NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service

2023

COMMUNICABLE DISEASES COMMUNIQUÉ

MAY 2023, VOL.22(5)

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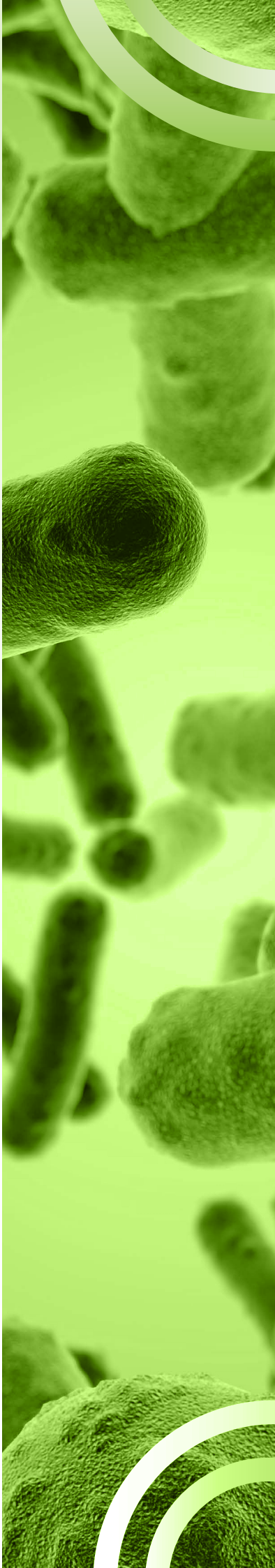

EDITORIAL

Dr Kimantha Moodley & Dr Vanessa Quan

As we approach winter, we reflect on the close of the malaria season and start of the influenza season. The influenza season began in mid-April and cases continue to rise. The flu vaccine remains the primary means for preventing seasonal influenza, and although the season has already begun, it is never too late to get vaccinated. The RSV season, which began in February and peaked in mid-March, is coming to an end as the number of new cases continues to decline on a weekly basis. In this month's issue we also provide an update on the increase in pertussis cases.

Since the start of the year, there have been two confirmed cases of diphtheria detected in the country. Diphtheria is a rare but vaccine-preventable disease. Clinicians are urged to check the vaccination status of patients and provide catch-up and booster vaccines where necessary (see Annexure 1). Contact tracing and provision of prophylactic antibiotics are measures that can be taken to contain outbreaks.

In this month's issue of the Communiqué, we provide an update on the ongoing cholera outbreak in Gauteng and Free State provinces. As cases continue to rise, clinicians should maintain a high index of suspicion for cholera in anyone presenting with acute diarrhoeal disease. Cholera is a category 1 Notifiable Medical Condition (NMC), and all suspected cases should be notified using the NMC website or mobile application. The measles outbreak that has been declared in eight provinces seems to be on a downward trend, based on the reproduction number in Gauteng Province as well as a declining number of new cases in other provinces. Updated and more detailed information on the cholera and measles outbreaks can be found on the NICD website.

We are happy to report that there were no new human rabies cases reported since the April edition of the Communiqué was published. Rabies is 100% fatal but preventable with administration of life-saving post-exposure prophylaxis. Another interesting update in this month's issue is a summary of the 4th Meeting of the WHO Antimicrobial Resistance Surveillance and Quality Assessment Collaborating Centers Network, which took place in Argentina earlier this year.

In this penultimate issue of the Communiqué, we continue our series of reflections: this month Dr Gillian de Jong provides insight on the importance of sharing information for action. The Communiqué in its current format will come to an end in June. We will continue to provide timeous and pertinent updates on current outbreaks on the NICD website. The Public Health Bulletin of South Africa will absorb the functions of the Communiqué and will be used to provide detailed updates on communicable diseases. Thank you for being part of this journey with us and we hope you enjoy the May edition!

REFLECTION

Dr Gillian de Jong – Sharing information for action

Since 2002, the NICD's Communicable Diseases Communiqué has focussed on sharing 'data for action.' In the early years, a disclaimer was printed with each edition cautioning, '… information is…preliminary and should not be cited or utilised for publication.' Perhaps this helped to give the editors the courage to share timely data in the absence of the usual 'safeguards.' Various divisions of the NICD contributed to ensure this monthly publication made it to press. This was never about authorship or accolades, and articles acknowledged the collective contributions of a team rather than specific authors. Colleagues from within and outside the NICD came together to share their expertise for the 'greater good'- a true reflection of the value of collaboration and teamwork in outbreak response and communicable disease control.

Importantly, the NICD Communiqué aimed to recognise the essential role of the laboratory in detecting, responding to and controlling outbreaks. Guidance for specimen collection, laboratory testing and reporting was shared alongside clinical case definitions and recommended treatments. The publication evolved over time with the addition of a regular 'Beyond the Borders' section from September 2008 providing insights into infectious disease risks for those travelling or returning from travel.

In its first decade the Communiqué reported on a diverse range of outbreaks including highly pathogenic avian influenza (HPAI) H5N2 in ostriches, hepatitis A, typhoid fever, furuncular myiasis, a cross-border cholera outbreak, and many others.
Given the unpredictability of outbreaks, a monthly update would not always suffice and 'special/additional' issues were published to share essential information including case definitions, management guidelines and laboratory testing requirements for use in the field. In March 2009, an additional issue was used to allay fears and provide surveillance data to refute misleading media reports of a meningococcal disease outbreak. Special editions in March 2010 and January 2011 provided urgent outbreak alerts about Rift Valley fever. The 'headlines' in 'special' issues provide us with some interesting insights into the rapidly evolving nature of outbreaks of local and international importance. Reports of a 'swine influenza outbreak' in April 2009 became 'novel influenza A/H1N1 global outbreak' in May 2009 and then 'pandemic influenza A H1N1' by August 2009. In January 2020, the Communiqué first reported on a 'novel coronavirus outbreak' and by the following month, this had evolved to an 'Update on the novel coronavirus disease 2019 (COVID-19) outbreak.' This ever-changing outbreak landscape has required a flexible and timely approach to sharing key information over the past two decades.

It was a great privilege to be an editor of this publication in its early years under the supportive leadership of Professor Lucille Blumberg, the editorial skills of Professor John Frean, and in collaboration with many colleagues who shared their knowledge so generously. The Communiqué has changed its face over time with new editors, new formats and new content. What remained unchanged, was the willingness of all involved to share data and expertise. The Communiqué now enters its next iteration. Undoubtedly, it will continue to carry the hallmarks of good public health communication in providing relevant and timely 'information for action.'

