

CAMBODIA: Dengue Haemorrhagic Fever Epidemic

**appeal no: 24/98
12 August 1998**

***THIS APPEAL SEEKS CHF 658,000 IN CASH
AND SERVICES
TO ASSIST 1.1 MILLION PEOPLE FOR 4 MONTHS***

Summary

The 1998 seasonal outbreak of Dengue Haemorrhagic Fever (DHF) in Cambodia is particularly severe; while the current number of cases is over 7,000 and is expected to rise to 16,000, 185 children have already died. There is no effective vaccine. The operation financed by the Federation Appeal will focus on six high risk provinces with a total urban population of 1.1 million people; it will provide medical supplies to hospitals, supply larvicide to eradicate the mosquito that spreads the disease and run public education campaigns to promote prevention, early identification of cases and rapid hospitalisation.

The Disaster

The number of cases of Dengue Haemorrhagic Fever (DHF) recorded in Cambodia this year has risen sharply in the past few weeks. At the end of July the Ministry of Health/World Health Organisation (MOH/WHO) reported 7,502 DHF cases in hospitals and 185 child deaths. If the epidemic follows the usual seasonal pattern, a total of over 16,000 cases can be expected.

Children between 3 and 7 years old who were exposed to dengue fever in previous years are particularly vulnerable and constitute the majority of the deaths so far. Paediatric hospitals and wards in the capital Phnom Penh and the provinces are overcrowded: children are sometimes three to four in one bed or are placed on mats on the floors and verandas of the hospitals.

DHF is a severe form of dengue fever. If untreated, it has a 10% fatality rate. It is a viral disease, spread through the bite of the *Aedes* mosquito ('Tiger' mosquito), which has its habitat in urban and semi-urban areas. Seasonal peaks of DHF in Cambodia usually occur in August and September. In the last epidemic in 1995, 10,199 cases were recorded and 424 children died.

There is no effective vaccine only curative action. Medical care is limited to preventing the deadly dengue shock syndrome by providing intravenous fluid at an early stage or, in cases of severe bleeding, through the provision of blood.

Preventive measures are the most effective means of controlling epidemics. They include health education about the early symptoms of DHF and environmental control such as clean up campaigns, spraying and the use of larvicides to reduce the *Aedes* mosquito population.

The Cambodian MOH, in co-operation with WHO, has requested international assistance to fight the epidemic. It has approached the Cambodian Red Cross and the Federation Delegation.

The Response so far

Government Action

The National Malaria Centre and the World Health Organisation have started a nation-wide programme of *Aedes* mosquito eradication.

Control measures such as entomological surveillance, disease surveillance/disease confirmation and refresher training are beginning all over the country. Malaria officials have started to distribute 25 tons of a larvicide (*Abate*) to households across the country. Insecticide spraying has already taken place in many of the affected provinces.

A nation-wide television, radio and leaflet campaign, urging people to store water in specially cleaned containers, to use lids to cover them and to add Abate to the water, which prevents the mosquito's larvae from hatching, has started. The campaign also provides advice on how to recognise symptoms so that children can receive early medical treatment.

Red Cross/Red Crescent Action

At the request of MOH/WHO, the Federation/Cambodian Red Cross (CRC) recently provided two pick up trucks for spraying, which is done by the National Malaria Centre. Additionally the CRC launched a local Appeal in Phnom Penh and the Federation Secretariat released CHF 150'000 from its disaster relief and emergency fund.

CRC is beginning a Health Volunteer training course for 25 volunteers in Phnom Penh this week, using funds provided by the Japanese Red Cross bilateral delegation through the Federation Delegation, and additional training courses are planned. Hundreds of Red Cross volunteers trained in Community Based First Aid (CBFA) already exist in 10 provinces, but additional refresher training on dengue fever will be required.

Other Agencies' Action

WHO is the main supporter of Cambodia's National Malaria Centre (NMC). Other organisations such as UNICEF, World Food Program (WFP), World Vision International (WVI), Medecins Sans Frontières (MSF), Medecins du Monde (MDM), SESVI and PRASAK have also given support in the form of per diems, leaflets or transportation. ECHO is providing the National Blood Bank with testing kits for HIV, Hepatitis B&C and syphilis and transfusion sets.

