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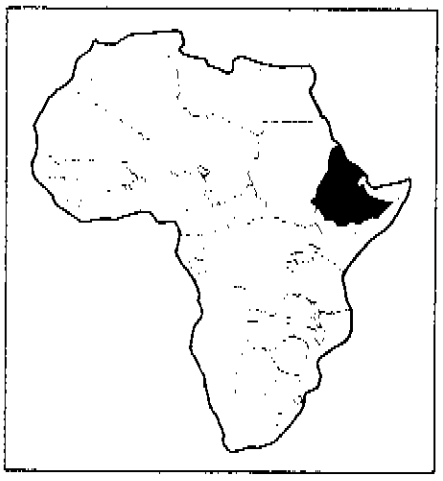
HEALTH CONDITIONS IN THE ETHIOPIA DROUGHT EMERGENCY

REPORT OF THE WHO TECHNICAL TEAM



13 – 23 DECEMBER 1984

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WHO 85003

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WHO TECHNICAL TEAM FOR THE ETHIOPIA DROUGHT EMERGENCY

13 - 23 December 1984

1. PREAMBLE

1.1 Purpose of the Mission

Sub-Saharan Africa is currently suffering from extensive drought. In Ethiopia the climatic and crop conditions have been steadily deteriorating over the past 10 years and the failure of rain in the 1982-83 season proved catastrophic for the Northern Regions. This year again no rain has fallen and the drought has extended to the South and Southeast, creating severe famine conditions in 12 of the 14 administrative regions of the country, involving some 7.7 million people, out of an estimated population of 42 million.

The national Relief and Rehabilitation Commission (RRC), which had initially tried to cope with the situation, announced in March 1984 that massive external aid was urgently needed for such a disaster of unprecedented scale.

Soon after the UN Secretary General had taken steps to deal with the general drought, economic and social crisis in Africa, he designated a special representative for the specific drought emergency in Ethiopia. On its part the World Health Organization has been responding to the worsening situation by strengthening the country's primary health care base. In face of the mounting emergency and the massive health needs, in November WHO further proposed - and the Minister of Health agreed - that a special emergency technical team visit the country to study the disaster situation and define the appropriate health measures to be taken.

The Report presented herewith outlines the Team's evaluation of the health situation, assessment of nutritional deficiencies, estimate of immediate needs, planning of relief measures, and recommendations for action in specific and health-related areas. The sum of US$15.1 million will be needed to meet the health needs of Ethiopia during 1985.

1.2 Terms of Reference

1. Assess the negative effects of the drought on the health of the population involved.
2. Ascertain the extent of malnutrition and the medical implications of implications of insufficient food.
3. Establish practical medical, sanitary and nutritional guidelines aimed at improving the health and nutrition status of of the affected population being assisted by the government and various agencies.
4. Make other necessary recommendations for coordinated health action in the drought affected areas.

1.3 Participants

Coordinator of Mission

Dr S.W.A. Gunn, Emergency relief operations, WHO

Composition of the Team

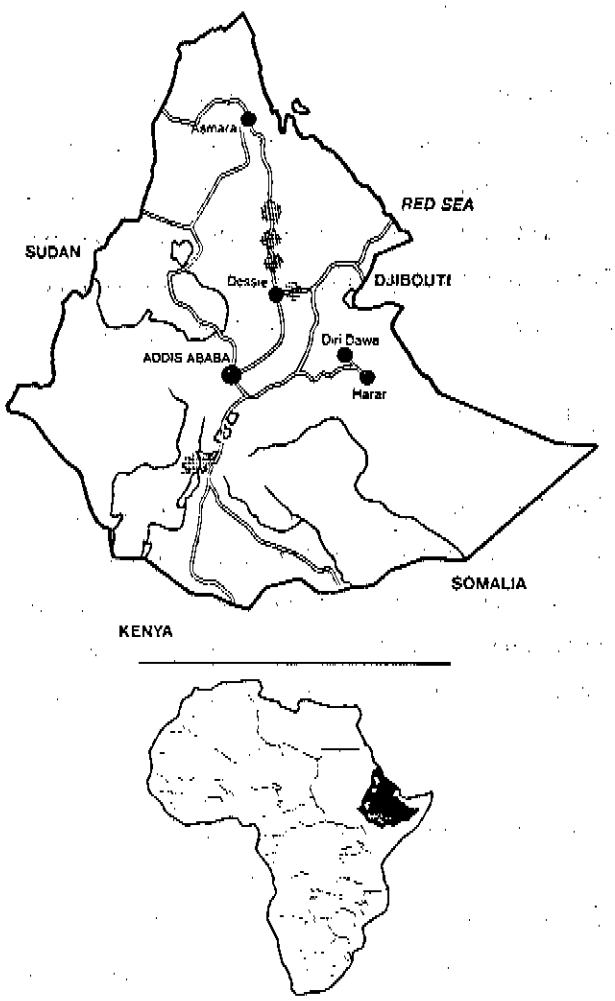
Dr M. Demisse, WHO National Programme Coordinator, Ethiopia
Dr W. Keller, Nutrition
Dr A. L. Rangaraj, Public health
Ms S. Simmonds, Primary health care.

1.4 Acknowledgement

The Team registers its grateful appreciation of the Ministry of Health for the facilities extended to its members and the valuable briefing on the government's plans to combat the ill effects of the drought. Thanks are also due to the office of the Secretary General's Representative and the Country Representatives of UNDP, UNICEF and UNHCR for sharing with us their perceptions of the prevailing famine conditions and for their readiness to collaborate in WHO's proposed action. The assistance of the Ethiopian Red Cross, of officials of the

Relief and Rehabilitation Commission and of the health personnel of Non-Governmental Organizations is also much appreciated. Special gratitude is expressed to the WHO National Programme Coordinator in Ethiopia for all the local arrangements and guidance which contributed to the success of our work under difficult conditions.

ETHIOPIA



2. THE DROUGHT SITUATION IN ETHIOPIA

2.1 Background

Since the 1960s Ethiopia has been faced with endemic and acute problems of food shortage mainly due to drought and weather conditions. Following three successive years of rain failure over many parts of the country, the drought situation of 1984 has been the worst for many years. The obvious outcome of this has been recurring shortfalls in food production and food availability, bringing hunger and starvation to several million people.

The Relief and Rehabilitation Commission (RRC) has a mandate to monitor the food situation in Ethiopia and to warn of impending food shortages and their effects. In an attempt to deal with the serious current drought situation on 24 March 1984 the Government set up a Ministerial Committee to supervise the relief and rehabilitation efforts at the national level and to give further support to RRC.

2.2 Needs and Relief Measures

The RRC has been coordinating the supply of food, medicines and other needed items to the affected population. The country's resources being, however, limited, foreign assistance has had to be sought. International response has been considerable but it remains far short of the current and projected needs, at present meeting only some 30% of the affected population.

The estimated population of Ethiopia is 42 million and the number of people needing assistance is curently about 7.75 million, located in twelve of the fourteen administrative regions of the country. Details concerning the affected population, age, composition and food assistance required (which now amounts to 1.5 million tons) are shown in Annexes I, II and III.

The RRC reaches the affected populations through various centres and shelters scattered around the seriously involved areas of each region. At present there are 195 distribution centres, 48 shelters and 41 intensive feeding centres for malnourished children and lactating mothers. The activities carried out in feeding centres are performed in close cooperation with voluntary agencies.

Since the crop production forecast after the current harvest predicts further deterioration, new distribution centres and shelters will be needed, though it is hard at this moment to quantify the actual number.

2.3 Non-Governmental Organizations

In addition to the RRC's emergency relief activities, over 30 non-governmental organizations are active in various ways. Some are involved in distributing food items including grain while others undertake medical treatment and nutritional activities in feeding centres and shelters. Yet others are concerned with water supply, sanitation and basic appropriate technology. Some donors have provided medical personnel.

2.4 Provision of medical supplies and personnel

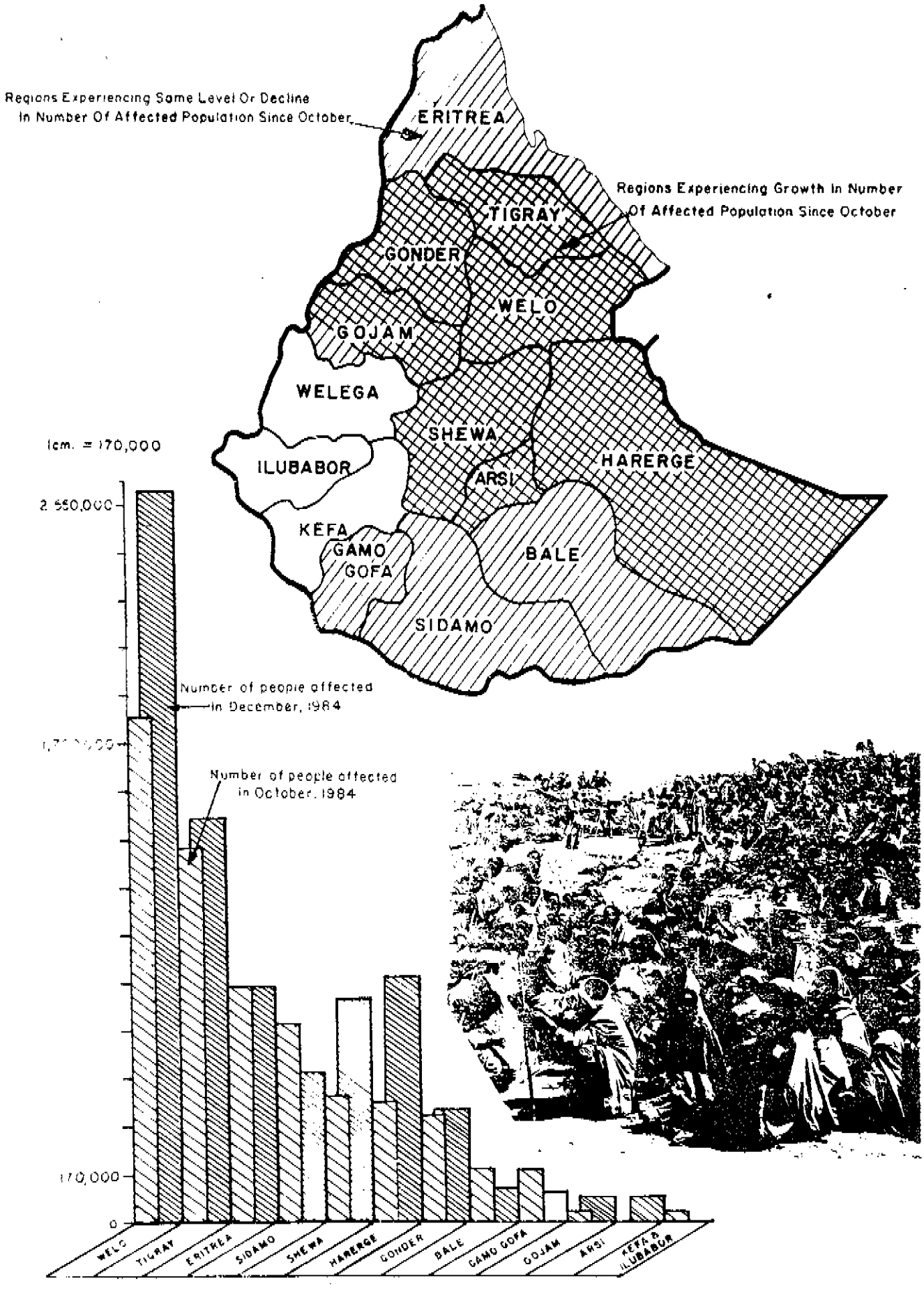
In regard to health services, in addition to national medical staff, a total of 28 expatriate doctors, 73 nurses, 11 nutritionists and 19 support staff are currently assisting the affected persons. The mission believes that in view of the deteriorating situation there is still need for more mobile expatriate doctors and nurses. Annex IV gives details on the expatriate medical staff currently involved in relief action.

