

SUDAN: MENINGITIS OUTBREAK

3 May, 1999

appeal no. 07/99

situation report no. 1

period covered: 1 March - 1 April 1999

With the first signs of a severe outbreak of meningitis occurring in Sudan in early 1999 and the disease expected to worsen over the course of the year, the Federation and the Sudanese Red Crescent, in close coordination with UN agencies and NGOs, planned a vaccination and health education campaign, and launched an Appeal on 1 March, 1999. Due to the timely donor response, the programme implementation is well on schedule.

The context

Over the last few years large areas of sub-Saharan Africa have been afflicted by epidemics of meningococcal meningitis. The outbreaks occur in the dry season, and it has been observed that the interval between each has been shortening. Widespread epidemics can follow on from a localised outbreak the previous year, and the incidence rates remain high during the following 12 -24 months unless appropriate control measures, including mass immunisation, are initiated. A Gram-positive bacterium (*Neisseria meningitidis*) and sero group A and C meningococci are the main causes of the meningitis epidemic

While Sudan has experienced only modest numbers of cases since the last widespread epidemic of 1979 and 1989 (the typical ten-year cycle), current monitoring indicates that the country is on the verge of another major outbreak which epidemiologists have tentatively predicted for 1999.

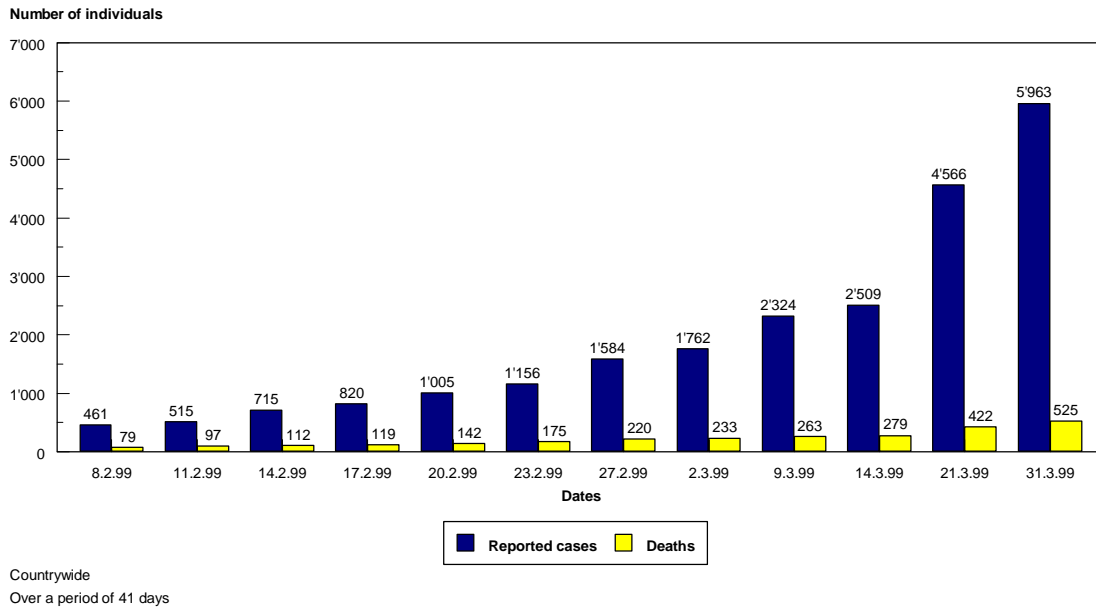
The highest disease rates are found in the young, but older children, teenagers and young adults are also affected. On 12 December 1998, 25 cases of cerebrospinal meningitis were reported in North Darfour state which climbed to 190 cases within a month. The mortality rate among those affected was very high. This prompted a series of meetings, and a joint field visit to North Darfour was organised by the Ministry of Health (MoH) and the State Ministry of Health (SMoH), after which a plan was developed to vaccinate 622,400 people in order to control the outbreak and to prevent it spreading to neighbouring states.

