

# Epi Monthly Report

## Animal Bite Surveillance, Miami-Dade County, 2005

Ana M. Torrecilla, Animal Bite Investigator; Rodlescía S. Sneed, MPH;  
Marie K. Etienne, RN, BSN, Animal Bite Supervisor;

### Introduction

Animal bites are a significant public health issue. Even minor bites and scratches that break the skin can become infected and spread bacteria to other parts of the body. For example, cat and dog bites can cause infection with *Pasteurella*, a bacterial infection that causes rapid onset of redness, swelling, and severe pain. Further, animal bites can increase the risk of tetanus infection [1].

Rabies increases public health concern about animal bites. The rabies virus is a rhabdovirus of the *Lyssavirus* genus. It affects the nervous system and is almost always fatal. Both wild animals (e.g. skunks, foxes, raccoons, coyotes, bats) and domestic animals (e.g. cats, dogs) can transmit rabies (Figure 1). Infected animals produce large volumes of the virus in their saliva; therefore, bites from an infected animal provide opportunities for viral transmission. There is no effective treatment for rabies once symptoms have developed; however, rabies post-exposure prophylaxis (PEP) has proven nearly 100% effective in preventing the onset of rabies in exposed persons.

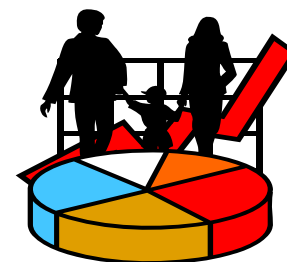
The Florida Administrative Code requires that bites to humans from potentially rabid animals be reported to county health departments. It also gives county health departments authority for quarantine of potentially infected animals [2]. The primary goals of the Miami-Dade County Health

Department (MDCHD) animal bite surveillance program are to 1) provide consultation to health care providers in the management of animal bite victims, 2) recommend quarantine of animals potentially infected with rabies, 3) recommend rabies post-exposure prophylaxis (PEP) where indicated, and 4) monitor and report trends in bite-related injuries in the county. This report describes trends in the incidence of animal bites in Miami-Dade County in 2005.

### Methods

Animal bite reports are received from a number of sources. They include Miami-Dade Animal Services, the Miami-Dade Police Department, victim/parent reports, the Florida Poison Information Center (FPIC), hospitals, private health care providers, and other county health departments. All information is collected using the Florida Department of Health Animal Bite form. Data collected includes victim age, animal type, if PEP was recommended, if PEP was given, if the animal was a stray/wild, and if medical treatment was provided.

Age-specific bite rates were calculated using population data from the Florida Legislature's Office of Demographic and Economic Research (provided at [www.floridacharts.com](http://www.floridacharts.com)).



### Inside this issue:

**Animal Bite Surveillance, Miami-Dade County, 2005**

1

**Avian Flu Watch**

4

**Selected Notifiable Disease Reports, Miami-Dade County, Comparison with Historical Data, June 2006**

5

**Monthly Report, Selected Reportable Diseases/Conditions in Miami-Dade County, June 2006**

6

**Fermin Leguen MD, MPH**

Chief Physician, Miami-Dade County Health Department

Director, Office of Epidemiology and Disease Control

8600 NW 17<sup>th</sup> Street  
Suite 200  
Miami, Florida 33126

Tel: (305) 470-5660  
Fax: (305) 470-5533

E-mail:  
[fermin\\_leguen@doh.state.fl.us](mailto:fermin_leguen@doh.state.fl.us)



**Figure 1. Wild and Domestic Animals at Risk for Rabies by Risk Group**

**Higher Risk Animals**

Raccoons, skunks, foxes, coyotes, bats

**Medium to High Risk Animals**

Cattle, dogs, cats, ferrets

**Low Risk Animals**

Squirrels, hamsters, guinea pigs, gerbils, chipmunks, rats, mice, rabbits, hares

**Results**

A total of 1472 animal bites were reported during 2005 (Figure 2). This represents a 237% increase since 2000. Rabies PEP was recommended for 86 (5.8%) victims. Seventy four of 86 victims (86%) complied with PEP recommendations.

