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# COMMUNICABLE **DISEASES** COMMUNIQUÉ



# NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES

Division of the National Health Laboratory Service

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# EDITORIAL

## Editors' note – Dr Vanessa Quan and Dr Kimantha Moodley

As we approach the Easter holidays, many people will be looking forward to their first break of the year. During this period, we can expect both local and international travel to increase, and with this comes the increased risk of transmission of infectious diseases. In this month's issue, we once again draw focus to the importance of early recognition and treatment of malaria and cholera.

Malaria cases generally peak after the Easter holidays. Clinicians should maintain a high index of suspicion for malaria in patients who present with persistent fever or 'flu-like illness, particularly in the context of travel. Bear in mind that odyssean malaria, where no travel history is reported, is also a possibility. These patients with a fever or a recent history of fever must be tested for malaria, either by rapid diagnostic test or by microscopy, and early treatment initiated.

Cholera cases continue to increase in Africa, particularly in the Southern African Region. South Africa is at high risk of further importation of cases, following the 10 already-confirmed cases in Gauteng Province. Please be on the alert for cholera in patients presenting with acute-onset of watery diarrhoea. More rapid alerts will be published separately (and more frequently) than in this Communiqué. Read the Beyond our Borders section for updates on other diseases that may affect travellers outside of South Africa.

As the weather changes so we see an uptick in respiratory syncytial virus (RSV); clinicians are urged to consider RSV, especially in young children with severe respiratory illness. Pertussis numbers, having peaked in the latter part of 2022 and early 2023, may be on the decrease according to our NMC alerts and sentinel site surveillance.

The measles outbreak in South Africa is still ongoing. All provinces (except the Eastern Cape) have declared measles outbreaks; children under the age of 15 years are most affected and vaccination campaigns continue in children aged 6 months to 14 years. EPI vaccinations are available at clinics for measles, pertussis, polio and others. Clinicians, please check that childhood vaccines are up to date and reiterate to parents the importance of childhood vaccines in preventing illness and outbreaks.

Sadly, we report on two human cases of rabies; both in children who did not receive rabies post-exposure prophylaxis. Rabies is considered a neglected tropical disease and is 100% fatal, but preventable with the appropriate administration of prophylaxis.

As autumn approaches, so we start the preparation of closing down the NICD Communiqué in this format, as it will be amalgamated into the Public Health Bulletin of South Africa (PHBSA) in winter. Professor John Freaan writes the first part (of three) about the NICD Communiqué's inception and the last twenty years.

On behalf of the Communiqué editorial team, we wish you a blessed Easter.



# REFLECTION

Professor John Frean

The National Institute for Communicable Diseases (NICD) came into being in January 2002 following on the restructuring of the public sector medical laboratory services of South Africa and the creation of the National Health Laboratory Service (NHLS) from the previous South African Institute for Medical Research (SAIMR) together with various governmental and provincial laboratories. The former National Institute for Virology (NIV) was supplemented by the addition of microbiology, parasitology and entomology reference laboratories from the former SAIMR to create a comprehensive public health communicable diseases institution.

The NICD was established to function as a public health-oriented, laboratory-based, national facility, distinct from existing microbiology/virology laboratories attached to academic centres throughout the country. NICD's primary public health-oriented functions are reflected in the service commitments, surveillance programmes, research directions and teaching and training carried out by the Institute. Additionally, certain highly specialised diagnostic services, not readily available elsewhere in the country, are offered by the reference laboratories of the seven Centres of the NICD; the NICD also houses the National Medical Conditions notification system in its Division for Public Health Surveillance and Outbreak Response.

One of the main objectives of a public health-oriented communicable diseases surveillance entity is to provide accurate and up-to-date information for health services and healthcare providers, in both public and private sectors. To this end, soon after the NICD was established, publication of a monthly Communiqué for current communicable disease information began, supplanting the former NIV's purely virological newsletter. The first issue of the NICD Communicable Diseases Communiqué appeared in October 2002. Short reports showing data, often preliminary, were provided by the

specialised centres; the first issue carried items about HIV/AIDS, sexually transmitted diseases, and respiratory and meningeal infection surveillance. The Special Pathogens Unit reported cases of human rabies, Crimean-Congo haemorrhagic fever, and imported cases of West Nile and dengue infections. On the malaria vector front, the finding in northern KwaZulu-Natal Province of a DDT-resistant strain of *Anopheles arabiensis*, a major transmitter of malaria in the region, was alarming news for the national malaria control programme. At this time, there was an ongoing cholera epidemic in that province, as well as a *Shigella flexneri* outbreak in George, in the Western Cape Province. Salmonellosis, influenza, and poliovirus surveillance reports complete the issue.

Publication of the monthly Communiqué has since continued, although its format, appearance and methods of distribution have been updated from time to time, particularly via utilisation of the internet. Twenty years on, the October 2022 issue (Vol. 21 No. 10) carried a malaria alert and items on healthcare-associated infections, Crimean-Congo haemorrhagic fever, rabies, Ebola disease in Uganda, mpox, pertussis, COVID-19, influenza, measles, and polio, and a column on current regional and international disease outbreaks that could affect travellers outside South Africa. While time has moved on since publication of the Communiqué started, communicable diseases continue to be major public health concerns in the country, the region, the continent, and beyond, and conveying important information about them remains a function of the NICD that will be sustained, albeit in a somewhat different format. As the French writer Jean-Baptiste Alphonse Karr wrote in 1849, 'plus ça change, plus c'est la même chose': the more things change, the more they stay the same.

John Frean, Centre for Emerging Zoonotic and Parasitic Diseases, NICD.

# QUICK UPDATES

## Measles, South Africa

The ongoing measles outbreak which began in October 2022, has resulted in a cumulative total of 844 laboratory-confirmed cases (as of 18 March 2023). All provinces, apart from Eastern Cape Province, have declared measles outbreaks. In the provinces that have declared outbreaks, the most affected age groups are as follows: 5-9 year olds (43%), 1-4 year olds (24%) and 10-14 year olds (19%).

For update case numbers and more information on the outbreak, please visit the NICD alerts page (<https://www.nicd.ac.za/media/alerts/>).

