The Right to Health in Darfur: An unfulfilled promise*

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Abstract

The right to health in Darfur is an unfulfilled promise due to the armed conflict, the structural discrimination against Darfur, and the general weakness of the health sector in Sudan. The epidemiological profile of Sudan is typical of Sub-Saharan African countries. The Maternal Mortality Rate in 2006, in South Darfur, was 1,581, one of the highest in the world. Besides, an estimated 75 children under the age of five die every day in Darfur. For this analysis of the health in Darfur, we use here the already well-defined four categories of the right to health: a) availability (including availability of health facilities, human resources and health programs), b) accessibility (including referral system and humanitarian space), c) acceptability (including the debate related to traditional birth attendants) and d) guality (including the medical malpractice). All these aspects are presented in addition to the epidemiological profile of Darfur: health indicators and general causes of mortality and morbidity. The main goals of this paper are: a) to demonstrate the current health conditions of the population, b) to identify the gaps between the theoretical requirements of the right to health and the realities on the ground, and c) to remark the duty of the Sudanese state toward its population in Darfur.

Key words: Darfur, Right to Health, Armed Conflict.

Resumen

El derecho a la salud en Darfur es una promesa incumplida debido al conflicto armado, la discriminación estructural contra Darfur, y la debilidad general del sector de la salud en Sudán. El perfil epidemiológico de Sudán es típico de los países del África subsahariana. La tasa de mortalidad materna en 2006, en el sur de Darfur, fue 1.581, uno de los más altos del mundo. Además, se estima que 75 niños menores de cinco años mueren cada día en Darfur. Para este análisis de la salud en Darfur aplicamos las ya bien definidas cuatro categorías de derecho a la salud: a) la disponibilidad (incluyendo la disponibilidad de los servicios de salud, recursos humanos y programas de salud); b) la accesibilidad (incluyendo el sistema de referencia y el espacio humanitaria); c) la aceptabilidad (incluyendo el debate en torno a las parteras tradicionales); y d) la calidad (incluyendo la negligencia médica). Todos estos aspectos se presentan en añadido al perfil epidemiológico de Darfur: indicadores de salud y causas generales de mortalidad y morbilidad. Los principales objetivos de este trabajo son: a) demostrar las condiciones actuales de salud de la población, b) identificar las brechas entre los requisitos teóricos del derecho a la salud y las realidades sobre el terreno, y c) la observación del deber del Estado sudanés hacia su población de Darfur.

Palabras clave: Darfur, derecho a la salud, conflicto armado.

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1. Theoretical framework: the core of the right to health

According to the United Nations Committee on Economic, Social and Cultural Rights (CESCR): the right to health in all its forms and at all levels contains the following interrelated and essential elements, the precise application of which will depend on the conditions prevailing in a particular State party's territory:

- a) Availability. Availability requires functioning public health and health-care facilities, goods and services, as well as programs. Health services should include general programs such as health clinics and dispensaries as well as special programs such as nutrition, mental health, antenatal care, expanded program on immunization (EPI), maternal health care, malaria, etc.
- b) Accessibility. Health facilities, goods and services have to be accessible to everyone, without discrimination, within the jurisdiction of the State party. Accessibility has four overlapping dimensions: non-discrimination, physical accessibility (including rural areas), economic accessibility (affordability), and information accessibility.
- c) Acceptability. All health facilities, goods and services must be respectful of medical ethics and culturally appropriate, i.e. respectful of the culture of individuals, minorities, peoples and communities, sensitive to gender and life-cycle requirements, as well as being designed to respect confidentiality and improve the health status of those concerned. Acceptability of the health sector also means to have cultural sensitivity (with regards to the local language and believes); confidentiality; gender perspective, intimacy, community participation or involvement, etc.
- d) Quality. As well as being culturally acceptable, health facilities, goods and services must also be scientifically and medically appropriate and of good quality. This takes in both health facilities and personnel.

Conscious of the very real limitations on resources that affect the full realization of the right to health, the International Covenant on Economic, Social and Cultural Rights (ICESCR) proposes a series of *core obligations*: "States parties have a core obligation to ensure the satisfaction of, at the very least, minimum essential levels of each of the rights enunciated in the Covenant" including essential primary health care.

To fulfill the ICESCR, the State must establish a minimum package of healthcare services, since "the Committee is of the view that a minimum core obligation to ensure the satisfaction of, at the very least, minimum essential levels of each of the rights is incumbent upon every State party".²

2. Objective and methods

The objective of the paper is to evaluate if the government of Sudan fulfills its obligation with regards to the right to health for the people of Darfur based on the theoretical framework presented above. Due to the difficulty of collecting verifiable information related to the health situation of Darfur as a whole, this paper is mainly based on data available regarding South Darfur. However, several elements found in South Darfur are common to the other two states in the Darfur region: North and West Darfur.

The main sources of this paper are official reports of humanitarian agencies and NGOs, as well as data from the Federal MoH and the State MoH. Besides the documents quoted, there are two important personal sources of the author: an exploratory mission in South Darfur made for a French medical organization (2007) and a second mission with a British medical organization (2008). However, neither of these organizations is responsible in any way for the opinions presented here. There is also a list of a number of organizations visited during 2007 and 2008, whose views, documents, and experiences have fed into this document (including local and state authorities), as well as interviews with some internally displaced persons (IDPs) in Darfur.

3. General context of Sudan and Darfur

Sudan, with 2.5 million square kilometers, is the largest country in Africa. The population was estimated to be 36 million

² Committee on Economic, Social and Cultural Rights (CESCR), *The nature of States parties obligations (Art. 2, par. 1)* 14/12/90. CESCR General comment 3. (Fifth session, 1990), para. 10.

in 2005.³ 44% of the population is below 15 years of age and 16.4% are below five years of age. The Human Development Index (HDI) 2008 classifies Sudan as a low-income country, ranked 138th out of 179 countries.

Agriculture provides a livelihood for 70% of the population. Exploitation of the country's lucrative oil fields since 1999 makes oil production an increasingly important source of government revenue, contributing to about 50% of the 2005 budget.⁴ Life expectancy at birth is estimated to be 57.9 years. Annual population growth is 2.6% and the total fertility rate is 5.9.⁵ Rural populations constitute about 68% of the total population; however there is an ongoing process of urbanization due not only to economic development but also to the armed conflict.

Conflict has touched all aspects of human activity in the region either directly or indirectly, so it is difficult to specify the size of the conflict-affected population. The estimated number of newly internally displaced persons (IDPs) from January to August 2007 was 200,000.⁶ With the exception of Zam Zam (near El Fasher), all the camps in or near the three Darfur capitals had attained maximum capacity by the end of June 2007.⁷ In July 2007 alone, a total of 16,500 new IDPs arrived to the camps in South Darfur.⁸ By October 1st 2008, nearly 2.7 million people from Darfur were displaced within Sudan - 200,000 more than in July of the same year.⁹

The current dynamic of the conflict is well known: "armed confrontations between Government of Sudan forces (and their proxies) and the non-signatory movements, including the

⁸ WORLD FOOD PROGRAMME SUDAN: Situation Report, July 2007.

⁹ UNITED NATIONS: *Darfur Humanitarian Profile No. 33*, Situation as of 01 October 2008, p. 3.

¹⁰ UNITED NATIONS: *Darfur Humanitarian Profile No. 28*, Situation as of 01 July 2007.

¹¹ H.Young et al: Darfur 2005. *Livelihoods under siege*; Feinstein International Famine Centre 2005.

Anuario de Acción Humanitaria y Derechos Humanos Yearbook on Humanitarian Action and Human Rights ISSN: 1885 - 298X, 2010, Bilbao, págs. 123-142 use of aerial bombardments, militia attacks on unarmed citizens, confrontations between a faction of the Sudanese Liberation Army (SLA) signatory and non-signatory groups, increasingly violent inter-tribal fighting and frequent incidents of road banditry."¹⁰

In the case of health in Darfur, there is a clear gap due to: a) discrimination in the allocation of government resources (in favor of more central northern states)¹¹, and b) the general weakness of the health sector in Sudan. A World Bank study in 2003 concludes that government health spending in Sudan ranks among the lowest in the world¹² at just 2-3% of total public expenditure, or less than 1% of gross domestic product (GDP)¹³. Since the publication of that study, per capita GDP has increased due mainly to new oil revenues, from USD395 in 2001 to USD640 in 2005 and above USD700 in 2006.¹⁴ According to the Federal Ministry of Health (FMOH), the general public expenditure on health has increased from USD295,738,819 million in 2004 to USD474,729,913 million in 2006 (or USD9 and USD13 per capita, respectively).¹⁵ The impact of this increase remains weak at the local level, though.

3.1. Localities and population of South Darfur

Although no conclusive figure exists, most estimates put the population of South Darfur at approximately 4 million.¹⁶ The conflict dynamics are not uniform across all localities. In South Darfur state, places such as: Kass, Ed Daein, Adilla, Shaeria

¹³ SCF-UK: *Health care costs and ability to pay in Khartoum State: results of a household survey;* December 2005.

 $^{\rm 14}\,$ IMF, December 2005. Per capita estimates are for the entire country.

