Diphtheria (African Region)

Date and version of current assessment: 28 October 2025, v1
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Overall risk and confidence*

Overall risk	
Regional	**Global**
High	**Low**

Confidence in available information	
Regional	**Global**
Moderate	Moderate

Risk statement

Diphtheria is a major public health problem in the WHO African Region despite substantial efforts on immunization activities over the past three decades. Between 2000 and 2024, 75 789 suspected diphtheria cases were reported in the Region, with the majority reported from 2023 to 2024, when Algeria, Chad, Gabon, Guinea, Mali, Mauritania, Nigeria, Niger, and South Africa reported a resurgence of diphtheria outbreaks with approximately 57 000 suspected cases and 2 000 deaths (case fatality ratio (CFR) of 3.5%) recorded. The countries most affected were Guinea, Nigeria and Niger. Most cases reported were in children under fifteen years and female. Over 50% of suspected cases were non-vaccinated or with unknown vaccination status.

In 2025, as of 19 October 2025, over 17 000 suspected diphtheria cases and about 900 deaths with an average CFR of 5.1% have been reported across eight Member States in the African Region; Algeria, Chad, Guinea, Mali, Mauritania, Niger, Nigeria, and South Africa.

Of these suspected cases, 7 886 were confirmed through laboratory testing, epidemiological linkage, or clinical compatibility. Laboratory-confirmation has been conducted in 6.8% (n=1181) of the suspected cases. Women, children aged between 5 and 18 years and young adults less than 30 are the most affected groups. The situation seems to have worsened in Mali, Mauritania and Niger in recent weeks with increasing trends and geographic expansion of the outbreaks reported in these countries. In addition, high CFRs (up to 24%) have been reported across all affected countries.

The overall public health risk posed by the diphtheria event in the African Region is classified as "high" due to:

Significant risks of further widescale spread:

- The humanitarian profile of some of the affected countries (Chad, Mali, Niger, Nigeria): fragile, conflict-affected and vulnerable settings, with low vaccination coverage often recorded among displaced populations.
- Outbreak hotspots are sometimes located in hard-to-reach areas with security constraints.
- Crowded, unsanitary living conditions in displacement camps in humanitarian settings.
- Low routine immunization coverage in most affected countries and important heterogeneity in coverage at subnational level in a number of countries - with pockets of under-vaccination leading to outbreaks (e.g. Nigeria, Chad etc.).
- Disruptions caused by the COVID-19 pandemic, causing significant drop of vaccination coverage between the first and the third dose across all affected countries. Although in response to declining immunization coverage, global partners launched *The Big Catch-up*, a coordinated effort to restore and strengthen immunization services and close immunity gaps, especially for vaccine-preventable diseases such as diphtheria.
- Weak health system capacity in most affected countries (shortage of health professionals, low clinical management capacity, etc.).
- Shortage of laboratory supplies reported by most affected countries, leading to delays in case reporting and laboratory confirmation.
- Global shortage of diphtheria anti-toxin (DAT) necessary for the treatment of affected persons.
- High case fatality ratio observed in many of the affected countries.
- High internal and cross-border movements of susceptible individuals (unvaccinated or not fully vaccinated).
- Insufficient resources to control the outbreaks across most affected countries.

*Confidence refers to the level of confidence in the data/information or the quality of the evidence available at the time the RRA is conducted. Poor quality information may increase the overall perceived risk due to the incertitude in the assessment.

The overall public health risk posed by the diphtheria event at the global level is classified as ''low'' due to:

The global risk of diphtheria outbreaks from the ongoing multi-country diphtheria outbreak in the African Region is assessed as low, given the existence of routine immunization programs in most countries. Nonetheless, the risk posed by international travel of susceptible populations from the African Region cannot be overlooked, highlighting the need to strengthen risk communication and surveillance globally.

Risk questions

Risk question		Assessment		Risk	Rationale
		Likelihood	Consequences		
Potential risk for human health?	Regional	Likely	Moderate	High	Diphtheria remains a significant health problem in countries with poor routine vaccination coverage. There are humanitarian settings in four of the affected countries (Chad, Mali, Niger, Nigeria) where low routine immunization coverage has been observed because of poor access to essential services including routine immunization and frequently disrupted vaccination campaigns. The combination of low immunization coverage and logistical challenges in reaching conflict-affected areas, exacerbate susceptibility among the displaced populations who are mostly composed of women and children. In Mauritania and Algeria, most cases have been reported among displaced populations not fully vaccinated or with unknown vaccination status. In South Africa, clusters have been documented among people in correctional facilities, injection drug users, and communities in informal settlements, with low immunization coverage in affected provinces increasing vulnerability to outbreaks. In Guinea, the outbreak has been fueled by low immunization coverage, compounded by poor health seeking behaviour, late presentation to health facilities and inadequate prevention and control capacities mostly in gold mining areas with large population movements. High CFR have been reported in many of the affected countries, highlighting challenges around timely access to care and poor nutrition status of affected children in conflict-affected areas. The global shortage of diphtheria antitoxin (DAT) contributes to increase the risk of disease complications, including death. The current outbreaks pose a low risk for human health at global level.
	Global	Unlikely	Minor	Low	
Risk of event spreading?	Regional	Likely	Moderate	High	Most affected countries (Chad, Mali, Niger, Nigeria, Mauritania, Algeria) share long and porous borders, with significant cross-border movements of susceptible populations for political (populations fleeing conflicts), health (population seeking better healthcare) or economic reasons. Therefore, importation or exportation of new cases is expected to occur in these countries, especially as cross-border surveillance is suboptimal. Delays in case reporting and laboratory confirmation of cases, and limited information sharing in most affected countries increase the likelihood of outbreaks expanding within and between neighbouring countries.
	Global	Unlikely	Minimal	Low	
Risk of insufficient control capacities with	Regional	Likely	Moderate	High	With the currently available resources, there may be insufficient capacity to control the multi-country diphtheria outbreak, as all affected countries face critical gaps in funding, vaccine and drugs supply, and logistical support needed for an effective control of this multi-country outbreak. For instance,

available resources	Global	Likely	Minor	Moderate	the extremely low global stock of DAT may not be sufficient to address the needs in the affected countries. In addition, protracted humanitarian crises aggravate concurrent health emergencies that contribute to depleting already scarce resources and overstretching healthcare systems.