Source: <https://www.nicd.ac.za/south-african-measles-outbreak-update-2023-24-march/>

## Cholera, South Africa

Gauteng Province declared a cholera outbreak on 05 February 2023, following confirmation of two imported cases from Malawi. As of 29 March 2023, the province has recorded a total of 10 laboratory-confirmed cases and one death. Isolates from eight of the confirmed cases were identified as toxigenic *Vibrio cholerae* O1 serotype Ogawa.

For update case numbers and more information on the outbreak, please visit the NICD alerts page (<https://www.nicd.ac.za/media/alerts/>).

Source: <https://www.nicd.ac.za/cholera-outbreak-in-south-africa-30-march-2023/>

# ZOONOTIC AND VECTOR-BORNE DISEASES

## Rabies

The first two cases of human rabies for the year 2023 were reported in February and March, from Limpopo and KwaZulu-Natal (KZN) provinces respectively (figure 1). The case from Limpopo involved a 2-year-old boy from Thohoyandou, Vhembe District, who was scratched by a dog on the face and neck in December 2022. The child did not receive rabies post-exposure prophylaxis (PEP) at the time of the incident. On 17 February 2023, the child began to exhibit rabies symptoms, including fever, malaise, nausea, vomiting, anorexia, seizures, insomnia, confusion, delirium, hypersalivation, aggressiveness, agitation, hyperactivity, generalized weakness and hypotonia. He died in hospital 10 days after the onset of symptoms. A pre-mortem saliva sample submitted to the NICD Special Viral Pathogens Laboratory (SVPL) tested positive for rabies.

The second case involved a 5-year-old boy from Empangeni, King Cetshwayo District, KZN. Although there was no report of an animal bite, it is presumed that he encountered a rabid

animal in the months prior to his death and did not receive PEP. The exact date of the onset of rabies symptoms is not known, however, the child exhibited symptoms of fever, weakness, choking, vomiting, hallucinations, violent behaviour, hydrophobia, dysphagia, and hypersalivation. He later died in a local hospital on 27 February 2023. A diagnosis of rabies was confirmed on a post-mortem skin biopsy sample submitted to the NICD SVPL early in March.

These cases highlight the need for prompt rabies PEP following exposure to a rabid animal to prevent the occurrence of human rabies. The World Health Organization (WHO) recommends a One Health approach that involves mass dog vaccination, rabies risk awareness and community engagement, proper wound care, and prompt rabies PEP for the prevention of rabies. Please visit the NICD website for more details on rabies and rabies prevention: <https://www.nicd.ac.za/diseases-a-z-index/rabies/>.

# ZOONOTIC AND VECTOR-BORNE DISEASES



**Figure 1.** Human rabies cases in South Africa in 2023, as of 24 March 2023 (NHLS-NICD data source).

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; [veerlem@nicd.ac.za](mailto:veerlem@nicd.ac.za), [jacquelinew@nicd.ac.za](mailto:jacquelinew@nicd.ac.za)

# ZOONOTIC AND VECTOR-BORNE DISEASES

## Malaria: Easter-time surge expected

Cholera, COVID-19, mpox, measles, mumps – these ongoing outbreaks distract our attention from some other public health problems, like seasonal malaria. Malaria cases generally peak in the first few months of the year after Christmas and Easter holidays. At this time, there should be a high index of suspicion for malaria in patients with fever or 'flu-like illness, particularly in the case of travel to, or residence in, a malaria-endemic area. All such patients with a fever or a recent history of fever must be tested for malaria, either by rapid diagnostic test or by microscopy. If this is initially negative and no other diagnosis is found, the malaria test should be repeated a few hours later. Any patient testing positive for malaria should be treated immediately; do not wait for COVID-19 or other laboratory results. Malaria typically rapidly progresses to severe illness, so early detection and treatment is essential to ensure optimal outcomes. Information on malaria risk areas in South Africa,

and treatment and prevention of malaria, is available at [www.nicd.ac.za/diseases-a-z-index/malaria/](http://www.nicd.ac.za/diseases-a-z-index/malaria/).

Healthcare workers should be aware of odyssean malaria, also called 'taxi malaria' or 'minibus malaria'. This occurs when an infective mosquito is accidentally transported from an endemic to a non-endemic area, where it subsequently infects people without recent travel history. Malaria should therefore be considered in the differential diagnosis and be tested for in patients with unexplained fever who get progressively sicker, especially if they have low platelet counts. The diagnosis of this form of malaria is often delayed or missed, with concerns about COVID-19 being a frequent distraction, and the mortality rate is high. See Communicable Disease Communique, February 2023, Vol 22 (2):4-5.

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; [charlottes@nicd.ac.za](mailto:charlottes@nicd.ac.za), [johnf@nicd.ac.za](mailto:johnf@nicd.ac.za)

