



Sudan health emergency

Situation Report No. 3

30 September 2023



World Health
Organization

REGIONAL OFFICE FOR THE Eastern Mediterranean

Highlights

- On 26 September 2023, Sudan declared a cholera outbreak in Gedaref State, following confirmation of 4 stool samples from suspected cases to contain *Vibrio cholerae*, the bacteria that causes cholera. As of 29 September, there were 307 cases and 19 deaths from Gedaref (CFR 6.18%), 400 cases and 8 deaths from South Kordofan (CFR 2%), and 110 cases and 8 deaths from Khartoum (CFR 7.27%). Investigations are ongoing to determine whether cholera has also spread to Khartoum and South Kordofan states, where increased cases of acute watery diarrhoea have been reported. WHO is supporting the response to the outbreak through coordination, expert advice, training and capacity building, transporting samples for confirmation, and provision of equipment and supplies. We have also initiated plans to request for oral cholera vaccines (OCV) from the International Coordinating Group (ICG) on Vaccine Provision to protect the population and contain the outbreak.
- Other disease outbreaks are ongoing in several states with 12 states reporting measles cases and deaths, 12 states reporting malaria cases and associated deaths, and 6 states reporting cases of dengue with associated deaths.
- It has been over five months since war broke out in Sudan, with fighting still actively ongoing in affected states. Insecurity, displacement, limited access to medicines, medical supplies, electricity and water continue to pose enormous challenges to the delivery of health care across the entire country. Both states directly affected by the conflict such as Khartoum, West, Central and South Darfur, and North and South Kordofan and relatively peaceful states feel the brunt of the war and its effect on health care. States not directly affected by the war are receiving displaced people, hence the strain on health care and other services.
- 5.5 million people have been newly displaced due to war; 4.3 million internally and 1.2 million into neighbouring countries ([DTM Sudan – Monthly Displacement Overview \(1\)](#)). This is in addition to 3.7 million people that were internally displaced prior to 15 April. The new IDPs were originally displaced from eight states, with the largest number from Khartoum (68%) followed by North, South, West and Central Darfur, North and South Kordofan, and Al Jazeera.
- Malnutrition is on the rise across the country. The displacement and lack of access to food due to the war is occurring on top of an existing hunger crisis caused by prolonged drought.
- Despite the 11 May Declaration signed by the warring parties in Sudan to protect civilians, reports of attacks on health care continue to be received. Since 15 April 2023, WHO has verified 56 attacks on health care resulting in 11 deaths and 38 injuries. Attacks on health care include incidents involving hospitals, ambulances, laboratories, warehouses, health workers and patients ([WHO Surveillance System of Attacks on Healthcare - SSA](#)). WHO condemns in the strongest terms the increasing attacks on health care in Sudan.

KEY FACTS AND FIGURES

24.7 million

people in need of humanitarian aid in 2023

18.1 million

people targeted for humanitarian aid in 2023

11 million

people in need of urgent health assistance

56

attacks on health care verified by WHO

20.3 million

people highly food insecure

3.4 million

under-5 children acutely malnourished

690 000

children with severe acute malnutrition

9000+

people in need of dialysis services

5.5 million

people displaced internally and across borders since 15 April

- WHO is working with health partners to ensure faster access to emergency health supplies and treatment for survivors of sexual and gender-based violence, as well as ensuring access to psychosocial services.
- Closure of the Khartoum-Kadugli and Dilling-Kadugli roads is affecting the dispatch of medical supplies to several states in the western part of the country.

Situation

Overall needs

- As per the revised Humanitarian Response Plan (HRP) for 2023, half the population of Sudan, nearly 25 million people are in need of humanitarian support, and 18 million have been targeted for humanitarian assistance.
- An estimated 11 million people in Sudan need urgent health assistance.
- 5.5 million people displaced within Sudan and into neighbouring countries are facing limited of access to food, water, sanitation and health care, as well as heightened risks of disease outbreaks.

