

PD-ABF-009  
15A 80177



**Nairobi City  
Commission**



# *Mid-Term Evaluation of the Urban Child Survival Project*

---

**August 1992**

**The African Medical and Research Foundation,  
Community Based Health Care Support Unit,  
P.O. Box 30125,  
Tel. 501301, Nairobi.**

**MID-TERM EVALUATION  
OF THE  
URBAN CHILD SURVIVAL PROJECT**

**AMREF, NAIROBI CITY COMMISSION, USAID**

**Nairobi,  
August, 1992**

### **Consultants**

Isiye O. Ndombi,  
UNICEF GABORONE,  
P.O. Box 20678,  
GABORONE, BOTSWANA.

Esther Sempebwa Nagawa,  
Aga Khan Health Services,  
P.O. Box 83013,  
MOMBASA, KENYA.

A.O. Oyoo,  
Nairobi City Commission,  
P.O. Box 30108,  
NAIROBI, KENYA.

## ACKNOWLEDGEMENTS

This was a participatory evaluation hence several people contributed significantly to the success of the three week exercise.

The Evaluation Team would like to extend their sincere thanks to all those who contributed in one way or another.

Our thanks go to the African Medical and Research Foundation (AMREF) who laid down the ground work for the evaluation exercise. Special thanks go to the Head of CBHC Support Unit - Ms Penina Ochola, the CSD Project Leader, Mrs Margaret Okello and the two field level trainers, Mrs Jedidah Mwawingwa and Elizabeth Wanjiru, among others who created an environment conducive to a participatory evaluation.

They made available to the team relevant reference materials and made appointments for the evaluation team to meet key persons and organizations to be interviewed. The CBHC Support Unit also made adequate arrangements for field visits. All this would not have been possible without the support of the Director of Community Health - Dr Pat Youri.

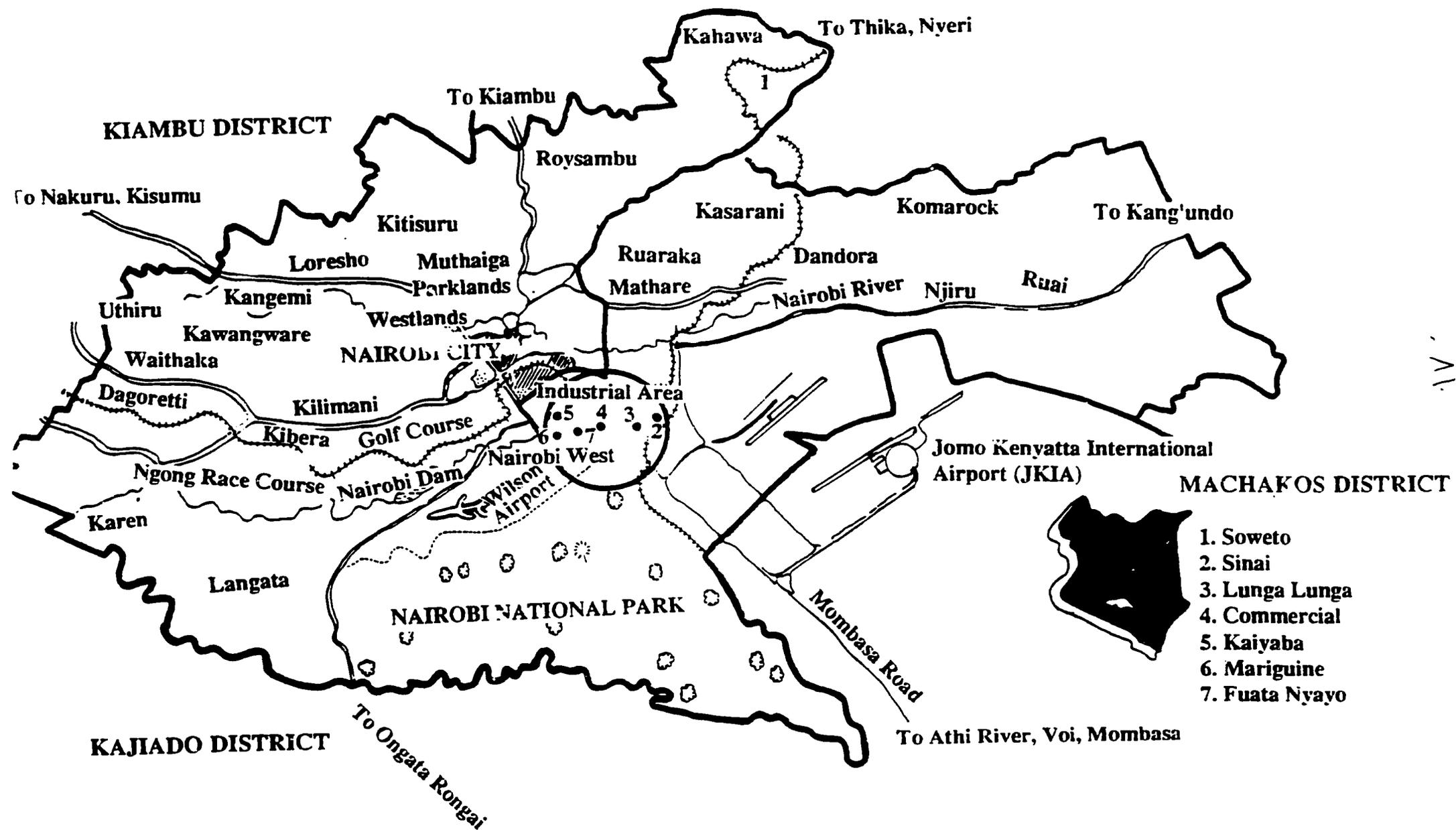
Everybody we interviewed either individually or in a group contributed a wealth of information. Useful contributions came from the staff of the Division of Family Health in the Ministry of Health, Nairobi City Commission, particularly the staff at both Divisions and staff at the Health Centres within the project areas who have been working closely with the project team.

Community members within the project areas provided valuable information. The evaluation team would not have made much progress without their co-operation through which vital information about child survival and development was provided.

The team also wishes to acknowledge USAID, for their tremendous support for this project.

Last but not least, we extend our thanks to the secretariat of CBHC Support Unit of AMREF and to the drivers who tirelessly and cordially accomodated our requests for their services.

It is not possible to mention by name all those who contributed to this Mid-Term evaluation of the Urban Child Survival Project by giving of their valuable time and inputs to the evaluation team but our sincere thanks go to all of you.



**Map showing Urban Child Survival**

## TABLE OF CONTENTS

	PAGE
EXECUTIVE SUMMARY.....	iii
<b>1.0 INTRODUCTION.....</b>	<b>1</b>
1.1 Background.....	1
1.2 Social Services in the Slums.....	4
1.3 Health Services.....	4
1.4 AMREF and the Urban Child Survival Project..	5
<b>2.0 EVALUATION OBJECTIVES.....</b>	<b>9</b>
<b>3.0 METHODOLOGY.....</b>	<b>9</b>
<b>4.0 PROJECT IMPLEMENTATION.....</b>	<b>10</b>
4.1 Project Focus.....	10
4.2 Implementation Status.....	11
<b>5.0 PROJECT COORDINATION.....</b>	<b>32</b>
5.1 Technical Support.....	32
5.2 Inter-sectoral Coordination.....	33
5.3 Health Information System.....	33
5.4 Budget Coordination, Central Funding and Accountability.....	37
<b>6.0 SUSTAINABILITY OF THE PROJECT.....</b>	<b>38</b>
6.1 Community Participation.....	38
6.2 Prospects for Community Project Co- financing.....	41
6.3 Nairobi City commission's Preparedness.....	41
<b>7.0 LESSONS LEARNT.....</b>	<b>43</b>
ANNEXES.....	46
A. PERSONS MET.....	47
B. TERMS OF REFERENCE .....	48
C. MEMBERS OF THE NGO TRAINING COMMITTEE.....	50
D. MEMBERS OF THE NAIROBI MCH/FP COMMITTEE.....	51
E. PROPOSED PHC UNIT AT NCC.....	52
F. FAMILY REGISTER AND MONITORING FORM.....	53
G. HEALTH HAPPENINGS FORM.....	56
H. CONCEPTUAL FRAMEWORK FOR NUTRITION.....	58

	PAGE
<b>TABLE OF FIGURES</b>	
1.1	2
4.1	11
4.2	19
4.3	37
6.1	39

<b>LIST OF TABLES</b>	
1.1	7
1.2	8
4.1	13
4.2	15
4.3	20
4.4	29
5.1	37

## ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AMREF	African Medical and Research Foundation
ARI	Acute Respiratory Infections
CBD	Community Based Distributors
CBHC	Community Based Health Care
CBHCSU	Community Based Health Care Support Unit
CBHW	Community Based Health Worker
CBS	Central Bureau of Statistics
CDA	Community Development Assistant
CDO	Community Development Officer
CHD	Community Health Department
CHW	Community Health Worker
CSD	Child Survival and Development
DFH	Division of Family Health
DIP	Detailed Implementation Plan
DO	Divisional Officer
DVBD	Division of Vector Borne Diseases
FP	Family Planning
GOK	Government of Kenya
HIS	Health Information System
HIV	Human Immuno-deficiency Virus
IGA	Income Generation Activities
KEMRI	Kenya Medical Research Institute
MCH	Maternal and Child Health
MIS	Management Information System
MOH	Ministry of Health
NCC	Nairobi City Commission
NGO	Non-Governmental Organization
OR	Operations Research
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PHC	Primary Health Care
PVO	Private Voluntary Organization
STD	Sexually Transmitted Diseases
TBA	Traditional Birth Attendant
TH	Traditional Healers
TOF	Trainer of Facilitators
TOT	Trainer of Trainers
TT	Tetanus Toxoid
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USA	United States of America
USAID	United States Agency for International Development

## THE EXECUTIVE SUMMARY

This mid-term evaluation, implemented between 20 July and 7 August 1992 reviewed, the quantitative and qualitative achievements of the urban CSD project utilizing the project's Detailed Implementation Plan (DIP) as the basic reference point for project design. In addition, the evaluation took into focus the larger picture that is influencing the capacity for realization of the objectives of the project. It was noted that during the period under review, there has been a major drought that affected most of Africa. The drought led to shortage of water all over the city, with the slum dwellers bearing the brunt of this problem. The other issue considered was the progressive reduction in the purchasing capacity of the households, which was evident in a number of independent reports reviewed by the evaluation team. They clearly show that the effects of structural adjustment may be hitting the urban slum dweller hardest. Thirdly, there was the issue of coordination between the Nairobi City Commission (NCC) and the Provincial Commissioner's Office. While structures exist to facilitate the good management of the affairs of the city, they have not been fully utilized. While these issues are not the direct responsibility of the project, they play a critical role in the realization of the objectives articulated by the project.

The project area has a population of 65,000, which includes the project target group of some 40,000 mothers and children, served by two NCC health facilities. With an overall goal of improving the health status of children under five years and women of child bearing age the project team, led by the CSD Project Leader with adequate back-stopping from the management of AMREF, has delivered the project using a community empowerment approach.

The evaluation team reviewed the progress in the implementation of the objectives utilizing the data derived from the baseline survey (1990), the rapid assessment survey (1992), routine and community based information systems, a review of literature on Nairobi slums and interviews with relevant persons.

An average child under five years gets 11 episodes of diarrhoea per year, on account of the poor environmental situation in the project areas. There are an average of 20 households, with an average of four persons per household, per latrine. The environmental situation is poor and the drought which existed during part of the project period created an acute shortage of water in the city generally, and in the slums particularly. This caused the slum dwellers to utilize water from polluted and contaminated rivers and drains that traverse these areas. Health and community workers testify that although they see much diarrhoea, most mothers can rehydrate their children. The greatest underlying problem is the status of the environment. The Project has initiated discussions with the NCC in an attempt to address this problem.

The objective of immunizing 65 percent of the children by 1992 was achieved and surpassed. The complete immunization coverage for 1992 is 87 percent. This has resulted from the mobilization, by the community based health workers trained by the Project, of the parents to demand for vaccinations. The result has been a great reduction in the incidence of vaccine-preventable diseases.

The nutrition objective was to reduce the proportion of children who are malnourished to 30 percent by 1992 and increase the practice of exclusive breastfeeding for 4-6 months. The number of children experiencing malnutrition is low, according to health facility data. However the community based health information system, developed by this project, has registered a deterioration in the growth patterns of the children resident in the slums. This is in spite of an increase in the knowledge among the CHWs and the parents. The high incidence of diarrhoea and the diminishing purchasing power occasioned by the general economic situation and the impact of structural adjustment are the constitute the main underlying causes. Further work will be needed to ascertain the impact of household economic security on the general status of the slums households.

For enhancing safe motherhood, the objectives were to increase the proportion of women of child bearing age (11-49 years) in union using contraception and also reduce the pregnancy rate among the girls under the age of 20 years old, on the one hand; and to increase prenatal care attendance, risk screening and safe delivery for pregnant women on the other hand. The number of women utilizing family planning services has remained around 46 percent for the eligible women. This apparent lack of increase is, in part, due to the fact that condoms have not been viewed by the communities as a means of family planning. The utilization of condoms has gone up by a factor of over 100, since 1990. Those who attended prenatal care had appropriate risk screening. The rapid assessment survey did not examine the prenatal attendance patterns in the community although discussions with various community members and health workers indicated an increase. 67 percent of women registered for prenatal care delivered at a health facility. This pattern might be reversed by the recent introduction of fees for cost recovery and should be re-focused by the NCC.

For malaria control, the objectives were to improve the identification, diagnosis and management of malaria, on the one hand; and the prevention of malaria (if primary transmission is proven), on the other. The Project has started the process of establishing a laboratory capacity in the project areas, which will help in addressing the objectives. At the community level work has started in clearing the drains and other potential mosquito breeding places. The realization of and the strategy to be used in the implementation of these objectives are limited by the determination of whether primary transmission of malaria exists in the city.

The programming flexibility of the Project was clearly shown by the incorporation of the HIV/AIDS prevention component since AIDS will no doubt pose a major threat to the progress registered by the Project. AIDS prevention has been promoted utilizing an innovative approach that used AIDS patients as facilitators of community AIDS awareness workshops. The promotion of condom utilization has been very successful increasing the utilization in the project areas by over a factor of 100.

With the objective of developing a sustainable health care, the Project has catalysed community mobilization, sensitisation and education through the training of trainers, CHWs, traditional birth attendants (TBAs) and traditional healers (THs); and development of appropriate technology and health information system for utilization at the community level. The target was to have 1 CHW to 60 households, by 1992, and to have built up close training relationships. The Project has managed to train sufficient CHWs to achieve an average ratio of 38 households per CHW. The achievement of this target resulted from the high community response. This achievement is threatened by a relatively high drop-out rate partly due to out-migration, securing of employment and at times, loss of interest. At the time of the review, the ratio was 62 households per CHW. The desire of the CHWs to be involved in income generating activities (IGAs) is clear and delay in assisting the establishment of this capacity may generate frustration and lead to more drop-outs.

The community based health information system developed by the Project has been useful, but the high turn-over of the administrators has made the optimal utilization of the HIS at community level difficult. Relative peripheral involvement of the NCC in the community based HIS will need to be addressed.

Although the project team members have adequate capacity in their relevant areas of responsibility, they are relatively overstretched in the handling of the relatively ambitious project objectives. The Project leader has made good use of technical support external to the project to help the implementation of training, monitoring and evaluation and IEC activities.