# RESPIRATORY DISEASES

## Respiratory syncytial virus (RSV) activity increasing

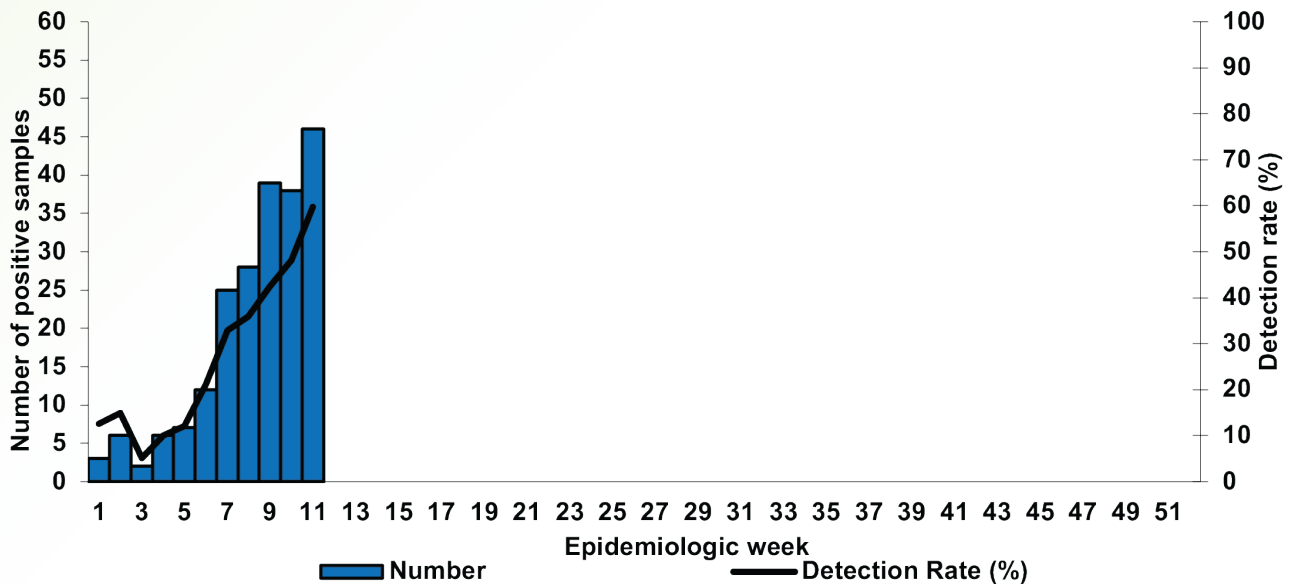
Since epidemiological week 3 of 2023, the detection rate for RSV in hospitalised children <5 years of age has been on an upward trend (figure 2). It has now crossed into the high transmission range, with close to 60% of children admitted to sentinel surveillance sites with lower respiratory tract infections testing positive for RSV, in the week ending 19 March 2023. Clinicians should consider RSV in differential diagnoses for severe respiratory illness, especially in young children. The latest RSV alert to clinicians can be accessed at <https://www.nicd.ac.za/alert-to-clinicians-2023-respiratory-syncytial-virus-rsv-season-has-started/>.

The RSV season usually precedes the influenza season, starting between the beginning of February and mid-March, with the mean peak of the season in mid-April. In 2023, the RSV season began in week 6 (week starting 06 February 2023), when the RSV detection rate among hospitalised children aged <5 years with lower respiratory tract illness at sentinel sites breached the low threshold level and remained above the seasonal threshold (using the Moving Epidemic Method (MEM) (figures 2 and 3)) for at least two weeks. As of week 11 (week ending

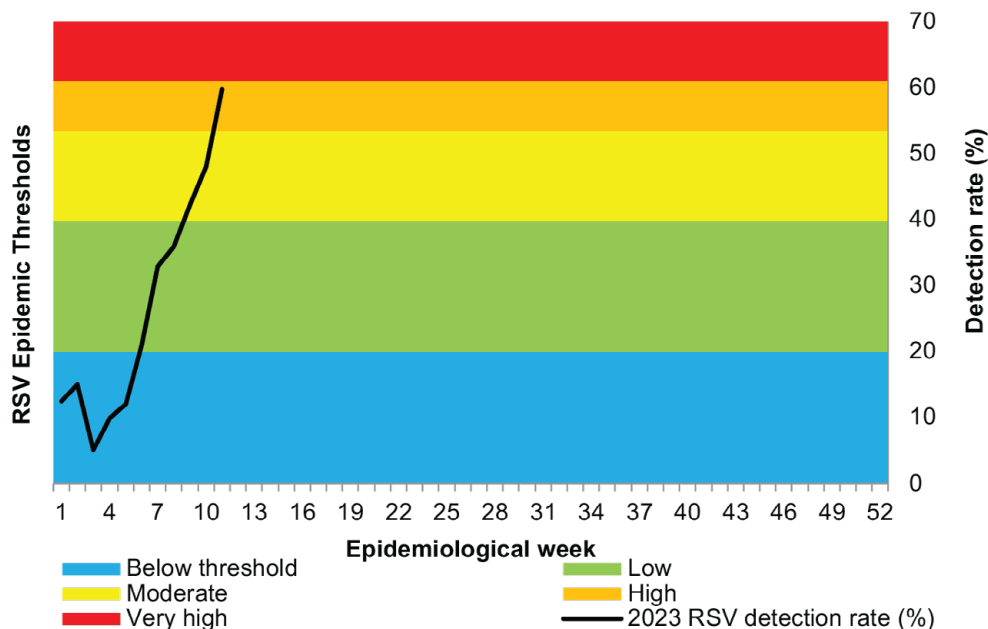
19 March 2023), 245 (13%) out of 1 899 cases tested positive for RSV across all ages, with 23 (23/319, 7%) from influenza-like illness (ILI) surveillance and 222 (222/1 580, 14%) from pneumonia surveillance (Severe Respiratory Illness (SRI)). The majority of RSV positive cases were subgroup A (139/245, 57%), followed by subgroup B (26/245, 11%). One (1%) was classified as inconclusive, and 79 (32%) as yet to be determined.

Among children <5 years of age, 234 (234/799, 29%) tested positive for RSV with 22 (22/119, 18%) from ILI and 212 (212/680, 31%) from SRI. Western Cape Province had the most cases (n=101), followed by Gauteng Province (n=78), Kwa-Zulu Natal Province (n=21) and Mpumalanga Province (n=12). The majority of RSV positive cases were subgroup A (134/234, 57%), followed by subgroup B (24/234, 10%), and 76/234 (32%) were yet to be determined. Of the 140 children <5 years of age who were hospitalised with RSV-associated SRI, where outcome data is known, none have died. Of the 192 cases with severity indicator data, 126 (65%) received oxygen and 1 (1%) was admitted into ICU.

# RESPIRATORY DISEASES



**Figure 2.** Respiratory syncytial virus positive samples and detection rate\* among children aged <5 years by epidemiologic week, from Severe Respiratory Illness (SRI) surveillance, South Africa, 2023. \*Detection rate is number positive/total tested.



**Figure 3.** Respiratory syncytial virus percentage detections\* and epidemic thresholds\*\* among children aged < 5 years, from Severe Respiratory Illness (SRI) surveillance, South Africa, 2023. \*Detection rate is number positive/total tested. \*\*Thresholds based on 2010-2019 data.

