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COMMUNICABLE **DISEASES** COMMUNIQUÉ

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EDITORIAL

Editor's note – Dr Zhixin He

As we head into the second half of the year, waking up to chilly mornings and unexpected snowy sights, for those of us based in the Gauteng-Johannesburg area, we are happy to see that influenza transmission is below the seasonal threshold, however, surveillance is ongoing as often there has been a second wave following the initial peak.

There has been a significant decrease in the number of measles cases detected, with some provinces meeting the criteria to declare their outbreak over; sporadic cases are still seen in other provinces

As the cholera outbreaks in Africa, particularly the Southern African Region, continue, it is encouraging to note the decline in confirmed and suspected cases in our own country. However, clinicians should still maintain a high index of suspicion and continue to report and test where indicated.

We are also happy to report that there were no new human rabies cases since the June edition of the Communiqué, and once again would like to remind all that rabies is 100% fatal but also preventable with the correct post-exposure prophylaxis administered.

We wish you warm days for the remaining winter months and a happy Women's month for August.

QUICK UPDATES

Measles, South Africa

The ongoing measles outbreak which began in October 2022, has resulted in a cumulative total of 1114 laboratory-confirmed cases (as of 21 July 2023).

The percentage of samples testing positive (PTP) decreased from 17% (5/28) of samples tested in week 27 to 0% (0/12) of samples tested in week 28.

The outbreak is effectively over. However ongoing cases are reported from Gauteng and Limpopo province. Limpopo province is currently completing a mop-up vaccination campaign. Sporadic cases are being reported from other provinces.

To declare the measles outbreak over, the following criteria should be achieved: absence of newly detected measles cases for more than two incubation periods (42 days). The criteria for declaring the measles outbreak over was met in the Northern Cape province in week 15, the North West province in week 24, and the Free State province in week 25. Sporadic cases are still seen in Gauteng, Mpumalanga, KwaZulu-Natal, and the Western Cape provinces.

For updated 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-2023-21-july-2023/>

Cholera, South Africa

Gauteng Province declared a cholera outbreak on 05 February 2023, following confirmation of two epidemiologically-linked cases. As of 05 July 2023, the Department of Health has noted a significant decline in the number of both suspected and confirmed cholera cases around the country. This, however, does not mean the transmission of cholera is over, and members of the public are urged to remain vigilant and exercise personal hygiene at all times, especially when preparing and serving food during mass gatherings.

The country has recorded a total cumulative number of 1073 suspected cases of cholera in five provinces, of which 198 were laboratory-confirmed between 1 February and 4 July 2023. Gauteng Province accounts for most of the cases with 176 cases mostly from Hammanskraal in Tshwane, Free State Province 11 cases, North West 6 cases, Limpopo 4 cases and 1 case in Mpumalanga. Cases have been diagnosed at both public (94%; 186/198) and private (6%; 12/198) laboratories.

The cumulative number of deaths related to the cholera outbreak (both suspected and confirmed) stands at 47 deaths

as of 04 July 2023, and 4 new suspected deaths (all in Free State) since the last reporting on 25 June 2023.

Healthcare workers are urged to maintain a high index of suspicion for cholera in anyone presenting with acute diarrhoeal disease. All suspected cases should be notified immediately using the Notifiable Medical Conditions (NMC) mobile application or website (<https://mstrmobile.nicd.ac.za/nmc/>), and samples should be submitted to local laboratories for testing. Healthcare workers attending to persons with suspected or confirmed cholera should observe strict contact precautions and hand hygiene, including isolation where possible.

Comprehensive guidelines on management can be accessed using the following link: <https://www.nicd.ac.za/assets/files/2014%20SA%20Cholera%20Guidelines.pdf>.

For additional information please visit the NICD website (<https://www.nicd.ac.za/diseases-a-z-index/cholera/>).

Sources: <https://www.health.gov.za/wp-content/uploads/2023/07/Health-Department-provides-update-on-cholera-outbreak-in-SA-05-July-2023.pdf>; <https://www.nicd.ac.za/assets/files/2014%20SA%20Cholera%20Guidelines.pdf> ; <https://www.nicd.ac.za/diseases-a-z-index/cholera/>.