Major actions recommended by the risk assessment team

	Action	Timeframe
☐	Refer the event for review by IHR Emergency Committee for consideration as a PHEIC by DG (Art 12, IHR)	Choose an item.
☒	Immediate activation of WHO response mechanism as urgent public health response is required	Immediate
☒	Recommend setting up WHO grading call	Immediate
☐	Immediate support to response, but no WHO grading recommended at this point in time	Choose an item.
☐	Rapidly seek further information and repeat RRA (including field risk assessment)	Choose an item.
☒	Support Member State to undertake preparedness measures	Continuous
☒	Continue to closely monitor	Continuous
☐	No further risk assessment required for this event, return to routine activities	Choose an item.

WHO Immediate actions at the three levels

WCOs to continue supporting national authorities in:

- Coordination of partners for an efficient public health response.
- Development of vaccine requests for supplementary immunization activities where necessary to address immunity gaps.
- Supporting national authorities' efforts to strengthen gaps in surveillance, case detection and reporting, laboratory confirmation of cases, case management, infection prevention and control.
- Strengthening of community awareness on the ongoing outbreaks as well as prevention measures.
- Resource mobilisation for an adequate implementation of response activities.

AFRO to support WCOs with:

- Advocacy efforts for timely information sharing.
- Regional partners coordination for a coordinated and efficient response.
- Monitoring of diphtheria case trends across the Region, and in-depth risk analytics to identify high-risk areas and guide targeted interventions.
- Establishment of a contingency stock for supplies at the Emergency Preparedness and Response Hubs in Dakar and Nairobi (including PPE, antibiotics, and laboratory supplies), to enable rapid distribution to countries when needed.

HQ will support WCOs, and AFRO as needed, including:

- Support for the procurement of DAT for the affected countries and maintaining global stockpile of DAT including at the logistics hub in Dubai as a global resource, for country allocation based on needs.
- Support for the procurement of laboratory reagents and specimen collection kits

Supporting information

Hazard assessment

Diphtheria is an infectious disease caused by the bacterium *Corynebacterium diphtheria*, which primarily infects the throat and upper airways, and produces a toxin affecting other organs.

The disease can spread person to person from breathing in the aerosolized secretions from coughs or sneezes of infected individuals. Although transmission from respiratory cases via droplets is the most common mode of infection, cutaneous carriage of *C. diphtheriae* should also be considered as it is an important source of person-to-person transmission of the pathogen, particularly in communities where vaccination coverage is low and/or where hygiene conditions are poor. Transmission from cutaneous lesions can cause both respiratory and cutaneous disease in susceptible contacts.

The incubation period is typically from 2 to 5 days. The illness has an acute onset, and common symptoms include a sore throat, fever, swelling of the neck glands and weakness. Within 2–3 days from infection, the diphtheria toxin causes a membrane of dead tissue to build up in the respiratory tract, forming a thick, greyish-white coating that can cover tissues in the nose, tonsils and throat, making breathing and swallowing difficult. Some people may not develop disease manifestations but can still transmit the bacteria to others. Following an infection, unvaccinated individuals may present with skin infections (cutaneous diphtheria), classical respiratory diphtheria, and in rare cases, systemic diphtheria. The most common sites of symptomatic as well as asymptomatic infections are the pharynx, larynx, tonsils, nose and skin. The toxin kills tissue at the site of infection and produces systemic effects including myocarditis, nephritis, polyneuropathy and paralysis when absorbed into the bloodstream. For unvaccinated individuals without adequate treatment, diphtheria can be fatal in around 30% of cases, with children younger than 5 years of age at greater risk of dying.

Treatment involves administering diphtheria antitoxin (DAT) and antibiotics. DAT neutralizes circulation toxin in the blood. It must be administered as soon as possible, as early administration is associated with improved clinical outcomes. In patients with suspected or confirmed symptomatic diphtheria, WHO suggests administration of a single dose of DAT with choice of dose based on disease severity and time since symptom onset. Antibiotics stop bacterial replication and thereby toxin production, preventing further transmission to uninfected individuals, and limiting carriage that can persist even after clinical recovery. However, many current strains of diphtheria have exhibited resistance to some commonly used antimicrobial drugs (e.g. penicillin). In patients with suspected or confirmed diphtheria, WHO recommends using macrolide antibiotics (azithromycin, erythromycin) in preference to penicillin antibiotics.

Diphtheria vaccine is a bacterial toxoid, i.e. a toxin whose toxicity has been inactivated. The vaccine is normally given in combination with other vaccines as DTwP/DTaP vaccine or pentavalent/hexavalent vaccine. For adolescents and adults, the diphtheria toxoid is frequently combined with tetanus toxoid in lower concentration (Td vaccine). WHO recommends a 3-dose primary vaccination series with diphtheria-containing vaccine followed by 3 booster doses. The primary vaccination series should begin as early as 6 weeks of age with subsequent doses given with a minimum interval of 4 weeks between doses. The 3 booster doses should preferably be given during the second year of life (12-23 months), 4-7 years and 9-15 years. Ideally, there should be at least four years between booster doses. To further promote immunity against diphtheria, combined diphtheria and tetanus toxoid vaccine (Td or TD) should be used rather than tetanus toxoid alone. This can be used in pregnancy as well as following injuries.

Unvaccinated and partially vaccinated individuals are at increased risk of infection. There have been resurgences in diphtheria cases any time immunization coverage becomes low. Damaged health infrastructure and health services in countries experiencing or recovering from a natural disaster or conflict interrupt routine immunization. Overcrowding in residential camps increases the risk of infection. Individuals who have been in contact with cases of diphtheria should be treated with antibiotics prophylactically to prevent illness. The immunization status of all contacts should also be checked. Unvaccinated contacts should receive a full course of diphtheria toxoid-containing vaccine and partially vaccinated contacts should receive the doses needed to complete their

vaccination series. If vaccination history is unknown, re-vaccination is recommended. High risk groups including pregnant women and health workers working in outbreak settings should ensure their vaccination status is up to date.