¹⁵ Federal Ministry of Health / Directorate General of Health Planning and Development: *Health Sector Strategy: Investing in Health and Achieving the MDGs*, draft, 2007.

¹⁶ This population data was originally compiled to demonstrate populations' access to and gaps in healthcare facilities and the figures should therefore be treated as indicative only: Locality Population in South Darfur (in 2007): Nyala (892,383), Kass (241,980), El Daein (381,338), Rehaid al Bir-di (267,233), Edd al Fursan (566,109), Adilla (120,574), Shaeria (346,752), Tulus (129,990) and Buram (444,584). See: Dr Musaab Yousif Makin: *Gap analysis of PHC services in South Darfur 2007*, PHC Facilities types and Numbers in South Darfur per Localities, WHO –Nyala, April 2007.

³ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 25.

⁴ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 25.

⁵ CBS, UNFPA: Population Data Sheet 2005.

⁶ UNICEF Sudan: Women and children in Darfur – August 2007.

⁷ UNITED NATIONS: Darfur Humanitarian Profile No. 28, Situation as of 01 July 2007.

¹² WORLD BANK: Sudan Health Status, Report 2003.

and the mountainous area of Jebel Marra (which reaches into all three Darfur states) are more affected. With the exception of the prevalence of HIV and outbreaks of communicable diseases, health conditions are somewhat homogeneous in South Darfur. The armed conflict has led to variations in patterns of determinants of the use of health services, (e.g. accessibility) within the state. However, the poor standards of living in Darfur cannot be explained by the armed conflict alone. Other aspects, such as structural problems, must also be taken into account.

In addition to the IDP population, there is another group of people demanding health services in Darfur: host communities. In some cases their situation is, in terms of health indicators, as worrying as that of the IDPs. The estimated incidence of diarrhea among children under 5 years of age (U5) for the population as a whole is 27%.¹⁷ Much humanitarian assistance targets IDPs, and the danger that host populations may receive lower levels of health services as a result appears to be on the verge of becoming a reality. It was reported that access to iodized salt (important for the prevention of lodine Deficiency Disorder) is lower in the host community (only 6-7%) than it is among IDPs. Lower levels of antenatal care in host populations were also reported¹⁸. These two pieces of data alert us to the likelihood that donors' traditional focus on directly conflict-affected beneficiaries is resulting in an "unintentional discrimination" that disadvantages host communities.

Another group to be mentioned is the nomads. However, it seems like the nomads are not deliberately discriminated against with regards to the health services. Some of them even prefer to not be in contact with other groups because they, after years of attacks, feel constantly threatened and they even fear to be "contaminated" through the health services.¹⁹

¹⁸ Information presented in the «Health Sector Partners Work Plan 2008». South Darfur, Regional Planning Workshop, Nyala, September 2007

¹⁹ Interviews with some nomads outside Nyala, 2007.

²⁰ Source: *Sudan Household Health Survey (SHHS)* – 2006, National Report, December 2007.

²¹ According to other data the Infant mortality rate is 89; Federal Ministry of Health / Directorate General of Health Planning and Development: *Health Sector Strategy: Investing in Health and Achieving the MDGs*, draft, 2007.

4. Epidemiological context

4.1. Health indicators²⁰

Health indicators may be biased due to the lack of accuracy during the data collection process as well as due to political predispositions during the analysis. However, they reflect, to some extent, the general living conditions of the population.

Indicator	National	South Darfur
Infant mortality rate ²¹ (per 1,000 live births)	81	67
Under-five mortality rate ²² (per 1,000 live births)	112	98
lodized salt consumption	11.4	15.8
Availability of bed nets (one per household)	36.8	45.8
Availability of insecticide-treated nets	18.4	28.8
Children under five sleeping under treated nets	27.6	28.9
Use of improved drinking water sources	56.1	43.9
Mean time to source of drinking water (more than one hour)	42.9	43.9
Use of sanitary means of excreta disposal	31.4	20.1
Birth registration	32.6	18.9
Contraceptive prevalence (any method)	7.6	2.4
Antenatal care	69.6	77.2
Maternal mortality rate (per 100,000 live births)	1,107	1,581
Births attended by skilled health staff (per cent)	49.2	39.6
Use of water treatment at home	10.6	3.4
Coverage with at least one mosquito net of any type ²³	57.0	36.7
Births at home	76.5	88.1

Other national data, (without equivalent data for Darfur) also includes: $^{\rm 24}$

opment: Health Sector Strategy: Investing in Health and Achieving the MDGs, draft, 2007.

²⁴ Federal Ministry of Health / Directorate General of Health Planning and Development: *Health Sector Strategy: Investing in Health and Achieving the MDGs*, draft, 2007.

¹⁷ UNICEF Sudan: Women and children in Darfur – August 2007.

²² According to other data the Under-5 mortality rate is 126; Federal Ministry of Health / Directorate General of Health Planning and Devel-

²³ Federal Ministry of Health / National Malaria Control Program: Malaria prevalence and coverage indicators survey. Sudan, Final Report – December 2005.

Prevalence of HIV (per cent adults ages 15-49)	1.6	
Access to improved sanitation (per cent of population)	31.2	
Incidence of tuberculosis (per 100,000 per year)	180	
Tuberculosis cases detected under DOTS (per cent)	58	

However, some of the indicators may be questioned: the rate of births attended by skilled health staff does not appear to be consistent with the maternal mortality rate, for example. Due to the poverty in Darfur, the armed conflict and the living conditions there, it is predictable that indicators for South Darfur will be worse than the national average.

4.2. General causes of mortality / morbidity

The epidemiological profile of Sudan is typical of Sub-Saharan African countries; malnutrition and communicable diseases dominate the health scene with high vulnerability to outbreaks. There are also emerging and re-emerging diseases, many of which are compounded by factors beyond the health system. The main causes of morbidity and mortality are infectious and parasitic diseases such as malaria, tuberculosis (TB), diarrhea diseases, acute respiratory infections (ARIs) and protein-energy malnutrition.²⁵

South Darfur presents the lowest level of malaria in all Sudan (24,286 cases presented in health facilities in 2004)²⁶, but it is necessary to take the context into consideration. As it is presented, the figure depends on the cases "presented to health institutions". Problems of access to health facilities may mean that the rate is actually higher. It is therefore too early to conclude that malaria is not a problem in Darfur.

Due to the lack of adequate surveillance of TB, it is unknown whether this disease poses a risk to the population of South

²⁶ Federal Ministry of Health: Annual statistical report 2004.

Darfur. In 2004, it was reported that South Darfur had the lowest incidence of TB in the region.²⁷ The current strategy led by the government is known as a "food for treatment" program. It includes directly observed therapy (DOT) but the government admits there are gaps in clinical management and the surveillance of the disease. Within rural areas, these gaps are compounded by reduced access to health facilities and higher rates of tuberculosis may in fact be present there than in urban areas. Since rates of tuberculosis are directly related to levels of malnutrition, poverty and poor living conditions, one would expect to find a high rate of tuberculosis in South Darfur.

4.3. Maternal mortality rate²⁸

According to the United Nations Population Fund (UNFPA), "the mortality and morbidity rates among women in Sudan are among the highest in the region. 71% of pregnant women in Sudan receive antenatal care, 57% of deliveries are attended by skilled providers and only 13% receive postpartum care during the first six weeks following delivery"²⁹. These national averages do not reflect the situation in Darfur. Another contributing factor to the high maternal mortality is early marriage, along with unwanted and/ or early pregnancy. A study in West Darfur reports that 57% of women there are married before the age of 18³⁰ and it is far from unknown for girls as young as 13 to become mothers.

The national maternal mortality rate (MMR) in Sudan in 2006 was 509, but in 2006 the Sudan Household Health Survey (SHHS) reported a MMR of 1,107 per 100,000 births. If we add the general deterioration in living conditions (which seriously affect maternal mortality) and the current armed conflict, it seems that the rate in South Darfur must be higher. In a study in West Darfur, 15% of surveyed women reported the death of

between a direct maternal death that is the result of a complication of the pregnancy, delivery, or their management, and an indirect maternal death that is a pregnancy-related death in a patient with a preexisting or newly developed health problem.

²⁹ «High maternal mortality rates due to inadequate services in Sudan» *Sudan Tribune*, Sep 28, 2004.

³⁰ UNFPA: *Reproductive Health Assessment in IDPs Camps*, West Darfur, April 2006.

²⁵ Federal Ministry of Health / Directorate General of Health Planning and Development: *Health Sector Strategy: Investing in Health and Achieving the MDGs*, draft, 2007.

²⁷ Federal Ministry of Health: Annual statistical report 2004.

²⁸ According to the WHO, «A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes». Generally there is a distinction

the real MMR is.

At the national level in Sudan, the most common complications during delivery include prolonged labor (31.1%), high fever (30.9%), convulsions (10.2%), and excessive bleeding (20.0%). In the case of South Darfur, all these percentages are higher: prolonged labor (46.1%), high fever (51.1%), convulsions (21.7%), and excessive bleeding (30.5%).³³ About 79.5% of pregnancies nationally resulted in live births while 10.6% ended in stillbirths. Miscarriages accounted for 9.9% of the total. In South Darfur, the statistics are better than at the national level: 89.0%, 4.1% and 6.9% respectively.³⁴

4.4. Infant mortality and morbidity

The tremendous gap in health and hygiene practices explains an important proportion of childhood diseases in Darfur. The lack of latrines leads to an increased incidence of diarrhea; the overcrowding to increased spread of respiratory infections; and the lack of access to mosquito nets leads to an increase in malaria cases. All of these diseases are preventable.

