

Original Paper

Healing the Wounds of War: Reducing Maternal Mortality in Darfur

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Abstract

Reducing maternal mortality rates in Darfur remains one of the major challenges to the healthcare system in Darfur owing to the on-going conflict, displacement of large number of population, poor transportation networks, destruction of primary healthcare facilities and the lack of solid mechanism to train village midwives. Under these circumstances, the United Nations—African Union Mission in Darfur (UNAMID) continues to invest in reducing the maternal and child mortality rates in Darfur by mobilizing the existing resources and advocating for availability of all services that are directed towards improving the maternal health in the region. The article highlights the positive changes and significant impact that these interventions have had on reducing the maternal mortality rates in Darfur and saving lives of children.

Keywords

Darfur, UNAMID, conflict, maternal, mortality, midwife, training

1. Introduction

Sudan remains one of the largest countries in Africa and one of the most densely populated countries on the continent with more than 30 million inhabitants. The increasingly large number of population, as well as armed conflicts and inter-communal hostilities affecting the country over the past 10 years,

have considerably weakened Sudan's healthcare system. The country has a long way to go to revitalize its healthcare practices and to establish a proper and effective health service delivery system that benefits every citizen of the country.

In June 2011, the United Nations Population Fund (UNFPA) published a report on "The State of the World's Midwifery". The report presented new data on the midwifery workforce and policies relating to new-born and maternal mortality for 58 countries. The 2013 maternal mortality rate per 100,000 births for Sudan was 2,054. This is compared with 306.3 in 2008 and 592.6 in 1990. The number of midwives per 1,000 live births was reported to be one, and the lifetime risk of death for pregnant women was one in seven.

The causes and rate of maternal death in Sudan are aggravated by ongoing conflicts and resulting displacement of population. The key indicators related to maternal health, including maternal mortality, child mortality and child malnutrition, are all exacerbated by conflicts, especially in the Darfur region. While the exact maternal mortality rates for the five Darfuri states are unknown, they are estimated to approach the higher estimate. In fact, Darfur is probably among the most dangerous places in the world in which to give birth.

Sudan's Federal Ministry of Health together with WHO, UNICEF and UNFPA launched on 28 August 2013 the "Sudan's National Acceleration Plan for Maternal and Child Health". Sudan was the first of the 10 high-burden countries in the region to launch an acceleration plan on maternal and child health, in line with the commitment expressed in the Dubai Declaration, adopted in January 2013. In parallel, international stakeholders, including the United Nations—African Union Mission in Darfur (UNAMID), have mobilized the available resources to assist the Government of Sudan in reducing the mother and child mortality rates in Darfur.

2. Methodology

The United Nations—African Union Mission in Darfur (UNAMID) was established on 31 July 2007 with the adoption of Security Council resolution 1769. UNAMID has the protection of civilians as its core mandate, and is also tasked with contributing to security for humanitarian assistance, monitoring and verifying implementation of agreements, assisting an inclusive political process, contributing to the promotion of human rights and the rule of law, and monitoring and reporting on the situation along the borders with Chad and the Central African Republic (CAR).

In addition, based on the dire humanitarian situation in Darfur, UNAMID has been also implementing Quick Impact Projects (QIPs) and Community-Based Labour-Intensive Projects (CLIPs) in the areas of water and sanitation, education, health, rule of law and livelihoods. Since 2007, UNAMID has implemented in all Darfur states over 500 QIPs, worth over US\$15 million, in the areas mentioned above. A number of these projects have addressed the unsustainable exploitation of forest resources; increased conflict over scarce forest and tree resources; exposure of women and girls to Conflict-Related Sexual Violence (CRSV) and Sexual and Gender-Based Violence (SGBV) as well as

the high maternal mortality rates in Darfur.

3. Addressing Maternal Mortality in North Darfur State

North Darfur is one of the five Darfuri states located in western Sudan with El Fasher as its capital. Population of North Darfur state is estimated to be approximately 2.1 million. The state consists of 18 localities and over 2,600 villages. The women of child bearing age are estimated at 501,000, with 74,000 pregnant women. There are 1,115 village midwives available in the state. Maternal mortality is higher in rural areas as well as in conflict-affected areas where healthcare structures are mostly affected, causing the death of women due to the lack of access to skilled routine and emergency healthcare services.

