

b A suspected foodborne disease outbreak in children attending a multi-branch preschool in Gauteng Province, 2018

On 6 November 2018, a multi-branch preschool notified the NICD of a suspected foodborne disease outbreak at all 10 of its branches in Gauteng Province. A cross-sectional study was carried out across five of the 10 branches. Twenty-one questionnaires were administered to staff and nine clinical specimens were collected. One caterer supplies all the preschools with meals which are served to children and employees. Food retention samples for the 29th and 30th of October, and three rectal swabs from the caterer's food handlers were tested. A total of 243 children and 36 staff members across the ten branches presented with diarrhoea from 17 October to 7 November 2018 (Figure 1). Food retention samples were negative for *Salmonella* spp., *Staphylococcus aureus* and *Listeria monocytogenes*. Of the nine clinical specimens collected, seven were positive for astrovirus; these seven cases were from three different preschools. Astrovirus is transmitted by the faeco-oral route. Whilst less common than other enteric viruses (e.g. norovirus, rotavirus), astrovirus does cause sporadic disease and outbreaks. By finding the virus in clinical specimens

from three branches, it is likely to have been the causal pathogen. The outbreak most likely stemmed from common food supplied by the caterer to all the preschools. No pathogens were identified from specimens taken from the caterer's food handlers. However, food-handler specimens were received for testing a month after the outbreak started and astrovirus is typically shed for approximately three weeks. Only two food items from the composite meals served on 29 and 30 October 2018 were available for testing. It would have been appropriate to test all the food items prepared and served on those days. To prevent future outbreaks, staff involved in food preparation should pay special attention to hand hygiene in addition to routine food safety practices.

Source: Division of Public Health Surveillance and Response - Provincial Epidemiology Team, Outbreak Response Unit; Centre for Enteric Diseases, NICD-NHLS; Gauteng Provincial and District health departments (outbreak@nicd.ac.za)

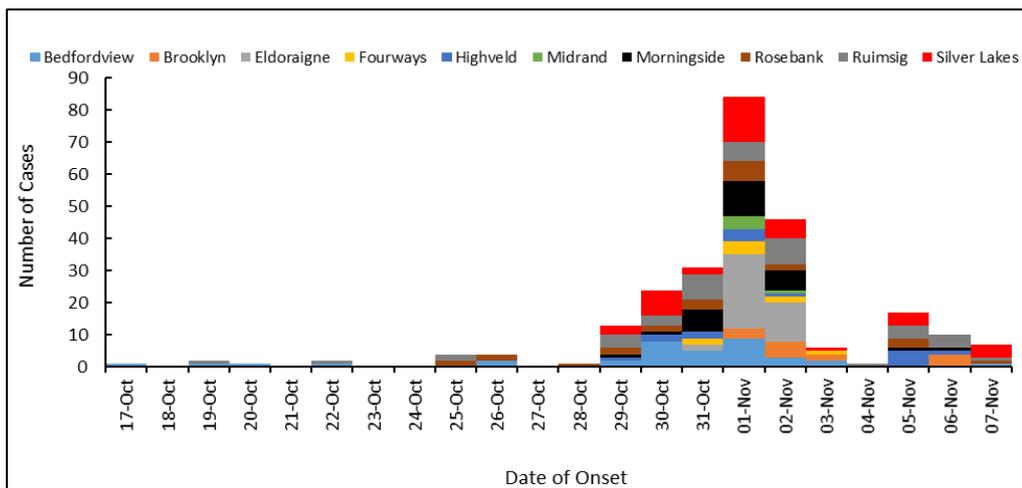


Figure 1. Epidemic curve showing number of diarrhoeal cases at the preschools, stratified by branch, Gauteng Province, October and November 2018

4 INTERNATIONAL OUTBREAKS OF IMPORTANCE

a Ebola virus disease outbreak, Democratic Republic of Congo (DRC)

The Ministry of Health (MoH) of the Democratic Republic of the Congo (DRC), declared a new outbreak of Ebola virus disease (EVD) on 1 August 2018. As of 10 December 2018, a total of 494 confirmed and probable EVD cases, including 283 deaths (case fatality rate 57.29%) has been reported. Of the 494 cases, 446 are confirmed and 48 are probable cases. Of the 283 deaths, 235 occurred in confirmed cases. These cases have been reported in 11 health zones in North Kivu Province and three health zones in Ituri Province. As of 3 December 2018, 144 confirmed cases have recovered and been discharged from Ebola Treatment Centres (ETCs). As of 4 December, a total of 44 healthcare workers has been infected, of which 41 are nurses and three are doctors. This highlights the public and private health centres as a

major source of amplification of the outbreak due to inadequate infection prevention and control (IPC) practices. Concerns have been raised regarding the disproportionate number of women and children infected during this outbreak.

