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DREF final report
Côte d'Ivoire: Meningitis Outbreak

International Federation of Red Cross and Red Crescent Societies

DREF operation n° MDRCI005
GLIDE n° EP-2012-000021-CIV
30 July, 2012

The International Federation of Red Cross and Red Crescent (IFRC) 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 61,402 was allocated from the IFRC's Disaster Relief Emergency Fund (DREF) to support the Red Cross Society of Côte d'Ivoire (RCSCI) in delivering immediate assistance to 254,050 households.

On 9 January 2012, an outbreak of meningococcal meningitis was reported in the Central and Northern districts of Côte d'Ivoire. According to the National Institute of Public Hygiene (Institut national d'hygiène publique -- INHP) the epidemic was initially limited to only two locations; Tengrela and Bouaké, but spread later to almost all districts in the North (Tengrela, Boundiali, Korhogo, Ferke, Seguela, Bouna) as well as Bandama Valley Region in central Côte d'Ivoire.

By week 5 from when the outbreak was detected, the Institute reported 39 cases, including 6 deaths. In some localities in northern Côte d'Ivoire such as Kouto, there was a sharp increase in the number of reported cases from week 2 to week 4 of the outbreak.

Volunteers conducting house-to-house visits /photo RCSCI

Faced with this major epidemic, the Government of Côte d'Ivoire sought support from its partners to provide emergency response through the organization of vaccination campaigns against meningitis in epidemic areas. The Red Cross Society of Côte d'Ivoire, as the lead agency in social mobilization in emergencies mobilized its volunteers in the affected districts to assist the Ministry of Health staff to conduct house to house health education, case tracing and cleaning up campaigns. The National Society intensified its humanitarian activities by mobilizing and training volunteers in the most vulnerable communities. The volunteers were equipped and deployed to carry out house-to-house sensitization activities on proper hygiene practices, risk factors, prevention and control of the disease, the importance of meningitis vaccination, symptoms identification, early referral to health facilities and other steps to take if a case is detected. The IFRC, through its delegation in Abidjan, (capital of Côte d'Ivoire), worked closely with the National Society by supporting its staff and volunteers in all activities and ensuring that management as well as operational issues were directed and implemented within the principles and core values of the Red Cross Movement. RCSCI received technical support from the West Coast Regional Representation of IFRC to develop a plan of action to scale up its humanitarian assistance to the affected communities.

With this microbiological evolution of the epidemic of meningitis provided by the Pasteur Institute Côte d'Ivoire, one can see the declining number of suspected cases and fewer new confirmed cases from the week 11, following the Red Cross intervention. This helps demonstrate the added value of the Red Cross action in the campaign of mass vaccination against the meningococcal meningitis in Northern Côte d'Ivoire.

The major donors and partners of the DREF include the Red Cross Societies and governments of Australia, Austria, Belgium, Canada, Denmark, Ireland, Italy, Japan, Luxembourg, Monaco, the Netherlands, Norway, Spain, Sweden and the USA, as well as DG ECHO, the UK Department for International Development (DFID) the Medtronic, Z Zurich and Coca Cola Foundations and other donors. Details of contributions to the DREF can be found on: http://www.ifrc.org/docs/appeals/Active/MAA00010_2012.pdf.

The IFRC, on behalf of the Red Cross Society of Côte d'Ivoire, would like to extend thanks to all partners for their generous contributions.

<click here for the final financial report, or here to view contact details>

The situation

From 9 to 15 January 2012, outbreaks of meningococcal meningitis were reported in Central and Northern Cote d'Ivoire. According to the INHP, the epidemic was initially limited to only two locations, Tengrela and Bouaké, but affected later almost all districts in the North (Tengrela, Boundiali, Korhogo, Ferke, Seguela, Bouna) as well as Bandama Valley Region. In some localities in Northern Cote d'Ivoire such as Kouto, there was a dramatic increase in the number of reported cases between week 2 and week 4 of 2012.

Country-wide, according to the INHP the arm of the Ministry of Health in charge of managing the epidemic, the number of confirmed cases rose from 14 cases in week 2, to 39 cases in week 5 with 6 deaths occurring in that period. The 39 cases were divided as follows; 16 male and 23 female including 11 cases in patients aged 0 to 4 years, 14 cases in patient's aged 5-15 years, and 14 cases ages 15 and above.

