

Accessible Rabies Vaccination of Dogs and Cats is Critical for the Prevention and Control of Rabies



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Who Are We?

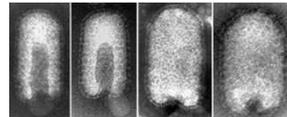
- Maryland Department of Health & Mental Hygiene (DHMH)
 - Prevention and Health Promotion Administration (PHPA)
 - Infectious Disease Bureau
 - Office of Infectious Disease Epidemiology and Outbreak Response
 - Center for Zoonotic and Vector-borne Diseases (CZVBD)

Mission of the Center for Zoonotic & Vector-borne Diseases:

To reduce the incidence and
associated impact of rabies and
other zoonotic and vector-borne
diseases in Maryland



Rabies



- Viral disease of mammals
- Transmitted in saliva of an infected mammal
- Infects central nervous system and leads to death
 - Acute, progressive encephalomyelitis
 - Case fatality rate is highest of any infectious disease
- Animal reservoirs
 - Domestic dogs in developing world
 - In U.S., various wildlife (raccoons, skunks, foxes, bats)
 - In Maryland, raccoons and bats



Authority for Rabies Control, Maryland

- Annotated Code of Maryland, Health-General Article Title 18
 - Subtitle 2, Part IV
 - Subtitle 3, Part III
- COMAR 10.06.02 (Rabies)
 - One of only 2 communicable diseases with own regulations (the other is HIV/AIDS)
- Animal bites are reportable in Maryland (COMAR 10.06.02.05)



Scientific Guidance

- *Compendium of Animal Rabies Prevention and Control, 2011*
 - Compiled and regularly updated by a Committee of the National Association of State Public Health Veterinarians (NASPHV)
 - Endorsed by
 - American Public Health Association (APHA)
 - American Veterinary Medical Association (AVMA)
 - Association of Public Health Laboratories (APHL)
 - Council of State and Territorial Epidemiologists (CSTE)
 - National Animal Control Association (NACA)



Principles of Rabies Prevention and Control (excerpted from the *Compendium*)

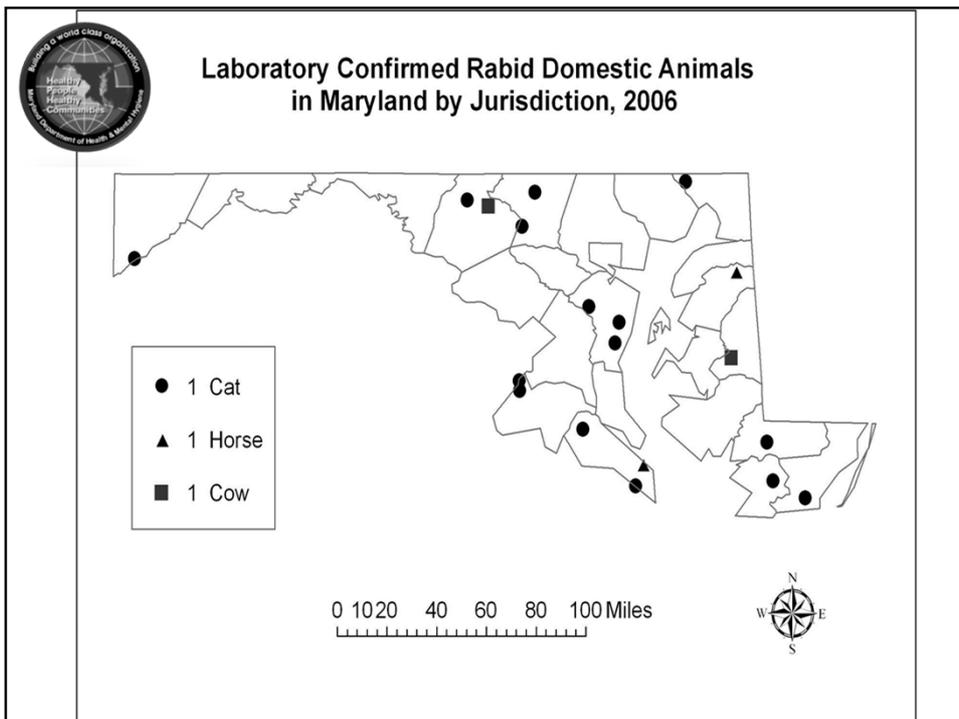
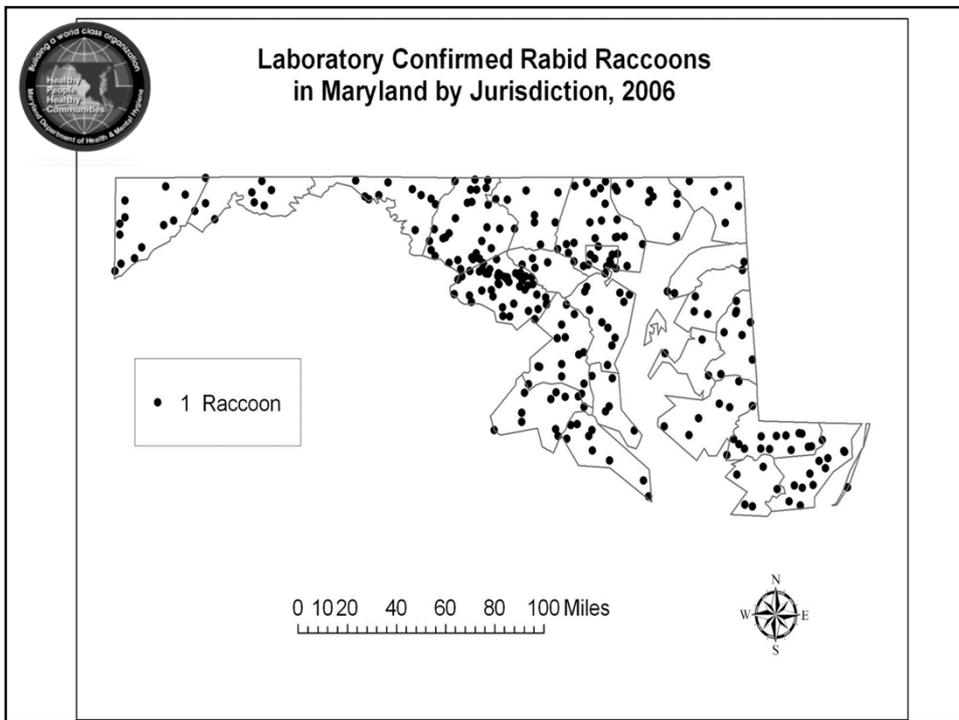
- Rabies is transmitted when virus is introduced into bite wounds, open cuts, or onto mucous membranes.
- Rabies in humans can be prevented by eliminating exposures to rabid animals.
- Local governments should initiate and maintain effective programs to ensure vaccination of all dogs, cats, and ferrets and to remove strays and unwanted animals.




