DREF operation final report

International Federation of Red Cross and Red Crescent Societies

SUDAN: MENINGITIS

DREF operation n° MDRSD003

08 February 2008

The International Federation's Disaster Relief Emergency Fund (DREF) is a source of un-earmarked money created by the Federation in 1985 to ensure that immediate financial support is available for Red Cross Red Crescent response to emergencies. The DREF is a vital part of the International Federation's disaster response system and increases the ability of national societies to respond to disasters.

Summary: CHF 219,497 (USD 180,507 or EUR 135,492) was allocated from the Federation's Disaster Relief Emergency Fund (DREF) on 27 April 2007 to contribute to a coordinated effort mounted by the Government of Sudan and various in-country and international humanitarian agencies to respond to the outbreak of meningitis in Sudan. The disease affected over 12,000 people and killed nearly 1,000 people. The DREF contribution went to procure 6,700 doses of drugs (antibiotics) sufficient for 6,700 patients. Without the medication, 50 to 80 percent of those who developed active meningitis would have died. Click here to view the DREF Bulletin

Meningitis is highly contagious but preventable. To stop its spread, a part of the Federation's disaster funding was utilized to support a community mobilization campaign led by the Sudanese Red Crescent Society (SRCS) in the most at risk states. Through community-based volunteer training and distribution of printed education materials, it is estimated that the SRCS was able to reach some 500,000 people. As a result, these people became aware of the dangers of meningitis as well as its prevention and treatment.

The high tide of meningitis receded with the arrival of rains in July 2007. The ensuing flooding, however, started a new series of troubles. Thousands of homes were damaged, hundreds of thousands were displaced or affected by acute water diarrhoea (AWD)/cholera, malaria and rift valley fever (RVF). Humanitarian organizations remobilized themselves to respond to what was subsequently described by many Sudanese as the worst flooding in their living memory. The SRCS volunteers trained through the DREF operation played a vital role in helping their communities protect themselves from new health risks. Their messages, basic but essential to protect lives, encouraged safer practices, better hygiene, household level water treatment and other measures to prevent another epidemic. An extraordinary effort was exerted to extend a helping hand to those most in danger.

The DREF contribution also sponsored two workshops organized by the SRCS to improve its preparedness for future health emergencies. The workshops were attended by SRCS staff and volunteers from all over the country as well as other key in-country based stakeholders. The attendance of the latter was essential to achieve a better coordination of efforts. A follow-up work will be undertaken in 2008 through ongoing programmes to build on the progress made in 2007. Essentially, viable contingency plans will be developed to protect vulnerable populations from future epidemics.

<click here for the final financial report* and *here to view contact details>

The situation

In 2007, meningitis killed nearly 2,000 people in four African countries - Burkina Faso, Sudan, Uganda and the Democratic Republic of the Congo (DRC). Sudan was one of the most affected countries. Over 12,000 people were affected and nearly 1,000 people were killed. The outbreak started in Southern Sudan and spread rapidly to other areas affecting 20 of Sudan's 26 states.

Meningitis is an infection of the thin lining that surrounds the brain and spinal cord. Often transmitted by coughing or sneezing, it can cause complications including brain damage and deafness. Living in cramped conditions and sharing eating and drinking utensils can facilitate the spread of the disease. An epidemic is declared when 15 cases per 100,000 people per week have been detected (10 cases per 100,000 people in special circumstances). During an epidemic, doctors rely on clinical diagnosis and treatment consists of a single dose injection of the antibiotic oily chloramphenicol. In most cases, a single dose leads to full recovery, but a second dose is sometimes required. For children aged two months to one year and for pregnant and lactating women, treatment consists of one injection daily of ceftriaxone over five days. Without treatment, 50 to 80 percent of those who develop active meningitis die.

The highest burden of the disease occurs in the 'African meningitis belt', stretching from Senegal in the west to Ethiopia in the east, with an estimated total population of 300 million people. The disease mainly occurs during the dry season, from December to June. It is thought that susceptibility to disease increases during the dry season because of dust winds and a higher number of respiratory tract infections due to the cold nights.[1] The most serious recent outbreak occurred in 1996, when more than 250,000 cases and 25,000 deaths were registered across Africa.