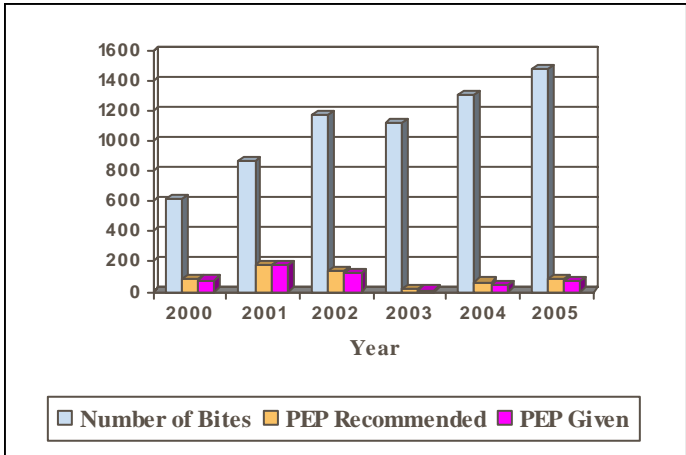
Forty-nine percent (726/1472) of all animal bite reports in 2005 were initially received from Miami-Dade Animal Services. Health care providers provided initial reports for 631 (42.9%) cases. Other sources of initial reports included victim complaints (4%), the Florida Poison Information Center (2.3%), the Miami-Dade Police Department (0.2%), and other counties (0.1%)

Twelve hundred eighteen of 1472 (82.7%) animal bites were from dogs (Figure 3). Cat bites made up 190/1472 (12.9%) of all animal bites. These were followed by bites from rats (0.7%), raccoons (0.5%), hamsters (0.3%), guinea pigs (0.2%), and opossums (0.1%).

Four hundred and seven (37.8%) victims were bitten by stray animals, while 1061 (72.0%) victims were bitten by non-stray animals.

Animal bite rates varied by age group (Figure 3). The rate of animal bites was highest among children aged 5-9 years (rate of 102.0 per 100,000 population). Rates were lowest among adults aged 18-44 years, and increased among older adults (rates in the 45-54, 55-64, and 65 and older categories were 68.6, 65.9, and 50.4, respectively).

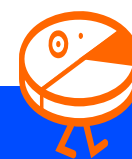
**Figure 2. Frequency of Animal Bite Reports, Rabies PEP Recommendations, and Rabies PEP Administration, Miami-Dade County, 2000-2005**



**Note:** While animal bites have long been reportable to local county health departments, bites did not become reportable to the State Health Office until June 2000.

**Figure 3. Animal Bite Distribution by Animal Type, Miami-Dade County, 2005.**

Animal Type	Number	Percent
Dog	1218	82.7%
Cat	190	12.9%
Rat	10	0.7%
Raccoon	8	0.5%
Hamster	5	0.3%
Guinea Pig	3	0.2%
Opossum	2	0.1%
Bat	1	0.1%
Bird	1	0.1%
Cougar	1	0.1%
Ferret	1	0.1%
Horse	1	0.1%
Monkey	1	0.1%
Mouse	1	0.1%
Rabbit	1	0.1%
Snake	1	0.1%
Unknown	27	1.8%
<b>Total</b>	<b>1472</b>	<b>100.0%</b>



Dog bite rates were highest among children (Figure 5). In the 5-9 and 10-17 age groups, the rates were 89.0 and 64.0 per 100,000 respectively. Rates declined between ages 18 and 44, increasing again in the 45-54 and 55-64 age groups. Cat bites were most common among adults in the 45-54 and 55-64 age groups (Figure 6). The cat bite rates in these two age groups were 14.3 and 13.8, respectively.