Co-ordination

The overall co-ordination of the dengue fever epidemic control measures in Cambodia is handled by the Ministry of Health and the National Malaria Centre, with the support of WHO.

The Intended Operation

Assessment of Needs •

The Federation's Regional Health and Information Delegates arrived in Cambodia on 7 August to assist the Cambodian Red Cross and the Cambodia Head of Delegation. They reviewed health data provided by

MOH and WHO in order to identify the most affected areas and to prioritise the Federation response. High risk provinces were identified on the basis of population data and the number of new cases.

The Red Cross accompanied the MOH outreach team to carry out village level spot-checks on the use of larvicides and covers in water storage jars. CRC, MOH and WHO carried out a needs assessment during a joint field visit to the provincial hospitals of the two worst affected provinces and to the national paediatric hospital in Phnom Penh. The wards situation and the hospitals' drug supply were assessed. Health data and the situation in the hospitals corresponded closely to the data provided at central level.

A review of the existing epidemiological records and a comparison with the usual seasonal pattern and figures for the previous epidemic in 1995 point to a possible total caseload of up to 16,000.

Immediate Needs ●

Medical supplies

The country urgently needs intravenous fluid and basic drugs for 10,000 DHF cases -- the expected number in the next three months. Also urgently needed are "butterfly" needles and venflon needles suitable for the treatment of small children (for details see attached list), 7,000 blood transfusion kits including transfusion sets and testing reagents for HIV/AIDS, Hepatitis B & C and syphilis (the latter especially for the Kantha Bopha Hospital, Phnom Penh).

A Health Delegate with experience in medical logistics is required in order to establish a drug supply system to the provincial hospitals targeted by this Appeal and to design and implement a drug use monitoring plan. The Delegate will also be responsible for providing technical support for the prevention and health education campaigns.

Preventive Measures

Mass mobilisation for clean ups, supported by TV /radio /leaflets and mini-poster campaigns has to begin immediately. Health education material about early symptoms and guidelines for mothers must be developed, produced and distributed in the high risk areas. In addition larvicides are urgently needed, together with a campaign to promote their correct use .

Anticipated Later Needs ●

CBFA training must start in the high risk provinces targeted by the Appeal and a supplement on DHF must be produced for the CBFA manual. Youth programmes will be initiated and youth groups mobilised for environmental cleanup campaigns. Youth and teachers will be trained in dengue fever prevention (as a component of CBFA) through the existing CRC Youth Programme.

National TV/radio campaigns are planned, featuring famous Cambodian actors/actresses and singers and the President of the Society, who will address the public on dengue prevention. Health education materials such as posters, leaflets and T-shirts will be printed in co-operation with the Ministry of Health and WHO.

Red Cross Objectives ●

Six high risk provinces have been identified and will be the target of prevention, eradication and education campaigns. Within these provinces, up to nine hospitals, all with a DHF caseload of more than 150 as of 31 July, have been selected to receive medical supplies. Training of CRC youth and volunteers in DHF preventive measures will be intensified.

Immediate Objectives

- { Reduce case mortality rate through the provision to the selected hospitals of medical supplies and blood transfusion kits (Kantha Bopha Hospital) for the next three months.
- { Reduce case mortality through the provision of guidelines to mothers, and the promotion of early hospitalisation, through Red Cross volunteers.

- { Reduce the incidence rate (number of new cases) of DHF through the provision of larvicide to MOH and through a mass campaign promoting environmental cleanups, conducted by Red Cross volunteers.

Midterm Objectives

- { Decrease the vulnerability of the urban population to DHF outbreaks through the introduction of a specific dengue module in the CBFA training
- { Reduce future dengue outbreaks through regular environmental cleanups organised by CRC youth groups.

National Society/Federation Plan of Action

PHASE ONE (2nd week August - 4th week August):

The operation will cover the following provinces:

Province	Population	urban population	new cases/10.000 urban population	total number of cases 98 until 1/8/98
Phnom Penh	700'000	650'000	11	1640
Kandal	855'000	90'000	99	2233
Takeo	700'000	85'000	52	592
KG Cham	1'500'000	150'000	29	810
KG Speu	490'000	25'000	56	304
KG Batambang*	648'000	100'000	9	316
TOTAL	4'893'000	1'100'000		

** Batambang was chosen because of its high case fatality rate*

% The Federation's Secretariat will procure medical supplies and intravenous fluids (based on WHO /MOH specifications) and will airlift the first consignment, sufficient for two months, to Phnom Penh. The consignment for the third month, October, will be sent by ship.