Budget management was satisfactory. The project has taken advantage of AMREF's Finance and Administration Department for project accounting. The spread of budget items is in keeping with sound project planning.

Sustainability of the project had not been defined in the DIP. However, the evaluation team understood this to mean the ability of the NCC and relevant communities to carry on after AMREF's active involvement ceases. The processes that will enhance sustainability have just been started, in part, as a result of this project. The support of Provincial Commissioner's Office and the NCC will be needed to achieve this; the retention rate of the CHWs in CBHC will

be critical; and a capacity for community co-financing could be built utilizing the cost recovery that has recently been started. In order to enhance this, a minimum project horizon of three years will be needed.

To further enhance the implementation of the CSD Project, the following major recommendations have been made to the major implementing agencies.

**A. It is recommended that AMREF:**

- assists the community to come up with organization structures which are more broad based to support CSD activities at their level;
- explores innovative, technologically appropriate and cost effective ways of human and other waste disposal in collaboration with NCC and the community;
- develops a conceptual framework for determinants of malnutrition in the project areas which can be utilized in addressing the needs of the slum villages;
- analyses the effects of structural adjustment on the households in the slum areas. AMREF should liaise with relevant government departments in this effort.
- facilitates the process of enlarging and improving the capacity of Jericho Health Centre and establishment of smaller laboratories at Kahawa and Industrial Area Health Centres.
- facilitates the development of meaningful income generating activities or small enterprise development with the view of supporting community based health activities;
- increases AIDS control activities at community level in the project through linkage with other NGOs and partners; and that

AMREF, NCC and the community define "sustainability" and clarify roles and responsibilities, with time frames, towards achieving sustainability.

**B. It is recommended that NCC:**

- takes the lead in facilitating the development of slums, particularly in the areas of human waste disposal, safe water provision, drainage and, when possible, housing.

- Reviews maternity fees and other health care costs with reference to poor slum residents;
- Together with KEMRI and DVBD establishes the position of malaria transmission in Nairobi and appropriate responses;
- Undertakes to establish smaller laboratories at Kahawa and Industrial Area Health Centres.
- Establishes a PHC Unit at City Hall to coordinate PHC activities in the city of Nairobi and minimises the transfer of staff with PHC/CSD training from project areas;

**C. It is recommended that the Government:**

- develops a policy on ARI which will clarify health facility and community based management;
- the Ministry of Health (MOH) should clarify the tetanus toxoid policy for service providers. The Government should also develop a clear policy on the provision of family planning services for adolescents to enhance the capacity of the project to implement related activities; and
- reviews the impact of structural adjustments on poor households in the country and come up with policy to ease the burden on the poor households.

**D. It is recommended that USAID:**

- extends the horizon of the project by at least another three years to enable implementors complete the processes which have been successfully initiated but will require sufficient time to take root.
- Provides sufficient financial support to income generating activities in the project budget.

## **1.0 INTRODUCTION**

### **1.1 Background**

Nairobi, Kenya's Capital City, has an area of 648 sq. kilometres and an estimated population of 2.0 million. While the average population growth is estimated to be 10 percent, the upper and middle income areas are growing at 5-7 percent whereas the low income areas are growing at 13-15 percent per year. Infrastructure development has been modest in the middle and upper income and inadequate in the low income areas. The acute shortage of shelter, against a back-ground of a rapid population growth in these low income areas, has led to the development of large unplanned and densely populated slum areas.

This section will describe an overview of the slum areas which include the target group for the project under review.

#### **1.1.1. Administration**

The Nairobi City Commission is responsible for planning (i.e. physical and civil) and provision of social services in the City while the Provincial administration takes responsibility for security and overall coordination of development activities through the Nairobi Provincial Development Committee. Both organizations are represented at various city management committees. For example, the NCC is represented at the Nairobi Provincial Development Committee while the provincial administration is represented at all functioning NCC committees. In spite of this organizational arrangement, the cooperation has not been optimal.

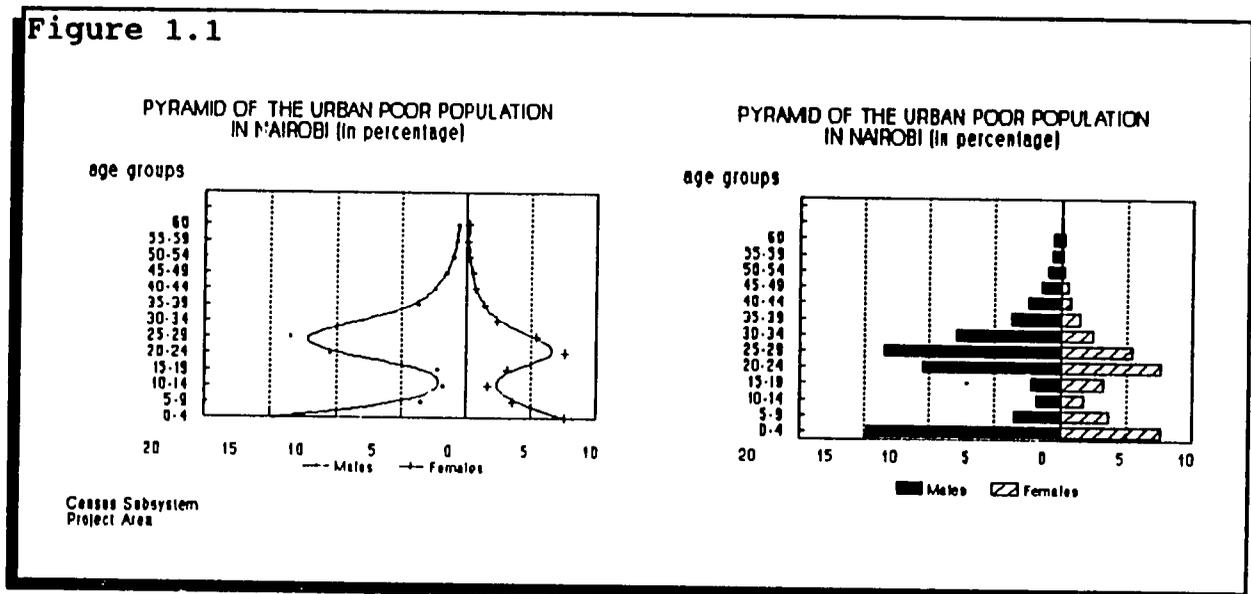
In the urban slums, there are village chairmen appointed by the Chief or District Officer, who is responsible for the coordination of activities in the relevant village. The village chairman is the one who takes responsibility for all activities in his village of responsibility, including the allocation of plots, in consultation with the chief. However, little feedback comes from the administration to the NCC on plot allocation, etc., which interferes with the proper planning of the slums.

Policies to address improvement in the social conditions of the slum dwellers will, of necessity, have to be worked out with all the relevant parties.

### 1.1.2 Demography

Figure 1.1 presents the population pyramid in the project areas<sup>1</sup>, similar to the pattern derived from the population census projections for Nairobi's urban slums<sup>2</sup> and that obtained by the basic needs survey of the urban poor<sup>3</sup>.

This somewhat peculiar pyramid, is different from the pyramids for the rural and the urban middle and upper class populations which typically show a negative correlation with advancing age.



In this urban poor setting, 30-40 percent of the population are below 15 years. There is a "neck" in the pyramid between the ages of 5 and 19 with the age group least represented being the 10 - 14 year old. Presumably, this population structure is reflective of the rural-urban migration flux that typifies the urban poor areas, with the man residing in the slum area and the wife visiting occasionally, accompanied by the small children (0-4 years old). Most of the population have their base in the rural areas and have only come to town to seek a livelihood in the lustre of the city. Some residents have explained that most families prefer to take their school-age children to the rural areas for schooling, rather

<sup>1</sup>AMREF. Urban Nairobi Child Survival and Development Project: Phase I and II of the proposed development of the management information system. Nairobi, August 1991.

<sup>2</sup>Republic of Kenya. Population Projections for Kenya 1980-2000. Ministry of Planning and National Development, 1984.

<sup>3</sup>Kenya Consumers Organization. Basic Needs Survey of the Urban Poor in Nairobi City. Nairobi, 1992.

than letting them to get consumed in the dangerous habits that are preponderant in these areas of town.

However, between 10 and 20 percent of the urban poor population are potential permanent residents and form a core group that could become a veritable institutional memory for the development initiatives in these areas.

The other peculiarity is the male/female distribution. The males comprised 65 percent of the population and the females 35 percent. While it is not easy to explain the apparent disproportionate representation of the males in 0-4 year age group, the curves above this age group are fairly typical. Only 4.0 percent of the females are above 40 years in contrast to 10 percent for males.

Although - as shown by the national census projections for Nairobi's slum and the project's census subsystem - most residents (particularly the males) are married (63 and 64 percent, respectively), they are often *de facto* singles as was shown by basic needs survey. According to the Basic Needs Survey, 58 percent of adult households were single, 39 percent were married while 3 percent were either separated, divorced or widowed.

#### 1.1.3. Housing and Sanitation

Shelter is a basic human need and its availability and quality along with adequate access to water and sanitation determine the welfare and quality of life led by the occupants.

On average 16.4 percent of the houses are permanent structures although this varies from 6 to 20 percent. The structures are crowded and mostly made of wood which renders them extremely prone to fire hazards. The average number of rooms per household is 1.42 with 80 percent of the households having single rooms, most (85%) of which are rented. Average occupancy is four persons per household. The houses have mushroomed in a relatively chaotic manner, at the expense of latrines and roads/passages.

75 percent of the households purchase water from vendors, 21 percent have a piped communal source, while the rest have piped private supplies.

Most of the households (up to 65 percent in some areas) have no access to sanitary means of excreta disposal. Bathing facilities are minimal. Most householders either use basins in their houses at night, or use the polluted rivers that traverse these areas.

#### 1.1.4 Household Fuel

70 percent (range 60-92) of the households have no kitchen facilities. For cooking, 78 percent of the household use kerosene,

16 percent charcoal, 2 percent gas and 1.5 percent firewood. For lighting, 80 percent of the households use kerosene, 10 percent use candles while the remaining 10 percent use electricity and gas lanterns.

### **1.1.5 Income and Expenditure**

Based on the government's definition of income groups<sup>4</sup>, 70% percent of the households in the slum areas are in the low income group, and many earn below the minimum salary/wages KSh964.00 per month set by the Government. This reflects the level of poverty in these areas. The average income per capita is KSh627.00, assuming an average household of 4 persons.

### **1.2 Social Services and the Slum Areas**

Crowded, poor housing units without adequate roads, water supply and lighting characterise the urban poor areas. These characteristics coupled with the heterogeneity, high mobility, and lack of loyalty to one another and the dearth of recreation facilities creates intense social pressure. The result is a mix of problems that include crime, drug addiction, alcoholism and prostitution.

The social pressure contributes to drop-out of the children from schools and their "dislodgement" to the "street". In recognition of this problem, the NCC has cooperated with some NGOs, Kenyatta University and the Kenya Institute of Education to initiate informal schools project in the slum areas. Already 30 such schools have been set up. This is just the beginning of a social sector planning perspective for the urban poor areas.

### **1.3 Health Services**

Health services in the City are coordinated by the Department of Public Health of the Nairobi City Commission. The Commission is authorised by the Public Health Act to ensure that curative, preventive and sanitation services are available to the City residents. The NCC Department of Public Health is supposed to collaborate closely with the Provincial Medical Office, created in the late 1980s in line with the pattern in the rest of the country. This collaboration is yet to be maximised. Likewise, the linkage with the MOH has been weak. Fortunately, the NCC has recently initiated major steps to facilitate linkage with the programme offices in the MOH and the Health Management Information System.

---

Lower income group	KSh0-1999
Middle income	KSh2000-7999
High income	KSh8000+

Nairobi is served by a total of 154 health facilities, registered with the Ministry of Health (MOH). These facilities include hospitals, health centres, maternity units, nursing homes, dispensaries and clinics. They are operated by the Government of Kenya/MOH, the NCC, government parastatal organizations and a variety of non-governmental organizations. Fourteen of these facilities are hospitals, all but four offering a full range of inpatient and outpatient services. Of the remaining 140 facilities, 11 are nursing homes offering curative out-patient and limited in-patient services and maternity homes offering delivery services; 23 are health centres providing a full range of curative and preventive out-patient services; 77 are dispensaries providing only curative out-patient services; and 29 are clinics providing maternal and child health and/or family planning services. Private doctors, traditional healers and birth attendants are not included in this listing.

Generally speaking, the services provided by these facilities are relatively inaccessible to the low income groups. Various NGOs, of which AMREF is one, provide community based services which back up the health care delivery systems in the city.

The main causes of morbidity in Nairobi include acute respiratory infections (ARI), acute diarrhoea, accidents, sexually transmitted diseases (STDs), malaria and conditions of the skin.

#### **1.4 AMREF and the Urban Child Survival Project**

##### **1.4.1 An Overview of AMREF**

The African Medical and Research Foundation (AMREF) is a private voluntary organization (PVO) founded in 1957. Headquartered in Nairobi, the PVO has been working, for 35 years, to improve the health of rural, and more recently of disadvantaged urban people in Eastern Africa. Over 50 projects are currently being implemented in the areas of public health, health training, clinical services, research and health systems management and evaluation. Project implementation is going on in the six East African countries of Kenya, Tanzania, Uganda, Sudan, Ethiopia and Somalia, with other projects taking place in West, Central and Southern Africa.

AMREF generates funding for its activities from both private and public sectors. More than 13 governments and international donor agencies provide support. These include the governments of Kenya, Tanzania, the Netherlands, Germany, Sweden, Canada, Denmark, United Kingdom, Norway, USA; and agencies such as UNICEF, UNDP, the World Bank and the European Economic Community. AMREF is the only non-sectarian PVO that receives direct annual grants from the Ministries of Health of Kenya and Tanzania, owing to the various services AMREF renders to the health systems in these countries.

The PVO is organized into three support departments (Administration, Finance and Information) and five technical departments (Community Health, Clinical Services, Training, Health Behaviour and Education; and Health Planning and Evaluation).

#### **1.4.2 The Urban Child Survival Project**

AMREF sought the assistance of USAID to consolidate and expand the CSD project in order to raise the quality of life and enlarge human-centred health development in the project areas.

The project's target are a population of some 40,000 mothers and children (using the CBS population projections for the project areas). AMREF has worked closely with the Nairobi City Commission in implementing the project, the choice of the project areas having been made by the latter. Similarly, linkages with the other NGOs working in the urban areas have been strong, a factor which has facilitated sharing of experiences and information.

The overall goal of AMREF's Child Survival (CS) Project is to improve the health status of children under-five years and women of child-bearing age through increased awareness and utilization of the CS technologies by the health workers and the 65,000 community members.

The mainstay of AMREF's CS strategy resides in the development of community initiatives promoting the control of diarrhoeal diseases, immunization, growth monitoring and nutrition promotion, safe motherhood, malaria control, acute respiratory infections (ARI) control and HIV/AIDS prevention. The interventions rely on the processes of community participation, voluntary community based health workers and appropriate technology. The strategy utilized also encompasses the institution of a "child to child" programme, the training of shopkeepers and kiosk owners as family planning promoters and community based distributors (CBD) of family planning materials; and the training experienced community health workers (CHWs) as trainers to assist in the training and supervision of the newly enrolled CHWs.

#### **1.4.3 Project Coordination**

The urban CSD Project operates under the Department of Community Health, under which there is the Community Based Health Care Support Unit, established in 1978.