Health experts converge on the idea that both malnutrition and displacement have contributed to the current outbreak in Sudan. And because the last large outbreak of meningitis in the region occurred a decade ago, many youngsters did not have immunity from previous infection or from vaccination.

Red Cross and Red Crescent action

The SRCS role was determined in coordination with the Ministry of Health (MoH). The MoH, supported by UN agencies (the World Health Organization-WHO and the United Nations Children's Fund-UNICEF) led the epidemic response efforts and coordinated a mass vaccination campaign. The National Society had committed to provide additional drugs for meningitis case management as well as human resources to mount public education campaigns and mobilize communities for mass vaccination in the most at risk areas.

Progress towards objectives

Goal: To prevent the meningitis outbreak from progressing into a larger epidemic, and mitigate the effects of the current outbreak covering a potential population of 900,000 people for three months.

Objective (Medical supplies): To support the Ministry of Health's response efforts by urgently supplying the required items (vaccines, antibiotics and syringes, among other items).

Achievements

A total of 6,700 doses of drugs were procured by the Federation internationally (at the request of the SRCS) and handed over to Sudan's Ministry of Health in June 2007 for onward distribution to patients in the seven target states. The medication was dispersed through the government-run hospitals. As patients had to be treated at the earliest possible stage of the disease, a close collaboration with the Ministry of Health was important.

Impact

The availability of the medication was crucial to save lives. At the beginning of the epidemic, there were only 5,800 ampoules available in-country of the 15,000 needed in total. The drugs procured by the Federation covered the deficit and ensured the treatment was made available to patients. The intervention contributed to reducing the number of meningitis fatalities.

Objective (Health education): To raise the awareness of local communities about meningitis and ways of prevention as well as mobilize them during mass meningitis immunization campaigns in target areas through local SRCS volunteers.

Achievements

A one day planning workshop was held in Khartoum in May 2007 for SRCS headquarters and branch staff. The workshop introduced emergency operation objectives and agreed on a plan of action with specific tasks and timeframes. The initial workshop was followed by a number of sensitization sessions for 303 SRCS staff and volunteer leaders (seven sessions were held in total at the onset of the operation). Once the sensitization sessions were completed, in each targeted state, the SRCS mobilized on average 60 volunteers who were trained through 14 sessions on social mobilization and meningitis prevention.

[1] When the throat's mucous membranes are more irritated, it is easier for the meningococcus to penetrate the body. Source: WHO

The trained volunteers then engaged with their communities through regular group or individual sessions, educating the population on meningitis prevention. Volunteers distributed 125,000 education materials, which had been designed by the SRCS with Federation's technical support and printed in Syria. In the southern states, the epidemic had been contained by the time the DREF allocation was requested. The SRCS efforts, therefore, concentrated on northern states, where the situation was still critical.

In the south, the focus was on epidemic preparedness. A five-day workshop on emergency health preparedness and response was held for SRCS volunteers from Wau, Malakal, Bentiu and Juba (volunteers from Bor could not attend, as originally planned, because the only road for volunteers to travel was impassable at the time of the workshop). The workshop was attended by a total of 20 volunteers. The agenda included sessions on the role of emergency health teams during epidemics, assessment techniques, disease surveillance and control, coordination and collaboration with authorities and other partners. The Ministry of Health and UNICEF representatives participated by sharing their views and experiences with SRCS volunteers. A similar training was held for volunteers from the northern states, where 25 volunteers attended.