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; nicolac@nicd.ac.za



# RESPIRATORY DISEASES

## Increase in pertussis cases, March 2023

There has been a significant increase in *Bordetella pertussis* (pertussis) cases detected in the pneumonia surveillance program in 2022/2023 compared to the COVID-19 pandemic years (2020/2021). Overall, 0.1% (2/4 373) of patients enrolled into pneumonia surveillance tested positive for pertussis from 01 January 2022 to 30 June 2022. The increase in detection of pertussis cases started from 01 July 2022, with the detection rate increasing to 2.9% (151/5 166) by 13 March 2023. Of the 151 pertussis positive cases detected from 01 July 2022 to 13 March 2023 in pneumonia surveillance, five were detected in July, 22 in August, 27 in September, 18 in October, 24 in November, 17 in December, 24 in January 2023, 13 in February 2023 and none so far in March 2023 (figure 4). Western Cape Province reported the highest number of cases (102/151, 67.5%) for the above period (01 July 2022 to 13 March 2023). The majority of cases were in children aged <5 years (117/151, 77.5%), and of these, 70.9% (83/117) were children aged <3 months. During the reporting period there were four deaths reported (case fatality ratio (CFR) 2.7%, 4/149): a child <3 months of age from Mpumalanga Province, a 49-year-old male from Gauteng Province, a 16-year-old male from North West Province and a 34-year-old male from Western Cape Province. All adults who died had significant underlying comorbid conditions. Of the 82 (82/117, 70.1%) pertussis positive cases aged <5 years with documented vaccination data available, 59.8% (49/82) were up-to-date for age with vaccinations.

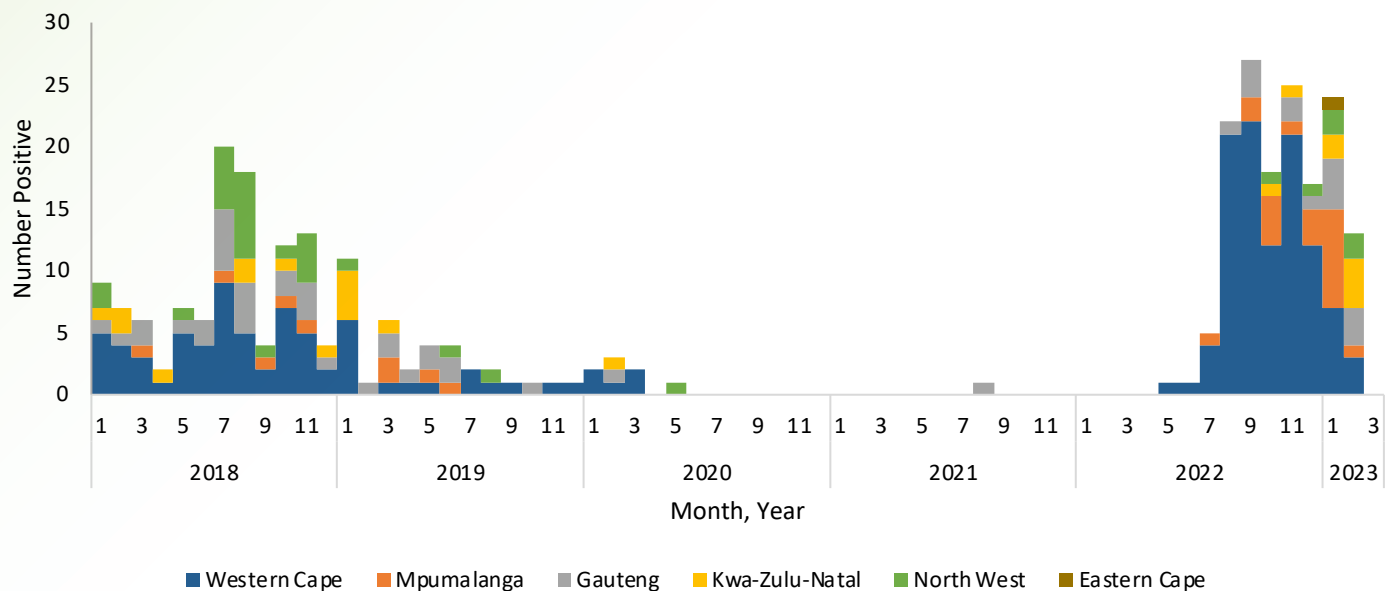
In addition to the increase in pertussis cases identified at surveillance sites, there has been an increase in cases identified from the Notifiable Medical Conditions (NMC) surveillance system, some of these cases (70/1 230, 5.7%) were also enrolled into the pneumonia surveillance programme (notification of pneumonia surveillance cases is ongoing). From 01 January 2022 to 30 June 2022, there were 33 pertussis positive cases notified on NMC. An increase in reported cases started from 01 July 2022, with 1 230 pertussis cases reported on NMC by 13 March 2023 (figure 5). The Western Cape Province reported the highest number of cases (618/1 230, 50.2%), followed by Gauteng and KwaZulu-Natal provinces (211/1 230, 17.2% each) and Mpumalanga Province (78/1 230, 6.3%). The majority of cases (816/1 230, 66.3%) were in children aged <5 years and of those, 68.4% (558/816) were children aged <3 months. Among the 1 025 pertussis positive cases in the NMC database with data available on outcome, 20 deaths were reported, (CFR 2.0%,

20/1 025) (excluding the four deaths reported above under pneumonia surveillance). Of the 20 people who died, 15 were children aged <5 years of whom 12 were children aged <3 months.