In order to alleviate the chronic shortage of trained health manpower some donors have sent medical personnel, together with 1298 MT of drugs and hospital supplies. The technical and material assistance thus received is being utilized in the most critical areas.

2.5 Provision of water supply

The persistent drought situation has also affected surface and underground water sources; rivers, permanent springs, lakes and half-full hand-dug wells have dried up and their water yielding capacity has drastically diminished. Consequently, people in drought affected areas are forced to walk long distances to find drinking water for human and animal consumption. It was with this in mind that water supply and mobile water purification equipment was identified as one of the priority areas in which international assistance is required (Annex V). Although some donors and UNICEF have provided such equipment, the needs in general remain great.

GROWTH AND DIFFERENCES IN AFFECTED POPULATION SINCE OCTOBER 1984, BY REGION



3. EFFECTS OF DROUGHT ON THE HEALTH OF THE AFFECTED POPULATION

3.1 Demographic Data and Vital Statistics

The total population of Ethiopia is estimated at 42 million. About 90 % live in rural areas and some 95 % of these are engaged in agriculture and animal husbandry. The male-female ratio is 103 : 100 and age distribution figures indicate that 45.7 % of the population is below the age of 15 years, while those within the economically productive age group (15 - 59 years) represent only 50 %. Only 3.9 % of the people reach above 60 years of age.

Literacy is still low. The crude birth rate is 45 per thousand and the crude death rate 20 per thousand persons.

The following rates give a general idea of the health status, which is poor:

infant mortality rate - estimated at 155/1000

child mortality rate (children who die before reaching the fifth birthday) - estimated at 247/1000

maternal mortality rate (maternal deaths associated with pregnancy) - estimated at 20/1000

life expectancy is estimated at about 43 years.

3.2 Major Health Problems in Ethiopia (including normal times)

About 80 % of the diseases in Ethiopia are communicable diseases which can be prevented by the technically simple measures of ensuring clean water sources and distribution, improving excreta disposal, controlling insect vectors, providing the basic vaccinations, besides changing the health habits of the people, promoting personal hygiene, and proper child feeding practices.

The following are the major causes of morbidity:

3.2.1 Malaria

Even though a mountainous country, about 75 % of Ethiopia is malarious; it is endemic in areas below the altitude of 1600 m. It is probably the commonest among the infectious diseases, with a prevalence rate of about 30 %.

3.2.2 Tuberculosis

Tuberculosis is another major health problem in the country. A modest estimate indicates the overall prevalence of the disease (all forms) in the whole country to be at 3 %.

3.2.3 Leprosy

Leprosy is endemic in Ethiopia and the prevalence rate is estimated at 5/1000.

3.2.4 Schistosomiasis

Schistosomiasis is believed to be widely spread in Ethiopia, the northern provinces being the most affected. Its prevalence varies from 20 % to 80 % in different areas.

3.2.5 Yellow Fever

Yellow Fever was first confirmed in Ethiopia in 1951. Since then three epidemics have occurred. Five south-eastern administrative regions are at risk and there are indications suggesting that the whole of the rift valley can be considered at risk.

3.2.6 Trachoma

Overall prevalence of trachoma among the total population is 20 %. Special survey reports indicate that according to different

areas, prevalence of trachoma among school children may vary from 10 % to 80 %.

3.2.7 Other Diseases

Other conditions of importance that appear in selected areas include trypanosomiasis, leishmaniasis, onchocerciasis , and those diseases that usually cause localised epidemics, such as typhus, relapsing fever and typhoid. Venereal diseases are widespread.

3.2.8 Most of the above-mentioned diseases are subject to increase in times of drought and diminished resistance.

3.3 Nutritional Problems

Even in normal times malnutrition has been the second major health problem in Ethiopia, next only to communicable diseases. Such malnutrition has been primarily due to protein energy deficiencies. Previous studies have shown that 10 % of the population suffered from extreme under-nourishment.

Prevalence of vitamin C deficiency is over 10 %, and rickets have been found among 30 % and more of infants. Endemic goitre is another important disease which, although restricted to certain areas, is believed to involve 2 % of males and 9 % of females.

Epidemics of malnutrition are not uncommon and indeed have been occurring quite frequently. The great famine of 1973/74 that started in Wollo and Tigrai and later spread to almost all regions of Ethiopia claimed more than 200,000 human lives and caused much morbidity.

4. FINDINGS OF THE WHO TECHNICAL TEAM

4.1 The WHO Technical Team visited one of the shelter areas organized by the Ethiopian Red Cross in Bati. The team also scrutinized a number of medical reports received from other shelters.

4.1.1 Bati Shelter

The town of Bati is one of the six woredas (Sub-districts) of Kalu awraja (district) in Wollo Region. It is located on the main route to Assab Port, 420 km from Addis Ababa. It is here that the Ethiopian Red Cross Society has embarked on a big relief operation.

Here 90 percent of the people are farmers - as everywhere else in Ethiopia. There has been no rain for the last 12 months and the result has been total failure of the crops. In the lowlands the wells and pastures have dried up and, without grazing areas, the cattle have died in thousands. A record from Bati Administrative Office indicates that 16,000 cattles perished because of famine in the period May - November 1984.

Having lost their grazing grounds and their cattle, and without any food for themselves, the villagers have started to move from the interior towards the towns, seeking food. The nomadic people have also come to the towns for the same purpose. The resultant congestion of the urban areas and the compounded problems of food supply are evident.

4.1.2 Camp Organization

There were 22,164 people in the shelter at the time of the Team's visit in December. Most of them were housed in tents and some in corrugated iron sheds. The camp started with 3,200 people on 22 October 1984 and the number has gone on increasing with a continuous stream of new entrants.

Bati camp (or shelter) is run by the Ethiopian Red Cross with the aid of the League of Red Cross and Red Crescent Societies. Grain is being distributed to families; a supplementary feeding programme is run for the most affected groups, i.e. the children and pregnant and lactating mothers. The sick are cared for in the improvised camp hospital.

4.1.3 Camp findings

From the records of the camp and by observation our findings were as follows:

1. The camp was very overcrowded due to the shortage of tents.
2. More than 3,500 people have died in the camp since it started; a mortality of 80 - 100 a day. Records show that during the period 22 October - 9 December 1984 alone the deaths amounted to 2,577, over 70 % being among children below 15 years. (Since the Team's visit an improvement in the death rate has been reported.)
3. On an average 500 people are treated as outpatients daily and 200 are kept in the hospital.
4. There was an outbreak of meningococcal meningitis in the camps recently but it was contained by immunization of the contacts. The louse-borne relapsing fever cases were being deloused and treated in isolation tents.
5. An immunization programme is being conducted but some mothers are reluctant to have their children vaccinated.
6. Screening of the new entrants for disease and malnutrition is being done, followed by house-to-house visiting on a regular basis.
7. In the last 30 days 106 children were born in the delivery section of the shelter.

8. Water supply was adequate; kitchen sanitation was satisfactory. Trench latrines are being used. The surroundings were fairly clean.

4.1.4 Age Composition of the Camp Population

A division of the camp population of 22,164 into only children and adults by sex is shown in the records, so it was not possible to calculate percentages by specific age groups.

On the day of the Team's visit the Bati shelter population was as follows:

Table 1: Shelter population by age

	Male	Fem.	Total	%
Children under 15 years	7,141	7,206	14,347	64%
Adults	2,189	5,628	7,817	36%
Total	9,330	12,834	22,164	100%

Among the adults, the low proportion of the males is to be noted. Either the majority have died, or have more likely stayed behind to tend their cattle or look after their households and other activities.

4.1.5 Weight/Height

It was not possible to carry out a systematic nutritional survey during our visit, but from sample observations we noted that among the large number of severely malnourished persons, marasmus was predominant. Kwashiorkor also occurred to a considerable extent. Even among adults on admission hunger oedema has been observed.

According to the attending nurses who screen the children for the feeding programme, 60 % of those under 5 years were below the lower limit of acceptable weight for height. On the day of our visit, out of a total of 14,347 children under 5 years, 5,937 (41 %) were on the feeding programme . See Table 2 for data on per capita daily ration by age group:

Table 2 : Per-Capita Daily Ration by Age Group

Age Group	Per Capita Daily Ration (gms)		
	Grain	Suppl. food	Veg.butter oil
0 - 4	-	100	-
5 - 14	350	100	-
above 14	700	-	20

4.1.6 Mortality/Morbidity Rates

Again due to lack of information on age, because of the base population being in a constant state of flux, no age-specific or cause-specific mortality or morbidity rates could be calculated.

1. The overall crude death rate amounts to 180 %, yet despite this high rate of depletion of the population, the camp population has increased due to the continuing stream of new entrants (due to enlargement of affected areas). (See map.)

2. The morbidity or disease rates can only be termed as extremely high, with as many as 500 outpatients, 200

inpatients, and 2,312 children on the supplementary and therapeutic feeding programme, on the day of our visit. Besides, in the camp there were a number of measles and other minor fever cases that were not brought into the hospital due, we were told, to some superstitious beliefs. All included it was estimated that prevalence of morbidity was around 25 %; i.e. one in four was ill.

3. The common causes of morbidity were malaria, pneumonia, diarrhoea and dehydration, malnutrition, measles and relapsing fever.

4.1.7 Orphanage

Two tents were made available for children below 15 years who had lost their parents.

4.2 Data from a Few Other Camps

The reports from shelters in different parts of the country were scrutinized. The formats and schedules were all varying and not all the details were available. There is an imperative need for coordinated, uniform, standard reporting system.

However, the overall findings in all the shelters were the same, i.e., the excessively high mortality, the widespread morbidity and the underlying causes for these being malnutrition and diarrhoea, measles, pneumonia, malaria, relapsing fever, skin and eye conditions. To illustrate this some data are presented below:

4.2.1 Korem Shelter - from a monthly report

a) diagnosis for admitted cases: (inpatients, total 349)

Diarrhoeas	- 115
Relapsing Fever	- 98

Malnutrition	-	61
Upper respiratory infections	-	41
Fevers (P.U.O.)	-	13
Neurological conditions	-	11
Hepatitis	-	4
Anaemia	-	2
Tuberculosis	-	1
Chickenpox	-	1
Diabetes	-	1
Arthritis	-	1

b) causes of death: (167)

Diarrhoeas	-	72
Malnutrition	-	56
Upper respiratory infections	-	19
P.U.O.(Fevers)	-	12
Hepatitis	-	3
Anaemia	-	2
Tuberculosis	-	1
Neurology	-	1
Septic wound	-	1

c) Average stay of patients in the hospital was calculated to be 9.5 days.

d) Lethality: The severe state of ill health among the Korem camp entrants can be seen by the fact that in one month:

43 people died within 24 hours of admission;

21 within three days;

54 after three days.

4.2.2 In another clinic in the same shelter, there were 2,126 outpatients with an age composition as in Table 3.

4.2.3 See also Tadela resettlement area, page 28.

Table 3: Clinic Outpatients

Age	Male	Fem.	Total	%
0 - 5 yrs	639	578	1,217	57%
6 -18 "	178	147	325	15%
18 up "	200	384	584	28%
Total	1,017	1,109	2,126	100%

a) Here the first ten common causes of morbidity were:

1. Measles
2. Diarrhoea
3. Malnutrition
4. Unspecified fevers
5. Pneumonia
6. Skin infection
7. Genito-urinary infection
8. Malaria
9. Eye infection
10. Rheumatism

b) These diseases prevail in all the camps, though the order varies from camp to camp.

5. THE EXTENT OF MALNUTRITION AND THE MEDICAL IMPLICATIONS OF INSUFFICIENT FOOD

5.1 The prevalence of protein-energy malnutrition is relatively well documented in small children. The table below summarizes the results obtained by the Ethiopian Nutrition Institue (ENI) in two regions, Wollo in the north and Gamu Gofa in the south.

Table 4 : Distribution of weight-for-height compared to that of a western reference population. Children of 105 cm height or less.

