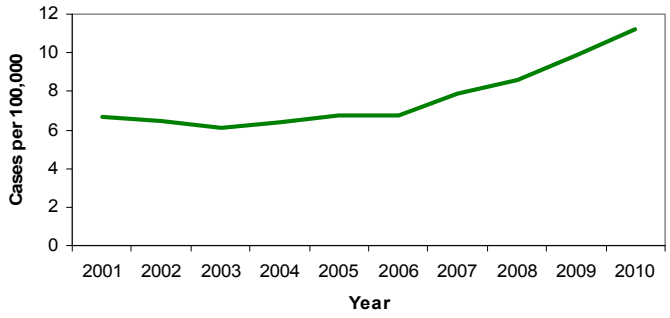
Rabies, Possible Exposure

Rabies, Possible Exposure: Crude Data	
Number of Cases	2,114
2010 incidence rate per 100,000	11.3
% change from average 5 year (2005-2009) reported incidence rate	41.3%
Age (yrs)	
Mean	36.9
Median	37
Min-Max	0 - 110

Figure 1. Rabies, Possible Exposure Incidence Rate by Year Reported, Florida, 2001-2010



Disease Abstract

In 2001, reporting of animal encounters for which rabies post-exposure prophylaxis (PEP) is recommended was initiated. Rabies PEP is recommended when an individual is bitten, scratched, or has mucous membrane or fresh wound contact with the saliva or nervous tissue of a laboratory-confirmed rabid animal, or a suspected rabid animal that is not available for testing.

The annual incidence of exposures for which PEP is recommended has increased since case reporting was initiated (Figure 1). In 2010, the incidence rate was up 41.33% over the previous five-year average although the number of confirmed rabid animals decreased in 2010 compared to 2009. This increase in PEP may be due to improved reporting, increased exposures to possible rabid animals, increased inappropriate or unnecessary use of PEP, or a combination of factors. Reductions in state and local resources may contribute to increases in inappropriate or unnecessary use of PEP by decreasing resources to investigate animal exposures and confirm animal health status, and by reducing county health department staff time to provide regular rabies PEP education for health care providers.

Figure 2. Rabies, Possible Exposure Cases by Month of Exposure, Florida, 2010

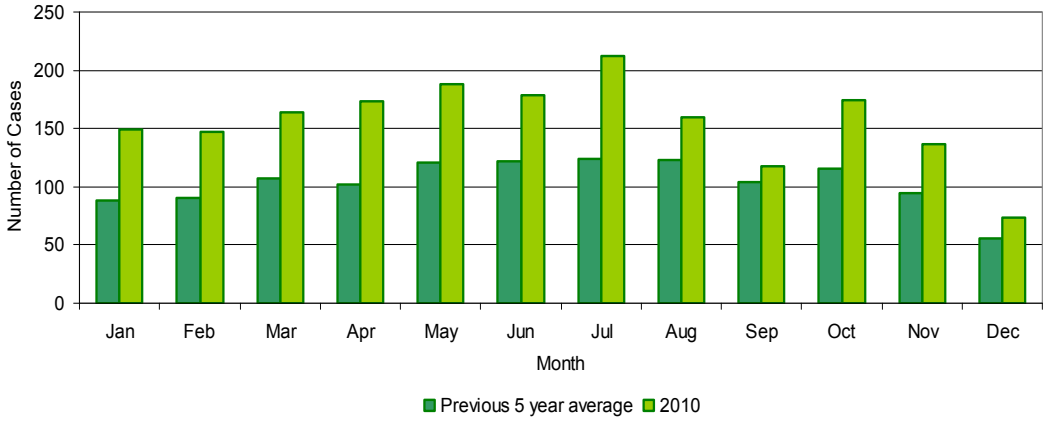
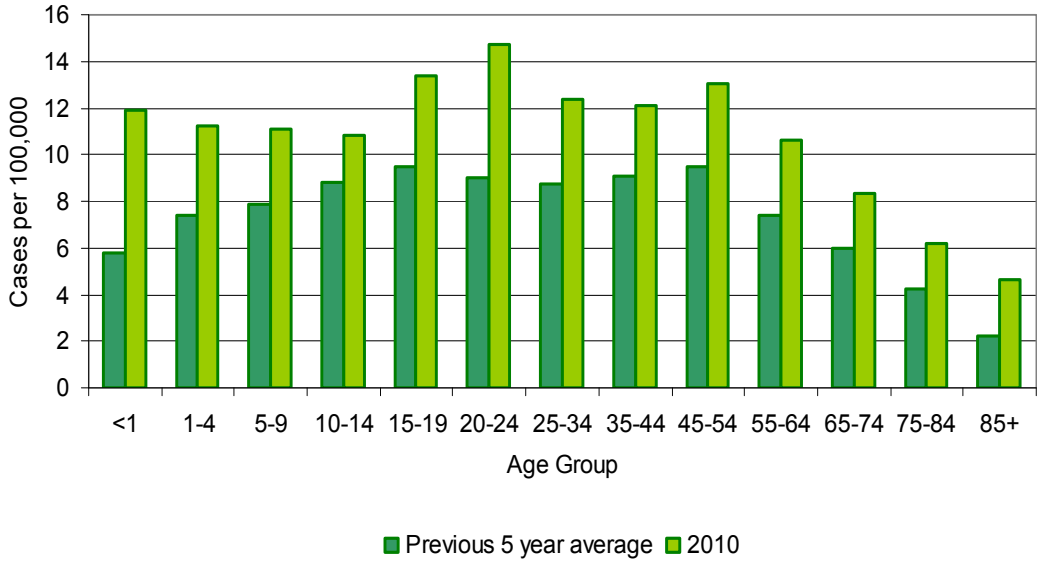