Exposure assessment

The WHO African Region is currently experiencing a resurgence of diphtheria. Since the beginning of 2025, eight countries have reported diphtheria outbreaks, Algeria, Chad, Guinea, Mali, Mauritania, Niger, Nigeria, and South Africa. As of 19 October 2025, over 17 000 suspected diphtheria cases with 896 deaths (average CFR of 5.1% across countries) have been reported across the eight countries. From the eight countries, 7 886 confirmed cases were reported, with 1 181 laboratory-confirmed cases recorded in Algeria (8), Niger (765), Nigeria (203), Guinea (72), South Africa (82), Mauritania (15), Mali (32), and Chad (4).

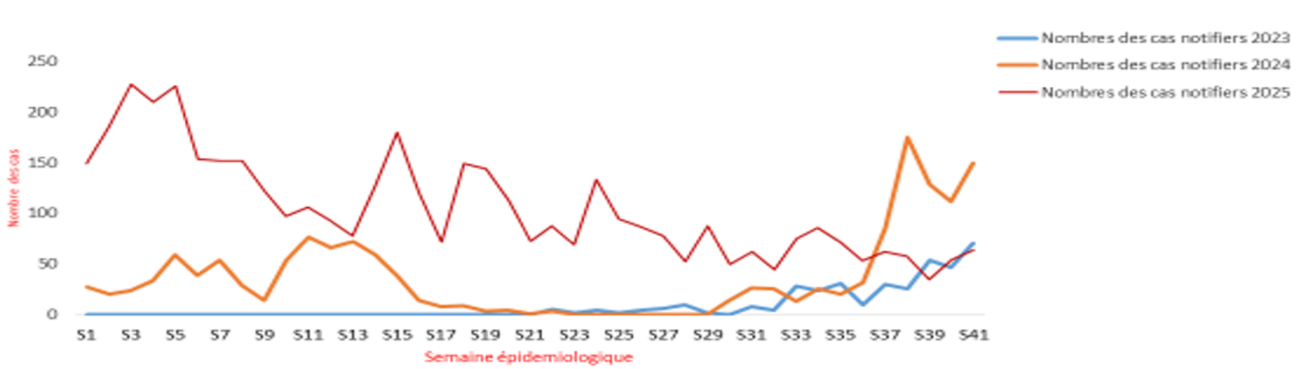
Since the beginning of September 2025, an upsurge of cases has been observed in **Mali, Mauritania** and **Niger**. In most affected countries, females are slightly more affected than males, with cases mostly reported among children aged between 5 and 18 years, and young adults below 30 years. Vaccination status remains unknown in most cases.

Algeria: A diphtheria outbreak has been reported in the northeastern wilaya of Skikda in October 2025. From 8 to 19 October 2025, a total of 13 suspected cases with 2 deaths (CFR 15.4%) have been reported from Skikda, Filfila and Hamadi krouma communes. Three of the suspected cases were age 4, 5 and 12 years while the 10 remaining cases were age above 18 years. Of the 13 suspected cases, 8 were laboratory-confirmed by culture and PCR at Institut Pasteur of Algeria. None of the confirmed cases were vaccinated, with males accounting for 62.5% (n=5) of these cases.

In September 2024, an outbreak of diphtheria was reported in three southern wilayas (regions) of Algeria, Tamanrasset, In Guezzam, and Bordj Badji Mokhtar. As of 25 May 2025, 915 suspected cases including 119 deaths (CFR 13%) were reported. Of the 915 suspected cases, 299 were laboratory-confirmed.

Chad: From 1 January to 5 October 2025, a total of 4 341 suspected cases of diphtheria with 46 deaths (1.1%) were reported from 27 health districts across 7 provincial health delegations of Chad. Since the beginning of 2025, 57 of the 70 samples collected have been tested by culture (13 samples were unusable), of which 4 returned positive for *C. acolans* (n=3 samples) and *C. diphteriae gravis* (n=1 sample). As of week 41, (ending 12 October 2025), 4 provincial health delegations remain in an active epidemic phase (Batha, Barh El Gazel, Hadjer lamis and Wadi-Fira). Analyses of demographic data collected from 1 762 suspected cases revealed that the most affected age-group was 3-13 years (n=732, 41.5%) followed by 14-24 years (n=445, 25.3%) with a male to female ratio of 0.9. Vaccination status analyzed for 2 069 cases, revealed that 6% (n=126) were vaccinated, 2% (n=46) were not vaccinated and 92% (n=1 897) had unknown vaccination status. Of the 126 cases vaccinated, 81% (n=102) were aged 1-5 years, while 19% (n=24) were aged more than 5 years.

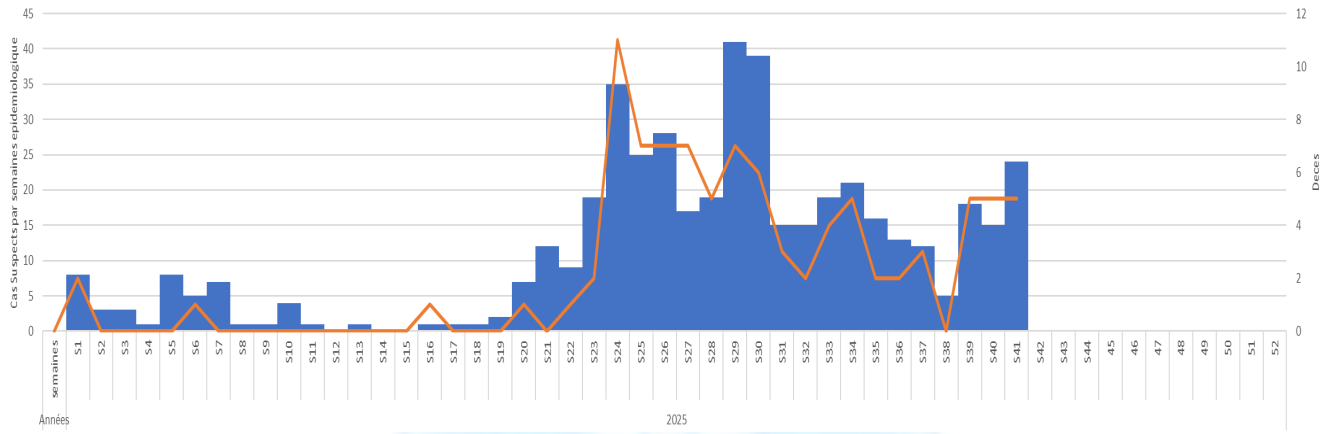
Trend in reported diphtheria cases from 2023 to 2025, Chad



Guinea: In 2025, Guinea experienced a resurgence of diphtheria cases, with a notable increase beginning in June. Between 1 January and 12 October 2025, a total of 472 suspected cases, including 111 deaths (CFR: 23.5%), were reported across four prefectures: Siguiri, Kankan, and Mandiana in the Kankan region, and Dabola in the Faranah region. Of these, 72 cases were laboratory-confirmed. The Siguiri district remains the epicenter, accounting for over 80% of both reported cases and fatalities.

