Dr. Karen Waltensperger, Save the Children Federation USA/Gaza Province, Mozambique
"Responding to Health Needs of Resettled Refugees: The Experience of Save the Children /USA in Gaza Province, Mozambique"

The project developed in the two poorest, least densely populated districts in the country. The two districts are also plagued with acute water shortage and lack of infrastructures. The returnees and IDPs represented respectively 86% and 60% of the districts populations.

Since 1993, SCF USA assisted the returnees to resettle and rebuild their lives especially in the areas of food security, water, sanitation, and infrastructural improvement. In 1994, with the UNHCR, the project focused on the rehabilitation of schools and health care services. The programme attempted to mobilize skills acquired by individuals during their asylum and apply them directly to the reconstruction and reintegration in the home communities. Encourage the project-trained additional returnees and others in the communities to foster a sense of community empowerment and decision making. A continual effort has been made to include women both in the training programme and on-the-ground construction projects.

Given the lack of government health infrastructures, SCF USA has concentrated its health efforts in training community based health providers such as traditional birth attendants and volunteer health promoters. TBA trained in the camps in Zimbabwe have been given refresher courses and familiarized with practices and policies as defined by the Ministry of Health in Mozambique and to link them with the district health authorities. Volunteer health promoters are trained in basic disease prevention, child survival, IEC skills.

POST WAR HEALTH SERVICES REHABILITATION

Mr. Mateo Pablo, Senior Liaison Officer, UNHCR
"The UNHCR Reintegration Programme in Mozambique: The Health Sector"

A UNHCR office was established in 1975 in Mozambique. The programme started to take importance by 1986 with the voluntary return movement of refugees. By 1993, after the Peace agreement, a large scale repatriation programme was initiated. which resulted in the provision of transport to 378,000* refugees from neighbouring countries. The assistance to the refugees during the repatriation meant close coordination with six countries, the Mozambican government, and different implementing partners on both sides of the borders. The Mozambican operation surpassed the Cambodian one in terms of numbers.

At the outset of its programme, UNHCR opted for a three-pronged approach: (1) to assist the refugees during their return movement, including transport, (2) to contribute to the creation of certain conditions in their places of origin to make repatriation a truly durable and lasting solution, and (3) to establish appropriate linkages between UNHCR funded projects and longer-term development efforts. This approach was framed in the National Reintegration Strategy. The formulation and contents of such policy was an innovative approach for UNHCR, yet based on experiences in Central America, Cambodia and Sri Lanka.

* ndrl: assistance to repatriation of refugees as well as voluntary and organized repatriation was done in collaboration with IOM.

The methodology utilized by UNHCR in the implementation of the programme is that of Quick Impact Projects (QIPs), a community approach which relies on implementation both by government agencies and NGOs. The UNHCR QIP has resulted in 1,400 micro projects implemented in 34 priority districts, in four sectors: water, health, education, roads. These activities came to complement activities targeting food security at the household level, through the distribution of basic food rations, seeds and tools. In the health sector, 181 QIPs have been implemented, representing 11% of the US$ 100 million UNHCR investment in the country. Most of the implementation of QIPs has been carried out by national and international NGOs. It is acknowledged that the UNHCR contribution to the rehabilitation effort of Mozambique Health sector has been substantial. Most of the QIPs have been implemented in peripheral areas thus contributing to the reduction of the present bias reduction in service delivery between urban and rural areas.

The above-mentioned strategy has resulted in slower and more costly rehabilitation works, with supply and supervision, as well as deployment of staff becoming more difficult and expensive.

UNHCR's priorities

Programme in the health sector coincided with those of the National Reconstruction Plan but did not always conform with those of the national health authorities. As a result, provinces like Manica with a high concentration of returnees but with comparatively strong health services have seen a substantial and maybe unnecessary amount of UNHCR funded rehabilitation. On the other hand, rehabilitation has targeted provinces where neither the return of refugees has been significant, nor were, in relative terms, the priorities for rehabilitation high.

Many partners have been involved in the rehabilitation, with different performance levels and often inconsistencies with national construction standards. The Ministry's lack of capacity to enforce official standards and to supervise all the construction works has also contributed to the vast spectrum of rehabilitation and construction works.