Public health response

The MoH of the DRC is receiving support from WHO and partners in rapidly initiating response mechanisms in the affected areas. Priorities include the strengthening of surveillance, contact tracing, laboratory capacity, IPC, clinical management, vaccination, risk communication and community engagement, safe and dignified burials, response coordination, cross-border surveillance, and preparedness activities in neighbouring provinces and countries. Infection prevention and control

practices in health care facilities, especially antenatal clinics need to be further strengthened. Stringent hand hygiene is essential. Contact tracing activities continue in 10 affected health zones with over 24 000 contacts registered to date. The daily follow-up rates among listed contacts ranged from 90–95% over the past week. As of 2 December 2018, over 18 million travellers have been screened, 127 alerts notified, and 40 alerts validated of which two have been confirmed. As of 3 December 2018, the cumulative number of people vaccinated is 39 845.

WHO risk assessment

This outbreak of EVD is affecting north-eastern provinces of the Democratic Republic of the Congo, which border Uganda, Rwanda and South Sudan. Potential risk factors for transmission of EVD at the national and regional levels include the transportation links between the affected areas, the rest of the country, and neighbouring countries including the displacement of Congolese refugees

to neighbouring countries. Additionally, the security situation in North Kivu and Ituri may hinder the implementation of response activities. Based on this context, on 28 September 2018, the public health risk assessment was revised from high to be very high at the national and regional levels, and low globally. WHO continues to advise against any restriction of travel to, and trade with, the Democratic Republic of the Congo based on currently available information.

Situation in South Africa

As at 18 December 2018, there have been no EVD cases in South Africa associated with the current outbreak in the DRC. In addition, there are no suspected cases of EVD in South Africa at present.

Source: Division of Public Health Surveillance and Response, NICD-NHLS (outbreak@nicd.ac.za); WHO: www.who.int

4 SEASONAL DISEASES

a Malaria prevention guidelines updated—2018

Last month's NICD Communicable Diseases Communiqué (November 2018, Vol. 17 (11): 10–11) carried an alert about the expected seasonal increase in malaria and the new malaria risk map for South Africa ([Risk map](#)). The 2017 South African Guidelines for the Prevention of Malaria have been updated and are also available on the NICD website, www.nicd.ac.za.

Addendum to the South African Guidelines for the Prevention of Malaria, updated 2018

Although mefloquine is given as an option for chemoprophylaxis, there are currently no mefloquine-containing products available in South Africa – Lariam® has been discontinued in this country and Cipla have manufacturing issues regarding Mefliam® that will take a while to be resolved. This means that there is currently no product that can be used for pregnant travellers or children weighing less than 11 kg. As these are also the travellers at highest risk of complicated malaria, they should be strongly advised not to go to malaria risk areas. If

they have no option but to go, they should use all methods available to prevent getting bitten by mosquitoes, and should seek immediate medical attention should they have any signs of illness.

There have been some important changes to the guidelines, namely:

- Both doxycycline and atovaquone-proguanil are now Schedule 2 and are available from pharmacies without a prescription.
- The South African Malaria Risk Map has been updated, and some areas that were previously low risk areas are now classified as moderate risk. The changes have been made based on notifications of confirmed cases of locally-acquired malaria infections over the past five malaria seasons (2014–2018). See page 40 of the guidelines.

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

b Enterovirus meningitis outbreak in Khayelitsha Sub-district, Western

On 27 November 2018, clinicians at a hospital in Cape Town, Khayelitsha Sub-district, Western Cape Province, alerted the Western Cape Department of Health (WCDoH) to an increase in cases of confirmed enteroviral meningitis. From 1 September to 5 December 2018, a total of 38 (13 females) children <12 years was diagnosed with PCR-confirmed enteroviral meningitis (Figure 2).

The median age at presentation was 5.5 years (IQR (2.59 – 8.03 years). Twelve (32%) children were <5 years, and of these, six were <1 year of age. The majority of children presented with fever and

vomiting, while older children complained of headache. Clinical features of meningitis were present in the majority of children, including irritability, neck stiffness or photophobia. One child had a seizure and one had a rash.

Examination of the cerebrospinal fluid (CSF) revealed a median total white cell count of 51 cells/ml (IQR 27–104 cells/ml). The median percentage of polymorphonuclear neutrophils (PMN) were 71% and the majority of children had fewer lymphocytes than PMN.