The Northern part of Cote d'Ivoire has always been subject to outbreaks of meningitis of varying degrees during the dry season (December - March). The epidemic is most often worsened by the dry *harmattan* winds that occur during the same period. In 2011, a few cases of meningitis were reported in the area, but the situation did not develop into an epidemic. The total number of cases for 2011 was 144, with 26 deaths. Meningitis is an infection of the thin lining around the brain and spinal cord. Even when meningitis is diagnosed early and adequate therapy is available, between 5 and 10 percent of patients die, typically within 24 and 48 hours of experiencing the first symptoms. Many thousands of survivors live on with brain damage, hearing loss or learning disabilities. The strong, dust-laden winds and cold nights make people more prone to respiratory infections. The meningitis bacterium is then transmitted by sneezing or coughing**.**

Red Cross and Red Crescent action

From February 23 to March 21, 2012, the Red Cross Society of Côte d'Ivoire actively organized an awareness campaign and social mobilization on meningitis in 9 health districts and localities.

In accordance with the action plan and schedule of activities, RCSCI participated in preparatory meetings at both the INHP state structure responsible for the management of meningitis, at the Ministry of health in the presence of all other partners (Ministry of Health, World Health Organization-WHO, United Nations Children's Fund-UNICEF and Rotary). The Federation approved a DREF to allow the RCSCI to engage the operation of social mobilization in nine health districts Impact:

The Red Cross Society of Côte d'Ivoire planned to reach 80% of the 317,563 households in 9 districts. With 328

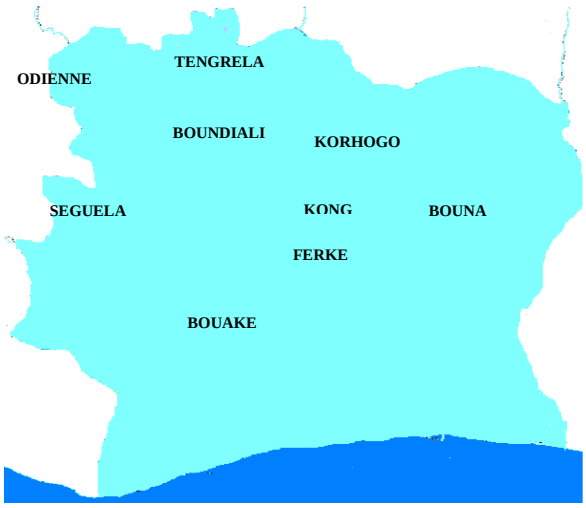


Figure 1: Intervention areas

community mobilizers, 33 supervisors and 240 community volunteers, ensuring social mobilization in nine targeted health districts and selected localities, 75% of households (238,361 households) were visited during the campaigns.

The awareness and social mobilization on meningitis conducted by RCSCI in 9 districts and localities was highly appreciated by the health districts teams and also allowed the targeted populations to adopt the good behaviours for the prevention of meningitis. Cases of vaccination refusal were not noticed as it was the case during vaccination campaigns against polio.
and localities based on volunteers of local Red Cross committees.

The nine teams, consisting each of a medical coordinator and a driver, were moving from 23 February 2012 to the various localities, provided training manuals and educational materials (training kits, posters, t-shirts, megaphones, activity sheets, etc.).

Achievements against outcomes

Emergency health

Outcome: To reduce the further spread of meningitis and related morbidity and mortality, through the sensitization and social mobilization of 254,050 households in 9 districts for 1 month.	
Outputs (expected results) All Red Cross activities are implemented in a coordinated way thus avoiding duplication of services with other actors. Red Cross experience is also shared with others at coordination meetings and during surveillance, reporting, response and advocacy activities at the national and district levels.	**Activities planned:** • Participate actively at coordination meetings at the national and local levels in order to obtain the relevant statistics and collaborate with the MoH, WHO and UNICEF.
601 volunteers have knowledge on epidemic control for volunteers (ECV) toolkit, including case surveillance and case referral.	• Carry out rapid orientation of 601 volunteers on epidemic control for volunteers (ECV) tool kit including case surveillance and case referral
Volunteers have been provided with materials for health education and hygiene promotion.	• Distribute IEC materials to volunteers for health education and hygiene promotion.
Hygiene and health education, early case detection and referral activities have been carried out, so as to reduce the number of new cases.	• Volunteers engage in community meningitis prevention activities such as surveillance, referrals, sensitization, education and immunization (vaccination). • Collaborate with the MoH, WHO, UNICEF, in efforts to engage in community meningitis prevention activities such as surveillance, referrals, sensitization, and education. • Promote and respect the fundamental principles of the Red Cross/Red Crescent Movement.