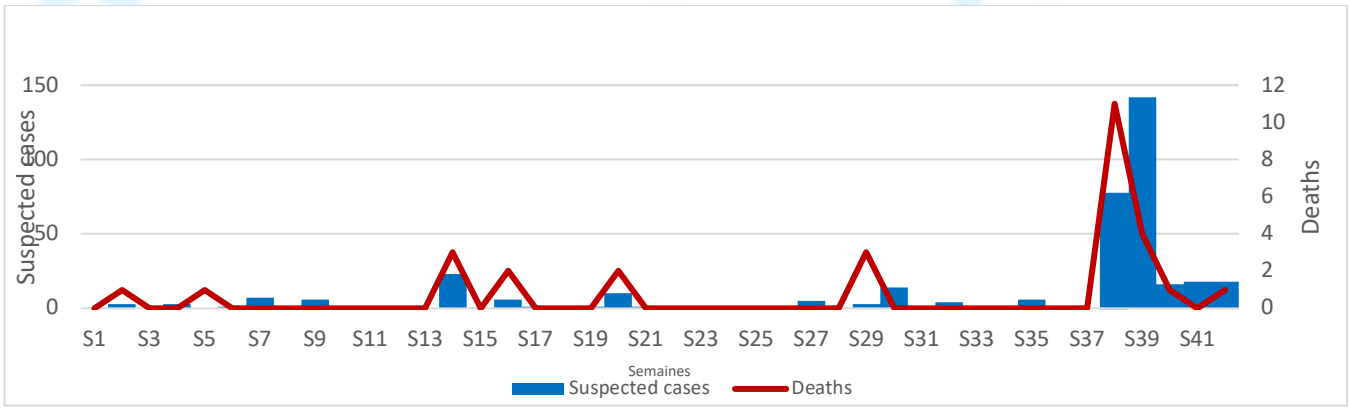
This resurgence follows a major outbreak first notified in July 2023 in Siguiri district, which subsequently spread to other regions. As of 9 April 2024, 4,517 suspected cases and 105 deaths (CFR: 2.3%) had been reported from six regions: Conakry, Faranah, Kankan, Labé, Mamou and N'Nzérékoré. The Siguiri health district alone accounted for 98.4% of suspected cases. Among the 4,307 confirmed cases, 29 were laboratory-confirmed, 4,173 were clinically compatible, and 105 were epidemiologically linked. By April 2024, the weekly incidence had declined significantly—from over 200 cases per week in March 2023 to fewer than 15 cases per week—and the number of affected regions had dropped from seven to one.

Weekly trend in reported diphtheria cases and deaths, week 1-41, 2025, Guinea



Mali: From 1 January to 19 October 2025, a total of 370 suspected cases of diphtheria with 29 deaths (CFR 7.8%) have been reported. Of 158 cumulative samples collected and tested at the National Public Health Institute, 32 returned positive for *toxigenic C. diphtheria* on PCR, and 126 tested negative. Confirmed cases have been reported from reported from the Commune IV of Bamako, the capital city, and from Kangaba and Kati districts in Koulikoro region, Douentza and Tenenkou districts in Mopti region, Niono and San districts in Segou region, and Yorosso district in Sikasso region, and Niafunke district in Tombouctou region. The outbreak is expanding geographically; the number of affected districts increased from 3 in week 40 to 9 in week 42 of 2025.

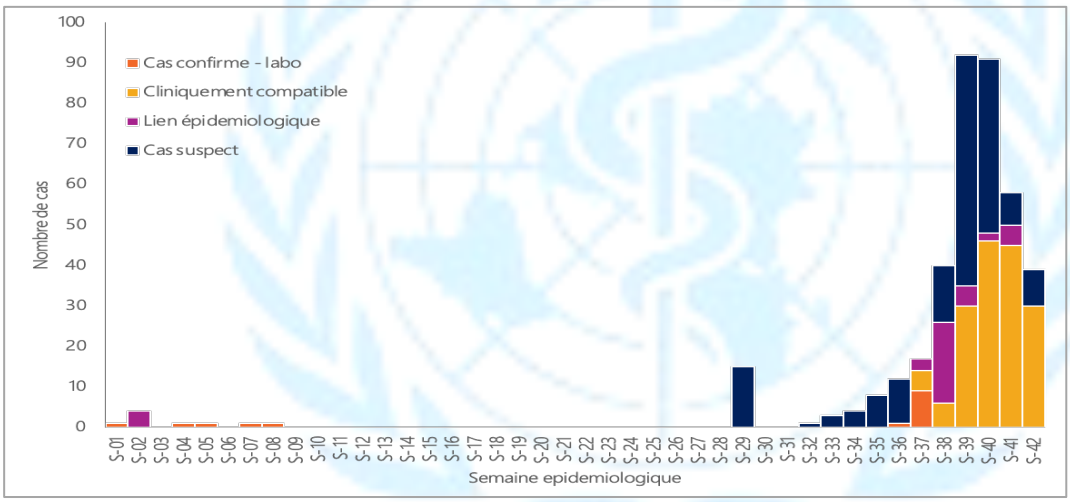
Weekly trend of diphtheria suspected cases and deaths, week 1-42, 2025, Mali



Mauritania: From week 1 to week 42 (ending 19 October 2025), a total of 528 suspected cases of diphtheria with 30 deaths (CFR 5.7%) have been reported. An upsurge of diphtheria cases has been observed since week 39 (ending 28 September 2025), with 241 (45.6%) suspected cases reported between week 39 and Week 41. Cases have been reported across 11 moughataas (health districts) in 6 wilayas or regions (Hodh El Gharbi, Brakna, Gorgol, Hodh Chargui, Nouakchott Nord, Nouakchott Sud).

