



NEW YORK CITY DEPARTMENT OF
HEALTH AND MENTAL HYGIENE
Dave A. Chokshi, MD, MSc
Commissioner

2021 Veterinary Advisory # 2: 2020 Summary of Animal Rabies in New York City

- **In 2020, 38 animals from New York City tested positive for rabies**
- **Raccoon oral rabies vaccination was conducted in northern Manhattan and parts of Queens, Brooklyn, and Staten Island**
- **For current information on rabies and animals testing positive for rabies in NYC, visit www.nyc.gov/health/rabies**

Please share with your colleagues in Veterinary Medicine and your staff

April 22, 2021

Dear Veterinary Colleagues,

This advisory is a summary of animal rabies testing data and raccoon vaccination activities in 2020. The most up-to-date rabies information is on our website at <https://www1.nyc.gov/site/doh/health/health-topics/rabies.page>. As in the past, urgent matters regarding rabies will be brought to your immediate attention via fax or email.

In 2020, there were 38 animals in NYC that tested positive for rabies at the NYC Department of Health and Mental Hygiene (DOHMH) Public Health Laboratory (n=36) and the New Jersey Department of Health Public Health Lab (n=2). Rabid animals were identified in all boroughs: 10 raccoons, 3 skunks, and 1 cat from the Bronx, 13 raccoons, 3 cats, 1 skunk, and 1 bat from Staten Island, 2 raccoons and a cat from Queens, 2 raccoons in Manhattan, and 1 raccoon from Brooklyn. Rabies post-exposure prophylaxis was required for several people following exposure to 4 out of the 5 cats, all rescued strays, and for 2 raccoon bites in Staten Island.

The rabid Manhattan raccoons were identified in July and August near Fort Tryon and Inwood Hill Parks in northern Manhattan. In response, [oral rabies vaccine \(ORV\) baits were distributed in early October](#) by hand in 9 parks in northern Manhattan, including the northern section of Central Park, to prevent further spread of the virus. Northern Manhattan was also the site of a cluster of 9 rabid raccoons and a skunk in 2019 for which two [vaccination efforts](#) were conducted that year. Last year, in addition to Manhattan, ORV was distributed in parts of Brooklyn, Queens, and Staten Island in September and October using fixed bait stations, by hand, and by helicopter through a collaborative effort by NYC DOHMH, U.S. Department of Agriculture (USDA), Cornell University, and the NYC Department of Parks and Recreation. The routine raccoon ORV program in Queens, Brooklyn, and Staten Island conducted from 2014-2018 was discontinued in 2019 due to a lack of state funding.

Raccoons are the primary rabies reservoir species in NYC and along the Atlantic Coast. Occasionally, rabid raccoons transmit the virus to other wild animals, usually skunks. Rabid raccoons pose the greatest risk of rabies for pets and other domestic animals. Rabid bats have also been found in all 5 boroughs but in much smaller numbers than terrestrial animals. Bats are the primary vector of human rabies infections in the US.

Dogs and cats are required to maintain vaccination against rabies. Indoor pets can be at risk for rabies if they escape outside or if a rabid bat enters the home. No rabid dogs have been reported in NYC since 1954, although dogs infected with the raccoon variant have been reported in neighboring areas outside NYC. Since 1992, 23 cats

have tested positive for rabies, including 5 in 2020; almost all were strays. In 2020, variant PCR testing was performed on 2 cats and the skunk from Staten Island and the cat from Queens; all were infected with raccoon variant rabies virus. A big brown bat from Staten Island was infected with eptesicus (house bat) variant. Consider rabies for any animal presenting with a progressive neurologic illness, especially in a stray animal, an animal with a bite wound of unknown origin or exposure to a potentially rabid animal, or a dog from a country where the canine rabies variant is present.

Management guidelines for dogs and cats with a known exposure to a rabies vector species or any rabid animal

Upon consultation with the Veterinary Public Health Services' Animal Bite Unit, cases will be assessed on an individual basis and options may include:

- Never vaccinated against rabies
 - Isolate in veterinary facility for up to 6 months at owner's expense or euthanize
- Currently vaccinated against rabies
 - Immediately give booster vaccine. Confine and observe in owner's home for 45 days
- Not currently vaccinated
 - Managed on case by case basis

Management guidelines for healthy dogs and cats that have bitten a person

- Confine and observe dog or cat for 10 days
 - If animal not currently vaccinated, do not vaccinate until end of 10-day observation period
 - If remains healthy, rabies post-exposure prophylaxis (PEP) not indicated for bite victim
 - If becomes ill, must be evaluated by veterinarian and the Animal Bite Unit