Table 1: Number of households, public places and community leaders visited

Health districts	Estimated households	Number of households visited	% of households visited	Number of community leaders met	Number of public places visited
Tengrela	7,379	4,538	61,5%	42	8
Odienne	29,262	24,647	84%	26	10
Seguela	26,404	19,907	75%	21	14
Boundiali	22,137	18,812	85%	53	17
Korhogo	84,656	61,196	72%	69	21
Ferkessedougou	13,234	8,025	61%	75	16
Bouna	27,502	23,900	87%	67	20
Bouake	101,034	73,014	72%	69	28
Kong	5,955	4,322	72,6%	32	7
Total	**317,563**	**238,361**	**75%**	**454**	**141**

Table 2: Number of sensitized people and coverage of districts during the vaccination campaign

Health districts	Total population	Targeted populations (18 months old and over)	Number of sensitized people	% of targeted Population reported sensitized	Immunization coverage
Tengrela	63,640	61,731	42,719	69%	97,82 %
Odienne	222,446	215,772	190,024	88%	Unvaccinated population due to insufficient vaccines
Seguela	172,358	167,187	127,602	76%	
Boundiali	163,425	158,622	121,758	76,7%	96,63%
Korhogo	453,006	439,415	289,506	66%	Unvaccinated population due to insufficient vaccines
Ferkessedougou	77,590	75,262	51,437	68%	
Bouna	178,769	173,405	153,002	88%	97%
Bouake	612,791	594,407	445,207	74,9%	Unvaccinated population due to insufficient vaccines
Kong	39,604	38,415	35,100	91%	
Total	**1,983,629**	**1,924,216**	**1,456,355**	**76%**	

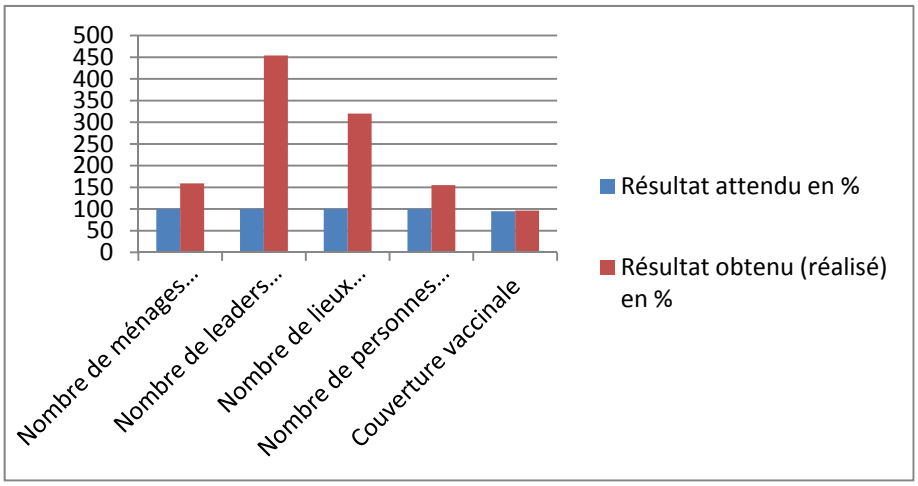
Challenge:
All populations of selected districts have not been vaccinated. Indeed, during the preparatory meetings for the vaccination campaign, UNICEF which was in charge of supervising the transportation of vaccines from Copenhagen (Denmark) to Abidjan informed about the risk of not getting all the vaccines ordered due to an insufficient supply of vaccines at Copenhagen. Therefore, the department of the Ministry of Health in charge of vaccination against meningitis (National Institute of Public Hygiene (INHP) gave the priority to areas where the fatality rate was very high: the health districts of Tingrela, Boundiali (Kouto) and Bouna.

Table 3: Comparison between planned and achieved outputs

Parameter	Expected results	Achieved	% achievement	Comment
Number of households visited	150,000	238,361	159	The global target is 254'040HH but 150'000 was the number of HH to be reached by house to house visits in the DREF
Number of community leaders met	100	454	454	
Number of public places visited	45	144	320	
Number of people sensitized	780,000	**1,456,355**	186	
Immunization coverage	95 %	96 – 97%		All districts have been reached through awareness and social mobilization. Vaccination was managed by the Ministry of Health. There was a deficit of vaccine at their level; then the department could not vaccinate in all target districts in spite of social mobilization made by the Red Cross. Immunization coverage concerns only districts where vaccination has been carried out

The results and indicators show that the expectations were largely met during this campaign of sensitization and social mobilization against meningitis in the nine selected localities The expected result was 150,000 households to be visited by volunteers who actually reached 238,361 households that is to say 159% of success.

Figure 2: Comparison between planned and achieved outputs



Lessons learnt

Vaccination is a preventive act and the success of a vaccination campaign requires an open collaboration of populations. Social mobilization is a key point in the sense that the well-informed do not object to vaccination. The intervention of Red Cross in the nine health districts and localities allowed reaching the targeted goal early set in the campaign. Vaccination coverage recorded during this campaign in the selected areas is above the target set, i.e. that is to say more than 96%.