3.1 Rehabilitation of El Fasher Maternity Hospital

El Fasher Maternity Hospital is the only maternity hospital in North Darfur state. All women in different parts of North Darfur receive medical treatment in this hospital, especially pregnant females. In addition, it also functions as a teaching hospital for students of the medical faculty from El Fasher University. Nevertheless, the Maternity Hospital has been suffering a lot, especially from the lack of effective power-supply system and the acute shortage of uninterrupted power which is so important to have during complicated operations. While the climatic conditions in North Darfur are extremely hot, the hospital had no ceiling fans and air conditions. Even sockets, plugs and electric line connections were in miserable conditions and required urgent maintenance and repairs. The hospital targets more than 50,000 patients a year to receive quality medical services, in particular pregnant women and newly born children.

Therefore, improving the conditions of the maternity Hospital became a high priority in view of the large number of female patients seeking medical treatment. In 2017, UNAMID visited the Maternity Hospital to assess the needs and developed a project proposal, through the National Non-Governmental Organization (NNGO) "Sudan Organization for Recovery and Development" (SORD). The project was designed to improve and upgrading the power unit services and the power network of the maternity hospital, which provides essential support to the vulnerable population in particular women and children.

The overall objectives of the project were to improve the work environment for medical staff as well as ensure good health environment for patients; provision of a generator to improve power supply, especially for the maternity operations room; provision of light and power for the hospital; provision of power for medical equipment and devices to ensure effective and uninterrupted medical service provision to the patients; reduction of the mortality rate among pregnant women who lost their lives during delivery operations as a result of the lack of power; provision of conducive environment for students of the El Fasher University's medical faculty.

The project targeted a total of 75,000 women and children as direct beneficiaries of the project, including 60,000 females and 15,000 children with the age ranging from 20 to 50 years, in addition to

the newly born infants (age ranging from one day to one year). Beneficiaries consisted of people with different ethnic, tribal and religious background and from all parts of North Darfur state, most of them from rural, including internally displaced and returnee women.

The implementation of the project was highly welcomed by the Wali of North Darfur and was fully endorsed and accepted by WHO and the State Ministry of Health-the co-leads of the health sector. It was fully and successfully implemented by the implementing partner SORD under direct supervision and guidance of the UNAMID PoC/HL Section, Senior City Power Engineer, and the UNAMID Engineer Section.

3.2 Training of 50 Village Midwives

In 2014, UNAMID and the North Darfur State Ministry of Health (SMoH) signed a Memorandum of Understanding on training 50 village midwives in North Darfur state. The overall objectives of this joint project was to: a) reduce the insufficiency of maternal health services across the remote and isolated communities in North Darfur state; b) empower people “at-risk”, especially pregnant women and other vulnerable community members; c) reduce the maternal mortality and child mortality cases in the identified communities by addressing the lack of village midwives providing services to the local community members.

50 women were selected by the SMoH Reproductive Health Department from various localities in North Darfur state, including Kalamendo, Kutum, Kabkabiya, Saraf Omra, Kuma, Umm Barru, Tine, Malha, Al Lait, Al Waha, Umm Kaddada and Mellit, based on the gaps identified during the needs assessment in those areas (high risk areas = high risk pregnancies, high maternal mortality rate).

This Village Midwifery Training Project was implemented within twelve months of intensive theoretical and practical sessions covering a wide range of issues related to reproductive health. The training was conducted at the Midwifery School in El Fasher. Selected students were hosted in the school for the entire period of the training and participated in various types of training activities, including lectures, practical sessions, group work, homework, presentations, demonstrations, etc.

The project was carried out in three phases:

- First phase: theoretical sessions.
- Second phase: practical sessions in models.
- Third phase: practical sessions in health centres for antenatal care and maternity hospital for conducting deliveries. During this phase, the students were trained on how to identify complications and on early referral to avoid obstetric complications.

The training manual, timetable, stationary and training materials were prepared by the SMoHRe productive Health Department in cooperation with the personnel of the Midwifery School. The training was conducted by highly skilled tutors supervised by the SMoHRe productive Health Department. At the end of the training, the final exam was conducted under the direct control of the Federal Ministry of Health (FMoH) and the successful graduates were awarded certificates.