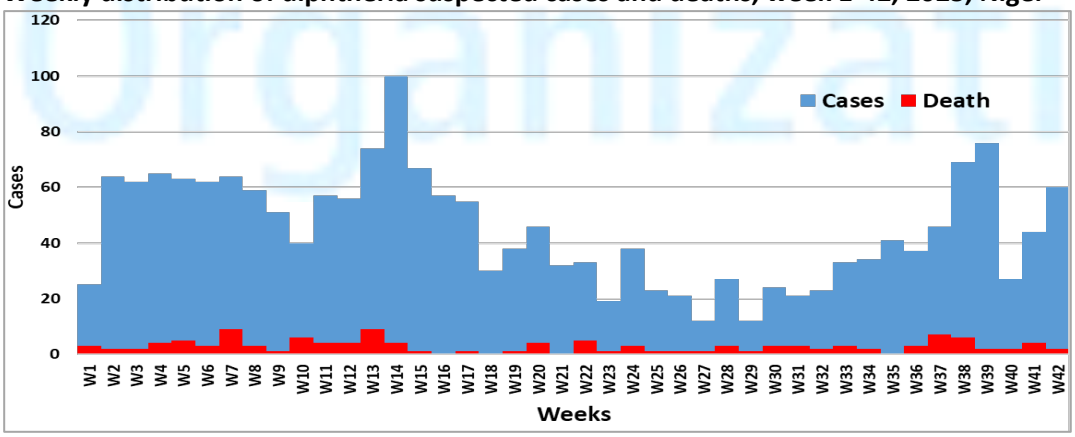
A total of 216 confirmed cases have been reported, including 15 laboratory-confirmed cases, 39 epidemiologically linked, and 162 clinically compatible. The most affected age groups are respectively 10-14 years, 5-9 years, and 15-19 years. Women account for 60% (n=222) of suspected cases. Close to ten percent (n=36) of the suspected cases had received at least one dose of vaccine against diphtheria.

Weekly distribution of diphtheria confirmed, clinically compatible, epidemiologically linked, and suspected cases, week 1–42, Mauritania



Niger: From week 1 to week 42 (ending 19 October 2025), a total of 1 887 suspected cases of diphtheria with 121 deaths (CFR 6.4%) were reported. This represents a 44% decrease in the number of cases and a 34% decrease in the number of deaths reported compared to the same period in 2024 when 3 364 suspected cases with 183 deaths were recorded. As of week 42, 2025, 34/72 districts across 8 regions of Niger (Agadez, Diffa, Dosso, Maradi, Niamey, Tahoua, Tillaberi and Zinder) are in epidemic phase. Close to 80% of cases and 70% of deaths have been reported from Agadez (750 cases, 24 deaths), Zinder (468 cases, 38 deaths) and Diffa (272 cases, 22 deaths) regions. Cumulatively, 765 cases were laboratory-confirmed for *C. diphtheria*. Of 1 627 cases with available socio-demographic data, 44.7% (n=727) are in the age-group 5-14 years, followed by 27.5% (n=448) in the age-group 15-29 years. Women are slightly more affected than men with a male to female ratio at 0.8.

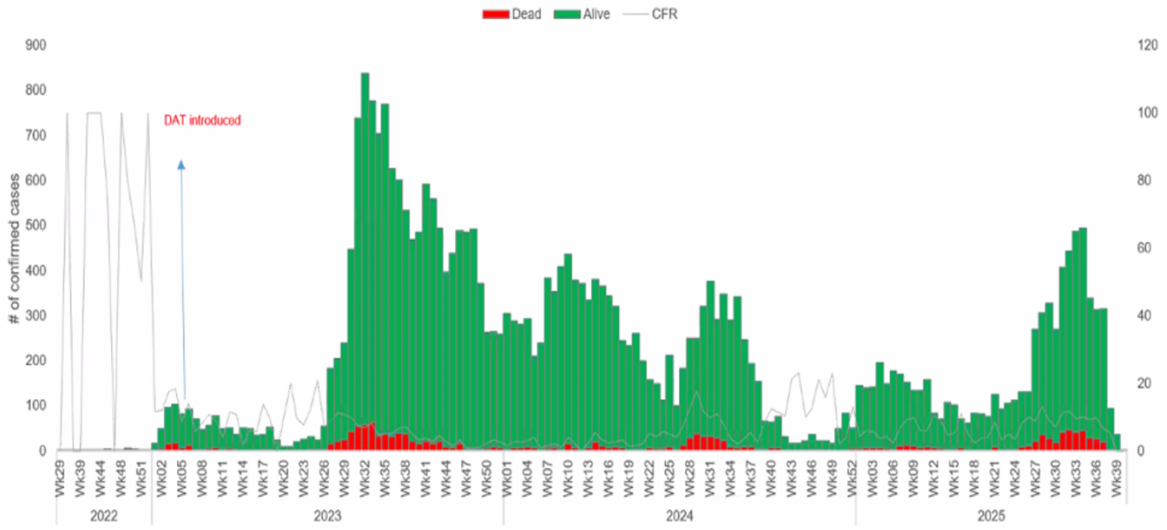
Weekly distribution of diphtheria suspected cases and deaths, week 1-42, 2025, Niger



Nigeria: In 2025, 9 741 suspected cases including 6 707 confirmed cases have been reported from 23 states and 143 local government areas (LGAs). Of the 6 707 confirmed cases, 203 are laboratory-confirmed, 471 are epidemiologically linked, and 6 033 are clinically compatible. A total of 540 deaths have been recorded among confirmed cases (CFR 8.1%).

From week 19, 2022 to week 40, 2025 (ending 5 October), a total of 51 280 suspected cases including 31 576 confirmed cases were reported. A total of 1 811 deaths were recorded among the confirmed cases (CFR 5.7%). Suspected cases have been reported across 37 states and 440 (LGAs), while the confirmed cases have been reported across 30 states and 243 LGAs.