ZOONOTIC & VECTOR-BORNE DISEASES

Human rabies update South Africa 21 July 2023

As of 21 June 2023, there have been six confirmed human rabies cases in South Africa this year, with cases identified in the provinces of the Eastern Cape (n=3), KwaZulu-Natal (n=2), and Limpopo (n=1). For the same period in 2022, ten human rabies cases had been confirmed, five from the Eastern Cape, two from KwaZulu-Natal, and three from Limpopo provinces, with an additional three probable cases from the Eastern Cape recorded (Figure 1). Although rabies is an endemic disease throughout all of South Africa, dog-related cases tend to concentrate in the

east of the country involving the aforementioned provinces. The key to eliminating canine transmitted human rabies is vaccination of dogs (and cats).

Human rabies is a category 1 notifiable medical condition in South Africa, requiring notification within 24 hours based on clinical suspicion and/or test confirmation. For more information on rabies disease in humans and how to prevent the disease, go to www.nicd.ac.za.

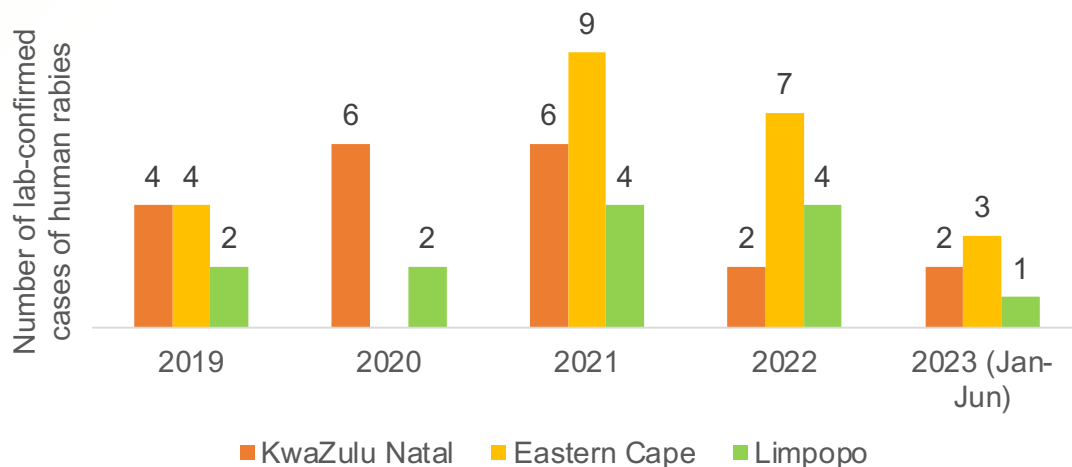


Figure 1. Confirmed human rabies cases for South Africa between 2019 and 21 July 2023.

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

RESPIRATORY DISEASES

Influenza activity 2023

The 2023 influenza season began in week 17 (starting 24 April 2023) when the influenza detection rate (3-week moving average) breached the seasonal threshold and peaked in week 22 (starting on 29 May 2023). Presently, influenza transmission is below (based on ILI from primary health clinics) seasonal threshold (Figure 2). As of week 27 of 2023 (week ending 9 July 2023), the total number of influenza cases detected through the three syndromic sentinel surveillance programmes conducted by the NICD has risen to 920. The majority of cases were reported from Western Cape 34% (313), followed by Gauteng 27% (247), North West 14% (127), Mpumalanga 10% (96), KwaZulu-Natal

10% (95), Eastern Cape 4% (38), Limpopo <1% (2) and Free State <1% (2) sentinel surveillance sites. Of the 920 positive samples, 838 samples were typed and assigned a subtype or lineage. Among the 838 cases with influenza subtype or lineage, 99% (828/838) were influenza A(H3N2), 0.7% (6/838) were A(H1N1) pdm09, and 0.5% (4/838) were B/Victoria. Of the remaining 82 samples, subtype/lineage was inconclusive for 23 cases due to low viral load, and 59 cases had pending subtype results. In previous years, there has often been a second wave of influenza virus after the peak of the dominant circulating strain, therefore ongoing monitoring is important.

