

05-ARR 046



8 rue Saint Sabin  
75544 Paris cedex 11 France  
Tel +33 01 40 21 29 29  
Fax +33 01 48 06 68 68  
Telex (042) 214 360 F  
Minitel 3615 MSF  
Web www.msf.org  
e-Mail office@paris.msf.org

USAID  
Office of Financial Management  
Washington, DC 20523-7700  
USA

Paris, January the 18<sup>th</sup>, 1999

**Subject**      **Final narrative report**  
**Grant # AOT-G-00-98-00104-00**  
**UGANDA**

Dear Sir

Please find enclosed 1 copie of our final narrative report for the grant mentioned here above. It covers the period from May to October 1998.

As already mentioned in the mid-term report, by the time the funding was granted (05/13/1998), most of the expenses planned in the budget, especially the ones regarding objective 3 (to reduce mortality and morbidity among populations affected by cholera) had already been engaged by MSF.

Cholera epidemics was contained in Bundibugyo by June 98. It extended into the north-western district of Arua during the same period, where MSF team moved and implemented two CTCs in Omugo and in Arua.

The outbreak in the north was shortly contained as well, and apart from isolated cases we could consider that the epidemics was over by the end of July, or at least that the national medical structures were able to handle the situation. MSF provided support, in September and October when new cases appeared again, north of Arua district, where a small treatment center was settled.

For these reasons, all three objectives were achieved, but less than half of the total budget was actually spent including less than a third of the budget planned for cholera emergency intervention.

In the initial proposal, it was planned that the field coordinator, as well as some permanent national staff (drivers, radio operators and watchmen) would dedicate 50 % of their time to

A

objective 3, and 25 % to each of the two other objectives. The utilisation and costs of the cars would have been shared on the same basis.

We can consider that this was globally the case during the first period, from May 13 to July 20.

After July 20th, there were no more cholera intervention in Bundibugyo province, and these resources have been shared equally between objective 1 and 2.

All together, the general costs linked with the field coordinator, the mentioned national staff and the cars, as well as the field administrative costs, have therefore been affected, on the whole period, only by 20 % to objective 3, and equally by 40 % to each of objectives 1 and 2.

As shown in form 269A, the total amount of expenses is 203 367 USD, which should be reimbursed to Médecins Sans Frontières.

We are on your disposal if you need any other information.

Best regards,

Cécile AUJALEU  
Financial Department



PD-ABR-046

**MSF EMERGENCY INTERVENTION IN BUNDIBUGYO  
DISTRICT  
UGANDA**

**FINAL REPORT**  
**May 98 - October 98**

**MSF - FRANCE**

Dr Christophe Fournier

## EXECUTIVE SUMMARY

<b>Organization</b>	Medecins Sans Frontieres - France
<b>Mailing Address</b>	8, rue Saint Sabin 75011 Paris France
<b>Contact New York</b>	Antoine Gerard, Program Director Tel 212-679 68 00 Fax 212-679 70 16 E-mail Antoine_Gerard@NewYork.msf.org
<b>Contact Paris</b>	Martine Lochin, Desk Manager Tel 33-1-40 21 29 29 Fax 33-1-48 06 68 68 E-mail Martine_Lochin@Paris.msf.org
<b>Contact Kampala</b>	Christophe Fournier, Country Manager Tel 256-41 267 881 Fax 256-41 268 649 E-mail msffug@imul.com

Country Uganda  
Disaster Conflict, Cholera epidemic  
Area of activity Bundibugyo District  
Period of activity 5 5 months

## **Introduction**

The following document is the final report for the MSF emergency intervention in Bundibugyo district, western Uganda. The period initially planned for this intervention was 4 months (from May 15th to September 15th). It was then accepted a no-cost extension until October 31st. This report covers the whole period from May 15th to October 31st. The proposed objectives for this intervention were:

- # 1 To provide adequate medical care to the IDPs
- # 2 To provide water and sanitation to the IDPs
- # 3 To reduce the mortality and morbidity among population affected by cholera

As reported in the mid-term report, we thought the third objective was already fulfilled in July 99.