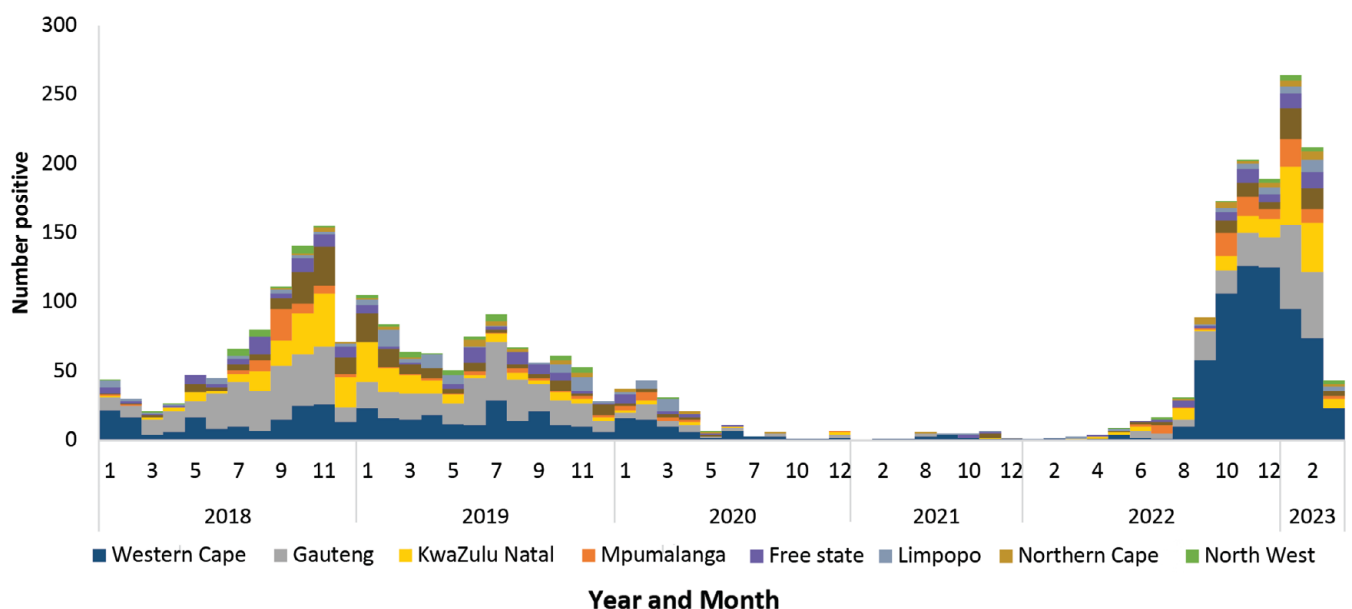
Pertussis, commonly known as 'whooping cough' is a vaccine-preventable disease caused by *Bordetella pertussis* and is a category 1 NMC. Clinicians are advised to be vigilant for cases, especially in very young children who may not present with typical symptoms of pertussis (cough and whoop). Immunity following vaccination lasts for approximately five to six years. Episodic increases in pertussis cases occur in vaccinated populations every three to five years. Completion of childhood vaccinations, including Diphtheria, Tetanus and acellular-Pertussis (DTaP) and boosters, is important for prevention. Clinicians are advised to be on alert for cases, to conduct diagnostic testing where appropriate, to notify cases on the NMC mobile application, prescribe post-exposure prophylaxis to close and high-risk contacts of suspected or confirmed cases, to vaccinate healthcare workers, and to encourage pregnant woman to vaccinate where possible. Vaccination of healthcare workers against pertussis reduces transmission to vulnerable patients (e.g. neonates) and is recommended where resources are available. Maternal immunisation with acellular pertussis-containing vaccines (DTaP) is effective in preventing severe disease and mortality among infants, before they receive their infant vaccines.

NICD recommendations for pertussis diagnosis, management and public health response may be found on the NICD web page (<http://www.nicd.ac.za/index.php/pertussis/>). Notification forms can be accessed at <http://www.nicd.ac.za/index.php/nmc/>. An alert for increased pertussis cases was released on 13 December 2022 (<https://www.nicd.ac.za/an-increase-in-pertussis-cases-13-dec-2022/>).

# RESPIRATORY DISEASES



**Figure 4.** Number of laboratory-confirmed pertussis cases from pneumonia surveillance programme by year, month and province, South Africa 2018-2023.



**Figure 5.** Number of notified pertussis cases from Notifiable Medical Conditions Surveillance System (NMC-SS) by year, month and province, South Africa, 2018-2023.

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; [namhlab@nicd.ac.za](mailto:namhlab@nicd.ac.za)

# BEYOND OUR BORDERS

The 'Beyond our Borders' column focuses on selected and current regional and international diseases that may affect South Africans travelling outside the country.

## Mpox

According to WHO, as of 13 March 2023, there has been a cumulative total of 86 496 laboratory-confirmed cases of mpox, including 111 deaths worldwide. The incidence of new mpox cases has been on a decline globally, however, in the African Region where mpox is endemic in some parts, transmission and cases are more continuous and sustained with no clear downward trend.

As of 13 March 2023, the 10 countries with the highest cumulative number of cases globally are: The United States of America (USA) (n=30 039), Brazil (n=10 878), Spain (n=7 543), France (n=4 128), Colombia (n=4 085), Mexico (n=3 928), Peru

(n=3 774), the United Kingdom (UK) (n=3 738), Germany (n=3 692), and Canada (n=1 460). Together, these countries account for 84.7% of the globally reported cases.

The WHO risk assessment has classified the global risk as moderate. The South-East Asia Region and Western Pacific Region are the only regions classified as low-risk. According to the South African Government Gazette published on 03 February 2023, mpox is now a category 1 NMC. Therefore, clinicians are required to notify cases of mpox within 24 hours.

Sources: [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20230316-mpox-external-sitrep---18.pdf?sfvrsn=faae6a92\\_3&download=true](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20230316-mpox-external-sitrep---18.pdf?sfvrsn=faae6a92_3&download=true)

## COVID-19

As of 19 March 2023, over 760 million confirmed cases of COVID-19 and over 6.8 million deaths have been reported globally since the beginning of the pandemic. During the last 28-day WHO reporting period (20 February - 19 March 2023), 3.7 million new cases and 26 000 new deaths were reported. Compared to the previous 28-day period (23 January - 19 February 2023), this represents a 31% and 46% decrease, respectively. The Eastern Mediterranean, South-East Asian and the European regions have all reported increases in the number of new cases for the 28-day reporting period ending 19 March 2023, compared to the previous reporting period.

The countries that reported the highest number of new cases between 20 February 2023 and 19 March 2023 are as follows: the USA (n=792 022), the Russian Federation (n=339 564), China (n=320 029), Japan (n=291 672), and Germany (n=281 468). The countries that reported the highest number of new deaths over the same period were: the USA (n=8 187), the UK (n=2 474), Japan (n=1 898), Brazil (n=1 587), and China (n=1 472).