RESPIRATORY DISEASES

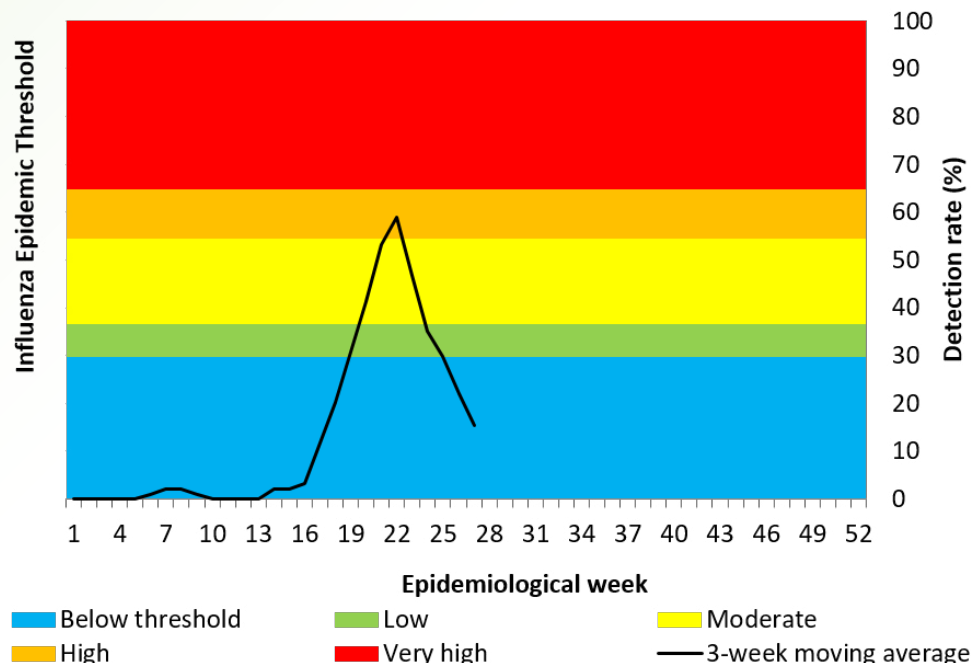


Figure 2. Influenza percentage detections and epidemic thresholds* among cases of all ages, influenza-like illness (ILI) surveillance in primary health care clinics, 01/01/2023 –09/07/2023

*Thresholds based on 2012-2019 data

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

Update on increase in pertussis cases in South Africa – July 2023

During the period between first of July 2022 to 17th of July 2023, 278/10 055 (3%) cases were reported through the Pneumonia Surveillance Program (PSP). In the same period, the detection rate of pertussis in children aged <1 year was 10% (149/1435).

Initially most cases were reported in the Western Cape and cases from Western Cape still account for the majority overall (46.4%, 129/278). However, since the beginning of 2023, cases (n=142) have been reported more widely across the provinces with Gauteng reporting the highest number of cases in 2023 (26.1%, 37/142) followed by North West (21.8%, 31/142), Mpumalanga and Western Cape (16.9%, 24/142) respectively.

During the reporting period there were five deaths reported (case fatality ratio (CFR) 1.8%, 5/278). There was one death in a child <3 months of age from Mpumalanga. There were four deaths in adults (all male), a 49-year-old from Gauteng, a 16-year-old from North West, a 34-year-old and a 44-year-old from Western Cape. All individuals aged >5 years who died had significant underlying conditions. Of the 190 pertussis positive

cases aged <5 years, 80.5%, (153/190) had a documented vaccination status available and 50.9% (78/153) were vaccinated up-to-date.

Similar to the PSP, an increase in reported cases started on the Notifiable Medical Conditions Surveillance System (NMC-SS) from 1 July 2022 through 17 July 2023 (1951 cases), with a peak in May 2023. The Western Cape Province reported the highest number of cases initially and overall (37.8%, 737/1951), similar to cases in the PSP. In 2023 (n=1248), cases are spread across the provinces, specifically Gauteng (29.6%, 370/1248), Western Cape (24.8%, 310/1248) and KwaZulu-Natal (18.3%, 229/1248), other provinces contributed <7% (Figure 4). The majority of cases in 2023 (71.9%, 897/1248) were in children aged <5 years and of those 58.2%, (522/897) were children aged <3 months. Among the 1246 pertussis positive cases in the NMC-SS database with data available on outcome, in 2023, 21 deaths were reported, CFR 1.6% (21/1246). Of the 21 people who died, 90.5% (19/21) were children aged <5 years and 57.1% (12/21) were children aged <3 months.