Weight, height group	Western ref. %	Gamu Gofa %	Wollo %	Remarks
100-109	32	5	1	
90-99	32	22	8	
80-89	15	42	31	
70-79	3	25	35	seriously malnourished
below 70	0	5	25	at risk of death

In October 1984 there was 60 % malnutrition in Wollo. In the southern regions of Gamu Gofa it was less (30 %), though even here deaths from starvation were reported. Of the 60 % malnourished young children in Wollo 25 % must be considered as being at immediate risk of death through further emaciation or intercurrent infection.

5.2 No objective inforamtion was available about conditions in older children and adults. However, a report of the 1974 famine in Wollo gives almost the same prevalence (70 %) for young children as in 1984, and a corresponding prevalence of 72 % for children from 5 to 14 years of age.

It must be assumed that older children and adults are as much affected as the young children. Casual reports of adult kwashiorkor and death are common.

Reports of malnutrition are mostly from communities along the major roads. However, a small study by ENI in locations away from a road showed prevalences that were not statistically different from those in more accessible settlements.

At least in Wollo Region the situation has clearly reached catastrophic proportions as indicated by the high mortality figures in the shelters. The population depends for survival almost entirely on the regularly distributed food which at present reaches 2.5 million people, or about one third of the affected population. Since government food stocks are exhausted any major disruption in the external supply of food will lead to starvation deaths on a massive scale. At present pledges for food aid cover no more than 15 % of the estimated needs for the next year.

5.3 In addition to energy-protein malnutrition, vitamin deficienes are gaining importance. Xerophthalmia and blindness due to deficiency in vitamin A are of growing concern in the shelter populations. Cases of beriberi (deficiency of vitamin B_1) are found especially in men. As the shelters become more established and standardized reporting begins to function one will be in a better position to assess the extent of these specific nutritional problems. (See Annexes XII, XIII, XIV, XV.)

The prolonged undernutrition in the population and the slow and continuous loss of body substance have already greatly reduced the defence mechanisms against infection. This is reflected in the high mortality and morbidity encountered in the shelters where even normally trivial infections have become life-threatening.

The daily food ration for an adult foresees 500 g. wheat or other cereal, 50 g. fat or oil and 50 g. sugar, and provides 2300 calories and adequate amounts of protein. Energy and protein contents of this ration

will allow the conservation of body substance and even a slow restitution of losses provided no major physical exertion is required. In the shelter at Bati these amounts were apparently distributed at the time of the team's visit. A minimum daily intake of 2300-2500 calories is needed.

In discussion at the Relief and Rehabilitation Commission, however, it became clear that in general supplies permitted food distribution at a level of 1300 to 1700 calories only. These amounts are near or at survival levels for adults under resting condition and without illness. They do not allow restitution, and any febrile illness or moderate effort will result in a negative energy balance, further loss of body substance and decrease in the immune defences against infections. In this situation an improvement in the food supply and an equal and continuous distribution system are the most important requisites for any improvement in the very poor health conditions in the drought affected population.

5.4 Excess Loss of Life and High Morbidity

Lack of food diminshes physiological resistance and causes nutritional diseases. Likewise, severe illnesses combined with malnutrition completely sap the energy of people and it could take many months to rehabilitate such patients.

There is a high morbidity and a heavy death toll in Ethiopia. The camps are overcrowded and there has been no means of finding out how many have perished enroute to the shelter areas. Even considering that in normal times Ethiopia has high mortality rates, with many communicable diseases, there is currently an excess loss of life. During 1973, prior to the more severe famine of 1974, it was estimated that in Wollo (one of the regions also affected now) the excess loss of life was between 50,000 to 100,000.

5.5 Acute malnutrition

Even in non-drought times it is believed that about 30-40% of the children in Ethiopia are malnourished. Their condition has worsened with further shortages of food. At present in some shelters up to 70% of the children are acutely malnourished.

5.6 Low birthweight among children

Due to malnourishment of pregnant mothers low birthweight children (at or below 3.5 kg) are commonly born. It was noted that more than 50% of the children born in the shelter were under weight and therefore at increased risk. The infant mortality is bound to become high, as indeed it is.

5.7 State of social dependency

In addition to increases in death, disease and disability, a sense of helplessness and apathy overcomes individuals and people, and a prolonged stay in the shelters creates a dependency which is not conducive to mental or social health. The sooner people are given food, seeds and some arable land, the quicker will physical rehabilitation take place.

5.8 Migratory Problems

People are leaving their areas and moving or being relocated to places where they hope to get food or employment. Already weakened, they become subject to new diseases that were not prevalent in their own areas, e.g., malaria, onchocerciasis and trypanosomiasis. The disruption of families that is likely to take place in the process further complicates the matter.

5.9 Spread of Disease and Causation of Epidemics

Migration as well as overcrowding in shelters or other areas facilitate the spread of disease and compound the state of malnutrition. The danger of epidemics becomes very real and is to be particularly guarded against in the current precarious situation in Ethiopia.

6. ORGANIZATION, MANAGEMENT AND COORDINATION OF HEALTH ASSISTANCE

6.1 In Ethiopia today, the policy of the Ministry of Health and health personnel in the Relief and Rehabilitation Commission is to view this "emergency" as a development problem. This is supported by most of the UN Agencies and NGOs. Every attempt is therefore being made to ensure that the limited emergency resources are utilized in such a way as to have a long term development impact. The perspective is a holistic approach of planning for health, and not just the planning of health services. Food, shelter, water, clothing and attacking the root causes of the famine are seen as priorities before the provision of medical and health services.

6.2 However, from past experiences of drought and famine the Relief and Rehabilitation Commission and the Ministry have also realised that the health and disease problems among the affected communities, especially those in emergency shelters, are likely to be qualitatively if not quantitively more severe than in "normal" times, compounded as they are by serious nutritional, environmental, and socioeconomic factors. Thus, while acknowledging that the problems of food, water, shelter, etc., are a priority, the Ministry of Health for example has responded by determining its own health priorities and plan of action within its capabilities. These activities can be summarized as follows:

- Multisectoral and multidisclipinary coordination and collaboration;
- Acting as the main provider of health manpower;
- Determining guidelines for:
  (1) the delivery of health services to drought-stricken areas including manpower requirements. For example, for every 10,000 persons the following personnel are needed: one doctor, 2-3 nurses, 10 health assistants, one sanitarian and one nutritionist.
  (2) the nutritional needs and nutrition surveillance (see Annex XII).
  (3) the sanitation requirements.
  (4) the drug supplies required based both on the WHO Emergency Health Kit drugs and equipment and on the epidemiological pattern of disease in the affected areas.
  (5) the care of orphans and the elderly.

The coverage, availability, accessability, and utilization of health services in Ethiopia is limited even in "normal" times. The Ministry of Health is understandably heavily involved and preoccupied with trying to ensure that these issues are given their fullest attention. In addition, it is likely that the health services are even more over-stretched during this famine due to increased demand. The extent to which the Ministry of Health can be fully involved in the relief operation is therefore limited, and responsibility for much of the day-to-day health work falls upon the Relief and Rehabilitation Commission.

6.3 The management infrastructure of the RRC is vast and somewhat complex (see Figures 1 and 2). It should be noted that health is remarkable by its absence in the figures. Yet all bilateral and non-governmental health aid agreements are signed between the RRC and the relevant organization, and the RRC which has a Medical Director has assumed responsibility for the health monitoring, supervision and information support systems. There are a number of local and international organizations presently involved in implementing the relief nutrition and health services, provision of water supplies, etc.

FIGURE 1

RELIEF AND REHABILITATION COMMISSION ORGANIZATION CHART

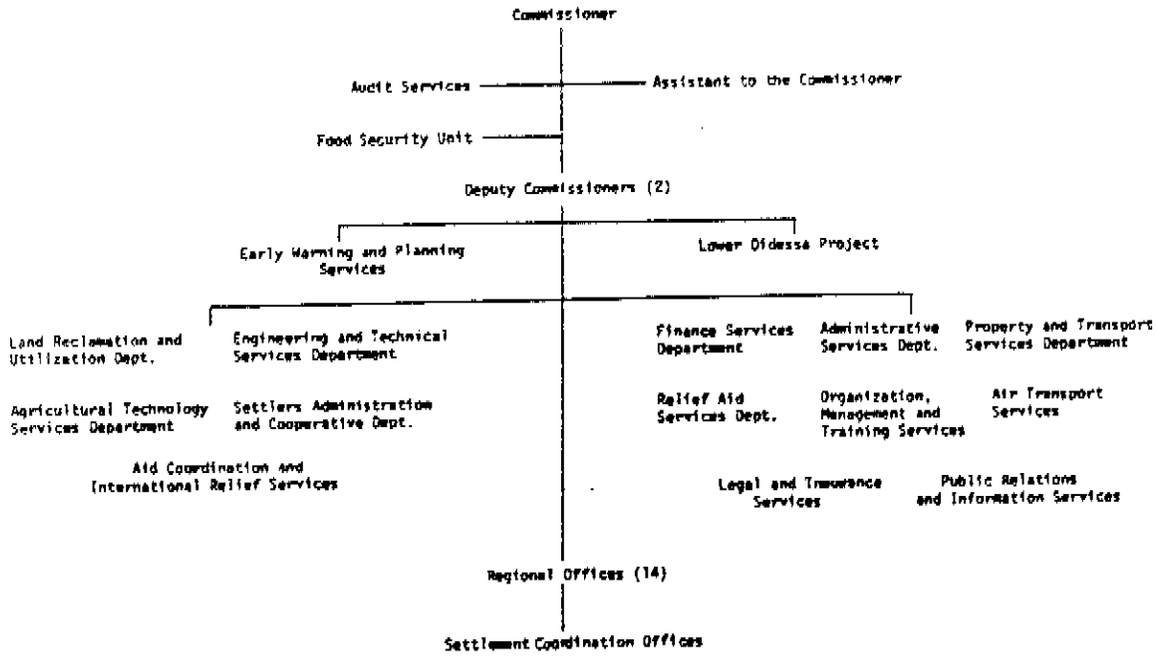
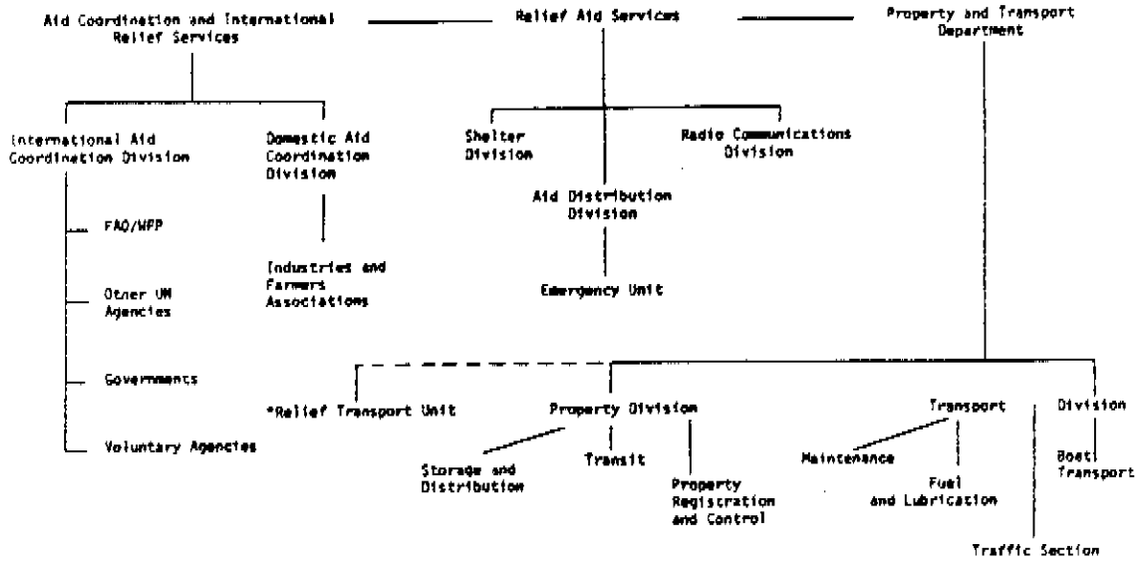


FIGURE 2

RRC DEPARTMENTS INVOLVED IN RELIEF



* Semi-autonomous organization seperate from the remainder of the RRC fleet

Multisectoral and multidisciplinary collaboration and coordination is recognized as being vital. The Ministry of Health is a member of the Politburo Co-ordinating Committee, and both the medical adviser and the Medical Director of the RRC sit on various committees. The UN system also now has a coordinating mechanism and the NGOs come together as a whole at coordination meetings where the basic needs and other issues are discussed.

