

2  
0  
2  
3



COMMUNICABLE  
**DISEASES**  
COMMUNIQUÉ

<b>TABLE OF CONTENTS</b>	<b>Editorial</b>	1
	<b>Zoonotic and Vector-Borne Diseases</b>	2
	Rabies update	2
	Current situation of malaria in South Africa	3
	<b>Vaccines and Immunology</b>	5
	Measles Rubella Surveillance	5
	<b>Beyond our Borders</b>	6
	Cholera – African Region	6
	Dengue fever – global overview	7
	<b>Public Health Bulletin of South Africa</b>	8

# EDITORIAL

**Dr Kimantha Moodley**

As we head into summer and the holiday season in South Africa, we expect to see more travel both within and beyond our borders. With this comes the increased risk of exposure to infectious diseases, particularly those that thrive in higher temperatures. In this month's issue of the Communiqué, we provide an update on malaria in South Africa and highlight the importance of malaria-preventative measures in those living in or travelling to endemic areas.

We also provide an update on human rabies in the country. We are sad to report on a new case that occurred in a 10-year-old child from Eastern Cape Province earlier this month. To date, for the year 2023, South Africa has recorded 10 cases of human rabies. Rabies is 100% fatal but preventable. In this month's issue, we discuss some of the options available for preventing and controlling rabies in South Africa.

Another concern going into the holiday season is the country's ongoing measles and rubella outbreaks. We continue to urge all healthcare workers to ensure that patients are up to date with their vaccinations and to provide catch-up and booster doses where necessary. In terms of measles and rubella, we also discuss the planned changes to the expanded programme on immunisation (EPI) in South Africa for 2024.

Looking beyond our borders, cholera, and dengue fever still pose significant threats to public health worldwide. We provide updates on the global situation and encourage healthcare workers to maintain a high index of suspicion for these diseases, particularly in the context of travel.

In this penultimate issue of the NICD's Communicable Diseases Communiqué, we provide insight into the newly launched Public Health Bulletin of South Africa (PHBSA). The PHBSA will not only absorb some of the functions of the Communiqué but will also address some of the epidemiological and surveillance gaps, in terms of non-communicable diseases, occupational health, and preventative research in South Africa.

Thank you again for your ongoing support. On behalf of the Communiqué editorial team, we wish you a joyous summer!

# ZOONOTIC & VECTOR-BORNE DISEASES

## Rabies update

A case of human rabies was confirmed in Eastern Cape Province in November 2023. The case involved a 10-year-old female from Rhayi, Qonce, Buffalo City Metro Municipality. There was no reported history of an animal bite, but Buffalo City has been affected by an ongoing dog rabies epizootic. The clinical diagnosis was confirmed through fluorescent antibody testing performed on a post-mortem brain sample. At the time of this report, South Africa has recorded 10 cases of human rabies in 2023 from the following provinces: KwaZulu-Natal (n=5), Eastern Cape (n=4) and Limpopo (n=1) (Figure 1).

Rabies can be controlled and prevented through different approaches. In terms of legislation (The Animal Diseases Act No 35 of 1984), owners of domestic dogs and cats are required to vaccinate their pets against rabies. The schedule requires vaccination between the ages of 3 and 7 months, then 12 months later, and thereafter once every 3 years. Many stakeholders are involved in providing access to rabies vaccinations for pets,

including public and private entities. Vaccination of dogs and cats remains the most important approach for the control and prevention of rabies. It is also important to educate the public, especially children, on how to behave around dogs and to prevent bite exposures. When exposures do happen, victims must seek medical care to be assessed for the need for rabies post-exposure prophylaxis (PEP). When given appropriately, PEP is safe and protective against rabies virus infection and prevents virus access into the central nervous system, which would otherwise lead to death. Rabies PEP consists of the following steps: 1) extensive cleaning and local wound treatment immediately after exposure; 2) a course of effective rabies vaccine according to South African national and WHO guidelines; and 3) the administration of rabies immunoglobulin (RIG), if necessary.