At that time, the cholera was actually over in Bundibugyo district. We also thought that the situation was the same in the other districts where the epidemic later spread. But we faced in Arua a second peak in September, and we therefore had to intervene again in some places over the district.

This was indeed the main reason why we asked for a 45 days no-cost extension. The other issue was to achieve the water and sanitation programme for the IDPs in Bundibugyo district. This was achieved by the end of September.

## **Objective # 1 To provide adequate medical care to the IDPs**

### **Intended beneficiaries**

They were originally around 20,000 (IDPs) in May 98. Although it was difficult to have a good follow-up of this data, due to constant population movement, we can assert that the total remaining IDPs population was less than 10,000, by the time we close the programme.

### **Intended results**

- On 14 PHUs in Bwamba county (Bundibugyo district), 4 were still closed. Due to the insecurity for Kasulenge (constant incidents since April '98) and Kayenge (occupied by UPDF), re-construction still on process (GTZ) in Mirambi, and the fourth one (Kakuka) was to re-open after October. In the meantime, we performed mobile clinics in that last location, twice a week. In Bundimulanga, the health unit was reconstructed by Action Aid. But despite that it was then functioning, it has always been very difficult to go there due to constant insecurity.

The other peripheral health units were open and supplied. This unquestionably helped for the resettlement of the people in their village of origin.

- The equipment of the PHUs with basic medical material was done in early September (please find below the details of this supply in « Details of the implementation »).

### Details of the implementation

- The involvement of the MSF physician in the Bundibugyo hospital ended with the come back of the expatriate pediatrician of World Harvest Mission
- Two expatriate nurses were dedicated to this first objective. One was working in the Bundibugyo sector, the other was in the Nyahuka sector. They provided training to the Community Health Workers (CHW) supervising the IDPs camps, on basic hygiene and health education. They also ensure the medical supervision of the functioning PHUs on a weekly basis, providing training and sensitization on epidemics (cholera, measles, dysentery) and risk factors prevention, with special strength on the morbidity and mortality data collection
- We provided a logistical support (cold chain) and 1 of the nurse has been fully dedicated to monitor the last re-inforcement for the immunization against measles. We also provided transport and a small daily allowance for the 6 local members of the vaccination team. The targeted population was around 10,000 (likely overestimated as part of the population of the Nyahuka area was at that time on the DRC side). 4,444 children were seen during 17 days, among the health units or during mobile sessions. 1,058 had already an immunisation card. The rest of the children were vaccinated. We can therefore estimate that the coverage was around 50%. Although it was only a re-inforcement of the vaccination and not a mass campaign, this last figure is quite modest
- We finally supplied all the PHUs with basic material. The list of this material was the following

<u>Kit Medical Equipment for each Health Unit</u>
---

- |  |
|--|
| <ul style="list-style-type: none"><li>• 2 drums for cotton and gauze 10 cm hx15cm diam</li><li>• 2 drums for cotton and gauze 15 cm hx15cm diam</li><li>• 2 scatole lisse 25x12cm</li><li>• 1 instrument tray 31cm x 21 cm</li><li>• 1 instrument tray 50 cm x 30 cm</li><li>• 1 gillipot 500ml</li><li>• 1 gillipot 300 ml</li><li>• 1 kidney dish small</li><li>• 1 cisor straight 13 cm</li><li>• 1 curved cisor 14 5 cm</li><li>• 2 artery forceps toothed 14cm</li><li>• 1 artery forceps 14 cm</li><li>• 1 dissecting forceps 14 cm</li><li>• 1 surgical scrub brush</li><li>• 2 scatole lisse 20 x 10 5 with in each one<ul style="list-style-type: none"><li>1 cisor straight 14cm</li><li>1 artery forceps 14 5cm</li><li>1 dissecting forceps 14 5cm</li></ul></li><li>• 1 steam sterilizer triple rack 0 032m3</li><li>• 1 kerosene stove</li><li>• 1 weigh scale for adult</li><li>• 1 weigh scale for infant</li><li>• 1 sphygmomanometer</li></ul> |
|--|