The day-to-day management of the project is provided by a full time **Child Survival Project Leader** who is responsible for management, planning, coordination with the other sectors, the Nairobi City Commission (NCC) and non-governmental organizations (NGOs). She is also responsible for establishing mechanisms of maintaining the quality of the programme. The project leader is supported by **two trainers or health coordinators**, responsible for all health

activities at the community level. 3 health coordinators (senior nurses in the NCC's health services), whose responsibilities include training and supervision of the community health workers (CHWs) and PHC coordination, are members of the Community Based Health Care (CBHC) training team of the NCC. A computer specialist is available to the project on a part-time basis while a full time data entry clerk facilitates data inputting from the community based information system. In addition, the following staff members are available for technical back-stopping of the project:

TABLE 1.1: TECHNICAL BACK-STOPPING FOR THE CSD PROJECT		
Position	Activity	Project person-months
Executive Director	Overall coordination	3
Director, CHD	Technical back-stopping	3
Head, CBHCSU	" "	15
Res & Eval Officer	HIS and OR	10
Dir of Proj Management	Project management	3
Director of Finance	Fin planning/accounting	3
Fin and Planning Officer	Fin planning/budgeting	3
Project Accountant	Proj financial reports	15

#### 1.4.4 The Rationale for the Urban CSD Project

The situation in the urban poor areas creates an enormous challenge for child survival initiatives. A few vertical programmes cannot enhance child survival, since they save the child from one cause and yet he/she succumbs to the other - contributing to the infamous "replacement mortality"<sup>5</sup>.

This project utilizes the wealth of experience AMREF has gained through years of working with communities to develop workable approaches of addressing community problems by communities themselves. The project offers a framework for continuous building of a resource bank for adaptation and/or adoption by similar programmes elsewhere.

This project has also enabled the initiation of a net-work that is enhancing dialogue among the various parties responsible for the development of the city. This way, the project is serving as a base for new thinking in the handling of the urban poor areas by the relevant authorities.

---

<sup>5</sup>Greenwood, BM, Greenwood, AM, Bradley, AK et al. Deaths in a well vaccinated, rural, West African population. Ann Trop Med 7(2): 91, 1987.

#### 1.4.5 The Project Area

The population breakdown in the project area is shown below:

TABLE 1.2: POPULATION ESTIMATES FOR CSD PROJECT AREA	
VILLAGE NAME	ESTIMATED POPULATION
1. Soweto-Kahawa Village	8115
2. Lunga Lunga Villages	
a. Sinai	5797
b. Kaiyaba	32,580.0
c. Lunga Lunga	30,555
d. Fuata Nyayo	3,419
e. Mariguini	6,848
TOTAL	87,309

Source: 1990 Census subsystem.

The Soweto-Kahawa village is served by the Kahawa Health Centre while the Industrial Area Dispensary serves the Lunga Lunga villages. A network has been built to enhance supervision of the community health workers by the health facility health workers.

The main causes of morbidity at these health facilities include acute respiratory infections (ARI), diarrhoea, sexually transmitted diseases (STDs) and home accidents. The health facilities also deliver MCH/FP services to the clientele. With the introduction of cost-sharing for the non-MCH/FP activities, the utilization of the services is likely to reduce unless the quality of services is substantially improved. This may also have the effect of shifting the clientele to the clinics manned by quacks that are now burgeoning in the area. The charges for outpatient care now stand at KSh10.00 (1992 US\$0.30) per service, KSh150.00 per delivery and Ksh50.00 per day for inpatient care. Empowerment of the communities will continue to be critical in ensuring that they make informed decisions for their development.

#### 1.4.6 Project Objectives

Project objectives are to:

- a. enhance the control of diarrhoeal diseases through promotion of effective case management, hygiene and sanitary disposal of human waste;
- b. promote the immunization of children and mothers against the vaccine-preventable target diseases;

- c. enhance acute respiratory infections (ARI) control through the promotion of effective case management at community level;
- d. promote safe motherhood through the promotion of family planning, prenatal clinic attendance and risk-screening and delivery by a trained health worker;
- e. enhance the use of growth monitoring and nutrition promotion through enablement of mothers' and community health workers' understanding of child growth, and the factors that affect it; particularly the role of breastfeeding, weaning and appropriate health care;
- f. promote appropriate diagnosis and case management of malaria, particularly in children under five and pregnant mothers;
- g. support HIV/AIDS prevention through the promotion information education and communication for safer sex.

#### **1.4.7 The General Strategy**

The objectives are addressed through a community based empowerment approach, supported by the relevant health facilities and the use of a monitoring system that ensures utilization of the information to enhance project management. The PVO has assisted in the training of CBHC coordinators and CHWs, the supervision of field level activities and the organization of a community based monitoring system. The monitoring system utilizes population registration with the CHW following 50 to 100 families. Families resident in the project areas for at least 6 months are registered using the Family Registration and Monitoring Card. The project has also developed a household visit form for periodic updates of the demographic, health and environmental status information in line with the project's objectives.

#### **2.0 EVALUATION OBJECTIVES**

The objectives of the evaluation will be to review the:

- a) relevance of the project to the Child Survival problems prevalent in the project area;
- b) implementation status of the project;
- c) efficiency and effectiveness of the project in addressing the project objectives;
- d) the modalities used to collect and utilize data and how these are linked to community education and social promotion;
- e) supplies and logistics back-up for the project;
- f) adequacy of the project human resources in skills and numbers;
- g) adequacy and appropriateness of supportive supervision for the field project staff;

- h) budget management and utilization of central funding;
- i) framework and status of inter-sectoral collaboration;
- l) capacity of the project for sustainable development in terms of impact and resources; and
- k) the level of community involvement in all the major elements of the evolution of community based development.

### **3.0 METHODOLOGY**

The evaluation team made their review of the Project through:

- the review of various documents directly or indirectly related to the planning and implementation of the project (the list of the main documents used is annexed to this document);
- interviews with individuals and groups involved in programme planning, implementation or supervision, within the project or in collaborating NGOs, government departments or agencies; and
- the comparison of the project indicators with international, national and intra-city data sets.

In conducting this evaluation, the team utilized the project's Detailed Implementation Plan (DIP)<sup>6</sup> as the reference document for project design. In reviewing implementation status, each objective was analyzed systematically under the following headings: strategies and activities; monitoring systems; progress made; enabling factors; constraints; and recommendations. In the assessment of the progress made, the baseline survey report (1990) and Rapid Assessment report (1992) were used, in addition to information obtained directly from the NCC, the MOH, various NGOs and the communities. The aforementioned Rapid Assessment survey did not cover Soweto-Kahawa.

## **4.0 PROJECT IMPLEMENTATION**

### **4.1 Project Focus**

The evaluation team found the project relevant to the prevailing problems in the target areas. The experience of the project would be utilized by governmental and non-governmental organizations to enhance the survival and development of children in the urban poor areas. The project's programming flexibility was demonstrated by the inclusion of HIV/AIDS prevention in the DIP, although this

---

<sup>6</sup>James Sheffield. CSVI Detailed Implementation Plan (DIP): Urban Nairobi Child Survival and Development. AMREF'USA, April 1991.

component deserves a greater volume of support in this project in view of the potential impact it will have on child survival.

Greater commitment on the part of the NCC will enhance the prospects for the sustainable development of the project.

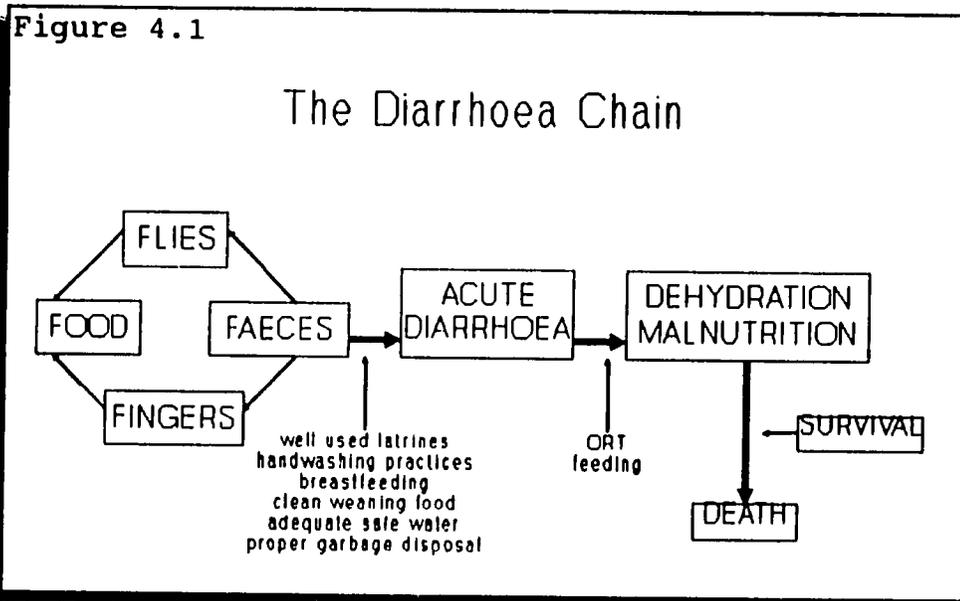
## 4.2 Implementation Status

This section discusses each project objective under six headings namely; strategies and activities employed, monitoring system in place, progress made; enabling factors; constraints and recommendations.

### 4.2.1 Control of Diarrhoeal Diseases

Diarrhoea control resides in the institution of:

- an effective case management (through appropriate feeding and ORT) capacity for those children that get diarrhoea to save them from dehydration and malnutrition/death; and
- promotion of diarrhoea prevention activities that include: adequate breastfeeding, appropriate weaning practices, food and personal hygiene (handwashing, etc.), sanitary disposal of human waste, fly control through proper disposal of garbage and provision of safe water. Figure 4.1 shows the diarrhoea chain, which must be broken through appropriate interventions.



#### **4.2.1.1 Effective Management of Acute Diarrhoea**

The CSD project objective is to increase the proportion of children under five (focus 0-23 months) who are treated with ORT. The target is to have 65% treated with ORT by 1992.

##### **a. Strategies and Activities:**

The project enhanced the control of diarrhoeal disease through:

- the training of health workers (CHWs) on case management;
- community health education activities at health units and in the community;
- the provision of space and supplies adequate for setting up oral and intravenous rehydration corners in the 2 clinics;
- training of mothers (by CHWs) in preparation and use of ORS, locally available rehydration fluids and weaning foods;
- the promotion of personal, food and environmental hygiene;
- the promotion of breastfeeding and correct weaning practices;
- improving the recognition of and appropriate response to dehydration;
- ensuring the availability and utilization of ORS sachets in community; and
- increasing the number of CHWs and TBAs;

These activities in combination with several other project activities would contribute to the breaking of the diarrhoea chain displayed above.

##### **b. Monitoring System**

Diarrhoea and ORT utilization is monitored by:

- health workers at health units utilizing the morbidity record sheets provided by the Nairobi City Commission;
- community health workers utilizing the "Health Happenings" forms developed by the CSD project; and
- the annual AMREF supported Rapid Assessment Surveys.

The monitoring system is thus in place. The CHWs capture diarrhoea information from the household level on almost a daily basis through home visits or when the mothers of children suffering from diarrhoea come to them for assistance. They are therefore able to detect increases or decreases in prevalence and respond accordingly.

Health workers at health units collect information related to cases which reach the health centres. This information covers the whole catchment area of the Health Centre, not just the CSD Project areas.

The Annual Rapid Assessment collects information from a sample of the target population and yields more comprehensive information than the two other sources.

**c. Progress Made**

At Baseline (Nov-Dec 1990) and the Rapid Assessment (March 1992) 2 week diarrhoea prevalence for children under five was 37% for 1990 and 44% for 1992 which translates to an average of 9.2 and 11.0 episodes of diarrhoea, respectively, per year per child under 5 years of age.

Utilization of fluids as an initial response by mothers is shown below:

TABLE 4.1: ORAL REHYDRATION THERAPY		
Fluid used	YEAR	
	1990	1992
ORS	20%	12%
SSS	12%	13%
Porridge etc	11%	11%
<b>Total</b>	<b>43%</b>	<b>36%</b>

ORT use dropped from 43 percent in 1990 to 36 percent in 1991 while incidences of diarrhoea among children increased.

While statistics show an increase in diarrhoea and decrease in ORT as an initial response, the health workers in the area testify otherwise.

CHWs report a decline in severe diarrhoea owing to improvements in environmental sanitation through increased use of pit latrines (although the numbers of pit latrines has decreased in some areas), improved human and other waste disposal, improved personal and food hygiene, increases in exclusive breastfeeding etc. The CHWs also report improved capability among themselves and mothers to manage diarrhoea at home utilizing both ORS sachets and home available fluids.

Health Workers at both Health Centres also confirmed that they have been seeing less diarrhoea cases and hardly any with dehydration. In both areas, the ORT Corners which had been set up have been

abandoned due to low utilization. The Nurses attribute this reduction to CHW activities in the slums.

A review and standardization of the methodology and the definition of diarrhoea utilized in the follow up studies will be critical in enlarging the comparative perspective of monitoring progress. The lack of water that resulted from the recent drought is likely to have pushed the slum dwellers to start using the polluted rivers that traverse these slums, contributing to more diarrhoea. The results of the Rapid Assessment survey need to be interpreted with caution, in view of its timing.

#### **e. Enabling Factors**

The CSD Project and NCC have ensured a regular supply of ORS sachets in the project areas.

The CHWs have acquired skills in diarrhoea management and prevention, which they in turn are passing on to the parents. In addition, immunization coverage, even for measles is good.

#### **e. Constraints**

Unfavourable breast feeding and weaning practices which are discussed in more detail under 4.2.3 also affect the risk of suffering from diarrhoea.

The CHWs need more communication and organization skills to ensure they pass the knowledge they have acquired to the parents.

Although the slum dwellers are trying to clean their environment, they are not able to do so to a level that the level that will impact on diarrhoea (see 4.2.1.2).

The recent drought situation led to scarcity of safe water and an increase in the incidence of diarrhoea.

#### **f. Recommendations**

Although the CHWs have good knowledge about diarrhoea management, more work is still needed for them to pass this knowledge on to as many mothers/parents as possible. Apart from home visiting, other avenues need to be explored, such as making entry points through women's groups and other organizations within the slum villages.

The NCC in collaboration with AMREF and other agencies such as UNICEF should complement community efforts in promoting environmental sanitation, especially the provision of latrines.

#### 4.2.1.2 Water and Sanitation

##### a. The Situation

In 1990 (baseline), 96% of the population in the project areas had access to treated tap water but it was reported that cost was high enough to limit use and that 54% of the residents used 60 litres (3 jerry cans/buckets) or less in a day. There is no update of the current status. It was reported that the slums, like the rest of Nairobi and Kenya also suffered water shortages during the drought. It is also clear that families with no money to spend on water revert to unsafe sources such as drains, rivers, ponds.

It is proposed that NCC removes or protects the unsafe water sources and provides safer water in the slums. Some slums residents such as those in Mariguini reported that they have enough water.

Disposal of human waste is mainly through the use of pit latrines. At baseline, 34% of the households had no access to pit latrines and 63% had no bathing facilities. There is no update from the Rapid Assessment but from CHWS reports, comments from slum residents and observations made by the evaluation team in the project areas, it seems that the situation in Kaiyaba, Fuata Nyayo, Lunga Lunga and Sinai could be worse since more people have moved into the area and some latrines have been replaced by rental rooms. Soweto-Kahawa and Mariguini did not report a similar problem. CHWS and leaders in these two areas have adopted successful strategies geared towards keeping the environment clean. This involves providing information and education to the landlords and their middle men about the importance of latrines and the need to provide these for their dwelling units. Individuals in Soweto can also approach the CHWs for space to construct a latrine. The area Chief and village chairman have given their blessings.