As the UNHCR programme was highly decentralized it was able to establish together with its implementing partners good and efficient work relationships with health authorities at provincial and district level but the articulation with national authorities proved to be deficient.

The assumption that other actors would be filling in the "software" vacuum at an opportune time proved somewhat incorrect and once the NGOs which provided other health inputs (payment of salaries, equipment, drugs, etc..) began to phase out, the weakness of the system surfaced: shortage of drugs, lack of maintenance of buildings, shortage of support staff, etc..

QIPs should be community based and gender focused criteria, difficult to be fulfilled when applied to the health sector and to a specific context of the country. Apart from wage earning opportunities provided by the rehabilitation and health education, supported by some NGOs, the communities' direct involvement in needs assessment and implementation has been very limited.

Since the review remedial action has been taken both at central and provincial level by the UNHCR and implementing partners, communication with the Ministry of Health at the central

level has been strengthened and the negotiation of linkages and agreements has addressed some of the issues mentioned above. UNHCR will reallocate some funding for recurrent costs which the Ministry is unable to cover during the present fiscal year. All those recurrent costs related to UNHCR-financed health structures which were not previously covered will be incorporated into the Ministry budget for 1997.

The results of the Reintegration Programme will also be strengthened through the establishment of linkages with line ministries and development actors. The main purpose of these linkages is to enhance the sustainability prospects of UNHCR's interventions and to facilitate a smooth transition from emergency assistance to development.

General recommendations: (from report NOT presented at the conference):
To be successful, rehabilitation planning must assume at the same time a national perspective in addressing the major gaps in services delivery and meet the most urgent needs of returning populations; in a context of shrinking financial resources, the priorities at national and local level do not always coincide. The increased availability of health services and resources is not the only determinant of health status. The inputs of the reintegration programme to the other sectors (such as water, sanitation, food and non-food aid) have also an impact on health. In general, the restoration of services is a key factor for the stability and resumption of economic activities of rural communities.

Given the short programme cycle, more attention should be paid to the long-term recurrent costs implications of rehabilitation. Additionally, the planning and management capacity needs to be strengthened in order to link the expansion of the network with an effective provision of services. Projects directed to technical assistance should be considered for funding.

Financial information is particularly important for the Ministry of Health and donors. A critical assessment of the performance and costs of the NGOs' operations could improve the cost effectiveness of the programme.

Dr. Manuel Tamarit, Save the Children/UK, Zambezia Province
Mr. Carlos Domingos, Statistics and Planing Unit, Provincial Directorate of Health, Zambezia
"Imbalances Inducted by the Post-Conflict Reconstruction of the Health Sector in Zambezia Province"

The rehabilitation of the health infrastructure of the Zambezia Province illustrates the diverse imbalances that may occur when priority for rehabilitation programmes are not analysed and taken decisions rather reflect donors' or local authorities' interests. In Zambezia, investments have been made in certain areas, neglecting others, thus not favouring the harmonious development of the global system. Financial support should be directed first to the planning of the rehabilitation and then to capital and recurrent cost. Indeed investment in capital costs only jeopardizes the sustainability of the system. The war destroyed 53% of the health infrastructure of Zambezia. With the Peace agreement, it became urgent to rehabilitate the system in order to face the 500,000 returnees and 300,000 IDPs' health needs The pre-war health network was designed during the colony and did not match the new socio-economic needs and resettlements. The health system rehabilitation progressed fast in Zambezia, the

international donors through a multiplicity of NGOs, and following central directives, restored in three years the network to almost its pre-war level and outdated layout. Similarly, the rehabilitation did not respond in an equitable way to the real needs, favouring districts easily accessible, and not always the most populous and isolated areas. The Provincial Directorate of Health was too weak to control entirely the process and local interests sometimes overruled set priorities. As a consequence, quality of rehabilitation has not always being optimal.

Further, the Province is, and will be unable to staff the rehabilitated health units due to a chronic national shortage in manpower and reduced budgets. In addition, the resistance of the donors to build staff houses will not help motivate settlement of staff in peripheral units. The international agencies financed 122 health staff. Most of these agencies have left now and the Ministry of Health is incapable to pay the health workers. As a conclusion, it can be stated that the perspectives for the government to sustain the recurrent costs of the new health network are bleak. Before the war there was a health unit per 11,450 inhabitants. During the war, the ratio changed to one health unit per 29,850 inhabitants. In 1996, four years after the end of the war, the province presents a ratio of one health unit per 24,440 inhabitants. Activity level has improved by 20%, yet a lot still needs to be done. There is actually an average of one maternity per 60,000 inhabitants, and one fixed immunization post per 55,000. Twenty-four per cent of the health post are still staffed by non-qualified personnel.