**NB:** Current COVID-19 cases may be underestimated, partly due to the reduction in testing and delays in reporting in many countries.

In collaboration with GISAID, WHO is monitoring one variant of interest (VOI), namely XBB.1.5, and five variants under monitoring (VUMs): BQ.1, BA.2.75, CH.1.1, XBB and XBF. For the epidemiological week ending 05 March 2023 (week 9 of 2023), XBB.1.5 was the most prevalent variant amongst the variants being monitored, with a prevalence of 37.7%. This represents an increase in prevalence compared to the previous reporting period (30 January - 05 February 2023), where the prevalence was 29.0%. As of 19 March 2023, 85 countries have reported detection of XBB.1.5.

In South Africa, the weekly incidence of new cases remained stable, with 2 436 new cases reported during the week of 12 March 2023 to 18 March 2023. This represents a 2.6% increase compared to the previous week (05 March - 11 March 2023). As of 20 March 2023, South Africa has vaccinated 49.2% (22 664 397/46 027 271) of the population aged 12 years and above. The introduction of the two-dose paediatric Comirnaty COVID-19 vaccine is being phased in for children aged 5 to 11 years who are at risk of severe disease, and should be available in all provinces by the end of March 2023. The two doses should be administered at least 21 days apart. The nearest COVID-19 Vaccination and Booster site information in SA can be accessed via <https://findmyjab.co.za>.

Source: <https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---15-february-2023> | <https://covid19.who.int/table>

# BEYOND OUR BORDERS

## Poliomyelitis

As of 21 March 2023, there have been 668 cases of polio (WPV1=30, cVDPV1=159, cVDPV2=479, and cVDPV3=0) reported globally over the past 12 months (March 2022 to March 2023). The majority of wild poliovirus type 1 (WPV1) cases have been reported by Pakistan (n=21), where WPV1 is

### Summary of new polioviruses for the past week (as of 22 March 2023):

- Afghanistan: four wild poliovirus type 1-positive environmental samples
- Pakistan: one wild poliovirus type 1 (WPV1) case
- Algeria: one circulating vaccine-derived poliovirus type 2 (cVDPV2)-positive environmental sample
- Benin: two cVDPV2-positive environmental samples
- Democratic Republic of the Congo (DR Congo): two circulating vaccine-derived poliovirus type 1 (cVDPV1) and three cVDPV2-positive cases
- Indonesia: one cVDPV2-positive case
- Madagascar: seven cVDPV1-positive environmental samples
- Niger: one cVDPV2-positive environmental sample
- Nigeria: one cVDPV2-positive environmental sample

endemic, and Mozambique (n=8), where it is not endemic. The majority of circulating vaccine-derived poliovirus (cVDPV) cases have been reported by the Democratic Republic of the Congo (DRC) (n=386) and Yemen (n=87).

The risk of international spread of poliovirus remains a Public Health Emergency of International Concern (PHEIC), as per the 34th meeting of the WHO International Health Regulations (IHR) (2005) Emergency Committee held on 25 January 2023. Africa is well below the 90% to 95% immunisation coverage needed to prevent vaccine-preventable infectious disease outbreaks. In the African Region, the median vaccine coverage in 2021 was 69.0% for measles, 82.5% for diphtheria, tetanus, and pertussis, and 81.5% for the third-dose of polio. Globally, the lack of access to immunisation programmes and poor administration of available programmes, were noted as important contributing factors to the ongoing transmission of polio. South Africa should continue to strengthen acute flaccid paralysis surveillance and encourage adherence to routine vaccination through the expanded immunisation programme (SA-EPI).

Source: <https://polioeradication.org/polio-today/polio-now/>

## Rift Valley fever virus infections in Uganda

Rift Valley fever virus (RVFV) causes major zoonotic disease outbreaks in different animals, resulting in spontaneous abortions and death of livestock. During RVFV outbreaks, humans become infected via contact with infected tissues or blood of livestock (and wildlife), and less frequently from mosquito bites.

WHO has reported a confirmed RVFV outbreak in Mbarara District, Uganda, with a cumulative total of 30 cases and five deaths to date (as of 23 March 2023). On 10 February 2023, a butcher from the Mbarara District presented to a health care clinic with a history of fever and nose bleeds. The patient was referred to Mbarara Regional Hospital (MRH) as a viral haemorrhagic fever (VHF) was suspected. The patient was pronounced dead on arrival at MRH and buried before any samples could be collected. Later in February 2023, samples

from farm workers from the same district were collected and RVFV was detected in 10% of them. The positive cases were all involved in the slaughtering of a cow. The outbreak amongst cows was first observed in the district in December 2022, with reported cases of abortion in cows. Although RVFV is endemic in Uganda, human cases only occur sporadically.

Increased rainfall in many parts of South Africa in recent months may result in an increased risk of exposure to mosquitoes, and therefore increased risk of arboviral diseases like RVFV. For more information on sample submission and testing, please refer to the NICD website ([www.nicd.ac.za/rift-valley-fever/](http://www.nicd.ac.za/rift-valley-fever/)). Rift Valley fever in humans is a Category I NMC in South Africa and should therefore be reported within 24 hours.

([https://www.nicd.ac.za/wp-content/uploads/2018/10/Notifiable-Medical-Condition\\_Z-foldBleed20-July2018.pdf](https://www.nicd.ac.za/wp-content/uploads/2018/10/Notifiable-Medical-Condition_Z-foldBleed20-July2018.pdf)).

Source: Centre for Emerging Zoonotic and Parasitic Diseases, NICD-NHLS; [jacquelinew@nicd.ac.za](mailto:jacquelinew@nicd.ac.za)



# BEYOND OUR BORDERS

## Cholera – African Region

The cholera outbreak continues to evolve in the African continent. Since 01 January 2023, 14 countries in Africa have reported outbreaks, namely: Burundi, Cameroon, the Democratic Republic of Congo, Ethiopia, Kenya, Malawi, Mozambique, Nigeria, Somalia, South Africa, South Sudan, Tanzania, Zambia and Zimbabwe (table 1).