Information on rabies and prevention is available at [www.nicd.ac.za](http://www.nicd.ac.za).



**Figure 1.** Human rabies cases, South Africa, 1 January 2023 - 3 November 2023 (Source: NHLS-NICD)

**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 & VECTOR-BORNE DISEASES

## Current situation of malaria in South Africa

Malaria cases are expected to increase due to higher temperatures and increased rainfall in the malaria transmission areas. Many more people will be exposed to malaria during the upcoming holiday season due to travel to higher transmission areas, both internally and outside the country. In non-endemic areas, a large proportion of malaria cases are usually diagnosed in people with recent travel to or from malaria-endemic areas, known as imported malaria. In rare instances, it is diagnosed in people with no notable travel history and is known as odyssean malaria. Odyssean malaria is caused by mosquitoes which have inadvertently travelled to non-malarious areas via various transport mechanisms (sea, air, rail, road) and is generally a diagnosis by exclusion.

Individuals traveling to malaria-endemic areas are urged to take adequate anti-malaria precautions. If visiting high-risk areas, people should consider antimalarial prophylaxis; both doxycycline and atovaquone-proguanil have been down-regulated, so they can be dispensed by pharmacies without a prescription. Travellers can also procure prophylactics from public sector travel clinics. There are currently no suitable prophylactics available in South Africa for pregnant women, so where possible, they should avoid visiting malaria-endemic areas, as they are more prone to serious complications of malaria. Prophylactics for children less than eight years of age are available from select travel clinics and pharmacies subject to Section 21 approval. All people in malaria risk areas should reduce contact with mosquitoes by limiting outdoor activity after dark, covering up bare skin (not forgetting feet and ankles), using mosquito repellents containing at least 10% DEET, ensuring mosquito screens on windows are closed, and using bed-nets, fans, or air conditioning, if available. It is important to note that while these precautions will substantially reduce the chance of acquiring malaria, the risk is never completely removed.

All travellers returning from malaria-transmission areas, including very low-risk ones, should immediately report any flu-like illness (headache, fever, chills, fatigue, muscle, and joint pain) that occurs up to three weeks after potential exposure, to a healthcare professional. Children with malaria may present with non-specific symptoms (fever, loss of appetite, vomiting). Healthcare workers, particularly those in non-endemic areas, must remember to ask about travel to malaria-transmission areas in all patients who present with fever. All healthcare practitioners are advised to consider malaria as a differential diagnosis in any patients presenting with a progressive febrile condition (>38°C), even in the absence of travel history to a malaria-endemic region, especially if there is unexplained thrombocytopenia.

Malaria is classified as a category one Notifiable Medical Condition (NMC), which requires immediate reporting via written or electronic notification within 24 hours of diagnosis. It is the responsibility of the healthcare practitioner who makes the diagnosis, following either a positive rapid diagnostic test (RDT) (bedside) test for malaria, and/or a positive test from a blood specimen submitted to a laboratory, to immediately notify the case.

While the widely used histidine-rich-protein 2 (HRP2) -based RDTs are still effective in South Africa, falciparum parasites in several Central and Horn of African countries have mutated, allowing them to avoid detection by these HRP2-based RDTs. Healthcare workers should be alerted to this possibility in a patient with signs or symptoms of malaria, with a negative HRP2-based RDT result but a positive *P. falciparum* blood film, who recently visited an area that is known to have a high prevalence of pfhrp2/hrp3-deleted parasites. Such cases should be referred to the NICD ([charlottes@nicd.ac.za](mailto:charlottes@nicd.ac.za)).

Malaria risk map, FAQs, and further information on malaria prevention are available on the NICD website at [www.nicd.ac.za](http://www.nicd.ac.za).