P. Baumgartner, S. Ferroni, A. Macome, J. Muiser, U. Weyl, (Manica Team) presented by Dr. Stefano Ferroni, UNICEF – Chimoio, Manica Province "Post-War Migrations, Accessibility of Rural Areas and its Impact on Health Care Services Requirements: Needs, Demand and Constraints. An Attempt to Summarize"

Eighteen per cent of Manica Province were refugees. IDPs were thought to be slightly over 18%. Population living into the rebel area of the Renamo were assumed to be 20%.

Health risks

Refugees presented a reasonable health status. Although the high rates of STD and HIV transmission revealed underlying psychosocial tensions. IDPs presented high rates of acute malnutrition (from 28% in certain district to an average of 11% in the province) leading to high mortality rates specially among children. The terrible drought that affected the area in 1992 lead to competition between IDPs and the local population for food aid. Cholera and dysentery spread easily in the IDPs concentrations, lacking water and sanitation, along the commercial road. The epidemics put additional pressure on the already fragile health infrastructures.

Populations in Renamo areas suffered from hunger and although an immunization campaign was realized after the peace agreement, a measles epidemic swept through the area as soon as the roads opened up.

Health system

From 1984 to 1992, thirteen out of eighty-four health units were destroyed, thirty-four were damaged and most were assaulted and pillaged. The health budget decreased over the years due to the worsening of the economic situation and the increasing role taken by the defence

sector. The dependency on foreign aid grew tremendously. The health system could hardly provide care to the population concentrated along the safer commercial road.

Reintegration of migrant populations

A holistic approach was taken considering not only health structures but also schools and water points in order to help fix the population in rural areas and avoid mass exodus to urban and peri-urban areas. Health activities increased substantially after the war. For example the number of consult per inhab raised from 0.56 to 0.68 between 1993 and 1995. The DTP 3 coverage raised from 79 to 92% etc. More interesting still is the redistribution from the activities from the concentration areas along the commercial road to the rural areas.

Problems met:

- recurrent versus capital cost unbalance leading to services under utilization due to lack of staff, budget, maintenance, and management capacity
- reaching an equitable resources distribution
- weak AID absorption capacity
- multiplicity of actors
- coordination on difficulties including political ones.

Yet, the distribution of health activities among the poorest population and the less affected populations has been reduced in Manica province, indicating a progressive re-equilibration of the original inequitable distribution of the health system.

U. Weyl, P. Baumgartner, N. Anderson, GTZ/German Tech. Coop. presented by Dr. Ulrich Weyl, GTZ-Mutare, Zimbabwe "Notes for Post-Conflict Migration Health Effects Conference: International/General Observations"

The transitional post-conflict phase is critical for the re-establishment of civil society. Yet large groups of people are not capable of nutritional self-sufficiency and are at increased risk for disease: their access to land, agriculture inputs, clean water, and sanitation, all basic necessities for health maintenance are limited. The demands on weak civil institutions are enormous and worsened by two factors.

First, many developing countries had minimal or reduced infrastructural capacities even prior to any conflict. Consequently, they may begin post-conflict rebuilding with little historical institutional capacity. The limited health infrastructures available may well have found it easier to provide comprehensive care to concentrated communities during the conflict than to dispersed settlements to which populations prefer to return for reasons of tradition and land tenure. These limitations are emphasized in post-conflict periods when emergency health aid in terms of materials and staff is curtailed by donors.

Second, populations affected by war are by no means monolithic in character, even when united by certain conflict related characteristics. Residents, internal displaced, cross-border returnees differ in terms of their resources, potentials and limitations (labour capacity, education, non-agricultural skills,.etc.). These populations are potential competitors for external resources and

have different needs. In order to achieve food security and nutritional self-sufficiency for all these groups, different strategies must be implemented for each target group and agro-ecological area, even if under the rubric of a single comprehensive programme.