QUICK UPDATES

Measles, South Africa

The ongoing measles outbreak which began in October 2022, has resulted in a cumulative total of 1 024 laboratory-confirmed cases (as of 26 May 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 (23%) and 10-14 year olds (20%).

Nationally, the infection incidence seems to be decreasing, based on the national reproduction number as well as limited ongoing transmission in affected 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-2023-26-may-2023/

Cholera, South Africa

Gauteng Province declared a cholera outbreak on 05 February 2023, following confirmation of two epidemiologically-linked cases. As of 24 May 2023, the province has recorded a cumulative total of 29 laboratory-confirmed cases of cholera and 17 deaths. The National Department of Health reported an additional seven confirmed cases from Free State Province on 21 May 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: Gauteng Department of Health Media Statement, 24 May 2023; https://www.gov.za/speeches/health-warns-public-diarrhoeal-disease-outbreak-and-rising-cholera-cases-21-may-2023-0000; https://www.nicd.ac.za/diseases-a-z-index/cholera/).

ZOONOTIC AND VECTOR-BORNE DISEASES

Rabies

There were no rabies-related human deaths recorded in South Africa in the recent month between 24 April - 23 May 2023. As of 23 May 2023, the cumulative total of laboratory-confirmed human rabies cases still stands at five for this year. Cases have been reported from the following provinces: Eastern Cape (EC) (n=2), KwaZulu-Natal (KZN) (n=2), and Limpopo (LPP) (n=1). This is a decrease compared to the 12 human rabies cases (EC n=8, LPP n=3, KZN n=1) reported from the same provinces over the same period in 2022 (1 January - 23 May). Of the eight cases from Eastern Cape Province in 2022, only four were laboratory-confirmed, with the remaining four cases classified as probable cases based on exposure and clinical histories.

Seventy-seven of the 94 cases recorded between 1 January 2018 and 23 May 2023 (Figure 1) involved dog exposures, whereas five involved cats, two involved wild animals, and ten had unidentified exposures that either went untreated or received inadequate rabies post-exposure prophylaxis (PEP). Cleaning the wound, giving rabies immunoglobulin (RIG) and the rabies vaccine on the day of exposure, and then giving the vaccine again on days 3, 7, and between days 14 and 28, are all part of PEP.

There are continuing awareness initiatives and internet platforms for educating communities about rabies. Furthermore, training and online resources can be used to train healthcare providers and public health professionals about rabies, as well as the approach used to assess patients for rabies virus exposure and administer rabies PEP, as recommended by national guidelines.

(www.nicd.ac.za, www.health.gov.za, www.dalrrd.co.za, https://openwho.org, https://rabiesalliance.org, http://phpa.dhmh.maryland.gov/training/Pages/rabies.aspx)

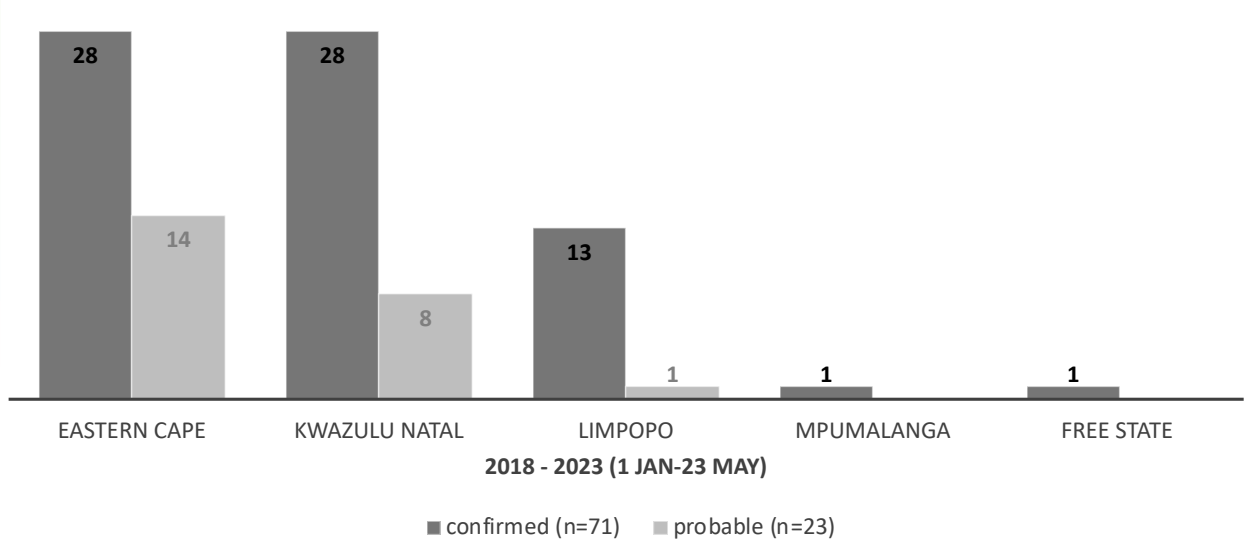

Figure 1. Probable and confirmed human rabies cases in South Africa for the years 2018 - 2023 (1 Jan-23 May).

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

Malaria

As winter and the end of the malaria season draw closer, we reflect on the local malaria situation, not forgetting that this disease is a regional, as well as global, public health problem. Consolidated South African data provided by the National Department of Health show that, compared with the previous two malaria seasons, there have been late increases in the numbers of both malaria cases and deaths, probably largely related to Easter holiday travel, increased cross-border movement, and recent rains. This is not an unexpected finding, and serves to remind healthcare workers about the importance of awareness, early diagnosis and effective treatment of malaria. Unfortunately, mortality audits show that late presentation, delays in recognition and suboptimal treatment are all too often factors behind the tragic and unnecessary deaths from malaria. Public awareness of malaria needs to improve. The ideal treatment for severe acute malaria, namely intravenous artesunate, is widely available and there is an active drive to remove intravenous quinine from public hospital pharmacies; the private healthcare sector needs to do the same. While Gauteng Province does not have malaria transmission, it nevertheless has a substantial burden of imported cases. In endemic areas, there is some progress towards enabling malaria case investigators to test and treat on site in communities. The routine use of single low-dose primaquine in these areas to interrupt transmission is not yet widely implemented, for various bureaucratic reasons. Fortunately, artemisinin resistance is not yet present in local parasite strains, but its emergence in several central African countries emphasises the need for ongoing and improved surveillance, locally and regionally. Monitoring of rapid malaria diagnostic tests shows that currently, these are not compromised by *P. falciparum* HRP2/3 antigen gene mutations; but again, this is a looming possibility. The imminent non-availability of paediatric atovaquone-proguanil (Malanil) is going to be a major problem for families travelling with children weighing less than 5 kg, as there is no practical replacement at the moment. The South African malaria treatment guidelines are presently being updated. In the bigger picture, the elimination of malaria in South Africa and the region remains the prized goal, with many challenges still to be overcome before it is attained.