% Larvicide (Abate) will be procured and airlifted to Phnom Penh. Distribution and monitoring will be carried out by MOH/WHO.

% A Health Delegate will be recruited and based in Phnom Penh. He/she will assist CRC with medical logistics (distribution and monitoring system) for all priority provincial hospitals (Phnom Penh, Kandal, Kompong Cham, Takeo, Kompong Speu, Prey Veng, Kompong Chnang, Batambang, Banteay Meanchey, Kampot) and to convey the blood units to Kantha Bopha hospital, Phnom Penh.

% A first CBFA training workshop focusing on health education will be held, with support from the Japanese Red Cross.

% CRC, supported by the Federation, will immediately start to produce and distribute health education materials, drawing on existing material from MOH/WHO. Health education will be done through CRC volunteers in urban and semi-urban areas in the six priority provinces.

PHASE TWO (4th week August - 3rd week September):

% The Health Delegate will help CRC to design a comprehensive health education campaign including Radio / TV, and the production of mini-posters

% Clean up campaigns will begin in the priority areas.

PHASE THREE (3rd week September - mid December):

% The CBFA Dengue supplement will be designed, field tested in CBFA training courses and produced with the assistance of the Health Delegate and in co-operation with Kuala Lumpur based regional health delegate.

% CBFA courses will be intensified in the six priority provinces.

Capacity of the National Society •

The Cambodian Red Cross (CRC) has a dynamic and enthusiastic new President as well as a new management team (following the recent General Assembly). CRC has extensive emergency response experience and is currently working closely with UN and other agencies in relief operations. The professional logistics support required for this operation can be provided by the CRC Disaster Management Department.

The CRC Programme Department has extensive experience in volunteer training and co-operating closely with the health authorities and various agencies. It needs support in developing health education material and organising training in the most affected and vulnerable provinces.

Present Capacity of the Federation in Cambodia •

The Cambodian Delegation is currently composed only of a Head of Delegation; technical expertise is provided as needed by the RDKL. An experienced health delegate is requested to join the delegation for the duration of this operation.

A Disaster Preparedness delegate will join the Cambodia Delegation in early September to assist CRC in the implementation of its Disaster Preparedness, Mitigation and Relief Programme.

Evaluation •

Monitoring will be based on drug consumption records and hospital records. An evaluation will be conducted after three months, using the epidemiological data provided by WHO/MOH, hospital patient records and drug consumption records. The success of preventive measures will be evaluated by monitoring the behavioural changes of the population and participation in clean up campaigns through spot checks.

Budget Summary

See Annex 1 for details.

Conclusion

The epidemic has not yet reached its peak and the number of DHF cases is increasing on a daily basis. While the initial emergency phase of the operation will help to reduce mortality levels and the longer term phases will enhance the capacity of the medical institutions and the community, the Federation urgently needs funds to get the operation underway. Donors are therefore requested to respond to this Appeal as a matter of urgency.

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BUDGET SUMMARY

**APPEAL No. 24/98
IN CHF**

ANNEX 1

Cambodia: Dengue Haemorrhagic Fever Epidemic

Basic Drugs and medical supply (see attached list)	200'000
Abate (Temephos 1%) - 10 MT x CHF)	92'000
Transport, storage	155'000
TOTAL MEDICAL SUPPLIES	447'000

NEEDS IN CASH

Capital equipment (Computer equipment)	5'000
Vehicle costs / maintenance	3'000
Personnel (Health delegate / RD Delegates 5 months/del)	50'000
Personnel (volunteer/CRC staff Hqs & Province)	7'000
Training (CBFA - 5 courses x CHF 1.500)	8'000
Travel & communications	3'000
Information - (Leaflets/Posters/Newspaper add)	72'000
Publications (CBFA Manual)	3'000
Assessment/Monitoring	10'000
Administrative, office & general expenses	20'000
Secretariat operational support	30'000
TOTAL NEEDS IN CASH	211'000

TOTAL APPEAL	658'000
LESS CASH ON HAND	0
NET REQUEST	658'000

NB: All items will be purchased through the Federation Secretariat (Logistic Department)