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

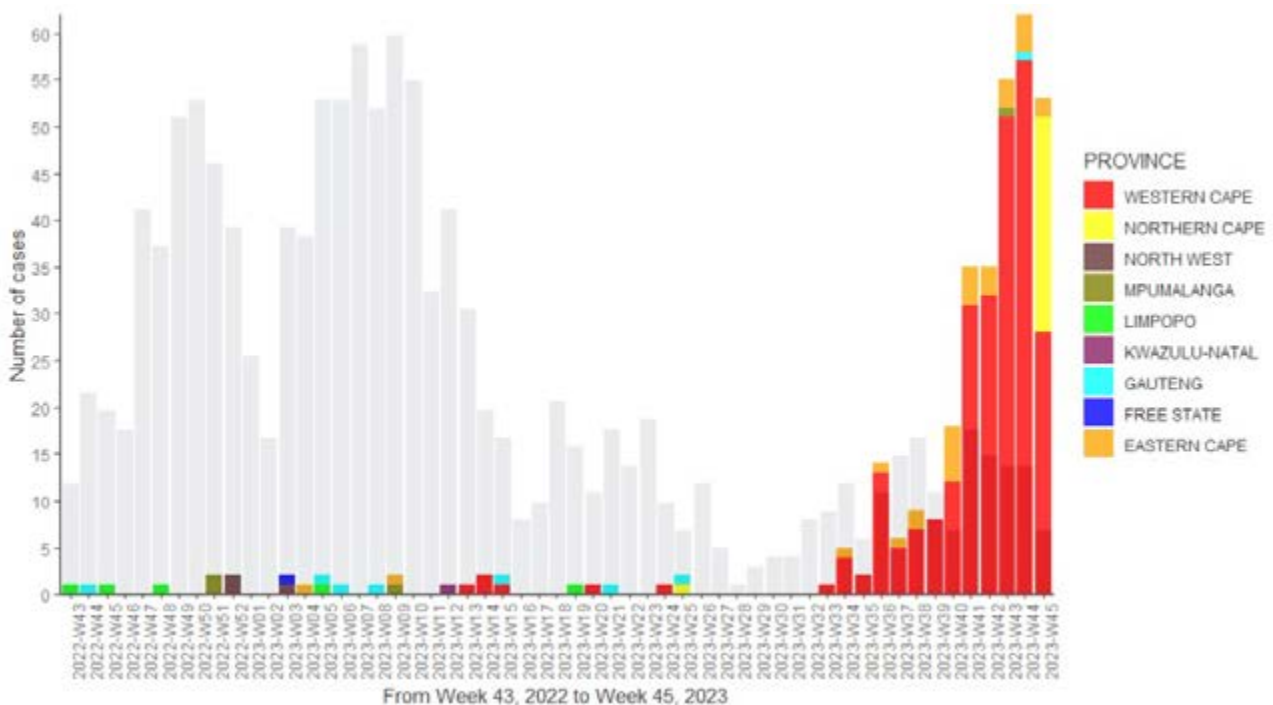
# VACCINES & IMMUNOLOGY

## Measles Rubella Surveillance

From epidemiological week 33 (beginning 13 August 2023) to epidemiological week 45 (ending 11 November 2023), 311 rubella cases have been reported in South Africa. Western Cape Province reported 259 rubella cases, while Northern Cape and Eastern Cape provinces reported 23 and 27 cases, respectively. The remaining two cases were reported from Gauteng and Mpumalanga provinces.

There have been 959 laboratory-confirmed measles cases reported from week 43, 2022 (beginning 23 October 2022) to week 45, 2023 (ending 11 November 2023). The number of measles cases has declined in recent weeks, with more recent cases mainly being reported from Gauteng Province. The measles-containing vaccine (MCV) is to be phased out of the expanded programme on immunisation (EPI) from the

beginning of 2024, to be replaced by a measles and rubella-containing vaccine (MR). The aim of introducing MR into the EPI schedule is to prevent congenital rubella syndrome (CRS), a severe presentation of rubella infection affecting the foetus of some pregnant women who contract rubella during pregnancy. Congenital rubella syndrome may result in an increased risk of adverse birth outcomes and severe birth defects, such as heart defects, hearing impairment, cataracts, and developmental delays. A rubella vaccine coverage level of above 80% needs to be maintained to interrupt natural circulation and reduce the risk of CRS. With the recent measles outbreak and low vaccination coverage in some parts of the country, healthcare workers, with the support of provinces, are urged to improve the measles vaccination coverage in preparation for the MR vaccine introduction.