Sudan is host to rare tropical diseases (eradicated in other tropical areas, however, prevailing in Sudan due to decades of civil war), while malaria and measles, yellow fever, meningitis and cholera continue to take lives. In some areas, the immunization coverage is close to only 10 per cent. Infant and maternal mortality rates are staggeringly high. Health care spending is the lowest in sub Saharan Africa at US$14 per capita, per annum. (Source: Human Development Report). The grim statistics only underline the need for increased in-country capacity to respond to recurring epidemics. The workshops provided an invaluable forum for participants to exchange experiences and enrich their knowledge. As a result, SRCS volunteers are better prepared now to take part in assessments of suspected disease outbreaks and environmental emergencies, to plan epidemic preparedness and response activities, to monitor and assist authorities in surveillance and reporting.

It will be essential to build on the progress made in 2007. Key will be to develop viable contingency plans to protect vulnerable populations from future epidemics. To keep the trained teams focused and alert, two other meetings will be organized in 2008 as a follow up to the 2007 training and a refresher training will be held annually during subsequent years. Terms of references with clear assignment of responsibilities for each team member are being elaborated.

Impact
It is estimated, some 500,000 people have been reached through community education campaigns led by the SRCS. By July 2007, the epidemic was contained.

SRCS capacity in emergency health response has been strengthened. The operation offered an opportunity to train more volunteers, develop new education materials and enhance ties with the local communities through an active engagement. One indicator of the success is that the trained volunteers have been working with their communities even after the critical period of meningitis epidemic was over. They played a vital role in responding to flood-triggered health emergencies such as the cholera outbreak in the south and the north of the country. Their education sessions were augmented to cover topics such as malaria, acute watery diarrhoea (AWD)/cholera and RVF prevention. The trained volunteers will be engaged in the upcoming meningitis preparedness for 2008 as well.

Table 1: SRCS volunteers trained on social mobilization and meningitis prevention in 2007

State	Number of volunteers trained
Sennar	60
Gezira	60
Gedaref	100
Khartoum	63
Central Equatoria	5
Western Bahr El Ghazal	5
Upper Nile	5
Unity	5
Total	**303**

Challenges
For most of its 49 years of independence, Sudan has suffered internal conflict and the conditions to respond to a major outbreak are difficult. Some areas are unreachable because they have not been de-mined. Some of the roads are newly built, the rest are unusable. Organizing logistics of the operation was, therefore, a major challenge.

Meningitis, unlike other diseases such as cholera, for example, depends heavily on the availability of good and reliable data to determine the standard alert and epidemic threshold. Because such data was not available in Sudan, the Ministry of Health struggled to secure vaccines for sick people.

Delayed and irregular weekly reporting, inadequate surveillance systems, as well as incomplete population data, were causing difficulties in determining whether some of the districts had reached the epidemic threshold. The areas in the South where meningitis outbreaks occurred do not have SRCS structures and volunteer network.

The original plan envisaged the procurement of 10,000 doses of the medication. A manufacturer in Europe, however, did not have sufficient stocks available to meet the Federation's original order. Only 6,700 doses could be secured from the global market and as a consequence, the original targets could not be met.

Delays occurred in organizing the health emergency preparedness workshops in the view of other priorities that emerged with the arrival of rains. One workshop, originally planned for July 2007, was eventually held at the end of December 2007.

Conclusion
Despite challenges, the coordinated efforts of various actors ensured the large-scale epidemic was averted in Sudan. The SRCS contribution was significant. Its volunteers played a vital role in reaching those most at risk. It is highly likely, however, that a new epidemic wave will emerge. The World Health Organization warns that 2008 might see a marked rise in meningitis outbreaks. In coordination with the Ministry of Health and other partners, the SRCS is developing a contingency plan to mitigate the impact.

How we work

All International Federation assistance seeks to adhere to the Code of Conduct for the International Red Cross and Red Crescent Movement and Non-Governmental Organizations (NGO's) in Disaster Relief and is committed to the Humanitarian Charter and Minimum Standards in Disaster Response (Sphere) in delivering assistance to the most vulnerable.

The International Federation's activities are aligned with its Global Agenda, which sets out four broad goals to meet the Federation's mission to "improve the lives of vulnerable people by mobilizing the power of humanity".

