI) reviews reports of bites, or potential human rabies exposures, forwarded to us from local medical providers, animal control agencies, or from the exposed individual. Once EPI receives a report, an evaluation of the circumstances is made to determine if PEP is recommended. Consideration is given to the following:

- The behavior, health, species, housing status, and other characteristics of the biting animal. Any animal showing behavioral signs of a rabies infection, or certain species, or status, of animals (raccoons, bats, skunks, coyotes, foxes, otters, bobcats; or *stray* unidentified dogs, cats, or ferrets) are considered high-risk. Most small rodents are low-risk as they would not likely survive an attack from a rabid animal. Animals, specifically pets, that are housed outside or are left unattended and may be exposed to high-risk wild animals may pose a more serious risk than indoor pets.
- Vaccination status is important in biting dogs, cats, and ferrets for the protection of the animal and in helping to determine if an exposed human needs PEP. If a human is exposed to the saliva through a bite or scratch from a vaccinated dog, cat, or ferret, the animal can be observed for a 10-day period at the home of the owner. If the animal is unvaccinated, the observation period must be completed in a secure public facility or veterinary clinic. If the animal is healthy at the end of observation, there was no risk of transmission from that animal at the time of exposure.
- Type of encounter (e.g. provoked or unprovoked). Provoked exposures occur when the animal is having a natural reaction to circumstances. A bite or scratch that occurs when threatening or injuring an animal or pet owner, handling or removing an animal's food, disturbing an animal while eating, invading an animal's living space, restraining or handling sick animals, disturbing an animal's offspring, or startling a sleeping animal are all examples of provoked exposures. Unprovoked exposures are those that occur with no apparent reason, e.g. the circumstances listed above. The history of the animal's behavior, if it is known, is also taken into consideration. Bites from high-risk species, or bites from a stray animal that cannot be caught, regardless of if provoked or unprovoked would be considered a rabies exposure unless proven otherwise (see next point).
- Current status or disposition of the animal. Dogs, cats, ferrets, and livestock can be isolated and observed (usually a 10-day period) to determine their rabies status after an exposure. Wild or stray animals must be tested to determine their rabies status. If a rabies status can be verified it will determine if the human requires PEP.

If you, or anyone you know, is exposed to rabies, seek medical attention immediately and contact the Florida Department of Health in St. Lucie County Epidemiology Program at 772-462-3883, or after-hours/weekends at 772-462-3800. If exposure has occurred, treatment must be administered right away.

For more information:
https://www.cdc.gov/rabies/index.html
http://www.floridahealth.gov/diseases-and-conditions/rabies/index.html

For in depth information for rabies professionals:
http://www.floridahealth.gov/diseases-and-conditions/rabies/professionals.html

"Disease control and prevention are core functions of any public health agency. Protection of the public's health from existing, emerging, and re-emerging diseases requires diligence in all aspects of public health. The public health partners identifying and characterizing emerging trends in disease are the physicians, nurses, laboratorians, hospital infection preventionists, and other health care professionals who participate in reportable disease surveillance. Without their participation, the ability to recognize and intervene in emerging public health issues would be much more limited." Florida Morbidity Statistics Report 2016

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Preliminary Cases and Incidence of Reportable Diseases/ Conditions in St. Lucie County and Florida, Year to Date April 28, 2017 and 2018

Note that this table includes preliminary confirmed and probable cases (2018 data) reported in Florida residents (regardless of where infection was acquired) by date reported to the Bureau of Epidemiology as captured in the reportable disease surveillance system (Merlin). **Data for 2017 is final; data for 2018 is preliminary and will change.** 2018 preliminary case counts are current as of the date above, but may change with additional review. A percentage of cases will be determined not to be cases after additional review and this percentage varies by disease. Please note that counts presented in this table may differ from counts presented in other tables or reports, depending on the criteria used.