Pre-crisis baseline health data for Darfur were already worrying. According to the UNICEF survey of 2000,³⁵ the mortality rate for children aged under 5 (U5) was estimated at 100 per 1,000 in the northern region of Sudan. Surprisingly, infant mortality and under-five mortality rates are lower in South Darfur than the national levels: Infant mortality, 67 (as opposed to 81), and U5 mortality, 98 (against 112).³⁶ An estimated 75 children under the age of five die every day in Darfur, due to a wide range of causes, including illness and disease.³⁷ Morbidity among children is primarily due to conditions that could be easily treated. The causes of mortality are the same, with the addition of malnutrition. Reports on the health situation in IDP camps show that primary identified causes of death for children U5 were watery and bloody diarrhea; and for children aged above 5, watery diarrhea and ARIs. Morbidity among children U5 was mainly due to diarrhea, ARIs and malaria.³⁸

Based on the epidemiological profile, it is clear that an integral child-focused program must address two needs: adequate water and nutrition. Morbidity and mortality are both strongly linked to these factors, specifically among children. Any primary health care (PHC) program in the field, and any health program in general, must deal with the health needs of children and their families, so it is a necessary part of the debate to define the boundaries of the intervention and/or the model or partnership to ensure that water and nutrition needs are also addressed.

5. Context of health services

5.1. Availability

5.1.1. AVAILABILITY OF HEALTH FACILITIES

The distribution of health facilities in South Darfur shows bias, but it is beyond the scope of this paper to draw conclusions as to the causes for this. Rather, the simple fact of unequal availability needs to be noted. According to Sudan's Federal Ministry of Health (FMoH), all hospitals in South Darfur, (with the exception of the Nyala Teaching Hospital) are considered rural facilities, as well as part of the PHC system since they do not

³⁴ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 165.

35 Multi Indicators Cluster Survey, Sudan, UNICEF, 2000

 36 Source: Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 54.

³⁷ UNICEF Sudan: Women and children in Darfur – August 2007.

³⁸ UNICEF: Darfur Nutrition Update, May-June 2007.

³¹ Mohammed Ahmed; American University of Beirut; UNFPA and MoH of West Darfur: «Reproductive Health Assessment in Internally Displaced Persons Camps», West Darfur State, Sudan;; April 2006.

³² Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 167. South Sudan has reported the country's highest MMR (2,030 per 100,000 births), the worst reported in the world.

³³ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 163.

		PH	CU			РНСС		Rural hospital				
Locality	Nr	Std	Gap	(%)	Nr	Std	Gap	(%)	Nr	Std	Gap	(%)
Nyala	51	89	38	42	12	17	5	29	4	8	4	50
Kass	12	24	12	50	0	4	4	100	1	2	1	50
El Daein	26	38	12	31	5	7	2	29	1	3	2	67
Rehaid al Birdi	15	26	11	42	0	5	5	100	1	2	1	50
Edd al Fursan	33	56	23	41	0	11	11	100	2	5	3	60
Adilla	19	12	0	0	0	2	2	100	1	1	0	0
Shaeria	11	34	23	68	0	7	7	100	0	3	3	100
Tullus	12	13	1	7	0	2	2	100	1	1	0	0
Buram	34	44	10	23	1	9	8	89	2	4	2	50

Gap numbers and percentage of health services in South Darfur localities³⁹

have the typical four medical specialties, and their functions are limited to primary health care services.

Taking into consideration an ideal scenario, it is possible to identify the gaps in terms of availability of health facilities. This ideal scenario is based on the Sphere indicators adopted and adapted by the MoH. According to this standard (Std, in the table), there should be one Primary Health Care Unit (PHCU) per 10,000 persons, one Primary Health Care Centre (PHCC) per 50,000 persons, and one rural hospital per 100,000 persons.

Nyala has several facilities (92; of which 4 are hospitals); Kass rely on the presence of several NGOs mainly in the urban area; Adila does not present a problem of availability at all but of accessibility (obviously, availability may also be a problem if the facilities are not entirely functional); Edd al Fursan and Buram are not a big priority taking into account the armed conflict.

A rural hospital is also a referral hospital. Using the figures above, there would appear to be no gap in availability of rural hospitals in Shaeria or Adilla, yet accessibility remains a significant problem in these localities (confirming how important it is not to consider either availability or accessibility in isolation). The number of available health facilities does not meet the Sphere standards. PHCC:s present the biggest gap, and this lack also impacts the efficiency of the other health services, creating overcrowding in rural hospitals, for example, and undermining the efforts made in PHCU:s.

Before March 2009, humanitarian agencies' support to the various health facilities was based on demographic distribution, but this has shifted over time due to donors' changing priorities and support, accessibility, government authorization, security, etc. In Darfur, the distribution of NGO health programs is/was a complex issue. Despite these factors influencing distribution, the fact remains that humanitarian agencies have provided assistance every year, for an average of 4 million people in Sudan. In Darfur alone there are about 13,000 humanitarian workers, and around 80 NGOs.

After several visits to health facilities around South Darfur, a number of common issues became apparent, including the following:

— The time devoted to each patient averages just 10 minutes (or less). This is not long enough for medical personnel to conduct proper diagnoses. This time is also too short to explain the correct use of any prescribed drugs. Fortunately, pharmacists can also take on this last task. Considering the high level of illiteracy in Darfur (in 2000-

³⁹ Source: Dr Musaab Yousif Makin: *Gap analysis of PHC services in South Darfur 2007, PHC Facilities types and Numbers in South Darfur per Localities*, WHO –Nyala, April 2007.

2004 the rate of total adult illiteracy was above 60% in some communities), it is necessary that this process be properly supervised.

- The impact of preventive programs is questionable at best and a major failure in the worst case scenario. This is partially due to an observed emphasis on curative interventions and the lack of a clear strategy in community approach.
- There is a record problem. Symptoms are often recorded as diagnosis: malaria must not be recorded simply as "fever"; respiratory infection cannot be registered as a cough. Symptoms such as "pain in the neck", "loss of appetite" or "stomach pain", have all been registered as diagnoses. This does not help us to establish a clear picture of the health of the population.
- There is no clear mechanism for collecting and processing complaints from beneficiaries; beyond occasional meetings with local leaders (sheikhs and/or omdas), and such meetings do not always properly reflect those complaints.
- Even though this is considered a malaria endemic area, there is no proper vector control carried out in health facilities (chemical control with household fumigants).

5.1.2. AVAILABILITY OF HUMAN RESOURCES⁴⁰

Regarding the distribution of the medical personnel, there is a clear concentration of human resources in urban areas. There are 112 physicians in South Darfur, of which 94 are in the town of Nyala When it comes to medical assistants, the total is 175 with 96 of them being in Nyala. The same trend can be observed with regards to midwives. Out of 264 midwives in total, 153 are in Nyala. This concentration is explained by the concerns among health staff about security and living conditions in the rural areas. It seems there is no incentive policy to encourage more efficient distribution of health personnel.

When it comes to skilled delivery personnel, the problem is huge. Categories of delivery personnel available in other contexts (midwives, traditional birth attendants, etc.) do not have the same meaning in Sudan. The State MoH considers traditional birth attendants (persons who play the traditional role of attending deliveries, most of them without any specific training) to be part of the problem, not part of the solution. A traditional birth attendant (TBA) with some training is called a village midwife; and a midwife is a person with specific training and expertise.

Improving the availability of health infrastructure is always an easy target. Building facilities is good for visibility (of donors as well NGOs) but it does not necessarily improve the health condition of the population. However, there is a significant lack of laboratories in South Darfur with clear consequences.

There are clear gaps in some government run health programs. Antenatal care is an example. The solution to gaps in health facilities is not necessarily to build new facilities but rather improving the accessibility of existing ones (although providing support with PHC resources would also be an option). Given that the concentration of health facilities in urban areas is just a result of the conflict, it might be preferable to explore a policy of incentives for staff working in rural areas as part of a capacity-building approach.

5.1.3. AVAILABILITY OF HEALTH PROGRAMS

The presence of several NGOs, as well as the dynamics of the conflict, makes it almost impossible to have a comprehensive analysis of all health programs. It is possible, however, to illustrate the current trends by examining just some of the programs and initiatives that exist.

An exception of this analysis is the Expanded Programme on Immunization (EPI). Vaccination rates in South Darfur are, in general, below international standards.⁴¹ Coverage with all the vaccines is only 23.7%.⁴² Measles immunization of children aged 12-23 months is 62.7%.⁴³ A disputable element of this program in Sudan is the definition of target population. While in the rest of Africa, EPI focuses on children aged under 5, in Sudan the focus is limited to children aged below 12 months. Sudan's immunization campaigns seem to show positive results,

⁴⁰ Source: Dr Musaab Yousif Makin: Gap analysis of PHC services in South Darfur 2007, PHC Facilities types and Numbers in South Darfur per Localities, WHO –Nyala, April 2007.