RESPIRATORY DISEASES

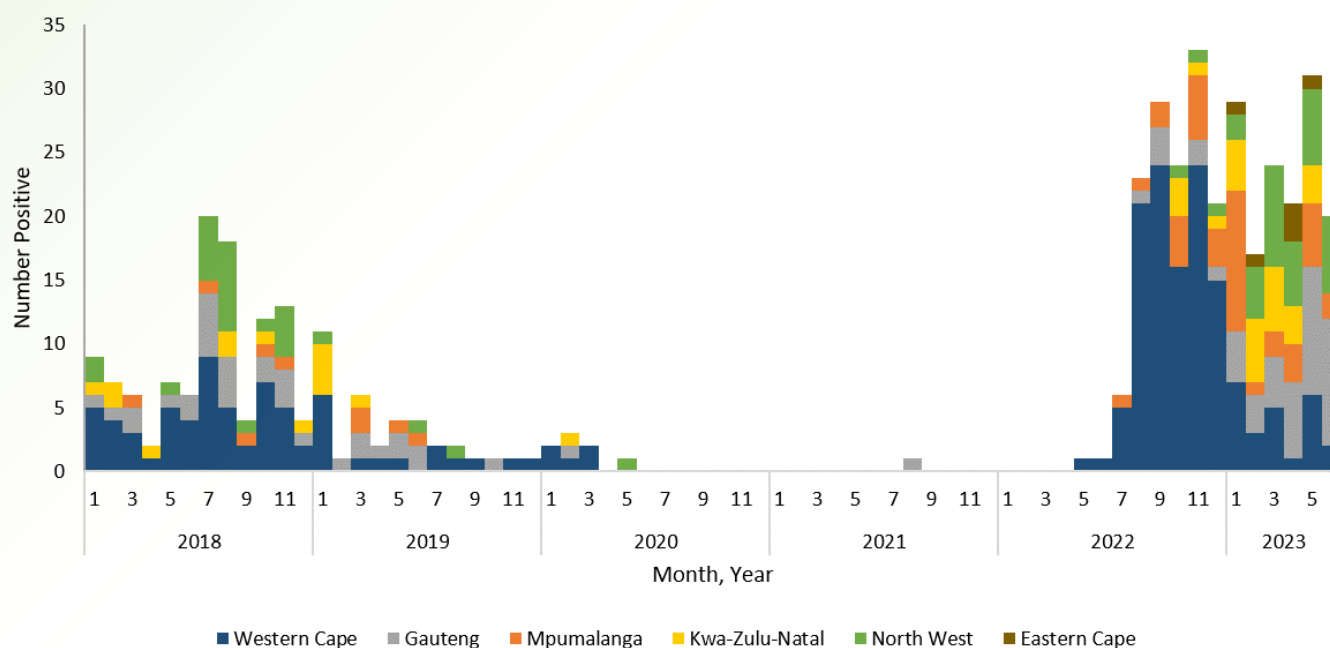


Figure 3. Number of laboratory-confirmed pertussis cases from pneumonia surveillance programme by year, month and province, South Africa 2018-2023