Weekly distribution of diphtheria confirmed cases and deaths, Nigeria, week 19, 2022 – week 40, 2025

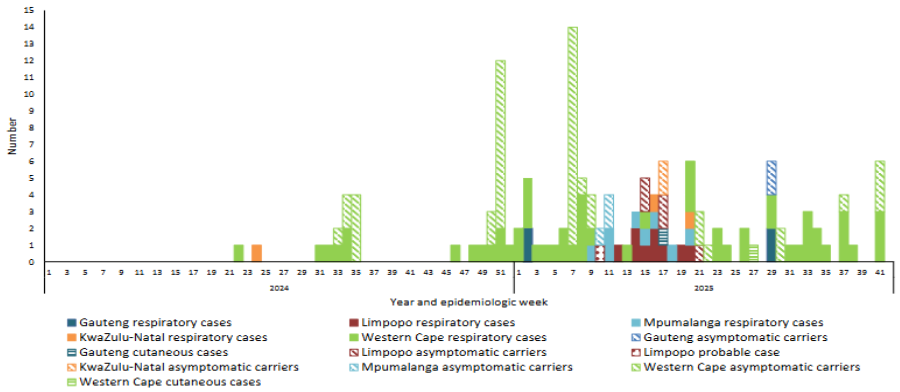


Source: Nigeria Centre for Disease Control and Prevention (NCDC)

South Africa: Between 1 January 2024 and 19 October 2025, 80 confirmed cases of respiratory diphtheria, 1 probable respiratory diphtheria case, and 2 laboratory-confirmed cutaneous toxigenic diphtheria cases have been identified, as well as 56 asymptomatic carriers of toxigenic *C. diphtheriae* who were detected during contact tracing. Most laboratory-confirmed cases and carriers (72.5%, 100/138) were from the Western Cape, comprising 56 respiratory diphtheria cases and 44 asymptomatic carriers. The CFR among confirmed and probable cases and asymptomatic carriers was 12% (17/139). The median age for cases of confirmed respiratory diphtheria was 25 years (range: 2–55 years), with 70% (56/80) aged ≥ 18 years. From week 46, 2024 to week 42, 2025, 21 diphtheria clusters have been identified across South Africa: 11 in the Western Cape, 5 in Limpopo, 2 in Gauteng, 1 in KwaZulu-Natal, 1 in Mpumalanga, and one cluster spanning Limpopo and Mpumalanga. Outside these clusters, 43 sporadic respiratory cases with no known epidemiologic links were reported.

Between 2015 and 2023, the National Institute for Communicable Diseases (NICD) confirmed 42 toxigenic *C. diphtheriae* infections, comprising 26 respiratory diphtheria cases, 14 asymptomatic carriers detected through contact tracing, and 2 cases of cutaneous diphtheria. All respiratory cases were reported from the Western Cape (n=9) or KwaZulu-Natal (n=17). The highest annual totals occurred in 2015 (n=11) and 2023 (n=6), while other years reported between 0 and 4 cases.

Number of individuals testing positive for toxigenic *C. diphtheriae* (respiratory diphtheria cases, asymptomatic carriers and cutaneous cases) and probable cases, South Africa, 1 January 2024 to 19 October 2025. Based on the date of clinical presentation or sample collection (earliest date included if both available).



Source: National Institute for Communicable Diseases (NICD) of South Africa

The number of suspected and confirmed cases reported together with the number of deaths and case fatality ratio by country in the WHO African region in 2025 to October is summarized in Table 1.

Table 1. Summary of reported ongoing diphtheria outbreaks in the WHO African region, January – October 2025

Country	Total suspected cases	Total deaths (CFR)	Confirmed cases	Last update
Algeria	13	2 (15.4%)	8 (laboratory-confirmed)	Week 42, 2025
Chad	4 341	46 (1.1%)	4 (laboratory-confirmed)	Week 41, 2025
Guinea	472	111 (23.5%)	72 (laboratory-confirmed)	Week 41, 2025
Mali	370	29 (7.9%)	32 (laboratory-confirmed)	Week 42, 2025
Mauritania	528	30 (5.7%)	216 (15 (7%) laboratory-confirmed; 39 (18%) epi-linked; 162 (75%) clinically compatible)	Week 42, 2025
Niger	1 887	121 (6.4%)	765 (laboratory-confirmed)	Week 42, 2025
Nigeria	9 741	540 (8.1%)	6707 (203 (3%) laboratory-confirmed; 471 (7%) epi-linked; 6 033 (90%) clinically compatible)	Week 40, 2025
South Africa	139 cases (56 asymptomatic carriers, 82 laboratory-confirmed, 1 probable respiratory case)	17/139 (12.2%)	82 laboratory-confirmed (80 respiratory and 2 cutaneous cases)	Week 42, 2025
TOTAL	17 491	896 (5.1%)	7 886 (1 181 laboratory-confirmed)	

Context assessment

Diphtheria is a major public health problem in the African region despite tremendous efforts on increasing immunization coverage in the past three decades. Between 2000 and 2024, 75 789 diphtheria suspected cases were reported in the Region with an average 3 500 cases per year. From 2023 to 2024, Algeria, Chad, Gabon, Guinea, Mali, Mauritania, Nigeria, Niger, and South Africa, reported resurgence of diphtheria outbreaks with

about 57 000 suspected cases and 2 000 deaths (average CFR of 3.5%) recorded. The countries most affected were Nigeria, Guinea and Niger. Most cases reported were children under fifteen years and female. Over 50% of suspected cases were non-vaccinated or with unknown vaccination status.

In response to this situation, WHO activated an operational response as a Grade 2 emergency on 18 August 2023. Coordination was strengthened across the three levels of WHO through the Incident Management System; a comprehensive guidance on diphtheria outbreaks preparedness and response in the WHO African Region was developed and shared with countries; technical experts (Incident managers, IPC, risk communication and community engagement (RCCE), case management) were deployed on request to some of the affected countries (e.g. Niger, Nigeria, Guinea); CFE was provided to the affected countries; treatment centres were setup in hotspot areas (e.g. Siguiri district in Guinea); or supplementary immunization activities were conducted in the affected areas; diphtheria surveillance was enhanced in the affected countries through strengthened case search, investigations, and contact tracing; funding and logistical support was provided to countries for the deployment of necessary equipment and supplies (PPEs, sampling kits, reagents, antibiotics, DAT, etc); capacity building activities were conducted in the affected districts to strengthen case management, IPC, surveillance, and RCCE. Following the decline in cases and an operational review the assignment of a grade 2 operational response was removed on 6 March 2024.