⁴¹ BCG 66.3%, DPT1: 62.4%, DPT2: 44.1%, DPT3: 32.4%, polio0: 21.2%, polio1: 87.1%, polio2: 78.1%; polio3: 67.5%, measles: 50.3%.

⁴² Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 87.

⁴³ Federal Ministry of Health / Directorate General of Health Planning and Development: *Health Sector Strategy: Investing in Health and Achieving the MDGs*, draft, 2007.

with immunization days against polio and measles reporting over 90% coverage of target populations (both conflict-affected and others) in 2006.⁴⁴ But this figure does not reflect the reality at all and it questions the statement by the government that Sudan is about to officially become a "country free of polio". The problem of the accessibility data is that usually it uses "accessible communities" as a denominator, which distorts any debate. However, the data with regards to EPI is not reliable at all due to political predispositions and therefore I have excluded it from this analysis.

5.1.3.1. Antenatal care services

The most vulnerable people in health terms are pregnant women. Statistics and daily observations confirm it. Without neglecting other groups, it is clear that pregnant women -for geographical, medical, economical, cultural and political reasonsshould be a priority target group for humanitarian intervention. Maternal health needs exceed problems with availability of health supplies and facilities in all the localities.

According to national data, 69.6% of pregnant women received antenatal care (ANC) once or more during their pregnancy and 77.2% in Darfur. But, in the analysis of the services effectively provided during ANC, the quality is found to be very poor. The national rate of blood tests taken during ANC is only 45.5%, urine specimens taken, 45.9%. Both of these measures depend on availability of laboratory services, but measuring blood pressure, which requires no laboratory facilities, rates even lower, at just 40.7%. These rates in South Darfur are: blood tests, 33.2%.; urine testing, 31.9%; and blood pressure testing, 36.4%.⁴⁵ If we accept this national figure that 69.6% of women receive ANC (and a seriously debatable 77.2% for South Darfur), it means that, in the best case, only around 1 out of 4 pregnant women receives what could be considered proper ANC.

Maternal mortality rates indicate that there is a big gap in service delivery and in antenatal care. A report in Darfur with a universe of 28,942 pregnant women who accessed antenatal care shows that the number of visits was 32,565. Assuming the data is credible, this means that women access ANC less than twice on average (in fact, statistically, just 1.12 times per woman).⁴⁶ In the case of IDP camps, it seems that the availability of NGO-run health facilities and programs and the level of

However, a survey showing just who was providing antenatal care in South Darfur revealed that 11.8% of ANC was provided by doctors; 14.7% was provided by medical assistants; 29.4% by health visitors; and 55.9% by TBAs.⁴⁸ According to this information, South Darfur has one of the highest rates of service provision by TBAs in Sudan (only Western Bahr al Ghazal and Bahr al Jabal had higher rates). This is problematic due to the questionable actual capacity of the TBAs, the support they receive, their integration within health services, training, etc.

ANC coverage have significantly improved.47

In medical and human rights literature the concept of the three "famous delays" is well known. "While there are numerous factors that contribute to maternal mortality, we focus on those that affect the interval between the onset of obstetric complication and its outcome. If prompt, adequate treatment is provided, the outcome will usually be satisfactory; therefore, the outcome is most adversely affected by delayed treatment. We examine research on the factors that: 1) delay the decision to seek care; 2) delay arrival at a health facility; and 3) delay the provision of adequate care".⁴⁹ In Darfur, after conversations with several NGOs working with reproductive health, it is clear that the "three famous delays" in this context tend to be much too long.

The first delay comes because women ask for help only at the last moment, and is related to a low coverage of ANC. The second delay is due to accessibility - the poor quality and coverage of roads, security and economic concerns. The third delay is due to the unequal distribution and/or lack of medical personnel. For instance, despite the fact that Adilla now has a rural hospital, not a single doctor is working there.

⁴⁸ Federal Ministry of Health / National Malaria Control Program: Malaria prevalence and coverage indicators survey. Sudan, Final Report – December 2005.

⁴⁹ Sereen Thaddeus and Deborah Maine: «Too far to walk: Maternal mortality in context», *Social Science and Medicine*, April 1994, Vol. 38, nr. 8, pp. 1091-1110.

⁴⁴ UNICEF Sudan: Women and children in Darfur – August 2007.

⁴⁵ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, pp. 149-152.

⁴⁶ Safe Motherhood (antenatal care 2006), UNFPA South Darfur, April 2007.

⁴⁷ Observations expressed in several interviews, 2008.

Availability of family planning services is also low. In Sudan only 8% of couples use any type of contraceptive, giving a contraceptive prevalence rate that is far behind the regional and global averages.⁵⁰ Cultural sensitivities must be kept in mind in provision of family planning services. Some interesting experiences have been reported in efforts to improve the level of family planning; for example, acceptability has been improved by explaining that family planning is a measure "to make space between deliveries" rather than by "preventing" them.

5.1.3.2. HIV/AIDS

There are no population-based prevalence data on HIV/AIDS for Darfur. According to the National AIDS Program survey of 2002, which excluded Darfur, the prevalence of HIV among the general population was 1.6%, and among women attending the antenatal clinics 1.0%. A higher prevalence (4.0%) was estimated among refugees, while among high-risk groups it ranged between 1.6% (among TB patients) and 4.4% (among female sex workers).⁵¹ It is not possible to get information regarding prostitution, due to social/cultural taboos; nor is it possible to talk openly about prostitution, since its existence is officially denied. According to UNFPA, in 2004, HIV/AIDS prevalence rates among the general population ranged from 1.6 to 2.6%.⁵²

Many factors would lead us to believe that the rate of HIV/ AIDS would be higher in Darfur than in the general Sudanese population. These factors include: the estimated higher HIV prevalence in the refugee population (whose situation parallels that of IDPs in many ways), low use of condoms,⁵³ lack of health education, sexual violence within the framework of the conflict, lack of strong HIV programs, and the proximity of Darfur to Chad and the Central African Republic (where HIV rates are higher than the Sudan average, at 3.5% and 10%, respectively). Cultural norms in Sudan have made it difficult to talk about sexuality in general, as well as more specific topics such as prostitution and homosexuality. There is an "unofficial" rejection of condom use throughout the government, which is a major barrier to education about and prevention of the disease.

According to UNFPA, in southern Sudan, between 7% and 9% of blood donations screened were found to be HIV positive.⁵⁴ In South Darfur there is no conclusive figure. Data from the State MoH mentioned 48 cases in all of South Darfur and only one case of HIV confirmed in the ANC control.

General knowledge in Sudan about HIV/AIDS is a major concern. The percent of women who have at least heard of HIV is 70.4% in Sudan (75% in South Darfur), but this indicator does not give the full picture. When interviewed about the mode of transmission of HIV, 55.3% of women in South Darfur mentioned intercourse and 7.7% believed it was transmittable by mosquito bites.⁵⁵ Although 54% of women knew that HIV could be transmitted from mother to child, only 26.4%⁵⁶ of women knew all three modes of mother-to-child transmission.⁵⁷

5.1.3.3. Malaria

Malaria continues to be one of the major public health problems in Sudan. Eradication of malaria is included in the Millennium Development Goals. As a consequence, it is not difficult to access economic support for malaria programs. However, the over-diagnosis of malaria is a particular challenge in the central and northern parts of Sudan. The Federal Ministry of Health admitted that "lack of comprehensive and reliable information poses a major obstacle for the planning and implementation of national malaria control activities". The national rate of coverage with at least one mosquito net of any type is only 57.0%. The lowest coverage was registered in West Darfur (36.7%).⁵⁸

⁵⁵ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, pp. 170-172.

⁵⁶ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 178.

⁵⁷ There are: during pregnancy, at delivery, and through breast milk.

⁵⁸ Federal Ministry of Health / National Malaria Control Program: *Malaria prevalence and coverage indicators survey*. Sudan, Final Report – December 2005.

⁵⁰ «High maternal mortality rates due to inadequate services in Sudan» *Sudan Tribune*, Sep 28, 2004.

⁵¹ Behavioral and Epidemiological Survey Report, 2002.

⁵² «High maternal mortality rates due to inadequate services in Sudan» *Sudan Tribune*, Sep 28, 2004.

⁵³ These two conclusions are presented in several meetings with NGOs involved in HIV activities, but there are not figures to corroborate these affirmations.

⁵⁴ «Maternal mortality highest in South Sudan – UN» Sudan Tribune, June 7, 2007.