Since the beginning of February 1999, there have been reports of an outbreak in South and West Darfour, South and West Kordofan, and Sennar states. The total number of cases reported in the affected areas increased from 461 to 1,156 over the period of 8 - 23 February 1999. Other states, including Khartoum, Gezira, White Nile, Blue Nile, Kassala, Gedarif and Red Sea have also reported cases of meningitis.

Latest events

Weekly co-ordination meetings are held at the MoH where WHO, UNICEF and NGOs working on the campaign, in collaboration with the government authorities, decide on the priority regions and present

the organisation responsible for vaccination and drugs procurement. A subcommittee has been formed to strengthen the monitoring systems, and the Sudanese Red Crescent (SRC) and the Federation are members of this committee. At the State level, similar co-ordination takes place, chaired by the State Ministry of Health. The chart below indicates the reported number of cases and deaths countrywide over a 41-day during February - March, 1999.



The average number of cases reported per day is 135, however, a very sharp increase was recorded between 21 - 31 March 1999, with a total of 3,454 cases and 146 deaths reported over a 10-day period. This is thought to be part of a general trend brought on by the start of the hot dry season, but also a greater awareness on the part of the population as a whole and consequently more accurate information and reporting.

Red Cross/Red Crescent action

Phase one : vaccination in North Darfour

Prior to the launch of the Appeal on 1 March 1999, the Federation issued an Information Bulletin highlighting the outbreak of the epidemic in North Darfour. This was followed by a rapid response by the Spanish Red Cross Society who funded the total requirements for the vaccination programme for 150,000 individuals.

The Spanish pledge included training, the procurement of a refrigerator, laboratory reagents and transport costs. As a result the vaccination campaign in North Darfour was completed within two weeks.

A Training of Trainers (ToT) workshop was carried out in Al Fashir, the capital of North Darfour state, during the first week of February, and covered vaccination techniques, methods on prevention of the spread of the epidemic and active case finding. At this time a refrigerator was procured, but the laboratory reagents could not be purchased as they were unavailable locally. Although initially a problem when trying to identify outbreaks at the start of the epidemic, once the disease took hold the need for extensive laboratory work lessened. As part of the awareness programme 10,000 posters and pamphlets

were produced and distributed in the state. 250 volunteers were involved in the North Darfour vaccination campaign with each vaccination team comprising 5 individuals¹.

The following quantities of medical supplies were provided by the Spanish Red Cross and were received 5 days after the Information Bulletin was sent out:

Item	Quantity
Bivalent A+C vaccine CSM	3,000 bottles (1 Btle = 50 doses)
Disposable Syringes + Needles	150,000
Health Education Material	10,000
ToT 3 days in Al Fashir	12 persons
ToT Trainer	1 person
Volunteer Support	250
Refrigerator	1
Laboratory Reagents	Not purchased

Phase 2 : vaccination in 6 States (appeal 07/99)

The Federation, on behalf of the Sudanese Red Crescent Society, launched the Appeal to assist with the meningitis campaign in White Nile, Gezira, Sennar, Kassala, Gadarif and Red Sea states. The objective is to lower the morbidity and mortality rates and to control the spread of the disease by providing vaccines, treatment and manpower using trained SRCS volunteers. The Federation/SRCS have targeted a population of 1,330,403 between the ages of 2 - 30 years old in the target area.

THE OPERATION

Due to the quick preparation of the Appeal by the SRC and the Federation and the response from donors, the necessary vaccines and drugs needed for the campaign were procured within 3 weeks. This meant that the Red Cross was the first organisation to have a full programme in place. The vaccines and drugs have now been dispatched to 5 out of the 6 states covered in the Appeal. Delivery to the sixth area will be completed shortly. In addition the SRC/Delegation were requested by the government to respond urgently to an additional state, Blue Nile, as no other organisation was in position to do so.

