MINNESOTA INTERNATIONAL HEALTH VOLUNTEERS

FINAL EVALUATION
for
DAGORETTI CHILD SURVIVAL PROJECT

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LIST OF ACRONYMS

AIDS - Acquired Immune Deficiency Syndrome

AHC - Area Health Committee

AMREF - African Medical and Research Foundation

BOM - Board of Management

CBHC - Community Based Health Care

CHW - Community Health Worker

CBD - Community Based Distributors

CDD - Control of Diarrhea1 Disease

cs - Child Survival

FPPS - Family Planning Private Sector

HC - (Chandaria-MIHV) Health Center

IGA - Income Generating Activity

IEC - Information, Education and Communication

JHC - Joint Health Committee

KPC - Knowledge, Practice and Coverage

MOH - Ministry of Health

MIHV - Minnesota International Health Volunteers

NCC - Nairobi City Commission

NGO - Non-Governmental Organization

ORS - Oral Rehydration Solution

ORT - Oral Rehydration Therapy

PWA - Person with AIDS

STD - Sexually Transmitted Disease

TBA - Traditional Birth Attendant

TOT - Trainer of Trainers

UNICEF - United Nations Children's Fund

USAID - United States Agency for International Development

PART I. EVALUATION OVERVIEW

I. EXECUTIVE SUMMARY

A. Backmound and Purpose

The Dagoretti MIHV (Minnesota International Health Volunteers) Child Survival project started in Kenya in 1988 and has been working with communities in three locations: Waithaka, Ruthimitu and Mutuini. By the end of the project's first phase in August 1991 an effective community organization had been established which included a Health Center (HC), three Area Health Committees, a Joint Health Committee, a Board of Management for the Health Center, the introduction of volunteer Community Health Workers (CHWs) and the deployment of Ministry of Health (MOH) clinical staff at the Health Center. A fee-for-service system and pharmaceutical sales were also introduced in the HC.

Phase two of the project, which started in September 1, 1991 and ended August 3 1, 1994, provided technical and administrative support to'assure high coverage rates in immunization and oral rehydration therapy and secured the sustainability of the HC through increased revenue generating capacity and strengthening of the community-based health care program (CBHC).

The purpose of this evaluation is to assess the overall effectiveness of the HC and CBHC programs, primarily their strengths and weaknesses concerning MIHV/USAID phase-out and project sustainability. This evaluation examines project management, use of community health workers (CHWs), income generating activities (IGAs) for CHWs and the viability of the HC to manage these activities after phase-out, financial management of the project, HC administration, cost recovery and effectiveness of CHWs to help finance the project, ability and willingness of counterpart institutions to sustain activities, integration of the HC and CBHC programs, CBHC/HC health information system, and supervision of CHWs.

Project performance and effectiveness were measured against the objectives established in the cooperative agreement number POC-0500-G-00- 1076-00 (from 9/91 to 8/94). Both qualitative and quantitative approaches to evaluation were applied during this evaluation. Details of the findings are presented in the main body of this report.

B. Sources of Information

The evaluation team reviewed a number of documents from the MB-IV field office. A list of the documents is presented below:

1. USAID Baseline Survey, 1988
2. USAID Baseline Survey and Phase One Final Evaluation, 199 1
3. Second Phase Detailed Implementation Plan, 1992
4. Second Phase Mid-Term Evaluation, 1993
5. M&night Foundation Report on Small Enterprise Development at the Dagoretti Project
6. USAID Final Evaluation Criteria, 1994
7. Third Phase Proposal to USAID
8. The Bamako Initiative Document
9. CHW Training Curriculum
10. Loan **Program** Outline

C. Geographic Coverage

The MIHV Child Survival and Development Project in Kenya is being implemented in the Dagoretti Division of Nairobi. Dagoretti is a peri-urban slum **area** situated in the western-most part of Nairobi Province. The Child Survival Project concentrates on three locations within Dagoretti Division, namely: Waithaka, Mutuini, and Ruthimitu. The selection of the project site was made in collaboration with the Dagoretti community, government officials, the Nairobi City Commission (NCC)'s Departments of Public Health and City Planning, the University of Nairobi Medical School's Department of Pediatrics, and other Non-Governmental Organizations (NGOs). Dagoretti was selected because it is a densely populated and rapidly growing squatter population and the community identified a need for health care.

D. Beneficiaries

The current estimated total population in the service area is 40,000, although other estimates have set the figure as high as 62,000. The higher figure of 62,000 was based on the 1979 census data with a 7% annual increase. This was the only data which was available up to earlier this year. The 7% growth rate came from an estimate published in the 1989 Kenya Demographic and Health Survey which was developed by the Ministry of Home Affairs and National Heritage. Based on the 1989 census data our the correct growth rate appears to be closer to 3.6%.

The population targeted by this project includes women 15 to 49 years, their children under the age of 2, and high risk children under the age of 5. An estimated 3,500 births occurred during phase 2. An estimated 60 to 65% of the patients served by the HC come from outside the project area. It is assumed that this is partially the result of the HC's location, on the western edge of the project area.

The site selection for the HC was made by Dagoretti community leaders. In 1987, MIHV staff approached the District Administrator, Emma Ndario, with a proposal to develop a primary health care program in Dagoretti. The leaders explained their plan for health care services in Dagoretti to MIHV in a series of meetings. Their principle requirement for establishing the project was that it include a clinic. The site of the clinic had already been chosen by the community.

The following two sections list key findings and recommendations as identified by the evaluation team, primarily the external evaluators. They are meant to be a spring board for the discussions on sustainability, not as a commitment to any specific action. The action plan for sustainability will be developed and included in the DIP for the third grant cycle.

II. KEY FINDINGS

* The objectives of the Child Survival project are gradually being met, and in some cases, exceeded.

* Most of the specific health objectives have been achieved. Immunization rates for children and pregnant women have either improved from the first phase or have been maintained at high levels. Family planning and maternal care service visits have increased during the second phase. Awareness of Acquired Immune Deficiency Syndrome (AIDS) and Sexually Transmitted Diseases (STDs) has increased. The treatment of illnesses and injuries, however, have diminished. (This is most likely due to the increase in fees that was introduced in August 1993.) (See Appendix E. Survey of Patients.)

* So far, 261 CHWs have been trained in two successive project cycles: 120 in the first phase and 141 in the second. The original plan was to train a total of 300 CHWs. 87% of that target has been achieved.

* HC records demonstrate that approximately 65% of the HC curative attendances came from outside the project area. The quantitative survey of all HC patients - both curative and preventive - put the total at 57%. This implies that the project is reaching out beyond the project area.

* A successful revenue generating system for financing the project's operations has been put in place and appears to be working. The current cost recovery scheme covers approximately 68% of the combined HC and CBHC operating costs.

