

ZOONOTIC AND VECTOR-BORNE DISEASES

An update on rabies in South Africa

A case of rabies has recently been confirmed in KwaZulu-Natal Province. The 10-year-old boy was reported to have been bitten by a dog in Umbumbulu, southwest of eThekweni, in November 2020. No medical consultation was sought until the child experienced nausea, vomiting, confusion and restlessness and died on 7 January 2021. Rabies virus antigen was detected in a post-mortem brain specimen collected on 12 January.

In 2020, a total of seven cases of human rabies was laboratory-confirmed in South Africa, six of which originated in KwaZulu-Natal (KZN) Province and one in Limpopo (LPP) Province. This compares to 10 laboratory-confirmed human cases in 2019. In addition, three children were identified in 2020 who had dog bites/exposure and died of clinically compatible rabies disease. These cases could not be confirmed in the laboratory and were classified as probable cases in the provinces of KZN (n=1), LPP (n=1) and Eastern Cape (n=1).

There was also a report of suspected rabies encephalitis in a 10-year-old child in KZN based on symptoms (disorientation, confusion, delirium, aggressiveness, anxiety, agitation) and a history of dog bite in December 2020. For this case, post-exposure prophylaxis (PEP) delivery was adequate and SARS-CoV-2 19 infection rather than rabies was confirmed as the cause of encephalitis after laboratory testing. Fortunately, the child survived, whereas rabies is inevitably fatal once symptoms appear.

Disadvantaged communities are disproportionately impacted, with the majority of deaths recorded in children <15 years of age. In order to achieve zero rabies deaths, bite prevention education and awareness of rabies are needed. For the effective delivery of PEP, good public awareness of rabies and access to treatment are critical. Timely prophylaxis, including wound cleaning, vaccines and occasionally rabies immunoglobulin, are required for people exposed to rabies. In South Africa’s public health care facilities, human rabies vaccines and immunoglobulin are provided free of charge. A thorough risk assessment and adequate delivery according to the WHO and national guidelines will minimize the overuse or misuse of PEP, and guarantee the availability of PEP for individuals requiring rabies post-exposure prophylaxis. As infections are acquired in most cases from dog bites, the importance of dog vaccination awareness and increased vaccination rates is essential to minimize human exposure. In addition to dogs, any bites or scratches from cats, cattle or wild animals such as yellow mongoose, black-backed jackal, bat-eared fox and caracal must all be considered as possible exposure to the rabies virus. While rare, cases of bat-related rabies have been documented in South Africa. Figure 1 shows human rabies incidence in South Africa, 2000-2020.

Please visit the NICD website for more information on rabies and disease prevention: <https://www.nicd.ac.za/diseases-a-z-index/rabies/>.

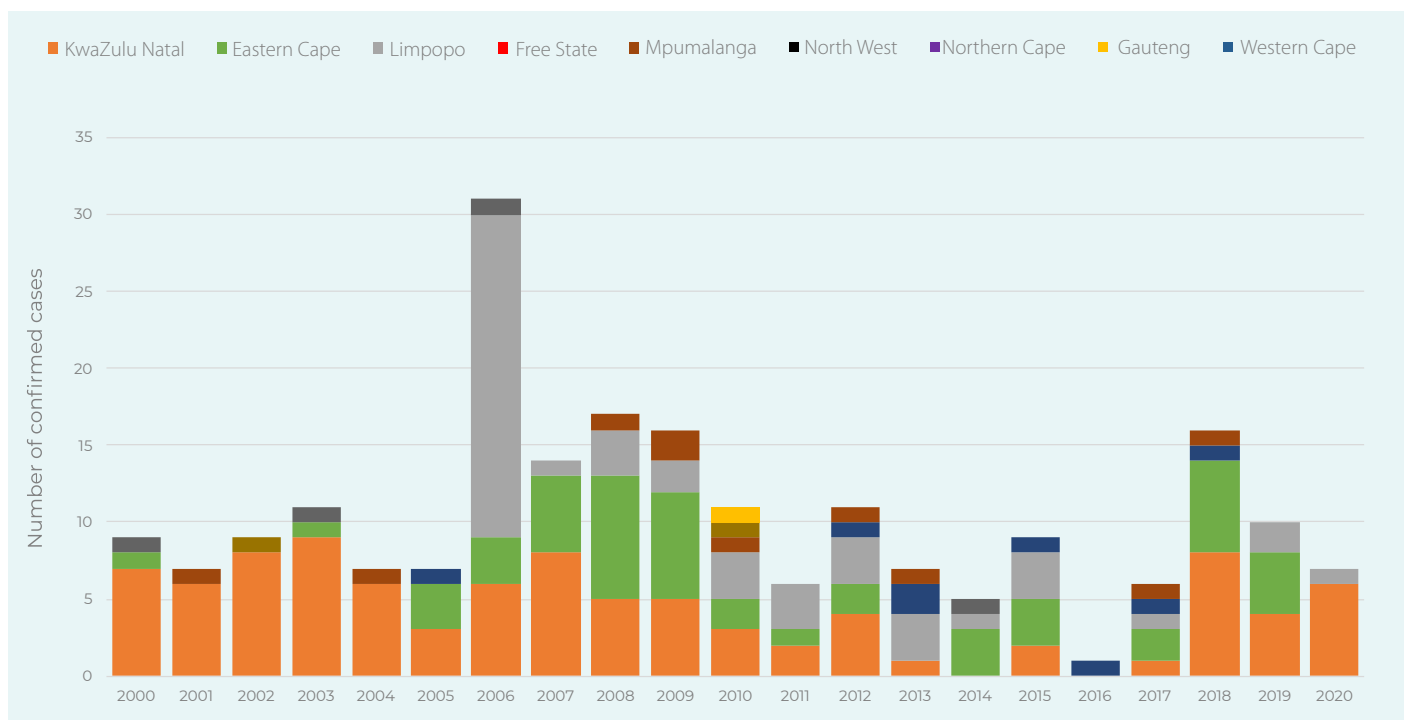


Figure 1. Laboratory-confirmed cases of human rabies in South Africa, 2000 - 2020.

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; januszp@nicd.ac.za