Currently, among the eight countries experiencing diphtheria outbreaks, five are actively implementing large-scale vaccination strategies aimed at closing the significant immunity gaps; Nigeria, Niger, Chad, Guinea, and Mauritania are conducting catch-up and reactive campaigns, although insufficient funding remains an important gap in adequately implementing these immunization activities and strengthening other response activities (enhanced diphtheria surveillance, RCCE, case management, IPC, etc). Below, Table 2 summarised the overall context by diphtheria-affected country, Table 3 provides information on the vaccination coverage and Table 4 details the capacities and vulnerabilities related to the outbreak response in the affected countries.

Table 2. Summary of context by country

Country	Context
Algeria	Geopolitical instability in neighbouring countries has led to mass displacements of thousands of people into southern Algeria, with low vaccination coverage often recorded among displaced populations. As part of the Public Health response to the diphtheria outbreak, vaccination campaigns and capacity building activities were conducted in 2024. According to WHO/UNICEF estimates of national immunization coverage (WUENIC), the Diphtheria-Tetanus Toxoid-Pertussis (DTP) coverage in 2024 was 98% for the first dose and 92% for the third dose.
Chad	Chad continues to face a complex humanitarian crisis characterised by inter/intra community conflicts, forced population movements (refugees, returnees, IDP), the adverse effects of climatic changes, food and nutritional insecurity and health emergencies. The country is hosting the fifth- highest number of refugees among all countries globally, with over 1.4 million refugees. Since the beginning of the Sudan crisis in April 2023, the Eastern and North-Eastern provinces (Ennedi-Est, Ouaddaï, Sila and Wadi-Fira) have registered over 870 000 Sudanese refugees, 86% of whom are women and children, and over 300 000 Chadian returnees from whom 79% are women. The health situation in Chad remains worrisome. An upsurge of infectious diseases such as yellow fever, measles, cholera, and hepatitis E have been reported, endangering the most vulnerable populations. The health system is overwhelmed with urgent needs that remain unmet. WHO, UNICEF, MSF France and MSF Holland are supporting the diphtheria outbreak response activities in the affected areas. A request has been submitted to GAVI for the supply of vaccines and funding of operational costs for a mass vaccination campaign in 13 districts across the 4 provincial health delegations with active outbreaks. According to WUENIC, the DTP coverage in 2024 was 84% for the first dose and 68% for the third dose.

	Challenges include delayed reporting of disaggregated epidemiological data, Insufficient case management kits, lack of a resource mobilization strategy, and delays in sample transportation to the reference laboratory.
Guinea	The current response is faced by several challenges including delay in releasing laboratory results for suspected cases, poor health seeking behaviour and late presentation to health facilities, insufficient human resources and logistics supplies (drugs, fuel, equipment) for optimal running of the treatment center, insufficient funding, insufficient community sensitization about the outbreak. In addition, the current outbreak is occurring around mining areas where large population movements can increase the risk of transmission of the disease. Urgent needs include supplying DAT to the treatment center, vaccinating children aged 0 to 15 years in all localities of Siguiri, improving the clinical management pathways in the affected areas, continued strengthening of national coordination mechanisms, strengthening community awareness and engagement. According to WUENIC, the DTP coverage in 2024 was 77% for the first dose and 63% for the third dose.
Mali	The humanitarian context in Mali is marked by a complex humanitarian crisis resulting from a volatile security situation in northern and south-central Mali, compounded with recurring health emergencies, unprecedented climate shocks, and insufficient basic social services. In 2025, 6.4 million Malians need multisectoral humanitarian assistance. Continued armed violence related to the conflict has caused significant internal and cross-border displacement and restricted humanitarian space as well as access to basic services for the most vulnerable populations. This has contributed to lower immunization coverage among displaced populations, thus increasing the susceptibility to vaccine-preventable disease outbreaks. Underreporting of cases, limited availability of DAT, low vaccination coverage in some areas, and logistical challenges constitute the main challenges. According to WUENIC, the DTP coverage in 2024 was 91% for the first dose and 82% for the third dose.
Mauritania	Since late 2023, escalating violence in neighbouring Mali has driven more refugees to Mauritania's eastern border. As of August 2025, 118 921 refugees (of which 58.5% were children and 25% were women) were hosted in the Mbera camp in Bassiknou health district in Hodh Chargui region. Since September 2025, Mauritania is facing several concurrent outbreaks including dengue, malaria and Rift Valley Fever, with cases being reported in some wilayas also affected by a diphtheria outbreak (Hodh El Gharbi, Brakna, Hodh Chargui). The diphtheria outbreak has been officially declared by the national health authorities on 25 September 2025; however, response efforts remain hampered by limited resource mobilization, weak active case finding, and insufficient community sensitization. Additional response challenges are underreporting and delayed data reporting from routine surveillance, limited information sharing, lack of sampling kits, insufficient personal protective equipment, as well as inadequate funding. Moreover, only 10% of the reported cases are vaccinated. Therefore, reactive vaccination campaigns have been conducted, mainly in the regions of Hodh El Chargui, Hodh El Gharbi, and Assaba. Urgent needs include financial support for active case search, risk communication and community engagement (RCCE), supply of sampling and transportation kits, case management training especially in the use of DAT. According to WUENIC, DTP coverage in 2024 was 95% for the first dose and 86% for the third dose.
Niger	Niger continues to face a complex and protracted humanitarian crisis, fuelled by heightened security challenges, recurring climate shocks, growing economic pressures, mass population displacement and epidemics (diphtheria, meningitis, cholera, ascites syndrome, etc). These shocks have led to significant vulnerability for communities. In 2025, an estimated 2.6 million people require humanitarian assistance in a context of resource scarcity. According to WUENIC, the DTP coverage in 2024 was 95% for the first dose and 86% for the third dose. There is an upsurge of diphtheria cases in the country, with more areas affected in recent weeks. As of week 40, 2025, a total of 34 out of 72 districts are in epidemic phase. The first round of a diphtheria vaccination campaign started in late September 2025 was organized in 12 health districts of three regions, with a coverage of 105.43% for Pentavalent vaccine (vaccinated nomadic/refugee/migrant populations not included in denominators) and