The following strengths contributed to the success of the operation:

- The involvement and motivation of all volunteers and community volunteers during the campaign;
- The involvement of community during the vaccination campaign. This has had the advantage of reaching children who accompanied their parents in the farms.
- The assessment of Red Cross action by the coordination teams of the campaign from the central level and health districts;
- The good image of Red Cross and the confidence of the people, in its messages and actions;
- The posters, banners and T-shirts increased the good visibility of the National Society in the field;
- The strong support of the population and opinion leaders in Red Cross intervention areas;
- The strong mobilization of populations in areas which did not receive the free vaccination;
- The good collaboration between community mobilizers and vaccinators in the field

Some recommendations have been made and are related to:

- The revision of the social mobilization budget to increase the number of community mobilizers to cover all health districts. It would also be important to provide motorcycles to volunteers so that they can reach people in remote areas.
- Quick transfer of funds for social mobilization/vaccination campaigns or authorization to the National Society to pre-fund the operation (if the DREF is allocated and awaiting for the transfer).

Contact information

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How we work

All IFRC 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 the Humanitarian Charter and Minimum Standards in Disaster Response (Sphere) in delivering assistance to the most vulnerable.

The IFRC's vision is to inspire, encourage, facilitate and promote at all times all forms of humanitarian activities by National Societies, with a view to preventing and alleviating human suffering, and thereby contributing to the maintenance and promotion of human dignity and peace in the world.

The IFRC's work is guided by Strategy 2020 which puts forward three strategic aims:

1. Save lives, protect livelihoods, and strengthen recovery from disaster and crises.
2. Enable healthy and safe living.
3. Promote social inclusion and a culture of non-violence and peace.

International Federation of Red Cross and Red Crescent Societies

MDRCI005 - Cote d'Ivoire - Meningitis Outbreak

Appeal Launch Date: 15 feb 12

Appeal Timeframe: 15 feb 12 to 15 mar 12

Interim Report

Selected Parameters	
Reporting Timeframe	2012/2-2012/5
Budget Timeframe	2012/2-2012/5
Appeal	MDRCI005
Budget	APPROVED

All figures are in Swiss Francs (CHF)

I. Funding

	Disaster Management	Health and Social Services	National Society Development	Principles and Values	Coordination	TOTAL	Deferred Income
A. Budget	**61,402**					**61,402**	
B. Opening Balance	**0**					**0**	
Income							
Other Income							
DREF Allocations	*61,402*					*61,402*	
C4. Other Income	***61,402***					***61,402***	
C. Total Income = SUM(C1..C4)	**61,402**					**61,402**	
D. Total Funding = B +C	**61,402**					**61,402**	
Coverage = D/A	**100%**					**100%**	

II. Movement of Funds

	Disaster Management	Health and Social Services	National Society Development	Principles and Values	Coordination	TOTAL	Deferred Income
B. Opening Balance	0					**0**	
C. Income	61,402					**61,402**	
E. Expenditure	-61,380					**-61,380**	
F. Closing Balance = (B + C + E)	22					**22**	

III. Expenditure

Account Groups	Budget	Expenditure						Variance
		Disaster Management	Health and Social Services	National Society Development	Principles and Values	Coordination	TOTAL	
	A						B	A - B
BUDGET (C)		**61,402**					**61,402**	
Logistics, Transport & Storage								
Transport & Vehicles Costs	4,104	8,477					**8,477**	**-4,373**
Total Logistics, Transport & Storage	**4,104**	**8,477**					**8,477**	**-4,373**
Personnel								
National Society Staff	8,977	23,543					**23,543**	**-14,566**
Volunteers	16,022	1,551					**1,551**	**14,471**
Total Personnel	**24,999**	**25,095**					**25,095**	**-96**
Workshops & Training								
Workshops & Training	2,196	1,126					**1,126**	**1,070**
Total Workshops & Training	**2,196**	**1,126**					**1,126**	**1,070**
General Expenditure								
Travel	2,110							**2,110**
Information & Public Relations	15,569	19,033					**19,033**	**-3,464**
Office Costs	2,796	2,159					**2,159**	**637**
Communications	5,380	1,746					**1,746**	**3,634**
Financial Charges	500							**500**
Total General Expenditure	**26,355**	**22,937**					**22,937**	**3,418**
Indirect Costs								
Programme & Services Support Recov	3,748	3,746					**3,746**	**1**
Total Indirect Costs	**3,748**	**3,746**					**3,746**	**1**
TOTAL EXPENDITURE (D)	**61,402**	**61,380**					**61,380**	**21**
VARIANCE (C - D)		**21**					**21**	