On 09 March 2023, the Africa CDC, in collaboration with WHO, UNICEF and the relevant Ministries of Health (MOHs), convened a regional ministerial meeting in Malawi to address key areas in cholera preparedness, prevention, control and information sharing in the Southern Africa Region. Recommendations from the meeting include enhancing efforts to provide safe water and adequate sanitation in the region and improving health promotion activities and social mobilisation, to reduce the

impact of cholera and other waterborne diseases. Efforts are being put in place to design a dynamic risk assessment tool to enhance preparedness in countries without outbreaks and curb the spread of the outbreaks in countries with ongoing transmission.

South Africa has already recorded imported cases of cholera from Malawi. The risk of further cholera importation in the country remains high, due to the ongoing outbreaks in the Southern African Region and continued travel and trade in the region. Clinicians are urged to maintain a high index of suspicion for cholera in patients who present with acute watery diarrhoea. Cholera guidelines and other resources can be accessed here: <https://www.nicd.ac.za/diseases-a-z-index/cholera/>.

**Table 1. Cholera cases and deaths reported to WHO from African countries, as of 21 March 2023**

Country	Cumulative Cases	Cumulative Deaths	CFR (%)	Reporting period
Burundi	196	1	0.5	08/12/2022 – 20/3/2023
Cameroon	15 309	311	2.0	01/10/2021 – 12/3/2023
Democratic Republic of Congo	24 657	334	1.4	01/01/2022 – 21/3/2023
Ethiopia	2 095	44	2.1	01/08/2022 – 20/3/2023
Kenya	7 250	116	1.6	08/10/2022 – 21/3/2023
Malawi	54 839	1 684	3.1	01/03/2022 – 21/3/2023
Mozambique	10 854	75	0.7	01/09/2022 – 21/3/2023
Nigeria	24 435	617	2.5	01/01/2022 – 13/3/2023
Zambia	268	7	2.6	21/01/2023 – 20/3/2023
Somalia	2 573	7	0.3	01/01/2023 – 12/3/2023
South Africa	6	1	16.7	01/02/2023 – 4/3/2023
South Sudan	307	1	0.3	22/02/2023 – 16/3/2023
United Republic of Tanzania	72	3	4.2	01/02/2023 – 13/3/2023
Zimbabwe	121	1	0.8	12/02/2023 – 19/3/2023
<b>TOTAL</b>	<b>142 982</b>	<b>3 202</b>	<b>2.2</b>	

Sources: [https://cdn.who.int/media/docs/default-source/documents/emergencies/20230320\\_multi-country\\_outbreak-of-cholera\\_sitrep-1.pdf?sfvrsn=eaeed11a\\_1&download=true](https://cdn.who.int/media/docs/default-source/documents/emergencies/20230320_multi-country_outbreak-of-cholera_sitrep-1.pdf?sfvrsn=eaeed11a_1&download=true)

# BEYOND OUR BORDERS

## Lassa fever – Nigeria

Lassa fever is a viral haemorrhagic fever (VHF) of zoonotic origin caused by the Lassa virus. The natural animal host of the virus is a rat from the *Mastomys* genus, commonly known as the “multimammate rat”. The disease is endemic in the West African countries of Benin, Ghana, Guinea, Liberia, Mali, Sierra Leone and Nigeria.

In Africa, between 02 January 2023 and 10 March 2023, 3 644 cases of Lassa fever (662 confirmed and 2 982 suspected) and 110 deaths (CFR=16.6%), were reported from five countries: Ghana (14 cases, one death), Guinea (two cases, one death), Liberia (eight cases, two deaths), Nigeria (3 614 cases, 104 deaths), and Sierra Leone (six cases, two deaths).

In Nigeria, a national Lassa fever multi-partner, multi-sectoral emergency operations centre was activated to coordinate response activities at all levels. As part of its efforts to combat the deadly disease, the Ondo State government has begun the distribution of pesticides in high-risk areas to eradicate rats.

Additional public health responses include; case management and Infection Prevention and Control (IPC), continuation of the existing surveillance (including clinical management and strengthened laboratory capacity) and community engagement.

While Lassa fever is not endemic in South Africa, there is always the risk of importation of cases as travel and trade within the region is ongoing. The last confirmed case of Lassa fever in South Africa was in 2022 and involved a returning traveller from Nigeria. Clinicians are advised to have a high index of suspicion for the disease in any travellers returning from endemic/affected areas who present with signs and symptoms consistent with a VHF. Lassa fever is a category I NMC and should therefore be notified within 24 hours. For more guidelines and resources please visit the NICD website: <https://www.nicd.ac.za/diseases-a-z-index/lassa-fever/>.

*Sources: <https://apps.who.int/iris/bitstream/handle/10665/366504/OEW11-0612032023.pdf>, <https://www.ncdc.gov.ng/diseases/sitreps/?cat=5&name=An%20update%20of%20Lassa%20fever%20outbreak%20in%20Nigeria>, <https://www.graphic.com.gh/news/general-news/ghana-news-lassa-fever-12-more-cases-confirmed-in-ghana.html>*

# BEYOND OUR BORDERS

## Marburg virus disease outbreaks – African Region

Marburg virus disease (MVD) is caused by Marburg virus and results in a severe viral haemorrhagic fever (VHF). Based on previous outbreaks, MVD can have a CFR of up to 88%. Marburg virus belongs to the same family of viruses as the Ebola virus. The natural hosts are the *Rousettus aegyptiacus* fruit bats and human transmission results from prolonged exposure to these animals, particularly in mines or caves. Human-to-human transmission occurs through contact with bodily fluids of infected people or contaminated surfaces. The incubation period is two to 21 days and the initial symptoms of the disease are high fever, severe headaches and severe malaise. This is usually followed by gastrointestinal symptoms such as severe watery diarrhoea, abdominal pain, nausea and vomiting. Haemorrhagic symptoms tend to develop between days five and seven and include bleeding from multiple sites and blood in vomitus and faeces. Central nervous system involvement can be present in the severe phase of illness and death usually occurs between days eight and nine in fatal cases.

