

ZOONOTIC AND VECTOR-BORNE DISEASES**Brucellosis in KwaZulu-Natal Province and its clinical overlap with malaria and COVID-19**

The Department of Agriculture, Land Reform and Rural Development issued a media statement on 18 November about animal brucellosis in northern KwaZulu-Natal Province (KZN) ([https://www.dalrrd.gov.za/docs/media/Media%20statement_Brucellosis_18112020_draft%20AC%20\(1\)%20\(003\)-Dr%20R-clean-FINAL.pdf](https://www.dalrrd.gov.za/docs/media/Media%20statement_Brucellosis_18112020_draft%20AC%20(1)%20(003)-Dr%20R-clean-FINAL.pdf)). While this highlights a long-standing problem with this livestock disease in KZN and other areas of South Africa, it also brings attention to the fact that brucellosis is an important zoonotic condition in this country. In South Africa, brucellosis is subject to state veterinary surveillance and control, and is a notifiable medical condition in humans. The predominant clinical manifestation in animals is abortion. Transmission from animals to humans is mainly through consumption of unpasteurised milk. Occupational exposure typically occurs in farm, abattoir, veterinary and laboratory situations. Bovine brucellosis (caused by *B. abortus*) occurs across all nine provinces, but most infected cattle herds occur in the central and

Highveld regions. Clinically, human brucellosis is highly variable in presentation (see <https://www.nicd.ac.za/diseases-a-z-index/brucellosis/>). In the geographic context of northern KZN, where there is low-level malaria transmission in rural cattle-owning communities, both malaria and brucellosis could present initially as a non-specific febrile illness; but if the diagnosis of malaria is missed, severe and potentially fatal illness can rapidly develop. Likewise, the current national focus on COVID-19 could also lead to malaria infections being overlooked, as symptoms and signs can be similar (especially in early malaria, but also in more advanced cases with lung and other organ involvement). We take this opportunity to remind readers that as the malaria season unfolds, increasing numbers of malaria cases can be expected in both endemic (Limpopo, Mpumalanga, and KZN) and non-endemic provinces, particularly Gauteng (see <https://www.nicd.ac.za/as-the-malaria-season-begins-in-southern-africa-covid-19-complicates-the-picture/>).

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