	99.6% for Td vaccine. The second round is planned for 5-13 November 2025. Given the epidemiological situation, the country has begun preparing a new vaccination request for 26 other health districts. Current challenges include limited diagnostic and treatment capacity (insufficient specimen collection supplies, DAT and antibiotics) to respond to the increasing number of cases, insufficient quantities of pentavalent and Td vaccines, low population awareness and level of suspicion among healthcare workers, and limited funding hampering in-depth investigations and printing of sufficient educative leaflets to support community sensitization activities.
Nigeria	According to WUENIC, the DTP coverage in 2024 was 71% for the first dose and 67% for the third dose. In 2025, vaccination campaigns were organized in Lagos, Imo and Kaduna states with 80 289 individuals vaccinated with Td (71 413) and 8 876 with the Pentavalent vaccine. Of these, 14 102 were health workers and support staff, all in Lagos. The diphtheria outbreak affected LGAs in the "Big Catch Up" targeted States prioritized for recovery immunization, thus the remaining balance of pentavalent vaccine from the Big Catch-up was used for the current response. Discussions are ongoing with GAVI for vaccination support. The key response challenges include delay in laboratory confirmation of cases, poor infection prevention and control practices, limited IEC materials for diphtheria, and shortage of Td for reactive immunization activities.
South Africa	According to WUENIC, the DTP coverage in 2024 was 76% for the first dose and 74% for the third dose. The most affected state is Western Cape, where detailed case investigations and in-depth risk assessment are needed. Vaccination coverage has consistently been below 80% in most provinces and widening immunity gaps are increasing vulnerability to outbreaks. Competing provincial activities with limited human resources compromise outbreak response, as well as funding constraints.

Table 3. Summary of vaccination coverage by diphtheria-affected country (WUENIC, 2024)

Vaccination Indicators (WHO/UNICEF) (%)	Algeria	Chad	Guinea	Mali	Mauritania	Niger	Nigeria	South Africa
DTP-containing vaccine, 1st dose (2024)	98	84	77	91	95	95	71	76
DTP-containing vaccine, 3rd dose (2024)	92	68	63	82	86	86	67	74
Polio, 3rd dose (2024)	89	67	55	72	85	86	69	74
Measles-containing vaccine, 1st dose (2024)	94	66	60	72	93	81	57	76
Measles-containing vaccine, 2nd dose (2024)	90	46	45	60	59	77	35	82

Table 4. Capacities and vulnerabilities related to the diphtheria outbreak response in the affected countries

Capacities

Coordination & Leadership

- Incident management system activated, regular emergency meetings ongoing and response plans developed or under development in most affected countries.
- Existing situation reports.

Vulnerabilities

Coordination & Leadership

- Lack of advocacy and awareness of current outbreak situation across the African Region.
- Delays in confirming and declaring outbreaks hampering adequate implementation of response activities.

- Strong partner (WHO, UNICEF, GAVI, ACDC, MSF, IFRC) support in most affected countries.

Resource mobilisation

- Initial $80 000 CFE disbursed for the diphtheria outbreaks response in the African region.

Surveillance

- Ongoing active case search, case investigation, contact tracing, dissemination of case definition to affected areas.

Laboratory

- All the affected countries have some capacity (human resources, equipment) to test and confirm diphtheria cases although not at scale required in all settings (e.g. humanitarian contexts).

Vaccination

- Ongoing vaccination of contacts in most of the affected countries.

Clinical management

- Hospitalization and clinical care of severe cases.
- Capacity building of health personnel in case management and IPC in the affected countries.
- Updated WHO case management guidelines available.
- Free care for suspected and confirmed cases in some countries (e.g., Guinea, Mauritania, Algeria).

- Suboptimal high-level advocacy to galvanize political leadership and mobilize the resources required for an effective response and longer term health system strengthening.
- Limited information sharing.

Resource mobilisation

- All affected countries are experiencing acute funding gaps that are impeding rapid implementation of outbreak response measures. Even in countries where resources have been mobilized, there is a need to realign interventions to maximize impact.
- Delays in mobilizing and disbursing emergency resources further compound response challenges.

Surveillance

- Delayed detection, inconsistent reporting or underreporting of suspected cases.
- Suboptimal cross border surveillance.
- Inconsistent and incomplete case classification data.
- Irregular dissemination of situation reports.
- These weaknesses delay the initiation of response measures and limit situational awareness at national and regional levels.
- Subnational risk assessments lack the granularity needed to guide targeted interventions, undermining evidence-based planning and response effectiveness.
- Additional surge epidemiologists may be required to support country-level.

Laboratory

- Critical laboratory capacity gaps in some settings lead to low confirmation rates, delayed diagnosis, and underestimation of the true scale of outbreaks:
    - Limited skills in sample collection and shipment
    - Shortages of diagnostic kits and reagents (Mauritania, Niger)
    - Weak specimen transport systems

Vaccination

- Vaccination status largely unknown or very low immunization coverage in many countries.
- Historical vaccination coverage data (WHO/UNICEF estimates) show coverage dropping between the first and the third primary series doses in the eight affected countries.

Clinical management

- The challenges impede effective case management and completion of full treatment regimens:
    - Most countries need to develop or update their national clinical guidelines and share them with health facilities
    - Global shortages of DAT
    - Delayed access to antibiotics/DAT due to gaps in funding or clinical capacity
    - Delay in healthcare seeking and late presentation to health facilities
    - High CFR highlighting challenges around access to care, poor nutrition status of infected children in conflict-affected areas, shortage of treatment
    - In several countries, the vast majority of cases are not laboratory confirmed. Such laboratory confirmation capacity gaps may in turn lead to inappropriate use of

	antibiotics and serve as a driver of AMR development, both among patients who do have diphtheria and - perhaps most importantly - for patients with another condition with which diphtheria is a differential diagnosis.
Operations support and Logistics • Prepositioning of PPE and antibiotics ongoing in affected countries.	**Operations support and Logistics** • Delays in vaccine distribution and vaccine stockouts in some countries (Niger, Chad, Guinea). • Limited logistical capacity. • Shortages of trained personnel to support rapid deployment of essential supplies and to sustain outbreak response interventions at scale.

Risk communication & community engagement
• Dissemination of key messages via community channels (mosques, local radio stations, opinion leaders) in affected countries.
	Risk communication & community engagement
	• Community engagement and risk communication remain weak in affected countries:
	  ○ Limited involvement of communities and frontline health workers
	  ○ Low public awareness and adherence to control measures

Key Reference documents used for risk assessment

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