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

RESPIRATORY DISEASES

Respiratory syncytial virus: activity decreasing

In 2023, the respiratory syncytial virus (RSV) season began in week 6 (week starting 6 February 2023), peaked at high level of activity in week 12 (week starting 20 March 2023) and has been declining week-on-week thereafter. RSV activity among children aged <5 years is currently at low level as determined by Moving Epidemic Method (MEM) (Figure 2). As of week 19 (week ending 14 May 2023), 17% (593/3 685) of cases tested positive for RSV across all ages, 9% (56/615) in the influenza-like illness (ILI) and 18% (536/3 062) in Pneumonia Surveillance Programme (PSP). Among the hospitalised cases, the majority of RSV positive cases were subgroup A (414/536, 77%), followed by subgroup B (115/536, 21%), subgroup A and B (2/536, 0.4%), inconclusive typing (4/536, 0.7%), and for one (1/536, 0.2%), typing was yet to be determined.

Since 1 January 2023, among children aged <5 years enrolled in surveillance, 35% (540/1 544) of cases tested positive for RSV, with 40 cases (40/212, 19%) from ILI surveillance and 500 cases (500/1 332, 38%) from PSP. The percentage testing positive among children aged <5 years in week 19 was highest in Gauteng Province (133/306, 43.5%), followed by KwaZulu-Natal (107/290, 36.9%) and Western Cape (234/639, 36.6%) provinces.

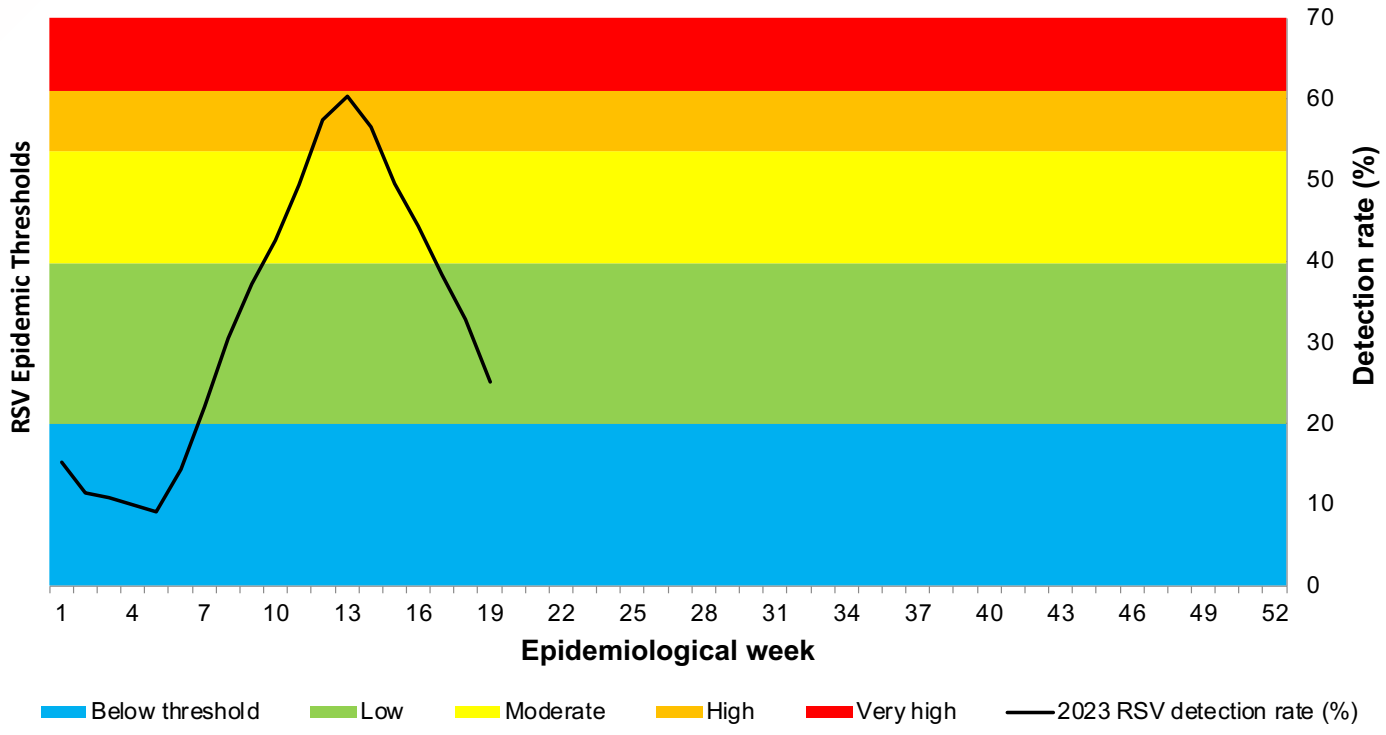

Figure 2. Respiratory syncytial virus percentage detections* and epidemic thresholds** among children aged < 5 years, Severe Respiratory Illness (SRI) surveillance, South Africa 2023 *Detection rate is number positive/total tested **Thresholds based on 2010-2019 data

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

RESPIRATORY DISEASES

Corynebacterium diphtheriae disease, South Africa, March - April 2023

Diphtheria disease is caused by infection with toxin producing strains of *Corynebacterium diphtheriae* (or rarely *C. ulcerans* or *C. pseudotuberculosis*) and presents most commonly as a membranous pharyngitis. Large neck glands (bull neck appearance) and low grade fever are associated symptoms. A toxin produced by the bacterium causes necrosis of the tissues, leading to respiratory obstruction. Additional complications such as renal failure, neuropathy and myocarditis may occur. Death can occur as a result of airway obstruction or because of the systemic complications. The mortality due to diphtheria may be as high as 50% in the absence of antitoxin[1]. Diphtheria may also cause cutaneous disease. Cutaneous disease may be caused by non-toxigenic or toxigenic strains. Cutaneous infection with toxigenic strains may rarely also be associated with systemic symptoms such as myocarditis. Early treatment with antitoxin, prior to the toxin binding to cells, is extremely important, and should be given based on clinical suspicion prior to laboratory confirmation. Diphtheria is a vaccine-preventable disease, however a drop in vaccine coverage, as seen during the SARS-CoV-2 pandemic, could potentially lead to cases appearing. Diphtheria is a rare disease and clinicians need to have a high index of suspicion to make an early diagnosis. Contact tracing, testing and the administration of prophylactic antibiotics can contain outbreaks.