In order to achieve this goal, intersectoral coordination and decentralization are essential.

The return must be voluntary to secure an appropriate rehabilitation and development dynamic. Traditional support systems for isolated elderly and women head of household should be assisted whenever possible instead of creating dependency of high risk target groups on external donors.

Advantage should be taken of the skills learned in exile especially in the health sector. And host countries should also take the opportunity of the return of refugees to reorganize their own Primary Health Care services.

The existence of long-term conflicts between residents and returnees may have less to do with access to inputs necessary for food security and nutritional resources and more to do with exposure to different values and behaviours. Will returnees loose the new values learned in camps or other countries to blend into the traditional rural values?

The successful development of comprehensive primary health care in a country with limited pre conflict capacity, increased post conflict need, subjected to progressive impoverishment through structural adjustment, is extremely unlikely without some basic reforms.

Alternative reforms could include selective primary health care, increased use of traditional medicine especially with respect to mental illness related to the conflict, intersectoral approach with help from rapid appraisal tools.

Ms. Margarida António Matsinhe, Provincial Director of Health
"Post-Conflict Migrations: The Experience of the Maputo Province"

The Maputo province is bordered by South Africa and Swaziland on the continent and by the Indian Ocean on the seaside.

Before the war the province was renown as "the silos of the capital". From 1990 it suffered from the war and severe droughts. In 1996 floods have replaced the drought and once more the annual harvest is endangered, with its probable nutritional consequences.

With the war, intense migratory movements from the population and the health staff were registered, towards neighbouring countries or provinces or internally.

Only 51 out of 109 health structures were still operational at the end of the war. 4 years later 80% of the initial health infrastructure has been rehabilitated with housing for the staff. Rehabilitation or construction work has followed strict criterias such as population density, resettlement areas, human resources availability.

Thanks to some international and national NGOs some medical staff and volunteers, as well a logistic and supervision support have been provided.

At the end of the war, special medical assistance was provided for the population isolated in the war zones and contacts were made with the Renamo health staff. This staff was posteriorly assessed and their knowledge updated in order to integrate them in the MOH.

Intense preventive services such as Immunization and Health Education were conducted for returnees. Unfortunately, mine accidents have not been totally avoided and surgical cases are poorly attended due to the lack of appropriate services and ambulances for transfers. Although the health infrastructure rehabilitation has progressed quite well, the coverage of the province is not complete. On the other hand, the number of medical doctors in service, increased from 2 in 1990 to 16, working at the primary level, in 1996!

POST-WAR MIGRATION AND DISEASES

Dr. Pedro A. Noya Chaveco, Ministry of Health, Mozambique "Changing in STDs and AIDS Morbidity and Repatriated Population"

Population mobility and HIV are associated. Indeed the permanent rural-urban migration movements have overloaded the cities which are unable to offer employment opportunities to all migrants. Traditional family values are weakened and sexual behaviours pattern change.

The availability of good roads unfortunately increases the diffusion of the disease to rural areas. The tendency has been to blame individual behaviour in the transmission of the HIV virus, yet, economic and social disruptions such as the ones experienced through war, influence greatly the incidence of STD/HIV. In Mozambique the impact of migratory movements on the STD/HIV transmission have depended largely on factors such as:

- stability of the National Aids Control Programme (NACP) in the province, in terms of human and material resources
- district and health centres coverage in the province
- quality of the prevention work of the NACP in the province
- intensity of the migratory movement in the province
- number of high risk groups

Maputo, the capital, has benefited from the early (1988) and comprehensive N.A.C. Programme. Despite the intense influx of displaced persons during the war, comprehensive STD treatment has helped to maintain STD and HIV prevalence (5%) stable through the years. The Central and Northern provinces have seen a dramatic increase in STD and HIV cases. For example, in Tete Province AIDS already represent one of the three first causes of death, with 32,1% of all national AIDS cases diagnosed.

The reasons are multiple:

- highest migratory movements, especially refugees from neighbouring countries
- some important commercial roads were maintained open during the war, with an intense truck drivers and soldiers traffic

- commercial sex developed dramatically due to the poor economic situation of the populations, the needs of the truck drivers and the soldiers
- increase in ambulant traders
- increase in trade with the neighbouring countries, as the market system in Mozambique does not yet function well
- practices such as polygamy and healing incisions by traditional healers
- late and weak NACP.

