

## 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 4 on page 9.

### Crimean-Congo haemorrhagic fever (CCHF): Iran and Senegal

Up to 23 August 2020, Crimean-Congo haemorrhagic fever (CCHF) has claimed five lives in Iran since 21 March 2020. Over the past five months, 38 people have been diagnosed with the disease; all have recovered. In the previous reporting period, 21 March 2019 to 20 March 2020, a total of 119 people was diagnosed with CCHF in the country from, of whom 11 died.

On the basis of various studies conducted in Iran since 1972, virus circulation has been demonstrated in different regions of country. The first human clinical cases were confirmed in 1999 in western Iran after a nosocomial infection. Since then, a surveillance system has been put in place with cases reported from almost all provinces in the country.

Disease outbreaks in humans continue to be a threat because livestock hosts, tick vectors, and the virus are found nationwide. Because of common borders with disease-endemic countries and the high frequency of travel and livestock transport, control of the disease

in border areas should be more thorough, and border quarantines should be improved along with strengthened animal and human surveillance.

Meanwhile in Senegal, on 12 August 2020, health officials reported a CCHF case. The case was detected as part of the epidemiological surveillance system in the country. Previous sero-prevalence studies have highlighted that CCHF is focally endemic throughout Senegal and neighbouring countries.

To prevent outbreaks of CCHF, public awareness campaigns aimed at the populations most at risk, namely livestock farmers, butchers, and health personnel, must be conducted, and the epidemiologic alert systems need to be strengthened. In addition, conditions that enhance maintenance of the virus in nature and its transmission to humans need to be better understood so adequate control measures can be developed.

### West Nile virus (WNV): Spain

Since the beginning of the 2020 transmission season (June to November) and as of 20 August 2020, European Union (EU) Member States have reported 66 human cases of West Nile virus (WNV) infection, and six deaths through The European Surveillance System (TESSy): Greece (n=39, including six deaths), Italy (n=19), Spain (n=6), and Romania (n=2). One case was reported from the province of Verbano-Cusio-Ossola, Italy, which had not been affected in previous transmission seasons. All other cases were reported from areas that have been affected during previous transmission seasons. No cases have been reported from EU neighbouring countries.

Spain is currently experiencing an outbreak of WNV infection in its Andalusia region. A total of 38 people has so far been infected during the biggest West Nile outbreak ever detected in Andalusia. This has affected the areas of Coria del Rio and La Puebla del Rio, both located

on the banks of the Guadalquivir River. Of the 38 infected people, 23 people have been hospitalised, with seven of the patients in intensive care, according to the regional health department. The average age of those infected in the outbreak is 60 years, and 71% are men.

The virus is spread by mosquitoes, which are common in the area, given the proximity to the river. The insect numbers have grown by 30% in 2020 compared to 2019 due to the intense rainfall registered in spring, according to data from the Donana Biological Station.

In response to the outbreak, the Andalusian health department last week recommended that the 42 000 residents of the areas in question take measures to avoid mosquitoes, such as the use of repellents and nets, and activated a special protocol, which includes fumigations.

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## Enterohaemorrhagic *Escherichia coli* (EHEC): England

Public Health England (PHE) is investigating a spike in reports of enterohaemorrhagic *Escherichia coli* (EHEC) infections in August 2020. Potential sources of the increase in EHEC cases are not yet clear as of 23 August 2020, but recent warm weather may have played a role.

In the latest available data for the week ending 16 August 2020, there were 27 EHEC notifications. The past four weeks had seen 11, 13, six and seven cases, respectively. Based on 2019 statistics, for the week ending 18 August 2019, there were 13 EHEC notifications.

Some services at the Gastrointestinal Bacteria Reference Unit (GBRU), which is part of PHE, have been suspended due to the coronavirus pandemic. However, detection of EHEC from stool specimens and isolates using PCR and confirmation of identity and typing of *Salmonella*, *Shigella*, EHEC and *Listeria* using whole genome sequencing are continuing.

## Scrub typhus: West Bengal, India

On 21 August 2020, as many as seven people, including children, from various parts of Murshidabad, West Bengal, India, had been affected by scrub typhus in the prior 48 hours. In total, around nine people from the districts have so far been admitted to the Murshidabad Medical College and Hospital, out of which five are children. This has become a concern for the health department.

The state health department has directed the district health officials to be alert and vigilant. They have directed the hospital to be on alert if fever continues for a period of five days in a patient.

Scrub typhus, also known as bush typhus, is a disease caused by the bacterium *Orientia tsutsugamushi*, and it commonly occurs in rural areas. The disease is spread among people through the bites of infected chiggers (larval mites). The most common symptoms of scrub typhus include fever, headache, body aches and sometimes rash. Scrub typhus can be treated with antibiotics, if it is detected early. So, early detection is of the utmost importance. Globally, most cases of scrub typhus have so far been reported in rural areas of Southeast Asia, Indonesia, China, Japan, India and Northern Australia.



**Figure 4.** Current outbreaks/events that may have implications for travellers. Numbers correspond to text above. The red dot is the approximate location of the outbreak or event.