Since March 2023, two cases and one asymptomatic contact of a laboratory-confirmed diphtheria case (toxin producing *C. diphtheriae)*, have been identified in South Africa. The first case was identified in an adult male aged 22 years in KwaZulu-Natal (KZN) Province, with onset of symptoms on 23 March 2023. The second case was identified in a three-year-old child in Western Cape (WC) Province on 8 April 2023. An asymptomatic contact of the child also tested positive during contact tracing. Both symptomatic cases (from KZN and WC) demised.

Diphtheria antitoxin is in short supply globally; the World Health Organization (WHO) is working to secure additional supplies of antitoxin. Limited supplies of antitoxin are available in South Africa. Treatment in the absence of anti-toxin involves appropriate antibiotics and supportive care.

Guidelines for diagnosis, management and laboratory diagnosis are available on https://www.nicd.ac.za/diseases-a-z-index/diphtheria/

1. WHO. Diphtheria vaccine. Weekly *Epidemiological Record*. 2006;81(3):24-32.

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

The influenza season update, May 2023

Influenza cases at sentinel influenza-like illness (ILI) and pneumonia surveillance programme (PSP) sites have been steadily increasing since week 15 (starting 10 April 2023) (Figure 3). Private laboratories have also detected increasing numbers of influenza cases, and NICD has received reports of influenza clusters in schools and workplaces.

The 2023 influenza season started in week 17 (week starting 24 April 2023), when the influenza detection rate (3-week moving average) breached the seasonal threshold and remained on low activity for two consecutive weeks in the pneumonia surveillance programme (Figure 3). The increase in case numbers has been identified in all six provinces where surveillance is conducted. To date, the most commonly detected subtype and lineage is influenza A (H1N1)pdm09 (81/111, 73%), followed by influenza A (H3N2) (5/111, 5%), and influenza B Victoria (2/111, 2%). Twenty-three samples have subtyping results pending.

Influenza A(H3N2), A(H1N1)pdm09, and influenza B are common seasonal influenza strains in humans. Influenza A(H1N1)pdm09, which is sometimes incorrectly referred to as "swine flu," has been one of the circulating seasonal influenza strains following its emergence in 2009. The term "swine flu" should not be used as it causes unnecessary panic. The clinical course of infection and management of this strain is similar to other influenza strains.

Although the majority of people with influenza will present with mild illness, influenza may cause severe illness, which may require hospitalisation or cause death, especially in individuals who are at risk of getting severe influenza illness or complications. Groups at increased risk of severe illness or complications include pregnant women, people living with HIV, people with chronic illnesses or conditions such as diabetes, lung disease, tuberculosis, heart disease, renal disease and obesity, the elderly (65 years and older) and children less than 2 years old. These groups should be encouraged to seek medical help early.

As the influenza season has started, the influenza vaccine remains the primary means for preventing seasonal influenza infection (Figure 3). Ideally, the vaccine should be administered before the influenza season (March to April). However, even if the season has already started, it is never too late to get vaccinated, especially for individuals who are at high risk of severe influenza illness or complications. To prevent contracting or spreading the influenza virus, the following measures are recommended: avoid close contact with sick individuals, stay home when sick, cover mouth and nose when coughing or sneezing, regularly clean hands, avoid touching the mouth, eyes, and nose, and clean and disinfect commonly used surfaces. Clinicians should include influenza as a possible diagnosis when managing patients with respiratory illness.

Updated guidelines on influenza diagnosis and management are available at: https://www.nicd.ac.za/wp-content/uploads/2023/05/Influenza-guidelines_-25April-2023-final.pdf
Weekly influenza surveillance reports are published at:

https://www.nicd.ac.za/diseases-a-z-index/disease-index-covid-19/surveillance-reports/weekly-respiratory-pathogens-surveillance-report-week/

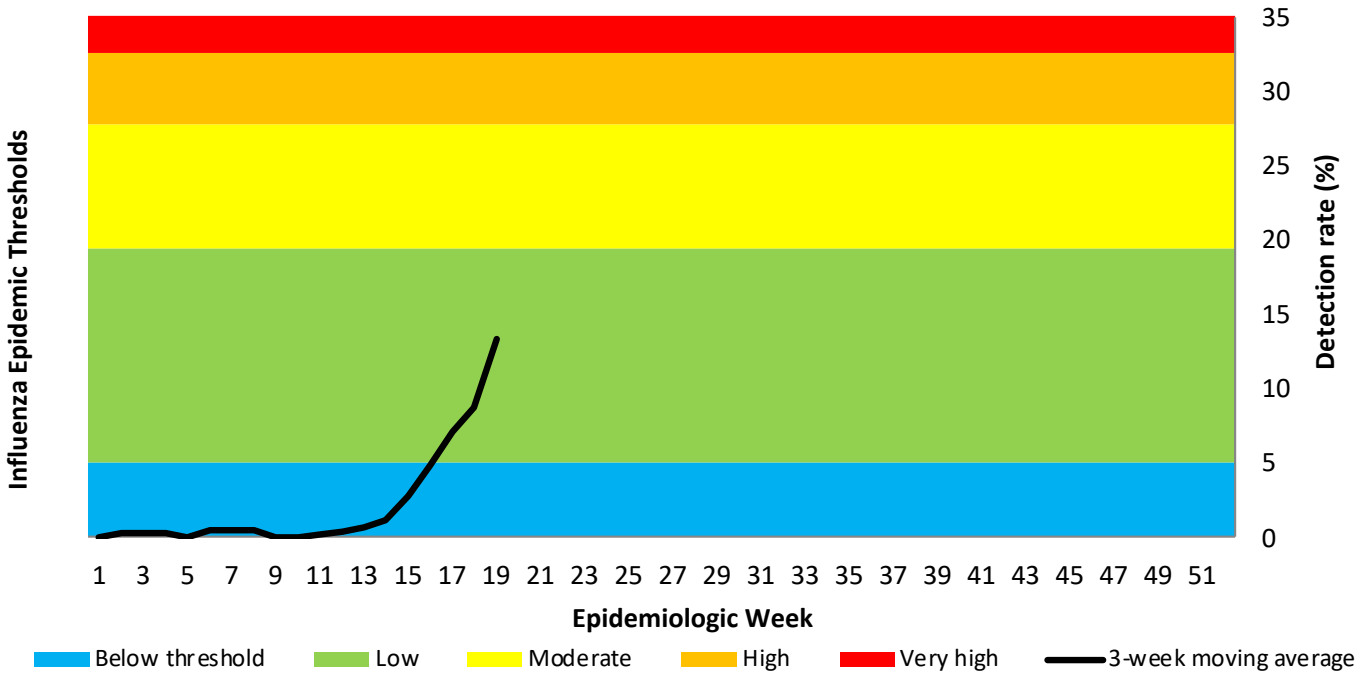

Figure 3. Influenza percentage detections and epidemic thresholds among cases of all ages, pneumonia surveillance in public hospitals, 1 January 2023 to 14 May 2023

