

Commentary Article

Escalating Mortality and Morbidity among Sudanese inside and outside
Sudan during and after the War that sparked in April 2023

Ali Awadallah Saeed^{1,3,6}, Ahmad Mohammad Al Zamel^{2*}, Maha Yahia Suliman³, Samah
Elnour Khalifa³, Abobaker Mohammed Aldosh^{4,5}.

¹Consultant of Pharmacology (SMC), Department of Pharmacology, Pharmacy Program,
Napata College, E-mail: alimhsd@gmail.com, ORCID: <https://orcid.org/0000-0003-3524-4825>. ²Al-Neelain University Faculty of Medicine and Surgery, Sudan, E-mail:

ahmadzamel33@gmail.com, ORCID: <https://orcid.org/0009-0000-8796-6403>.

³Department of Pharmacology, Faculty of Pharmacy, National University- Sudan.

⁴Department of Clinical Pharmacy, Faculty of Pharmacy, National University- Sudan.

⁵Department of Clinical Pharmacy, Omdurman Military Hospital, E-mail:

abubakraldosh85@gmail.com.

⁶Mycetoma Research Center, Khartoum, Sudan.

Corresponding author: Ahmad Mohammad Al Zamel*, ²Al-Neelain University Faculty
of Medicine and Surgery, Sudan, E-mail: ahmadzamel33@gmail.com, ORCID:
<https://orcid.org/0009-0000-8796-6403>.

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Abstract:

Introduction: On April 15th 2023, battles initially broke out in the capital city, Khartoum, after the Rapid Support Forces (RSF) militia, which used to be under the command of the Sudanese Armed Forces (SAF), rebelled. During such a disaster, Sudanese people are expected to reconsider their life priorities, with education coming down after safety and food supply.

Methodology: This commentary relies on reports from the UNHCR, the UN Refugee Agency, along with recent journal articles discussing the consequences of ongoing conflicts. Personal observations as healthcare workers contribute to the insights, and data from the healthcare workers illuminate the struggles faced by them.

Results:

The war resulted in the widespread destruction of health system infrastructure in different states of Sudan, leaving people uncertain about their health. As reported nine million people have been internally displaced throughout Sudan, overwhelming the state-specific health systems.

Data from Sudan's Doctor's Trade Union suggests 70% of health care services are no longer functioning due to lack of supplies, personnel and access. Twenty-one hospitals have been forcibly evacuated by militants. And 17 hospitals have suffered aerial or land bombings, with nine ambulances attacked.

Conclusion:

The need for health services is still disproportionately greater, despite efforts to provide them to refugees and displaced people. Therefore, we call on the international community of experts and researchers to conduct researches in this important area and support the strengthening and re-construction of the failing health system in Sudan.

Keywords: Refugees, Sudan war, Displace, health services.

Introduction:

Sudan –The north-eastern zone of Africa- is a rich country known for several types of wealth, such as agricultural, animal, and mining wealth. Unfortunately, the country has suffered from dictatorship, division, political instability, civil war, and others for decades. The ongoing war is the worst in history as it turned Sudan into a humanitarian crisis zone (1,2). On April 15th 2023, battles initially broke out in the capital city, Khartoum, after the Rapid Support Forces (RSF) militia, which used to be under the command of the Sudanese Armed Forces (SAF), rebelled. Rapidly, the war expanded throughout the country, with both sides contesting to control critical locations, including airports, army bases, and entry points. It's intensely focused in Khartoum, and that Saturday morning changed the lives of millions of people. The horrid war caused even more suffering with the standoff of vital services such as water supply and electricity. Soon, the situation worsened and continues to worsen, with the

catastrophe extending to the health, environment, and others (3).

Healthcare institutions, services and healthcare workers in Khartoum and several other states in wartime in Sudan:

Healthcare services have been severely compromised. As of 23rd July, less than one third of hospitals in conflict zones are functional, with 70% of hospitals out of service in states affected by the fighting are not functional, leaving many without treatment for injuries, chronic diseases and other illnesses, as well as routine care (4).

Of the 59 hospitals out of service in conflict zones, 17 were attacked by artillery and 20 were evacuated, of which 12 have been forcibly militarized and converted into barracks by the RSF. The remaining hospitals suspended services due to power outages, shortage of fuel for generators, lack of medical supplies and critical lack of health workers. Additionally, the RSF also seized multiple public health assets

critical for service delivery including the National Public Health Laboratory, the Central Blood Bank, and the National Medical Supplies Fund, contributing to critically low medical supplies and blood reserves across several other states. The siege of the National Public Health Laboratory constitutes a biological hazard, increasing the risk of multiple outbreaks of polio, measles, and cholera due to insecure containment (4).