- 1 stethoscope

In the 2 PHUs (Nyahuka and Kakuka) where a midwife was working, we provided an additional midwife kit which was the following

**Kit Midwife**

- 1 plastic apron
- sterile gloves
- 1 stethoscope
- 1 brush nail scrubbing autoclavable
- 1 box glass with stainless steel 22x10x5cm
- 1 catheter female metal, 15 5cmFR12
- 2 artery forceps 14 cm
- 1 scissors 14 5 cm
- 1 suction pump manual

Those kits (general equipment and midwife) were provided to the in charge of the PHUs with official copy to local chairman and DMO. For the 4 remaining closed PHUs the material was stocked in the Bundibugyo Hospital warehouse, with official advice to local chairman, DMO and in charge of these PHUs

The following table summarizes that distribution

	Medical kit distributed and being used	Medical kit in Bundi hospital waiting for the re opening of the health center	Mid wife distributed and being used
Ntandi	yes		
Kikyo	yes		
Bubukwanga	yes		
Buhanda		yes	
Bundimulangya	yes		
Bundibugyo	yes		
Kayenge		yes	
Kasulenge		yes	
Kisubba	yes		
Nyahuka	yes		yes
Busunga	yes		
Mirambi		yes	
Butama	yes		
Kakuka	yes		yes

**Logistic plan**

To provide transport for expatriate and local staff, we used our existing vehicles and trucks

All procurements is done by the MSF logistics department in Kampala and purchased locally in Kampala

**Phase-out/ phase-over plan**

We handed over the whole management of the PHUs to the District Health

Authorities The management of the hospital is also under the supervision of the District health authorities, with the help of World Harvest Mission (Paediatrician) GTZ did not resume the presence of a surgent before July 97

### Conclusion

Except for the re-opening of 4 PHUs (depending on security situation), this first objective was achieved in late september, due to the resettlement in their villages of the major part of the IDPs

## **Objective # 2 To provide water and sanitation to the IDPs**

### Intended beneficiaries

See objective # 1

### Intended results

- Water and sanitation around the PHUs (including IDPs sites) (see the above table in details of the implementation )
- During the whole MSF presency, the CHWs recruited and trained by MSF logistic team, manage a weekly maintenance of the protected springs and latrines in the IDPs camps (see standards of delivery)
- Protection and evacuation system for each water point (26) of the Nyahuka water system
- Local maintenance of the Nyahuka water system will be supported by World Harvest Mission

### Details of the implementation

Water and sanitation on the IDPs camps

- The MSF logistic team (1 expat log + 7 local log) supervise the installations of the main IDPs camps, on a weekly basis, in coordination with the CHWs
- All the fonctionning PHUs were equipped with latrines and protected water point, except in the sites where the access was denied due to remaining insecurity

	Water	Latrines	Rubbis h pit	Inciner ator
Ntandi	2 Protected springs	2 in PHU and 26 in camp	yes	yes
Kikyo	Protected spring	2 in PHU and 90 in camp	yes	yes
Bubukwanga	Rain water tank + water point	15 in community	yes	yes
Buhanda	Protected spring	existing in community	no	no
Bundimulangya	spring	yes	no (insecu rity)	no (insecu rity)
Bundibugyo	12 water points in the community and 1000L bladder + water table in camp	80 in the community and 40 in camp	yes	yes
Kayenge (insecurity)	water point	2 in PHU	yes	yes
Kasulenge (insecurity)	?	?	?	?
Kisubba	water point	2 in PHU	yes	yes

Nyahuka	Protected spring and reparation of the water system for the community (26 water points) + 3 protected spring for the camp	12 in PHU + 250 in camp	yes	yes
Busunga	water point	2 in PHU	yes	yes
Mirambi (GTZ management)	?	?	?	?
Butama	2 protected springs	2 in PHU	yes	yes
Kakuka (insecurity)	1 protected spring	?	?	?