6.4 The main management and organizational area of concern are coordination and supervision. While the awareness and knowledge of the participants is very evident, there seems to be a gap between policy and implementation, a deficiency which has also been common in relief programmes in other countries. There is a need for a Senior Health Coordinator.

Some of the most outstanding problems can be summarized as follows:

- Inter-agency conflict or friction. This has been seen in several other world-wide relief programmes and may be to a certain extent understandable given the different aims, objectives and motives of the agencies concerned. While in Ethiopia the problem is not as evident as it has been in other countries, and great efforts are being made to reduce and contain any possible conflicts, further efforts to strengthen collaboration, improve coordination and prevent duplication are needed.

- Lack of standardized approach, especially in the health reporting and monitoring systems. The reports coming in from the field are both fascinating and a valuable source of information. However, lack of a standardized approach means that few valid comparisons can be made between affected communities, methods of treatment, degrees of progress or other vital elements over a period of time. Examples of simple standardized forms are given in Annexes XIII, XIV, XV and XVI.

- It seemed difficult to identify who is actually responsible for and carries out the role of supervision. Strong guidance and supervision are essential in times of relief, as even simple interventions can make the difference between life and death or success and failure.

Some strategies to try and overcome these problems are summarized in the Team's recommendations (page 32). Nutritional strategies are set out in Annex XII.

7. REHABILITATION OF DROUGHT VICTIMS

There are two main approaches to the rehabilitation of drought victims. The first is to encourage those people in shelters to return home as quickly as possible. The second consists of resettlement.

7.1 In the first, return home approach, food is given and attempts are being made to ensure a wide network of food distribution centres so that shelters are seen as a very last and temporary resort. In the long term attention is being given to aforestation, improved arable land and better agricultural techniques. For example, requests have been made to the international community for the replenishment of seeds and livestock, and for sufficient food to establish a food security system. One of the main issues in this approach is that very little is known about the conditions in the villages to which the victims are returning. The ENI has done a small study in two locations but overall few people seem to know whether, for example, anyone stayed behind in the villages and what their nutritional and disease status is, what water supplies are available, and whether regular food supplies will be available in adequate quantities and within reasonable access for some time to come.

7.2 The second approach is that of resettlement whereby the drought victims are given the opportunity to resettle in more fertile areas of the country. It is anticipated that by the end of January 1985, at least

1 500 000 people will have been moved to areas in the west of the country (see map). The Ministry of Health and RRC are aware that there are communicable diseases problems in these areas, such as malaria, shistosomiasis, yellow fever and trypanosomiasis. Unfortunately, the team was not able to visit any of the proposed sites in the west and so it is difficult to make specific recommendations in addition to the existing knowledge. Suffice it to say that every effort must be made to help render the land as disease-free as possible with adequate sanitary planning. The people should be helped to make the biological and cultural adaptions that will be necessary. Exposure to new diseases, such as malaria, the trauma of dislocation, the new social stratifications and economic systems, etc., may have significant negative mental and physical health sequelae. Conversely, if sufficient thought and resources are given to ensure a reasonable quality of life, the effects of such a development strategy can be very positive.

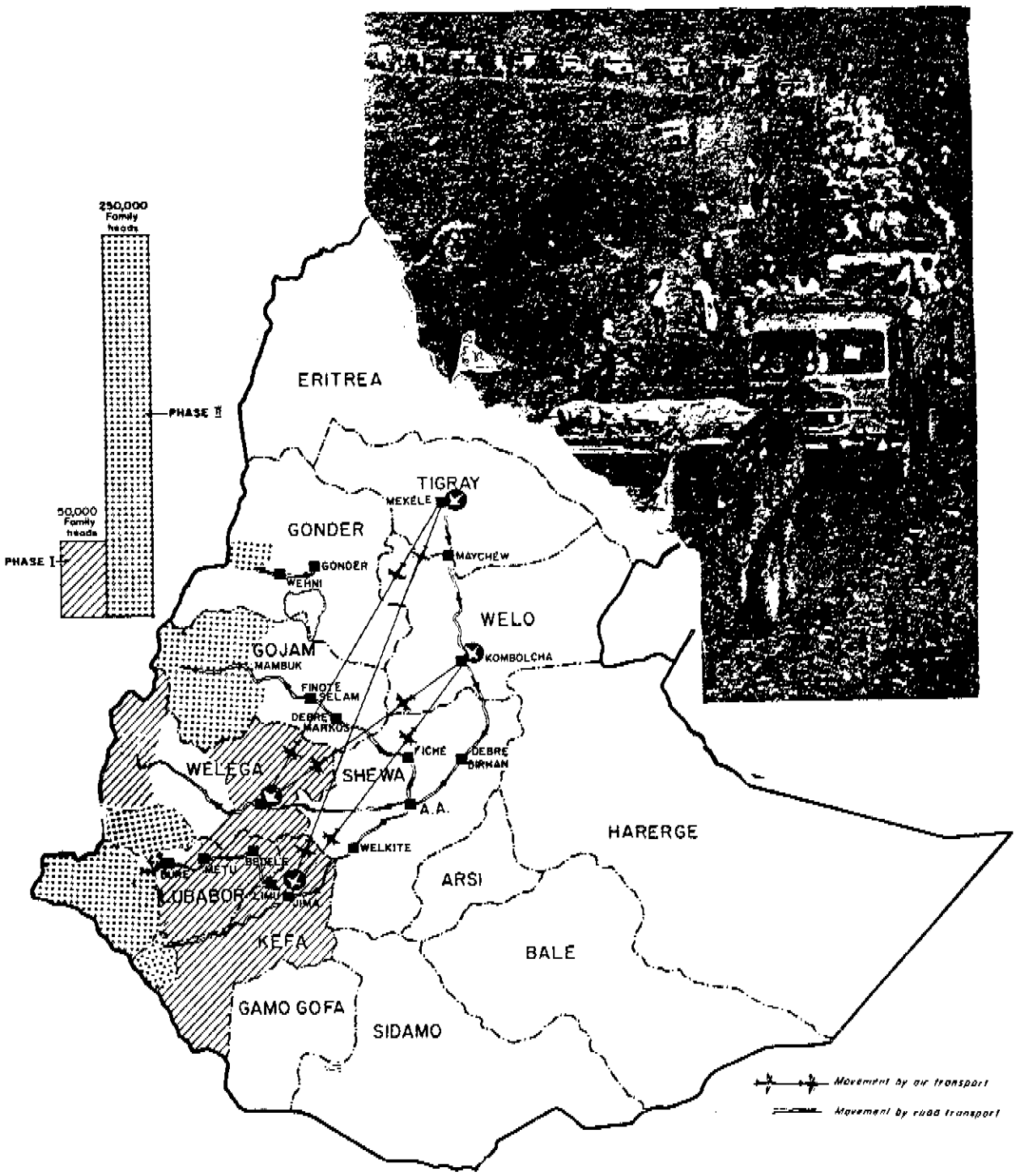
7.3 Rehabilitation Resettlement Scheme

Adverse climatic effects, bad cultivation practices and overgrazing, coupled with over-population and over-utilization of the land have rendered the Northern Administrative Regions of Ethipia drought-prone and unproductive. The inhabitants of these regions have been reputedly subjected to serious drought which often culminates in famine.

Consequently, some inhabitants of the region are left with no alternative other than moving to potentially promising and unutilized areas of the country. The present rehabilitation programme organized by the Government is designed to assist the resettlment of 1.5 million drought victims who are faced with this imperative

While the programme is planned to be launched in two phases over a period of one year, during the first phase, 50 000 family heads with their 200 000 dependents from Wello and Tigrai will be

MOVEMENT OF DROUGHT AFFECTED PEOPLE TO NEW REHABILITATION CENTERS. PHASE I & PHASE II



accommodated and assisted in Kafa, Wellega and Ilubabor Administrative Regions. In the second phase, 250 000 family heads with their 1 million dependants will be rehabilitated from Wollo, Tigrai and Gonder in Kafa, Wellega, Elubabor, Gojjam and Gonder (see map and Annexes VI, VII and VIII).

The plan of action for both phases has been formulated by the Government and, on the basis of this plan, 70 000 people have already moved to Wellega, Kafa and Ilubabor.

7.4 Visit to Tadela Resettlement Area

The WHO Team visited one of the new settlement areas at Tadela, where 3000 people have recently arrived. The houses (made of thatch) were being built by the people themselves. There was school, a store and a health station already set up. Water was being trucked or piped in from a nearby river and the sanitation was based on pit latrines. The health situation record showed a high incidence of malaria and diarrhoea.

Recommended assistance

Assistance will be required in the development of primary health care services in these settlement areas, particularly in endemic diseases surveillance and control, training a large number of community health aides, traditional birth attendants, health assistants and supervisory staff, and also in construction of health facilities, i.e., health stations, health centres and rural hospitals.

7.5 Conclusion on Relief Measures - Major Assistance Requirements

7.5.1 Food Requirements

Although strictly speaking outside the health field, the supply of food is so intimately related with the health conditions that the food

requirements are mentioned here. The projected number of drought-affected people in the eleven administrative Regions need total food assistance of 1 504 775 MT of grain and supplementary food (Annex III). Taking into consideration the food stocks in hand, undelivered pledges in the pipeline, the Government has requested the donor community for 1 284 285 MT of food.*

7.5.2 Medical Requirements and Costs

Health assistance is needed for 7.75 million drought-affected people. This is costed at US $15.1 million. This amount includes the provision of support facilities and infrastructure. To rationalize the provision of health supplies, the lists of medical equipment and drugs according to WHO recommendations should be used plus other needs, as perceived.

7.5.3 Blankets and clothing

Physical protection against the elements, especially in debilitated health conditions, is essential. Blankets and clothing are needed for about 50% of the affected population.

7.6 Primary Health Care in Relief

Ethiopia's present emergency is yet another example of the growing number and magnitude of disasters particularly confronting the developing countries. To help ensure that available relief resources are used in such a way as to have a long-term positive impact on the health and disease status of the majority of the affected people, to help them maintain their dignity and to ensure some quality of life, the Primary Health Care (PHC) approach is advocated as basic health policy.

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* RRC Revisions, December 1984.

Both acute and long-term disasters are essentially problems of development and the PHC approach would go a long way in establishing a firm foundation for both emergency and development action in health. Ethiopia's health care plan has all the elements of primary health care, reflecting the socioeconomic and political characteristics of Ethiopia and providing a framework of an approach within which health activities or services fall and upon which they can be further developed.

7.6.1 Some of the main health issues of PHC that apply to the Ethiopian and other disaster programmes can be summarized as follows:

- Planning for drought affected people needs a balanced approach of providing both relief and development;
- Political commitment for development is essential;
- The re-establishment of an economic base is a priority for the health of the affected individuals and communities;
- Even in times of relief, better health should be seen as an input or a lever for individual and social development, as a plan for the future and for wellbeing;
- The types of international medical aid sent for relief unfortunately do not always ensure that the affected communities are given the best possible ways of achieving and maintaining a reasonable health status.

7.6.2 PHC is divided for clarification into PHC approach and PHC activities, which make PHC different from previous strategies such as basic health services.

(a) The PHC approach is based on a fair distribution of resources, community involvement, preventive measures, appropriate and affordable technology and a multisectoral approach to health problems.