* Administrative and technical expertise of the Kenyan staff in the area of management has been improved during the grant cycle. A number of Kenyans in key positions have been paired with expatriates. This has improved the transfer of knowledge, skills and expertise, better preparing the Kenyans to manage the project after the departure of the expatriate staff. Kenyan staff have acquired basic computer skills, including word processing and data base management. There are obvious benefits to this as can be seen from the integrated reporting for both the HC and CBHC programs.

* The HC and CBHC's administration and financial operations have been integrated to a high degree. One area that needs further work is that the community nurses seconded from the MOH still need to be better incorporated into the CBHC program.

* A high degree of cooperation with the MOH has been established. There is regular MOH attendance at the HC Board of Management meetings, MOH has seconded staff to work at the HC, and MOH has provided medical supplies (e.g. condoms and vaccines) to the project.

* IGAs which support volunteer CHWs, have been introduced into the project. A number of CHWs have formed income generating groups which have been assisted and partially financed by the project. The U.S. Peace Corps has also provided an expatriate volunteer with skills and expertise in small business development who is working with these CHW groups.

* There is evidence of good cooperation with other agencies and NGOs for the continuing support of the CBHC program. Notable among these are AMREF, FPPS, UNICEF, the local USAID mission, the US Peace Corps, Marie Stopes Clinic, the Chandaria Foundation and the University of Nairobi Schools of Medicine and Nursing. The Ministry of Health (MOH) continues to provide the HC with paid, seconded staff. This support has enabled the project to maintain adequate staffing levels in the HC.

* Committee structures, for continuing the ownership and management of the program, were begun when the project started. Committees have been formed and are actively involved in meetings which discuss issues related to the management of the HC and CBHC program.

* The health information system has been instituted since the mid-term evaluation but has not yet been sufficiently developed to be able to provide vital information for monitoring CHW performance and activities. Several data items which need to be collected by the CHWs to monitor referrals to the HC and CBHC activities in general are not currently being collected.

III. PROGRAM RECOMMENDATIONS

A. Program interventions (immunizations. nutrition. control of diarrhea1 disease, family planning, HIV/AIDS awareness. and environmental health)

1. Review results of 1994 Knowledge. Practice and Coverage (KPC) survey with CHWs as part of refresher training. While survey results show many improvements in program indicators, there are many areas where improvement is needed. For example, discussion with CHWs on the need for exclusive breast-feeding of infants under four months which only 18% of mothers surveyed reported doing, will illustrate areas of weakness and encourage a community-based approach to improving awareness. There may be misconceptions among the CHWs about such practices. Explaining these results to CHWs will be a means for congratulating the CHWs on their successes within the project and coming to community-wide consensus on how to address problem areas.

2. Continue using folk media to raise awareness in the communitv at-large. This activity refreshes the knowledge of CHWs and other community members who perform while exposing large numbers of people within the community to relevant project health messages. It is an enjoyable experience for all which advertises important health messages.

3. Continue promotion of immunizations throuph CHWs. The project has attained high levels of immunizations through its current activities. Maintenance of these levels will be difficult without the continued persistence of CHWs in educating mothers about the importance of immunizations, checking growth monitoring cards during home visits, and referring children to health centers for vaccinations.

B. Sustainability

Sustainability of the HC and CBHC programs needs to be defined at different contingency levels in order to fit within the prevailing economic and funding climate at the end of USAID support. At a minimum, the current project should assure that management of the HC will continue and that CHWs and health committee members will be able to organize among themselves to continue training and activities, with staff from the HC acting minimally in an advisory capacity. With the commitments, particularly of the Chandaria Foundation and the MOH, this level of sustainability is nearly assured. Agreements with these counterpart institutions will need to be amended and a detailed strategic plan including a list of contingencies will need to be developed for the next five years of the project. The following recommendations may help to cement a basic sustainable foundation for the project:

1. Health Center (HC)

   a. Review of fee structure. The HC has implemented an effective cost recovery mechanism into the management of the HC. The success of this cost recovery system may enable the HC to support expenses of the CBHC project. The project should review the fees charged at the HC to assure sufficient revenues while not detrimentally affecting the health of the economically poor who live in the HC catchment area. The current fees are already very low, however, some patients still can not afford them. The project should also review its procedures for exempting payment or applying sliding scale for medically indigent members of the community to assure that they are effective and fair.

   b. Social marketing. People should be made aware of the services being offered by the HC and how they can have access to them. The project should advertise all services being offered and the fees being charged for curative care services (prevention services are free). Pamphlets and brochures should be given out to visitors, patients and NGOs collaborating with the HC. Signs could be posted in public places or otherwise displayed by CHWs.

c. Promotion of preventive services. The preventive services at the HC are free while the curative services are on a sliding fee scale. Success of the HC's cost recovery scheme depends on a sufficient level of usage by patients seeking curative services. These fees are then being used to meet the HC's overhead costs. Preventive services may be promoted through current activities; however, patients might also be attracted to curative services if their use of preventive services resulted in a small discount for their curative care. This scheme could be tested for a short period of two to three months to determine whether this incentive will result in an increase in patients attracted to the HC.

d. Exuansion. The project should continue with expansion of facilities at the HC. Plans already exist for the inclusion of a dental clinic which could also double for eye/ear clinic during alternating days of the week.

The Chandaria Foundation is supportive of the expansion plans. The community is also interested, and is planning a Harambee fundraiser. Our recommendation is that the project should speed up the implementation of these plans in order to accomplish them well before the end of USAID funding support in 1997. The MOH has already given a verbal commitment to seconding a dentist to the HC when basic equipment needs are met. Dental services may provide some opportunity to improve HC finances, due to the lack of dental services in the area and the high charges at most private facility.

e. Empowerment of the health committees. The health committees are very interested in participating in the management and even ownership of the HC and CBHC program. They have raised this issue frequently in meetings. The project should help these committees further organize themselves and provide training in how to conduct business. In this way, they will gain experience and learn how to more fully participate in the management of the HC and the CBHC program.

f. Rental Housing. A plot of land could be acquired and rental houses constructed by the project as means to generate revenue. Other health facilities already own rental houses such as M.P. Shah and Gertrude Children's Hospital. The rent could be used to partially finance project activities. Maintenance and upkeep of the premises could be managed by a **property management** company that has direct experience in these areas. Initial planning, purchasing, construction and fund raising could be very time consuming and may distract the project away from its principle mission.