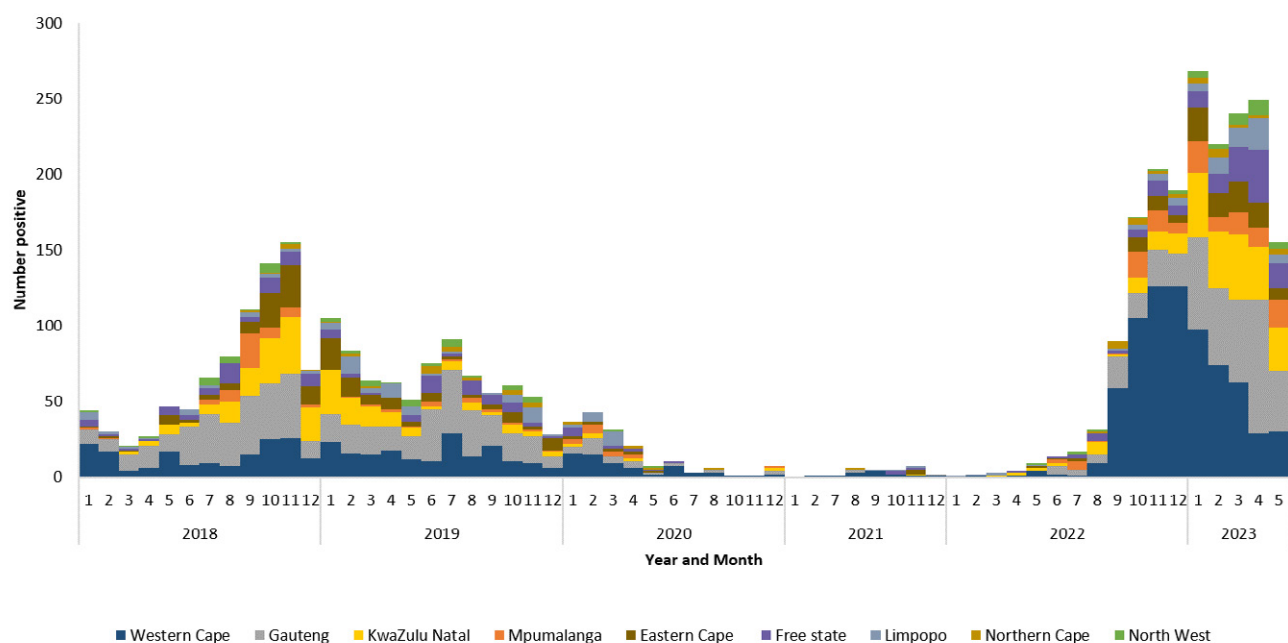


Figure 4. Number of notified pertussis cases from Notifiable Medical Conditions Surveillance System (NMC-SS) by year, month and province, South Africa, 2018-2023

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

RESPIRATORY DISEASES

Invasive meningococcal disease – infrequent yet with devastating consequences

Winter and spring months typically mark an increase in invasive meningococcal disease (IMD) episodes. Reports of a non-specific “flu-like” illness with rapid deterioration, even within 8-12 hours of symptom onset, should alert clinicians to the possibility of IMD (bacteraemia or meningitis). In South Africa, 14% of patients with meningococcal meningitis die, most within 24 hours following admission to hospital, with a further 20% of survivors developing long-term sequelae.

Disease confirmation is through identification of *Neisseria meningitidis* from blood or cerebrospinal fluid culture/PCR. Prompt initiation of intravenous third generation cephalosporin antibiotics should not be delayed should patients require transfer to a larger facility, whilst awaiting CT-scan or awaiting laboratory test results. IMD is a category 1 notifiable medical condition (NMC) and any clinically-suspected or laboratory-confirmed case should be reported immediately to ensure appropriate contact tracing, responsible prescribing of chemoprophylaxis and case counting.

In 2023, from January through June, 29 episodes of laboratory-confirmed IMD had been reported to the GERMS-SA surveillance

programme (similar to 2020 (n=30) but higher than that of 2021 and 2022 (n=17 and n=23 respectively) (Figure 5) Episodes have been sporadic with 12 cases reported from Western Cape, eight from Gauteng, four from Eastern Cape, three from Free State and one each from Limpopo and North West Provinces. Eighty-one percent (22/29) of patients had *N. meningitidis* cultured from cerebrospinal fluid, whilst the remainder were from blood cultures. Infants are most affected (28%, 8/29 episodes), followed by young adults 15-19 years (21%, 6/29) (Figure 6). From 14 isolates available for serogrouping, serogroup B was dominant (9/14, 64%), followed by two each of serogroup W and Y, and one serogroup C. As winter moves into spring we expect a rise in IMD episodes.

All NHLS and private laboratories are requested to send *N. meningitidis* isolates to the NICD reference laboratory for serogrouping and further characterisation of the surveillance organisms. As part of ongoing surveillance, CRDM at the NICD offers meningococcal isolate confirmation and *N. meningitidis* detection by PCR of culture-negative/autopsy specimens, free of charge. For more information, please contact the CRDM laboratory at the NICD, 011 555 0327.