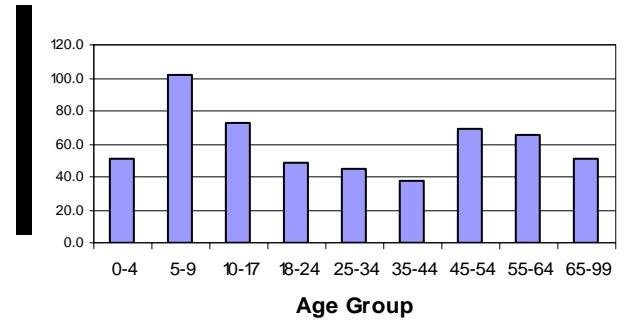
## Discussion

The number of reported animal bites has increased by 237% since 2000. This increase reflects improvements in the animal bite reporting system. The Florida Administrative Code was modified in June 2000 to include animal bites in the list of diseases/conditions reportable to the State Health Office.

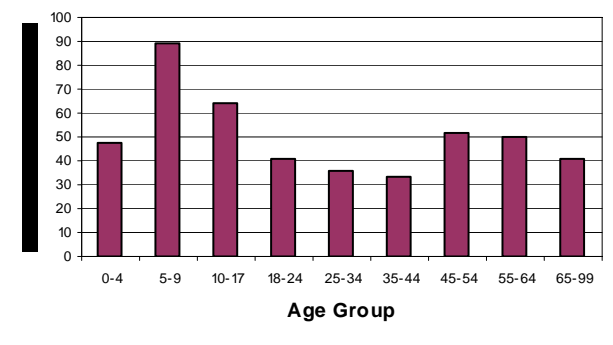
Data from the National Electronic Injury Surveillance System show that dog bite rates are highest in the 5-9 age group, decreasing with age [3]. While Miami-Dade County dog bite data does reflect a peak in the 5-9 age group, there is also a significant increase in the 45-54 and 55-64 age groups. These two age groups also make up the majority of cat bites. These statistics are of concern, since wounds in persons over the age of 50 are most likely to become infected [4]. Animal bites in these age groups may be work-related. Data show that persons who make deliveries, work at animal clinics/shelters or who do home repair work/installations are at increased risk of animal bites. More information may be necessary for understanding increases in these age groups.

The last animal that tested positive for rabies in Miami-Dade County was a raccoon in 2001. No bite was involved. Since July 2000, at least 8 animal rabies cases were confirmed in Broward County and 10 cases were confirmed in Palm Beach County. Given the high number of animal bites reported in Miami-Dade, the risk of rabies persists, especially in cases of bites from wild animals. The MDCHD Animal Bite Surveillance Program continues to conduct animal bites/rabies educational activities among hospitals, private physicians, and the public.

**Figure 4. Animal Bite Rates by Age Group, Miami-Dade County, 2005**



**Figure 5. Dog Bite Rates by Age Group, Miami-Dade County, 2005**

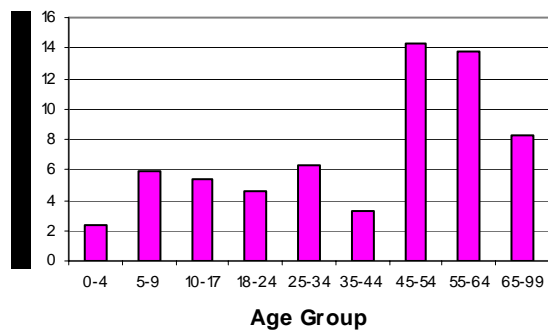


## References

- [1] American Academy of Pediatrics. Bite Wounds. Red Book. 2003; 182-186
- [2] State of Florida, Department of State. Florida Administrative Code. Florida Administrative Code; Chapter 64 D-3.013(2).
- [3] CDC. Nonfatal Dog Bite--Related Injuries Treated in Hospital Emergency Departments, United States, 2001, MMWR. 52(26);605-610.
- [4] Callaham ML. Treatment of common dog bites: infection risk factors. Journal of the American College of Emergency Physicians 1978; 7:83-87.