(b) The PHC activities forsee the provision of:

- Education about health and disease issues;
- Safe water and basic sanitation;

- Immunization;
- Appropriate treatment of common diseases and injuries;
- Provision of essential drugs;
- Effective referral system;
- Family health care;
- Involvement of basic health workers;
- Integration of traditional practioners and practices.

7.6.3 This brief summary of the role of PHC in relief is meant to reinforce existing practices and policy in Ethiopia and it is hoped to be of some guidance to the international aid agencies presently working on the relief programmes.

7.6.4 Much positive work can come out of this misfortune and the role and establishment of PHC in the stricken and resettlement areas should be particularly encouraged. The courage of the people concerned, the determination of the Government, and the goodwill of the international community working in unison could overcome this disaster in Ethiopia.

8. RECOMMENDATIONS AND SUMMARY

Based on its findings on nutritional status, general health and sanitation, noting the special conditions in the drought affected areas and considering the emergency situation within the context of a wider developmental problem, the Team makes the following recommendations:

a) Short-term Recommendations

8.1 It is strongly recommended that:

- the efforts of WHO to reinforce the country's primary health care and emergency health needs be facilitated;
- sufficient quantities and quality of food, shelter, water, clothing, transport, and medicines be made available as immediate relief;
- food intake ensures a daily minimum 2300-2500 calories per person;
- as many people as possible can stay in their own homes rather than resort to going into shelters, and that those being resettled are given the best opportunity to start a life anew.

8.2 Resources should be made available to strengthen the efforts undertaken by the RRC and Health Ministry in regard to:

- training of more local health personnel;
- focussing on prevention, e.g. measles immunization, malaria control, health education;
- purchasing and distributing drug supplies;
- strengthening multidisciplinary and multi-sectoral coordination and collaboration;
- translation, editing, and publication of health guidelines into English and Amharic;
- supervision of health work in the field, including transport;

- short-term secondment of Ethiopian experts to reassess, guide, monitor, and evaluate programmes;
- strengthening the role of ENI in monitoring the situation and providing technical support for relief;
- formulating strategies to make the most of limited resources for achieving and maintaining adequate health status in the camps and long-term resettlement areas;
- ensuring the addition of health-related data in the early warning and monitoring systems for drought;
- pre-planning and preparedness programmes related to WHO Regional Workshops on disasters and on health of refugees;
- uniform collation, analysis, and distribution of existing incoming information and standardization of health protocols;
- baseline multidisciplinary studies by local institutions in 'normal' e.g. non-drought areas, and drought-affected areas, covering demographic, mortality, morbidity and nutritional issues. Plus, for example, the impact of supplementary and intensive feeding programmes and oral rehydration therapy for the management of diarrhoea to help determine priorities and planning of future action.

8.3 Efforts should be strengthened to reduce the gap between the policy and implementation of the drought measures by:

- ensuring adequate guidance and supervision;
- strengthening quality of training;
- ensuring an evaluation process;
- collaborating and coordinating with other sectors and disciplines involved.

8.4 Discuss and agree with the authorities on policies concerning the rehabilitation of people in shelters or elsewhere.

8.5 Strengthen coordination in the health sector by forming a health sub-committee for the purpose of discussing technical health and disease issues. This sub-committee should comprise representatives from all agencies working on the relief programme, i.e. government, UN and bilateral donors and NGOs and report to the overall coordinator.

8.6 Establish a post of senior WHO Health Coordinator, preferably at the UN Office of the Assistant Secretary-General for Emergency Operations in Ethiopia, with the view to guiding and coordinating the multiple health activities of the various agencies and aid organizations.

8.7 The sum of US$ 15,100.000 will be needed to cover the emergency health needs for the 12-month period of 1985.

b) Long-Term Principles

8.8 Ensure evaluation as an essential function of the continuing provision of health care within the country's development strategies.

8.9 Ensure sufficient health supplies and their equitable distribution.

8.10 Ensure sufficient foodstocks and food production.

8.11 Maintain the level of logistics efficiency and develop capabilities.

8.12 Train health personnel for continued health care delivery.

c) Long-Term Action

8.13 Improvement of adequate supplies of clean water within access of dwellings.

8.14 Strengthen RRC/MOH/WHO health response by improved monitoring, surveillance, evaluation and planning.

8.15 Maintain and strengthen Primary Health Care as the country's mainstay for health and well-being.

8.16 Maintain coordinated action with all the other sectors involved in the country's development plan.

ANNEXES

ANNEX I

PROJECTED NUMBER OF DROUGHT AFFECTED PEOPLE IN ETHIOPIA DEC. 1984

Ser. No.	Administrative Region	NUMBER OF AFFECTED PEOPLE BY AGE GROUP					
		0 - 4		5 - 14		above 14	
		Oct.1984 Situation	Dec.1984 Situation	Oct.1984 Situation	Dec.1984 Situation	Oct.1984 Situation	Dec 1984 Situation
1.	Wello	266,829	385,525	465,628	672,731	1,058,383	1,529,164
2.	Tigrai	233,081	250,144	388,908	417,381	709,901	761,865
3.	Eritrea	144,724	144,724	277,424	227,424	454,852	454,852
4.	Gonder	65,134	59,944	111,067	102,218	200,299	184,338
5.	Sidamo	139,682	106,500	118,730	90,525	439,998	335,475
6.	Gamu Goffa	37,400	21,266	31,790	18,076	117,810	66,988
7.	Hararghe	73,623	146,938	101,561	230,779	243,936	486,623
8.	Showa	74,066	131,791	114,143	207,432	247,651	440,597
9.	Arssi	430	12,998	675	20,415	1,425	43,047
10.	Bale	41,405	26,602	37,640	24,184	109,155	70,134
11.	Gojjam	6,099	13,169	10,348	22,455	18,753	40,496
12.	Illubabor	5,160	-	7,640	-	20,280	-
13.	Kefa	242	-	358	-	950	-
14.	Assab Admin.	7,200	-	10,800	-	27,000	-
	T O T A L.....	1,095,075	1,299,601	1,626,712	2,033,620	3,650,393	4,413,579

PROJECTED NUMBER OF DROUGHT AFFECTED PEOPLE
DECEMBER 1984

ANNEX II :- REVISED FOOD ASSISTANCE REQUEST FOR DROUGHT AFFECTED PEOPLE IN ETHIOPIA

(Dec'84 - Dec'85)

Sl. No.	Category Food	Total Requirement (MT)	Minus Stock at Hand (MT)	Minus Pledges in Pipeline (MT)	Additional Requirement (MT)
A	B	C	D	E	F=C-(D+E)
1.	Grain/Cereal	1,350,785	17,000	183,356	1,150,429
2.	Supplementary Food including Vegetable Oil	153,990	1,782	18,352	133,856
	GRAND TOTAL....	1,504,775	18,782	201,708	1,284,285

ANNEX III REVISED FOOD ASSISTANCE REQUIREMENTS FOR DROUGHT AFFECTED PEOPLE IN ETHIOPIA 1984/85

Sl. No.	Administrative Region	No. of Affected People	Revised Food Assistance Requirements (MT)			TOTAL
			Grain	Supplementary Food	Vegetable Oil	
1.	Wello	2,587,420	439,953	38,627	11,163	489,743
2.	Tigrai	1,429,390	247,978	24,365	5,562	277,905
3.	Eritrea	827,000	145,269	13,584	3,321	162,174
4.	Gondar	346,500	60,158	5,919	1,346	67,423
5.	Sidamo	532,500	97,279	7,192	2,449	106,920
6.	Gamo Gofa	106,330	19,426	1,436	490	21,352
7.	Hararghe	864,340	153,815	13,787	3,553	171,155
8.	Shewa	779,820	139,073	12,382	3,217	154,672
9.	Arssi	76,460	13,608	1,220	415	15,243
10.	Balle	120,920	21,010	1,854	512	23,376
11.	Gojjam	76,120	13,216	1,300	296	14,812
	TOTAL ...	7,746,800	1,350,785	121,666	32,324	1,504,775

ANNEX IV : LIST OF EXPATRIATE MEDICAL STAFF INVOLVED IN RELIEF OPERATIONS

Sl. No.	Organization	Doctors	Nurses	Nutrition-ists	Support Staff	Total
1.	CONCERN	-	15	1	1	17
2.	German Committee Emergency Doctors	3	7	-	4	14
3.	Mekane Yesus	3	3	-	-	6
4.	Libyan Government	5	1	-	3	9
5.	C R D A	-	9	-	-	9
6.	Catholic Secretariat	-	3	-	-	3
7.	Jesuit Relief Services	1	3	-	-	4
8.	Mennonite Mission	-	2	1	-	3
9.	Lutheran World Federation	1	1	-	-	2
10.	OXFAM	-	6	-	-	6
11.	Save the Children Fund	1	3	4	8	16
12.	Medecins Sans Frontieres	8	8	-	2	18
13.	Baptist General Conference Mission	-	1	-	1	2
14.	Swedish Philadelphia Church Mission	-	5	-	-	5
15.	World Vision	3	-	5	-	8
16.	Society of International Missionaries	1	5	-	-	6
17.	NORCHURCHAID	-	1	-	-	1
18	Italian Government	2	-	-	-	2
	TOTAL.....	28	73	11	19	131

ANNEX V - REQUIREMENT OF WATER WELL DRILLING MACHINES AND ACCESSORIES

Sl. No.	D E S C R I P T I O N	Qty	Unit Price (Birr)	Total Cost (Birr)
1.	Truck mounted drilling machine for DTH & mud rotary drilling	5	750,000	3,750,000
2	Percussion well drilling machine	4	550,000	2,200,000
3	Well servicing & installation machine (truck - mounted)	3	240,000	720,000
4	Vehicles for drilling machine (heavy duty)	11	120,000	1,320,000
5.	Light vehicles for drilling machine	13	45,000	585,000
6.	Generators	50	16,000	800,000
7.	Submersible pumps	50	22,000	1,100,000
8.	Mono-lift pumps	50	19,200	960,000
9.	Pipe for water distribution (2^{n} size)	100	24,000	2,400,000
10.	Casing	100	53,500	5,350,000
	T O T A L	-	-	19,185,000

ANNEX VI :- NUMBER OF DROUGHT AFFECTED PEOPLE TO BE REHABILITATED FROM WELLO

PHASE ONE REHABILITATION TARGET						PHASE TWO REHABILITATION TARGET					
NUMBER OF PEOPLE			POPULATION BY REHABILITATION CENTER			NUMBER OF PEOPLE			POPULATION BY REHABILITATION CENTER		
Family Heads	Dependents	Total	Region	Center	Total Population	Family Heads	Dependents	Total	Region	Center	Total Population
25,000	100,000	125,000	Wellega	Assosa	37,500	125,000	500,000	625,000	Wellega	Kelem	125,000
				Horoguduru	3,500				Illubabor	Gambela	125,000
				Nekemte	1,000				Keffa	Garafenda	125,000
				Arjo	8,000				Gojjam	Metekel	125,000
			Illubabor	Gore	22,500				Gonder	Metema	125,000
				Gore	12,500						
				Bono Bedelie	10,000						
				Mocha	5,000						
			Keffa	Gimira	3,875						
				Limu	8,750						
				Jima	2,500						
				Keffa	7,500						
				Maji & Kulo	2,375						
				Sub-Total	125,000			625,000			625,000

NUMBER OF DROUGHT AFFECTED PEOPLE TO BE REHABILITATED FROM WELLO

WHO/ERO/ETH/85.1
ANNEX VI

ANNEX VII NUMBER OF DROUGHT AFFECTED PEOPLE TO BE REHABILITATED FROM TIGRAI

PHASE ONE REHABILITATION TARGET						PHASE TWO REHABILITATION TARGET					
NUMBER OF PEOPLE			REHABILITATION CENTER			NUMBER OF PEOPLE			POPULATION BY REHABILITATION CENTER		
Family Heads	Dependents	Total	Region	Center	Population	Family Heads	Dependents	Total	Region	Center	Total Population
25,000	100,000	125,000	Wellega	Assosa	35,500	75,000	300,000	375,000	Wellega	Kelem	75,000
				Horogudrue	3,500				Illubabor	Gambella	75,000
				Nekemte	1,000				Keffa	Gara Ferda	75,000
				Arjo	8,000				Gojam	Metekel	75,000
			Illubabor	Sornageba	22,500				Gonder	Metema	75,000
				Terie	12,500						
				Buno Bedelie	10,000						
				Mocha	5,000						
			Keffa	Gimira	3,875						
				Limu	8,750						
				Jima	2,500						
				Keffa	7,500						
				Maji & Kulo	2,375						
				Sub- Total	125,000						375,000

NUMBER OF DROUGHT AFFECTED PEOPLE TO BE REHABILITATED FROM GONDER

ANNEX VIII NUMBER OF DROUGHT AFFECTED PEOPLE TO BE REHABILITATED FROM GONDER 1/

NUMBER OF PEOPLE			POPULATION BY REHABILITATION CENTER		
Family Head	Dependent	Total	Region	Center	Population
50,000	200,000	250,000	Wellega	Assosa Begi	50,000
			Illubabor	Gambela	50,000
			Keffa	Garaferda	50,000
			Gojjam	Metekel	50,000
			Gonder	Metema	50,000
			T O T A L.....		250,000

1/ The rehabilitation target set for drought affected people in Gonder Region will be implemented in Phase two only.