Global Agenda Goals:
- Reduce the numbers of deaths, injuries and impact from disasters.
- Reduce the number of deaths, illnesses and impact from diseases and public health emergencies.
- Increase local community, civil society and Red Cross Red Crescent capacity to address the most urgent situations of vulnerability.
- Reduce intolerance, discrimination and social exclusion and promote respect for diversity and human dignity.

Contact information

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International Federation of Red Cross and Red Crescent Societies

MDRSD003 - Sudan - Meningitis

Financial Report

Selected Parameters	
Reporting Timeframe	2004/1-2008/1
Budget Timeframe	2004/1-2008/1
Appeal	MDRSD003
Budget	APPEAL

All figures are in Swiss Francs (CHF)

I. Consolidated Response to Appeal

	Health & Care	Disaster Management	Humanitarian Values	Organisational Development	Coordination & Implementation	TOTAL
A. Budget		**218,289**				**218,289**
B. Opening Balance		**0**				**0**
Income						
Other Income						
DREF Allocations		*214,172*				*214,172*
C5. Other Income		***214,172***				***214,172***
C. Total Income = SUM(C1..C5)		**214,172**				**214,172**
D. Total Funding = B +C		**214,172**				**214,172**
Appeal Coverage		**98%**				**98%**

II. Balance of Funds

	Health & Care	Disaster Management	Humanitarian Values	Organisational Development	Coordination & Implementation	TOTAL
B. Opening Balance		0				**0**
C. Income		214,172				**214,172**
E. Expenditure		-214,172				**-214,172**
F. Closing Balance = (B + C + E)		0				**0**

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Reporting Timeframe	2004/1-2008/1
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III. Budget Analysis / Breakdown of Expenditure

Account Groups	Budget	Expenditure						Variance
		Health & Care	Disaster Management	Humanitarian Values	Organisational Development	Coordination & Implementation	TOTAL	
	A						B	A - B
BUDGET (C)			**218,289**				**218,289**	
Supplies								
Medical & First Aid	20,000		12,966				**12,966**	**7,034**
Teaching Materials	49,600		283				**283**	**49,317**
Total Supplies	**69,600**		**13,249**				**13,249**	**56,351**
Land, vehicles & equipment								
Others Machinery & Equipment			718				**718**	**-718**
Total Land, vehicles & equipment			**718**				**718**	**-718**
Transport & Storage								
Storage	5,000							**5,000**
Distribution & Monitoring	4,000		406				**406**	**3,594**
Transport & Vehicle Costs	3,000		7,916				**7,916**	**-4,916**
Total Transport & Storage	**12,000**		**8,322**				**8,322**	**3,678**
Personnel								
International Staff Payroll Benefits	3,500		4,296				**4,296**	**-796**
National Staff	3,000		12,780				**12,780**	**-9,780**
National Society Staff	84,000		56,119				**56,119**	**27,881**
Total Personnel	**90,500**		**73,195**				**73,195**	**17,305**
Workshops & Training								
Workshops & Training	25,000		14,006				**14,006**	**10,994**
Total Workshops & Training	**25,000**		**14,006**				**14,006**	**10,994**
General Expenditure								
Travel			651				**651**	**-651**
Information & Public Relation			29,361				**29,361**	**-29,361**
Office Costs	2,500		831				**831**	**1,669**
Communications	2,500		177				**177**	**2,323**
Financial Charges			2,169				**2,169**	**-2,169**
Other General Expenses	2,000		4,855				**4,855**	**-2,855**
Total General Expenditure	**7,000**		**38,044**				**38,044**	**-31,044**
Programme Support								
Program Support	14,189		13,960				**13,960**	**228**
Total Programme Support	**14,189**		**13,960**				**13,960**	**228**
Operational Provisions								
Operational Provisions			52,678				**52,678**	**-52,678**
Total Operational Provisions			**52,678**				**52,678**	**-52,678**
TOTAL EXPENDITURE (D)	**218,289**		**214,172**				**214,172**	**4,117**
VARIANCE (C - D)			**4,117**				**4,117**	