**Figure 2.** An epidemiological curve showing the progression of the 2022-2023 measles outbreak in grey and the progression of the 2023 rubella outbreak in colour, from epidemiological week 43, 2022 to week 45, 2023.

**Source:** Centre for Vaccines & Immunology, NICD-NHLS; chenoas@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.

## Cholera – African Region

Since the beginning of 2023 and as of 18 November 2023, 29 countries have reported cholera cases globally. The World Health Organization (WHO) African Region (AFRO) remains the most affected region, with the following sixteen countries reporting cases: Burundi, Cameroon, Congo, the Democratic Republic of the Congo, Ethiopia, Eswatini, Kenya, Malawi, Mozambique, Nigeria, South Africa, South Sudan, Tanzania, Uganda, Zambia, and Zimbabwe.

The capacity to respond remains strained in affected countries due to a variety of factors, including vaccine shortages, overstretched resources, as well as the burden of simultaneous outbreaks. The WHO continues

to assess the risk of cholera as very high at the global level, based on the large number of outbreaks, the geographic expansion, and the lack of resources to address this outbreak.

The importation of cases to South Africa remains possible with the ongoing cholera outbreaks in the Southern African Region. Healthcare workers are urged to maintain a high index of suspicion for suspected cases and to notify on the NMC mobile application or website (<https://mstrmobile.nicd.ac.za/nmc/>). For more information on cholera, please visit the NICD website: <https://www.nicd.ac.za/diseases-a-z-index/cholera/>.

**Table 1.** Cholera Cases and Deaths in African Region, 1 January 2022 to 29 October 2023

Districts/Facilities Supported	Cumulative Cases (Suspected/Confirmed)	Cumulative Deaths	CFR (%)	Date Outbreak Started	Last Update
Malawi	59 040	1 768	3.1	Mar 2022	15 Oct 2023
Democratic Republic of the Congo	40 728	309	0.8	Jan 2022	15 Oct 2023
Mozambique	34 943	146	0.4	Sep 2022	15 Oct 2023
Ethiopia	25 116	341	1.4	Aug 2022	15 Oct 2023
Cameroon	20 950	492	2.3	Jan 2022	15 Oct 2023
Kenya	12 120	202	1.7	Oct 2022	12 Oct 2023
Zimbabwe	4 974	147	3.0	Feb 2023	15 Oct 2023
Nigeria	3 276	102	3.1	Jan 2023	1 Oct 2023
South Sudan	1 471	2	0.1	Feb 2023	16 May 2023
South Africa	1 388	47	3.4	Feb 2023	31 Aug 2023
Burundi	1 244	9	0.7	Jan 2023	29 Oct 2023
Zambia	932	19	2.0	Jan 2023	8 Oct 2023
United Republic of Tanzania	548	14	2.6	Feb 2023	28 Oct 2023
Uganda	80	10	12.5	Jul 2023	14 Sep 2023
Congo	21	5	23.8	Jul 2023	12 Aug 2023
The Kingdom of Eswatini	2	0	0	Mar 2023	23 Jul 2023

**Sources:** Outbreak response Unit, NICD-NHLS; <https://iris.who.int/bitstream/handle/10665/374089/OEW43-2329102023.pdf>; [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20231102\\_multi-country\\_outbreak-of-cholera\\_sitrep\\_8.pdf?sfvrsn=29920c92\\_4&download=true](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20231102_multi-country_outbreak-of-cholera_sitrep_8.pdf?sfvrsn=29920c92_4&download=true)

## Dengue fever – global overview

Dengue fever cases, like other infectious diseases, are expected to rise and fall at certain periods in the year. However, recent changes in dengue virus transmission globally have raised concerns from the WHO. It has been noted with alarm that the incidence of dengue has increased 30-fold over the past 50 years. Globally, the number of infections continues to rise in 2023, and outbreaks are more severe and less predictable than before.

