

The Impact of Civil War on Darfur Access to Health Services

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Abstract

This paper shows the overall status of underdevelopment which surrounds the states of Darfur in western Sudan, in terms of the quality and availability of health services.

The paper focused on the model of health services, which give clear signals to the reality of the situation, anyway, health services is one of the biggest challenges facing human development in Darfur, so that, health services in any society is one of the main entrances to make a paradigm shift, which leads to a big change in society.

The manuscript is based primarily on statistical analysis and social to official data issued by the Central Agency of Statistics of Sudan for the year 2007. The paper used statistical tables to illustrate the extreme vulnerability of various infrastructures also describes the severe shortage of equipment, medicines, health staff assistance and doctors. They also describe the work environment in terms of configuration and attractions.

It has been showed clearly how development neglected in Darfur, and also explained the focus of health services in the center (Khartoum and Jazeera), which led to a heightened sense of injustice in the hearts of residents of peripheral and rural areas, and resulted in more conflict on power and wealth in Sudan?

Keywords: Access to health service; Civil war impact; Darfur; Sudan

Introduction

Abdelmoneim [1] explained that the health services are fundamental pillars of human development in modern societies. Moreover, Abdul Rauf [2] described that the quality and good performance in the systems of health services has become of the most important metrics degree of success of human development in any society and, become an indicator to measure progress and civilization, attention to human resources is important in achieving the requirement of sustainable development, so, if community members are healthy, it means they prepared to contribute to the act of development, and then are ready to achieve the goals and terms of development plans, therefore, the quality of health services is one of the basic conditions and priorities to achieve sustainable development, so that the productivity of the workers, whether that was mental or muscular, are closely linked to their health.

Methodology and Study Sites

Research methodology used in this study relied heavily on official statistical information can be available until 2007. These statistics illustrate the situation in 2007, but the war continues. No recent statistical data available and, the situation now even worse in 2012.

Statistical tables, observation, interviews and field visits to limited areas are research tools in this study. Statistical and social analysis is the technique used to access the results.

Geographical field of study is the three states of Darfur: South Darfur state, North Darfur state and West Darfur, they are located in western Sudan, between latitudes 10-16 north, and 22-27.30 degrees east longitude. In this respect, the temperature ranges between 30-45 in the summer and zero and 20 degrees in the winter. Moreover, total area of 570.888 km² [1], which is equivalent to 30% of the area of Sudan, is raising from the sea an average of approximately 400 meters. Further, the international border, bordered to the north, Libya and Chad, in the West, Central Africa and South Sudan. At home, North Kordofan state in the east, South Kordofan state in the southeast. Constitute

total area of one third of Sudan area which is amounting to 660,000 square kilometers. Approximate it has population of six million people, before the war. Tribe inhabits the region 88 tribes and the majority of the population of the African races and the rest of Arab origin, there are more than hundred local dialects. Arabic is the common language of communication among the various tribes. The economy depends heavily on traditional rain-fed agriculture and livestock [3].

The conceptual dimension of health services

Perfect health is the arrival of the individual's capacity to enjoy and perform the role assigned to him to the maximum what he has the good health is a full physical and mental integrity and not merely the absence of disease and unbalance. Doctors and governments may think that the health services provided to patients for the purpose of working on the recovery. But health concepts refer to it as more than just the absence of disease, where there are some diseases cannot be cured completely, ill health imposes costs in terms of reduced patient's ability to enjoy life and work effectively as they affect the health of others as follows:-

- 1 - Transmission from one person to another
- 2 - The family of the patient allocates time and resources to care as they may suffer the results of low-income countries such as malnutrition and deteriorating housing situation
- 3 - Employer suffers from low worker productivity due to illness.

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4 - Taxpayers suffer if the health services are financed through taxes.

WHO [3], reported that the health services can produce other services indirectly, such as psychological and physical stability, security and tranquility. According to [4] the health services as a necessity for the safety of the community and protect it from diseases need several production inputs. Geoffery [5] explained that these inputs can be summarized as follows:

(a) Employment: doctor - nurse - technician's devices - administrators - Workers Support Services...

(b) Medical buildings and furnishings: furniture, medical (furniture) - patients and doctors rooms - sofas - Lights...

(c) Hardware and durable medical tools: include all of the devices used in the diagnosis or treatment...

(d) Support equipment: Computer - cleaning equipment, washing...

(e) Supplies medical treatment: drugs - threaded - gauze...

(f) Transportation: Ambulance - transport vehicles for workers...