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

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

There has been a significant increase in *Bordetella pertussis* (pertussis) cases detected in the pneumonia surveillance programme (PSP) at sentinel surveillance hospitals in 2022/2023 compared to the COVID-19 pandemic years (2020/2021) (Figure 4). Overall, 0.1% (2/3 778) of patients enrolled into pneumonia surveillance tested positive for pertussis from 1 January to 30 June 2022. The increase in detection of pertussis cases started from 1 July 2022, with the detection rate at (3.0%, 205/6 857) for the period through 19 May 2023. The highest number of pertussis cases was recorded in September 2022 (13.2%, 27/205), followed by November 2022 (12.2%, 25/205) and January 2023 (11.7%, 24/205).

Initially, most cases were reported from Western Cape (WC) Province and these cases still account for the majority overall (52.2%,107/205). However, since the beginning of 2023, cases have been reported more widely across the provinces with Gauteng (GP) reporting the highest number of cases in 2023 (25.3%,23/91) followed by WC (20.9%,19/91) and Mpumalanga (MP) (17.6%, 16/91).

Of those with available data on age, the majority of cases were in children aged <5 years (76.6%, 157/205) and of these, 68.2% (107/157) were children aged <3 months. During the reporting period, there were five deaths reported (case fatality ratio (CFR) 2.6%, 5/192) from the following provinces: a child <3 months of age from MP, a 49-year-old male from GP, a 16-year-old male from North West (NW), a 34-year-old male from WC and a 44-year-old male from WC. All individuals aged >5 years who died had significant underlying conditions. Of the 123 (78.3%, 123/157) pertussis positive cases aged <5 years with documented vaccination data available, 55.3% (68/123) were vaccinated up-to-date for age.

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 (5.0%, 91/1 835) were also enrolled into the PSP (notification of pneumonia surveillance cases is ongoing). From 1 January to 30 June 2022, there were 33 pertussis positive cases notified on NMC. Similar to the PSP, an increase in reported cases started from 1 July 2022 through 19 May 2023, with 1 835 pertussis cases reported on NMC (Figure 5). The WC Province reported the highest number of cases (39.2%, 720/1 835) initially and overall, similar to cases in the PSP. From 2023, cases are spread across the provinces, specifically GP (26.0%, 294/1 132), WC (25.9%, 293/1 132) and KwaZulu-Natal (KZN) (16.5%, 187/1 132) (Figure 5). Of those with available age, the majority of cases (71.4%, 1 109/1 553) were in children aged <5 years, and of those, 66.0% (732/1 109) were children aged <3 months. Among the 1 420 pertussis positive cases in the NMC database with data available on outcome, 26 deaths were reported, (CFR 1.8%, 26/1 420) (excluding the five deaths reported above under PSP). Of the 26 people who died, 25 were children aged <5 years, of whom 20 were children aged <3 months and one was missing data on age.

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 primary series, Diphtheria, Tetanus and acellular-Pertussis (DTaP) and boosters is important for prevention. Healthcare workers should confirm the vaccination status of children and encourage vaccination. Clinicians are advised to be on the alert for cases, to conduct diagnostic testing where appropriate, to notify cases on the NMC app, prescribe post-exposure prophylaxis to close and high-risk contacts of suspected or confirmed cases, to vaccinate healthcare workers, and 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 young 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 13th of December 2022 (https://www.nicd.ac.za/an-increase-in-pertussis-cases-13-dec-2022/).

RESPIRATORY DISEASES

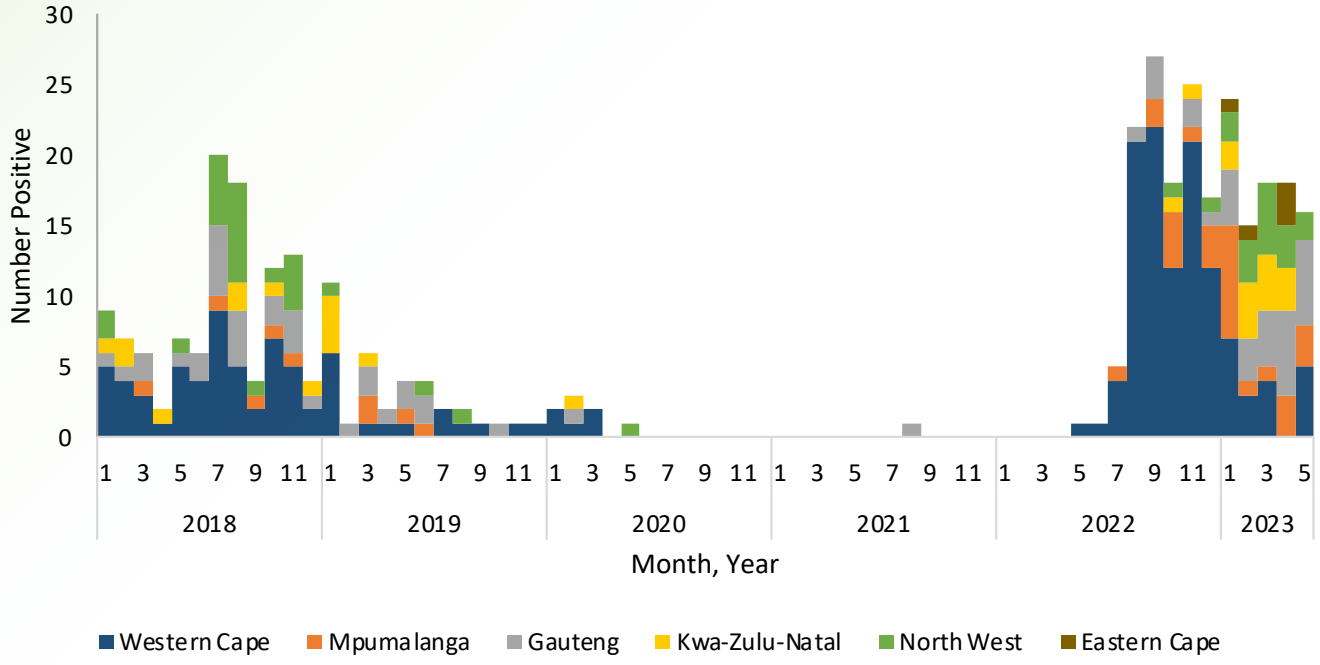

Figure 4. Number of laboratory-confirmed pertussis cases from pneumonia surveillance programme by year, month and province, South Africa 2018-2023