2. Community Based Health Care (CBHC) program

a. Use of MOH nurses. The nurses are willing to work in the CBHC program. Therefore, the project should regularize the rotation of the already available nurses between the HC and the CBHC programs. Letters of secondment of these nurses from the MOH should clearly spell out the roles and expectations of the nurses, as this will help to avoid undue confusion and complaints. These MOH nurses may play a key role in sustaining the CBHC program through their supervision of the CHWs.

b. Promote community involvement. Communities should be involved in the selection of committee members, CHWs, and CHW Representatives (CHWRs). Election of Area and Joint Health Committee members should be done by community members supervised by the Chief and the District Officer, witnessed by the CBHC Staff. The criteria for selection of CHWs should be reviewed by the health committees assisted by the project staff.

c. Use of health committees for CHW sunervision and training. The health committees need to be trained in overseeing the supervision and training of CHWs and CHWRs. These committees should take up the supervisory role and be able to report on the activities undertaken by CHWs and CHWRs during HC Board of Management and other health committee meetings.

d. Training and use of Trainers of Trainers (TOTs). None of the original five TOTs, which were trained in the preceding grant period, are active due to their expectations of financial compensation. New TOT volunteers who are committed to the training should be recruited from the existing group of CHWs and CHWRs. These new volunteers should actively participate in the training and supervision of new CHWs.

e. Training of CHWs and CHWRs. CHWs require refresher training in areas of weaknesses identified in the KPC survey and through home supervisory visits. Requests by CHWs for training on particular topics of interest should also be actively solicited and addressed when feasible. CHWRs should also receive training in the areas of supervision, monitoring and report writing. These elements are currently missing.

f. Incentives for CHWs

- IGAs

Individual health-related IGAs should be introduced to promote and support CHWs. The goal of the project IGAs should be to enable the CHWs to generate their own income. This will be a strong motivator for them to carry on their work in the communities. We recommend that the project purchase health-related items such as condoms, fuel efficient cookers, and mosquito nets at wholesale and then sell them to the CHWs at just below retail. The CHWs would then sell these to the community at retail. Members of the communities are always more appreciative of CHWs if they have useful items to offer, even if they are being sold. The Joint Health Committee or an elected group of CHWRs can be used to oversee these IGAs.

Sanitary markets. The Chandaria Foundation is willing to construct sanitary markets within the project area. At the completion of the construction of the sanitary sheds, CHWs would be accorded first priority to rent stalls. The CHWs would then be encouraged to develop viable small businesses which would generate incomes for them. The Joint Health Committee (JHC) or Area Health Committees (AHCs) might be used to manage these markets. The revenue from the rent of the stalls can be used to help support the CBHC program.

Discontinuation of group loans. The project should discontinue giving loans to community groups. These loans often result in considerable management difficulties. Supervision of these groups may be extremely time consuming and generate only relatively small profits, which then have to be divided among numerous members. In the end, each participant receives only minimal profit for their effort. In the event of default, there is the risk of losing the volunteer services of CHWs due to disenchantment resulting from a bad experience. The two groups which have already been given loans are already experiencing significant difficulties.

Promotion of individual credit schemes. The project should not provide loans to CHWs. Instead, CHWs who are interested in accessing credit should be referred to local credit schemes such as Juhudi.

- Discount for health services. Consideration should be given to CHWs being offered discounts for services they receive at the HC. This discount could be made contingent upon turning in monthly activity reports. If this is done, we believe it will make CHWs feel they are part of the project and might encourage them to work harder within their communities. This incentive should be offered on a trial basis to determine its long- term sustainability.

- Material items. We recommend that CHWs and CHWRs continue to be given T-shirts, ID cards, and badges to identify them with the MIHV Child Survival project. These should be provided free to each new CHW and to active CHWs at the time of the expiration of their current ID cards every three years. Renewal of ID cards should be contingent on attendance at refresher courses and home supervisory visits from project staff and health committee members. These items might help to re-activate inactive CHWs, while also providing an incentive for current CHWs to attend refresher training.

- Awards and recognition. Competitions should be organized on an annual basis where CHWs from different project areas are brought together to present comprehensive reports of their work. The health committees should also be used to actively promote and advertise the contributions of CHWs to the community.

g. Networking and development of alternative funding sources. The project should continue to network with other NGOs to identify and pursue areas of mutually beneficial joint programming and organizational management. While we recognize that networking with other NGOs and public institutions is desirable, we caution that the project should be careful in the selection of those organizations it should collaborate with. There is a limit to the number of organizations that the project can successfully collaborate with.

C. Phaseout of MIHV and transition to local leadership

1. Transfer of project leadership to Kenyan staff. It is important that the leadership of the project be handed over to Kenyan staff well before the end of the project's final cycle of USAID funding ends. This is to ensure that the Kenyan staff receive sufficient experience in management. A phaseout plan and timetable should be developed working closely with the health committees (including the Board of Management), the current project staff, Chandaria Foundation, MOH, the University of Nairobi, MIHV, USAID and other key players.

2. MIHV volunteers move into advisory and canacitv building. roles. MIHV volunteers and staff should continue to play an important part in the CBHC and HC projects. These volunteers should play supportive and advisory roles, continuing to build the skills of the local Kenyan staff. MIHV should continue to require that field volunteers and staff commit to terms of at least one year to avoid the strain on Kenyan staff who are constaritly having to train in new expatriate volunteers to the Kenyan culture, language, and the HC and MOH protocols.

3. Capacity building through locally-available educational opportunities. The project should continue its strong promotion of staff skill and capacity development through taking advantage of locally-available training options.

D. Health management information system (HMIS)

1. Hire an HIS consultant. The purpose of an HIS system is to assure that each of the key players in the system has the information necessary to make sound management decisions. This information is used to measure the successes and areas of need within the project and even within the community as a whole. We recommend that MIHV bring in a volunteer for three months to get the system up and to troubleshoot. The current staff and volunteers are aware of the needs, but don't have the staff time for set up. Obviously, the key concerns are whether or not the HIS system will be sustainable when the project is turned over to local leadership. To insure the sustainability of the HIS system each of these key players needs to be included in the decision-making process.

PART II. BHR/PVC EVALUATION POINTS

I. PROJECT ACCOMPLISHMENTS AND LESSONS LEARNED

A. Project Accomplishments

A1/A2/A3. State the objectives of the project, as outlined in the Detailed Implementation Plan. State the accomplishments of the project related to each objective. Compare project accomplishments with objectives and explain the differences. Describe any circumstances which may have aided or hindered the project in meeting these objectives.

IMMUNIZATION OBJECTIVES:

The project strategy to improve childhood and maternal vaccination rates included using CHWs to identify and refer children and mothers in need of vaccinations to health facilities. In addition, the project has a "no miss" policy of vaccinating children and mothers who attend the HC for curative care outside of child welfare and antenatal clinics. The project also piloted a monthly mobile outreach into remote areas of the project in an attempt to find "hard to reach" children and mothers. This outreach continued for about one year, until April 1994, and offered some curative care, free of charge, primarily to children under five. This outreach was discontinued to reduce HC expenses and because the number of vaccinations given was extremely low, often less than five.