The project represented a successful model of cooperation between UNAMID and the Government of

Sudan (SMoH) in addressing the high rates of maternal and child mortality in Darfur. UNAMID, through its CLIPs projects, provided funds for implementation of the project in the total amount of 281,000 Sudanese Pounds (approximately \$50,000), and conducted regular monitoring and evaluation visits to the Midwifery School. SMoH was responsible for the overall implementation of the project, provided highly skilled personnel and training materials, as well as contributed 50,000 Sudanese Pounds to the project to cover the tuition and living allowance of the students.

At the end of the project, the trained midwives were deployed to their respective localities to provide midwifery services to 20,000 people in Kalamendo, Kutum, Kabkabiya, Saraf Omra, Kuma, Umm Barru, Tine, Malha, Al Lait, Al Waha, Umm Kaddada and Mellit.

4. Addressing Maternal Mortality in West Darfur State

Limited access to primary healthcare delivery services in West Darfur state, such as obstetric and gynaecological care, is hampered by poor road conditions and transportation network. As a consequence, the majority of rural women do not have access to primary healthcare services such as antenatal and postnatal care. The problem is further exacerbated by the lack of trained midwives to attend to pregnant women during labour. The lack of primary healthcare facilities and the unavailability of skilled midwives in remote and isolated areas of West Darfur state have been resulting in the untimely deaths of many pregnant women while being transported by horses and camels to the nearest medical facilities in locality or state capitals.

Based on the successful Village Midwifery Training Project implemented in North Darfur state, UNAMID entered into discussions with the West Darfur State Ministry of Health (SMoH) and the Sudan Red Crescent Society (SRCS) to explore the opportunities for conducting midwifery skills training in the state. A joint project was developed to identify 20 young women from different parts of West Darfur state to provide them with intensive training on reproductive health and midwifery skills.

20 women were selected by the SMoH from Krenek and Beida localities in West Darfur state, based on the gaps identified during the needs assessment in those localities, to provide primary healthcare services to pregnant women upon completion of the midwifery skills training. The midwifery project in West Darfur State is currently under implementation through the SRCS. Students are receiving intensive theoretical and practical sessions covering a wide range of issues related to reproductive health. The training is conducted at the Teaching Hospital's Midwifery School in El Geneina. Selected students participate in various types of training activities, including lectures, practical sessions, group work, homework, presentations, demonstrations, etc.

Cooperation between UNAMID and the SMoH was a success factor for implementation of this CLIPs project in West Darfur state. UNAMID provided funds for implementation of the project and conducted regular monitoring and evaluation visits to the Midwifery School. SRCS and SMoH are responsible for the overall implementation of the project, provided highly skilled personnel and training materials. At the end of the project, the trained midwives will be given start-up tools and deployed to their respective

localities in Krenek and Beida to provide midwifery services to local community members.

5. Addressing Maternal Mortality in Central Darfur State

The state of reproductive health in Central Darfur state is appalling. In 2010, the maternal mortality rate was 322 deaths per 100,000 live births; the infant mortality rate was 80 deaths per 1,000 live births; and under-five mortality rate was 66 deaths per 1,000 live births. Lack of knowledge on reproductive health among the local community members, scarcity of economic resources, and significant displacement of population due to insecurity, are all the contributing factors. However, a key reason for this situation is the lack of community/village midwives. Central Darfur state is well below its target coverage of 1 community midwife for every 1,000 people, and has identified a gap of 750 community midwives for the state. Presently, most of the women in Central Darfur state are only able to access traditional antenatal care which is not evidence-based.

To address the afore-mentioned challenges and based on the successful implementation of the Village Midwifery Training Project in North Darfur, UNAMID and the Central Darfur State Ministry of Health (SMoH) devised a joint CLIPs project to address the reproductive health gaps in local communities by training village midwives in remote and isolated areas of the state. The overall objective of the project is to ensure the management of normal (uncomplicated) pregnancies, childbirth and immediate postnatal period, and identification, management and referral of complications in women and the new-borns.

The project selected 50 women with diverse background and strong motivation to become midwives, and are being provided with intensive theoretical and practical sessions covering a wide range of issues related to reproductive health. Selected students from various parts of Central Darfur State are currently participating in various types of training activities. At the end of the project, the trained midwives will be provided with start-up tools and deployed to their respective localities in Krenek and Beida to provide midwifery services to local community members.