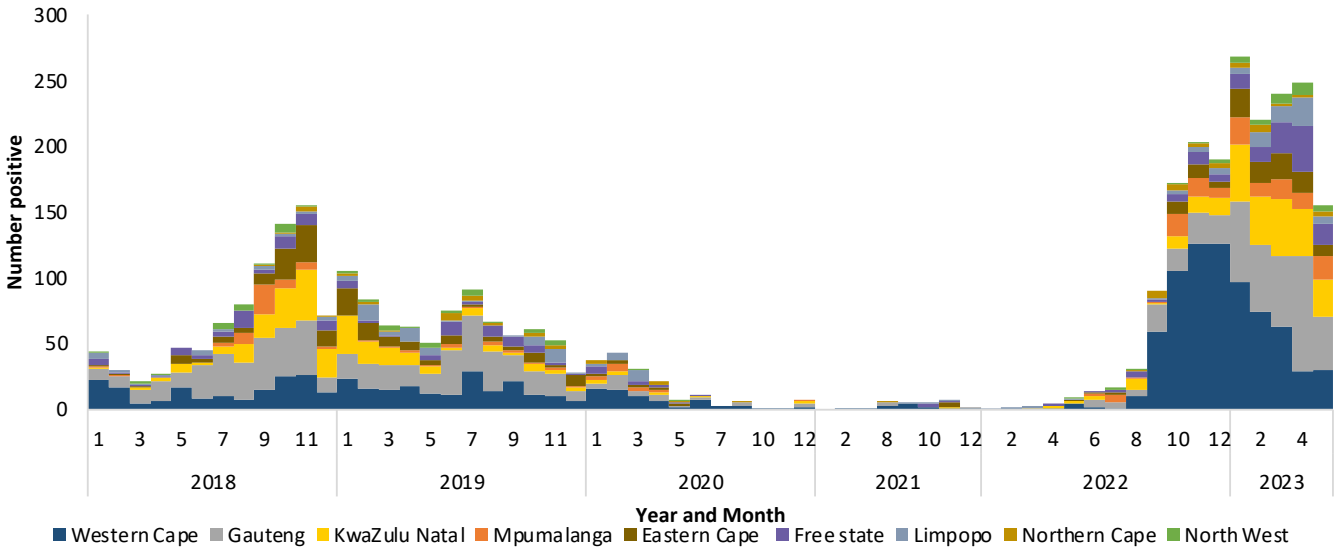

Figure 5. Number of notified pertussis cases from Notifiable Medical Conditions Surveillance System (NMC-SS) by year, month and province, South Africa, 2018-2023

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

HEALTHCARE-ASSOCIATED INFECTIONS, ANTIMICROBIAL RESISTANCE AND MYCOSES

4th Meeting of the WHO Antimicrobial Resistance (AMR) Surveillance and Quality Assessment Collaborating Centers Network

SOA-43 at CHARM/NICD is WHO AMR Collaboration Centre (CC) for AMR in African region. The 4th Network meeting was held in person in Buenos Aires, Argentina, from 21 - 23 March 2023 and focused on updating support from the Network to WHO, on AMR surveillance and laboratory strengthening. The CC network meeting was held jointly by WHO Head Quarter, WHO-AMRO/PAHO-Region of the Americas, and WHO CC in Argentina. In addition, the Robert Koch Institute (DEU-144), as a coordinating Centre of the Network, contributed to the preparation for the meeting.

A total of 87 participants attended the meeting. The main objectives of the meeting were to share global and regional updates on activities to tackle AMR; discuss challenges in implementing strategies to contain AMR; to agree on essential areas of work, and review CC Network activities to support WHO in fostering the implementation of AMR national action plans (NAPs) and laboratory strengthening in Low-and-Middle-Income Countries (LMICs) for the period of 2023-2025.

The meeting succeeded in updating the CC network on the WHO strategic priorities to address AMR and current activities of the Surveillance, Prevention and Control (SPC) Department to help countries accelerate the implementation of AMR NAPs. The three full-day meetings included seven sessions and ad-hoc poster sessions with each CC poster submission.

Examples of CC support best practices was presented by Olga Perovic (SOA-43) who introduced the WHO NICD EQA programs in the African Region. Strengthening the emergency preparedness of national laboratory systems requires strong laboratory capacity. Olga Perovic described the performance evaluation applied to every bacteriology laboratory through two surveys. The laboratory performance in bacteriology (enteric, general bacteriology, and yeast) was graded based on the Clinical Microbiology Proficiency Testing (CMPT) model.

Importantly, WHO develops global standards and tools and provides technical support to countries for monitoring AMR and antimicrobial consumption (AMC). To build national expertise, WHO and the CC Network are developing the WHO Academy (WHOA) course, "Antimicrobial resistance and antimicrobial use surveillance: Competencies for policy and practice", aiming to improve capacity-building outreach. The course is an innovative distance-based training that addresses all aspects of AMR and AMC surveillance, develops related competencies, and serves policymakers and multidisciplinary professionals involved in surveillance functions at different levels of the health systems.

The CC from Argentina organised a visit to Malbran Institute in Buenos Aires, where WHO Collaborating Centre for Research, Referential Diagnosis, Biological Production & Training in Chagas & Parasitic Diseases was located.

Source: Healthcare-Associated Infections, Antimicrobial Resistance and Mycoses, NICD-NHLS; olgap@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.

Marburg virus disease – African Region

Equatorial Guinea: On 16 May 2023, the Ministry of Health declared an end to their Marburg virus disease (MVD) outbreak, which resulted in a cumulative total of 17 confirmed cases, 23 probable cases and 12 deaths among confirmed cases (CFR=70.6%). All 23 probable cases demised. The outbreak was initially declared on 13 February 2023 and the last confirmed case was reported on 20 April 2023.

Tanzania: After the declaration of the MVD outbreak on 21 March 2023, there have been a cumulative total of nine confirmed cases and six deaths reported (CFR=66.7%) as of 4 May 2023. All the cases have been reported from the Bukoba Rural District in the Kagera Region. The majority of cases are male (66.7%) and the mean age of cases is 35 years. There are currently 212 contacts that are being followed up.

Sources: https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON467; https://www.laprensalatina.com/equatorial-guinea-declares-end-of-marburg-outbreak/

Cholera – African Region

Since mid-2021, globally, there has been an acute upsurge of the seventh cholera pandemic characterised by the number, size and occurrence of multiple outbreaks. Cholera cases are currently reported in areas that were previously declared cholera-free for decades, with high mortality rates.