In addition to the project population served at the HC, and approximately 65% of persons utilizing child welfare or antenatal services came from outside the project area. Over the three year project period, 13,259 visits were made to the HC (3,666 were first time visits) for child welfare/immunization services and 9,649 visits were made by pregnant women (2,909 were first time visits). The project, in this way, was able to extend its services to many more recipients than was originally intended.

Identify and record all project-area children up to two years of age (5,770 children) who have not completed their immunizations.

The recording of all children in the project area who have not completed their immunizations was not carried out in any formal fashion due to the intensiveness of the efforts required to accomplish this task. CHWs, however, are taught to visit all neighboring homes with young children and to refer them to health facilities if they do not possess Road To Health Cards or if their vaccinations are incomplete. Registration of these children would also be taken very negatively by community members who might feel that these records might in some way be used against them.

This objective is not easily measurable because the CHWs have not been involved in the recording of children in the project areas. The evaluation team was informed that there were no reliable population figures for the project area when the grant DIP was written in 1992. The 5,770 children up to two years who were to be identified was probably unrealistic because the denominator was over estimated by 15,000. The current catchment area population of the project is estimated at 40,000 people.

Population figures: The actual number of children age 0 to 2 within the project area is at least 2,186. This project affects many more children who live outside the project area since the HC is situated on the border of the project area and approximately 65% of visits are from persons residing outside the project area. During the three year grant period, approximately 4,500 children living within the project area would at some time have been between the ages of 0 and 2 years old.

To fully immunize 70% of project-area children aged 0 - 11 months by the end of year three (as assessed by survey), and with the following individual coverage objectives to be achieved by the end of year three:

Comparing the results of the 1991 and 1994 KPC surveys it was found that in 1994 72.7% (8/11) of children age 11 months were fully immunized with BCG, DPT3, OPV4, and measles vaccinations, compared with 66.7% (10/15) in 1991. For children age 23 months 90.9% (10/11) were fully immunized in 1994 as compared with 68.2% (15/22) in 1991. Although these results are not significantly different by survey year, the project's DIP objective appears to have been met with a trend indicating improvement over the last three years.

BCG 99% or 3,310 children annually:

The project has maintained the BCG immunization rate at roughly the same high level of 99% in both 1992 and 1994. It showed an increase of 6% over the level achieved in 1989. Of the estimated 3,500 children born during the project period, nearly all received BCG vaccinations (3,465 or 1,155 annually). This was accomplished in spite of shortages of BCG vaccine and syringes throughout Kenya. This has probably had a positive impact on the number of patients from outside the program catchment area.

OPV-490% or 3,010 children annually:

The OPV4 immunization rate achieved in 1994 for children aged 12 to 23 months was 83.2% (99/1 19) compared with 81.5% (75/92) in 1991. For children 20 to 23 months, 89.5% (34/38) were vaccinated with OPV4 as compared to 83.3% (30/36) in 1991. Although the above differences are not significant, the project objective appears to be nearly achieved.

From these rates, at least 1,000 children in the project area are being vaccinated annually in addition to the many children being seen at the HC who come from outside the project area as explained above.

Measles 70% or 2,340 children annually:

About 86% of the children 12 to 23 months in the project area received measles immunization in 1994 compared with 73% in 199 1. The difference in the rates is statistically significant **(P** < 0.05). Compared with the target of 70% established for the **grant** cycle, it confirms a marked improvement in the coverage of children who completed the required number of immunizations. For children aged 20 to 23 months, 86.8% (33/38) had been vaccinated in 1994 compared with 72.2% (26/36) in 1991. From these results, nearly 1,000 children are being vaccinated in the project area annually. This is in addition to the many others coming from outside the project area who are being vaccinated for measles at the **HC.**

DPT-3 95% or 3,170 children annually:

For children 12 to 23 months the project objectives have nearly been met, with 93.3% (11 l/l 19) having been vaccinated in 1994 compared to 82.6% (76/92) in 1991. For children 20 to 23 months, project objectives were definitely met with 97.4% (37/38) having been vaccinated with DPT3 in 1994 compared with 83.3% (30/36) in 199 1. All of the above differences are significant ($p < 0.05$).

From the project area, at least 1,000 children were being vaccinated with DPT3 annually in addition to many non-project area children being vaccinated at the project HC.

There was a 2.6% drop out rate for DPT immunization in 1994 compared with a 5.0% in 1991. This suggests that significantly many more children 12 to 23 months were completing DPT vaccination in the grant cycle under review than in 1991.

HC staff have discussed checking children's health cards when they are seeking curative services at the HC as another method of monitoring immunizations. Since the project discontinued it's outreach mobile clinics due to prohibitive costs, they have integrated services with UNICEF's program for immunizations of children in disadvantaged situations. Immunization records are monitored at other mobile clinics, some of which are within the project area. However, their records are difficult to obtain.

To immunize 99% of all pregnant women who are seen for antenatal care at the HC with two doses of tetanus toxoid by the end of year three (as assessed by clinic records).

This objective was impossible to measure at the time of evaluation since clinic antenatal records have not been computerized. Data entry of these records is considered to be extremely time consuming. A sampling scheme is being considered to gain more detail from these records. However, HC staff feel that all women who come for antenatal care receive at least two TT vaccinations or a booster vaccination unless their first antenatal visit was within one month of their expected delivery.

To immunize 95% of all women in the project area who had been pregnant in the past two years (6,350 women) with two doses of tetanus toxoid by the end of year three (as assessed by survey).

Difficulties were also found in trying to measure this project **objective.** In the 1994 KPC survey, 57.1% of mothers surveyed possessed antenatal cards. It was reported, however, by many mothers who did not have antenatal cards, that these records were kept by the hospital or maternity facility of delivery. This was not discovered during the survey pretests so verbal accounts of vaccination records were not obtained. Of mothers with antenatal cards, 60.7% had two or more TT vaccinations recorded. In addition, 36.8% of mothers had at least one vaccination which was often marked "booster" on the mother's card. Therefore, for mothers with antenatal cards, 94.6% had at least one TT vaccination. It is difficult to determine to what extent the project's objective had been met in this instance. Since it is not possible to determine whether the single dosage a mother received was the mother's first or a booster. We believe that the actual coverage rate for two doses of TT is somewhere between 61% and 95%. Future versions of the project's KPC survey will need to take the above difficulties into account in order to obtain a more accurate picture.

DIARRHEAL DISEASE CONTROL OBJECTIVES:

By the end of year three, 90% or 11,500 of project-area reproductive-age women will be able to identify an Oral Rehydration Solution (ORS) packet and exhibit general familiarity with the product.