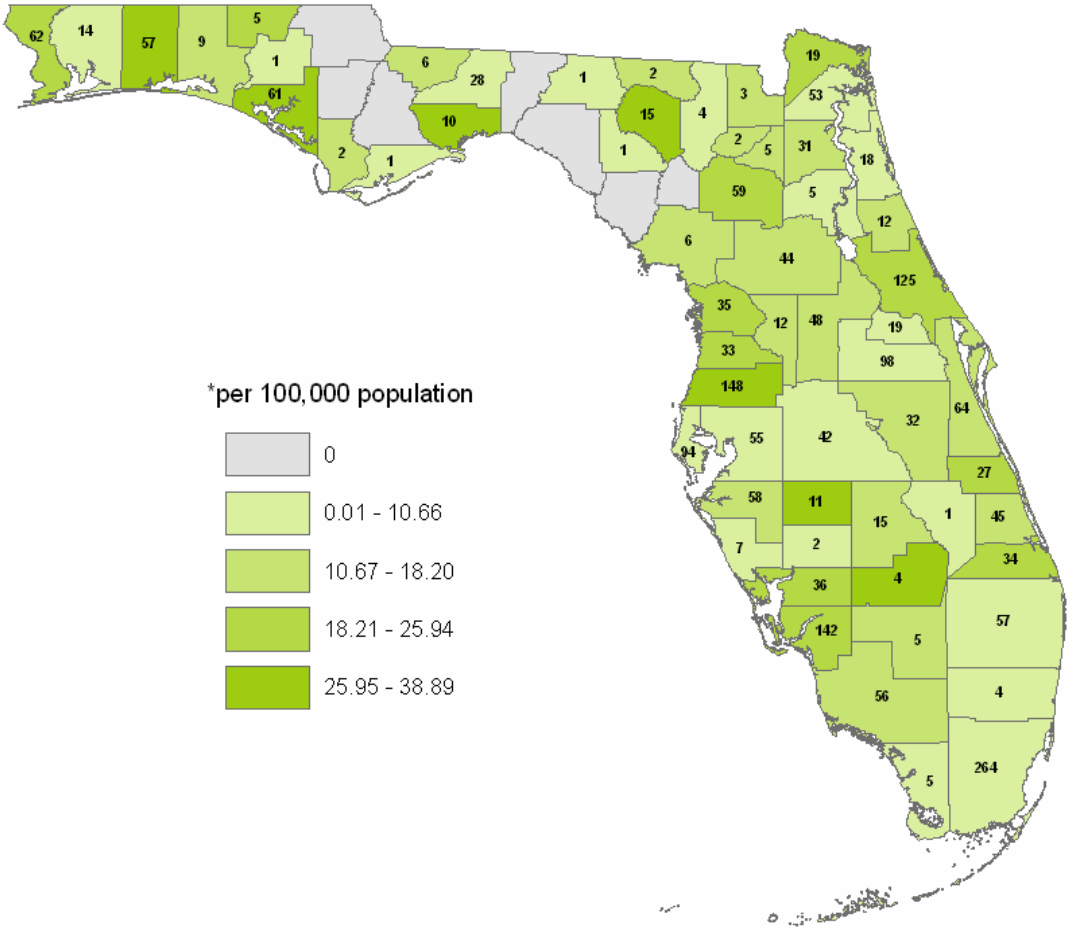
Figure 3. Rabies, Possible Exposure Incidence Rate by Age Group, Florida, 2010