Within Sudan there is controversy about malaria treatment and protocols. The plasmodium falciparum strain is highly resistant to Chloroquine in all areas in Sudan, yet Chloroquine is the most frequently used anti-malarial drug (65.6%). There is limited use of Fansidar (9.2%) and Artemisinin-based combination therapy, ACT (10.5%). Coverage with intermittent preventive therapy in pregnancy (two or more doses of Fansidar) was as low as 1.8%. Chemoprophylaxis during pregnancy did not exceed 10%.⁵⁹

The use of mosquito nets is low and only around one third of the mosquito nets used are treated with permetherin. Of those people sleeping under any kind of mosquito net the night prior to the survey (just 35.1%) only 11.2% used insecticide-treated nets. In the case of children, the figures are a bit higher but still not cause for great optimism. Almost 43% of children below the age of 5 slept under some kind of mosquito net; the rate was considerably lower in rural areas (39.2%) than urban ones (50.5%). Only 15.4% of these children spent the night prior to the survey under insecticide-treated nets.⁶⁰ Other research confirms that the percentage of households with at least one mosquito net in South Darfur is only 45.8%, but the percentage with a treated net is only 28.8. These two indicators are better than in the national average (36.8% and 18.4% respectively).⁶¹

The proportion of pregnant women who reported sleeping under some kind of mosquito net was 34.8%; being slightly lower in rural (32.1%) than in urban settings (41.7%). Only 12.7% of pregnant women reported sleeping under an insecticide-treated net.⁶² This means there is no difference between the use of mosquito nets among the general population and pregnant women. There are no figures available regarding the impact of malaria on the maternal mortality, as an indirect cause of death.

The acceptability of malaria programs should be further explored. Despite the fact that there are many humanitarian agen-

cies that distribute bed nets and conduct education programs, it has been observed that some who attend to the information sessions and receive nets do not, in fact, use their nets at all. The reasons are not clear. There has also been a resistance observed to spraying with vector-control products. The impact of these programs remains unclear.⁶³

A common practice hampering malaria programs is the diagnosis of any kind of fever as malaria. The lack of proper laboratories amplifies this harmful practice. There is a general perception by health experts in Khartoum, as well as clinics visited by the author in Nyala, that an over-diagnosis of malaria exists; some experts consider this a serious concern.⁶⁴ Although an increase of laboratories and laboratory equipment is necessary to help address this problem, there are few NGOs are presently investing in increasing laboratory numbers. It would be a good opportunity to generate a dynamic partnership with the State Ministry of Health (SMOH) to improve the quality of malaria diagnosis.

5.1.3.4. Mental health

There are only a few NGOs working on mental health issues in Darfur. The main mental health interventions are focused on beneficiaries of nutritional programs in order to improve their nutritional results. Lessons learned in this programming show that it is not impossible to conduct effective mental health interventions in this context.

Some of the most common stressors in the IDP camps are: a) overcrowding,⁶⁵ b) unmanageable numbers of children in the family (no generalized family planning), overwhelming caregivers who then fail to take adequate care of minors, c) Separation of families (often without male head of household),d) domestic violence, e) high rates of unemployment, f) complete or partial confinement in camps due to insecurity, lack of means or restric-

⁵⁹ Federal Ministry of Health / National Malaria Control Program: *Malaria prevalence and coverage indicators survey*. Sudan, Final Report – December 2005.

⁶⁰ Federal Ministry of Health / National Malaria Control Program: *Malaria prevalence and coverage indicators survey*. Sudan, Final Report – December 2005.

⁶¹ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 107.

⁶² Federal Ministry of Health / National Malaria Control Program: *Malaria prevalence and coverage indicators survey*. Sudan, Final Report – December 2005.

 ⁶³ There are some of the main conclusions of NGO and agencies involved in malaria prevention, without data which allow us to confirm such affirmations.
 ⁶⁴ Interview with Malaria Consortiums, September 2007.

⁶⁵ Practically common in all the IDP camps in South Darfur during 2007 and 2008.

tions imposed by authorities, g) poverty and lack of means to ensure provision of basic family needs such as shelter, water and food. These factors have direct impacts at the community, family and individual level.⁶⁶

This mental health vulnerability is exacerbated by experiences such as witnessing the killing of family members or friends, forced displacement, and difficult living conditions. It increases, among other problems, the high risk of being recruited by armed groups⁶⁷. A study conducted by the International Medical Corps (IMC) among IDPs in South Darfur found that the suicide rate there was approximately 100 times higher than that expected in the general population.⁶⁸ A UNFPA and UNICEF study⁶⁹ also reported a high rate of psychosocial disorder and increased suicide rates.

UNICEF has also highlighted gaps in mental health programming for host populations and (in the event of a peace agreement being reached) former combatants. In fact, UNICEF was looking for a health NGO to develop a partnership to work with former child combatants.

5.1.3.5. Sexual and Gender Based Violence (SGBV) programs

The violence in Darfur expresses itself in several ways. One of the most dramatic is sexual violence, committed mainly by paramilitary groups backed by the Sudanese Army.⁷⁰ In addition to sexual assaults that take place during attacks on villages, women and girls in particular in Darfur face the threat of sexual violence while going about daily activities. "Families, in order to sustain themselves, have to continue collecting wood, fetching water or working their fields. In doing so, women have to make a terrible choice, putting themselves or their children at risk of rape, beatings or death as soon as they are outside the camps, towns or villages".⁷¹ According to Human Rights Watch: "Those

⁶⁹ UNFPA and UNICEF: The effects of conflict on health and wellbeing of women and girls in Darfur-situation analysis: conversations with the community, 2005.

⁷⁰ The debate about criminal responsibility goes beyond this paper. See for this facts: Prunier, Gérard: *Darfur: the ambiguous genocide*, Hurts responsible are usually men from the Sudanese security forces, militias [janjaweed], rebel groups, and former rebel groups, who target women and girls."⁷² Sexual violence is significantly underreported, the result of a lack of respect shown to survivors and a lack of confidentiality in the handling of reports, investigation and provision of services. In Sudan there is a systematic policy of denying that sexual violence exists.

In a space of just four months, Doctors without Borders / Médecins Sans Frontières (MSF) alone treated more than 400 rape victims in several locations in South and West Darfur. "Almost 90% said that the rape had occurred outside a populated village. The majority (82%) were raped while they were pursuing their ordinary daily activities. Only 4% of women reported that the rape occurred during the active conflict, while they were fleeing their home village." 73

Rape victims suffer from an almost complete lack of access to justice,⁷⁴ and very few of them are able to access appropriate health services. In accordance with domestic law, a victim of sexual violence in Sudan should present before the court at least four witnesses to the crime, a requirement that in the Darfur context is often impossible. The Sudanese government requests medical evidence and information, arguing that NGO reports exaggerate the reality.

There is no official program to protect and assist victims of SGBV in Darfur. Further, any kind of attempt by humanitarian organizations to support victims is blocked by the Sudanese government. "The governors of the three Darfur states have each established state-level committees to address violence against women... but these measures have so far failed to address root causes of sexual violence, [and] prevent pervasive and persistent incidents of sexual violence throughout Darfur."⁷⁵

& Company, London, 2007; and Steidle, Brian: The devil came on horseback, Public Affairs, New York, 2007.

⁷¹ Médecins Sans Frontières: «The Crushing Burden of Rape Sexual Violence in Darfur» (briefing paper), Amsterdam, 8 March 2005.

⁷² Human Rights Watch: *Sudan: Five Years On, No justice for Sexual Violence in Darfur,* April 2008, p. 3.

⁷³ Médecins Sans Frontières: «The Crushing Burden of Rape Sexual Violence in Darfur» (briefing paper), Amsterdam, 8 March 2005.

⁷⁴ Refugees International: «Laws without Justice» June 2007.

⁷⁵ Human Rights Watch: *Sudan: Five Years On, No justice for Sexual Violence in Darfur,* April 2008, p. 3.

⁶⁶ Paulina Acosta del Rio, In the field with the author, ACF; Mental Health Program, May 2007.

⁶⁷ Interviews in Darfur IDP camps, 2008.

⁶⁸ International Medical Corps: *Basic needs, mental health, and women's health among the internally displaced persons in Nyala district*, South Darfur, Sudan; Santa Monica, 2005.

5.2. Accessibility

According to the information presented in the WHO coordination meetings in South Darfur, in August 2007, the access gap was: Nyala 42%, Kass 50%, Shereia 68%. According to UNICEF, in all of South Darfur the 2007-2008 coverage of health services was around 50-55%; access to basic health services in 2005 was 73%, and 69% in 2006.⁷⁶ In general, available data put accessibility at 60%. There are two problems: as already mentioned the figures usually only includes "accessible communities" as a denominator of some health indicators and only focuses on "basic health services", which implies a bias to the detriment of secondary-level services.

Besides the armed conflict, sexual and gender-based violence, geographical isolation, and economic accessibility must be analyzed in order to establish a comprehensive health program. A joint UNFPA and UNICEF report suggests that limited financial affordability is the main reason for preferring the services of cheaper TBAs' services.⁷⁷ Other findings indicate that the accessibility of anti-malarial drugs depends on the level of available economic resources as well as on educational level.⁷⁸

A medical NGO interviewed observed three obstacles that had to be overcome with regards to health education activities: a) IDP populations often have no background in health education, b) hygiene practices are not adapted to the way most IDPs are now living, as they are unaccustomed, for the most part, to living in congested areas, and c) they have little understanding of transmission of disease. It has also been observed that the IDPs' preferred method of delivery for health education is "lectures" but, paradoxically, this method is the most useless. According to the experience of one NGO, plays are the most efficient way to communicate health messages.