The distribution of ORS packets was discontinued by MOH due to shortages over the last year of the project period. Therefore, this objective was indirectly measured by the quantitative survey in terms of knowledge of correct feeding practices during diarrhea1 illness. The number of infants/children less than 24 months with diarrhea in the past two weeks instead of the number of women of reproductive age in the project area, was used as the denominator. From this survey, 77.4% of mothers with children with diarrhea during the past two weeks, continued breast-feeding more often or the same level as usual in 1994. This is compared with 69.2% in 1991. About 67% gave the same amount or more **fluids in** 1994 compared with 78.4% in 1991. In addition, 50.7% of these mothers gave the same or more food in 1994 compared with 28.9% in 1991. Clearly, the project's 90% objective has not been met although some improvements have been seen in breast-feeding and giving of food. The increase in mothers who are reducing fluids is cause for great concern.

The community also appears to be confused with various types of treatment messages which have been given in the past. The MOH currently advocates use of home-available fluids such as uji (porridge). The preparation of sugar salt solution is **no** longer recommended due to frequent mistakes during preparation, although 53% of survey respondents said that they would give this treatment to a child with diarrhea. Oral Rehydration Therapy (ORT) sachets are no longer available except through purchase at local pharmacies.

At least 50% of mothers with children under age two will be able to describe correctly how to prepare and administer ORT at home by the end of year three (1,440 in year one, 2,310 in year two, 2,890 in year three)

This objective was not measured in this evaluation survey as there was no distribution of ORS during the last year of the grant cycle. The funding for nationwide distribution of ORS had ceased.

The incidence of diarrhea in the previous two weeks in children under two will decrease to 13% of households interviewed by the end of year three.

All of the three previous surveys and the present one asked a question to determine the incidence of diarrhea in the previous two weeks (prior to each survey) in children under two years. The results summarizing the incidence rates are compared below in Table 1.

Table I: Comparison of incidence rates of diarrhea in children under two years (occurring in the two weeks prior to each survey)

Survey year	Incidence of Diarrhea
1989	19.0 %
1990	17.0 %
1991	17.4 %
1994	*25.7 %*

The increase in the rate of diarrhea1 illness in the previous two weeks is significant and cause for concern. Need for improvement is called for in the project's next grant cycle. The reasons for this change are unclear, but could be the result of intermittent piped water service in the community. In conjunction with deficiencies observed in treatment and correct feeding practices, the project should review their current educational strategies to assure improvement in this area.

NUTRITIONAL IMPROVEMENT OBJECTIVES:

By the end of year three, 90% of infants/children under the age of two in the project area will be monitored for normal growth as indicated by their Road-to-Health cards. Growth monitoring will be done on 4,040 children under two by the community health nurses at the Health Center in the first year, 4,620 in year two, 5,190 in year three.

3,666 children were seen at the HC for the first time over the three year project period. 13,259 total visits were recorded in this time period. Weighing of the children at the HC is standard practice and occurs without fail 100% of the time. From the 1994 KPC survey of project area children, 96% (283/295) of the children had growth monitoring cards. Of these, 84.5% (234/277) had been weighed within the four months prior to the survey.

At least 90% or 5,190 in year three will be breast-feeding their children under the age of two by end of year three.

The quantitative survey conducted in support of this evaluation found that 83% of mothers were breast-feeding their index child in 1994 compared with 75% in 1991. The target set for this indicator was 90%. We note with concern that this target was not achieved.

Folk media is one of the methods the project has used to disseminate health messages to the community. Involving community members of all ages has been an effective method of teaching as we experienced during preparation for the event in November 1993. While adults practice their songs and dances for the festival, community members observe them and children enjoy joining them in the activities. Plans for more frequent events are in progress. Other methods for health education used by the project have included videos shown at the HC and home visits by the CHWs.

The incidence of malnutrition (defined by weight-for-age below 80% predicted) in children under two will decrease to 10% or 580 cases by the end of year three.

This evaluation discovered that below normal growth occurred in 4.7% of the children under two years in 1994 compared with 15.7% in 1989, indicating that the target was achieved.

By the end of year three, 80% or 9,800 infants/children under five years of age in the project area will have adequate growth rates as indicated by their Road-to-Health cards.

In 1994, 95.6% of children under two years had Road-to-Health Cards, compared to 92.5% of those surveyed in 1992. Data on three to five year olds has not been routinely compiled at the HC due to limitations on staff time. However, the incidence of children with inadequate growth are few and are followed up on by the seconded MOH nutritionist. From curative patient records a sample of about 500 patients attending the HC in May 1994 revealed no cases of malnutrition. Records of underweight children do occur, but in general, the great majority (at least 80 to 90%) are believed to have adequate growth.

ENVIRONMENTAL HEALTH OBJECTIVES:

At least 240 CHWs (assumes a 20% drop-out rate over the three year project period) will be helped to develop stable households which serve as positive examples by observing sound preventative health practices and reducing environmental health hazards in and around the home.

The project aimed at training a total of 300 CHWs, 80% of whom would be assisted with developing stable homes (assuming a 20% drop out rate). Of the 261 CHWs thus far trained, none have been assisted with establishing stable households. The CBHC staff at the HC investigated 22 CHWs to determine whether they had model (stable) homes. Nine of the 22 CHWs did not have latrines of their own.

CHWs are expected to have model homes based on their own resources which often may be quite meager. It was felt that over time these CHWs would be able to develop model households with continued encouragement and supervision. The project decided not to provide material support so as not to create the expectation from the community that this assistance would be forthcoming for the entire community. Additional incentives are needed to assure that all CHWs have model (stable) households. These incentives are discussed later in this report.

At least 50% of households (4,600 estimated households averaging 6 persons per household) will be using appropriate pit latrines and disposing of garbage properly by the end of the year three.

An overall improvement in garbage disposal and proper use of latrines has been noted in the project area. Slightly more than 70% of households in the project area were found to be disposing of their garbage properly while nearly 100% of respondents said that they had latrines. Nearly 90% of these latrines were considered to be in good condition upon visual inspection of the floor, wall, overall structure and the door. The assumption is made that members of these households were properly using the latrines.

Many areas tend to have a community garbage pile which is burned from time to time. These piles are then used for forage by goats, chickens, and free-roaming dogs in the community who scatter the inedible refuse. More efforts could be made by CHWs and the appropriate area health committee to organize the communities to dig a communal pit. However, community motivation on this issue has been difficult to develop.

The Joint Health Committee and the CHWs currently conduct village health campaigns to encourage community members to improve their environmental health conditions. They could also be used to instruct CHWs on the necessity of developing model homes so that the community can learn and emulate from them.

The incidence of burns in children under two will decrease by 25% during the project period.

The incidence of burns occurring at homes has decreased tremendously from a high of 10% in 1991 to a low of only 5.3% in 1994. This represents a 47% drop in the proportion of bums occurring at home, well above the 10% target planned.