Rabies Burden

	Maryland	U.S.	Globally
Number of confirmed animal rabies cases each year	300 – 450	7,000 – 10,000	?
Number of humans exposed to rabies each year	≥ 1000	20,000 – 40,000	Millions
Number of human rabies cases each year	Last case in 1976	1 – 8	~ 70,000

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Rabies in Maryland, 2011

Species	# Positive	% Total
Raccoon	169	55%
Bat	58	19%
Fox	27	9%
Skunk	23	8%
Cat	17	6%
Groundhog	6	2%
Dog	3	1%
Cow	2	1%
Total	305	100%



Rabies in Maryland, 2007

Species	# Positive	% Total
Raccoon	253	58.7%
Bat	54	12.6%
Fox	49	11.4%
Skunk	41	9.5%
Cat	19	4.4%
Groundhog	6	1.4%
Cow	3	0.7%
Dog	3	0.7%
Bear	1	0.2%
Beaver	1	0.2%
Otter	1	0.2%
Total	431	100%

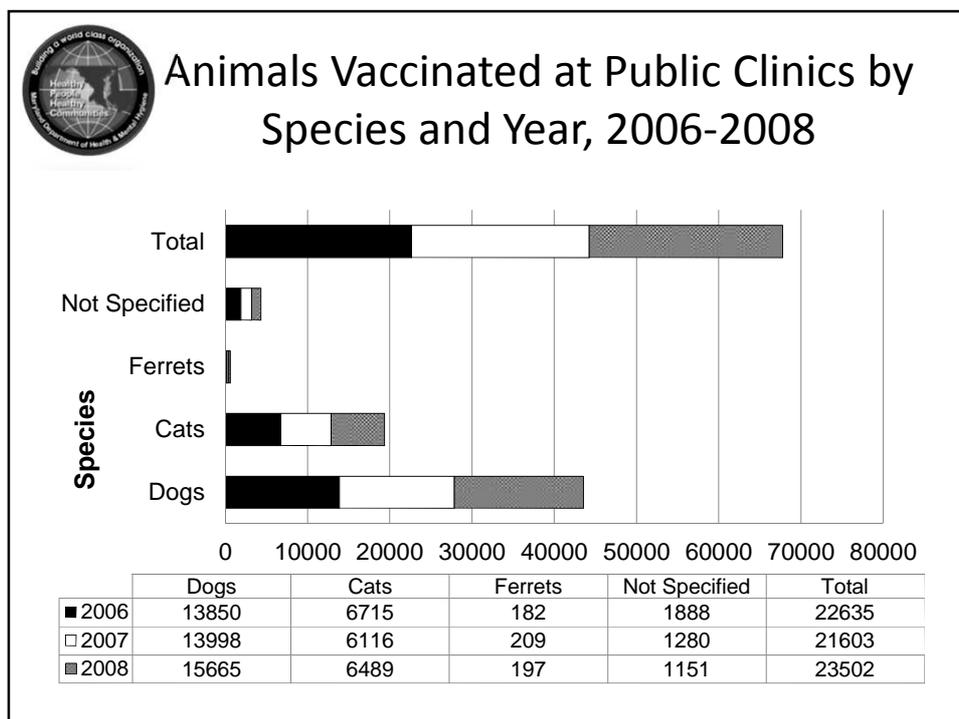


Animal Rabies Clinic Mandate

- Md. Code Ann., Health-General § 18-315
- All Maryland local health departments shall provide ≥ 2 low-cost, self-financing rabies clinics for animals

Characteristics of Antirabies Clinics in Maryland, 2006-2008

Average number of clinics conducted by each LHD per year (23 counties responding)	6 (range: 2 – 12)
Annual average number of vaccinations administered at clinics by LHDs	946 (range: 272 – 3645)
Annual median number of vaccinations administered at clinics by LHDs	790
Average cost of single rabies vaccination	\$5.36 (range: \$0 – \$10)



Clinic Evaluation, Summer 2011

- Surveys administered to clients at 2 clinics
 - Baltimore County
 - Harford County
- Data collected included
 - Owner demographics
 - Pet characteristics
 - Attitudes towards animal rabies vaccination
 - Motivation for attending the clinic
 - Perception of value of public clinics