RESPIRATORY DISEASES

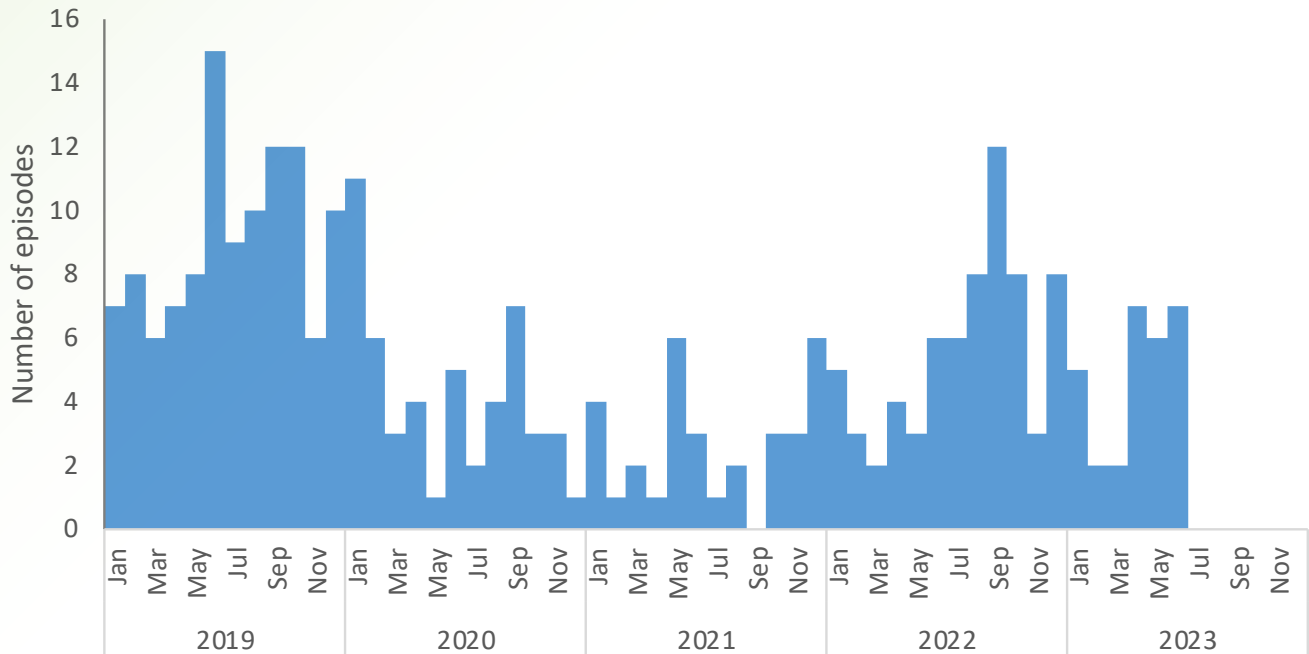


Figure 5. Number of invasive meningococcal disease episodes by month and year, South Africa, January 2019 through June 2023