Interventions for reducing ARI in the next funding period may benefit accidental burn interventions as well. The project plans to encourage the use of the maendelo jiko, a low-smoke firewood cooker, in place of the standard 3-stone fires. This cooker provides a protected, insulated, and more stable surface for heating cook-ware. Also planned is education on using an insulated basket called a “fireless cooker” in place of long firewood-burning cooking times, which may also reduce incidental burns.

FAMILY PLANNING/MATERNAL CARE OBJECTIVES:

In both 1991 and 1994, 80% of women indicated they did not wish to have additional children within the next three years. In 1994 only 62% of these women were using a modem family planning method. Comparison data for 1991 was not available due to loss of survey data which had been stored on a computer which was stolen in 1993. With respect to the 1994 survey, 25% of the women not desiring children in the following three years reported that they were still breast-feeding their child or felt that they had delivered their children so recently that immediate pregnancy was not a concern.

CHWs have been supplied with and are able to distribute only one of the non-clinic contraceptives, condoms. The choice of methods distributed by CHWs should be expanded to include foaming tablets if available. We strongly believe that CHWs will be more credible if they can offer a selection of choices. Plans are in progress for CHWs to incorporate condom distribution into IGAs.

From the results of the surveys, the most popular contraceptive appears to be the oral pill, used by 47%, 63%, and 43% in 1989, 1991 and 1994, respectively, followed by injectables (6%, 17%, and 22%). IUDs were used by 23% in 1989 and 12% in both 199 1 and 1994. Condoms were used by only 3.1% of women interviewed in 1994.

PREVENTION OF HIV/AIDS AND STDS OBJECTIVES:

At least 85% of women of reproductive age (10,840 women) will be able to explain how AIDS and STDs are transmitted and identify at least one method of how to prevent AIDS.

The majority of the women interviewed (over 92% in each survey year) knew that AIDS is transmitted through sexual intercourse. A similar proportion was noted for the 1991 survey, indicating no change in knowledge between the two surveys. Significantly, changes in knowledge about unsterile needles and blood transfusions as being modes of AIDS transmission was noted. For unsterile needles, knowledge rates were 18.9%, 23.0% and 34.5% in 1989, 1991, and 1994, respectively; and for blood transfusion, the knowledge rates were 16%, 17% and 35.4% in 1989, 199 1 and 1994, respectively.

Current project activities aimed at informing members of the community about the AIDS threat, include health education talks in the communities and the showing of videos involving people with AIDS at the HC. Plans for starting HIV/AIDS prevention and community home health nursing for PWAs (Person with AIDS) are in progress. Three youth groups are being involved in AIDS, STD and Family Planning (FP) integration programs at Ruthimitu High School, Dagoretti Market, and Saigon (Old Mutuini).

A regular schedule for AIDS barazas has been implemented to provide the general community with opportunities to listen to PWA educators and ask specific questions. Informational pamphlets, posters, and free condoms are distributed at each event. The average attendance at these “walk-in” events has been 85 community members.

By the end of year three, 6,000 condoms will be distributed per month in the community.

A total of 9,000 condoms were distributed per month in the grant cycle which is 50% above the target of 6,000. CHWs are the prime distributors of condoms at the community level. Stocks should be maintained in order not to discourage the already high demand achieved.

At least 50% of children aged 10 and older who are attending school will have participated in a classroom discussion or CHW home discussion of AIDS and STDs by the end of year three.

This objective has not been measured. Difficulties with teachers and general community attitudes have slowed progress on this objective. However, plans are being discussed to arrange for talks at several schools.

TREATMENT OF ILLNESS AND INJURY OBJECTIVES:

Sustain current patient load of 100 to 120 curative patient visits each work day.

Based on clinic data for the month of September 199 1 and July 1994, a total of 120 persons per day were treated at the HC in 199 1. This dropped to only 70 persons per day in July of 1994 against the target of between 100 and 120 persons per day. This decrease is largely attributed to fee increases implemented in August 1993.

Fill 99% of prescriptions for curative care generated by the HC at the time of first presentation.

The MIHV Medical Director feels that approximately 90% of the prescriptions for curative care generated by the HC at the time of first presentation are correctly filled. However, it was not possible for the evaluation team to verify this.

Cover 100% of clinic-generated expenses for curative and preventive services by patient-generated income (assuming continuing MOH support through deployment of clinical staff, essential drug kits, immunization supplies, and family planning supplies).

The monthly revenues at the HC average US $4,821 against expenses of US $6,607. These revenues and expenses also include MOH-provided salaries for seconded staff totaling US $1,250 per month. Partial reasons for the difference in revenues vs. expenses are the discontinuation of the essential drug kits and the 200% inflation rate for pharmaceuticals. The revenues for covering the remaining expenses come from the USAID cooperative agreement and other outside funding sources. Plans for covering this difference between revenues and expenses after MIHV direct involvement ceases are detailed elsewhere in this report.

A4. Describe unintended benefits of project activities.

The MIHV Child Survival project has gained recognition from the MOH as being a possible model for community clinics in Kenya. There is discussion that the user-fee model that has been developed at the MIHV-Chandaria Health Center might be tried in other clinics in Nairobi. As a result of this wide recognition for its successful cooperation with MOH, several NGOs and other agencies are interested in working with the HC.

The HC has been approached by the community to establish other services. For example, the previous medical directors were instrumental in establishing the site as an official chapter of the Kenya National Diabetes Association. Each month, a physician from Kenyatta Hospital holds a diabetes clinic at the HC. This involvement also made special training in diabetes control available for our clinical officer and nutritionist through Kikuyu Hospital.

The University of Nairobi has several departments interested in the HC as a training site as well as study site for projects such as an orphan study. MOH has made dental clinics available to the HC in the past, a much needed service in Dagoretti. The HC holds a skin clinic on a regular basis. Discussions for a monthly eye clinic are underway. Organizations, including FPPS and Marie-Stopes provide valuable services through our site. Donation of equipment from FPPS for a surgical FP theater is in discussion.

A5. Attach a copy of the project's Final Evaluation Survey, and state the results for each relevant indicator (see Appendix B). Please be sure the results include numerator and denominator information, as well as percentages for each indicator.

A summary table of the final evaluation survey results is presented to indicate what objectives were achieved from the implementation of the interventions outlined in the DIP. Comparison is made with results of the previous survey done in 199 1. All results with stars (*) indicate that the changes in coverage between the two surveys are statistically significant. See Tables 2-6 in Appendix B.

B. Proiect Expenditures

B1. Attach a pipeline analysis of project expenditures.

The Pipeline Analysis is enclosed as Appendix C.

B2. Compare the budget contained in the approved DIP with the actual expenditures of the project. Were some categories of expenditures much higher or lower than originally planned? Please explain.

