breaks and respond to natural disasters and humanitarian emergencies. South Africa was a beneficiary of GOARN when experts were deployed, at the request of the National Department of Health, to assist with the listeriosis outbreak.

The NICD has a strong partnership with GOARN. NICD staff were deployed to West Africa in response to the 2014-2015 Ebola outbreak. Drs Villyen Motaze (Centre for Vaccines and Immunology, CVI) and Nicole Wolter (Centre for Respiratory Diseases and Meningitis, CRDM) were selected to undergo GOARN training for response to outbreaks early this year. Dr Motaze was deployed in June 2018 for six weeks to assist with the ongoing Ebola outbreak in the Democratic Republic of Congo.

The NICD participates in the weekly GOARN operational conference call where all participating countries present updates on ongoing global emergencies or outbreaks.

Supporting and strengthening such networks is key to rapid, coordinated and well-resourced outbreak responses.

Source: Division of Public Health Surveillance and Response, NICD-NHLS; outbreak@nicd.ac.za

8 FREQUENTLY-ASKED QUESTIONS TO THE NICD 24-HOUR HOTLINE

a How do I request testing for CCHF at the NICD?

Crimean-Congo haemorrhagic fever (CCHF) is an endemic, tick-borne cause of haemorrhagic fever in South Africa. Most cases of CCHF in South Africa is reported from the Northern Cape, Free State and North West provinces. Cases have however been reported from all the other provinces. In South Africa, most cases of CCHF reported tick bites (*Hyalomma* spp., specifically 'bontpoot' ticks) 1-3 days before developing illness. Cases mostly involve farmers, farm workers and people living in rural communities, and others who undertake activities (for example camping or hiking) that may predispose them to tick exposures. CCHF virus may also be transmitted through contact with infected blood, tissues and in the nosocomial setting, but this is rarely reported.

When a case of CCHF is suspected, the attending clinician should consult with the NICD doctor-on-call by phoning 082 883 9920. If CCHF is suspected, the case must be notified using the Notifiable Medical Conditions (NMC) application (or alternative measures) available on the NICD website (www.nicd.ac.za) within 24 hours. Laboratory investigation will be directed by the doctor-on-call based on the clinical history of the patient and may include molecular testing, serological testing and virus isolation.

Blood (1-2 tubes of serum or clotted blood, and whole blood) should be submitted with a completed case investigation form. Transport of samples should be in accordance with national and international guidelines for the transport of dangerous biological goods. Case investigation forms and instructions for the submission of samples for viral haemorrhagic fever (VHF) investigation are available from the NICD website (http://www.nicd.ac.za/index.php/crimean-congo-haemorrhagic-fever-cchf/). The guidelines for management of cases of VHF in South Africa are also available from this webpage.

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

9 BEYOND OUR BORDERS

The 'Beyond our Borders' column focuses on selected and current international diseases that may affect South Africans travelling abroad. Numbers correspond to Figure 6 on page 14.

1. Anthrax: Namibia
Thirteen human anthrax cases were recorded at Sesfontein in the Kunene Region after 35 residents consumed the meat of livestock which died of unknown disease. No deaths have been reported, and the disease has since been contained. A total of 92 small stock died from the outbreak in Sesfontein, while 23 buffalo died in the Bwabwata National Park. Post-exposure prophylactic medicines have been administered to 44 people in the areas of Omiriu and Okamba yOzongombo in Kunene. Symptoms and signs in humans include swollen and painful lymph glands, vomiting, abdominal pain, headaches, loss of appetite, fever, and sore throat.

2. Yellow fever: Ethiopia
An outbreak of yellow fever has been confirmed in the Wolaita Zone of the Southern Nations, Nationalities, and Peoples' (SNNP) Region of Ethiopia. Since the index case in late August 2018, 35 suspected yellow fever cases have been reported. The International Coordinating Group (ICG) has approved 1.45 million doses of yellow fever vaccine from the global emergency vaccine stockpile for a mass reactive vaccination campaign, targeting 1.34 million people in nine districts of two

zones (Gamo Gofa and Wolaita). On-going population and livestock movements due to conflicts in the region constitute a risk for continued spread.

3. Poliomyelitis: Pakistan

Four new cases of poliovirus were reported on Tuesday 6 November 2018 in Mastung, Balochistan province, despite the employment of several measures to counter the disease, bringing the total number of polio cases in the country to 10 this year. All cases were among children aged between 5 and 8 years. A National Task Force on Polio Eradication meeting was held on Friday 9 November 2018 in the federal capital with the aim of making key high level decisions regarding elimination strategies.