**TABLE 4.2: THE LATRINE SITUATION IN THE PROJECT AREA**

VILLAGE	NUMBER OF HOUSEHOLDS	LATRINES	HOUSEHOLDS PER LATRINE
MARIGUINI	1310	20	65
SINAI	1595	130	12
KAIYABA	5054	63	80
LUNGA LUNGA	1832	225	8
FUATA NYAYO	1234	118	10
SOWETO KAHAWA	1189	87	14
TOTAL	12214	644	19

## **b. Enabling Factors**

The collective effort of the project area residents to clean their environment has resulted, according to them, in the reduction of diarrhoea.

## **c. Constraints**

Reducing the prevalence and/or severity of diarrhoea in the slums is not an easy undertaking. Many of the contributing factors are outside the control of the slums residents, for example:

**Latrine provision:** the city by-laws are not enforced in the slums, therefore the landlords do not feel obliged to provide latrines and other related amenities for their tenants. One of the major problems the CHWs and residents in Lunga Lunga area are facing is the diminishing number of latrines as the landlords and community leaders turn them or land where they should be, into residential units.

**The unplanned nature of the slums:** this affects drainage, roads/paths, etc., such that some of the efforts by the residents, towards ensuring good water drainage can be thwarted overnight by the construction of a dwelling unit over the drain or road.

**The cost of water:** 60 cents per twenty litres is relatively high and is likely to limit the amount used per household. In addition, the drought which hit most of Africa between December to May this year, had its effects felt in Kenya. During this period there was little water even from the NCC supplies. Slum residents reverted to polluted rivers, drains and ponds as water sources. This led to increases in diarrhoea and other related health problems.

## **d. Recommendations**

The picture presented here is pathetic. It will be difficult to have an impact on child health as long as the environment remains dirty. The community, CHWs with the assistance of NCC and AMREF need to be more innovative in solving this dilemma. Urgent attention is needed at policy level to help address the situation. The communities have been mobilized and are willing, but a clear and pragmatic policy must be promulgated for example:

- the NCC can enforce by-laws to protect the efforts of the slum dwellers from the violations mentioned above;
- the NCC should have a clear policy to improve slum development and emphasize environmental sanitation of the existing informal settlements; and

- the NCC should construct several public toilets (latrines) in the slum villages. The maintenance of the same will be the responsibility of the community.

Lessons can be learnt from Pumwani, Mathare and Soweto Kahawa.

#### **4.2.2. Immunization**

The objective is to increase the proportion of children under five years (focus 0-11 months) who are fully immunized ( target 65% fully immunized by 1992) and to increase the proportion of pregnant women who receive at least two doses of tetanus toxoid (target 50% by 1992).

##### **a. Strategy and Activities**

To achieve the objective, the project undertook to:

- encourage community leaders to influence mothers to come for immunization sessions;
- strengthen cold chain and supply vaccines;
- re-train health workers to reduce the level of missed opportunities;
- monitor the prevalence of vaccine-preventable infections particularly measles, whooping cough, tuberculosis and tetanus.

The CSD project has not attempted to provide immunization services but has strengthened the capability of the two NCC managed health units in the project areas for this service. AMREF ensures that vaccines and stationery are readily available. At community level, AMREF has trained CHWs and community leaders to promote and mobilize parents to take their children for immunization, with emphasis on completing the immunization schedule before the first birthday.

##### **b. Monitoring System**

Immunization services are monitored by the health centre staff utilizing KEPI forms used throughout the country.

At community level, the CHWs, use home visits and growth monitoring sessions to identify children who require vaccination or have defaulted from their immunizations schedule and ensure that they receive the service.

Periodically, through the rapid assessment (and other studies) the project team works with the community to collect data from a sample of the population.

Although the Mother/Child card designed by AMREF has not been adopted, the monitoring system in place is adequate. The reason

for not adopting the AMREF card was the need to conform to the National system.

#### **c. Progress Made**

Good progress has been made in promoting immunization of children. Coverage in 1990 was 73% but had risen to 87% in 1992. Coverage rate for Nairobi was estimated at 80% for all under fives and 69.4% were fully immunized by their first birthday.<sup>7</sup> The same report put second year of life immunization coverage at 77.7% for Mathare, 76% for Kawangware and 88.6% for Eastlands.

Tetanus toxoid coverage was 40% TT1 and 51% TT2 in 1990 while in 1992 92.3% received TT1 and 61% TT2.

In both cases the target set for 1992 was surpassed. MOH guidelines on TT vaccination are not clear which factor makes it difficult to review the status of progress.

#### **d. Enabling Factors**

Both Health Centres in the Project areas offer maternal and child health services on a daily basis thus making it possible for clients to utilize the services conveniently. It is also reported that the relationship between the community and health centre staff have improved since the initiation of the project.

The CHWs have good knowledge about immunization and other health matters which they are conveying to parents and child minders. This is likely to have increased service utilization rates.

Availability of vaccines and related supplies at the health centres has also promoted utilization.

The CHWs have also developed a good follow up system, particularly in Soweto Kahawa and Mariguini, where it is possible for them to detect children due for immunization as well as those who have defaulted and ensure that they receive the service.

#### **e. Constraints**

Most of the children who are behind in completing their immunization schedule are reported to be mostly new arrivals in the project areas. The same applies to those who suffered from measles. Although it is estimated that most project area residents stay for over 1-2 years, the CHWs still have to cope with a reasonable volume of immigrants. This is likely to increase as these

---

<sup>7</sup> National Immunization Status - 1990, Ministry of Health, Kenya.

particular slum areas become more attractive owing to project success.

#### **f. Recommendations**

Good progress has been realized in the provision and utilization of immunization services. It is recommended that the efforts being made should be sustained, particularly in tracking defaulters at community level. CHWs should be joined by others Community Based Health Care Workers (CBHWs) such as school pupils in this effort.

#### **4.2.3 Nutrition**

The main factors that affect proper growth of a child include the birthweight, the breastfeeding and weaning practices and the role of infectious diseases. Mothers and community workers must understand growth and be able to notice proper or faltering growth at the best opportunity. Exclusive breastfeeding should be practised for 4-6 months. During weaning, frequent feeding and energy dense weaning diets should be emphasized. Locally available energy dense foodstuffs should be encouraged.

Nutritional status is a manifestation resulting from a hierarchy of causes. Understanding the actors in this hierarchy enables the preparation of appropriate intervention measures. A typical framework is appended as annex H.

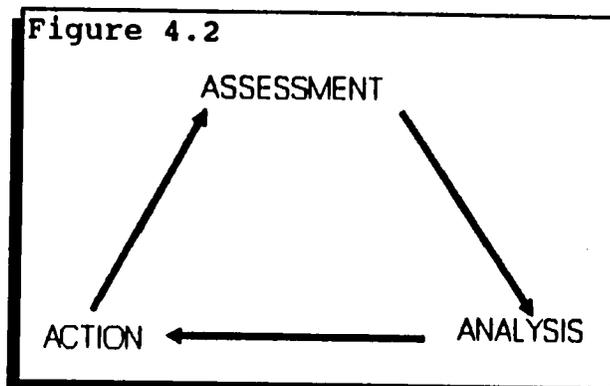
#### **a. Strategy and Activities**

The objectives were to reduce the proportion of children under five who are malnourished (focus 0-35 months), with the 1992 target at 30 percent, and to increase the proportion of infants exclusively breastfed. The substantive target for the latter objective was not indicated.

Prevention of low birth weight is closely tied to the promotion of prenatal care, addressed under safe motherhood (4.2.4.2). Prevention of infectious diseases includes immunization against the vaccine preventable diseases, prevention of diarrhoea through proper sanitation and hygiene and appropriate case management of diarrhoea and ARI which constitute part of the project's responsibility. Growth monitoring and nutrition promotion are being addressed through the training of the CHWs who in turn enhance the mothers' understanding and response to child growth through appropriate feeding and child care.

As of now, there is no in-built mechanism of assessment, analysis and action (as shown in figure 4.3). There is need to develop a conceptual framework that will address the underlying causes of the nutrition problem in the urban poor areas which, presumably, will

largely include issues related to household economic security. The structural adjustment's impact on household economic security will relegate more and more households to a status of inability to cope with the task of providing adequate food for their families.



**b. Monitoring Systems in Place**

At clinic level, data is kept on the proportion of babies born with a low birthweight and those children below the 3rd centile of weight-for-age. When correlated with the total number of children weighed, it indicates the proportion of children who are malnourished. At the community level, community based growth monitoring has been started and gives rise to a database that should be made for discussion at this level. A conceptual framework, referred to above, will help to direct the analysis.

**c. Progress Made**

The CHWs have been trained and they do assist the communities in growth monitoring activities. They chart growth faltering patterns and generate a database that would be useful for planning at community level. According to the records at the health facilities serving the project areas, 10 percent of the babies born to mothers registered in their prenatal clinics were underweight (weight below 2500 g). The proportion of children falling below the 3rd centile were less than 1 percent, which indicates how less sensitive this indicator is to faltering. It should also be noted that most of the children weighed at the health centres are below one year of age.

A format for regular computation of community based data has been developed. The table below compares data for February/March 1991 and May 1992.

TABLE 4.3: WEIGHT-FOR-AGE PATTERNS IN THE CSD PROJECT AREAS			
PERIOD	Weight Performance (in percentage)		
	Gaining Wt	Losing Wt	Constant Wt
Feb/Mar 1991	81.6	9.9	8.5
May 1992	75.1	16.4	8.5

There has been a reduction in nutritional performance. A careful analysis should be made of this finding. The evaluation team has the view that structural adjustment may be adversely affecting the

families in the slums areas leading to the deterioration in nutritional performance.

The proportion of infants who are exclusively breastfed up to 4-6 months was 66% in 1990 and remained the same for 1992. The proportion of children who are weaned late was 21% for 1992.

**d. Enabling Factors**

The existence of the census subsystem which should make it possible for the CHWs and the project to keep a handle on all children in the project area.

Growth monitoring sessions at village level, provide an opportunity for reviewing the child's total well being.

**e. Constraints**

The high mobility of children attending the services may generate patterns that do not show consistency.

There is lack of comparable nutrition information which makes it difficult to assess progress.

There is lack of a clear response mechanism to identified nutritional risk at community level.

**f. Recommendations**

It is recommended that the project team:

- develops a conceptual framework for determinants of malnutrition in the project areas which can be utilized in addressing the needs of the slum villages;
- together with the community, develop clear response systems at community level;
- establishes and promotes lactation support groups;
- improves the nutrition data base; and
- an analysis of the effects of structural adjustment on the households in the slum areas should be investigated. This does not have to be done by the project alone; but the project can initiate the process.

#### **4.2.4 Safe Motherhood**

##### **4.2.4.1 Family Planning**

The objectives were to increase the proportion of women of child bearing age (11-49 years) in union who are using contraception and to reduce the pregnancy rate among girls under 20 years old.

#### **a. Strategies and Activities**

The project team adopted the following to enhance family planning:

- training and giving supplies to Community Based Distributors;
- training community members about family planning;
- ensuring family planning service availability at health centres in the project areas;

#### **b. Monitoring System**

CBDs (most of them CHWs) identify potential clients through home visiting or referral from the health centre staff. They follow up these people as need may be. CBDs also keep a register of their own clients to whom they supply condoms.

Health Centre staff keep family planning information as required by the Ministry of Health.

The CSD Project aggregates CBD data monthly and complements this with the information obtained through periodic rapid assessment surveys.

#### **c. Progress Made**

In 1990 baseline survey, 47% of the eligible women were using family planning, and this remained about the same i.e 46% in 1992.

This lack of progress was expected in view of the fact that most of the activities planned for have not yet been fully implemented.

Four of the nurses have received Family Planning training and are expected to facilitate the training of CBDs.

Some 56 CBDs have been trained, utilizing the same training materials used by the Urban Slums Project. In assisting the NCC to set the pace for CBD training, AMREF also trained 34 CBD-TOTs who will train and supervise CBDs in other parts of the City.

#### **d. Enabling Factors**

Family planning awareness and acceptance has been increasing in Kenya over the past decade. This increase is more rapid in the urban areas and can be built upon to increase utilization rates.

Other programmes such as the Urban Slums Project are already involved in FP promotion in the urban slums, although they do not cover Soweto Kahawa and Lunga Lunga. Such projects have valuable experiences which AMREF and NCC can adopt, for example, in the training of CBDs.

#### **e. Constraints**

The project has not yet focused on girls under 20 years as a special category. There are good reasons for this delay but the need is urgent and the delay too costly. The project is urged to speed up.

The CBDs currently distribute only condoms and yet the Government has a clear policy on the CBD kit. They report that these are not very popular with the majority of their clients, who are females.

Some potential FP clients fear going to the Health Units and the CBDs cannot help them.

The government has no clear policy on family planning provision for adolescents (under 20).

#### **f. Recommendations**

It is recommended that:

- the Government should develop a clear policy on the provision of family planning services for adolescents to enhance the capacity of the project to implement related activities;
- activities to meet the needs of girls under 20 years are sped up;
- CBDs receive and distribute other contraceptives as approved by the MOH; and
- more health workers both professional and volunteers be trained for family planning activities.

#### **4.2.4.2 Prenatal and Delivery Care**

The objectives are:

- to increase the proportion of pregnant women who receive at least one antenatal examination before the third trimester and increase the number of 'risk' referrals by the TBAs and CHWs (target 65 percent by 1992);

- to increase the proportion of pregnant women having a haemoglobin test and a blood slide and urine test on their first prenatal visit;
- to increase the proportion of pregnant women who experience adequate weight gain during pregnancy;
- increase the proportion of cleaner, safer deliveries (establish proportion, double by 1993);

**a. Strategy and Activities**

Prenatal and delivery care has been promoted through the CHWs' identification of pregnant women in the community, education of families on the importance of prenatal care in the nearest health facility and having deliveries assisted by trained health workers. Traditional birth attendants have been appropriately oriented on hygienic procedures to prevent infections, including tetanus and HIV.

**b. Monitoring Systems in Place**

The monthly health happenings record monitors the number of new pregnancies and those who are attending prenatal care services. This system was found to be useful as it ensures that most mothers in the community will attend pre natal care. At the health facility level, clients attending the prenatal care are registered. A mechanism for follow up has been developed, with the CBHC project, which enables the clinic to track the outcome of the registered clients. At the health facility level, all mothers that attend prenatal care are registered and followed up for pregnancy outcome, with the assistance of the CHWs.

**c. Progress Made**

In 1990, Kahawa health centre registered a total of 1476 new and 5677 old prenatal care clients, while the Lunga Lunga dispensary registered 604 and 2186, respectively. Of the registered prenatal clients in Lunga Lunga dispensary, 54 percent delivered at a health facility while the rest delivered at home. The health facility delivery rate for the clients at Kahawa health centre was 73 percent. There was an indication that the trends had been improving. The introduction of cost-sharing is, however, apt to have implications on the utilization of the health facilities. Only 3 percent of the clients in both areas sought post-natal care.

**d. Enabling Factors**

The clinic registration and regular monitoring system by CHWs enhances the tracking of mothers. The community based health care will enable the project to retain a handle on the outcome of pregnancy particularly in view of the introduction of cost-sharing

which is apt to have an impact on the utilization of health services.