### **Proposed standard of delivery**

**-20 liters of water/person/day** This standard was satisfied in the main IDPs camps

Kikyo 2 protected springs

Coffe Union (Bundibugyo town) Bladder 15 m3, + water tables

Nyahuka water distribution system in place, and repared

**-1 latrine/ 25 persons** This standard was not satisfied in Coffee Union camp due to poor participation of the IDPs (large and constant movement)

Kikyo 2,100 IDPs, 90 latrines 1 latrine/23 persons

Nyahuka 5,700 IDPs, 250 latrines 1 latrine/23 persons

Coffee Union 1,700 IDPs, 40 latrines 1 latrine/ 42 5 persons

### **Phase-out/ phase-over plan**

We planned our financial support for the local teams of maintenance to be handed over and be paid by local tax system, before the end of our presency in the district This has been very difficult as the community still have poor willing to be involved in these expenditures World Harvest Mission take over the maintenance of the system in the Nyahuka sector

### **Conclusion**

This objective was also satisfied We needed an additionnal lenght of time, untill early october The hand over by the community might be difficult There is a general goodwill but still a lack of money Wolrd Harvest Mission will handle the situation in Nyahuka

**Objective # 3 To reduce the mortality and morbidity among population affected by cholera**

### **General description of the intervention**

The cholera outbreak started in Uganda in November/December with the first case confirmed in Kampala on December 9th (First peak observed late december) MSF was informed by the MOH on December 12 and began assistance at that time The government asked for technical

support in the management of the epidemic. As the epidemic spread to new districts, all the 3 sections of MSF (French, Dutch and Swiss) working in Uganda were involved. The western and eastern districts were affected in March (second peak late March), and later began moving north affecting the northwest and northeastern districts. The French section of MSF was already working in the district of Bundibugyo, and therefore managed to support the health district services from the beginning of the outbreak. The epidemic later began moving north affecting the northwest and northeastern districts. We were also already working in some of these districts: Arua, Adjumani, Moyo (sleeping sickness control program). We therefore asked and obtained from OFDA to extend the area of implementation for this third objective to the concerned districts. In June, the number of new cases dramatically decreased all over the country, and in July we thought the epidemic was apparently over. But we had to face another peak in September in places like Arua district. At the end of the period considered in this proposal, the situation was newly quite, although some cases were still recorded in very isolated sites.

#### **Area of implementation and Intended beneficiaries**

The country of Uganda is divided into 45 districts. At this time, at least 37 have been affected by cholera. MSF-F led interventions in the following districts:

Bundibugyo (Bwamba county)	120,000
Arua	815,000
Adjumani	200,000
Moyo	150,000

#### **Intended results**

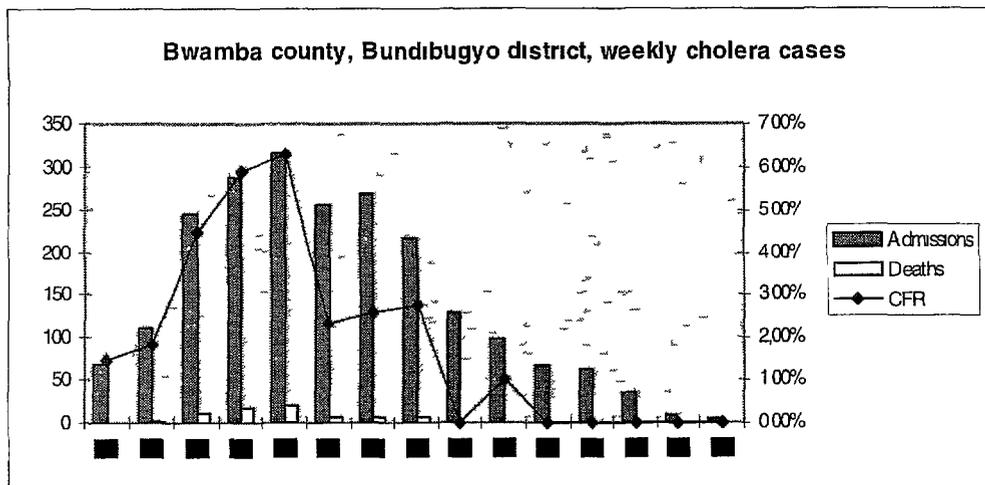
##### **1 Provide curative care to cholera patients**