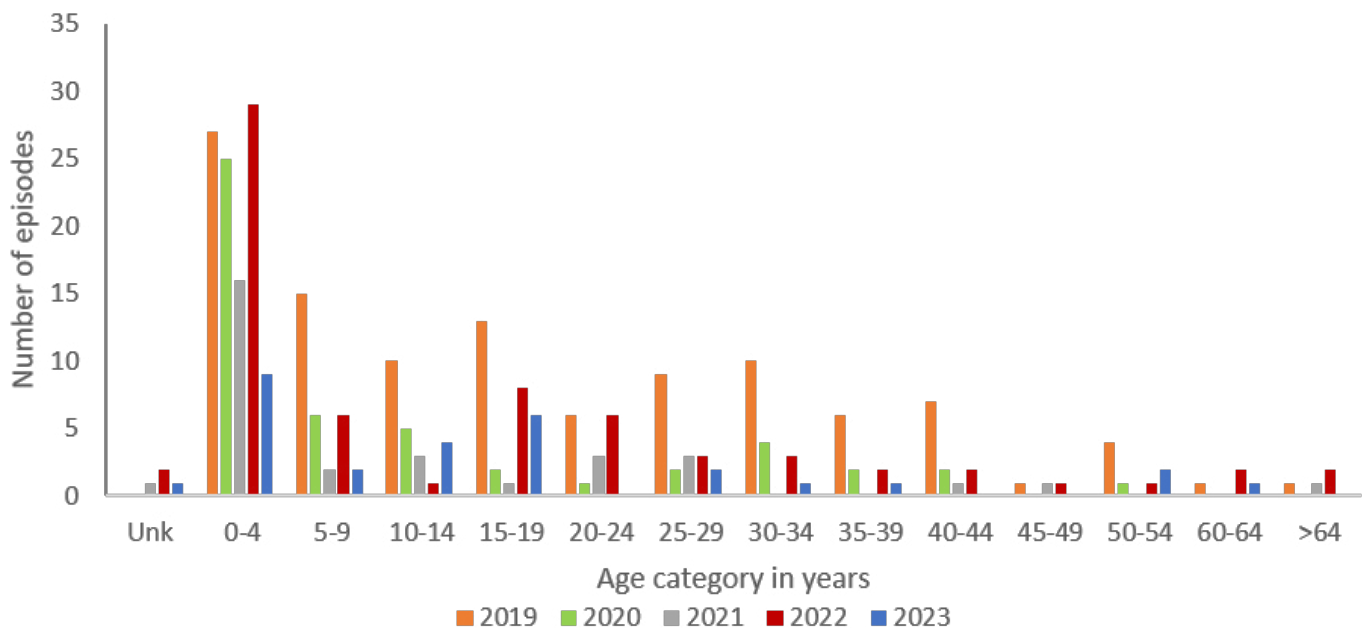


Figure 6. Number of invasive meningococcal disease episodes by age-category and year, 2019-2023 (*2023 up to end of June)

Source: Centre for Respiratory Diseases and Meningitis, NICD-NHLS; susan.meiring@nhls.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.

Cholera – African Region

The seventh cholera pandemic has experienced a rise in global prevalence since mid-2021, affecting more than 1.1 billion people and posing a significant threat. Young children under the age of five are most at risk in affected regions. Two strains, namely O1 and O139 Ogawa, have been associated with the current outbreaks.

As of 17 July 2023, there have been ongoing reports of cholera cases in 25 countries globally, of these countries, 15 are African countries, namely; Burundi, Cameroon, the Democratic Republic of the Congo (DRC), Ethiopia, Eswatini, Kenya, Malawi, Mozambique, Nigeria, Somalia, South Africa, South Sudan, Tanzania, Zambia, and Zimbabwe. The outbreak in the African Region occurs in the context of other concurrent crises such as natural disasters (cyclones, flooding, drought), conflict and other disease outbreaks (mpox, wild polio, measles, COVID-19). Resources and medical equipment is strained and limited

in many countries, and together with poor sanitation and increased cross-border movement, contribute as driving factors for the continued outbreak in the region.

The World Health Organization (WHO) continues to work alongside partners to reinforce surveillance, laboratory capacity, case management, infection prevention and control, WASH, health messaging, and vaccination.

With the ongoing cholera outbreaks in the Southern African Region, there is a high possibility of continued importation of cases to South Africa. Collaborative cross-border surveillance measures should be strengthened to enable early detection of cases. More information on cholera is available here: <https://www.nicd.ac.za/diseases-a-z-index/cholera/>

Table 1: Cholera Cases and Deaths in African Region, 1 January 2022 to 2 July 2023

Country	Cumulative Cases	Cumulative Deaths	CFR (%)	Date outbreak started	Last update
Malawi	59 011	1 766	3.0	Mar 2022	2 Jul 2023
Democratic Republic of Congo	44 398	463	1.0	Jan 2022	2 Jul 2023
Mozambique	33 132	141	0.4	Sep 2022	2 Jul 2023
Nigeria	25 678	662	2.6	Jan 2022	12 May 2023
Cameroon	*18 895	440	2.3	Jan 2022	2 Jul 2023
Ethiopia	12 566	169	1.3	Aug 2022	2 Jul 2023
Kenya	11 694	192	1.6	Oct 2022	29 Jun 2023
Zimbabwe	3 197	72	2.3	Feb 2023	2 Jul 2023
South Sudan	1 471	2	0.1	Feb 2023	16 May 2023
Zambia	757	14	1.8	Jan 2023	22 Jun 2023
Burundi	562	9	1.6	Jan 2023	2 Jul 2023
United Republic of Tanzania	82	3	3.7	Feb 2023	24 Apr 2023
The Kingdom of Eswatini	2	0	0	Mar 2023	25 Apr 2023

***Earlier cases stated for Cameroon were from 2021, current number are now from 1 Jan 2022**

Sources: https://apps.who.int/iris/bitstream/handle/10665/371043/AFRO%20Cholera%20Bulletin.19_Final.pdf