The following items and quantities were received by each state (each vial contains 50 doses):

STATE	Gezira	White Nile	Sennar	Gadarif	Kassala
Vaccine°	7,000 vials	6,000 vials	3,000 vials	5,200 vials	7,000 vials
Oily Chloramphenicol	14,400 vials	9,000 vials	5,300 vials	9,900 vials	6,000 vials
AD Syringes	300,000 pcs	250,000 pcs	150,000 pcs	200,000 pcs	300,000 pcs
20ml syringes	1,920 pcs	1,600 pcs	-	1,440 pcs	1,920 pcs
10ml syringes	10,000 pcs	4,000 pcs	1,200 pcs	4,500 pcs	3,000 pcs
19g needles	8,000 pcs	6,000 pcs	-	6,300 pcs	7,000 pcs
21g needles	10,000 pcs	4,000 pcs	1,200 pcs	5,700 pcs	6,000 pcs
Gloves	2,000 pcs	2,000 pcs	4,000 pcs	2,000 pcs	2,000 pcs
Safety boxes	2,800 pcs	2,400 pcs	-	2,160 pcs	1,780 pcs

The following items and quantities were received by Blue Nile state:

Item	Quantity
Vaccine	1,600 vials
Oily Chloramphenicol	4,000 vials
AD Syringes	50,000 pcs
20ml syringes	400 pcs
10ml syringes	2,000 pcs
19g needles	1,600 pcs
21g needles	2,000 pcs
Gloves	2,000 pcs
Safety boxes	400 pcs

{ **Vaccination Campaigns**

SRC volunteers, in collaboration with the MoH, are involved in both the vaccination and associated public awareness campaigns. The distribution of vaccines and medical supplies from the Headquarters to the States is near completion and the vaccination programme is underway.

A report from the state of Sennar shows that the vaccinations have been completed for the targeted population of 232,107 and a further 3,000 people have been inoculated. Of the total number of doses provided, the MoH distributed 125,000 vaccines and the SRCS/Federation 150,000. The remaining vaccines will be kept in the area for the time being while monitoring continues and a review of the situation is made.

{ **Training**

A three day ToT for 6 State Directors and Health Co-ordinators was conducted by the National Headquarters from 20 - 22 March 1999; the training covered the disease and its transmission, vaccinations and setting up a cold chain, drug storage and control, and monitoring/reporting.

{ **Delegates**

Two Federation Health Delegates arrived during the reporting period and immediately started working closely with the National Society at both Headquarters and Branch levels

SRC ROLE

1. An SRC Project Co-ordinator is responsible for the overall co-ordination of the operation, in which the respective branch directors are actively involved.
2. The National Society has mobilised 420 volunteers country-wide, and they are carrying out the vaccination, health education, and awareness campaigns.
3. In addition to providing 420 volunteers in 6 States, the SRC has been requested by the government and various international NGOs working in other affected States to provide volunteers for the vaccination campaign.

FEDERATION ROLE

1. Responsible for fund-raising, the Appeal, and donor liaison;
2. Provision of 2 Health Delegates to provide technical assistance to the National Society at Headquarters and Branch levels;
3. Responsible for financial, narrative, and material reporting;
4. Responsible for media coverage and public relations, in liaison with the SRCS.

Outstanding needs

All outstanding needs will be met through a British Red Cross contract with ECHO (pending signature).

External relations - Government/UN/NGOs/Media

Relations with government authorities and NGOs have been effective due to the close co-ordination, planning, and co-operation between the various organisations. A joint appeal was launched to avoid duplicating the funding and to assign specific areas of responsibility for each humanitarian organisation. The Federal Ministry of Health maintains of the overall co-ordination of the operation.

Contributions

See Annex 1 for details.

Conclusion

The Federation and the Sudanese Red Crescent Society have moved quickly to intervene and assist in efforts to control this outbreak of meningitis, and are at the forefront of the operation in the White Nile, Blue Nile, Gezira, Gadarif, Kassala and Sennar states.

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