Outbreaks

- Sudan has declared a cholera outbreak in Gedaref State. As of 29 September, there were 307 cholera cases and 19 deaths from Gedaref (CFR 6.18%), and 510 suspected cases and 16 deaths from South Kordofan and Khartoum: 400 cases and 8 deaths from South Kordofan (CFR 2%), and 110 cases and 8 deaths from Khartoum (CFR 7.27%).
- Reports of measles, malaria, dengue and other diseases are also being received from several states. As of 29 September:
 - 4,123 suspected measles/rubella cases with 107 associated deaths (CFR 2.6%) have been reported from 12 states: Blue Nile, River Nile, White Nile, Red Sea, North Darfur, Kassala, Gedaref, Gezira, West Kordofan, Khartoum, East Darfur, and Sennar. The largest number of measles cases is reported from White Nile (with 3,117 cases and 98 deaths as per reports received as of 22 September.)
 - 736,507 clinical malaria cases and 22 deaths (0.003%) from 12 states.
 - 4,097 suspected cases of dengue and 13 deaths (0.317%) from 6 states.
 - 18 whooping cough (suspected pertussis).
- 65 heatstroke cases and 19 deaths were reported from Red Sea and Northern states.
- Confirmation of cases is challenging in the absence of functional public health laboratories in most states. Measles samples are being transported to Port Sudan for confirmation using the pathway for transportation of samples from acute flaccid paralysis cases. Out of 108 samples tested at the Public Health Laboratory in Port Sudan, 29 tested positive for measles, 1 tested positive for rubella and 12 tested positive for both measles and rubella.
- Outbreak control efforts are ongoing including measles vaccination campaigns in the southern part of the country with the support of UNICEF, WHO and other immunization partners.

Reproductive health

- There are an estimated 2.64 million women and girls of reproductive age. About [300 000 pregnant women will give birth over the next three months](#). Lack of access to safe and clean deliveries for these women and their newborns is major concern, especially for those who have complications of their pregnancy, as more women will be forced to deliver at home.
- Since the start of the war in Sudan, at least 97 cases of sexual assault have been reported, including 51 cases from Khartoum alone.

Non-communicable diseases

- Sudan has a high burden of non-communicable diseases (NCD) with 51% mortality even prior to the conflict. Lack of access to treatment will further compound the burden and complications from NCDs such as diabetes mellitus, hypertension and cancer, which require regular follow up and medication.
- The disruption of services is having devastating impacts on the survival of more than 9000 patients – including 240 children – who need dialysis due to kidney failure. Before conflict broke out, these patients were getting dialysis services in 107 government-run dialysis centres. Only 77 centres are currently functional and they are overwhelmed due to patient load and lack of dialysis supplies. Ensuring availability of these supplies to the functional facilities is an urgent priority to save the lives of the thousands of patients whose survival depends on regular dialysis.

Nutrition

- 20.3 million people across Sudan (over 42% of the country's population) have fallen into high levels of acute food insecurity between July and September 2023. This is nearly double the number of food-insecure people compared to the last IPC analysis conducted in May 2022.
- 3.4 million children under five are acutely malnourished with over 690 000 of them severely malnourished and over 100 000 suffering from severe acute malnutrition (SAM) with medical complications in need of inpatient management in the stabilization centers, according to OCHA Sudan Situation Report of 7 September 2023.

Trauma and injuries

- According to the Federal Ministry of Health's report of 8 September 1265 people have been killed and 8396 have been injured due to the conflict while another 6177 have been injured due to causes indirectly linked to the conflict. This is based on reports from health facilities, and number of casualties is expected to be much higher.

Heavy rain and floods

- Heavy rain destroyed hundreds of houses, causing more internal displacement and increasing the risk of transmission of diseases. According to [OCHA Sudan Floods Dashboard of 24 September](#), over 72 000 people have been affected by heavy rains and flooding across 16 localities.

Access to health care

- More than 70% of health facilities in conflict-affected states areas are non-functional, leading to extremely limited – and sometimes no – access to health care for millions in Sudan, who are either trapped in war zones or displaced.
- Shortages of medicines and medical supplies, including treatment for chronic diseases continue to be reported despite provision of supplies by health partners, including WHO. Health care workers have not been paid for four months, triggering strikes in some states like Red Sea, Northern and Kordofan.

WHO response

Leadership and coordination

- WHO is coordinating the health response and continues to lead the Health Cluster for national and sub-national-level response to the health crisis.