- Case fatality rate (CFR) < 2 % in the CTCs

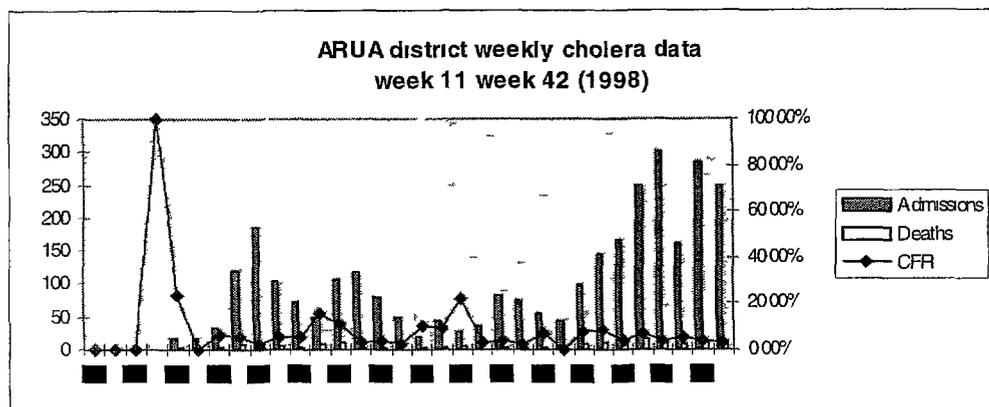
This figure was reached only on week 17 in Bundibugyo and in Nyahuka CTCs when we decided to manage completely the treatment facilities (see graphs and details on the implementation plan). In Arua district the figure was respected since the beginning in Omugo and Oli CTC. We did not build any other CTC during the second peak of the epidemic in Arua district (we just give a technical advise and help as the district health team had been already trained by our medical coordinator from May to July).

CFR < 5 % in the districts where MSF supports existing health facilities

For the same reason mentioned above this figure was reached only in week 17 in Bundibugyo district.



In Arua district, the CFR hovered around 5 % (5.35% for 2992 cases by week 42) with many of the deaths occurring at home and in the unsafe areas (Aringa county) where the district health teams were very reluctant to go. However, despite the importance of the second peak, these teams usually manage the patients to avoid big mortality rates. Between others, one of the main reasons might have been the emergency preparedness with special emphasis on case management that the MSF medical coordinator provided to the in-charges in the PHUs during May, June and the first half of July.



The following objectives were also satisfied in the CTCs since week 17 in Bundibugyo district with the increase of the expatriate team and the total control of the treatment facilities and since the real beginning of our intervention in Arua district (week 20)

- Length of hospitalisation < 4 days
- Re-admission rate < 5 %
- Case management according WHO/MSF guidelines
- Sufficient medical and non medical supplies available (one week consumption minimum)
- Sufficient national staff working with good quality of treatment of cholera patients
- Sufficient knowledge by local health authorities and national staff on running the centre

Note the OFDA present funding started on week 20

## 2 Provide preventive services to districts with respect to cholera

The following objectives were also filled (see details on the implementation)

- Staff training on cholera management in health facilities where significant outbreak is present prior to or within 1 week of outbreak starting in priority districts
- Preventative information and chlorination provided in at least 1 treatment site and health units where an outbreak exists
- Sufficient emergency medical and non medical stock available within the district (treatment for 20 cases)

## 3 Continue supporting the MoH in surveillance in districts affected by cholera

These objectives were satisfied since the beginning of our intervention until the complete handover to the medical authorities in the concerned districts

- Receiving reliable data on daily basis by the data collectors/DMOs and mobile teams
- Daily and weekly analysis and interpretation of the data (include mapping and epidemic curves CFR's and attack rates)