4. Meningococcal meningitis: New Zealand

There has been a significant increase in *Neisseria meningitidis* serogroup W (MenW) in New-Zealand since mid-2017. Between 1 January 2017 and 31 December 2017, there were 12 cases of MenW reported, including three deaths. This number has doubled to date for 2018, with 24 cases reported as of 5 November 2018, including six deaths. Prior to 2017, 0 to 6 MenW cases were reported each year. The Northland region has been the most affected in 2018, with seven of 24 cases reported in this region, including four cases in September and October 2018. This particular strain of MenW (sequence type ST11) affects all age groups and is associated with a high case-fatality rate.

5. Dengue fever: Angola

According to press sources, Angola's Ministry of Health reported more than 1 300 cases of dengue fever (a significant increase over average incidence) from January through mid-October 2018, mainly in Luanda Province (>95% of cases). Several cases have been reported in travellers returning from Angola since May 2018. Current incidence is unknown because local surveillance, diagnostics, and reporting by health authorities are limited in this country. The last large outbreak of dengue fever occurred in 2013 in Luanda Province. Travellers should observe daytime insect precautions, such as using insect repellents on exposed skin and long-sleeved clothing when outdoors.

Source: Promed (www.promed.org) and the World Health Organization (www.who.int)

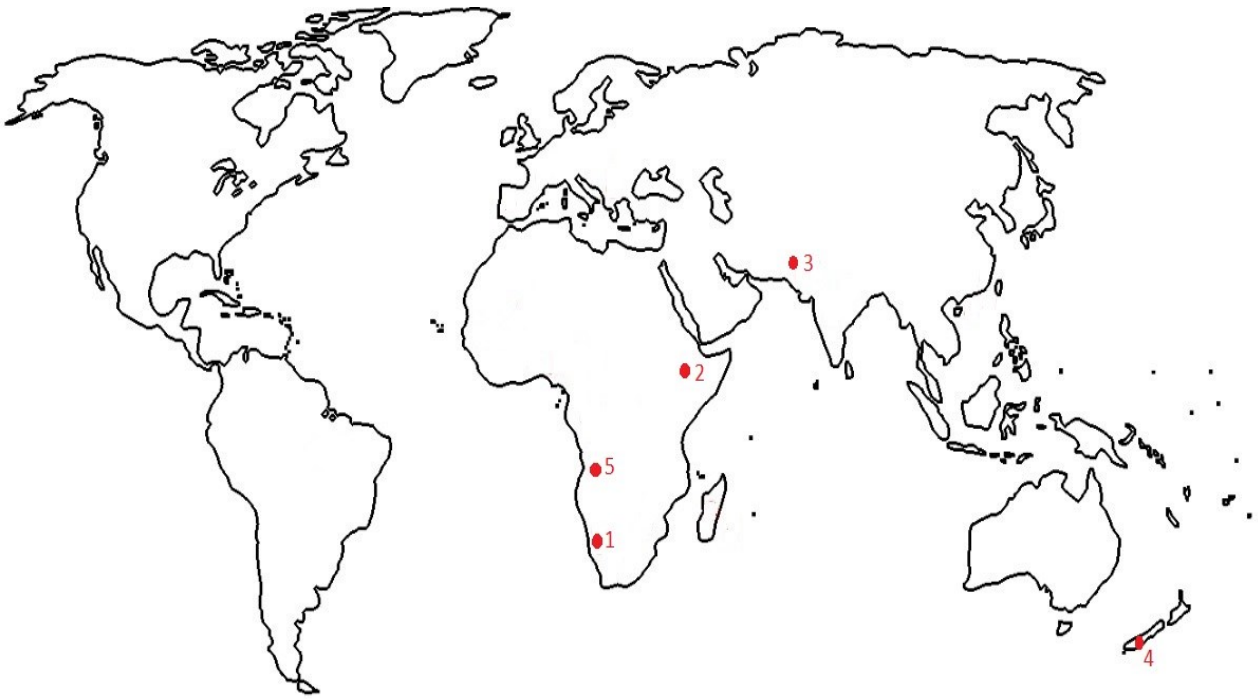

Figure 6. Current outbreaks that may have implications for travellers. Numbers correspond to text above. The red dot is the approximate location of the outbreak or event.