Several KAP studies conducted in the central and northern regions show that:

- Despite the fact that truck drivers have a good knowledge on HIV/AIDS, their maintain high risk behaviours. Mozambican truck drivers seem to present the most risky behaviours
- Knowledge and use of condoms was poor between displaced persons in 1990
- The epidemiological surveillance system has detected a slight increase in the HIV blood donors from 8% in 1989 to 10.2% in 1994.

In Mozambique AIDS cases are under-reported due to a poor diagnosis capacity and poor access to health care.

Dr. Eva de Carvalho, Ministry of Health, Mozambique "Urbanization and Malaria in Maputo City"

Malaria in Mozambique is endemic with epidemic outbreaks. Since 1992, however, after the Peace agreement, the malaria situation in the capital worsened. Fifty per cent of out-patient consultations are due to Malaria, 30 to 70% of hospital intakes are for malaria. Uncontrolled urbanization and migration unbalanced the environment and altered socio- economic patterns. For example, migrants settle in known malariogenic areas around the capital, in poor housing and develop small irrigation systems for their survival agriculture. Drainage systems are obstructed or insufficient, garbage deposits are not managed properly. In addition, changes in the pluviometry has favoured the breeding of mosquitoes. The Health authorities plan to strengthen biochemical and environmental control measures. Health Education and standardized early case management have already reduced the rate of severe malaria hospitalization. Yet Malaria control requires a multi sectorial approach in order to secure a balanced ecosystem.

Dr. Ana Cabral, Ministry of Health, Mozambique "Repatriation and STDs/AIDS Programme in Emergency Situations"

Border provinces and districts which were to receive the largest number of returnees have been targeted for intensive IEC and condom distribution interventions. Theatre, leaflets, posters in local languages and Portuguese have been developed and distributed in schools, health posts, etc.

A. Mac Arthur, P.E. Hellstrom, Noya, de Souza, Barreto presented by Dr. A. Mac Arthur, Ministry of Health, Mozambique "HIV Prevalence among Tuberculosis Patients in Mozambique: A Baseline Survey"

A cross-sectional survey of the seroprevalence of 1437 tuberculosis patients was carried out, using two rapid tests for HIV1 and HIV2 in three trade corridor and three non-corridor areas of Mozambique.

The mean seroprevalence rates of new tuberculosis patients were 136,223 and 33,1% for smear positive, smear negative and extra pulmonary patients respectively. The corresponding rate for retreatment cases was 12,2%. Four out of seven chronic patients were HIV positive.

The seroprevalence rates for female was higher than men's in all categories of tuberculosis disease. The female age group 15-24 years was most affected. The corresponding male group was 25-34 years. The sero prevalence rates of females were higher than those of men in all areas except the northern non-corridor area. The highest rates were found in the central (Beira) corridor and non-corridor area. The HIV seroprevalence rates increased progressively from the coastal districts along the corridor and non-corridor areas towards the border districts. The border districts were significantly more affected than the other districts. The results call for changes in key elements of health policy and programme strategy.

Discussion

The importance of trading roads in the transmission of HIV are once more demonstrated in Mozambique. The high prevalence of HIV and TB in neighbouring countries influences directly the prevalence of those disease in border areas. The high prevalence in women can be explained through the destruction of normal familial and social relations, the lack of education and employment, pushing young women into sex work.

A. MacArthur, L. Compostella, P. Hellstrom, J. Tembe, D. Rungo, A. Benfica presented by Dr. L. Compostella, Ministry of Health, Mozambique Follow-up of Chronic Patients in Post-war Migrationary Situations. The Case of Leprosy Patients in Mozambique, 1992-1995

The outcome of the annual cohort of Pauci bacillary patients for the years 1992 to 1995 have been analysed. PB have been chosen because of their shorter period of treatment and thus the possibility to evaluate their treatment results. The computerized records from operational districts from the whole country were used for this analysis. Among the Pb patients registered before the end of the war in Mozambique, a defaulters rate of 6.8% has been recorded. In the first year of peace, the defaulters rate increased to a maximum of 39% to begin declining progressively in the following years (29.9% in 1994, 20.6% in 1995).