#### **e. Constraints**

Community alarm systems to monitor maternal and neonatal deaths have not been instituted to enhance the investigation of these events.

The training of TBAs in 5 of the 6 villages has not yet taken place.

The cost of delivering at the health centres which is KSh150.00 is high enough to discourage utilization of this service.

The rapid assessment surveys have not monitored the prenatal care seeking practices among women of child bearing age.

Laboratory facilities are not available for haemoglobin tests, blood slides and urine tests.

#### **f. Recommendations**

It is recommended that project team:

- institutes a community based alarm system for adverse complications of pregnancy and delivery. Use of case studies derived from this system will enable the community to play a greater role in preventive activities;
- ensures that rapid assessment surveys should include inquiries on prenatal care practices;
- accelerates the training of TBAs.
- facilitates the provisions of laboratory services to the project areas.
- together with the community and NCC address the question of health centre fees for those who cannot afford to pay.

#### **4.2.6 Malaria**

While the situation in respect of primary transmission of malaria in the city of Nairobi is arguable, malaria is a leader among the outpatient consultations. According to national outpatient

morbidity statistics<sup>8</sup>, malaria is the number one cause for outpatient consultation, nationally; while it ranks second for Nairobi City. It could probably lead the list for Nairobi if the NCC health department transmitted their reports promptly to the MOH. In the paediatric emergency ward at the Kenyatta National Hospital, out of some 12,800 children seen in 1990, 17 percent had malaria proven on microscopy<sup>9</sup>. Focus on malaria control is justifiable in the project area, since it is a major cause morbidity and mortality in children.

It has been established that mosquitoes breed in the environs Nairobi and the NCC has constructed permanent mosquito drains in some parts of the city.

The objectives are:

- to improve the identification, diagnosis and management of malaria (reduction in malaria deaths by 50 percent by end of project)
- reduce the cases of malaria among children under five years (reduce base figure by 30 percent in 1992);
- establish the degree of primary malaria transmission in Nairobi;
- establish the incidence and degree of chloroquine resistance in Nairobi.

#### a. Strategy and Activities

The project has utilized a combined strategy of improving the diagnosis and case management of clients with malaria and promoting malaria prevention through environmental enhancement activities. This would involve capacity building for the laboratory system and an injection of quality control system for microscopic diagnosis. If primary transmission is proved, vector avoidance activities would be instituted.

#### b. Monitoring Systems in Place

At the community level the incidence of clinical malaria is monitored through the monthly health happenings reports. It should be noted that much of what is reported as malaria at this level could be fevers from other causes. The project is to establish the

---

<sup>8</sup>Ministry of Health. Outpatient Morbidity Statistics. Health Information System, 1988, 1989 and 1990.

<sup>9</sup>Ministry of Health. Kenya National Plan of Action for malaria control. Nairobi, 1992.

extent primary transmission in the project area. Further monitoring modalities will be developed subsequent to the outcome of the primary transmission study.

**c. Progress Made**

The support to the laboratory has been initiated but not developed. The evaluation team noted that the project has started the process of establishing a laboratory capacity that should help to launch the project. The evaluation team took note of a "capacity assessment"<sup>10</sup> of the Jericho Health Centre which services the project area.

**d. Enabling Factors**

The laboratory at Jericho has the space and capacity to carry out the activities. The Division of Vector Borne Diseases and the National Public Health Laboratories are willing to lend support to the initiative.

**e. Constraints**

Lack of information on self-treatment patterns and the knowledge of shopkeepers of malaria treatment.

The unreliability of malaria diagnosis at community level.

Lack of adequate laboratory capacity with quality control backup in the project areas.

There is no clear position on whether primary transmission of malaria exists in Nairobi.

The second objective (reducing malaria in under-fives) is incumbent on the determination of primary transmission of malaria.

**f. Recommendations**

It is recommended that the Project Team:

- together with the DVBD and KEMRI, establishes whether there is primary transmission of malaria in Nairobi;
- facilitates the improvement of the laboratory at Jericho Health Centre for malaria diagnosis and monitoring and assists the establishment of laboratory facilities in the clinics catering for the project areas;

---

<sup>10</sup>See Jane Carter. Evaluation of Jericho Health Centre Laboratory. Nairobi, May 1992.

- assesses the knowledge of the shopkeepers and community about malaria treatment and responds accordingly;

#### **4.2.7 Acute Respiratory Infections (ARI)**

Acute lower respiratory infection (ALRI) constitutes a complex problem that continues to claim the lives of many children in Kenya. Death is not the only important measure of the size of the ARI problem. The amount of ill health caused by ARI is considerable. Studies have shown that children under five years of age get 6-12 episodes of ARI annually. ARI is more frequent in urban than in rural areas.

##### **a. Strategy and Activities**

The objective as stated in the DIP was to reduce the number of children with ARI by 50%. This objective is not realistic and should be changed to improved community care. The project should establish the baseline levels of knowledge, attitudes and practice (KAP) and aim to improve proper management by at least 30% of the baseline level.

##### **b. Monitoring System in Place**

At the health facility, information is kept on ARI. At the community level there is no monitoring capacity. This has partly resulted from the lack of a government policy on ARI management at the health facility and the community. The CSD project could work with other agencies involved in PHC to elaborate monitoring instruments at community level.

##### **c. Progress Made**

A curriculum has been developed and all CHWs have had adequate training on the home management and the prevention of ARI. The training has been inadequate in building the capacity for community based monitoring.

##### **d. Enabling Factors**

Curriculum for ARI which is adequately focused has been developed.

##### **e. Constraints**

The houses in the project areas are crowded and subject to pollution which predisposes to a high incidence of ARI.

There is no Government policy on ARI management at the health facility and community levels.

#### **f. Recommendations**

It is recommended that:

the CSD Project establishes a baseline KAP of the community in the management of ARI;

the government develops a clear policy on the management of ARI at the health facility and community levels; and

the CSD Project collaborates with other agencies involved in community based PHC to develop a pragmatic community based monitoring system.

#### **4.2.8 Community Based Health Care**

The objective is to increase CBHC coverage of households with children under five and women of child bearing age in the project areas.

##### **a. Strategies and Activities**

AMREF has catalysed community mobilization, sensitization and education in an attempt to develop sustainable health care. This had been done through:

- training of trainers;
- training of CHWs, TBAs, THs;
- developing appropriate technology for CHWs, TBAs, THs, to assist in record keeping and maintenance of a health information system; and
- offering experiences of AMREF's CBHC Support Unit to other programmes in urban Nairobi.

The targets were to have 1 CHW to 60 households by 1992 and to have built up close training relationships.

##### **b. Monitoring System**

The monitoring of this objective is based on the household "census" and semi annual updates which are carried out by the CHWs with the support of the CSD Project. The project team and NCC keep track of CBHC training by category of trainee in order to assess coverage.

##### **c. Progress Made**

Community mobilization and sensitization is an on-going activity by all project implementors i.e. NCC, AMREF, Community leaders and CHWs. Community education is largely the responsibility of CHWs, however, they are assisted by others. For instance, awareness workshops have been held for community leaders and NCC division staff. These workshops were facilitated by AMREF.

The curricula for CBHC training were reviewed and found adequate. Training of Trainers (TOTs) has been going on. Staff from NCC working in the project areas have been trained. Kahawa Health Centre currently has six TOTs while Industrial Area Health Centre has three. More were trained but some have since been transferred to other posts.

Apart from these, AMREF has facilitated the training of Facilitators for NCC. These in turn, have so far trained over 54 TOTs for NCC and plan to train more. Training of Community Based Workers e.g CHWs, TBAs, CBDs and THs has also been going on. At the moment only CHWs and CBDs have been trained. The numbers are given below.

Village	Clusters	Hholds	CHWs		HH per trained CHW	HH per active CHW
			trained	active		
Mariguini	4	1310	37	27	36	97
Sinai	5	1595	28	16	56	100
Kaiyaba	8	5054	83	45	61	112
Lunga Lunga	12	1832	50	30	37	61
Fuata Nyayo	4	1234	45	34	27	36
Soweto	6	1189	82	45	15	26
SUM-TOTAL	39	12214	325	197	38	62

"Active" here implies CHWs who were on the ground at the time of the review. Some of the trained CHWs had either out-migrated, gone home to the rural areas temporarily or secured employment.

The target of one CBW to 60 households has been achieved in almost all clusters, in terms of CHWs trained. However, just 4 of the six villages remain within this target, on account of the above explanation. The training of other categories has just started e.g CBDs and TBAs. After training, the CHWs undertook the task of providing information and education to the community in their catchment areas in the matters of health.

CHWs are currently contributing substantially to the health information system. Information gathering formats have been developed together with them. (see annex G). The system enables them to identify and follow up target groups at risk.

AMREF's CBHCSU has also looked for and utilized available opportunities to offer their experience in CBHC to other programmes

in the urban Nairobi. AMREF has done this through facilitating or participating in the training of various NGOs and the NCC.

AMREF is a member of the Nairobi-based MCH/FP Co-ordinating Committee which brings together NCC and all NGOs involved in the provision of these services within the city.

CHWs in all villages have formed Income Generating (IGA) Groups although this process is at different stages in the various villages. Other IGA groups also exist in the villages.

#### **d. Enabling Factors**

It was possible to surpass the target set for CHW coverage in some villages because enough people volunteered to work as CHWs.

It is also possible to monitor CBHC coverage through the "census" and the semi annual updates. This makes it possible to make the necessary adjustments in time.

Skills for CBHC exist in AMREF and CBHCSU has over the years sought to develop similar skills in other institutions. Although a late starter, NCC has made good progress in building up a skilful PHC resource base. UNICEF was available to support this effort.

NCC has a department of Social Services which is capable of working with IGA groups, provided resources are made available.

There is a vision within the NCC for promoting CBHC. This commitment has been shown through the NCC's cooperation with this project, the Kenya-14 Family Planning Programme and the Urban slums Project.

#### **e. Constraints**

Community response by volunteers such as CHWs, leading to sufficient CBHC coverage has been extremely good. However, it is clear that the volunteers expect some support from "somewhere" in recognition of their efforts. Attempts to solve this problem by forming CHW-IGA groups have been initiated but CHWs are already showing signs of dissatisfaction. The belief in the potential success of IGAs is very strong, in spite of the fact that there are very few examples of successful IGAs. Many of the so called income generating activities are actually "income draining" and only provide psychological and/or moral support to their members, not financial. It is apparent that CHWs in the project areas are looking for financial support.

Although the training of TOFs and TOTs has gone on well, the high turn-over of NCC staff has led to disruptions. Some TOTs and TOFs are posted where they cannot use their skills while areas where PHC skills are needed go without trained staff.

The training of TBAS and THs has lagged behind that of CHWs.

Except for Soweto Kahawa and Mariguini, CHWs in the other villages still feel unaccepted and unknown by the communities they serve owing to various reasons ranging from administrative leadership to community awareness.

The CHW drop-out situation threatens sustainability.

#### **f. Recommendations**

It is recommended that:

- the NCC considers PHC/CBHC/CS needs in the area before transferring staff trained in these areas;
- IGA be supported in a truly meaningful way so as to financially benefit the members. AMREF may not be the best agency to support this in which case partners with the necessary know-how will need to be identified and put in touch with the deserving groups in the community. Meanwhile, nearly all CHW-IGA groups are waiting for some financial or material support from AMREF. The longer this takes, the lower their morale sinks. AMREF must act with speed and caution;
- the training of TBAs and THs takes place; and
- a study is carried out to explore what determines drop-out status.

#### **4.2.9 HIV/AIDS**

The advent of AIDS poses a threat to all the health development programmes drawn and may create a reversal in the gains that have, so far, been made. It is prudent to accommodate an AIDS prevention component into any child survival project, particularly in an urban poor setting where the social environment favours the transmission of HIV. The AIDS prevention component of the project will need to be enlarged. Strong linkage should be made with the sexually transmitted diseases (STD) control in order to make STD incidence the proxy indicator of behaviour change.

AIDS affects children in several ways. Some are born with the infection, some have been orphaned at a very tender age while others, at their young age, might be nursing or watching their parent(s) slowly die of the disease.

#### **a. Strategy and Activities**

The approach for HIV/AIDS prevention in the project area includes counselling activities that have been extended to the community;

community leaders' seminars to create awareness of AIDS and modes of transmission; use of posters; and condom distribution through community based workers.

**b. Monitoring Systems in Place**

Data on condoms distributed is collected monthly at the health facility and community levels. Statistics on STD control are kept at the health facility level.

**c. Progress Made**

The AMREF CS project team has initiated activities aimed at raising awareness about the problem. The innovative approach utilizing three AIDS patients as facilitators in "Community AIDS Awareness" meetings so far held in Lunga Lunga and Kaiyaba village was impressive." The meetings were very well attended. Follow up has been delayed by the political temperature prevailing in th slum areas, in the wake of multi-party democracy. The project team plans to replicate these activities in the other project areas at the earliest opportunity.

Condom distribution has gone on well. According to clinic statistics the condom uptake level has risen by a factor of over 100 between 1990 and 1992. While this is encouraging, the reported STDs at both health facilities is, in fact, increasing, a factor that reflects little change in behaviour.

**d. Enabling Factors**

A stable community based system with interest and concern about the problem.

**e. Constraints**

Dissociation of AIDS control from STD control.

**f. Recommendations**

It is recommended that:

- AIDS control activities at community level should be increased in the ambit of this project through linkage with other NGOs and partners;
- AIDS is linked to the other STDs to enable the community members to relate the risk of STDs to that of getting AIDS infection; and

---

" Child Survival- Annual Report for Oct 1990-Sept 1991.

- monitor the effect of the AIDS epidemic on child survival in the project areas.

## **5.0 PROJECT COORDINATION**

### **5.1 Technical Support**

The evaluation team found that the project team although having adequate capacity in the relevant areas of responsibility, was overstretched in the handling of the relatively ambitious project objectives. To assist, the head of the CBHCSU assigned the unit's epidemiologist to spend some three person-months per year on the project.

To enhance the implementation of the project, the Project Team Leader procures approximately 9 person-months per year of technical support to enable the team to implement training, monitoring and evaluation, IEC activities, etc. The evaluation team examined the outputs made by the consultants and found them most useful to the objectives of the Project.

Supportive supervisory mechanisms are in place, the officers understand their job descriptions and are motivated to do their work in line with the planned objectives. However, lack of NCC counterparts with sufficient time for field support has hampered sustainable development. This has made the project team to take up greater responsibility for coordination of activities, including data capturing and analysis to the exclusion of the NCC systems. This set-up might jeopardise the prospects of sustaining the project.

### **5.2 Inter-sectoral Collaboration**

The project team has enhanced inter-sectoral collaboration and encouraged discussion and sharing of experiences among the NGOs operating in the city of Nairobi. The project team participates in the PHC/CBHC National Training Committee which discusses strategies and shares experiences in CBHC training and the Nairobi MCH/FP Coordinating Committee which enables the sharing of experiences in the maternal and child survival interventions by the NGOs, NCC and other interested parties. The team is however, not represented on the Nairobi Child Survival and Development Steering Committee, a committee whose terms of reference are central to the objectives of this project.

The project is perceived well by senior officers in the NCC, the MOH and the Provincial Commissioner's offices. Some middle level managers in the NCC and the PC's office thought that greater commitment should be shown through open collaboration and discussion in respect of the modalities of solving the problems facing the slum areas.