(g) Energy: Electricity - fuel

This paper shows the situation of health services in the states of Darfur, and, is they meet the conditions of the minimum requirements and facilitators work including infrastructure, medical equipment, medicines and human resources and is it the level that must be provided in normal circumstances.

Benchmark for the results obtained through qualitative and quantitative analysis of the statistical tables is what has been addressed in the introduction and conceptual dimension of health services to this paper.

Results

This section explains the results of this study, in this regard; the following statistical tables are explaining and discussing the level and quality of health services available in the states of Darfur and includes public and private sector.

Government health services organizations

Through a review of Table 1 that demonstrates government institutions that provide health services to the population in the states of Darfur compared with the states of Khartoum and the island from the first look it is clear that a great difference for example there 58 units of radiation diagnostic in the states of Khartoum and Jazeera [6] is equal to four times the total units rays diagnostic in all the states of Darfur The small clinics and health centers in Khartoum and the island it is equal to six times what is available in the states of Darfur [7], in addition to the lack of specialized hospitals in the South and West Darfur and there are two hospitals in northern Darfur.

With regard to doctors, specialists in hospitals, the states of Khartoum, the island is concentrated in them equal to four times the available in the states of Darfur, in addition to a great irony in the number of hospitals and hospital beds in relation to the population.

It does not depend on the lack or absence of health institutions at all, but also about the quality of these institutions in terms of buildings, equipment and medical devices, surgical rooms and sanitation. There are no ambulances in most hospitals, even if it be found in poor condition and ill-equipped. Because of the great pressure on these institutions,

which exceeds the readiness and capacity, the medical devices and equipment is depreciated rapidly as compensated take a long time. It should be noted that most of these medical services and hospital services are concentrated in the cities and in the state capitals, which increases the suffering of the rural population who make up about 75% of the total population in the Darfur states that it has led to widespread popular medicine treatment and treatment of sorcery and charlatanism. All that endangers the lives and health of the population at risk because of a lack of health services, so residents have to migrate to the cities where such services are available and sometimes outside the state in search of treatment.

Health services organizations in the private sector

Table 2 shows investment services in the private sector in the states of Darfur compared with Khartoum and Al-Jazeera states, and here we find the paradox, there is no way to compare, these services are concentrated in Khartoum to a large extent, and to some extent in Al-Jazeera, as we see in the table, and multiply to dozens and sometimes hundreds of times reported in the states of Darfur. The reason referred to the requirements of investing in this sector which are not available in the states of Darfur now, as the infrastructure is very weak and the electricity and water services is low and in many areas not exist, as well as disruption and isolation in the autumn for the lack of paved roads and asphalted, also, the extreme poverty experienced by the vast majority of the population of these States, which means the inability to pay for treatment of high prices, which makes investment in health services in these states is useless and unprofitable, as well as the health workers do not want to work in these states, because the work environment do not encourage them because of poor services including education, health, water and infrastructures and lack of civilized life, in addition to weak financial revenue, compared to Khartoum and al- Jazeera. The means of professional communication with the outside world, such as conferences, developments in medical science, training and friction and professional networking, are much less in these States, which greatly limits the opportunities for the development of these cadres.

Hospitals and beds per 100,000 population

Table 3 shows hospitals, beds per 100,000 population in the Darfur states, is clear from the table, the great suffering experienced by the inhabitants of these States, in the state of North Darfur, we find for every 100,000 people there is 45 bed and 0.7 hospital, in South Darfur for every 100,000 people there is 24 bed and 0.3 hospital, while, in the state of West Darfur, the situation is more difficult for every 100,000 people, there are 20 beds and only 0.3 hospital.

These areas suffer from the settlement of many diseases that hamper production such as malaria and malnutrition and diseases of the digestive system and others. These hospitals could not cover a fraction of its obligations to the population.

Workforce of physicians

Statistics show, and stresses the acquisition of the states of Khartoum and Al-Jazeera on the largest share of health services in Sudan. Table 4 clearly demonstrates the focus of Manpower of doctors from different specialties in the states of Khartoum and Jazeera, and the scarcity of doctors in the states of Darfur, including the doctors in the public and private sectors, In fact, the extreme weakness in the labor force of the doctors in the states of Darfur had been due to lack of financial incentives and moral support to work in these States as zones of war and, of course, is not safe, in addition to lack of working tools in hospitals, which are the pharmaceuticals and medical devices, also the

State	Rays	Blood Bank	Health Care	First Aid	Small Clinic	Health Center	Specialists Hospital	Specialists Service	Beds	Hospital
Khartoum	31	15	25	0	278	156	7	18	2230	25
Al-Jazeera	27	45	585	0	0	256	11	16	3228	53
North Darfur	8	2	216	0	67	38	2	1	793	12
South Darfur	2	2	295	11	43	18	0	3	832	10
West Darfur	2	1	183	16	37	6	0	2	361	6