Due to a variety of unplanned and largely uncontrollable circumstances, the project was considerably overspent in most expense categories. The end result is that MIHV contributed an additional $62 1,447 than what was originally budgeted, or the equivalent of a 79% match.

Under Headquarters, the following categories were overspent: Personnel, Other Direct Costs, and Indirect Costs. Personnel includes considerable volunteer effort in technical support to the project at the home office; this activity included research on topics identified by the field staff, assistance in development of project strategy, and writing the annual project reports. Administrative costs were also over budget due to heavier involvement of the Executive Director than what was originally budgeted; this was largely a result of the motorcycle accident which required medical evacuation of the Project Director in the summer of 1993. Higher involvement of home office staff resulted in increased expenses in other areas of direct costs such as telephone and fax, postage and express service, etc. MIHV's indirect costs have fluctuated widely during the period covered by the grant, primarily due to the small size of the organization. When the grant proposal was written, the indirect cost rate was 22.3%; when the grant agreement was signed, the indirect cost rate was 15.17%; in the middle of the grant period, the indirect cost rate jumped to 25.59%. For the final pipeline analysis, I used an average of 19.89% for the period covered by this grant.

The Field budget was overspent in virtually all categories. A primary factor was the considerable inflation which the country experienced in the wake of wildly fluctuating exchange rates; many items required by the health center experienced inflation as high as 200 percent. At the same time, the medical kits which the Ministry of Health had been providing to the project were terminated due to shortage of funds. This reduction in MOH support required the health center to increase its fees in order to recover expenses; however, it has not been possible to increase fees as fast as general inflation without significant reductions in patient visits. Consequently, the project absorbed higher subsidy costs than originally budgeted.

The motorcycle accident which downed the Project Director created unexpected costs which were never budgeted including medical evacuation and recruitment and transportation of a replacement Project Director. Additional technical assistance was provided to the project than was originally budgeted including a study of potential income-generating activities and resources in the project area, and a Peace Corps Volunteer assigned to the project to provide training and advisory support to CHWs pursuing income-generating projects. Further technical assistance was provided by MIHV's Medical Director, particularly at the time of the Project Director's accident.

A major burglary occurred mid-way in the grant period which resulted in major losses to the project's office and cash reserves which had accumulated during a bank strike. In addition to the added costs of replacing lossed equipment and cash, the project absorbed further expenses in the installation of an automated alarm system to the health center. This expense has already more than paid for itself by successfully preventing successive burglary attempts since completion of the installation. Additional facility enhancements were made to provide solar back-up during power outages, a frequent occurrence at the health center, and a solar hot water heating system for the clinic.

Changes in the indirect cost rate were explained above.

B3. Were project finances properly handled?

A sound system of financial and inventory controls continue to be utilized in both the program site and at MIHV's home office in Minneapolis, Minnesota. All financial transactions are signed off on by at least two individuals and all MIHV finances are audited on an annual basis. The Kenya Project financials are audited initially in the field by a local accounting firm and again at the home office.

B4. Were there any lessons learned regarding project expenditures that might be helpful to other PVO projects, or relevant to USAID's support strategy?

Because the Child Survival cooperative agreements go for three years, one concern has been the financial impact of high inflation rates in Kenya on the project budget. Even a relatively small underestimation of the inflation rate, carried over a three year period, can have a serious impact on the purchasing power of the project.

The project was also crippled by several unanticipated events which not only generated additional unexpected costs but delayed project implementation. It would seem appropriate to budget for contingencies to deal with these inevitable crises.

C. Lessons Learned

Outline the main lessons learned regarding the total project that are applicable to other PVO Child Survival (CS) projects, and/or relevant to USAID's support of these projects.

C1. Community involvement in decision-making should be a continuous process

In Dagoretti, the distinction between a community-based vs. a community-oriented decision has not always been clear. The involvement of established community leaders was initially an effective and straightforward way to begin the project. However, the lack of clear leadership structures and by-laws for the area health committees has limited the potential effectiveness of the health programs. Community leaders are hand-picked by local chiefs, who are politically appointed. Therefore, decision-making has not been truly community-based, but has been controlled by un-elected representatives. This distinction has become apparent in the process of hiring staff at the HC, choosing volunteer CHWs and TOTs. It has been one of several major factors in the failure of the TOT program and is probably a major factor in the high drop-out rate of CHWs.

Currently, the project is attempting to guide the restructuring of the area health committees so that their representation of community opinion is more accurate and the decision-making power of the three community-held positions on the HC's Board of Management represents more truly, the entire community.

True community involvement will be enhanced through increased democratic representation on the committees, the establishment of reasonable rules for community elections and committee membership, and the replacement of inactive members. We believe that volunteerism will be enhanced with the CHWs and CHWRs. In addition, the distribution of trained volunteers over the project area will be more efficiently achieved; this may result in better intervention rates over the entire project area.

c2. Income Generating Activities (IGAs) are an important aspect of health promotion.

Carefully selected health-related IGAs can lead to increased income, and also be used to support community initiatives. Hence, the sustainability of the projects will be enhanced. However, IGAs that are not related to health care run the risk of diverting CHW energy away from their primary mission.

The project has learned that group cooperatives, where members are not self-chosen, have a high failure rate. The members of our two cooperatives are all CHWs and are therefore artificially chosen cooperatives. This has resulted in several problems. The Kiosk group has been managed by a very small minority of its members who may expect a larger share of the already small profits. Likewise, the charcoal group will also likely default on its loan repayment due to individual profiteering and lack of cohesion.

Group IGAs that are structured so that profits are directly related to individual productivity are more successful, as in the Tumaini CHW project. These groups, where cohesion is high, can be used to guarantee individual CHWs undertaking their own businesses, as with the Juhudi scheme.

c3. Proper selection and continuous support of community volunteers is essential for sustainability.

Although volunteerism was emphasized from the beginning of all project activities, there was a general attitude and disbelief in the community that the project would put so much effort into training without offering employment in the end. CHWs who are currently active have admitted that they entered training with this misconception, even in the face of clear statements from project staff about volunteerism. Project staff believe that the high drop-out rate has been due to this issue. Many who have volunteered for periods of up to a year, still expecting employment, have left the project. Certain members of the area health committees still carry this misconception, though they are constantly told otherwise. In addition, energies need to be directed towards replenishing the project with new volunteers to make up for the attrition that occurs with any volunteer project.

c4. Training is an essential component of community-based projects.

Training in health education and overall management is an important component of any community-based project because it represents a permanent input into the community. Training should be a continuous process, involving both the community and the project staff.