### 5.3 The Health Information System

The CSD programme's information system is developed with the objectives of:

- improving the quality and quantity of service delivery and thereby quality of life;
- facilitating decision making; and
- ensuring effectiveness.<sup>12</sup>

The CSD project did not attempt to design an independent system but rather to link with other sub-systems - such as NCC, MOH, Community, CHWs and other AMREF units since the CSD programme implementation is a collaborative effort.

During 1990-91 AMREF commissioned a team of consultants to review the various information sub-systems, recommend improvements and initiate steps towards developing a relevant HIS for the six villages in the project areas.<sup>13</sup>

Some of the constraints identified at the time of the review included: 1-2 years delay in the analysis of information from the MOH and NCC; unreliable or questionable quality of data from some sources, including the community; difficulties in linking the various sub-systems which had developed independently; and low utilization of information at various levels. It was clear during the review that the only sub-systems which the CSD Project could easily influence were the community and CHW sub-systems.

The recommendations made to AMREF included:

- the strengthening of the various sub-systems;
- the review of the CHWs information load;
- reduction of the Project's dependency on other sub-systems through periodic involvement in information gathering at grassroots level;
- increased utilization of information in all sub-systems; and
- strengthening the link between the various sub-systems, paying particular attention to duplication and facilitation of follow up particularly from the health units to the community and back.

---

<sup>12</sup> Urban Nairobi Child Survival Development Project  
Phase (1) and (2) of the Development of the Proposed  
Management Information System; AMREF August 1991

<sup>13</sup> Phase 1 and 2 of the Development of the Proposed Management  
Information System

Around the same time, the MOH's systems were being strengthened through IPS. Trial tests in the pilot districts have proved effective and the system is now being expanded to the whole country. Nairobi City Commission has started the process of linking into the MOH system.

### **Progress to date**

AMREF has already initiated responses to all the recommendations mentioned above.

#### **a. Strengthening the various sub-systems**

Efforts have been made to ensure that stationery for information gathering are available at the two Health Centres within the project areas. In this way, it is possible to ensure that relevant information is regularly kept. The same is done for CHWs at community level.

#### **b. Review CHWs' information load**

Because CHWs form the first contact between the community and health system and they have a cordial relationship with the support agencies (such as AMREF), there is a tendency to overload them with information gathering, especially when other information sources are weak. Some have argued that CHWs should provide as much information as possible while others are of the opinion that CHWs should collect only that information which is useful to them. The evaluation team belongs to the latter school.

CHWs in the CSD project areas collect information on at least 32 items either weekly or monthly (see annex G). They are also involved in the semi-annual "census updates". The CHWs report that they take their raw data to their secretary who summarises it and passes it on to AMREF. They retain the raw data and a copy of the summary. Some CHWs, feel that information gathering is time consuming. CHWs come together regularly (e.g fortnightly in Soweto), to review and discuss progress.

#### **c. Reduce time lapse between data collection, analysis and report production**

This has been achieved in those areas where AMREF has direct influence, for example, the Rapid Assessment data gathering, analysis and report production was completed within two months. However this is yet to be achieved in the NCC sub-system where work to enhance the HIS started recently.

**d. Increase utilization of information**

Quality and quantity of information will improve when those who collect the information learn how to use it. This has proved to be the case with CHWs in the project areas. The CHWs reported that they are increasingly using the information they collect to:

- give feedback to community leaders;
- follow up target groups;
- identify high risk/at risk groups and either refer or follow up;
- monitor progress;
- monitor changes in the population e.g in/out migration, births, deaths;
- monitor special happenings in the villages; and
- provide an entry point for interaction with the mothers, e.g during the growth monitoring sessions.

Utilization of information at this level is crucial for project success, for this is where the action is. The regular meetings by the CHWs where this information is discussed are very important. AMREF and Health Centre staff are sometimes invited to these meetings.

**e. Strengthen linkages between the various sub-systems**

This has so far been initiated between the CHW and community sub-systems and the Health Centres and/or the AMREF sub-system.

The CHWs' information is of interest to the Health Centre staff. Health Centre staff should encourage comparisons between their service information and CHW activity reports e.g referrals and growth monitoring. The Sister in charge at Industrial Area Dispensary suggested that CHWs should have a more direct link with the Health Centre instead of with AMREF.

Community leaders such as Chiefs and Village Chairmen have also found the "census" and CHWs information (summarised) useful and are encouraging it.

NCC is in the process of linking its HIS to that of the MOH.

So although not yet finalised, steps, (mostly dictated by recognition and appreciation) towards creating linkages have been initiated.

**f. Reduce AMREF's dependency on other sub-systems**

Although not directly involved in ongoing information collection, AMREF has used the Rapid Assessment to generate information which may not be reliably generated through the regular system. The 'census' and household numbering now provides a reliable sampling frame.

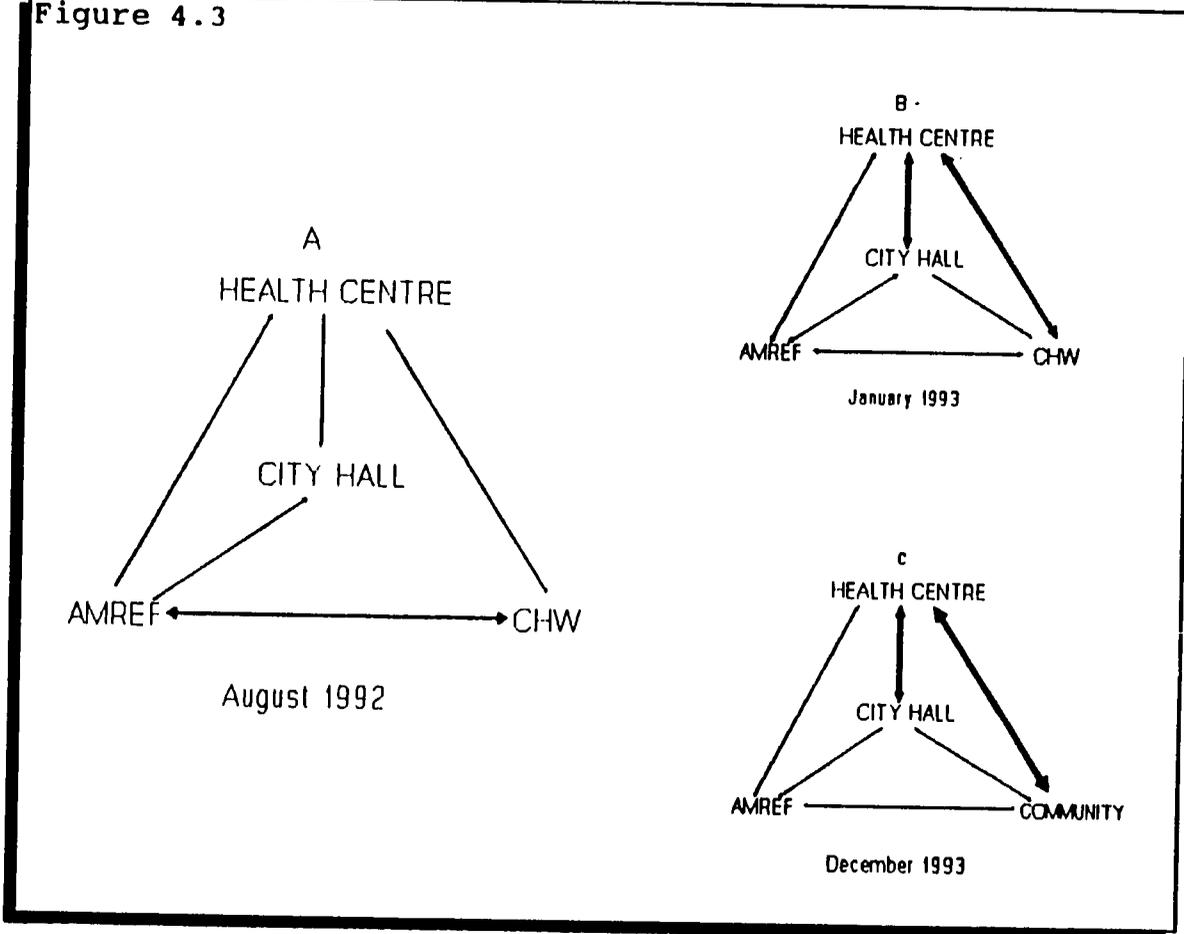
The Health Information System now in place is still evolving but is currently producing most of the information required for monitoring, planning and decision making at various levels. The next few months should see the maturation of the system.

**g. Recommendation**

It is recommended that:

- the rapid assessment surveys collect most of the information on key project indicators in a standardized way for comparison purposes; and
- a shift is made in the information flow with greater emphasis being put on the links between the community, health centre and City Hall. AMREF should start reducing it's involvement as proposed in figure 4.5 below. A phased programme is proposed, at the end of which the CSD project's handle on the HIS will be minimised.

Figure 4.3



#### 5.4 Budget Coordination, Central Funding and Accountability

The project funds allocation was found to be rational and in keeping with good project planning. 35 percent went to personnel, 3 percent to travel, 7 percent to evaluative and monitoring activities. The project procured one vehicle for field utilization; one laptop computer with accessories; a slide projector and a film projector. Direct costs have included the costs for workshops/training activities, vehicle running/maintenance, stationery and communicative activities.

Item	Budget	Actual Expenditure			Actual/ Budget
		to Dec '91	Jan-Mar '92	Total Costs	
Personnel	234,711	68,467.91	18,075	86,542.91	36.87%
Travel Costs	22,500	4,133.94	1,900	6,033.94	26.8%
Other Direct Costs	36,750	22,412.02	9,560	31,972.02	87%
Procurement	202,000	78,781.527	9,425	88,206.57	43.66%
Evaluation	48,000	38,267.24	258	38,525.24	80.26%
Overhead	131,377	46,038.43	10,321	56,359.43	42.89%
<b>TOTAL</b>	<b>675,338</b>	<b>258,101.17</b>	<b>49,539</b>	<b>307,640.17</b>	<b>45.55%</b>

#### 6.0 SUSTAINABILITY OF THE PROJECT

"Sustainability" was not defined in the DIP or in the annual report of 1990-91. The Baseline Survey report (November 1990 page 14) states that:

"the question of sustainability remains elusive, although all the parties, the community, AMREF and City Commission have attempted moves towards its achievement. It remained poorly defined in the last funding period. The slums are temporary structures occupied by squatter settlers, subject to demolition any time. No funding is allocated. The community with its good will and willingness to give their time for project activities may be too poor, weak and temporary to make long term investments in these localities. Success in sustainability is in the form of increased education, community empowerment, acquired knowledge on health and strengthened community initiatives."

To most people interviewed in this evaluation 'sustainability' meant "to carry at the same pace" after AMREF's active involvement in the project areas ceases. The evaluation team therefore viewed sustainability similarly.

## **Progress Towards Sustainability**

Several factors contribute towards sustainability. Some of these and their current status are discussed below.

### **6.1. Community Participation**

The general philosophy underlying AMREF's approach to CSD is that of consultation, with the involvement of the community as equal partners in development. It is desired that the community participates in project implementation at all stages, right from planning to evaluation. The community awareness workshops, the joint baseline survey and 'census' set the stage for meaningful participation between AMREF, the Community and NCC. CHWs volunteered their services to the communities they live in. As would be expected, some villages have since made more progress than others. The Evaluation Team attempted to rate community participation using the following process indicators:

- needs assessment;
- leadership;
- organization;
- resource mobilization; and
- management.

The status of the above indicators in each of the six villages, as viewed by the evaluation team, is summarised on figure 6.1.

#### **6.1.1 Needs Assessment**

All villages agree that the project is currently addressing some of the most pressing health needs of the intended target population. It is however, realised that since the project is a CSD one, it has its own agenda and may thus not accommodate all identified community needs. Through the process, the project has assisted the community to be more aware of the problems, to initiate discussions as to how these might be addressed and to begin exploring possible solutions. Soweto-Kahawa and Mariguini have made more progress than others.

#### **6.1.2 Leadership**

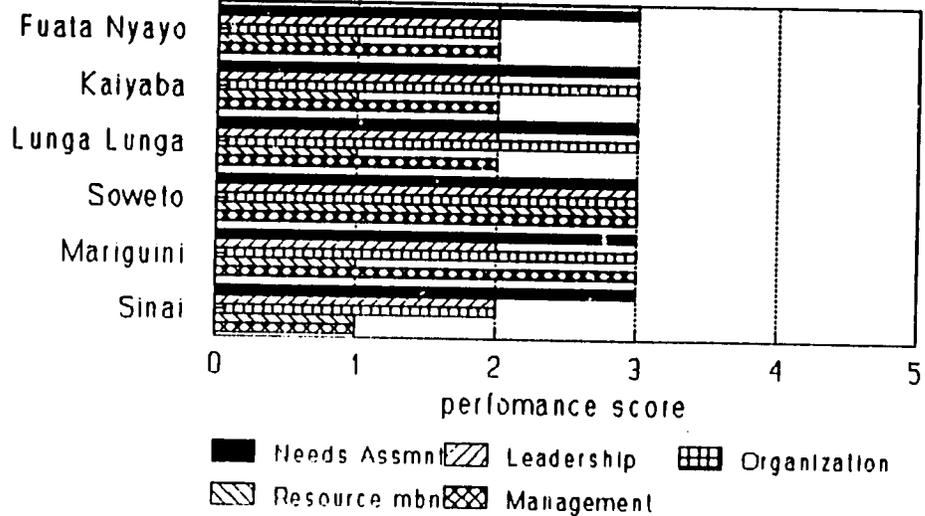
Each village has official government leadership represented by the Division Officer (DO), Chief and Village Chairman. The DO and Chief are civil servants and the people have no say in their appointment. They do not have to live in the area they work in. The Village Chairman is appointed by the Chief but he lives in the village.

The CSD project was initiated through this set-up. The rapid turnover in the assignment of DOs and

Figure 6.1

## Process Indicators in Community Participation

Project Villages



Adapted from: World Health Forum  
10: 471, 1989.

chiefs has created difficulties for CHWS, CBDs, the NCC and AMREF, who have to continually provide orientation to the newly transferred officers. For example Soweto area had 8 DOs and 4 chiefs in the last 18 months. Some activities such as introduction of CHWs to the community, issuing of certificates, etc., have been delayed for long because of these frequent changes. CHWs in Kaiyaba, Fuata Nyayo and Sinai have found this situation frustrating.

The CHWs also have their own leadership arrangements. CHW committees with a chairman (mostly men!), a secretary and a treasurer exist in all villages. The function of these committees is to provide supervision and coordination of CHW activities, to look after the welfare of CHWs and to liaise with other structures such as NCC, GOK and AMREF. Some of these CHW committees are currently working very well. The evaluation team was impressed by the CHWs' activities in Soweto Kahawa. The main concern of CHWs and their leadership in Kaiyaba, Fuata Nyayo and Sinai is the fact that they are not officially known by the community. The Chief and Village Chairman have not introduced them. The CHWs also feel that

they have no authority over the community and cannot enforce orders especially where community participation is low. CHWs from the same areas feel unappreciated and discouraged as they have been unable to enlist the assistance of the village chairman and chief in solving their problems.

In subsequent discussions with leaders in Lunga Lunga (i.e the chief and three village chairmen) they indicated that they would introduce the CHWs to the communities; were willing to get involved in resource mobilization activities, for such activities as sanitation, water, etc.; and they could possibly convene quarterly barazas (official community meetings) to enable discussion of the CHWs' HIS reports.

The Evaluation Team felt that CHW leadership had a lot to do with CHW motivation. Where the leaders saw voluntarism as rewarding, they encouraged the volunteers and there were few complaints e.g Soweto. On the other hand are CHW leaders who are looking out for incentives in any form e.g Sinai and this has affected voluntarism at the community level.