As of 21 May 2023, cholera cases are still being reported in at least 24 countries globally. Among these, 15 African countries have experienced cholera outbreaks, including Burundi, Cameroon, the Democratic Republic of the Congo (DRC), Ethiopia, the Kingdom of eSwatini, Kenya, Malawi, Mozambique, Nigeria, Somalia, South Africa, South Sudan, Tanzania, Zambia, and Zimbabwe.

WHO and the United Nations International Children's Emergency Fund (UNICEF) are joining forces to release a plan called the Strategic Response, Readiness and Preparedness Plan (SPRP) along with a Call-to-Action. These initiatives aim to increase awareness about cholera and gather more resources to address emergency situations over the next year. In addition, WHO and UNICEF will collaborate with the Global Task Force on Cholera Control (GTFCC) and national governments to support long-term efforts in controlling cholera.

Surveillance measures should be strengthened to enable early detection of cases, especially at our ports of entry. More information on cholera is available on the NICD website: https://www.nicd.ac.za/diseases-a-z-index/cholera/.

BEYOND OUR BORDERS

Table 1. Cholera cases and deaths reported to WHO from African countries, as of 14 May 2023

Country	Cumulative Cases	Cumulative Deaths	CFR (%)	Reporting period
Burundi	409	5	0.4	08/12/2022 – 14/5/2023
Cameroon	15 828	345	2.0	01/10/2021 – 07/5/2023
Democratic Republic of Congo	30 057	349	1.2	01/01/2022 – 03/4/2023
The Kingdom of Eswatini	2	0	0	03/04/2023 – 05/4/2023
Ethiopia	6 592	104	1.6	01/08/2022 – 13/5/2023
Kenya	10 297	464	4.5	08/10/2022 – 07/5/2023
Malawi	58 673	1 758	3.0	01/03/2022 – 14/5/2023
Mozambique	29 808	131	0.4	01/09/2022 – 05/5/2023
Nigeria	24 435	617	2.5	01/01/2022 – 13/3/2023
Zambia	468	11	2.4	21/01/2023 – 08/5/2023
Somalia	7 442	24	0.3	01/01/2023 – 07/5/2023
South Africa	11	1	9.1	01/02/2023 – 05/5/2023
South Sudan	1 455	2	0.1	22/02/2023 – 14/5/2023
United Republic of Tanzania	72	3	4.2	01/02/2023 – 13/3/2023
Zimbabwe	593	14	2.4	12/02/2023 – 30/4/2023
TOTAL	**186 142**	**3 828**	**2.1**	

Sources: https://apps.who.int/iris/bitstream/handle/10665/367952/OEW20-0814052023.pdf; https://www.who.int/docs/default-source/coronaviruse/situation-reports/20230504_multi-country_outbreak-of-cholera_sitrep-2_updated.pdf?sfvrsn=ae4ad6cd_3&download=true; https://reliefweb.int/report/somalia/weekly-choleraawd-situation-report-somalia-epidemiological-week-18-1-7-may-2023

Lassa fever – Nigeria

The number of new confirmed lassa fever cases (n=10) decreased in epidemiological week 18 (week ending 7 May 2023), compared to week 17 (n=21). The cumulative case numbers (from week 1 to week 18 of 2023) are as follows: 5 218 suspected cases, 929 confirmed cases and five probable cases. The total deaths recorded among confirmed cases is 158 (CFR 17.0%). For the same period in 2022, there were a total of 151 deaths from 762 confirmed cases (CFR 19.8%).

For 2023 to date, 28 of the 36 states have recorded at least one confirmed case, an increase of two states since the last update given in the April 2023 edition of the Communicable Diseases Communiqué, with reference to the situation report from week 14. In weeks 1 to 15 of 2023, 42 cases were reported among healthcare workers across 11 states, with no new healthcare worker cases from weeks 15 to 18.

Current response to the outbreak is challenging due to the occurrence of multiple emergencies simultaneously, including outbreaks of COVID-19, diphtheria, meningitis, measles and cholera, together with the ongoing humanitarian crises. Additionally, the country is also dealing with security challenges that can affect adequate response.

Since Lassa fever is primarily zoonotic and human-to-human transmission has been less common, WHO has assessed the regional and global risk as being low. However, the risk at the national level is considered high, due in part to an increase in confirmed cases when compared to previous endemic seasons, a reduction of national capacity due to ongoing simultaneous health emergencies, as well as poor awareness about the disease among the public and healthcare workers, possibly leading to delays in diagnosis and treatment, thus increasing the risk of transmission and fatalities.

Sources: https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON463; https://ncdc.gov.ng/themes/common/files/sitreps/4d1aa9cc68856d96ac7c9e3cd36ee393.pdf