WHO AFRO UPDATE

WEEKLY BULLETIN ON OUTBREAKS AND OTHER EMERGENCIES

Week 28: 10 - 16 July 2023

Data as reported by: 17:00; 16 July 2023



World Health Organization

African Region

Emergency Preparedness and Response

3

New events

143

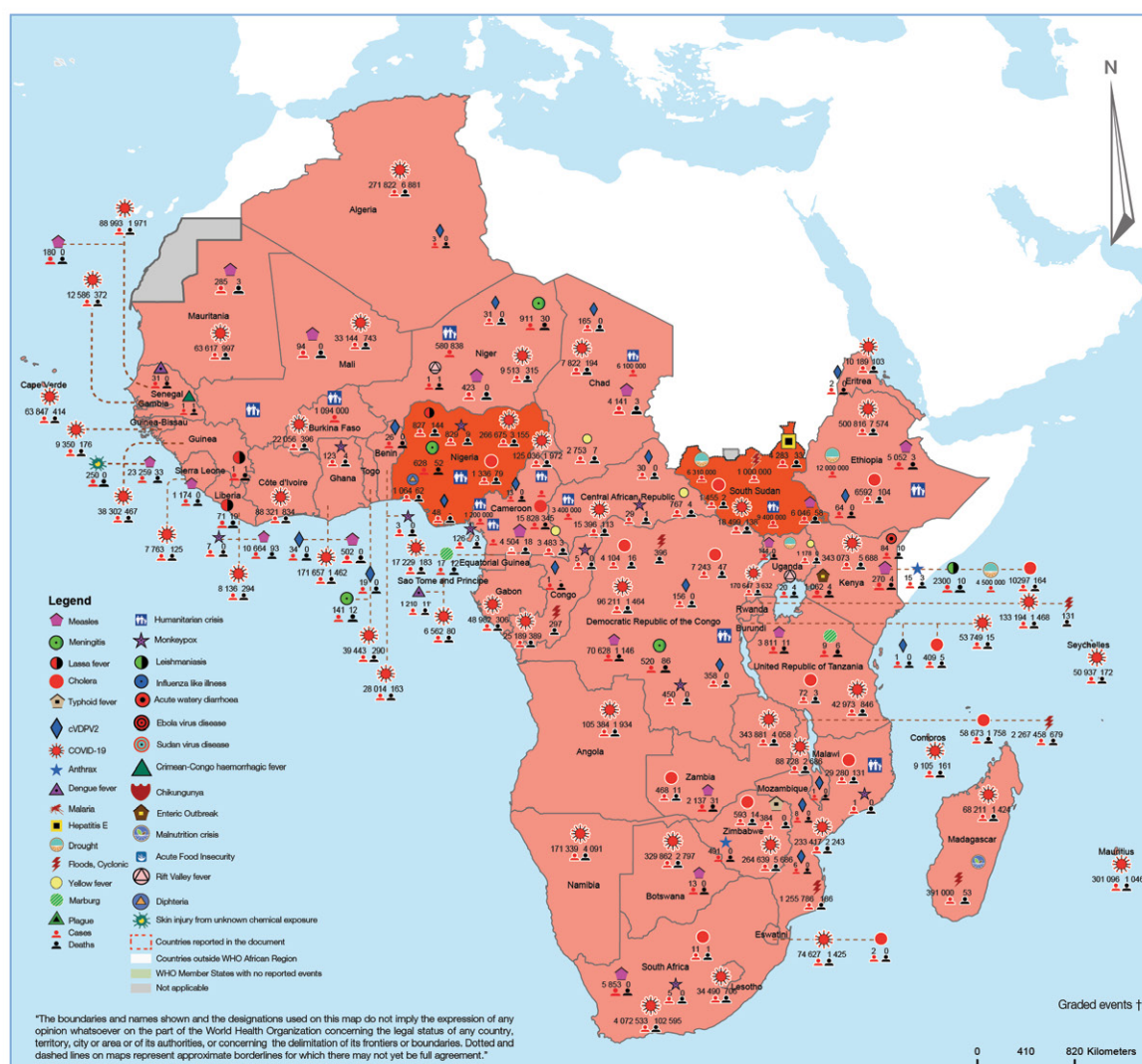
Ongoing events

126

Outbreaks

20

Humanitarian crises



4

Grade 3 events

3

Grade 2 events

2

Grade 1 events

2

Protracted 3 events

6

Protracted 2 events

0

Protracted 1 events

35

Ungraded events

Health Emergency Information and Risk Assessment

Figure 7. 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 143 events. For more information, see link below: <https://www.afro.who.int/health-topics/disease-outbreaks/outbreaks-and-other-emergencies-update>