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 5 on page 10.

1. Hepatitis E: Namibia

There is an ongoing outbreak of hepatitis E in Namibia. According to the latest report issued in December 2019, majority of the cases are males, with 4 167 men testing positive, compared with 2 896 women. The least affected are children under one year, representing 0.11%. The report also shows that most of those affected are between the ages of 20 and 39.

Cumulatively, up to 29 December 2019, a total of 7 063 hepatitis E virus cases was reported since the outbreak began in December 2017. This includes 1 731 laboratory confirmed, 4 345 epi-linked, and 987 suspected cases. A total of 59 deaths has been reported nationally, and among those are 24 maternal deaths. The virus cases have been reported mainly from informal settlements such as Havana and Goreangab in Windhoek, Democratic Resettlement Community in Swakopmund, Kanaan C in Gobabis, Omaheke Region, and similar settings in other regions where access to potable water, sanitation and hygiene is a serious challenge.

The latest official report on the outbreak indicated that during the period of 16-29 December 2019, a total of 82 hepatitis E virus cases was reported countrywide, compared to 63 cases reported during 2-15 December 2019. Omaheke regional health director Jeremiah Shikulo said regional and district health emergency committees have been activated and are in full operation leading and coordinating the outbreak response process with other line ministries. The Ministry of Agriculture, Water and Forestry has provided four water tanks to the community of Kanaan C, which the Gobabis municipality are refilling on a regular basis. Water purification tablets are also being distributed to households on a daily basis by community health workers. The municipality has likewise given Kanaan C informal residents permission to build their own affordable temporary toilets.

Among other attempts to combat hepatitis E in the region, campaigns on how to properly clean water containers, screening pregnant women for the virus, and health education through community health workers have been conducted at Kanaan C.

2. MERS: Saudi Arabia

The first Middle East respiratory syndrome coronavirus (MERS-CoV) case in Saudi Arabia was reported in September 2012. From 2012 till 31 January 2020, a total of 2 519 laboratory-confirmed cases of Middle East respiratory syndrome (MERS), including 866 associated deaths (case-fatality rate: 34.3%) were reported globally to the WHO. The majority of these cases were reported from Saudi Arabia (2 121 cases), including 788 related deaths with a case-fatality rate of 37.1%.
A total of 15 new laboratory-confirmed cases of MERS were reported from Saudi Arabia in January 2020, including five deaths. Cases were reported from the regions of Asir (6), Riyadh (5), Al Qasim (2), Al Madinah (1) and Al Jawf (1).

Sporadic cases of MERS continue to occur in Saudi Arabia. A hospital outbreak was reported in Asir Region with a cluster of six cases. Three of the cases were health care workers, two were patients (one of whom died) and one was a visitor. The source of infection of the first case reported in the cluster is currently unknown and under investigation. Investigation of household and hospital contacts revealed no further secondary cases.
Upon identification of these above-mentioned cases, an incident report, case investigation, and contact tracing were initiated. The investigation included screening of all close contacts, including occupational contacts, household contacts, and healthcare workers at the healthcare facilities. All of them have been monitored on a daily basis for the appearance of respiratory or gastrointestinal symptoms for 14 days after the last exposure to the confirmed cases. The veterinary authorities have been notified, and investigation in animals is ongoing.
Early identification, case management and isolation, together with appropriate infection prevention and control measures can prevent human-to-human transmission of MERS-CoV.

3. Measles: Ethiopia and Democratic Republic of Congo (DRC)

More than 12 000 cases of measles were reported in 36 zones of five regions of Ethiopia in the past 13 months beginning January 2019, according to the United Nations (UN). The continued measles outbreaks were most likely a result of low routine vaccination coverage: 69% of the cases reported not having received a single dose of measles vaccine before the infection, while 12% could not recall encountering such a service.

According to the UN, only 20% of the cases were sure of receiving either one or two doses of measles vaccine. Of the 20% who were sure of receiving either one or two doses of measles vaccine, 53% were children under the age of five, 25% were aged between 5 and 14 years, and 21% were between the age of 15 and 45 years; meaning there are multiple age cohorts without herd immunity.

While in the DRC, Medecins Sans Frontieres (MSF) warns of world's worst measles outbreak. More than 6 000 people have died over the past year alone, with about 75% of the fatalities being children. Over 310 000 people have been infected. The outbreak has affected all 26 provinces of the volatile country that is experiencing a myriad of illnesses. The outbreak of measles has turned into the biggest measles outbreak of the past 10 years in DRC and the biggest worldwide.
Measles, which spreads easily through coughs and sneezes, is highly contagious and affects mainly children. In DRC, it comes at a time the country is also experiencing an outbreak of Ebola that has killed over 2 000 people since August 2018.

4. Circulating Vaccine-Derived Poliovirus: Nigeria, DRC, Ethiopia and Philippines

Oral polio vaccine (OPV) contains an attenuated (weakened) vaccine-virus, activating an immune response in the body. When a child is immunised with OPV, the weakened vaccine-virus replicates in the intestine for a limited period, thereby developing immunity by building up antibodies. During this time, the vaccine-virus is also excreted. In areas of inadequate sanitation, this excreted vaccine-virus can spread in the immediate community (and this can offer protection to other children through 'passive' immunisation), before eventually dying out.

On rare occasions, if a population is seriously under-immunised, an excreted vaccine-virus can continue to circulate for an extended period of time. The longer it is allowed to survive, the more genetic changes it undergoes. In very rare instances, the vaccine-virus can genetically change into a form that can cause paralytic disease – this is what is known as a circulating vaccine-derived poliovirus (cVDPV). If a population is fully immunised, they will be protected against both vaccine-derived and wild polioviruses.

During the week of 16 February 2020, 14 cases of cVDPV, from five countries (Nigeria, Democratic Republic of Congo, Angola, Ethiopia and the Philippines) were confirmed. An additional three countries had positive environmental samples (Pakistan, Cote d'Ivoire and Somalia). In Nigeria, one case of circulating vaccine-derived poliovirus type 2 (cVDPV2) was reported from Anambra Province, making it the first case in 2020. There were 18 cVDPV2 cases reported in 2019 in Nigeria. In the DRC, two cases of cVDPV2 were reported, one each from Kwilu and Sankuru provinces. Seven cVDPV2 cases were reported in Ethiopia: four from Oromiya Province and three from the Southern Nations Nationalities and Peoples' Regional State (SNNPR). There are 12 cVDPV2 cases reported in Ethiopia so far; four cases linked to the outbreak in neighbouring Somalia and eight cases part of three different outbreaks in Ethiopia. Whilst in the Philippines, one cVDPV2 case was reported this week from Central Luzon Province.

Polio eradication remains a top priority for WHO and the global polio partnership.

Figure 5. 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.

Article source: Promed (www.promed.org), World Health Organization (www.who.int)