Inversely, a decline of defaulters rate was the trend of the cure rate that showed an increase from 52.2% in 1993 to 66.5% in 1994 and to 73.5% in 1995. Although the data from 1992 are incomplete, the high defaulters rate registered in the first year after the peace accord is most probably linked to the intense migration movements inside the country from one district to the other.

What is interesting is that an insignificant percentage of patients has been registered as "transferred out" during the same years (less than 1%). This means that the greatest majority of patients moved away from their districts without giving proper information to the health structure: lack of adequate health education of patients, fear of some kind of punishment or prohibition, unplanned spontaneous/not organized, not assisted/migration and movements to areas where no health facilities were known to exist, could be the possible explanation.

The following solutions were implemented to try to minimize the problems:

- improve health education of patients explaining about the need/opportunity contact health structures before moving in order to receive updated information on existing health facilities in the new area and collect a sufficient amount of drugs in order to avoid interruption of the treatment
- open decentralized health facilities where screening of suspected cases could be made and delivery of fixed regimens of treatment could take place(simplified criteria for diagnosis and classification of the disease and fixed duration of treatment are prerequisites)
- involve community leaders of the spontaneous arising new villages to trace the cases or to motivate the patients to present themselves to the health structures, and to help distributing treatment in the new settlement areas
- organize a uniform information system in the country with regular exchanges of information between provinces and cross check of defaulters and new entries.

These solutions could be applicable also to patients suffering from other chronic diseases.

Dr. Avertino Barreto, Dept. Epidemiology, Ministry of Health of Mozambique "Outbreak of Plague in a Repatriated Population in Mutarara District"

In previous centuries, the plague spread through the world's commercial and war roads and lead to dramatic mortality levels.(up to 50% of the medieval European population died from the plague). The first case of plague was reported in Mozambique in 1898 imported from foreign trade centres. The local warfare routes spread the disease to the central region. The last case was reported in 1910 to reappear in 1977 and again in 1994.

The drought that hit Mutarara district in central Mozambique in 1977 forced local population to hunt small wild rodents carrying infected flees, in a desperate search for food. Similarly, starved rodents started invading houses. A plague epidemic resulted from this unexpected transmission of infected flees from rats to humans.

In 1994, Mutarara received 85 000 refugees from Malawi. Abandoned areas had seen the proliferation of wild rodents that invaded returnees new resettlements, assaulting their food stocks. Additionally the re-opening of abandoned areas to agriculture and the precarious food security leading people to consume wild rats, increased once more the contact between rats-infected flees. and humans. An epidemic started. 216 cases of plague were diagnosed. Only 3 dead were registered.

Control measures were hard to implement due to the difficult access of the areas of interest, polluted by mines, or intransitable due to the rains. Nevertheless, house pulverization, personnel disinfection, temporary closing of the border were some of the measures taken.

Specific flee control was also implemented through TIFAS. Swift measures and good coordination between the Malawi and Mozambican government allowed for minimal delay in the repatriation programme.

The Mutarara region and its neighbouring region in Malawi were known to be endemic for the plague. These regions are also known to suffer from droughts and hunger on a cyclic base. Those factors associated with traditional survival food habits, are enhancing factors for the occurrence of a plague epidemic. Knowing this, specific measures should be taken to prevent new epidemics:

- a nutritional surveillance and an emergency food stock
- annual flees control
- epidemiological surveillance
- coordinated action between Malawi and Mozambique
- in case of repatriation programs in endemic areas, appropriate measures should be taken
- before the return of the migrant population
- returnees should received better conditions to avoid turning towards dangerous survival strategies.

Mr. Jonas Chambule, UNICEF, Mozambique
"Changes in the Patterns of Meningococcal Meningitis in Mozambique – The Influence of Post-war Migratory Movements"

Meningoccocal Meningitis surveillance is done in Mozambique since 1985 through sentinel posts (provincial and central hospitals). From 1975 to 1984 surveillance was performed through weekly information from every health posts. The new sentinel surveillance system includes hepatitis, diphtheria, trachoma, typhoid fever, extra pulmonary tuberculosis.

Up to 1993, Menigoccocal Meningitis epidemics occurred in close communities such as schools, quartels, prisons. Since 1993, Meningitis epidemiological pattern has changed with an increased number of cases being reported from the same province, Gaza, but also from large urban centres (Maputo, Nampula, Lichinga).