Source: The Book of the Central Bureau of Statistics 2007

Table 1: Government health services organization in Darfur compared with the states of Khartoum and island 2006

State	Hospital	Specialist Clinic	Public Clinic	Dental Clinics	Laboratory	Radiology	Physiotherapy	Public Pharmacy	Private Pharmacy	Drugs Store
Khartoum	162	684	392	173	447	33	7	25	824	45
Al-Jazeera	36	80	97	18	162	8	3	15	189	46
North Darfur	1	17	14	2	26	4	0	9	22	209
South Darfur	3	14	10	2	9	2	0	3	40	154
West Darfur	1	4	4	1	6	0	0	5	13	31

Source: The Book of the Central Bureau of Statistics 2007

Table 2. Health services in the private sector in Darfur compared with the states of Khartoum and Al-Jazeera in 2006

State	Beds per 100,000 of the Population	Hospital for every 100,000 of the Population
North Darfur	45	0.7
South Darfur	24.25	0.3
West Darfur	19.9	0.3

Source: The Book of the Central Bureau of Statistics 2007

Table 3: Hospitals and beds per 100,000 Population in States of Darfur in 2006

State	Physicians	Dentist	General Physicians	Specialists
Khartoum	781	631	589	192
Al-Jazeera	549	32	386	141
North Darfur	99	2	80	19
South Darfur	55	2	40	15
West Darfur	41	0	31	9

Source: The Book of the Central Bureau of Statistics 2007

Table 4: Doctors holders Darfur compared with Khartoum and Jazeera in 2006

lack of processing operation theaters and other means in addition to the things mentioned in our analysis of the former tables.

The Rate of one doctor for every 100,000 of the population in darfur states in 2006

Table 5 shows the rate physicians per 100,000 populations in the Darfur states. In the state of North Darfur there 1.6 doctors per 100,000 populations, including a dentist and 1.1 specialists, the state of South Darfur there are 1.6 doctors per 100,000 of the population, including a dental doctor and 0.4 specialists for the same number of people. In West Darfur find 1.9 doctors and no dentists and 0.3 specialists per 100,000 of the population.

This situation and the few numbers come due to reluctance of doctors to work in the Darfur states as war and intensity zones where there are no basic services of water, electricity and no suitable education for their children and other points of advanced social convergence for creating a balance in their normal daily lives, add to that, difficulties of professionalism and lack of medical institutions to accommodate additional numbers of doctors and medical staff to cover the deficit.

Specialists in government health institutions

Tables 6-8 describes the number of specialist doctors in government health institutions in the states of Darfur in 2006.

The tables show that, the services of specialized doctors completely lacking, only simple vow in some disciplines and, that stray too far

from the minimum of the actual requirement.

Discussion

Through a general review of the tables is coupled with quantitative and qualitative indicators of medical services in the states of Darfur, in addition to some comparisons that we have quoted with the states of Khartoum and Al-Jazeera. The study provides the evidences that the states of Darfur screams out for disturbing the minimum of health services both in quality and quantity. It is known that these areas are rampant with many endemic diseases (malaria / urinary fistula in women, malnutrition, schistosomiasis, goiter, etc.), that affect the growth of children and reproductive health, as well as also hamper the ability to work productively. These endemic diseases also threaten the average life span of the population. All this clearly reveals the substantive reasons that drive population migration from the countryside to the cities, especially to the state of Khartoum, where these services are available to better.

It should be recalled that the lack of minimum health services makes the area unattractive, not only for the medical staff alone but for all staff in various areas of the civil services, as they also are not attractive for economic investment in general due to the fact that health services are one of the most important elements of infrastructure in the services area. Conclude from the foregoing that the health services in the states of Darfur do not contribute to the protection of the individual and maintain it properly. The infrastructure of the health institutions in Darfur does not meet the minimum required for the provision of

State	Doctor for every 100,000 person	Dentists per 100,000 person	Specialist per 100,000 people
North Darfur	1.6	0.1	1.1
South Darfur	1.6	0.1	0.4
West Darfur	1.9	0	0.3

Source: The Book of the Central Bureau of Statistics 2007

Table 5: Doctor Rate per 100,000 of the Population for the Year 2006

State	Internal physician	Pediatrician	Women	Healthcare	Surgeon	Plastic Surgery	Urologist	Ear, Nose and Throat
North Darfur	3	7	1	1	0	0	0	1
South Darfur	3	1	4	1	0	0	0	1
West Darfur	1	1	4	0	0	0	0	0