Response to the cholera outbreak

- Under the leadership of the Federal and State Ministries of Health, WHO is coordinating the response to a cholera outbreak in Gedaref State.
- Earlier this year, more than 2800 Sudanese health workers took part in an online capacity-building programme conducted by WHO on the management of acute watery diarrhoea in times of crisis. Another online training course, on cholera, dengue and malaria management protocols, took place this week, for more than 8000 Sudanese health workers. On-the-job training on surveillance and standard case management for cholera and other infectious diseases was also conducted in Gedaref for 185 health workers.
- Currently, WHO is supporting the deployment of rapid response teams to the affected localities and is actively supporting the Ministry of Health to transfer samples of suspected cholera cases to the Public Health Laboratory in Port Sudan, a facility capacitated by WHO to provide a national reference service. Surveillance is ongoing in affected and high-risk areas to identify and address risk factors.
- WHO continues to strengthen the Public Health Laboratory in Port Sudan with the provision of equipment and supplies as well as capacity building of leadership and staff.
- Plans have been initiated to facilitate a request to the International Coordinating Group on Vaccine Provision (ICG) for oral cholera vaccines to protect the population and contain the outbreak.
- With support from WHO and health partners, the Ministry of Health is also coordinating efforts to scale up access to clean water and sanitation facilities, as well as ensuring affected and at-risk communities are aware of transmission risks and proper hygiene practices to reduce contamination risks and prevent further spread of the outbreak.

Response to other outbreaks and malnutrition

- WHO is supporting state health authorities in disease surveillance and outbreak response. In August, 50 health workers from eight localities in two states were trained as rapid response teams (RRT), and training on surveillance commenced in Gezira State on 4 September.
- WHO is providing expert advice, supplies and oversight to stabilization centres for the management of severe acute malnutrition, and is covering the operational cost of 11 stabilization centres, and has trained volunteers to conduct malnutrition screening at IDP gathering sites in Gedaref.
- Measles samples are being transported to Port Sudan for confirmation using the pathway for transportation of samples from acute flaccid paralysis cases. WHO provided the diagnostic kits and hired the services of a laboratory technician who performed the tests on the samples.
- WHO is involved in coordination of reactive measles vaccination campaigns and provided technical support to reactive integrated measles vaccination campaigns in Blue and White Nile states in August 2023. The campaigns targeted over 11 300 under-five children in Blue Nile and about 42 400 9 to 59-month-olds in White Nile together with vitamin A administration, nutrition assessment and distribution of hygiene items.

Distribution of supplies

- WHO is working intensively to continue to distribute lifesaving medical supplies. Since the start of the war in Sudan, WHO has shipped over 1000 metric tons of medicines, medical supplies and equipment including trauma kits, blood bags, medicines for chronic diseases and infectious diseases, diagnostic kits, chold-chain equipment and incinerators. 770 metric tons have been dispatched from Port Sudan to WHO hubs in different states, 240 metric tons have been distributed to government health authorities and partners.



*Processing of samples at the Public Health Laboratory in Port Sudan, September 2023.
C: WHO Sudan*

- Insecurity and operational hurdles continue to pose a challenge in the timely delivery of supplies and services. Nevertheless, WHO remains committed to collaborating with partners and local authorities to explore alternative approaches and guarantee the delivery of healthcare services and vital medical supplies to the affected population in these regions. Continuous efforts are being made to overcome the challenges and extend support to healthcare facilities.

Addressing information gaps

- WHO is collaborating with health officials and partners to address gaps in essential health data, including disease surveillance.
- WHO is supporting Sudanese health authorities to conduct Health Services and Resources Availability Monitoring System – HeRAMS. Data collection is ongoing in two states: Red Sea and Kassala. Preparations are underway to roll out HeRAMs in Khartoum, Gezira, White Nile, and Gedaref states.
- [WHO rolled out the electronic Early Warning Alert and Response System EWARS for Sudan](#) in August for early detection of and response to epidemic-prone diseases. As part of the roll-out of EWARS, a training of trainers (ToT) was conducted in Port Sudan for 60 health workers from Red Sea State MoH who participated in person and more than 50 participants from health partners including the UN who participated online.