It should be noted that apart from CHWs and their committees, no specific PHC structure has emerged at community level.

#### **6.1.3 Organization and Management**

In order to participate, the community needs organization structures they can identify with and function within. The slums have developed in villages with households initially built in rows. This may not be the case any more in some areas.

For the CSD project purposes, the villages have been divided into clusters and each household numbered. Each cluster has CHWs and CBDs, etc, who are responsible for community mobilization and motivation, especially for activities aimed at cleaning the environment e.g cleaning drains, sweeping and burning garbage. The village gets together when needed. Such meetings are organized by the chief and village chairman.

At the moment, it is the CHWs who are the major actors in project activities. At their level, they have set up a functional system. However, community members should increasingly take part in project implementation, including monitoring and evaluation to ensure sustainability.

#### **6.1.4 Resource Mobilization**

There are several CSD related activities which can be undertaken utilizing local resources. Such resources include labour both skilled and unskilled, materials, finances, time, etc.

CHWs reported few problems in mobilizing local resources for environmental sanitation, e.g clearing drains, sweeping and garbage disposal. When it comes to activities which require finances e.g. repair of the sewer in Sinai village, they have not been successful. It will not be easy for CHWs to achieve this without the involvement and blessing of the local administration.

## **6.2 Prospects for Community Project Co-financing**

Cost sharing has been re-introduced in the government health system in Kenya. Paying for health care is therefore no longer a choice but a must. It is assumed that this situation will promote positive health behaviours especially those related to disease prevention and health promotion.

The population served by the project is poor. AMREF, in their 1990-91 annual report stated that PHC is not cheap. Developmental costs are normally high but necessary. Because the current project is seen as a partnership between NCC, the community and AMREF, some of the developmental costs have been or should have been borne by either NCC or the community. Activities such as those related to human waste disposal (latrines, flush toilets etc) have defeated the community due to lack of the appropriate technology and resources. NCC has not as yet responded to communities' requests for assistance. The villages in Lunga Lunga are willing to collaborate with AMREF and NCC on a cost sharing basis to improve the human waste disposal situation.

Investing in disease prevention and health promotion among the urban poor cannot be left to the slum dwellers alone. Efforts by AMREF and other NGOs to promote income generating activities as a way of generating resources to support CSD are still too young to evaluate in the project areas. It is however clear that, even with this support, IGAs will not generate large amounts of money. It has been estimated that, even with the most successful IGAs, they cannot generate more than 10-15% of required project revenues. It should also be pointed out that successful IGAs are rare.

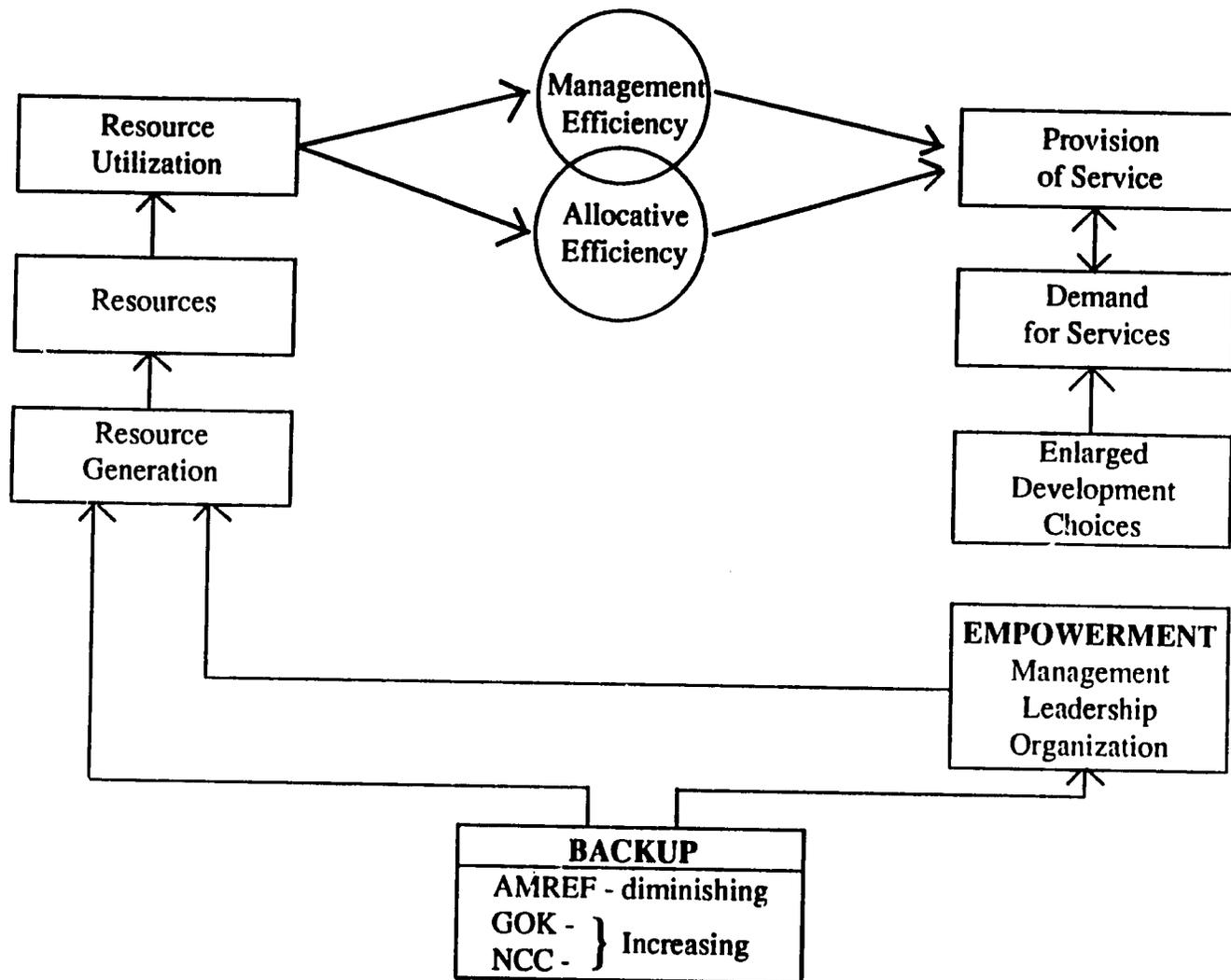
## **6.3 Nairobi City Commission's Preparedness**

NCC is a major partner in project planning and implementation.

The field staff at the division and health centre levels, see no difficulty in sustaining the project after AMREF although they require more time (1 year is too short). Their direct involvement in project planning, implementation and evaluation will be critical in preparing for their coordination of these projects.

Staff at health centres need assurance that City Hall is aware of, and appreciates their efforts in, PHC and the community. The lack of communication from City Hall on these issues demotivates them. They have tended to look at the project as AMREF's project.

# SUSTAINABILITY



4/28

AMREF has assisted in the PHC training for TOFs and TOTs. NCC now with its own TOFs and can continue to build up its PHC resource base by providing training to more people. This should include PHC orientation to all departments of NCC besides the health department.

Frequent transfers of staff was cited as a problem that is likely to be resolved soon. The situation is already well controlled at Kahawa where some of the staff have served the same health facility for over 5 years. The problem is also seen to be more of a management and supervision one rather than of shortage. Management and supervision will continue to be difficult so long as transport is inadequate. NCC is not likely to resolve this problem in the near future.

A CSD Steering Committee exists in NCC. Members include Health, education and social service departments as well as NGOs and UNICEF. It has been recommended that AMREF becomes a member.

**Establishment of a PHC unit in NCC:** in practice PHC activities are already being coordinated by the NCC but it would help if a focal point was identified and assigned with this responsibility. There is however, need to strengthen this, have its roles and responsibilities spelled out and introduce it to NGOs and other PHC service providers in the city.

A Task Force has been formed within the NCC to specifically look into slum development and improvement. The Task -Force is to liaise with the Provincial Commissioners office. Membership is drawn from the commissioners representing slum areas and all chief officers. The Task-Force should address issues pertaining to improved shelter, services and employment opportunities for the low income people in the urban areas. While doing this the Task-Force should review government policy on land and policy on slum development as well as improvement within the overall umbrella of urban development.

The Task-Force should identify, coordinate and mobilize human and financial resources to enable improvements in informal settlement. It should also establish and maintain a data bank and monitoring system to serve as a management and planning tool for various actors involved in the improvements of informal settlements.

## **7.0 LESSONS LEARNT**

The pyramid of urban poor householders with close linkage to the rural areas is atypical. The parents will tend to keep their school age children in the rural areas.

The picture of health problems in the urban poor area would represent a mix of diseases that also reflect the rural connection. For instance, the bulk of malaria cases seen in Nairobi may be imported from the malaria endemic areas.

The impact of structural adjustment might be taking more than meets the eye in the urban poor areas. The deteriorating status of nutrition among children in the slum areas of Nairobi may, in part be related to this problem.

Voluntarism can work in urban areas. However, because of dependency on the cash economy, volunteers always need a stable source of income. Community managed activities should be explored for income generation that will support the CHWs. The cost-recovery should also provide an opportunity for instituting a system that leaves a proportion of the funds at that level.

In view of the social heterogeneity and the lack of security tenure that characterizes the communities residing in the slums, the relevant authorities (in this case the NCC and the Provincial Commissioner's Office), need to make their policies clear, to enhance the take-off of the CBHC activities. Fortunately the NCC is now taking these matters seriously and will be setting into motion a mechanism that should ensure appropriate targeting of the urban poor areas for development.

Diarrhoea morbidity in the urban slum area is, expectedly, much higher than that in the rest of the country. An average child under five years gets 11 episodes of diarrhoea while the average for rural Kenya is 4 episodes per year. This is mostly on account of the desperate sanitation situation in these areas.

In view of the difficulties previously experienced in the urban poor areas, and the fact that this project has enabled the onset of a major policy process, the horizon of the project should be extended to ensure that the CBHC takes root.

## **8.0 CONCLUSION**

The Evaluation Team was satisfied that the project has been handled well by the Project Team. The lack of policy level commitment to the development of urban slums areas, which has been previously characteristic, made the project implementation an uphill task. To be able to make these achievements, under the prevailing circumstances, is laudable. The process started by this Project should facilitate decision making and policy formulation that will make the Project's work much easier.

For the Project to be sustainable, its horizon will need to be extended for at least three years. This will enable the Project to build the capacity of the counterparts the Nairobi City Commission to a level where they can sustain the programme.

**Recommendations have been made under the relevant sections which should enable the project's delivery to be more effective.**

## REFERENCES

1. AMREF. Child Survival Annual Report (October 1990 - September 1991). Nairobi, 1991.
2. CBHC- SU Community Health Workers Teaching Modules. Nairobi,
3. CBHC SU. Child Survival Baseline Survey: Nairobi, Mukuru Viwanda Slums. AMREF, 1990.
4. CSD Project. Phase I and II of the Development of the Proposed MIS. AMREF, 1991.
5. CBHC - SU Rapid Assessment of the CSD Project. AMREF, 1992.
6. AMREF Rapid Appraisal of the Environmental Health Situation in the Mukuru and Soweto Slum Villages of Nairobi. AMREF, 1991.
7. Kenya Consumers Organization. Basic Needs Survey of the Urban Poor. Baseline Survey of Nairobi. Nairobi, 1992.
8. Kibua, T.N. Socio-economic and Demographic Conditions of the Slum Population of Nairobi. Nairobi, 1992.
9. Sheffield, JR Child Survival Project Proposal (October 1991 - September 1993). AMREF New York, 1990.
10. AMREF CSVI Detailed Implementation Plan (DIP): Urban Nairobi Child Survival and Development. AMREF New York, 1991.
11. USAID. Nairobi Area Study (Volume II). Nairobi, 1988.

## ANNEXES

- A. PERSONS MET
- B. TERMS OF REFERENCE
- C. MEMBERS OF THE NATIONAL PHC TRAINING COMMITTEE
- D. MEMBERS OF THE NAIROBI MCH/FP COORDINATION COMMITTEE
- E. PROPOSED NCC PHC UNIT
- F. THE FAMILY REGISTRATION AND MONITORING FORM
- G. THE HEALTH HAPPENINGS FORM
- H. CONCEPTUAL FRAMEWORK FOR NUTRITION

## ANNEX A: PERSONS MET

1. Dr Peter Otiato AMOH, Division 1, NCC
2. Ms Hellen Wanjala Superintendent, Div 1, NCC
3. Dr Mwaniki AMOH, Division 2, NCC
4. Ms Joyce Kinaro Coordinator, Urban Slums Project
5. Dr Mohammed Ali AMOH, City Hall, NCC
6. Dr John Ouma Director, DVBD, MOH
7. Dr Phoebe Josiah Senior Entomologist, DVBD, MOH
8. Ms Monica Okoth Chief Nutritionist, DFH, MOH
9. Ms Pamela Malebe Senior Nutritionist, DFH, MOH
10. Ms Miriam Hassan Nursing Sister, Div 1, NCC
11. Ms Maimuna Hamisi Nursing Sister, Div 1, NCC
12. Mrs A. Njeru Industrial Area Disp, NCC
13. Mrs B. Asalika Industrial Area Disp, NCC
14. Mr C. Ireri Industrial Area Disp, NCC
15. Sister Kuria Kahawa Health Centre
16. Sister Consolata Kahawa Health Centre
17. Sister Milka Kahawa Health Centre
18. Mr Aaron Muli Senior Welfare Officer, NCC
19. Ms Florence D. Arika CDA, NCC
20. Ms Priscilla K. Aswani Ag CDO, Western Area, NCC
21. Ms Leah Ngunyi
22. Mr M. Kagosha Director of Social services & Housing
23. Mr Sikukuu Chief, Lunga Lunga villages
24. Mr Jangiro Village Chairman, Lunga Lunga
25. Mr Mbuthia Village Chairman, Mariguini
26. Mr Musau Village Chairman, Sinai
27. Dr Pat Youri Director, CHD, AMREF
28. Dr N.O. Bwibo Director, Training Dept, AMREF
29. Ms Penina Ochola Head, CBHCSU, AMREF
30. Dr B. Oirere Epidemiologist, CBHCSU, AMREF
31. Ms Margaret Okello CSD Project Team Leader
32. Mr Tom Omurwa Computer Specialist, AMREF
33. Ms Elizabeth Wanjiru CSD Project Trainer
34. Ms Jedidah Mwawingwa CSD Project Trainer

**ANNEX B: TERMS OF REFERENCE FOR THE  
EXTERNAL EVALUATION OF THE URBAN CHILD  
SURVIVAL AND DEVELOPMENT PROJECT  
(OCTOBER 1991 - SEPTEMBER 1993)**

**1. BACKGROUND**

The AMREF supported Urban Child Survival and Development Project operates in two areas within two administrative Divisions of Nairobi City: Soweto-Kahawa (peri-urban) and Lunga Lunga. USAID's assistance in the project cycle under review is to assist in the consolidation and expansion of Child Survival and Development activities.

Nairobi is the Capital City of Kenya. It has a population of about 2.0 million people growing at average rate of 10 percent; with the growth in the slum areas equalling or exceeding 13 percent. Child Survival and service indicators were dismal in the project areas prior to the onset of this project<sup>14</sup>.

The external Mid-term Evaluation has been planned to assess the performance of the project, suggest the areas needing further attention and recommend useful actions to guide the project staff through the remaining phase of the project.