A final criterion regarding accessibility is the ability of the people to obtain the proper documents required to access health facilities; for example, identification papers. Only 32.6% of the children aged under five in Sudan have their births registered. The main reasons for not being registered are: cost (21.3%), distance to the registration office (17.1%), and lack of awareness among parents (21.3%).⁷⁹ In South Darfur, the rate of registrations falls to 18.9%, with reasons given as cost (30.3%) and distance (22.3%).⁸⁰

The example above further highlights how cost can be a barrier to accessibility, a factor that should be kept in mind when considering cost-recovery policies. It is already proven that user fees, cost recovery and any kind of policy involving charges to be borne by patients reduce the accessibility of health services.⁸¹ As MSF has said, "there is overwhelming evidence that in low-income countries, user fees have negative effects on equity and access to health services for the poor, as well as showing poor ability to raise additional revenues and improve efficiency. Most importantly, user fee schemes turn out to be regressive and do not present a fair health financing system in low-income countries."⁸²

5.2.1. REFERRAL SYSTEM

There is a consensus (among health authorities, NGOs and UN agencies consulted in the field) about the lack of a strong referral system. NGOs based in each IDP camp accept the sole responsibility of developing referral mechanisms because there is no general government system in place in Darfur. However, the costs of operation, geographical and security problems (such as attacks on vehicles belonging to humanitarian agencies, etc.) have all discouraged initiatives in this direction. Compounded by the problem of access and the reduced humanitarian presence in camps, establishing an effective referral system is a major challenge for any humanitarian NGO.

An attempt to develop a referral system using donkey carts failed, and proved particularly problematic in cases of women

⁸⁰ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 131.

⁸¹ MSF: Access to healthcare in Burundi – results of three epidemiological surveys, May 2004; MSF: Access to healthcare, mortality and violence in Democratic Republic of the Congo –results of five epidemiological surveys: Kilwa, Inongo, Basankusu, Lubutu, Bunkeya – March to May 2005.

⁸² MSF: «An outline for the field» (document without date).

⁷⁶ UNICEF Sudan: Women and children in Darfur – August 2007.

⁷⁷ UNFPA and UNICEF: The effects of conflict on health and wellbeing of women and girls in Darfur-situation analysis: conversations with the community, 2005.

⁷⁸ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 112.

⁷⁹ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 130.

in labor: the slow speeds, long distances and the movement of the carts (which could stimulate contractions) made this solution unworkable.

Ed Daein is a glaring example of a gap in referral services. Ed Daein has a population of 422,169, with only one public hospital with 120 beds (28 of them for gyneco-obstetric services). This hospital is also the referral hospital for the Adilla area. While the national ratio is 72 beds /100,000 people⁸³, Ed Daein can only offer 28.4 beds/100.000 people. It is necessary to point out that the Ed Daein hospital is the only real hospital for the entire eastern area (even the State MoH greed that Adilla hospital is a hospital in name only). The eastern area includes Abu Jabra, Abu Matariq, Ed Daein, Adilla, El Ferdous, Abu Karenka, etc. Despite the importance of this hospital, there is not one single ambulance in the town.

5.2.2. Accessibility and humanitarian space

Alongside the accessibility of health services to beneficiaries we must consider limitations on access to victims by humanitarian agencies. According to the majority of the humanitarian agencies, the combination of security issues and bureaucratic procedures seriously affects accessibility. In September 2008, it was estimated that more than 1,650,000 conflict-affected people out of 4.7 million could not be reached by any humanitarian agency due to insecurity; the reported aggravation of accessibility problems in Darfur was a result of growing insecurity (armed confrontations and aerial bombings) especially during the third quarter of 2008.⁸⁴

Problems of accessibility affect all humanitarian activities. There are many statistics that illustrate clearly the problems of maintaining a humanitarian space:⁸⁵

 "Targeted attacks on humanitarian workers and their assets continued at alarming levels. Humanitarian operations suffered from serious forms of intimidation and harassment by different actors, including bandits, armed movements, government officials, and IDPs. Between July and October [2008], one national humanitarian worker was killed and 12 wounded. Armed men assaulted 68 humanitarian centers/compounds. So far this year [October, 2008], 11 national humanitarians have been killed against 13 during the whole year 2007. 144 times humanitarian premises have been assaulted/broken into during the first nine months of 2008 against 93 for the whole of 2007"

— "From July to October (2008), 50 humanitarian vehicles were hijacked, bringing the tally to 225 so far in 2008. This last number includes 100 WFP contracted and fleet trucks hijacked in 2008, thereby seriously hampering food supplies to Darfur. During these hijackings, 31 staff members were temporarily abducted during the third quarter of the year, 170 so far this year. 41 WFP-contracted drivers remain missing and there is growing concern for their safety. In comparison: during the entire year [2007], 137 vehicles had been hijacked and 147 humanitarians abducted."

There is a clear pattern of attacks on the humanitarian sector, though it can be argued that they are targeted not because of their activities, but rather because of their resources. There is certainly little effort made to protect humanitarians. Also, there have been incidents of attacks on medical organizations – in Ka-Ima there have been threats made against medical organizations, presumed to have been an attempt to disrupt services. In Shaeria, repeated attacks on NGOs resulted in total absence of services in that town.

One way to address both the shrinking humanitarian space and to increase accessibility of health and medical services may be to set up a strong referral system under the banner of a wellknown NGO in the region. Even a project limited to establishing (in the initial phase) an urban referral system is a good first step to build coordination, infrastructure, legitimacy and training; the second phase could include extension to more distant rural areas.

⁸³ Federal Ministry of Health / Directorate General of Health Planning and Development: *Health Sector Strategy: Investing in Health and Achieving the MDGs*, draft, 2007.

⁸⁴ UNITED NATIONS: *Darfur Humanitarian Profile No. 33*, Situation as of 01 October 2008.

⁸⁵ UNITED NATIONS: *Darfur Humanitarian Profile No. 33,* Situation as of 01 October 2008.

However, the national government has thwarted the efforts of the international humanitarian organizations since their arrival in 2004, and ultimately it expelled 13 of the largest humanitarian organizations in 2009. This certainly limits the possibility of the implementation of such a program in conjunction with the governmental health services.

5.3. Acceptability

According to their impact, health practices can be categorized as useful, harmless or harmful. All these categorizations can be applied to traditional healers as well as to so-called "western medicine". However, this typology is not enough to explain why people accept or refuse medical practices or beliefs. In general, regarding acceptability, there are examples of rejection of medical services even when availability and accessibility have not been issues⁸⁶; but these cases have not been well studied.

By and large, and as is the case in many other communities, Darfurian people have shown a preference for options such as building health facilities over service delivery. In order to demonstrate other issues affecting the acceptability of health programming, we will look at a range of activities: the promotion of the use of mosquito net, the delivery of Oral Rehydration Therapy (ORT), and the delivery of Antenatal Care (ANC).

The rate of use of ORT is lower in South Darfur than the national average. The percentage of children in South Darfur who received fluid from ORS packets was 20.4% (versus 31.1% nationally); 39.2% used the recommended home-made rehydration fluids (as opposed to 41.1%); while those who received no treatment accounted for 51.2% (versus 41.7 nationally). In the capital Khartoum, the ORT usage rate is 73%.⁸⁷ The problem is not only to be found in health-related education but also in im-

Anuario de Acción Humanitaria y Derechos Humanos Yearbook on Humanitarian Action and Human Rights ISSN: 1885 - 298X, 2010, Bilbao, págs. 123-142 plementation, which means acceptability of the message transmitted by medical personnel.

In the case of pneumonia there are the same problems of acceptability of health education programs. There are several warning signs of pneumonia which prompt mothers to take their children to a health facility.⁸⁸ In general the national averages are not optimistic but the South Darfur findings are even lower.⁸⁹

Female genital mutilation (FGM) is still a widespread practice in Sudan, with a prevalence of 90% among married women aged 15 to 45 in the north affected by this practice. But the national percentage of women approving of female circumcision had declined from 79% in 1989/90 to 67% in 1999.⁹⁰ The average of FGM in South Darfur is more than 90%.⁹¹ FGM contributes to incidence of fistulas and to maternal mortality linked to obstructed labor. Maternity surveys indicated that Darfur is the region of highest fistula prevalence in the Sudan, requiring emergency operations for affected women.⁹²

Reproductive health programs routinely face acceptability problems. As an example, talking to female IDPs, all of them agreed that they preferred not to give birth in a hospital because of the lack of intimacy, fear of episiotomy, embarrassment, and the unfamiliar delivery position used in hospitals.

Just as unwillingness to accept new practices can affect the success of health programming, the importance of traditional healing practices cannot either be overlooked. For example, a pediatrician interviewed noted that several cases of severe malaria had arrived very late to the hospital because people preferred to ask traditional healers for help.

In the case of the feeding program, one of the problems is again the lack of education; mothers who receive the supplementary feeding divide it for all the members of the family without prioritizing the malnourished one.

⁸⁹ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 104.

⁹⁰ «High maternal mortality rates due to inadequate services in Sudan» *Sudan Tribune*, Sep 28, 2004.

⁹¹ Interview, Al Daein, September 2007.

⁹² Humanitarian Action in the Sudan: Facts and Figures. Snapshot, 14 August 2007.