Enhancing factors include:

- increased circulation of healthy carriers and of the population in general after the Peace agreement
- socio-economic factors such as overcrowded housing with poor ventilation, low economic level, families with more than 6 persons, low hygiene
- climatic factors (may-June)
- weak control and diagnostic capacity at provincial and district levels.

Control measures include:

- standardized treatment schemes
- chemoprophilaxis
- immunization of close communities
- health education.

POST-WAR FOOD SECURITY

Dr. Julie Cliff, Faculty of Medicine, University E. Mondlane, Maputo
"Food Poisoning by Cassava Use in Displaced Population"

Displaced populations often turn to bitter cassava as a food crop because of its high productivity and resistance to drought and predators. Bitter cassava contains cyanogenic glycosides that must be removed by processing before cassava is safe to eat. As processing is labour intensive and/or lengthy, stressed populations often take short cuts. Incomplete processing results in a high intake of cyanide and acute intoxications. Over time, chronic cyanide intoxication may result.

Konzo is a permanent spastic paraparesis associated with consumption of bitter cassava and a low protein diet. Anecdotal reports suggest that Konzo epidemics have occurred in Angola and Uganda associated with war. In Mozambique, a large Konzo epidemic occurred in 1992 and 1993 in Mogincal district in Nampula province. Over 300 patients were treated in rehabilitation centres. The total number of cases is certainly much greater. Most cases were women and children. The majority of patients had been displaced by war.

In both years the epidemic peaked at the time of the cassava harvest between August and October. In 1992, fighting was particularly fierce in the months leading up to the peace accord in October and agriculture was severely disrupted. After the Peace agreement, people returned en masse to the rural areas. As seed and tool distribution was extremely limited, they could only plant bitter cassava. In 1993, they therefore had to harvest it early and shorten its processing. Despite early warning, the 1993 epidemic was not prevented, showing the fragility of post war emergency responses.

Patient rehabilitation centres functioned well during the emergency phase. They are now closed. Since then, we have found many other Konzo patients in Mogincal and other districts who need rehabilitation Some communities of returnees are still dependant on bitter cassava and suffering from cyanide intoxication.

Dr. Isabel Guzman, Ministry of Health, Mozambique
presented by Helen Stappers, Ministry of Health, Mozambique
"Nutritional Concerns and Food Security in Emergency Situations and Post-Conflict. The Experience of Mozambique"

1. The experience of the Ministry of Health in Mozambique in Nutrition during the Emergency:

   1.1 Information: creation of National Nutritional Surveillance Systems

   Objectives:
   - monitoring the nutritional status of the population
   - identification of vulnerable groups
   - intervention planning.

Advantages:

- possible divulgation
- good coverage
- better justification for emergency food aid

Problems:

- poor data quality
- poor utilization of the data at base line
- poor co-ordination and multiple norms brought by NGOs
- data access and flow

2. Norms and Orientations

Objectives:

- standardization of norms for nutritional interventions

Advantages:

- easy divulgation of norms and orientations on food rations, milk distribution and nutritional rehabilitation centres

Problems:

- logistics and management of food aid
- multiplicity of norms for nutritional rehabilitation
- coordination between NGOs and the MOH

3. Supervision and Direct Intervention

Objectives:

- improve programmes' implementation

Advantages:

- permanent training of health staff and NGOs
- specific programmes' monitoring, such as food intoxication and micro nutrients carences.

4. Nutritional and food security challenges in the post-war area

4.1 Training of health staff and other secrtors in food security and nutrition

- Special attention should be given to improve the understanding of the traditional nutritional and agricultural habits, and plan an appropriate answer to the actual food intoxication's and loss of nutritional and agricultural knowledge problems found in certain groups

4.2 Improve the information on nutrition and food security

- improve the quality, the coverage, the utilization (at provincial level in order to organize interventions and at central level in order to design policies)

5. Data collection and utilization at the base line

- decentralization (understand the nutritional economy at district level
- intersectorial approach (better commercialization, more employment, development of Health and Education).