Healthcare services, trauma care and case management

- WHO launched 14 mobile clinics and primary health care centres in Khartoum, Kassala, Red Sea, White Nile states, Sennar State, Gezira and North Darfur States. These clinics provide essential health services to the vulnerable populations in the hotspots and states receiving large numbers of displaced populations. Ten more mobile clinics will be launched in September.
- WHO has been conducting weekly online trainings on case management since the start of the conflict; these sessions have been conducted by more than 10 000 health care workers to date despite internet connectivity challenges, a display of the commitment and resilience of Sudanese health workers.
- Two WHO trauma experts trained 20 health care workers from five states in mass casualty management (MCM). These 20 doctors and nurses, brought together from nine hospitals, will in turn train others. Thirty health care workers who participated in MCM ToT prior to the war had trained 200 others.
- The same WHO experts also trained 14 emergency doctors from five states on pre-hospital trauma care using the (C)ABCDE approach as trained trainers. Both trainings were organized collaboratively with Red Sea State Ministry of Health.

WHO response to the health needs of Sudanese and other nationals that fled to neighbouring countries

- The number of people that have fled to neighbouring countries from the ongoing crisis in Sudan has surpassed one million. Chad, Egypt and South Sudan are accepting the majority of those displaced.
- The displaced Sudanese and other nationals are sheltering in Chad (42.1%), Egypt (25.8%), South Sudan (22.9%), Ethiopia (7.2%), Central African Republic (1.6%) and Libya (0.3%).
- WHO is coordinating the health emergency response through the health cluster mechanism in areas hosting refugees and returnees, helping other responding agencies to deliver an effective response. Additionally, WHO monitors disease outbreaks and responds quickly by deploying rapid response teams. WHO personnel are on the ground working to train health workers and epidemiologists and ensure health facilities are functioning.
- With medical supplies in high demand, WHO is also helping procure and deliver urgently needed items to hospitals and clinics.

Central African Republic

- WHO is doing everything possible to meet growing—and urgent—health needs in these areas. However, there are access constraints because of ongoing insecurity in the country and the recurring flooding that occurs between July and November, which makes travel difficult.
- In addition to previously delivered medicines and medical supplies, 48 malaria kits have been donated, and procurement of additional supplies for other communicable diseases has been prioritized following the occurrence of 39 measles cases. WHO is also actively engaged in supporting communities in Vakaga by enhancing disease surveillance capabilities.
- WHO conducted two briefings on preventing and reporting sexual exploitation, abuse and harassment (PRSEAH).

Chad

- Chad now hosts over 40% of people displaced by this crisis and the number is growing every day. There were about 3000 new arrivals in the week of 4 September.
- The health crisis is growing concomitantly, with 55 542 malaria cases reported in Week 34, and five suspected cases of meningitis. Two measles campaigns have already reached 1.2 million children.
- 90 new trauma cases in the week of 4 September brought the cumulative total to 2839.
- WHO deployed 30 experts to support the response in Chad, and 8 PED SAM kits were donated to MSF Suisse, along with 235 malaria kits, 73 trauma kits, 174 nutrition kits, and 10 SGBV kits.
- However, additional funds are required to fill significant gaps in meeting urgent health needs.
- Currently, there are only 17 operational mobile clinics spread across 15 locations at the border sites and refugee camps where new arrivals are seeking assistance. Emergency Medical Teams (EMT) trained and coordinated by WHO are providing urgent surgical care to the injured.
- There are also over 10 000 pregnant Sudanese refugees in Chad in dire need of health care services. Furthermore, the estimated number of children aged 5 and younger stands at 65 000, constituting 25% of the Sudanese refugee population in Chad. These children face a range of health challenges, including severe acute malnutrition, measles, cholera and malaria, and are at risk of other diseases such as Dengue fever and chikungunya.
- More than 40 tons of supplies have been donated to the Government of Chad to date, and a Chadian military charter flight was in Nairobi on 13 September loading supplies to be delivered to Achebe the following day. Additionally, further supplies worth approximately US\$ 700 000 are currently in Dubai, awaiting delivery.