**2016 population estimates from www.flhealthcharts.com. Florida pop. 20,231,092. St. Lucie County pop. 294,144

*Specific population estimate not available

Disease Category	YTD April 28, 2017		YTD April 28, 2018			
	St. Lucie	Florida	St. Lucie	Incidence per 100,000 population**	Florida	Incidence per 100,000 population**
Vaccine-Preventable Diseases						
Mumps	0	8	0	n/a	24	0.12
Pertussis	0	110	0	n/a	88	0.43
Varicella (Chickenpox)	2	253	6	2.04	231	1.14
CNS Diseases and Bacteremias						
Creutzfeldt-Jakob Disease (CJD)	0	10	0	n/a	4	0.02
Haemophilus influenzae Invasive Disease	0	88	0	n/a	142	0.70
in children 5 years or younger	0	13	0	*	15	*
Listeriosis	0	16	0	n/a	16	0.08
Meningitis, Bacterial or Mycotic	1	33	3	1.02	38	0.19
Meningococcal Disease	0	10	0	n/a	10	0.05
Streptococcus pneumoniae Invasive Disease	-	-	-	-	-	-
Drug-Resistant	0	93	2	0.68	129	0.64
Drug-Susceptible	5	149	2	0.68	191	0.94
Enteric Infections						
Campylobacteriosis	18	1,212	28	9.52	1,312	6.49
Cryptosporidiosis	2	122	1	0.34	149	0.74
Cyclosporiasis	0	0	0	n/a	1	0.00
Escherichia coli, Shiga Toxin Producing (STEC)	0	43	3	1.02	223	1.10
Giardiasis, Acute	7	339	3	1.02	341	1.69
Salmonellosis	11	1,181	29	9.86	1,226	6.06
Shigellosis	1	297	3	1.02	421	2.08
Typhoid Fever (Salmonella serotype Typhi)	0	10	0	n/a	7	0.03
Viral Hepatitis						
Hepatitis A	0	75	0	n/a	50	0.25
Hepatitis B, Acute	6	224	3	1.02	285	96.89
Hepatitis B, Chronic	27	1,788	175	59.49	1,782	8.81
Hepatitis B, Surface Antigen in Pregnant Women	8	150	4	*	133	*
Hepatitis C, Acute	6	113	3	1.02	113	0.56
Hepatitis C, Chronic	155	8,307	24	8.16	8,623	42.62
Vectorborne, Zoonoses						
Chikungunya	0	1	0	n/a	2	0.01
Dengue Fever	0	11	0	n/a	2	0.01
Ehrlichiosis/Anaplasmosis	0	2	0	n/a	5	0.02
Lyme Disease	1	50	2	0.68	34	0.17
Malaria	0	13	0	n/a	10	0.05
Rabies, Animal	0	25	0	*	0	*
Rabies, Possible Exposure	32	990	40	13.60	1,315	6.50
Rocky Mountain Spotted Fever/Rickettsiosis	0	4	0	n/a	6	0.03
West Nile Virus Disease	0	1	0	n/a	0	0.00
Zika (non-congenital)	0	134	0	n/a	61	0.30
Others						
Botulism, Infant	0	0	0	*	0	*
Brucellosis	0	0	0	n/a	3	1.02
Carbon Monoxide Poisoning	1	44	1	0.34	65	0.32
Ciguatera Fish Poisoning	0	10	0	n/a	21	0.10
Lead Poisoning	4	196	4	1.36	511	2.53
Legionellosis	4	98	3	1.02	122	0.60
Mercury Poisoning	1	14	0	n/a	11	0.05
Ricin Toxin Poisoning	0	0	0	n/a	4	0.02
Vibriosis (Excluding Cholera)	1	67	3	1.02	51	0.25

Preliminary Cases of Select Reportable Diseases in St. Lucie County and Florida, Jan-Feb 2017 and 2018

Data from the current year (2018) is considered provisional and therefore should not be used to confirm or rule out an increase in newly reported cases in St. Lucie County, or Florida. The final counts are generated in July of the following year. If during the review period a case is identified as previously diagnosed, or reported from another state, these duplicate cases are removed from the dataset and the related numbers will be adjusted. Anticipate the final counts will be different than appear in this table. Increase in Reported HIV Infection Cases may be a result of increased testing .

Disease Category	Year to Date January - February, 2017 and 2018						
	St. Lucie County				Florida		
	2017	2018	% change	county rank	2017	2018	% change
HIV/AIDS							
Reported HIV Infection Cases	15	21	40%	12	823	1,109	35%
Reported AIDS Cases	9	6	-33%	9	338	333	-1%
Sexually Transmitted Diseases							
Gonorrhea	38	22	-42%	29	4,679	4,753	2%
Chlamydia	167	159	-5%	23	14,709	14,780	0%
Infectious Syphilis	0	6	n/a	not ranked	358	346	-3%
Early Latent Syphilis	1	8	700%		387	505	30%
Congenital Syphilis	0	0	n/a		11	13	18%
Tuberculosis							
TB Cases	2	1	-50%	6	83	63	-24%