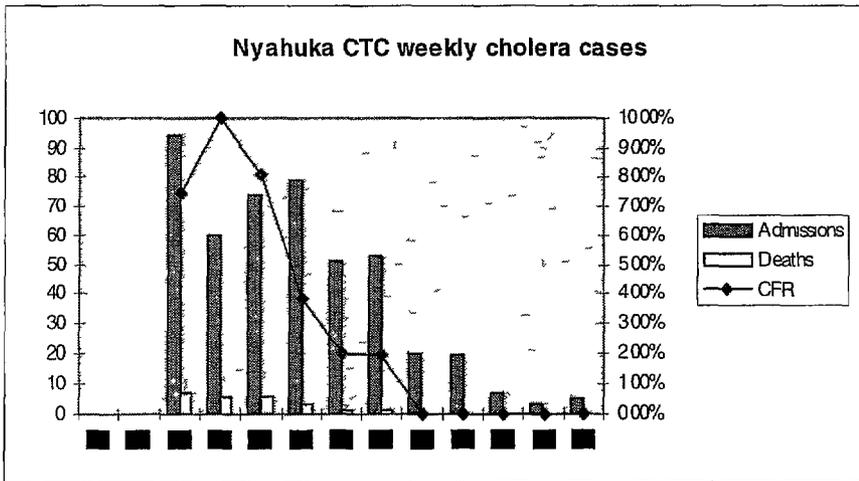
## Details of the implementation plan

### 1 Bundibugyo district

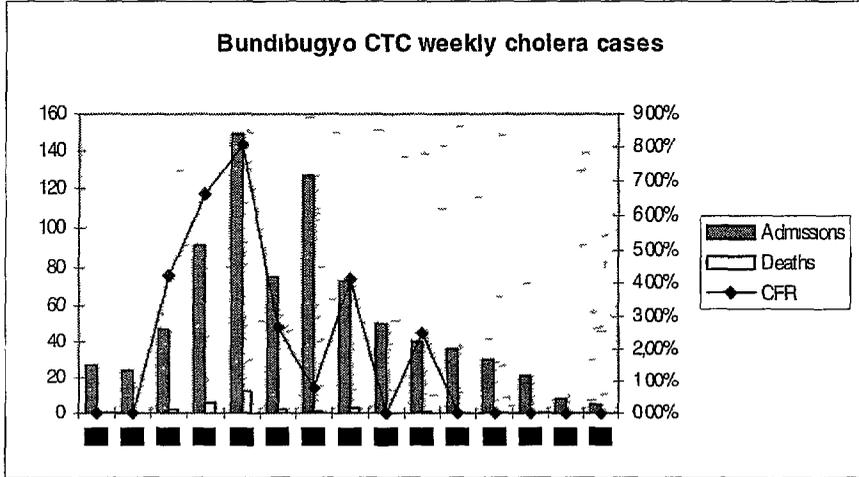
The MSF team working in Bundibugyo was alerted to a cholera epidemic in the first week of March, 1998 and came to the assistance of the district health authorities by setting up 2 CTCs (Cholera Treatment Centers) and 3 lazarets in the most affected areas in Bwamba county Bundibugyo. The peak was in week 15 and a steady decline in the number of cases was then observed until the handover to the local authorities in weeks 24 and 25. MSF was forced to completely manage the treatment facilities mentioned by increasing the expatriate presence since weeks 16 and 17 (OFDA funding started officially week 20). We also provided medical and logistical supplies and even payment of the local staff to ensure a pertinent emergency level response. This level of intervention was required due to the unacceptable CFR noted prior to MSF involvement, mainly caused by lack of staff, inadequate training and therefore poor case management.

Out of the 3 lazarret units (24 hour IV treatment center with less than 10 beds) one was closed shortly after its initiation due to various problems with management (Hoima). The other two (Bubukawanga and Ntandi) were operational for 13 weeks and then closed after the incidence in the area had decreased dramatically.

The Nyahuka CTC was set up in the government dispensary and supervised by an MSF expatriate. The structure was handed over in week 23.

