A recent analysis by the United States (US) Centers for Disease Control and Prevention (CDC)\(^1\) reinforces the critical need for continued vigilance and preparedness for human encounters with rabies-positive animals. These findings showcase the benefits of past efforts in the US to address rabies borne by domestic and certain wild animals. But, they also highlight new and emerging threats that are proving more difficult to address.

Successful control of rabies among domestic dogs through vaccination programs in the second half of the 20th century may have been so successful that many people have lost sight of the risks that rabies poses to humans.\(^1,2\) The most recent (2016) CDC surveillance provides fresh evidence of why rabies still matters: All but one state in the US (Hawaii) reported rabies in domestic animals or wildlife.\(^1\) While it is true that overall rabies positivity decreased in 2016 from 2015 and that domestic animals continue to account for <10% of all rabies cases, the identity of rabies vectors among wildlife, which account for >90% of all cases, continues to change.\(^1\)

Since the early 1980s, raccoons and skunks have accounted for the majority of rabies cases among wildlife (see figure). Their numbers peaked and then declined following large-scale work by the Wildlife Services division of the Animal and Plant Health Inspection Service (APHIS) within the US Department of Agriculture (USDA). Vaccination of wild raccoons was implemented through the use of bait laden with oral rabies vaccine, which was placed along the eastern coast of the US.\(^1\)
Continued Emergence of Bat Rabies Is Cause for Concern

Bats continue to emerge as the leading rabid species in the US. The 2016 data show a 6.9% rabies positivity rate among tested bats, which represents a statistically significant rise over the 5 prior years. Across the contiguous US, 46 of 48 states reported rabid bats in 2016. Only North Dakota, New Mexico, Alaska, Hawaii, and Puerto Rico did not report a single rabid bat that year.¹

Compounding the broad geographic distribution of rabies among bats in the US, the CDC reports on substantial increases in the number of rabid bats detected in individual states from 2015 to 2016. A total of 12 states in the US experienced substantial increases of 50% to 500% in the number of rabid bats detected.¹ The CDC recommends that any encounter with a bat should be followed up with a thorough medical evaluation for bite or nonbite exposures.² Such exposures are notoriously challenging and may be easily overlooked since bat bites or scratches do not produce the kind of obvious trauma associated with bites from other, larger animals.² For this reason, a person who wakes up from a deep sleep to find a bat in the same room should be evaluated for a potential direct exposure. This is important because that person may not have been aware while asleep of any direct contact with the bat and would likely not be able to evaluate himself or herself for a potential bat bite or scratch injury.²
The increasing prominence of rabies among bats is certainly cause for concern. The CDC notes that vaccination of bats is not currently feasible, so this vector will be more challenging to control than domestic animals, such as dogs and cats, or wild animals, like raccoons. Therefore, prevention of human rabies cases following exposure to rabid bats cannot be achieved at the source but must rely on ongoing education about the health risks, exposure prevention, and postexposure prophylaxis.¹

**Rabies Among Domestic Animals Demands Vigilance Too**

While domestic animals accounted for <10% of rabid animals in the US, the incidence increased slightly from 2015 to 2016. The most current data show that 10 states in the US reported between 11 and 69 cases of rabies among domestic animals, predominantly cats but also cattle, horses, and donkeys, which is cause for concern on its own.¹

**Bottom Line: Rabies Is Still a Threat**

The overall conclusion is that, despite great progress against rabies in dogs and at least 1 wildlife species (raccoons), humans still face the risk of rabies infection, mostly through exposure to wildlife, especially bats, here in the US.

**REFERENCES**