MEDICAL & PHARMACEUTICAL REQUIRMENTS FOR 7.7 MILLION POPULATION FOR 3& 6 MONTHS (TIGRAY, WELLO, GONDER, SHEWA, HARERGE, BALE, SIDAMO, GAMOGOFA, ERITREA, COJJAM AND ARSSI).

No.	I T E M	UNIT	QTY 3 MONTHS	6 MONTHS
	ANALGESICS, ANTISPASMODICS & ANTIRHUMATICS			
1	A.S.A. 100 mg. of 1000 tbs	tin	1540	3080
2	A.S.A. 300 mg of 1000 "	"	1540	3080
3	Baralgin of 1000 tbs	"	1540	3080
4	Baralgin of 100 amp	Box	1540	3080
5	Paracetamol of 1000 tbs	Tin	1232	2464
6	Codeine compound of 1000 tbs	"	770	1540
7	Phenyl Butazone of 1000 "	"	1540	3080
	EXPECTORANTS, COUGH SUEPRESSANTS SED BRONCHO-DIALATORS.			
1	Dextromethorphan syrup of 640 ml	Bott	3080	6160
2	Codeine cough syrup of 640 ml	"	3080	6160
3	Aminopyllin 2.5 %	box	770	1540
4	Thecphenedrin(franol) of 1000 tbs	tin	770	1540
	ANTACIDS, LAXATIVES & ANTI-DIARRHEAL AGENTS			
1	Aluminum hyd. of 1000 tbs	tin	1540	3080
2	Aluminum & magessum hyd. mix of 120 ml	bott	1540	3080
3	Mag. trisiltcate of 1000 tbs	Tin	1540	3080
4	Bisacodyl of 1000 tbs	"	1540	3080
5	$MgSO_4$ of 30 MG.	Sachat	30800	61600
6	Kaolin & pection mix. of 600gm	bag	3850	7700
7	Lomotil of 500 tbs(Diphenoxylate Hcl and atropine supphate)	tin	3080	6160
8	Kaopectate supp. of 60 ml	bott	3850	7700
	VITAMINS, HEAMATINICSA & HEAMATOSTATIC AGENTS			
1	Vit. A &D of 1000 caps	bott	7700	15400
2	Vit.B-Compound of 1000 tbs	Tin	3080	6160
3	Vit B-Compound of 100 amp	Box	3080	6160
4	Multi-Vitamin C meneral of 1000 tbs	Tin	7700	15400
5	Ferrous sulphate C folic acid of 1000 tab.		7700	15400

No	I T E M	UNIT	QTY (3MONTHS)	(6MONTHS)
6	Ferrous lactate 125 mg 5 ml of 100 amp	box	2310	15400
7	Vit. C 500 mg of 1000 tbs	Tin	3080	4620
8	Vit. C 500 mg /5 ml of 1000 Amp	Box	7700	15400
9	Vit. K_1 of 100 amp	"	1540	3080
10	Adrenaline of 100 amp	"	3080	6160
	TRANQULIZERS			
1	Diazepam 10 mg of 100 amp	box	1540	3080
2	Diazepam 5mg of 1000 tb	Tin	770	1540
3	Chlorpromazine 25 mg of 1000 tbs	"	1540	3080
4	" 50 mg of 1000 amp.	box	3080	6160
	ANTIBIOTICS, SULPHONAMIDES & ANTIAMOEBAL AGENTS.			
1	Ampicillin 250 mg of 1000 caps	tin	1540	3080
2	Ampicillin 125 mg/5 ml syrup of 60 ml	bott	1540	3080
3	Tetacycline 250 mg of 1000 caps	tin	2310	4620
4	Tetracycline syrup 125 mg 5 ml of 60 ml	bott	2310	4620
5	Tetracycline eye oint of 100 tube	box	3080	6160
6	Chloramphenical 250 mg of 1000 cap.	Tin	1540	3080
7	Chloramphenicol syrup 125 mg/5 ml of 60 ml	bott	15400	30800
8.	Chloramphenicol ear drops of 100 bott	box	3850	7700
9	Procaine penicilin 2,4 mg of 100 vial9	"	3080	6160
10	Benzathine penicilin 2,4 mg of 100Vial9	box	1540	3080
11	Streptomycin 1gm/Vial of 100 vial	"	2310	4620
12	I.N.H. of 100 no of 1000 tbs	Tin	2310	4620
13.	Bactrim of 1000 tbs	"	3850	7700
14	Bactrim syrup of 100 ml	bott	15400	30800
15	Chloroquin 59 mg/5 ml of 100 amp	"	3850	7700
16	Chloroquin 250 mg of 1000 tbs	Tin	3080	6160
17	Chloroquin syrup 125 mg/5ml of 60ml	"	15400	30800
18	Primaquin 15 mg of 1000 tbs	"	770	1540
19	Metronidazol syrup 125 mg/of 1000 caps	"	7700	15400
20	Metronidezol syrup 125 mg"5ml of 60ml	bott	3080	6160
21	Cloquinol 250 mg of 1000 tbs	tin	770	1540
22	Sulphaguanidine of 1000 tbs	"	3080	6160

No.	ITEM	UNIT	QTY (3MONTHS)	QTY (6MONTHS)
	ANTHELMENTICS			
1.	Piperazine adipate of 1000 tbs	Tin	3850	7700
2	Piperazine citrate syrup of 640 ml	Bott	7700	15400
3	Miclosamide 500 mg of 1000 tbs	tin	1540	3080
4	Dichlorophen 500 mg of 1000 tbs	"	1540	3080
5	Levamisole 40 mg of 1000 tbs(ketrax)	"	3080	6160
6	Bephenium hydroxy naphtoate of 15mg	sachat	77000	154000
7	Vermox tabs of 1000(mebendazole)	Tin	7700	15400
	OBSTETRIC PREPARATIONS			
1	Ergometrine 0.2 mg of 1000 tbs	tin	1540	3080
2	Ergometrine).2 of 100amp	box	3080	6160
3	Oxytocin 3 U 1 ml of 100 amp	"	1540	3080
	ANTIALLERGIC PREPARATIONS			
1	Promethazine Hcl 25 mg of 1000 tbs	tin	1540	3080
2	Promethazine HCl 5 mg 5 ml of 100 amp	box	3080	6160
3	promethzine oint 20 mg /tub of 100 tub	"	2310	4620
	EYE & NASAL PREPARATIONS			
1	Sulphacetamide eye drop 20% 10 ml	bott	154000	308000
2	Xylomethazolin 1% 10 ml	"	154000	308000
	FLUIDES & ELECTROLYTES			
1	Dextrose(5%) in water of 1000 ml	bag	77000	154000
2	Ringer's lactate of 1000 ml	"	154000	308000
3	Normal saline 0.9% of 1000 ml	"	77000	154000
4	Oral rehydration salt().R.S.)	Sachets	385000	770000
	SKIN PREPARATION,ANTISEPTICS DISINFECTANTE & DRESSINNG MATERIALS			
1	ICHTIOn oint. of 1 kg	tin	1540	3080
2	Whis field oint of 1 kg	"	3080	6160
3	Salicylic acid oint 2 % of 1 kg	"	4620	9240
4	Methyl salicylate oint of 1 kg	"	1540	3080

No.	I T E M	UNIT	(3MONTS) QTY	(6 MONTHS)
5	Savlon hosp. conc. of 25 lit	Call	770	1540
6	Iodine tine of 1000 ml	bott	2310	4620
7	Alcohol denatured of 1000 ml"70%)	"	7700	15400
8	Contian violet 1 1000 ml	"	7700	15400
9	Suturing silk of 90 yard	Roll	1540	3080
10	Michel clip of 100 pices	pack	1540	3080
11	Absorbant cotton of 1 kg	Roll	2310	4620
12	Adhesive plaster 2 z 10	"	30800	61600
13	Badage 7x 10	"	30800	61600
14	Gauze 9 m x90 gm	"	1540	3080
15	Benzyl benzoate lot . of 640 ml	bott	7700	15400
16	Basic clinical(health)equip.	set	214	-

ONE SET OF CLINICAL EQUIPMENT CONTAINS

1 Syring plastic of 2 ml
2 " " " 5 ml
3 " " " 10 ml
4 " " " 20 ml
5 Hypodrmic needle no 1, 2, 12, 14, 22, Of 12 from
6 Thermometer auxillary
7 " Rectal
8 Stethoscope
9 Sphygmomanometer (Aneroid)
10 with calf
11 Foley cather no 10,12,14,16 from
12 Tounge depresser(Worden of 100)
13 Applicator stick of 1000 pices
14 surgical glove no 6,6½, 7 7½ of 25 pairs from each no
15 Forceps of 6 from
16 " " 8 "
17 " " 11 "
18 Sciasors Big
19 " Bandage
20 Dish for washing ins.
21 INSTRUMENT sterinzer
22 instrument tray O Coger
23 Examination table
24 Infant & Adult scales, etc.