6. Addressing Maternal Mortality in East Darfur State

Health needs and gaps, especially among the most vulnerable population, remain one of the major concerns in Darfur throughout the years of conflict. The Health Resources Availability Mapping System (HeRAMS) of the WHO have been showing gaps in access and utilization of health services across all states of Darfur. For example, in East Darfur, at present, the potential health service coverage is 59%. Only 29% of health facilities run immunization programmes and primary healthcare centres, and the number and type of health workers stands at only 4% of the recommended standards. This clearly indicates an apparent gap in the health delivery system.

Bahr Al Arab locality in East Darfur is one of the most underserved areas in Darfur. The needs assessment in the area, carried out by UNAMID, observed that the communities living in this locality require interventions in all basic service areas. Interventions such as a comprehensive Water,

Sanitation and Hygiene (WASH) package (water points, latrines, social marketing at the community level on basic hygiene), education (school), and health (clinic) were proposed.

There is only one rural hospital/basic health centre in Abu Matariq town, Bahr Al Arab locality in East Darfur which serves over 300,000 individuals in addition to 30,000 refugees from South Sudan residing at Kario refugee camp, and 2,700 refugees living with the host community. This dire situation is compounded with the absence of a maternity unit to receive expectant mothers and their babies. Until now, the deliveries were taking place at the doctor's office with maternal and infant deaths on the rise, as a direct consequence of absence of the much-needed appropriate health services.

Linked to this need is the high prevalence of malnutrition among children in the Bahr Al Arab locality. According to the Locality Commissioner, official data provided by the State Statistics Centre indicate that there are 25,000 malnutrition cases among children in the locality. Based on these needs, the state authorities requested UNAMID's assistance for construction of maternity and malnutrition units in Abu Matariq since the maternal care and malnutrition are closely interlinked—the absence of the latter may have serious implications not only for affected children but also for expectant mothers who require continuous monitoring of their weight to ensure healthy babies are born.

In mid-2018, UNAMID provided funds to the implementing partner, local Non-Government Organization (NGO), for construction of maternity and malnutrition units in Abu Matariq town and provision of beds. The project implementation is currently ongoing and is expected to result in the reduction of morbidity and mortality rates to below emergency thresholds in Bahr Al Arab locality of East Darfur state; better access to quality primary healthcare services and strengthened referral services; strengthened national and local capacity in early detection, preparedness and response to emergencies and public health threats; reduction of maternal and child mortality rates; and provision of basic healthcare to pregnant women, children, elders and refugees.

7. Conclusion

Health services play a crucial role in preventing avoidable morbidity and mortality in emergencies. However, emergencies affect health facilities and services too. With many been damaged, left without medicines, equipment, basic amenities or health workers, cannot serve the population which may even have heightened healthcare needs due to the emergency.

Reducing maternal mortality is one of the major challenges to the healthcare system in Darfur. The situation in the region is aggravated by the on-going conflicts and displacement of large number of population, poor transportation networks, destruction of primary healthcare facilities and the lack of solid mechanism to train village midwives. There are relatively simple, safe and affordable approaches to successfully prevent or treat most obstetric complications and thus save women's lives.

In the current circumstances, UNAMID and other international organizations should continue to invest in reducing the maternal and child mortality rates in Darfur, by mobilizing the existing resources and advocating for availability of all services that are directed toward improving the maternal health in the

region. At the same time, it has to be admitted that eradicating or reducing maternal deaths require more than midwifery skills training and deployment of new midwives to remote and isolated areas. To achieve this objective, women will need to be taken out of poverty, gender inequalities will have to be eliminated, and stronger health systems should be established.

High female mortality rates are also common in other countries, especially in Africa (South Sudan, Chad, Sierra Leona, Nigeria, Central African Republic, Somalia, Liberia, Mali, Niger, Mauritania, Cote d'Ivoire, Central African Republic, Cameroon, Burundi, Lesotho, Tanzania, Guinea and Guinea-Bissau) (Note 2). Therefore, the implementation of UNAMID's successful initiatives could be replicated in those countries provided they are tailored to country-specific conditions on the ground.

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Notes

Note 1. This article was presented as a major paper during the 4th Commonwealth Nurses and Midwives conference held in London, United Kingdom, on 9-11 March 2018, Available at

<http://www.commonwealthnurses.org/conference2018/>

Note 2. The views expressed in this article are the author's own and do not necessarily represent those of UNAMID.