Figure 5. Cat Bite Rates by Age Group, Miami-Dade County, 2005



## What should I do if an animal bites me?

- Immediately scrub the wound with lots of soap and running water for five to ten minutes. Contact your Private physician or go to the near Hospital.
- Try to get a completed description of the animal and determine where it is so Animal Control can pick that up for quarantine or rabies testing.
- Call Miami Dade County Health Department, Office of Epidemiology and Disease Control at 305-370-5660 or Animal Control Unit at 305-884-1101 promptly with the animal's description and location of the animal. The animal will either be quarantined for 10 days (if is a dog, cat, or ferret) or be tested for rabies.
- If you kill the animal, be careful not to damage the head and avoid further contact with the animal even when it is dead.

## ANIMAL SAFETY TIPS



Being safe around animals, even pets, can help reduce the risk of animal bites. Some general guidelines for avoiding animal bites and rabies include the following:

- Do not try to separate fighting animals.
- Avoid strange and sick animals.
- Leave animals alone when they are eating.
- Keep pets on a leash when out in public.
- Select family pets carefully.
- Never leave a young child alone with a pet.
- All domestic dogs and cats should be immunized against rabies and shots kept current.
- Do not approach or play with wild or stray animals of any kind.
- Trash containers should be covered at all times to prevent attracting wild animals.
- Supervise pets so they do not come into contact with wild animals. Call Miami-Dade County Animal Services (305-884-1101) to remove any stray animals.

## TIPS FOR HEALTH CARE PROVIDERS

- All animal bites (regardless of severity) must be reported to the Miami-Dade County Health Department, Office of Epidemiology and Disease Control (305-470-5660) within 24 hours if exposure (or the next business day).
- Animal bite reporting forms must be completed by a health care provider (physician, nurse, or nurse practitioner (ARNP)). Forms should not be completed by the victim/parent.
- Veterinarians aware of animal bites to humans need to report cases within 24 hours as well.



# AVIAN FLU WATCH

Unless indicated, information is current as of July 26, 2006



- Since 2003, 232 human cases of avian influenza (H5N1) have been confirmed by the World Health Organization (WHO). Of these, 134 have been fatal.
- Countries with confirmed *human* cases include Cambodia, China, Djibouti, Indonesia, Thailand, Vietnam, Iraq, Azerbaijan, Egypt and Turkey.
- No human cases of avian influenza (H5N1) have been reported in the United States.
- The most recently confirmed human H5N1 case occurred in Thailand. The patient, a 17-year-old man. On July 10, the young man had buried carcasses of dead chickens. He developed symptoms on July 15, was hospitalized on July 20, and died on July 24. This is the first human case of H5N1 reported in Thailand in 2006.
- H5N1 has been confirmed in *birds* in several other countries since 2003. H5N1 has been documented in birds in more than 30 countries in Europe & Eurasia, South Asia, Africa, East Asia and the Pacific, and the Near East. For a list of these countries, visit the World Organisation for Animal Health Web Site at [http://www.oie.int/downld/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm) (Updated 07/07/06).
- No restrictions on travel to affected countries have been imposed. Travelers should avoid contact with live poultry and monitor their health for ten days after returning from an affected country.

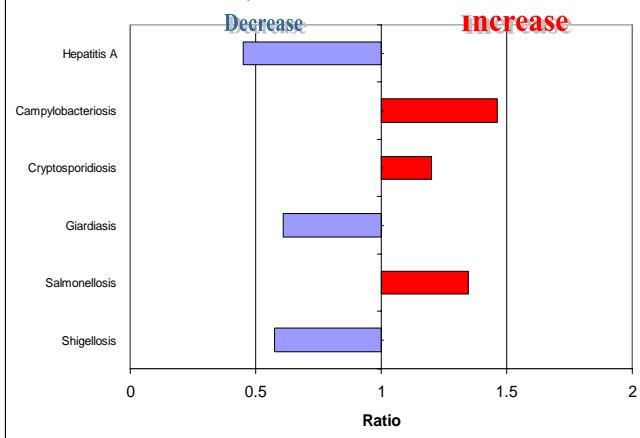
SOURCES: World Health Organization; World Organisation for Animal Health; Centers for Disease Control and Prevention