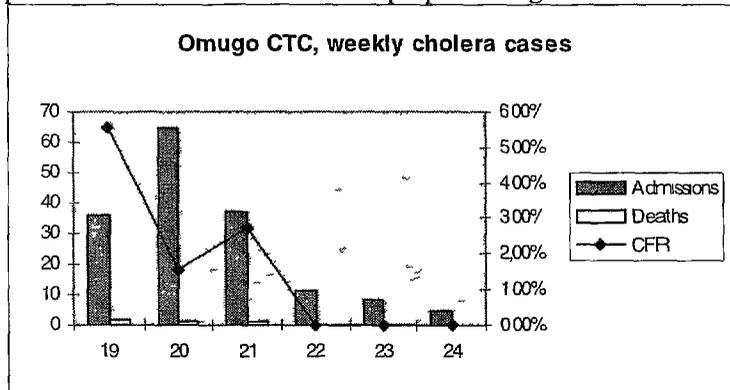


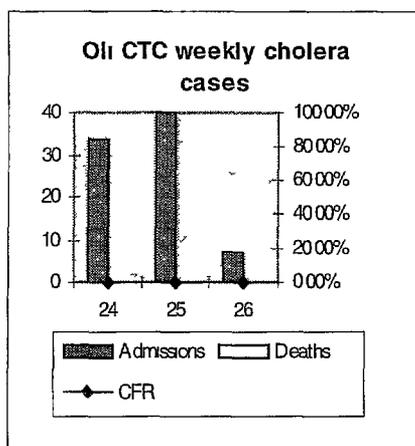
The bundibugyo CTC was situated in the male medical ward within the government hospital. The full time presence of a medical expatriate since week 17 has a dramatic effect on the CFR (Case Fatality Rate). The CTC was handed over by MSF in week 25.



## 2 Arua district

In the first week of May (week 19), the MSF team managing the Sleeping Sickness hospital in Omugo was informed of a sudden increase in the number of diarrheal cases seen at the government dispensary in Omugo. We then assumed care of the cases and a CTC was opened in an empty wing of the SS hospital. An exploratory mission was done at this time by the new medical coordinator in conjunction with the district health authorities and the outbreak was found to be confined to one county of the district, Terego county. The CTC remained operational for a one month period during which the staff from the dispensary supplemented the Sleeping Sickness hospital staff and were trained in the proper management of cholera cases.





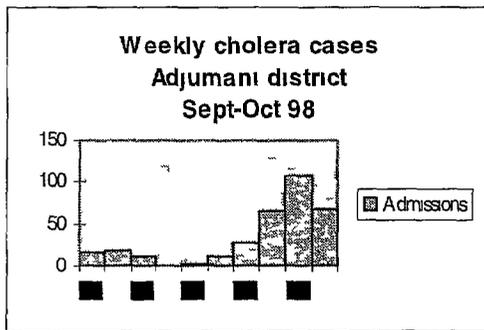
All the activities undertaken in the district were in close collaboration with the DMO MSF was acting as technical support and providing few medical and logistical supplies. There were only a few sporadic unconfirmed cases reported from other counties until the southern county of Madi began to consistently see an increase in suspect cholera cases which was eventually confirmed by laboratory. The MSF medical-coordinator ran a mobile team to further assist the district with surveillance and also provided on the site training to the peripheral health units managing the cases in the south of the district. Unexpectedly, there was an outbreak in Arua municipality over the week-end of week 23 with some 62 suspect cases treated in the OPD of the government hospital with a CFR of 9.7%. MSF was requested to supervise a CTC set-up in one of the municipality health centers Oli CTC. We quickly organised the center and trained the staff. The CTC was operational for a period of 3 ½ weeks but only saw a total of 77 cases, with a CFR of zero.

It then became apparent that the district was able to manage the epidemic, with the existing infrastructure and with an adequate buffer stock under the supervision of the DMO. When the second peak occurred, we only gave technical assistance to the district, in terms of case management training, assessment and emergency supply. The rest of the control activities were then undertaken by the district health teams.

### 3 Adjumani and Moyo districts

The MSF nurse in charge of the Sleeping Sickness program in that area began to alert the district health officials about the proximity of the cholera epidemic to their borders in late April/early May. The required level of emergency preparedness and the basics of management were discussed with the DMOs of both districts. A mobile team with a nurse was later sent to the districts for on-site training in surveillance, case definition and case management. The medical coordinator later finished the training of the PHUs which were not reached in the first session and accompanied the DMO of Moyo to investigate in the villages the reported new cases.