Source: The Book of the Central Bureau of Statistics 2007

Table 6: Specialists in the Health Institutions Holders Darfur for 2006

State	X-Ray	Radiation	Anesthesiologist	Psychiatric	Dermatologist	Heart	Chest diseases
North Darfur	1	0	0	1	1	0	0
South Darfur	0	0	0	0	1	0	0
West Darfur	0	0	0	0	0	0	0

Source: The Book of the Central Bureau of Statistics 2007

Table 7: Specialists in the Health Institutions Holders Darfur for 2006

State	Bone surgery	Digestive System	Brains and Nerves	general surgery	Medical tests	Physiotherapy	Ophthalmologist
North Darfur	0	0	0	3	0	0	1
South Darfur	0	0	0	3	0	0	1
West Darfur	0	0	0	3	0	0	0

Source: The Book of the Central Bureau of Statistics 2007

Table 8: Specialists in the Health Institutions Holders Darfur for 2006

health services in its initial form by internationally recognized courses and that we have described in the introduction to this paper and which constitute the practical framework within which they operate. It has been explained to be less than that.

What was discussed in this paper showed clearly how development neglected in Darfur, and also explained the focus of health services in the center (Khartoum and Jazeera), which led to a heightened sense of injustice in the hearts of residents of peripheral and rural areas, and resulted in more conflict on power and wealth in Sudan.

Moreover, the statistics show, and stresses the acquisition of the states of Khartoum and al-Jazeera states (center) on the largest share of health services in Sudan. That makes thesis of dependency school, as well as the center and periphery theory walk on two legs in Darfur.

Darfur re-models the situation in many parts of Sudan, especially in the peripheral and remote areas, these areas, which lacked all the elements of basic services, including health and other basic human needs. This explains the injustice felt by residents of these areas who called themselves marginalized, and declared war on the central government to improve their situations, as is happening now in Darfur.

Conclusion

This paper shows the overall status of underdevelopment which surrounds the states of Darfur in western Sudan, in terms of the quality and availability of health services. The paper focused on the model of health services, which give clear signals to the reality of the situation, anyway, health services is one of the biggest challenges facing human development in Darfur, so that, health services in any society is one of the main entrances to make a paradigm shift, which leads to a big change in society.

The manuscript is based primarily on statistical analysis and social to official data issued by the Central Agency of Statistics of the Republic

of Sudan for the year 2007. The paper used statistical tables to illustrate the extreme vulnerability of various infrastructures also describes the severe shortage of equipment, medicines, health staff assistance and doctors They also describe the work environment in terms of configuration and attractions.

Moreover, the study adopted the approach statistical comparison between the states of Darfur (peripheral states), with the states of Khartoum and Gezeera (center states), so as, to illustrate the imbalance in development planning in Sudan, as well as the lack of attention to the process of the development of remote areas and rural areas, so that underdevelopment in these areas has become a historical reality. These areas remained outside the development agenda by economic planners, as became a deferred duty in all forms of governments that have passed on Sudan since independence (1956) until now, all this made the output of the process of social and economic development a once taste fruit.

The study also shows that the vast difference in the quality and quantity of health services provided in the states of the center and peripheral ones, which led to a sense of injustice, social, economic and political inequality, and led to violent reactions that have evolved in the manifestations of armed political movements opposition, these movements lead guerrilla war against the central government since 2003 and until now, under the banner of the marginalized are and, as a result, development was stopped and the weak infrastructure had been destruction, including health services.

It has been showed clearly how development neglected in Darfur, and also explained the focus of health services in the center (Khartoum and Jazeera), which led to a heightened sense of injustice in the hearts of residents of peripheral and rural areas, and resulted in more conflict on power and wealth in Sudan.

Recommendations

When it comes to Darfur, we always reiterate that all our efforts

in the search for theoretical frameworks for Reconstruction and Development is linked to an essential condition is to stop the war, so that the most important conditions for development is to provide security and then can propose the following recommendations:

- 1 - To rebuild infrastructure destroyed during the war.
- 2 - Establishing centers for primary health care, especially in rural and remote areas.
- 3 - Focus on rural hospitals.
- 4 - Improving the environment and working conditions for doctors and staff working in the field of health services.
- 5 - Free treatment for poor segments of the population.
- 6 - Any other recommendations from experts in the field of health services.

Author Statement

This study hasn't need ethical approval, as the study is based on secondary data and information obtained from its original sources that were cited and put in the references list.

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