The Evaluation will be implemented by a team of external evaluators comprising: Dr. I. Ndombi, Ms E. Sempebwa and Dr. A. Oyoo. The team will work with the project staff to review both the way the inputs and activities are enhancing the realization of outputs/outcomes and whether the focus of the latter will generate the required impact. The team will also identify and document important lessons, derived from the project, that could be useful to similar projects elsewhere.

**2. Evaluation Objectives**

The objectives of the evaluation will be to review the:

- a) relevance of the project to the Child Survival problems prevalent in the project area;
- b) implementation status of the project;
- c) efficiency and effectiveness of the project in addressing the project objectives;
- d) the modalities used to collect and utilize data and how these are linked to community education and social promotion;

---

<sup>14</sup> The African Medical and Research Foundation's 1990 child survival Project Proposal, October 1991 - September 1993.

- e) supplies and logistics back-up for the project;
- f) adequacy of the project human resources in skills and numbers;
- g) adequacy and appropriateness of supportive supervision for the field project staff;
- h) budget management and utilization of central funding;
- i) framework and status of inter-sectoral collaboration;
- l) capacity of the project for sustainable development in terms of impact and resources; and
- k) the level of community involvement in all the major elements of the evolution of community based development.

### 3. METHODOLOGY

The Evaluation will be implemented through:

- a) A review of project documents
- b) Interviews with the project managers and field staff
- c) Interviews with community representatives
- d) Review of the information system and appropriate files
- f) Any other sources as may come to the evaluators in the course of the evaluation.

The Detailed Implementation Plan (DIP) will be the main reference document in this evaluation.

### 4. THE SCHEDULE

The preliminary schedule is as follows:-

- 20-21 July - Evaluators familiarize themselves with the project and refine evaluation plan
- 22-24 July - Meeting project officers, field staff, MOH and NCC staff, community leaders and CHWs.
- 25-30 July - Review of info/drafting report.
- 31- July - Meet with Evaluation Coordination Team
- 1 - 4 Aug. - Report writing continues
- 5 - Aug. - DEBRIEFING -REF COMMITTEE including AMREF, USAID, NCC, and other relevant organizations.
- 6 - Aug. - Finalize report
- 7 - Aug. - Final Draft handed to the CLIENT

**ANNEX C: MEMBERS OF THE NATIONAL NGO PHC TRAINING  
COORDINATING COMMITTEE**

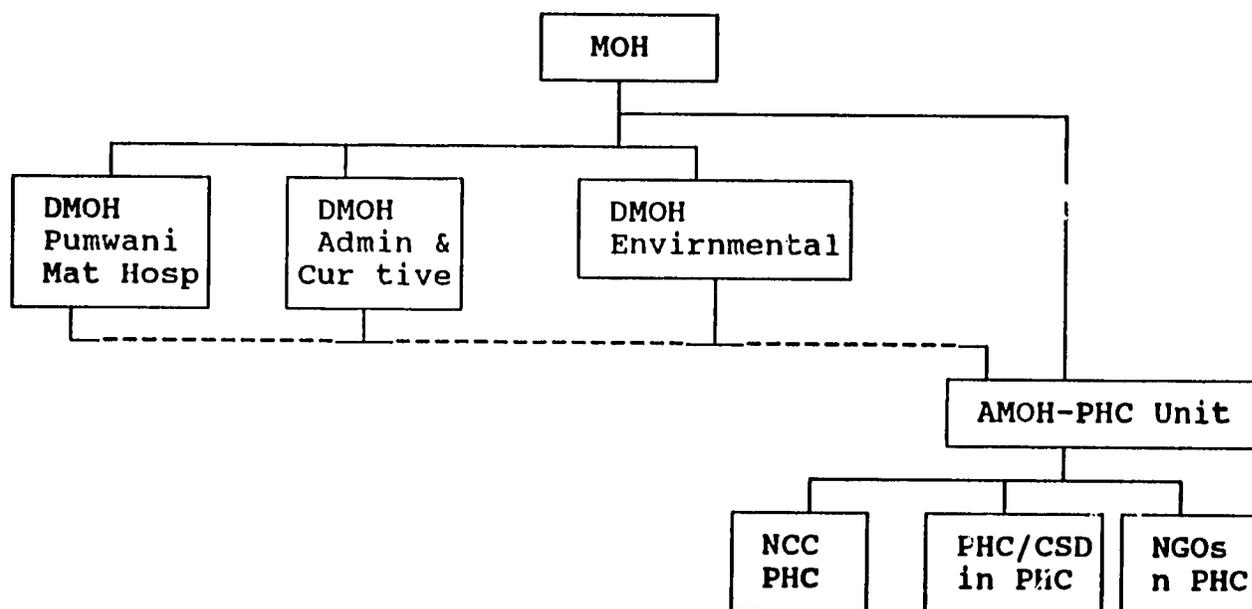
1. ACTION AID (K)
2. AGA KHAN HEALTH SERVICES
3. AMREF
4. CAMPUS CRUSADE
5. CHAK
6. CISS
7. COLLEGE OF HEALTH SCIENCES - DEPARTMENT OF PAEDIATRICS
8. CORAT
9. DIOCESE OF BUNGOMA
10. KENYA CATHOLIC SECRETARIAT
11. MAP INTERNATIONAL
12. MAUA METHODIST
13. MCK KENYA HEALTH PROGRAMME
14. MINNESOTA INTERNATIONAL HEALTH VOLUNTEERS
15. NCC URBAN SLUMS PROJECT
16. NCC HEALTH DEPARTMENT
17. R.G. CHURCH
18. RED CROSS
19. UNICEF
20. WORLD NEIGHBOURS
21. WORLD VISION

**ANNEX D: MEMBERS OF THE NAIROBI MCH/FP  
COLLABORATIVE MEETING**

1. ACTION AID
2. AMREF
3. CPK
4. CRESCENT MEDICAL AID
5. FAMILY LIFE PROMOTION
6. KENYA WATER FOR HEALTH ORGANIZATION
7. KIBERA DO CLINIC
8. MINNESOTA INTERNATIONAL HEALTH VOLUNTEERS
9. NAIROBI CITY COMMISSION - URBAN SLUMS PROJECT
10. NAIROBI CITY COMMISSION - HEALTH DEPARTMENT
11. PROVINCIAL MEDICAL OFFICE
12. REDEEMED GOSPEL
13. SHELTER AFRIQUE

**ANNEX E. THE PROPOSED PHC UNIT WITHIN NCC.**

Primary Health Care activities are currently going on within the Nairobi City Commission. The Urban Slums Project, Kenya -14 Family Planning Programmes, UNICEF supported Child Survival and Development Project as well as NGOs are already carrying out various PHC activities. What is lacking is a unit within the Public Health Department of NCC to coordinate the PHC activities of the NCC and various agencies within the city. A PHC Unit is to be established as a matter of urgency. The following is the proposed organization chart for the PHC Unit.



**AMREF CHILD SURVIVAL - URBAN PROJECT  
FAMILY REGISTRATION AND MONITORING FORM**

FORM A

QUESTIONNAIRE NO:			VILLAGE CODE:			NAME OF HOUSEHOLD HEAD:				HH/NO:	
ID NO	DATE OF BIRTH	SEX	EDUCATION LEVEL	MARITAL STATUS	OCCUPATION	RELIGION	TRIBE	WHEN CAME TO VILLAGE (date)	WHERE WERE YOU STAYING BEFORE	REASON FOR MOVING HERE	SOURCE OF MONTHLY INCOME
	1	2	3	4	5	6	7	8	9	10	11
1											
2											
3											
4											
5											
6											
7											
8											

**BLOCK CODES:**

- 01=SOWETO
- 02=SINAI
- 03=KAIYABA
- 04=LUNGA LUNGA
- 05=COMMERCIAL
- 06=FUATA NYAYO
- 07=MARIGUINI

**3. EDUCATION**

- 1=ILLITERATE
- 2=ADULT EDUC.
- 3=PRIMARY 1-4
- 4=PRIMARY 5-8
- 5=SECONDARY 1-6
- 6=UNIVERSITY
- 7=NOT APPLICABLE

**4. MARITAL STATUS**

- 1=MARRIED
- 2=SINGLE
- 3=SEPARATED
- 4=DIVORCED
- 5=WIDOWED
- 6=OTHER

**5. OCCUPATION**

- 1=EMPLOYED
- 2=SELF-EMPL.
- 3=HOUSEWIFE
- 4=UNEMPLOYED
- 5=DEPENDANT

**6. RELIGION**

- 1=CHRISTIAN
- 2=MUSLIM
- 3=OTHER

**7. TRIBE**

- 1=LUO
- 2=KIKUYU
- 3=LUHYA
- 4=KAMBA
- 5=OTHER

**9. PLACE OF ORIGIN**

- 1=CITY
- 2=RURAL AREA
- 3=OTHER TOWN
- 4=OTHER COUNTRY
- 5=BORN HERE

**10. REASONS**

- 1=GOOD SECURITY
- 2=SEEKING BETTER JOB
- 3=TO JOIN RELATIVES
- 4=CHEAP ACCOMODATION
- 5=OTHERS (SPECIFY)
- 6=NOT APPLICABLE

**11. SOURCE OF INCOME:**

- 1=OWN SALARY
- 2=SPOUCE'S SALARY
- 3=BUSINESS
- 4=REMITTANCE
- 5=CHARITY/AID
- 6=OTHER
- 7=NOT APPLICABLE

1. ENTER DATE OF BIRTH

2. SEX  
1=MALE  
2=FEMALE

INTERVIEWER'S NAME:

AMREF CHILD SURVIVAL - URBAN PROJECT

FORM B

WOMEN (15 - 49 YEARS) HOUSEHOLD VISIT FORM

QUESTIONNAIRE NO:

BLOCK CODE:

HOUSEHOLD NUMBER:

ID NO	NAME	DATE OF BIRTH	MARITAL STATUS	IMMUNIZED WITH TT1?	COMPETENT IN ORT What do you do when child has diarrhoea? What do you do? 1.Yes 2.No 3.N/A	BIRTH SPACING		CHILD MORTALITY/FERTILITY				
						PRACTICES FAMILY PLANNING 1.Yes 2.No	NAME OF FP METHOD 1.Pill 2.Condom 3.Injection 4.Foam Tab/Jelly 5.Ligation 6.Vasectomy 7.IUD 8.Natural 9.More than one 10.No using	DATE OF PREVIOUS DELIVERY	DATE OF LAST DELIVERY	NUMBER OF CHILDREN EVER BORN	NUMBER OF CHILDREN NOW LIVING	ARE YOU PREGNANT NOW? 1.Yes 2.No
	1	2	3	4	5	6	7	8	9	10	11	12
1												
2												
3												
4												
5												
6												
7												
8												

56

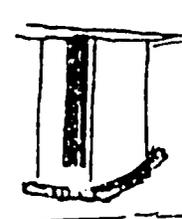
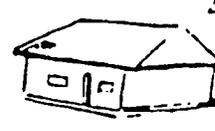
**AMREF CHILD SURVIVAL - URBAN PROJECT  
CHILDREN (0-5 YEARS) HOUSEHOLD VISIT FORM**

FORM C

QUESTIONNAIRE NO:			BLOCK CODE:							HOUSEHOLD NO:					
CHILD ID.	CHILD'S NAME	MOTHERS ID. from form B	INFANT/CHILD'S		IMMUNIZATION STATUS					BREAST FEEDING CURRENTLY	AGE OF CHILD AT WEANING IN MONTHS	ORT		GROWTH MONITORING	
			DATE OF BIRTH	SEX	BCG	DPT	POLIO	MEASLES	IMMUNIZATION CARD			HAD DIARRHOEA IN LAST TWO WEEKS	TREATED WITH ORT?	NO. OF WEIGHINGS IN LAST 3 MTS	WEIGHT LOSS?
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1															
2															
3															
4															
5															

<p>5. SEX OF CHILD 1=MALE 2=FEMALE</p> <p>6. BCG 1=TAKEN 2=NOT TAKEN</p> <p>7. DPT</p> <p>8. POLIO</p>	<p>9. MEASLES 1=TAKEN 2=NOT TAKEN 99=N/A (&lt; 9 mts)</p> <p>10. IMMUNIZATION CARD 1=PRESENT 2=ABSENT</p> <p>11. CURRENTLY BREASTFEEDING 1=YES 2=NO 3=N/A</p> <p>12. AGE OF CHILD AT WEANING ENTER AGE IN MONTHS OR NS=NOT STARTED</p>	<p>13. HAD DIARRHOEA IN LAST TWO WEEKS? 1=YES 2=NO 3=N/A</p> <p>14. TREATED WITH ORT? 1=SSS 4=NONE 2=UJI 5=N/A 3=ORS</p> <p>15. NO. OF WEIGHINGS IN LAST 3 MONTHS? ENTER VALUE</p> <p>16. WEIGHT LOSS? (check from card) 1=GAIN 2=LOSS 3=CONST 4=NO CARD</p>
--	--	--

51

MATUKIO UMEYAONA	VITUKO	JUMLA TAR-EYE	MATUKIO UMEYAONA	VITUKO	
	17. Uchuguzi wa uzito wa mtoto kijijini	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		24. Mkutano wa kamiti ya maelelezo	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
				25. Kutembelea jami mara ya kwanza	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	18. Mteja mpya wa mpango wa uzazi	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		26. Choo cha kisasa kimejengwa kijijini	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
				27. Choo cha kawaida kimejengwa kijijini	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	19. Watoto waliozaliwa karibu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		28. Nyumba mpya nzuri imejengwa kijijini	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	20. Mteja wa kutuma kiliniki	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		29. Mradi mpya umeanzishwa kijijini	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	21. Ugonjwa wa Kichaa	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		30. Baraza ya chifu	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	22. Jami mpya imehamiwa kijijini	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		31. Moto umeli-puka kijijini	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	23. Majadiliano wa kikundi cha atya kijijini	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		32. Mtoto mwenye unzi wa kuanzia nasari tukini hadi kuanza	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

JINA LA MGENEZAJI AFYA .....KIJILI.....

Hii ni kumbukumbu la matukio ya afya ambaye umeyaona yakitendeka kijijini. Yanaweza kua mazuri au mabaya kwa kila tukio lizuri fanya alama kama hii kwa kila tukio libaya fanya alama kama hii. Baada ya mwezi mmoja jumlisha alama zote za mpira na zile za alama ya mshale na kuzihesabu hivi punde, andika tarehe ya kuhesabu.

MATUKIO UMEYAONA	VITUKO	JUM- LA	TARE- HE	MATUKIO UMEYAONA	VITUKO
 <p>1. Mama mpya mja mzito</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>			 <p>9. Ugonjwa wa ngozi wa mtoto chini ya miaka mitano</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>
 <p>2. Kuzalishia nyumbani</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>			 <p>10. Ajali ya mtoto wa chini ya miaka mitano</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>
 <p>3. Mtoto amezaliwa nyumbani</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>			 <p>11. Ugonjwa wa masikio wa mtoto chini ya miaka mitano</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>
 <p>4. Mtoto ameachishwa kunyonya akiwa chini ya mwaka mmoja</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>			 <p>12. Kohozi la mwezi mmoja na zaidi</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>
 <p>5. Mtoto ambaye anemaliza chanjo zote</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>			 <p>13. Ugonjwa wa macho kwa mtu yeyote</p>	<p>0 0 0 0 0</p> <p>0 0 0 0 0</p> <p>0 0 0 0 0</p>
				 <p>14. Mtoto</p>	

# Conceptual Framework for Nutrition