6. Adaptation and reformulation of food policies and norms in the new context of reconstruction and development.

7. Concretization of intersectoral coordination through the implementation of the National Nutrition and Food Plan.

Food security in the post war area continues to be a concern due to the social and economic insecurity and to the cyclic natural disasters. Nevertheless, some hope exists.

Stephan Meershoek, FAO, Mozambique
"Food and Nutrition Security in Mozambique"

The objective of food security in a post-emergency situation, is to help the affected population to overcome the crisis and recover quickly but also to improve their overall living conditions so that they become less vulnerable to future threats to their livelihood. Food security means access by all people at all times to the food needed for a healthy life. Nutrition security is the consumption and physiological utilization of adequate quantities of safe and nutritious food needs for a healthy life by each individual member of the household. The main constraints to improving people's food security in post emergency situations is the ability to collect multi sectorial information (agriculture, nutrition, health, markets, etc.) and use it for planning and policy making.

In a population that has lived for a long time in refugee camps or on food rations, knowledge and traditional food habits easily disappear. Locally adapted nutritional education should be developed for those groups. Special attention should be given to infants feeding practices. Examples from Mozambique include cyanide poisoning by bitter cassava and teenage mothers that have lost their own parents.

Restoring agricultural production means secure access to land, distribution of seeds and tools, restocking of traditional livestocks, stimulate marketing and transport, increasing income and employment opportunities. Food aid should maintain at least until the first harvest. Capacity building at all levels in the above mentioned areas are crucial in order to prepare for future crisis. FAO's main focus in food security and nutrition is on Information collection and Capacity building in Information Management.

FAO established and supports the Early Warning and Crop Forecasting Unit in the Ministry of Agriculture. The main objective is to have as soon as possible an estimate of food production and food shortages at provincial and national level, in order to enable donors to provide food aid in time and in justified quantities. This should avoid famine without distorting local production. The main assistance in the Ministry of Commerce is in internal food trade and food import (commercial and aid). In the Ministry of Planning and Finance support is given in analysis of multi- sectoral information on food security and nutrition and the use of this information in policy formulation for poverty reduction. In the Ministry of Health, support is given to the establishment of district food security and nutrition profiles. which will assist in the promotion of intersectoral collaboration and planning activities to improve food security and nutrition at the district and provincial level, and identify vulnerable areas at the national level. FAO works in the different Ministries on Information Management, hoping to stimulate intersectoral collaboration one of the most crucial issues in food security.

Dr. Pedro Arlindo, Researcher, Project of Food Security, Ministry of Agriculture, Mozambique
"Displaced Population, Nutrition and Food Security. Preventive Contribution in Food Security"

Household strategies towards food security are diverse:

- production for auto consumption
- food exchanges
- food trade
- manpower trade
- other employment.

The three last strategies imply money and the existence of markets. Markets allow for specialization of cultures, more efficient trade, better exchanges between rural and urban areas. The money flow allows the peasantry to access more services such as schooling and health.

POST-WAR ENVIRONMENT PLANNING

Dr. Evaristo Baquete, Environmental Health, Ministry of Health, Mozambique
"Water and Environmental Health, Basic Needs of the Population: Challenges not to be forgotten"

The increase in Malaria and Diarrhoea diseases since 1980 has been associated with a breakdown of water and sanitation systems. The water system coverage fell from 48% in 1980 to 33% in 1990. Rural water systems are estimated to be 17%.

Eighty per cent of the 69 out of 143 urban water systems surveyed did not purify water. Sixty-four per cent pumped water from superficial sources. Twenty-two per cent relied totally or partially on wells. Domestic waste predominates garbage. Efficient and appropriate disposal does not exist with as consequences accumulation in streets and neighbourhoods, and recycling by the poorest.

Only the capital enjoys a treatment system for used waters. The relatively cost-efficient latrine programme cannot cover the majority of the population. In certain areas, the overcrowding or the low phreatic level do not allow for latrine construction. Food hygiene control only manages to cover official businesses. The large informal food markets and take-aways escape control.

Occupational Health concerns so far only the mechanic-metallurgic workers.

During emergencies norms for water, garbage collection and sanitation should be elaborated. In post-war era, water, garbage collection and sanitation should be developed in rural areas to stimulate the resettlement of population in their zones of origin. Proper urbanization should be stressed through the strengthening of the institutional capacity in urban management.