## TO REPORT ANY DISEASE AND FOR INFORMATION CALL:

### Office of Epidemiology and Disease Control

Childhood Lead Poisoning Prevention Program	(305) 470-6877
Hepatitis	(305) 470-5536
Other diseases and outbreaks	(305) 470-5660
HIV/AIDS Program	(305) 470-6999
STD Program	(305) 325-3242
Tuberculosis Program	(305) 324-2470
Special Immunization Program	(786) 845-0550

Selected Notifiable Disease Reports, Miami-Dade County, Comparison with Historical Data, June, 2006



### About the Epi Monthly Report

The Epi Monthly Report is a publication of the Miami-Dade County Health Department, Office of Epidemiology and Disease Control. The publication serves a primary audience of physicians, nurses, and public health professionals. Articles published in the Epi Monthly Report may focus on quantitative research and analysis, program updates, field investigations, or provider education. For more information or to submit an article, contact Rodlescia Sneed, Managing Editor, at 305-470-5660.



## Monthly Report

### Selected Reportable Diseases/Conditions in Miami-Dade County, June 2006

Diseases/Conditions	2006 this Month	2006 Year to Date	2005 Year to Date	2004 Year to Date	2003 Year to Date	2002 Year to Date
AIDS <sup>Provisional</sup>	86	606	742	708	530	547
Animal Rabies	0	0	0	0	0	0
Campylobacteriosis	23	80	66	64	64	47
<i>Chlamydia trachomatis</i>	391	2249	1971	1715	1759	1874
Ciguatera Poisoning	0	0	0	0	0	0
Cryptosporidiosis	2	8	12	7	6	3
Cyclosporiasis	0	0	0	0	0	0
Dengue Fever	0	1	0	3	0	2
Diphtheria	0	0	0	0	0	0
<i>E. coli</i> , O157:H7	0	0	0	1	0	0
<i>E. coli</i> , Non-O157	0	0	0	0	0	1
<i>E. coli</i> , Other	0	0	0	0	0	0
Encephalitis (except WNV)	0	0	0	1	0	1
Encephalitis, West Nile Virus	0	0	0	1	0	1
West Nile Fever	0	0	0	0	0	0
Giardiasis, Acute	14	97	94	139	77	97
Gonorrhea	160	848	825	618	789	857
Hepatitis A	4	20	27	16	21	65
Hepatitis B	3	14	26	19	29	11
HIV <sup>Provisional</sup>	99	558	783	869	818	973
Lead Poisoning	10	75	79	141	110	123
Legionnaire's Disease	3	4	2	4	4	0
Leptospirosis	0	0	1	0	0	0
Lyme disease	0	0	0	1	2	0
Malaria	1	5	1	8	5	5
Measles	0	0	0	1	0	0
Meningitis (except aseptic)	1	10	7	5	2	3
Meningococcal Disease	1	8	5	11	3	11
Mumps	0	0	0	0	0	0
Pertussis	1	5	4	5	1	3
Polio	0	0	0	0	0	0
Rubella	0	0	0	0	0	0
Rubella, Congenital	0	0	0	0	0	0
Salmonellosis	61	240	199	166	197	120
Shigellosis	13	50	156	90	165	99
<i>Streptococcus pneumoniae</i> , Drug Resistant	11	59	27	45	62	72
Syphilis, Infectious	19	111	84	80	81	77
Syphilis, Other	68	305	296	380	452	448
Tetanus	0	0	0	0	0	0
Toxoplasmosis	0	0	0	1	4	11
Tuberculosis <sup>Provisional</sup>	13	105	89	91	104	93
Typhoid Fever	0	2	2	1	2	1
<i>Vibrio cholera</i> Type O1	0	0	0	0	0	0
<i>Vibrio cholera</i> Non-O1	0	0	0	0	0	1
<i>Vibrio</i> , Other	0	0	0	0	1	0

\* Data on AIDS are provisional at the county level and are subject to edit checks by state and federal agencies.

\*\* Data on tuberculosis are provisional at the county level.