⁸⁶ Obtained in discussions and interviews conducted by the author in IDP camps, 2008.

⁸⁷ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, pp. 95-96.

⁸⁸ If a child is not able to drink or breastfeed, becomes sicker, develops a fever, has fast breathing, has difficult breathing, has blood in stool, and/ or he/she is drinking poorly.

Examples of traditional treatments favored by the community in South Darfur⁹³

Illness	Treatment
Diarrhea	 to press with the thumb on upper teeth
	 to drink water with some plants
	 to tie a knotted cord around one wrist
	 hot oil applied to the anus
Vomiting	 a small cut inside the throat (glottis)
	 to tie a knotted cord around one wrist
Wound on	 put child in hot water until it cools down
anus	 cuts on belly in the shape of a diamond
Worms	 small cut inside the throat (glottis)
Eye infections	drops of a solution made of tree leaves (lalob)
	applied with a piece of cotton
Aching knees	 cuts on knees and herbal powder and sand applied
and edema	to the wounds until bleeding stops
Protection	 3 cuts on forehead and powder made from plant
from bad	roots
vision	
"Stripe of light	 ashes and herbs applied to the head for four days
hair"	
"Bad breast	 mother should drink water with herbs and stop
milk"	breastfeeding

There are some local beliefs regarding breast milk: "Bad breast milk" (or just "bad milk") producing, according to them, swelling of the joint of the children. The traditional belief is that the mother should drink water with plants and stop breastfeeding. Other mothers consider the milk can harm the baby.

5.3.1. TRADITIONAL BIRTH ATTENDANTS (TBAS): AN OPEN DEBATE

"Access to emergency obstetric care is the single most important reason why maternal mortality rate has virtually disappeared from industrialized countries."⁹⁴ It is well-known that 75% of all maternal deaths occur during delivery and the im-

mediate post-partum period. Thus, any action to improve maternal mortality rates that does not include a focus on delivery services is insufficient. A skilled birth attendant is a person "trained and competent in the skills needed to manage normal childbirth and the immediate postnatal period, [who] can identify complications and provide emergency management and/or refer the case".⁹⁵ In Sudan, these criteria are rarely met by TBAs.

As previously mentioned, the MMR in South Darfur is 1,581. Low rates of ANC have already been discussed above, as has the fact that of those women who do receive ANC of some kind, in 55% of cases, service delivery is provided by TBAs. The SMOH does not approve (and will not approve) attendance by TBAs at deliveries. However, the reality is that the TBAs are often the only resources available and despite what the SMOH says, they continue attending deliveries.

Theoretically, 49.2% of births in Sudan are delivered by qualified personnel. However, there are wide variations reflecting the education level and economic resources of users. In South Darfur this level is given as 39.6%⁹⁶ (these figures, however, erroneously includes some TBAs in the "skilled persons" category). Vaginal deliveries account for 86.7% of births in Sudan and 93.3% in South Darfur. The rate of home births is impressive: 76.5% in Sudan and 88.1% in South Darfur. Of the almost 12% of women who do not deliver at home, in South Darfur, 7.6% deliver at public hospitals and just 0.5% at PH-CCs.⁹⁷

Nationally, the main complications during pregnancy include: headache (42.3%), abdominal pain (30.5%), edema (21.6%), hypertension (17.2%), and convulsions (11.6%).⁹⁸ In South Darfur all these percentages are higher. Despite this reality, the level of training and/or the existence of specific programs regarding eclampsia are very low.

⁹⁶ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 155.

⁹³ Paulina Acosta Del Rio: *Care Practices & Mental Health Program*, ACF South Darfur, August 2007 (unpublished).

⁹⁴ FREEDMAN, Lyn: «Censorship and Manipulation of Familiy Planning Information: As issue of Human Rights and Women's health», in: MANN, Jonathan; GRUKIN, Sofia; GRADIN, Michael; ANNAS, George: *Health and Human Rights*, Routledge, London/New York, 1999, p. 152.

 $^{^{95}}$ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 153.

⁹⁷ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, pp. 157-158.

⁹⁸ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 160.

Various data show that there is lower coverage among poor people, indicating that the distinction to be seen is not only between IDP versus host populations, or educated or less-educated people, but also between people with and without economic capacity.

At this point in the debate regarding TBAs, it is also worth returning to the three famous delays discussed earlier, which have such an impact on maternal mortality rates. Of the three (delays in seeking treatment, reaching medical facilities and the delivery of care after arrival), the third is the most commonly addressed by medical and humanitarian NGOs. More attention could be given in particular, though, to the first – the decision to seek treatment. So, the question now is how to "recruit" mothers to participate in reproductive health programs? How do we increase the number of ANC patients? How do we increase the number of deliveries conducted in health facilities?

The most common practice is to provide "gifts" to pregnant women, such as mosquito nets, clothing, supplementary food, etc. This practice does not create greater health awareness, however; rather it promotes a kind of clientelism. Another common strategy is to recruit and train TBAs in the hope that they understand the importance of facilitating referrals to health facilities. Paradoxically, the problem with this approach, however, is that in practice, the TBAs have tended to view the training given as qualifying them to attend deliveries themselves rather than making referrals.

Taking these realities into account, there are only a few real options open to NGOs:

- a) Continue current activities and leave TBAs to continue their work at the community level.
- b) Accept the involvement of TBAs and work to increase their capacity. This would require changing the opinion of the State MoH, and working to ensure that the real capacity of the TBAs is at the same level as that of a midwife (this is presently not possible due to the MoH policy and the actual capacity of the present TBAs).
- c) Develop an incentive system for TBAs who refer patients for ANC and especially for delivery at the clinic. TBAs would then effectively work only in ANC. The impact of this approach, in a best-case scenario, would be limited to improving outcomes for the 25% of women repre-

sented in the maternal mortality rate who die at a point other than during delivery or the following 24 hours.

The fact is that Darfurian women routinely prefer TBAs to official health services. Although the State MoH does not support TBAs at all, they remain the only real option for providing antenatal care and sometimes even delivery services.

Realistically, to say that the problem is "a matter of education" misses the point somewhat. Education is necessary but not sufficient to alter behavior. Care must also be taken to ensure that misdirected or poorly planned education does not make the problem worse. Experience has shown that education of TBAs encouraged them to continue attending deliveries despite lacking the level of skill to do so safely.

5.4. Quality

The gap in the availability and accessibility of primary health care centers and laboratory facilities has been discussed above. In terms of quality of outcomes, the impact of the gap is clear: diagnosis of diseases cannot always be reliably confirmed.

A less well-studied problem in terms of the quality of facilities is the matter of drug storage. Severe weather conditions prevail in Sudan, with temperatures regularly higher than 30 degrees Celsius. When this is combined with regular cuts to the power supply, delays in delivery, transport limitations, etc., there is a real risk that drugs will be affected, with a resultant reduction in their efficacy.

The other element in an assessment of the quality of health services, the capacity of health personnel, is another concern in the Darfur context. Direct observations by humanitarian workers throw doubt on the level of local capacity, especially in the provision of secondary health services. The impact of this lack of skill is most acutely felt in reproductive health services (discussed at more length above). Despite the well-documented concerns of the Ministry of Health regarding the role of traditional birth attendants, there is still neither a consensus nor a clear strategy for how a higher rate of hospital deliveries can be achieved or managed.

As mentioned briefly above, quality is also a concern in relation to malaria treatment. In South Darfur, 48.9% of children aged from 0-59 months presenting a fever are given anti-malarial drugs.⁹⁹ In light of the difficulties in confirming diagnoses of malaria when facilities are lacking, there is debate about how serious a problem this is. On the one hand, it is preferable to give precautionary treatment in a suspected case of malaria than to take no action; on the other hand, the mistaken logic that any fever means malaria also constitutes a harmful practice.

Regarding the training of local health personnel, their own perception is that this approach has not been properly and sufficiently explored by international organizations. At the national level, only 50% of doctors in rural hospital are trained in Emergency Obstetric Care (EmOC), in spite of the fact that the course has been conducted in all states in the past three years. This is due to a rapid turnover of doctors who leave rural areas because of the unattractive working conditions. According to the national EmOC needs assessment report in 2005, only 47% of hospitals are providing adequate, comprehensive EmOC services.¹⁰⁰ A lower level is expected at rural hospitals in South Darfur.

5.4.1. MEDICAL MALPRACTICE

Although the present study does not draw definitive conclusions or offer a comprehensive evaluation of the skills of local medical personnel, concerns about commonly encountered medical malpractices should be mentioned, at least briefly:

- a) Local medical staff frequently prefers injectable drugs over orally administered ones. This also reflects patients' greater acceptance of injectable drugs; however, patient preferences cannot be the overriding consideration. In reality, injectable drugs are more expensive and cannot always be administered properly.
- b) There is a tendency to offer just partial doses. A direct observation of dispensers revealed that half-doses were sometimes dispensed (with the agreement of medical assistants). This usually happened when drugs were in short supply, or ruptures in the supply chain were expected. Patients should not be punished for poor planning by health professionals.