WHO EMERGENCY HEALTH KIT

LIST A

BASIC DRUG REQUIREMENTS FOR 10 000 PERSONS FOR 3 MONTHS

Reference No.	Drug [group in Essential Drugs list[a]]	Pharmaceutical form and strength	Total required for 3 months (rounded up)
A.1	**Analgesics** [2.1]		
	A.1.1 acetylsalicylic acid	tab. 300 mg	17 000 tab.
	A.1.2 paracetamol	tab. 500 mg	4 500 tab.
A.2	**Anthelmintics** [6.1]		
	A.2.1 mebendazole ☐	tab. 100 mg	2 100 tab.
	A.2.2 piperazine	syrup 500 mg/5 ml (30-ml bottles)	5 litres
A.3	**Antibacterials** [6.3]		
	A.3.1 ampicillin ☐	pulv. susp. 125 mg/5 ml	420 bottles of 60 ml
	A.3.2 benzylpenicillin	pulv. inj. 0.6 g (1 million IU)	500 vials
	A.3.3 phenoxymethylpenicillin	tab. 250 mg	9 500 tab.
	A.3.4 procaine benzylpenicillin	pulv. inj. 3.0 g (3 million IU)	375 vials
	A.3.5 sulfamethoxazole + trimethoprim ☐	tab. 400 mg + 80 mg	7 500 tab.
	A.3.6 tetracycline ☐	tab. 250 mg	9 000 tab.
A.4	**Antimalarials** [6.7][a]		
	A.4.1 chloroquine ☐	tab. 150 mg	8 000 tab.
	A.4.2 chloroquine ☐	syrup 50 mg/5 ml	3 litres
A.5	**Antianaemia** [10.1]		
	A.5.1 ferrous salt + folic acid (for use during pregnancy only)	tab. 60 mg + 0.2 mg	15 000 tab.
	A.5.2 ferrous salt	tab. 60 mg	30 000 tab.
A.6	**Dermatologicals** [13]		
	A.6.1 benzoic acid + salicylic acid	oint. 6% + 3%, 25-g tube	100 tubes
	A.6.2 neomycin + bacitracin ☐	oint. 5 mg + 500 IU/g, 25-g tube	50 tubes

List A

Reference No.	Drug [group in Essential Drugs list*]	Pharmaceutical form and strength	Total required for 3 months (rounded up)
	A.6.3 calamine lotion ☐	lotion	5 litres
	A.6.4 benzyl benzoate	lotion 25%	35 litres
	A.6.5 gentian violet [not in Essential Drugs list]	crystals	200 g (8 bottles)
A.7	**Disinfectants** [15]		
	A.7.1 chlorhexidine ☐	solution 20%	5 litres
A.8	**Antacids** [17.1]		
	A.8.1 aluminium hydroxide	tab. 500 mg	5 000 tab.
A.9	**Cathartics** [17.5]		
	A.9.1 senna ☐	tab. 7.5 mg	400 tab.
A.10	**Diarrhoea (replacement solution)** [17.6]		
	A.10.1 oral rehydration salts	sachet 27.5 g/litre	6 000 sachets
A.11	**Ophthalmologicals** [21.1]		
	A.11.1 tetracycline ☐	eye oint. 1%, 5-g tube	750 tubes
A.12	**Solutions** [26.2]		
	A.12.1 water for injection	amp. 2 ml	500 amp.
	A.12.2 water for injection	amp. 10 ml	500 amp.
A.13	**Vitamins** [27]		
	A.13.1 retinol (vitamin A)	cap. 60 mg (200 000 IU)	500 cap.
	A.13.2 retinol (vitamin A)	cap. 7.5 mg (25 000 IU)	400 cap.

*The figures in square brackets refer to the categories and subcategories in the Model List of Essential Drugs contained in the report of the WHO Expert Committee on the Use of Essential Drugs (WHO Technical Report Series, No. 685, 1983).

☐ Square symbol indicates that alternative drugs could be used.

Abbreviations used:

amp.	= ampoule(s)
cap.	= capsule(s)
oint.	= ointment
pulv. inj.	= powder for injection
pulv. susp.	= powder for suspension
tab.	= tablet(s)

LIST B

DRUGS FOR USE BY DOCTORS AND SENIOR HEALTH WORKERS

(in addition to List A)

Reference No.	Drug [group in Essential Drugs list*]	Pharmaceutical form and strength	Total amount
B.1	**Local anaesthetics** [1.2]		
	B.1.1 lidocaine□	inj. 1% vial of 50 ml	10 vials
B.2	**Analgesics** [2.2]		
	[B.2.1 pethidine□^	inj. 50 mg in 1-ml amp.	10 amp.]
B.3	**Antiallergics** [3]		
	B.3.1 chlorphenamine□	tab. 4 mg	100 tab.
B.4	**Antiepileptics** [5]		
	B.4.1 diazepam	inj. 5 mg/ml, 2-ml amp.	10 amp.
B.5	**Antiinfectives** [6]		
	B.5.1 metronidazole□	tab. 250 mg	1 500 tab. (2 tds 5/7 for 50 patients)
	B.5.2 benzylpenicillin	pulv. inj. 3.0 g	100 vials
	B.5.3 chloramphenicol□	cap. 250 mg	2 000 cap. (2 qds 5/7 for 50 patients)
	B.5.4 cloxacillin□	cap. 500 mg	3 000 cap. (1 qds 7/7 for 35 adults) (1 bd 7/7 for 30 children)
B.6	**Antimalarials** [6.7]		
	B.6.1 quinine	inj. 300 mg/ml	20 amp. of 2 ml (average of 4 ml per patient)
	B.6.2 sulfadoxine + pyrimethamine	tab. 500 mg + 25 mg	150 tab. (2-3 stat. for 50 patients)
B.7	**Plasma substitute** [11.1]		
	B.7.1 dextran 70	inj. sol. 6%/500 ml with 10 giving sets	5 litres

List B

Reference No.	Drug [group in Essential Drugs list*]	Pharmaceutical form and strength	Total amount
B.8	**Cardiovascular** [12]		
	B.8.1 glyceryl trinitrate	tab. 0.5 mg	100 tab.
	B.8.2 propranolol□	tab. 40 mg	100 tab.
	B.8.3 digoxin	tab. 0.25 mg	100 tab.
	B.8.4 digoxin	inj. 0.25 mg/ml in 2-ml amp.	10 amp.
	B.8.5 epinephrine	inj. 1 mg/ml in 1-ml amp.	10 amp.
B.9	**Dermatologicals** [13]		
	B.9.1 nystatin	cream 100 000 IU/g, 30-g tube	10 tubes
	B.9.2 hydrocortisone	cream 1%, 30-g tube	10 tubes
B.10	**Diuretics** [16]		
	B.10.1 furosemide□	tab. 40 mg	100 tab.
	B.10.2 furosemide□	inj. 10 mg/ml in 2-ml amp.	10 amp.
B.11	**Gastrointestinals** [17]		
	B.11.1 promethazine□	tab. 25 mg	100 tab.
	B.11.2 promethazine□	syrup 5 mg/5ml, bottle of 250 ml	10 bottles
	[B.11.3 codeine□[b]	tab. 30 mg	100 tab.]
B.12	**Hormones** [18]		
	B.12.1 hydrocortisone	pulv. inj. 100 mg	10 vials
B.13	**Opthalmologicals** [21.1]		
	B.13.1 sulfacetamide	eye oint. 10%, 5-g tube	250 tubes
B.14	**Oxytocics** [22]		
	B.14.1 ergometrine□	tab. 0.2 mg	100 tab.
	B.14.2 ergometrine□	inj. 0.2 mg/ml in 1-ml amp.	10 amp.
B.15	**Psychotherapeutics** [24]		
	B.15.1 diazepam□	tab. 5 mg	100 tab.
B.16	**Respiratory** [25]		
	B.16.1 aminophylline□	inj. 25 mg/ml in 10-ml amp.	10 amp.
	B.16.2 salbutamol□	oral inhalation, 0.1 mg per dose	5 aerosols
	B.16.3 beclometasone	oral inhalation, 0.05 mg per dose	5 aerosols

List B

Reference No.	Drug [group in Essential Drugs list*]	Pharmaceutical form and strength	Total amount
B.17	**Solutions** [26.2]		
	B.17.1 compound solution of sodium lactate□	inj. sol., 500 ml	10 litres
	B.17.2 glucose	inj. sol. 50% hypertonic, 10-ml amp.	10 amp.
	B.17.3 sodium chloride	inj. sol. 0.9% isotonic, 500 ml with 10 giving sets	5 litres
	B.17.4 water for injection	10-ml amp.	100 amp.

*The figures in square brackets refer to the categories and subcategories in the Model List of Essential Drugs contained in the report of the WHO Expert Committee on the Use of Essential Drugs (WHO Technical Report Series, No. 685, 1983).

□ Square symbol indicates that alternative drugs could be used.

Abbreviations used:

amp.	= ampoule(s)
cap.	= capsule(s)
inj.	= injection
inj. sol.	= injectable solution
oint.	= ointment
pulv. inj.	= powder for injection
tab.	= tablet(s)

LIST C

BASIC MEDICAL EQUIPMENT FOR A CLINIC

(Items marked with an asterisk (*) may need replacing every 3 months)

Reference No.	Description	Quantity
C.1	Sterile disposable syringes, Luer 2 ml	4 000*
C.2	Sterile disposable syringes, Luer 10 ml	1 000*
C.3	Sterile disposable needles 0.8 × 40 mm/G21 × 1½" (0.8 × 38 mm)	2 500*
C.4	Sterile disposable needles 0.5 × 16 mm/G25 × 5/8" (0.5 × 15 mm)	2 500*
C.5	Interchangeable glass syringes, Luer 2 ml	5
C.6	Interchangeable glass syringes, Luer 10 ml	5
C.7	Interchangeable needles, 144 assorted, Luer	2 packets
C.8	Sterile swabs	5 000
C.9	Emergency suture sets with needles, packet of 12	15 packets*
C.10	Needle-holder	1
C.11	Scalpel handle, No. 3 size	2
C.12	Artery forceps	2
C.13	Dissecting forceps	2
C.14	Blades, disposable, size 10	100*
C.15	Scissors, straight	6
C.16	Scissors, suture	1
C.17	Thermometers, clinical	10
C.18	Stethoscopes, standard and fetal	2 of each
C.19	Sphygmomanometer, anaeroid	1
C.20	Diagnostic set (auroscope, ophthalmoscope)	1
C.21	Batteries, alkaline, dry-cell, "D" type, 1.5 V, for item C.20	4*
C.22	Vaginal speculum, Graves	2
C.23	Metal syringe for ear-washing, 90 ml	1
C.24	Tongue depressor, metal	1
C.25	Nasogastric tubes, size Ch. 5 (premature), polyethylene	5*
C.26	Nasogastric tubes, size Ch. 8 (infant), polyethylene	10
C.27	Nasogastric tubes, size 12, polyethylene	5*
C.28	Scalp vein needles	50
C.29	Gloves, reusable, small	100
C.30	Gloves, reusable, medium	100
C.31	Gloves, reusable, large	100

Reference No.	Description	Quantity
C.32	Dressing trays with lid, stainless steel	4
C.33	Basins, kidney, 350 ml, stainless steel	2
C.34	Bowls, round with lid, 240 ml, stainless steel	4
C.35	Bowls, round, 600 ml, stainless steel	4
C.36	Gauze swabs, 5 × 5 cm, packets of 100	10 packets
C.37	Gauze swabs, 10 × 10 cm, packets of 100	10 packets*
C.38	Sterile gauze swabs, 10 × 10 cm, packets of 5	50 packets*
C.39	Eye pads (sterile)	6 packets*
C.40	Paraffin gauze dressings, 10 × 10 cm, tins of 36	3 tins*
C.41	Sanitary towels	200*
C.42	White cotton wool, rolls of 500 g	2 rolls*
C.43	Zinc oxide plaster, 25 mm × 0.9 m roll	120 rolls*
C.44	Gauze bandages, 25 mm × 9 m	50*
C.45	Gauze bandages, 50 mm × 9 m	50*
C.46	Gauze bandages, 75 mm × 9 m	50*
C.47	Plaster of Paris bandages 3″ × 3 yds (7.5 cm × 2.7 m), packet of 1 dozen	1 packet
C.48	Pneumatic splint set, multipurpose	1*
C.49	Safety pins, 40 mm	500*
C.50	Hand towels	2*
C.51	Soap, cleansing	60 bars*
C.52	Nail brushes, surgeon's	5*
C.53	Health cards with plastic envelopes	10 000*
C.54	Plastic envelopes for drugs	10 000*
C.55	Plastic sheeting 910 mm wide	2 m
C.56	Aprons, plastic	2
C.57	Tape measures, 2 m (6 ft)	2
C.58	Weighing scale, adult, 140 kg × 100 g	1
C.59	Weighing scale, infant, 25 kg × 20 g	1
C.60	Height measuring board	1
C.61	Sterilizer, dressing, pressure type, 350 mm diameter × 380 mm	1
C.62	Stove for C.61, kerosene, single-burner, pressure	1
C.63	Basic laboratory kit and spares	1
C.64	Filter, water-candle, aluminium, 9 litres	1
C.65	Rapid reagent tablets (Clinitest or similar)	5 bottles*
C.66	Rapid reagent strips (Multistix or similar)	5 bottles*
C.67	Airway (children's set)	1
C.68	Book: *WHO Emergency Health Kit*	1

