



The impact of war on Sudan's health system 2023

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Abstract:

On 15 of April clashes started between Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF) in Khartoum and Northern state, and continued to spread to involve other states. During which large number of people have been killed, and large number flee from their states and the majority from Khartoum city in form of inside and out-side displacement, as the conflict continuous, Sudan's health system is at risk for collapse. More than 30 hospitals closed either because of direct attacks or shortage of staff and resources, most of stats now are suffering from run out of nutrition, water and fuel. There are outbreak of dengue fever, cholera and other diseases.

Introduction

Sudan is geographically borders with seven countries including Libya and Egypt to the North, Chad to the West, the Central African Republic to the South-West, South Sudan to the South, Ethiopia to the South-East and Eritrea to the East located in Africa. The capital city of Sudan is Khartoum which has a population of 1,974,647(1)

The conflict between the Sudanese Armed Forces and the Rapid Support Forces which affect the region, human being and the country (2) leading to public health risks, from repeated violence against population and health care personnel which resulted in trauma, injuries, major disruptions to health care services, and increasing the risk of malnutrition, communicable diseases and mortality(3)

-THE GENERAL EFFECT OF THE WAR:

About 4.5 people have been displaced; nearly 19 million of children are unable to access their schools because of increasing violence. (4) In the first two weeks of the armed conflicted the reports showed extreme shortage of food, water and fuel. (5) On 9th of June the United Nations human right reported intendance of 12 sexual abuses, most of them were young girls. Additionally 1.2 million people had moved to other countries with report of hundreds deaths. (6)

There is an outbreak of many diseases including cholera which have been noticed at the starting of the clashes, a report showed a 1,634 suspected case of cholera with 70 deaths from deferent states in Sudan by 29 of September. (4) From 28 of July 2022 up to 20 marsh2023 there were 7,935 reported cases of Dengue fever in twelves' states with higher percentage in Khartoum

Gadarif and North Darfur states which increase with time. And 46% of the cases were female the and situation is gating under control except for Khartoum and Gadarif (7)

-The impact on healthcare personnel and health facilities:

There is extremely risk of biological hazards from the isolates of dangerous disease from Central Public Health Lab which located near by the fighting area. (8) The data reported continued attacks on healthcare personnel and facilities and patients in ambulance during transports and there is nearly 16 nonfunctional hospitals due to attacks and other 16 closed because of staff shortage and fatigue. Also the reports showed difficulty to access to health care and challenge with shortage of resources. (9)

The rapid support forces directly targeted 14 hospitals and medical facilities using heavy weapons, 20 hospitals have been evacuated occupied 8 large hospitals inside Khartoum state and expelled the staff, which disrupting work in 57 hospitals and medical facilities. Moreover targeted five ambulances and killed two ambulances drivers and nurse. At same time it confirmed that 13 medical staff were killed, 9 medical personnel had been kidnaped in addition to stole and looted 6 military factories and pharmaceutical companies, and stole more than 43 pharmacies in Khartoum state, in various locations. (10)

The impact on healthcare services delivery:

on other hand there were difficulty in accessing to health services because of the attacks on healthcare workers and facilities which lead to increase the need to urgent health support unfortunately more than two million of pregnant women cannot get medical access 90 thousands of hem will give birth by the next three months.(11)

Disruption of healthcare services delivery and support with chronic medication increase the negative effect on health quality (12)

One third of healthcare facilities are out of services there are millions of children in need for immediate humanitarian support. The reports showed that at least 9 children have been killed with more than 50 injure and increase attacks including sexual violence and using Childs in fighting. With continuous of the attacks there is falling in vaccination rate which put children in danger of deadly diseases. Although Sudan has high rate of malnutrition the continuity of the war could make it worse. (13) at list 19 hospitals have been evacuated in Khartoum and surrounding states using direct force On 22 of April data showed that six dialysis centers and 15 primary healthcare centers became out of services, and more hospitals were closed as a result of critical shortage of supplies and healthcare personnel from direct attacks and the risk of re attack at any

time. because of using heavy weapons ill and injured people are facing challenges to reach hospitals. Therefore there is a risk of humanitarian crisis. (14)

nearly 8000 patients depend on hemodialysis, and around 4500 kidney transplant who are living with immunosuppressive drugs from the starting of the conflict and run out of resource from hospitals and because of the truth that most of dialysis centers were in Khartoum near to fighting areas challenge to reach and to bring supply to hospitals the staff who were working continuously and at risk of burn out start to minimize the number of sessions to two sessions a week and because of extreme disruption most of patients shifted to other states where they start to receive one section per week and sometimes minimize the session time from four hours to two hours so as to meet the demand of all patients with minimal resources. Unfortunately most of patients are suffering and expected that the supplies will not be enough by October. (15)

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