The following is a summary of notable dengue fever reports globally:

- Africa:** Between 1 January 2023 and 18 November 2023, 20 736 confirmed cases of dengue fever have been reported from 14 African countries. There are an additional 42 516 probable and 117 382 suspected cases from these countries. The Africa Centres for Disease Control and Prevention (ACDC) has assessed the risk to humans from dengue virus as high. Chad officially declared its first-ever outbreak of dengue fever on 15 August 2023 and has a cumulative case load of 1 581 (61 confirmed, 1 520 suspected) with one death (CFR=0.06%), as of 18 November 2023. Ethiopia and Mauritius have also reported outbreaks this year. Cases have also been reported in Burkina Faso, Cote d'Ivoire, Cabo Verde, Togo, Mali, and Senegal.
- Western Pacific Region:** For the period 1 January – 14 October 2023, Cambodia reported a 186% increase in cases and 144% increase in deaths, compared to the same period in 2022 (2022: cases=25 938, deaths=39, CFR=0.15%). Lao People's Democratic Republic reported a 9.6% increase in cases for 2023 compared to 2022 (2022: cases=560, deaths=19, CFR=3.4%). Malaysia reported a 99.1% increase in cases for 2023 compared to 2022 (2022: cases=98 715, deaths=73, CFR=0.07%). Cases continue to be reported from China, Australia, Singapore, the Philippines, Vietnam, and the Pacific Island countries.
- Europe:** For 2023, Italy has reported 81 confirmed cases of locally transmitted dengue fever and 246 imported cases as of 20 November 2023. France and Spain also continue to report autochthonous cases this year, with France reporting 43 cases from January – October 2023 and Spain reporting three cases – all from Catalonia. The European Centre for Disease Prevention and Control (ECDC) expects further autochthonous cases to occur in the southern countries of the European Union, where the mosquito vector is present.
- Asia:** Between 1 January 2023 and 7 November 2023, 283 593 confirmed cases of dengue fever and 1 425 dengue-related deaths were reported in Bangladesh (CFR=0.5%). Malaysia has reported 96 443 dengue fever cases between 1 January and 22 October 2023, a 100.5% increase compared to the same period in 2022. There have been 73 deaths reported this year (CFR=0.08%).

Globally, response and control measures include vector control, education of the public and healthcare providers, and personal infection prevention measures. The WHO now recommends vaccination with the Qdenga vaccine for children aged between 6 and 16 years who live in dengue hot spots. This recommendation follows the September meeting of the Strategic Advisory Group of Experts on Immunization (SAGE). Lessons learned from the COVID-19 pandemic show that providing vaccines alone is not enough to ensure vaccination coverage. Public health communication of evidence-based benefits, efficacy, and safety of vaccines is essential.

Local transmission of dengue virus has yet to be reported in South Africa in 2023. Clinicians should maintain a high index of suspicion for dengue fever in anyone returning from dengue-endemic regions beyond our borders, presenting with signs and symptoms of the disease.

**Sources:** *Outbreak response Unit, NICD-NHLS; <https://www.who.int/news/item/05-10-2023-message-by-the-director-of-the-department-of-immunization--vaccines-and-biologicals-at-who---september-2023>; <https://www.who.int/emergencies/disease-outbreak-news/item/2023-DON491>; <https://iris.who.int/bitstream/handle/10665/373489/OEW40-0208102023.pdf?sequence=1&isAllowed=y>; [https://www.gavi.org/vaccineswork/global-warming-means-one-two-us-are-now-risk-dengue?gclid=Cj0KCQiA6vaqBhCbARIsACF9M6nsb4IROgVl.3e3d-9czmCZLms7dyvPBOzyA28IQ0HJ\\_YsbqWK9JjCAMAi5WEALw\\_wcB](https://www.gavi.org/vaccineswork/global-warming-means-one-two-us-are-now-risk-dengue?gclid=Cj0KCQiA6vaqBhCbARIsACF9M6nsb4IROgVl.3e3d-9czmCZLms7dyvPBOzyA28IQ0HJ_YsbqWK9JjCAMAi5WEALw_wcB); <https://reliefweb.int/report/bangladesh/unicef-bangladesh-humanitarian-situation-report-no-5-dengue-outbreak-15-november-2023>; <https://africacdc.org/download/africa-cdc-weekly-event-based-surveillance-report-november-2023/>; <https://www.ecdc.europa.eu/en/dengue-monthly>; <https://www.weforum.org/agenda/2023/11/dengue-integrated-management-to-achieve-zero-deaths/>; <https://reliefweb.int/disaster/ep-2023-000221-mys>*