In-service hospitals are reporting severe health worker shortages. Health workers are among thousands that have fled the capital since the start of the war severely limiting capacity in hospitals. The remaining health workers are either unable to access health facilities due to fear for their safety or are exhausted, burdened by acute shortages in specialized cadres such as surgeons and anaesthetists and medical supplies (4).

Data from Sudan's Doctor's Trade Union suggests 70% of health care services are no longer functioning due to lack of supplies, personnel and access. Twenty-one hospitals have been forcibly evacuated by militants. And 17 hospitals have suffered aerial or land bombings, with nine ambulances attacked (5).

In Sudan, the already frail health system is on the brink of collapse. This has detrimental consequences on the response to ongoing outbreaks of dengue fever. Equally, there is an increased risk of emerging outbreaks such as cholera due to worsening water sanitation and hygiene conditions further aggravated by the upcoming flood season (6, 10). Therefore continued and heightened disease surveillance is necessary to overcome the risk of outbreaks and epidemics (6). Furthermore, in the absence of catch-up campaigns, the disruption to immunization services increases the threat of outbreaks of vaccine-preventable diseases such as measles, risking the reversal of progress made over the past decade in under-5 mortality, maternal mortality, and incidence of communicable diseases.

On August 23d 2023, as reported by UNHCR, the UN Refugee Agency, more than 4 million people were forcibly displaced by the crisis in Sudan. This was the situation before the extension of crisis to other states; UNHCR is worried about health conditions deteriorations across the country. This includes the refugee camps as well as refugees at border entry points and transit centers in

neighbouring countries, where people forced to flee are arriving. UNHCR was present in White Nile state, where there was a lack of essential medicines, supplies and staff. This severely hampered health and nutrition services in all 10 refugee camps, where over 144,000 newly displaced refugees from Khartoum have arrived since the conflict started, joining thousands of South Sudanese refugees and the local communities who access the same clinics. Psycho-social and mental health support services are also virtually nonexistent (7). Disease outbreaks and related deaths continue to be observed as many families have been on the move for weeks – with very little food or medicine – raising malnutrition rates.

Displacement of Sudanese people due to war:

According to the International Rescue Committee on report updated in April 12th 2024, nine million people were displaced internally making it the largest displacement crisis in the world internally. With 25 million people in desperate need of humanitarian aid and conflict still having a devastating effect on nearly every aspect of daily life, Sudan is on the verge of collapse. Sudan

is facing one of the worst hunger crises in history, and there is a good chance that large areas of the nation may experience widespread starvation. It is reported that at least 18 million people in the nation (more than 37% of the total population) suffer from acute food insecurity, which puts their lives in jeopardy due to a shortage of readily available, reasonably priced food. (8)

Remarkable increase in the number of deaths of people inside and outside Sudan due to the war as observed by community and researchers:

The mortality rate of Sudanese people in the year 2021 was 6.8 per 1,000 people, which was considered high compared to North African countries (9). In 2023 and after war, with the lack of accurate statistics, the death rate increased remarkably, as deaths directly from the war were more than 15,500 people. There are many reasons for the increase of mortality rate inside Sudan, where war is considered the main reason, which affects the basics of life for the individual, which includes the difficulty of obtaining basic services such as electricity, water, food, and health services. In addition to the direct causes

of conflict-related activities which include direct injuries, displacement and disease outbreaks, there is a noticeable increase in the mortality rate of Sudanese outside Sudan and displaced peoples. This observation was seen by authors and many researchers. The reasons observed by many scientists and supposed by authors including but not limited to:

1. The difficulty of accessing medical service due to the war inside the country, the high cost of medical service, and the lack of insurance coverage outside Sudan, with the exception of Egypt.
2. Psychological disorders related to war, leaving home, losing loved ones and property, and fear of the unknown, such as post-traumatic stress disorder, anxiety, sleep disorders, depression, and suicidal tendencies.
3. The physical exhaustion associated with traveling along arduous routes would seriously affect the elderly and those with serious illnesses.

Conclusion remarks:

The war resulted in the widespread destruction of health system infrastructure in different states of Sudan, leaving people uncertain about their health. As reported nine million people have been internally displaced throughout Sudan, overwhelming the state-specific health systems. The need for health services is still disproportionately greater, despite efforts to provide them to refugees and displaced people. Therefore, we call on the international community of experts and researchers to conduct researches in this important area and support the strengthening and re-construction of the failing health system in Sudan.

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