Egypt

- So far, more than 285 300 displaced individuals, predominantly Sudanese, have crossed into Egypt. Daily arrivals in Egypt have markedly slowed down.
- The Egyptian Ministry of Health and Population (MoHP) is taking preventive measures at the borders including malaria vector control, mobile clinics, administering polio, and measles, mumps and rubella (MMR) vaccines for children, and laboratory testing for communicable disease.
- WHO Egypt has been closely coordinating the health response under the leadership of the Ministry of Health and Population, and in collaboration with other UN agencies, the Egyptian Red Crescent (ERC), and community-based organizations. The Country Office is also providing support, including medicines and medical supplies, to help address the health and humanitarian needs of refugees and host communities. ([Read more](#))

Ethiopia

- As of 12 September 2023, there have been 435 reported cases of cholera in Kumer Camp, where refugees from Sudan are sheltered, resulting in eight deaths (CFR 1.8%).
- Beyond Kumer Camp, the Amhara Region has witnessed 192 confirmed cases of cholera.
- Escalating violence in the Amhara Region is posing significant challenges to response efforts. These are compounded by the shortage of antimalarial medication and critical deficits of emergency health supplies for the management of cholera, severe acute malnutrition (SAM) with complications, and non-communicable diseases (NCDs).
- WHO is actively involved in the response and is providing substantial support. This includes financial, technical and material assistance, with an allocation of US\$ 250 000 to Medical Team International (MTI) to deliver health care services to refugees in the camp for four months, to the end of October 2023.
- WHO has contributed to improving medical infrastructure by providing three tents for two temporary clinics at the point of entry and the transit centre. Additionally, nearly 4 tons of medical kits have been supplied, along with transportation support for an Emergency Medical Team.
- WHO has also collaborated with Ethiopia's Ministry of Health to fund the first three weeks of operations of the Emergency Medical Team, which is working closely with the government and health partners to manage cholera cases in the camp.

South Sudan

- Since 16 April 2023, South Sudan has received 26 2298 individuals, 42 471 of them in the northern Renk town.

- The pre-existing dire humanitarian situation has been exacerbated by the Sudan crisis and the ongoing El Nino season.
- The situation remains dire, with about 9 million people in need of humanitarian assistance across the country.
- WHO in South Sudan prepositioned 686 health emergency kits to six locations to manage 227 950 people for different ailments.
- Another 118 severe acute malnutrition treatment kits and 674 emergency health kits, including cholera kits, diagnostic kits and emergency supplies have been distributed.
- have been distributed and more than 10 000 children treated in stabilization centres, with a recovery rate of 88%.
- WHO is shipping two vehicles and one generator to Renk to support relief operations.
- About 430 frontline health care workers specifically trained on severe acute malnutrition and nutrition surveillance.
- Over 660 frontline health care workers have been trained to identify and manage common illnesses such as malaria, pneumonia and diarrhoeal diseases, with on-the-job mentorship for 66 health care workers.

Funding overview

- The revised 2023 Sudan Humanitarian Response Plan (HRP) launched on 17 May seeks \$2.6 billion to help 18 million people and is [32.2% funded](#). The HRP appeal for health is \$178.6 million to reach 7.6 million people and is [37.2% funded](#).
- The Sudan Regional Refugee Response Plan (RRP) has an overall funding requirement of \$566.4 million to respond to the needs of people displaced from Sudan into neighbouring CAR, Chad, Egypt, Ethiopia and South Sudan, of which only 24.3% is funded. This includes \$35.7 million for health and nutrition, covered with financial contributions at 49.3%.
- In June, WHO launched an emergency appeal for \$ 145.2 million to respond to the needs of 7.6 million people in need of urgent health assistance in Sudan and almost 500,000 individuals forced to flee to neighbouring CAR, Chad, Egypt, Ethiopia and South Sudan between June and December 2023.
- WHO's Emergency Appeal for Sudan is currently funded at 30.1%, including USD 43.7 million in received funds and firm pledges.
- WHO thanks the United States, the Central Emergency Response Fund, the Novo Nordisk Foundation and other donors, including those contributing to the Contingency Fund for Emergencies, for their generous support of the Organization's response to the Sudan Emergency.



*A WHO chartered flight arrives in Port Sudan on 19 August carrying 27 metric tons of medical supplies and diagnostic kits.
C: WHO Sudan*

For more information, contact:

Dr Mohammad Dauod Altaf
Lead, WHO Sudan Health Emergency Program
altafm@who.int

Loza Mesfin Tesfaye
Communications Officer, WHO Sudan
tesfayel@who.int