What All Veterinarians Can Do

- **Educate** clients to:
 - Avoid contact with wild animals and stray animals
 - Make sure their dog or cat is up-to-date on its rabies vaccinations
 - Avoid leaving their pets outdoors unattended and feed them indoors
 - Avoid trying to separate animals that are fighting
 - Contact their veterinarian if their pet has been in contact with a raccoon, skunk, bat or any animal that might be rabid
- **Report** animal bites and suspect animal rabies cases to the Health Department's Veterinary Public Health Services (VPHS):
 - **VPHS Animal Bite Unit (ABU)** during business hours **646-364-1799**
 - **Poison Control Center** outside business hours **212-POISONS (212-764-7667)**
- **Questions?** Contact the NYC Health Department:
 - For questions on rabies exposures in pets, animal bites, and other animal-related issues
 - Veterinary Public Health Services (VPHS) 646-364-1783
 - For questions on rabies exposures in people, PEP, and other human-related rabies issues
 - Bureau of Communicable Disease 347-396-2600
 - After hours: NYC Poison Control Center 212-764-7667

As always, we greatly appreciate your partnership and cooperation.

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Table 1. 2020 Summary of NYC Animal Rabies Testing*

SPECIES	BRONX		BROOKLYN		MANHATTAN		QUEENS		STATEN ISLAND		TOTAL NYC	
	# tested	# positive	# tested	# positive	# tested	# positive	# tested	# positive	# tested	# positive	# tested	# positive
Bat	6	0	7	0	14	0	6	0	5	1	38	1
Cat	16	1	19	0	16	0	18	1	14	3	83	5
Dog	6	0	6	0	6	0	2	0	4	0	24	0
Groundhog	0	0	0	0	0	0	0	0	2	0	2	0
Opossum	2	0	5	0	1	0	9	0	2	0	19	0
Raccoon	28	10	29	1	20	2	112	2	63	13	252	28
Skunk	11	3	2	0	2	0	1	0	5	1	21	4
Other**	7	0	1	0	2	0	4	0	0	0	14	0
Total	76	14	69	1	61	2	152	3	95	18	453	38

*Tested at NYC DOHMH Public Health Lab (n=426), NYS Wadsworth Center (n=25), and NJ DOH Public Health Lab (n=2)

**Other includes 7 squirrels, 3 mice, and 1 each chipmunk, fox, rabbit, and rat

1 bat from Manhattan was inconclusive

Table 2. NYC Laboratory-Confirmed Rabid Animals, 1992-2020

SPECIES	BRONX	BROOKLYN	MANHATTAN	QUEENS	STATEN ISLAND	TOTAL POSITIVE	TOTAL TESTED	% POSITIVE
Raccoon	220	10	156	14	207	607	8296	7.3
Skunk	52	0	1	0	6	59	412	14.3
Bat	15	7	14	4	7	47	1257	3.7
Cat	8	1	2	1	11	23	3748	0.6
Dog	0	0	0	0	0	0	2152	0
Opossum	2	1	0	1	3	7	695	1.0
Other*	2	0	0	0	1	3	1838	0.2
Total	299	19	173	20	235	746	18398	4.1

*Other includes 2 coyotes (1999 and 2010, Bronx) and 1 groundhog (2007, Staten Island).

Numbers differ slightly (Bronx raccoons and bats, Staten Island raccoons) from previous tables due to further review of historical data.

Table 3. NYC Animal Rabies Testing by Year and Species, 2016-2020

ANIMAL	2016		2017		2018		2019		2020	
	# tested	# positive								
Bat	19	1	18	0	24	0	38	1	38	1
Cat	82	0	78	2	137	1	140	1	83	5
Dog	33	0	37	0	39	0	43	0	24	0
Deer	0	0	0	0	2	0	0	0	0	0
Groundhog	4	0	0	0	2	0	5	0	2	0
Muskrat	0	0	1	0	0	0	0	0	0	0
Opossum	7	0	4	0	19	1	23	0	19	0
Rabbit	0	0	3	0	0	0	1	0	1	0
Raccoon	120	4	104	12	333	10	424	21	252	28
Skunk	4	0	22	4	23	2	25	1	21	4
Squirrel	2	0	11	0	7	0	13	0	7	0
Other**	15	0	15	0	11	0	5	0	6	0
Total	286	5	293	18	597	14	717	24	453	38

**Other includes 23 rats, 12 mice, 7 chipmunks, 3 shrews, and 1 each cattle, coati, ferret, fox, gopher, kangaroo, and lesser kudu

Table 4. NYC Animal Rabies Testing by Year and County, 2016-2020

COUNTY	2016		2017		2018		2019		2020	
	# tested	# positive								
BRONX	54	2	94	18	107	9	83	3	76	14
BROOKLYN	65	0	46	0	126	0	167	0	69	1
MANHATTAN	59	1	77	0	164	0	122	11	61	2
QUEENS	76	1	51	0	147	1	233	0	152	3
STATEN ISLAND	32	1	25	0	53	4	112	10	95	18
Total	286	5	293	18	597	14	717	24	453	38