- c) Some medicines (for example, some antibiotics such as amoxicillin powder and oral rehydration salts) need to be dissolved in water. This can be a problem, particularly in places where there is a lack of safe water. Some pharmacies dissolve such drugs before giving them to the patient, but we cannot be sure this is a standard practice, especially in remotely managed clinics.
- d) nfections are often incorrectly treated. It seems, after reviewing some registers of drugs consumption, that some medical assistants treat suspected infections with a one-day dose of antibiotics when it is necessary to consume number of doses over a period of time. This approach can contribute to the development of a resistance to antibiotics in the case of a bacterial infection. If there is not, in fact, an infection at all, it represents unnecessary medication. Other medical assistants give an initial dose of antibiotics intravenously, followed by a series of oral doses of a different antibiotic.
- e) Regarding the three most prevalent pathologies in South Darfur (acute diarrhea, respiratory infections and malaria) there is rarely a properly integrated approach taken, involving both preventive and curative measures.

6. Discussion

There are several problems with regards to collecting, processing and analyzing health information in any conflict (prejudices, data gaps, dubious data, manipulation, etc.) and Darfur is no exception. The political dimensions of health in Darfur makes the debate on the right to health a complex – but necessary – one; this complexity should not be an excuse for avoiding the issue.

Any attempt to compile accurate health data from South Darfur will fail because available information is partial, fragmented and/or biased. But, there is more than enough information to reach, at least, basic and relevant conclusions about health programs. The lack of information is itself a clear indi-

⁹⁹ Sudan Household Health Survey (SHHS) – 2006, National Report, December 2007, p. 111.

¹⁰⁰ Federal Ministry of Health / Directorate General of Health Planning and Development: *Health Sector Strategy: Investing in Health and Achieving the MDGs*, draft, 2007.

cator of one of the biggest problems: accessibility. This document is not a statistically exhaustive treatise, but it tries to be as comprehensive as possible; its goal is to contribute to the understanding of the Darfur crisis from another point of view: the (lack of) right to health.

The current state of the health sector is the result of a longterm process of at least two elements: a) several diseases and epidemics, and b) systematic discrimination by the central government in terms of lack of support to the health sector. For instance, between 1926 and 1932 Darfur faced epidemics of diseases such as: typhus, smallpox, cerebrospinal meningitis. During this same period, Darfur also suffered from poor agricultural yields, late rains, high prices of food, drought and famine.¹⁰¹ The well-documented discrimination against Darfur by Sudan's Khartoum-based government, in terms of developmental inputs, as well as living conditions, explains the background of the current situation. The situation has only been worsened by the armed conflict since 2003.¹⁰²

A list of elements to take into account for the analysis of the context of the right to health in South Darfur includes:

- a) Forced displacement will continue in the coming months, despite any possible renewed peace process and the coming of UNAMID. This means an emergency approach is still relevant.
- b) Some health problems are not related only to the armed conflict but to the structural economy of the public policy in Sudan.
- c) In another context there could be an argument made for increased advocacy, but due to the particularities of the humanitarian context in Sudan, advocacy for social justice is almost impossible. However, some organizations have nonetheless played an important advocacy role, speaking out about health conditions and the impact of the conflict on the civilian population.
- d) The fertility rate is a direct indicator of the lack of strong family planning policy, which represents an opportunity in terms of a potential health intervention, but also a risk in terms of cultural acceptability.

- e) Despite the increase in the number of IDPs, their health needs are essentially covered by international NGOs. However, humanitarian agencies should try to extend their focus beyond IDP camps.
- f) The current peace process is not strong enough to conclude anything; thus it is too early to focus health intervention only on recovery and/or rehabilitation strategies.

7. Conclusions

Related to the general dynamic of the conflict, unfortunately there is not yet an effective peace process in Darfur. When it does come, new peace negotiations could actually produce an increase in hostilities as groups jockey for a more advantageous negotiating position. There are also serious concerns about the likely effects of the deployment of the UN-AU hybrid peacekeeping mission. Without a viable peace agreement, this mission really just adds another armed actor into the mix.

With regards to the right to health, like all human rights, it compels three levels of obligation on States: the obligation to respect, to protect and to fulfill the right in question. "The obligation to respect requires States to refrain from interfering directly or indirectly with the enjoyment of the right to health. The obligation to protect requires States to take measures that prevent third parties from interfering [with that right]. And finally, the obligation to fulfill requires States to adopt appropriate legislative, administrative, budgetary, judicial, promotional and other measures towards the full realization of the right to health."

Based on the core concept of the right to health and the corresponding duties of the State, and in light of the medical indicators and information on health in South Darfur presented throughout this paper, it is possible to conclude that the Government of Sudan has clear responsibilities in relation to the right to health that have not been adequately met. This constitutes a breach of its obligations under international human rights law.

The expulsion of several NGOs from Sudan in March 2009, in the wake of the indictment of Sudan's president by the In-

¹⁰¹ Daly, M. W.: *Darfur's Sorrow*, Cambridge University, New York, 2007, pp. 139-144.

¹⁰² Daly, M. W.: *Darfur's Sorrow*, Cambridge University, New York, 2007.

¹⁰³ Based on: Committee on Economic, Social and Cultural Rights (CE-SCR), *The right to the highest attainable standard of health:* 11/08/2000. E/C.12/2000/4. CESCR General Comment No. 14 (Geneva, April 25-May 12, 2000), para 33-37.

ternational Criminal Court, can only be expected to worsen the health situation in Darfur. The Government of Sudan has suggested that it will take over and directly implement the health activities previously conducted by the expelled NGOs but up to now, it has appeared that both the real will and capacity to do this is lacking, leaving serious doubts about the Government's commitment to the right to health.

This expulsion also brings other areas of international law into play. Looking at obligations under the Geneva Conventions, it could be categorized as a measure of collective punishment against Dafurian IDPs¹⁰⁴ and/or as a failure to respect all the provisions related the protection of medical humanitarian action and personnel in internal armed conflicts. "This [expulsion] affects some 6,500 staff, or 40% of the humanitarian workforce in Darfur. While there are some 85 international NGOs operating in Darfur, the 13 [expelled] international NGOs represent more than half of the capacity of the Darfur relief operation in key sectors... As things stand, 1.1 million people may not receive food aid; 1.5 million people will lose access to health care, and over one million could soon lose access to potable water or sanitation. The loss of Médecins Sans Frontières alone will leave more than 200,000 patients in rural areas without essential medical care. The departure of Oxfam Great Britain leaves 600,000 people without water, hygiene, or sanitation services."¹⁰⁵

But it is important to note, however, that restrictions and/or obstruction of humanitarian assistance in Sudan did not start after the International Criminal Court's indictment. Rather, it has been a pervasive aspect of the operating environment in Darfur since the beginning of the large-scale humanitarian operation there in 2004.

In the early stages of the conflict, until April 2004, it was extremely difficult even to obtain permission to enter into Darfur, despite the huge need for assistance. Over a period of seven months in 2004, statistics show that around 20 children died every day in Darfur. In that time, several surveys showed a strong link between the geographical distribution of mortality and population displacement. NGOs working in Darfur have had to be evacuated several times from many different locations because armed clashes and military activity have made it too dangerous to stay.

It has also been a common situation that cargos and drug supplies have either been blocked or significantly delayed while waiting for authorization and clearance by the government's Humanitarian Aid Commission (HAC) and National Security. The Sudanese authorities have also refused the importation of a number of drugs included on a WHO essential drug list. Beside security concerns (such as attacks on NGO compounds, armed robberies and looting, car-jacking and the imposition of restrictive curfews) humanitarian workers also face excessive, and restrictive, bureaucratic processes.

Such measures affect health programs. International staff are required to present visas, travel permits and even exit visas, all of which involve a great deal of time and resources. For instance, to conduct a nutritional survey, an NGO needs permission from authorities at the Federal, State and local levels. Once the survey is completed, the NGO must also present the results to authorities before any public release, and those authorities readily exercise their power of veto over any publication. HAC also demands that its staff be involved in any assessment carried out. This can prevent NGOs from providing an immediate response and makes coordination efforts difficult. Humanitarian agencies even face restrictions in their budgeting and in the movement of funds.

Growing administrative harassment by Sudanese authorities, denial of the delivery of assistance and the increase in insecurity are threatening the viability and quality of current humanitarian activities and preventing the humanitarian community from responding to emerging humanitarian needs. Viewed as a whole, these circumstances represent a deliberate policy of hampering humanitarian action in Darfur, with the price being borne by the general population.

Finally, the humanitarian situation in Darfur, including the right to health, has deteriorated significantly in the recent years. The armed conflict in Darfur, impoverished living conditions, and a harsh environment in combination with a policy of deliberate neglect and even obstruction of humanitarian action, constitutes an undisputable violation of the right to health of the population in Darfur.

¹⁰⁵ Briefing to the Security Council on the Situation in Sudan Statement by Catherine Bragg, Assistant-Secretary-General for Humanitarian Affairs and Deputy Emergency Relief Coordinator, 6 March 2009.

¹⁰⁴ Article 4, Briefing to the Security Council on the Situation in Sudan Statement by Catherine Bragg, Assistant-Secretary-General for Humanitarian Affairs and Deputy Emergency Relief Coordinator.