Note these two districts were at high risk due to the insecurity in certain sections (which rendered a few PHUs inaccessible for the training sessions), the high number of refugees estimated as 30,000 in settlements in Moyo and over 60,000 in Adjumani, and the lack of trained health workers in the PHUs. Thus, the assistance given for emergency preparedness was essential for these districts through the interactions with the health officials, the training sessions and distribution of teaching materials for the health workers and also the transport of medical supplies from National Medical Stores in Entebbe.



In September and October, we observed a small cholera outbreak in Adjumani and Moyo districts. A few places were affected. The district health services were already prepared to face the situation and they had stock supply. So we did not have to intervene.

#### **Proposed standard of delivery**

In each CTC built by MSF in Bundibugyo district and Arua district, the following standards were respected:

- 50 liters of water/patient/day
- 1 latrine/25 patients

#### **Logistics plan**

To provide transport for expatriate and local staff and for medical and non-medical supplies, we used our existing vehicles and trucks.

To build the CTCs and other advanced health structures, huge amount of materials have been used (see BUDGET).

All procurements were done by the MSF logistics department in Kampala. The objective was to purchase locally in Uganda or as much as possible but in some items proved to be cheaper or better quality overseas, the MSF Logistic Department therefore was requested to procure from Bordeaux (France).

#### **Length of time needed to fully satisfy the objective**

With the rapid decrease of the epidemic since late May, we managed to hand over our activities and fully satisfy the objective within 2 months.

#### **Phase-out/ phase-over plan**

Since the number of daily admitted cases were under 5/day in a CTC during a stable period, we handed over the logistical and medical management of the concerned structure to the DMO. The expats teams were then directed towards other areas with respect of the 3 main points of our objective.

The Nyahuka CTC was handed over week 23 after an adequate monitoring period with the DMO (District Medical Officer) choosing to handle the few remaining cases in an isolation area in the dispensary and the large structure was disbanded.

After the handover of Bundibugyo CTC in week 25, the hospital superintendent decided to re-open the ward for medical patients and kept a small isolation area for suspect cholera patients. After the closing of the Omugo CTC, the dispensary was assisted with the designation and equipment of an isolation area to handle the few new cases still occurring.

Once the usual health structures were reintegrated, the material (tents, plastic sheeting, adduction material) were dismantled, and the area cleaned and sterilized. The District health authorities were then able to manage the situation with their usual staff and facilities, as we could see when in September and October when the second peak happened in Arua district and reached the Moyo and Adjumani districts.

### **Conclusion**

With the delay in obtaining the funding for this objective (peak week 15 in Bundibugyo, peak week 19 in Arua district, proposal accepted week 20), a great part of our activities had already started before the beginning of the period considered by this report. Then unexpectedly the incidence of the disease declined in all the country. We then managed to reduce progressively our teams: after 1 month, the medical doctor, 2 nurses and 2 logisticians were no longer useful in Bundibugyo, and after 2 months, we decided to remove our medical coordinator from the north (Arua, Moyo, Adjumani) and to put a momentary end on our activities with respect to cholera. We only resume technical advice and assessment, as well as emergency supply, during the second peak in the north (Sept-Oct 98).

The several goals and results intended in this objective were fully satisfied.

### **GENERAL CONCLUSION**

Out of the 3 initial objectives which are considered in the current proposal, we have been able to satisfy them all. We had to reduce our expatriate team working on objective #3 (cholera) in June due to the decrease of new cases observed among the districts where we were present. After 2 months, our team was only working on the two first objectives. With the re-settlement of the IDPs in their village of origin, and the re-opening and functioning of most of the PHUs in Bwamba county (Bundibugyo district), we also managed to reduce our medical team progressively. We ended and leave the place in early October. Our remaining activities were then only technical supervision and emergency supply for the northern cholera outbreaks until the end of the period considered in the proposal: October 31st.