# PUBLIC HEALTH BULLETIN OF SOUTH AFRICA

The NICD Communicable Diseases Surveillance Bulletin has served South African healthcare workers and policymakers by providing current, science-based information and articles on communicable diseases relevant to South Africa and the Southern African Development Community (SADC) over the last twenty years.

However, since the existing Bulletin focused on communicable diseases, and current scientific journals focus primarily on research-driven information, a gap remained in the South African scientific publishing landscape to share broader epidemiological and surveillance data, including non-communicable diseases and occupational health risk assessments and prevention research. The establishment of the Public Health Bulletin of South Africa (PHBSA) aims to address this need by consolidating various NICD publications on a central platform. It will expand the existing NICD Communicable Diseases Surveillance Bulletin to include reporting on data from the National Cancer Registry (NCR) and the National Institute of Occupational Health (NIOH). As the Bulletin expands, it will provide a platform for the inclusion of surveillance data from other sources within the public health sphere, including the National/Provincial Departments of Health.

The PHBSA is a freely available publication hosted by the NICD and NIOH, both divisions of the National Health Laboratory Services (NHLS). It will serve as a vehicle for disseminating current, accurate, objective, and actionable public health surveillance information important to South Africa. Authors will include health professionals, epidemiologists, scientists, and researchers in the private and public sectors, as well as healthcare policymakers, government entities, and non-governmental organisations.

## **Objectives of the PHBSA:**

- Disseminate important new public health information rapidly via a credible and trusted source;
- Inform health professionals, the media, and the general public of health threats, and provide recommendations for personal and community-level protection;
- Provide key and actionable recommendations for national public health authorities and policy-makers;
- Build national public health capacity by:

- a. fostering a culture of rigorous scientific analysis of health data as the basis for public health dialogue and policy
- b. providing training workshops for new authors (e.g., Field Epidemiology Training Program residents) to increase their ability to create publishable reports
- c. providing recognition for public health professionals at all tiers of the health system by publishing their work, and
- d. stimulating the interest of stakeholders through publishing credible, easy-to-understand reports on current public health topics.

Seven report types are considered for publication in the PHBSA including surveillance reports, disease cluster, and outbreak reports, opinion pieces, case studies, risk assessment and prevention research and policy briefs (see Authors Guidelines). Following clearance, internal review, and editing processes, articles will be continuously published online as they become available (Website link: Home - Public Health Bulletin South Africa ([phbsa.ac.za](http://phbsa.ac.za))/What's New? - Public Health Bulletin South Africa ([phbsa.ac.za](http://phbsa.ac.za)). Reviewed articles will be collated and published annually, ensuring that the surveillance information will remain available as a permanently accessible record. The PHBSA series is currently prepared and supported by a core team of existing staff at the NICD and NIOH. In the longer term, the PHBSA will be indexed on PubMed and Medline.

The PHBSA will allow for the dissemination of important public health information and recommendations to inform the broader South African public, healthcare professionals, occupational health settings, and policymakers. An additional core output of the PHBSA will be to provide training opportunities in scientific communication competencies; building capacity for writing, reviewing, and editing public health bulletin articles, and fostering a culture of rigorous scientific analysis of health data as the basis for public health dialogue and policy. These initiatives will contribute to efforts to translate scientific data into policy, improve disease prevention and control, and inform best practices for public health interventions and occupational health.