PEP is recommended year round in Florida, though the number of treatment incidents increases somewhat from May to July (Figure 2). The average age of the victim for the 2,114 cases reported in 2010 was 37 years, with a range from under one year to 110 years of age. The highest incidence was seen in individuals aged between 20 and 24 years, but incidence was similar for ages 15 to 19 and 45 to 54 years (Figure 3). There were some variations in age based on the type of animal involved. Average age for those recommended to receive PEP who were exposed to dogs was 32 years; cats, 41 years; and wildlife, 43 years. Men and women were equally represented for PEP when assessing overall exposures and wildlife exposures. However, more men (56%) were recommended to receive PEP for dog exposures, while women (67%) were over-represented in relation to cat exposures. Most persons who were recommended to receive PEP were white (76%), with only 7% of cases representing blacks. Most cases were non-Hispanic (73%), although 14% were Hispanic.

Of the 2,114 cases reported in 2010, the largest proportion of exposed persons for whom treatment was recommended reported exposure to dogs (n=850, 46%). Other animals to which people were exposed include cats (n= 445, 24%), raccoons (n=241, 13%), and bats (n=144, 7%). Less numerous exposures included contact with foxes (16), horses (14), otters (12), squirrels (8), bobcats (5), non-human primates (4), opossums (3), ferrets (3), skunks (2), rats (2), a pig, a cougar, a cow, and other exotic animal species. Though horse exposures are generally low risk, the cases in 2010 were primarily due to exposure of rabies-positive animals. However, squirrels, rats, opossums, owned ferrets, and cattle are also generally low risk species for rabies, and there were no cases of rabies reported in these species. Most 2010 PEP cases involved exposure to stray (42%) or wild (23%) animals. Types of exposure were primarily bites (80%). Scratches were reported in 9% of cases, unknown 6%, other in 4% of cases, saliva in open wound (1.6%), handling (1.4%), bat in the room (1.3%), and saliva on a mucous membrane (<1%) were also reported. Face bites were reported in 99 cases (5%) and typically involved children, average case age was 17 years. Twenty percent of the animals involved in exposures were reported to be owned, 76% of these animals were dogs. Reasons for recommending PEP in cases involving owned animals included face bites, gun shot to the animal's head, and captive wildlife that disappeared. In addition, PEP was inappropriately recommended in some of these cases. Rabies PEP treatment was only known to be initiated 70% of the time; reasons for PEP not being initiated included patient refusal or inappropriate treatment recommendation by the health care provider.

Rabies, Possible Exposure Cases and Incidence Rates* by County, Florida, 2010



Prevention

Contact with wildlife and unfamiliar domestic animals should be limited. It is especially important to educate children about appropriate interactions with animals. If bitten, wash the area thoroughly with soap and water, seek medical attention, and report the bite to the local county health department.

Additional Resources

Additional information on animal bites and PEP can be found in the Rabies Prevention and Control in Florida, 2011 Guidebook, online at: http://myfloridaeh.com/medicine/rabies/rabies-index.html.

Dog bite prevention and rabies information can also be found on the Department of Health website at: http://www.myfloridaeh.com/medicine/arboviral/Zoonoses/dogbite_home.html.