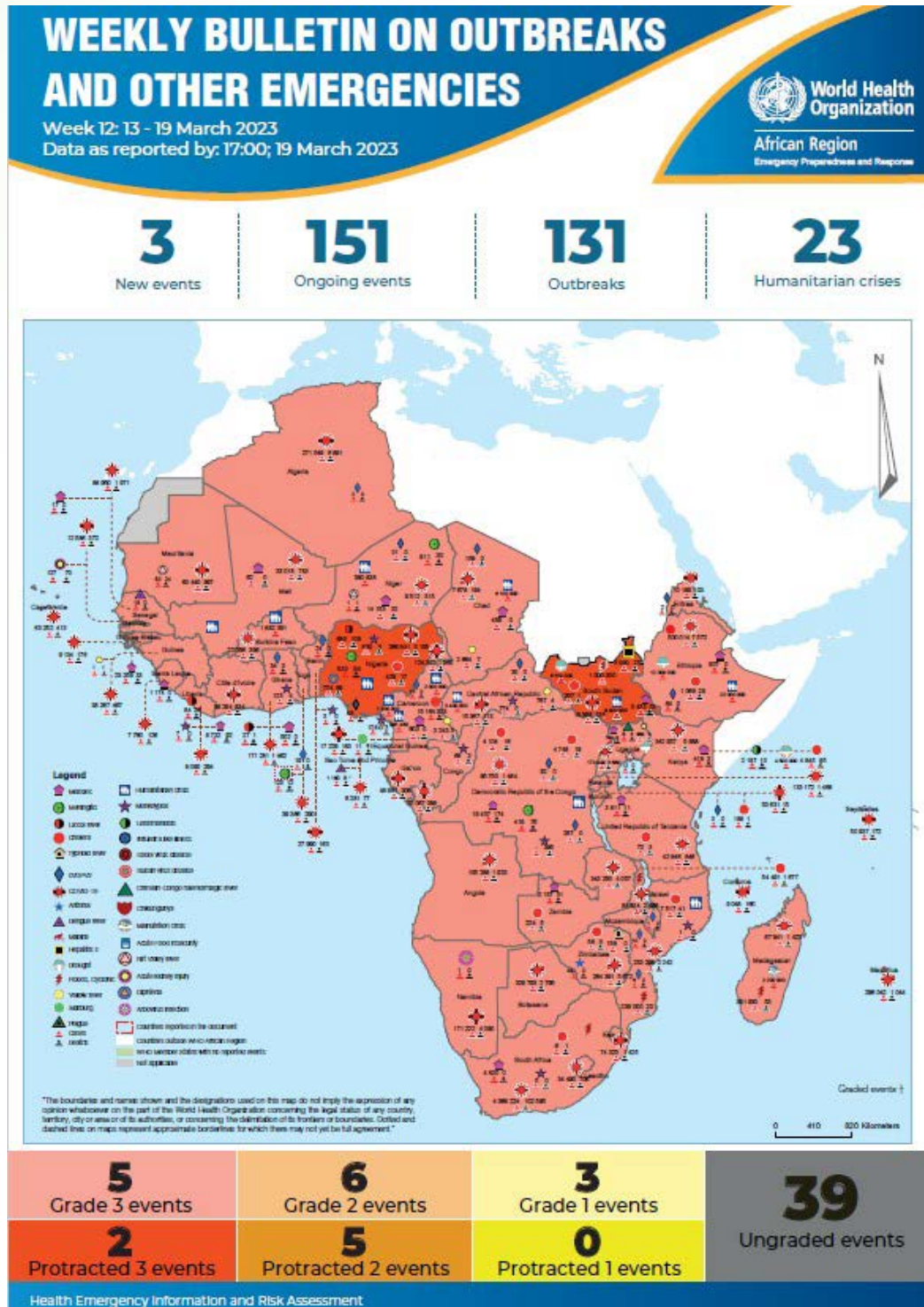
**Equatorial Guinea:** The country has reported its first-ever outbreak of MVD following laboratory-confirmation of the first case in Kié-Ntem Province on 12 February 2023. As of 22 March 2023, Equatorial Guinea has recorded a cumulative total of nine laboratory-confirmed cases, 20 probable cases and 27 deaths (seven amongst confirmed cases and all 20 of the probable cases). The CFR amongst confirmed cases is currently 77.8% (7/9). The affected provinces are Kié-Ntem, Litoral and Centre-

Sur and all three share borders with Cameroon and Gabon. There are concerns regarding the wide transmission of the virus and potential undetected community spread, as the affected areas are approximately 150 kilometers apart and some cases have no clear epidemiological links to confirmed cases. WHO conducted a risk assessment of the outbreak and categorised the risk at the national level as very high. WHO is working with the Ministry of Health and Social Welfare to support the country's response to the outbreak and to strengthen community engagement. No travel and trade restrictions have been recommended at this time.

**Tanzania:** On 21 March 2023, Tanzania also declared its first-ever outbreak of MVD following laboratory-confirmation of the disease by reverse transcription polymerase chain reaction (RT-PCR). As of 22 March 2023, the country has recorded a cumulative total of eight laboratory-confirmed cases and five deaths (CFR=62.5%). All of the cases are epidemiologically linked and two of the cases are healthcare workers, one of whom has already died. The affected district is Bukoba District in the Kagera Region, which shares borders with Burundi, Rwanda and Uganda. WHO conducted a risk assessment of the outbreak and categorised the risk at the national level as very high. Rapid Response Teams have been activated and deployed as part of the response to the outbreak. No travel and trade restrictions have been recommended at this time.

Sources: <https://www.who.int/news-room/fact-sheets/detail/marburg-virus-disease>,  
<https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON449>,  
<https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON451>

# WHO AFRO UPDATE



**Figure 6.** The Weekly WHO Outbreak and Emergencies Bulletin focuses on selected public health emergencies occurring in the WHO African Region. The African Region WHO Health Emergencies Programme is currently monitoring 151 events. For more information, see link below:  
<https://www.afro.who.int/health-topics/disease-outbreaks/outbreaks-and-other-emergencies-updates>