WHO AFRO UPDATE

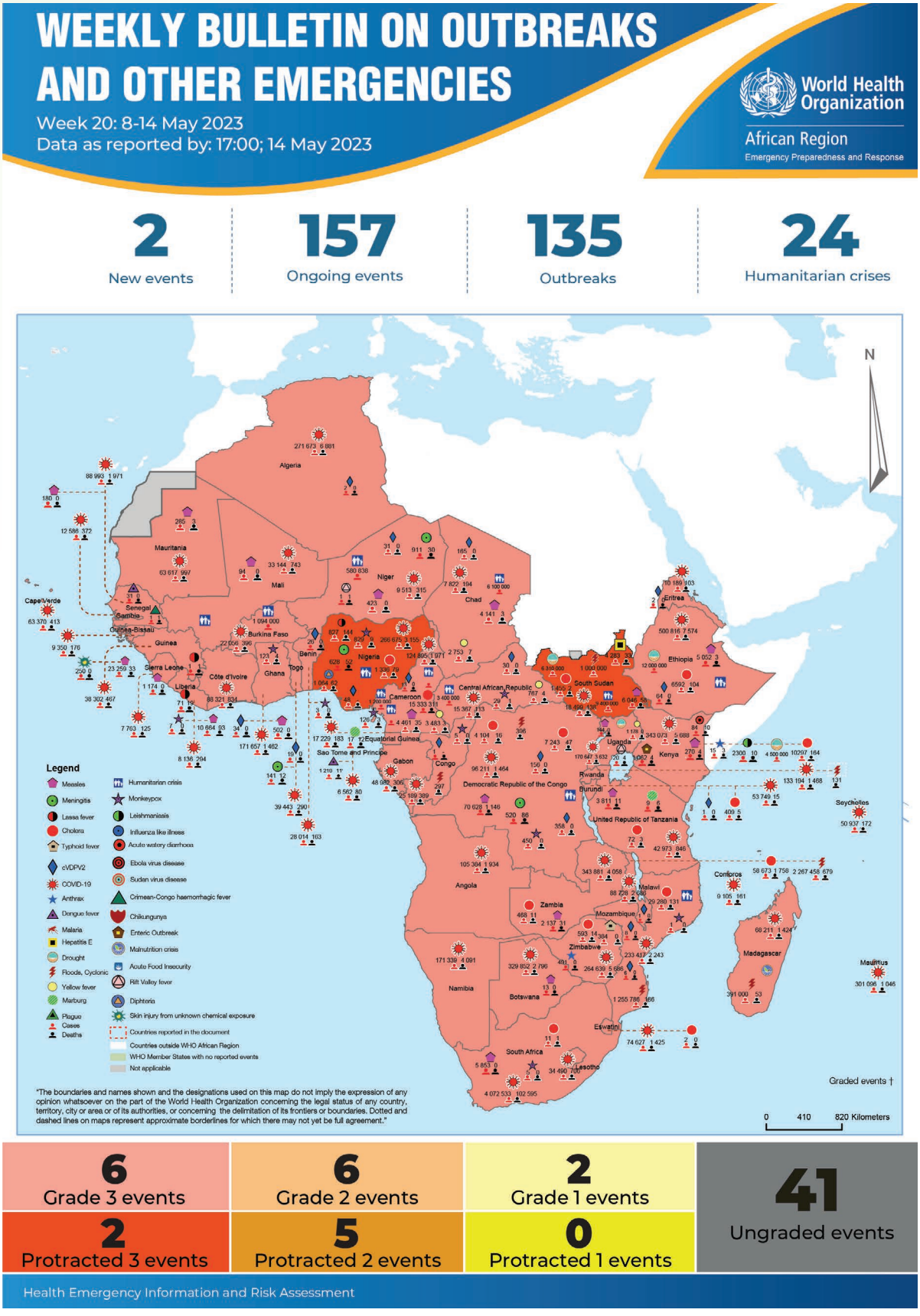

Figure 6. The Weekly WHO Outbreak and Emergencies Bulletin focuses on selected public health emergencies occurring in the WHO African Region. The African Region WHO Health Emergencies Programme is currently monitoring 157 events. For more information, see link below: https://www.afro.who.int/health-topics/disease-outbreaks/outbreaks-and-other-emergencies-update

ANNEXURE 1:

Recommended Catch-Up Immunisation Schedule

Recommended catch-up immunisation schedule
for children who have not started or are more than 1 month behind

MEDICINES INFORMATION CENTRE
0861 100 531 / 021 406 6829

How to use this table: First check if child has received any vaccines documented in the Road to Health Booklet or similar document. If not documented, assume that vaccine has not been given. Always continue from the last dose the child has received. Child may be too old to receive some vaccines. Use the standard intervals and ages recommended in the National Immunisation Programme schedule once the child is up to date.

If child presents after 6 months of age and has not received measles vaccination, it is recommended to prioritise catch-up of measles first.
Do not administer measles vaccine (MeasBio®) at the same time as other vaccines*.

Vaccine	Standard recommended age for dose(s)	Age at presentation for catch-up immunisation	Dose 1 (unless already received as per normal schedule)	Timing of catch-up doses		
				Dose 2	Dose 3	Dose 4
BCG Bacille Calmette-Guérin	Birth	<12 months & no contraindications[α]	Give now	-		
		>12 months	Do not give			
OPV Oral polio vaccine	Dose 1: birth Dose 2: 6 weeks	<6 months	Give now	A minimum of 4 weeks after dose 1 (if still <6 months of age)	-	-
		>6 months	Do not give	-		
DTaP-IPV-Hib-HBV Diphtheria, Tetanus, Acellular pertussis, Inactivated polio vaccine, *Haemophilus influenzae* type b, Hepatitis B vaccine	Dose 1: 6 weeks Dose 2: 10 weeks Dose 3: 14 weeks Dose 4: 18 months	<2 years	Give now	A minimum of 4 weeks after dose 1	A minimum of 4 weeks after dose 2	At or after 18 months of age (4 weeks after dose 3)
		2 - <6 years	Give now	A minimum of 4 weeks after dose 1 (if still <6 years of age)	A minimum of 4 weeks after dose 2 (if still <6 years of age)	A minimum of 12 months after dose 3 (if still <6 years of age)
RV Rotavirus vaccine	Dose 1: 6 weeks Dose 2: 14 weeks	<20 weeks	Give now	A minimum of 4 weeks after dose 1	-	-
		20 - 24 weeks	Give now	-		
		>24 weeks	Do not give	-		
PCV Pneumococcal conjugate vaccine	Dose 1: 6 weeks Dose 2: 14 weeks Dose 3: 9 months	<6 months	Give now	A minimum of 4 weeks after dose 1	At 9 months of age	-
		6 - 11 months	Give now	A minimum of 4 weeks after dose 1	After 1 year of age (8 weeks after dose 2)	-
		12 months - <6 years	Give now	No further doses required unless a specific long-term health condition[#] is present, in which case give dose 2 (at least 4 weeks after dose 1) and dose 3 (8 weeks after dose 2)		
Measles*	Dose 1: 6 months Dose 2: 12 months	<11 months	**Give now (Before any other vaccines - refer to footnote below)***	At 12 months of age*	-	-
		>11 months	**Give now***	A minimum of 4 weeks after dose 1*	-	-
Td Tetanus, Reduced strength of diphtheria vaccine	Dose 1: 4-6 years Dose 2: 12 years	>6 years	Give now	-	-	-
		>12 - 15 years	Give now	-		

[α] Contraindications to BCG vaccination include confirmed HIV infection, neonates or infants who are receiving tuberculosis preventive therapy (TPT) or anti-tuberculosis (TB) treatment, primary immunodeficiency diseases or immunosuppressive therapy. Administer BCG vaccine 2 weeks after completing TPT or anti-TB treatment if no other contraindications.

[#] Specific long-term health conditions include chronic lung disease, chronic heart disease, diabetes mellitus, cerebrospinal fluid leak, cochlear implant, haemoglobinopathy, asplenia, congenital or acquired immunodeficiency, chronic renal failure, nephrotic syndrome, chronic liver disease. Obtain expert advice for specific recommendations for different conditions.

*Do not administer measles vaccine (MeasBio®) at the same time as other vaccines – if missed, give first on its own and allow an interval of 4 weeks before next dose of any vaccine.

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Sources: http://www.mic.uct.ac.za/sites/default/files/image_tool/images/51/Catch-up%20Immunisation_2020_v2.pdf; https://docs.mymembership.co.za/docmanager/47f686f5-acdf-4462-8366-64afd5633d81/00159562.pdf