- 132 surveys completed

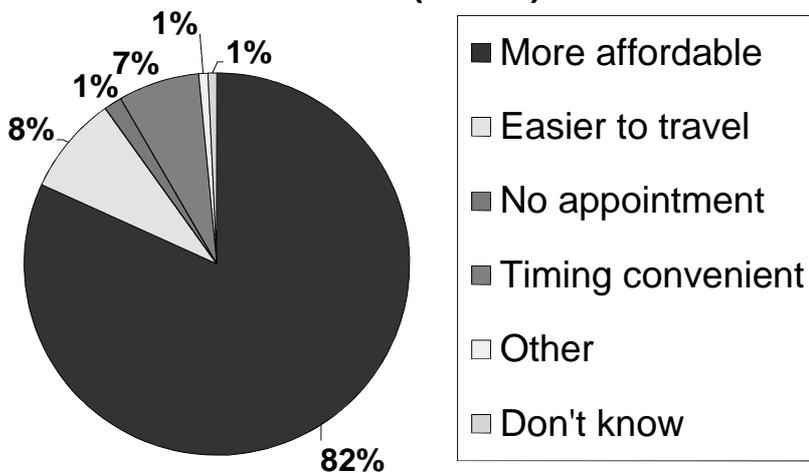


Survey Results

Income (107 respondents)	No. (%)
< \$10,000	9 (8%)
\$10,000 – \$29,999	19 (18%)
\$30,000 – \$59,999	35 (33%)
\$60,000 – \$99,999	29 (27%)
> \$100,000	15 (14%)



Reason for Attending Public Clinic Instead of Taking Pet to Private Vet Clinic (n=132)



Survey Question: If low-cost animal vaccination clinics were no longer available, how likely is it that you would take your pet to a private veterinary clinic to be vaccinated?

Results: In the absence of public clinics, pet owners with annual household income \geq \$30,000 were almost 3x more likely to take their pet to a private veterinarian for rabies vaccination than those with lower income



Key Survey Findings

- Affordability emerged as a key factor in survey respondents' use of public clinics, even among relatively high income clients
- If public clinics were not available, there may be less compliance with rabies vaccination laws, particularly among low-income Maryland residents



Conclusions

- Rabies is an ongoing threat to Maryland residents
- Rabies prevention in humans depends on extensive vaccination of cats and dogs
- Maryland residents, even those who are not low income, are concerned about the cost of rabies vaccination
- **A surcharge on animal rabies vaccines could compromise Maryland's successful rabies prevention and control program**



Resources

- *Compendium of Animal Rabies Prevention and Control, 2011—National Association of State Public Health Vets (NASPHV):*
www.nasphv.org
- DHMH Rabies Page:
<http://ideha.dhmh.maryland.gov/OIDEOR/CZ/VBD/SitePages/rabies.aspx>