SUPPLEMENTARY FOOD REQUIRMENT = DEC. 1984 - DEC 1985

No.	Administrative Region	AWRAJA	Population	Supplementary Fodd Required (MT)
1	Wollo	Ambassel	363,730	5,450
2	"	Yeju	280,930	4,193.9
3	"	Rayana Kobo	230,370	3,439.8
4	"	Wag	290,780	4,340.9
5	"	Wadla-Delanta	195,000	2,955.8
6	"	Desse-Zuria	239,090	3,569.3
7	"	Lasta	203,530	3,038.4
8	"	Kalu	395,800	5,908.8
9	"	Were-Himenu	170,000	2,537.8
10	"	Were-Ilu	113,130	1,699.8
11	"	Borena	47,060	702.5
12	"	Awssa	55,000	821
			TOTAL	38,627
1	Tigrai	Adwa	291,700	4,972.2
2	"	Axum	205,040	3,508.7
3	"	Agamme	280,890	4,788
4	"	Hulet Awlaelo	189,450	3,229.4
5	"	Inderta	162,600	2,771.6
6	"	Rayana Azebo	138,910	2,367.8
7	"	Tembien	160,000	2,727.3
			TOTAL	24,365
1	ERTREA	Akeleguzai	162,000	2,661
2	"	Cashane-Setit	74,780	1,228.3
3	"	Seraie	33,980	558.1
4	"	Akurdet	58,200	956.
5	"	Hamassien	255,960	4,204.3
6	"	Keren	110,200	1,810.1
7	"	Sahel	74,800	1,228.6
8	"	Kei-Bahir	57,080	937.6
			TOTAL	13,584
1	Gondar	Gaint	225,000	3,843.5
2	"	Libo	28,000	478.3
3	"	Wogera	6,000	102.6
			TOTAL	5,919

CO	ADMINISTRATIVE REGION	AREA	POPULATION	SUPPLEMENTARY FOOD REQUIRED (MT)
1	SIDAMO	Borena	75,000	1,013
2	"	Wolaita	296, 000	3,997.8
3	"	Arero	131,500	1,776
4	"	Jemjem	30,000	405,2
			TOTAL	7,192
1	GARGEGOFFA	Gamo	13,000	175. 7
2	"	Gardulla	53,330	720.1
3	"	Goffa	10,000	135.1
4	"	Celebna - hamerbaco	30,000	405.1
			TOTAL	1, 436
1	HARARGE	Gijiga	214,260	3,417.6
2	"	Gursum	58,100	926
3	"	Harar zuria	263,000	4,035.8
4	"	Chercher Adalna		
		Geramuletta	132,900	2,119.8
5	Carmulette	"	240,000	3,826.8
6	"	Dredawa zuria	60,000	957
			TOTAL	13,787
1	AFGA	Yigatna-Timuga	326,220	5,179.6
2	"	Lenzna Gishe	155,560	2,469.7
3	"	Lerhabete	59,140	939
4	"	Kembatena hadiya	155,560	2,470
5	"	Haikochna Lajira	80,000	1,270.7
6	"	Gulale	3,340	53
			TOTAL	12,382
1	ARSI	Arba-gugu	49,464	785.1
		Chilalo	27,000	430.9
			GRAND TOTAL	1,220

No.	ADMINISTRATIVE	A W R A J A	POPULATION	SUPPLEMENTARY FOOD REQUIRED (NT)
1.	B A L E	Mendeyo	48, 000	735. 9
2.	,,	Wabe	22, 920	351. 6
3.	,,	Dollo	15, 000	229. 9
4.	,,	El-kere	35, 000	536. 6
			ToTAl	1,854
1.	GoBJAN	MOTA	60, 000	1, 024.6
	,,	BIGHENA	16, 120	275.4
			TOTAL	1, 300
			GRAND TOTAL	121,666

Nutrition surveillance

Principles

1. Surveillance is the foundation of the nutrition aspects of any relief programme. A functioning surveillance system allows focusing of resources on the most important problem and allows early detection of new problems;
2. Organization of surveillance should be simple yet allow such focusing or early detection to occur efficiently;
3. Results of data analysis at the central level should be transmitted to all who need to know (medical coordinators, supplementary feeding staff, administration) in a timely fashion;
4. Age groups should correspond to those which most easily differentiate risk groups (<1 month, 1-11 months, 1-4 years, 5-14 years, 15-44 years female, 15-44 years male, ≥45 years).

Data Collection

The following should be collected or calculated on a monthly basis from each population group:

1. Population: total & specific age information if available;
2. Deaths and death rates from:
   a) all causes (crude mortality rate)
   b) protein energy malnutrition (includes all children <80% of standard wt/ht regardless of primary diagnosis)
   c) measles
   d) beri-beri
   e) diarrhea and gastro-intestinal illness
3. Hospital referrals/admissions and rates from:
   a) protein energy malnutrition
   b) measles;
   c) xerophthalmia;
   d) beri-beri.
4. Births number: mean birthweight and percent <2.5 kg.

Investigations

Reports of the following conditions should trigger a slightly more detailed investigation: measles death, PEM death, xerophthalmia case, beri-beri case.

Information sought should be relevant to programme improvement and should include at least:

1) age;
2) supplementary feeding programme attendance including reason for non-attendance if that is the case;
3) breast feeding or bottle feeding status if not weaned;
4) time in camp;
5) all illnesses.

Surveys

Random surveys of children from 6-60 months should be conducted every 6 months to ascertain:

1. prevalence of low weight-for-height (using 12 month age intervals, i.e., 12-23 months, 24-35 months, etc.); in the camp and in individual sections;
2. supplementary feeding programme attendance (%) of all eligible groups (including pregnant and lactating women);
3. breast feeding prevalence rates at various infant ages;
4. other easily collected relevant data - e.g. vaccination levels.

Results of such surveys should carefully document method of sample selection and method of measurement.

Supplementary Feeding Programme Data

Camp: _____ Group: _____ Date: _____

Population total: _____

Current Registration	No. Registered	Daily No. Attending	Estimated Coverage *	< 1yr	1-2yr	2-3yr
Pregnant Women						
Lactating Women						
Children < 3 yrs.						
Malnourished						
Other (_____)						
TOTAL						

Evaluation

% gaining weight: _____

Mean weight gain: _____

Outreach: For a) "No show":

Miscellaneous: 1) Vitamin A: _____ Ill every _____

2) Feeding bottles

3) Commercial formula

4) Measles vaccine:

* % of eligible population being served.

SAMPLE FORM

MALNUTRITION EPISODE INVESTIGATION FORM

I. Name _____

Age _____ Camp _____ Quarter _____

Conduction
- Pem death
- measles death
- Xerophthalmia
- Beri-beri
- other _____

II. Supplementary Feeding Status

	Yes	No
Eligible	____	____
Registered	____	____
Attends (32/wk)	____	____

III. Reason for Non-Attendance:
____ unaware of programme
____ too far
____ unaware of need
____ lost card.

IV. Infant feeding status (24 mos.)

	Exclusively	Some	No
breast fed	_____	_____	_____
bottle fed	_____	_____	_____

Usual content of feeding bottle if used? _____

V. Notes

SAMPLE FORM

SURVEY DATA SHEET - CHILDREN

Camp:_____ Group:_____ Date:_____

Population Total:_____(Count/Estimate?) Date of Last Census:____/____/____

<1 yr.____; 1-4 yrs._____; 5-14 yrs._____; 15-44 yrs.; >45+ yrs._____

Births in Last 90 (or____) Days: N = _____

Fam Hse	Ser No.	Sex	(y-m) Age	CLINICAL SIGNS							VACCINES						<2 Breastfed?	Remarks
				Skin	Eye	Nutr	Edema	Fever			DPT	Polio	Msls	BCG	Chol			
	-01																	
	-02																	
	-03																	
	-04																	
	-05																	
	-06																	
	-07																	
	-08																	
	-09																	
	-10																	
	-11																	
	-12																	
	-13																	
	-14																	
	-15																	
	-16																	
	-17																	
	-18																	
	-19																	
	-20																	

SAMPLE FORM

GUIDANCE TO AUXILIARY AND BASICALLY TRAINED HEALTH PERSONNEL

Standardized treatment schedules (List A)

Drug	Age group	Form and strength	Course and quantity	Total requirement[a]
acetylsalicylic acid	children	tab. 300 mg	½-1 tds 2/7 = 6 tab.	= 2 100 tab.
acetylsalicylic acid	adult	tab. 300 mg	2 tds 2/7 = 12 tab.	= 14 400 tab.
aluminium hydroxide	adult	tab. 500 mg	1 qds 5/7 = 20 tab.	= 5 000 tab.
ampicillin□	children	pulv. susp. 125 mg/5ml	125 mg qds 5/7 = 100 ml	= 420 bottles (60 ml)
benzoic acid + salicylic acid	children	oint. 25 g	(external use)	= 100 tubes
benzyl benzoate	both	lotion 25%	100 ml = 100 ml	= 35 litres
benzyl-penicillin	children	pulv. inj. 0.6 g (1 million IU)	1 od 5/7 = 5 vials	= 500 vials
calamine lotion□	both	1-litre bottles	(external use)	= 5 litres
chlorhexidine□	both	solution 20%	(external use)	= 5 litres
chloroquine□	children	syrup 50 mg/5 ml	10 mg/kg = average 15 ml	= 3 litres
chloroquine□	children	tab. 150 mg	varies = 5 tab. (full dose)	= 2 750 tab.
chloroquine□	adult	tab. 150 mg	varies = 10 tab. (full dose)	= 5 000 tab.
ferrous salt	both	tab. 60mg	1 od 30 days = 30 tab.	= 30 000 tab.
ferrous salt + folic acid	pregnant women	tab. 60 mg	1 bd 30 days = 60 tab.	= 15 000 tab.
gentian violet	both	25-g bottles	(external use)	= 8 bottles
mebendazole□	both	tab. 100 mg	2 stat. = 2 tab.	= 2 100 tab.

Drug	Age group	Form and strength	Course and quantity	Total requirement*
neomycin + bacitracin[ ]	adult	oint. 25 g	bd 7/7	= 1 tube = 50 tubes
oral rehydration salts	both	sachet 27.5 g	varies	= 3 sachets = 6 000 sachets
paracetamol	children	tab. 500 mg	125–250 mg tds 2/7	= 3 tab. = 1 200 tab.
paracetamol	adult	tab. 500 mg	2 tds 2/7	= 12 tab. = 3 000 tab.
piperazine	children	syrup 500 mg/5 ml	20 ml stat.	= 20 ml = 5 litres
phenoxy-methyl penicillin	children	tab. 250 mg	125 mg qds 7/7	= 14 tab. = 9 100 tab.
procaine benzyl-penicillin	adult	pulv. inj. 3 g (3 million IU)	1 stat.	= 1 vial = 375 vials
retinol	infants	cap. 7.5 mg	4 stat.	= 4 cap. = 400 cap.
retinol	both	cap. 60 mg	1 stat	= 1 cap. = 500 cap.
senna[ ]	adult	tab. 7.5 mg	2 stat.	= 2 tab. = 400 tab.
sulfa-methoxazole + trimetho-prim[ ]	adult	tab. 400 mg + 80 mg	2 bd 5/7	= 20 tab. = 7 500 tab.
tetra-cycline[ ]	adult	tab. 250 mg	1 qds 7/7	= 28 tab. = 8 400 tab.
tetra-cycline[ ]	both	eye oint. 1% 5-g tube	qds 7/7	= 1 tube = 750 tubes

*Based on numbers of persons to be treated as given in the WHO Emergency Kit.

[ ] Square symbol indicates that alternative drugs could be used

Abbreviations used:

bd	= take twice a day
cap.	= capsule(s)
od	= take daily
oint.	= ointment
pulv. inj	= powder for injection
pulv. susp.	= powder for suspension
qds	= take 4 times a day
stat	= at once
tab.	= tablet(s)
tds	= take 3 times a day
x/7	= x number of days per week