The project has gained considerably from the skills that staff have attained from training workshops. Clinic staff are able to provide better care, CHWs disseminate health promotion - disease prevention knowledge to community members in more effective methods, and CBHC staff provide services of a greater variety, such as counseling, IGA start-ups, and better training of CHWs. Keeping the community involved in skills training also maintains their interest in the work and increases their desire to learn more.

C5. Pairing-up Kenyan staff with expatriate staff is one way of transferring skills and ensuring efficiency.

MIHV has used this model very effectively. However, actual transfer of skills depends a great deal on the ability of the expatriate volunteer to teach. Project staff have learned to stress teaching ability as highly as management skills.

In addition, project staff have spent a great deal of time in orienting volunteers over the life of the project. This orientation effort has taken a lot of energy away from project activities. When expatriate volunteer contracts are set for less than 6 months, the effort necessary to orient the new volunteers exceeds the benefits to the project. Tenures of at least one year have been far more productive.

C6. Collaboration with government agencies, private sector and NGOs insures continuity and sharing of experiences and resources.

Implementation of community-based projects requires support from the local government, other NGOs, and training institutions. These entities have assisted the project through the supply of essential materials and equipment and in the training of the local staff. The local private sector can also be a useful partner in the implementation of community-based projects. The experience, contacts and resources the private sector has at its disposal can be used to better the lives of community members. The benefits of this collaboration have been illustrated already in detail in "Section A4: Unintended Benefits of the Project Activities" above.

c7. Cost-sharing is a key element in designing a successful health delivery system.

Economically poor people are willing to pay for health care services if they identify the facilities as theirs; the costs are affordable; and, the services are reliable. Experience demonstrates that free services are not valued by consumers. Even poor people find a way to pay for health services that are expensive in relation to their income. While this is probably due to strong community linkages, it supports the notion that cost sharing can be a successful strategy even in areas where the population is low income.

C8. Supervision and monitoring are important functions of both management and leadership.

All of the CHW programs in Kenya have been grappling with the issue of motivation, supervision and incentives. Programs that have instituted monetary incentives for CHW activities have had serious problems or have failed. Strong community groups that were formed before the CHW programs were started have continued to be successfully self-sustaining.

Training community members to continue CHW supervision on a voluntary basis will be the primary challenge the project faces in the next funding cycle. Without proper supervision and volunteer support the CHWs quickly become resentful and feel unappreciated. Motivation levels remain high as long as interest in their individual activities remains high.

II. PROJECT SUSTAINABILITY

A. Community Particination

A1. Please identify community leaders and members interviewed and indicate which group(s) the leaders represent.

Joint Health Committee members who represent the interests of the three Area Health Committees.

Area Health Committees members who represent the communities of Waithaka, Mutuini, and Ruthimitu.

Community Health Workers (CHWs) who are members of the community who have been trained to offer services on a voluntary basis to the target groups.

IGA Grouts formed with groups of CHWs who have undertaken IGAs. The current three groups are involved in sewing, charcoal and kiosks.

Board of Management (BOM) members represent several interests. The organizations represented on the BOM include MOH, MIHV, Chandaria Foundation, Rotary Club, Provincial Administration (District Officer), three members from the Joint Health Committee that represent each of the three areas and the University of Nairobi's Medical School.

A2. Which child survival activities do community members and leaders perceive as being effective at meeting current health needs?

Treatment of illness and injuries

Resolving immediate health problems is one of the primary needs associated with health care in the community. An average of 120 persons visit the HC daily. On average, 70 are for curative and the remaining 50 are for preventive services.

Family planning/maternal care

There is an increased awareness of the importance of family planning by women of child bearing age. Many of those interviewed use at least one form of birth control and feel that these services are inexpensive and convenient. The project has distributed over 300,000 condoms to the community and the demand is growing each day.

Immunization

The provision of vaccines has been appreciated by the community leaders and the community at-large. Through the CHWs, children have been referred to the HC for immunization for BCG, OPV, measles, and DPT. The shortage of BCG vaccine and syringes made the clinic even more valuable in the eyes of the communities during recent shortages.

Child welfare

There were 5,405 visits by children to the HC for growth monitoring in the first six months of 1994. CHWs played a major role in referring mothers to the HC. Malnutrition has fallen significantly during the project cycle, as measured by the KPC survey.

A3. What activities did PVO carry out to enable the communities to better meet their basic needs and increase their ability to sustain effective child survival project activities?

A Board of Manapement has been established which will immediately become responsible for the governance of the HC. It includes three local community representatives and a District Officer representing Dagoretti Division. Over the next grant cycle board members will be mentored in decision making and organizational oversight.

Three Area Health Committees. a Joint Health Committee and the HC's Board of Management have been established to oversee both the HC and the CBHC projects and to select CHWs. They also participate in the identification of health-related needs in each of their communities. Management training of members of the Joint Health Committee has begun to ensure skills and knowledge needed in the supervision of CHWs.

Training of CHWs: The project has facilitated the selection and training of 261 CHWs who come from the communities in which they serve: 123 in Mutuini, 87 in Ruthimitu and 5 1 in Waithaka. Each CHW takes an eight week training program with 30 modules that focuses on primary health care, health education, nutrition, family health, the role of the CHW, and other areas of need. The training is participatory. The trainee learns by doing, through songs, drama and folk media. These training methods have been found to be the most effective in the illiterate or minimally literate community groups.

The strategic plan and time-line for training CHWs was revised in March 1994 following the completion of training of the project's newest group of CHWs. The decision to postpone new CHW training at the cost of missing the objective was weighed heavily. Current CHWs were strongly voicing issues relating to support of them and their activities. A series of community-based meetings and strategic planning meetings were scheduled to address the volunteers' issues and provide support and acknowledgment. Part of the new strategic plan was to postpone any new CHW training until all current CHWs were trained in refresher courses required for renewal of their certification cards.

Refresher Courses: At the behest of the CHWs who were originally trained in 1991, the project has designed refresher courses to update their skills. A total of 60 CHWs have gone through this training. On introduction of IGAs, the project has trained CHWs on basic skills required to run a business. These include bookkeeping, record keeping, leadership skills and volunteerism. In addition, CHWs have participated in workshops sponsored by other organizations on topics such as FP, Information, Education and Communication (IEC) development for AIDS, FP and AIDS counseling.

Income Generating Activities: CHWs have been encouraged to start income generating activities which would provide the groups with income. These CHWs come from the three locations of the project area, and two of the groups have successfully completed registration of themselves as self-help groups with the Ministry of Culture and Social Services. The third is expecting to complete the process shortly. By registering, the group can collect funds, open a bank account and start income generating activities. Already three groups are engaged in running a kiosk, charcoal selling and sewing. The groups have been promised a plot by one of the local chiefs to construct a sanitary market. However, formal approval from the government on this site has yet to occur. The project has supported these groups by giving two of the groups loans and facilitating the development of the third group into an operational business.

A4. How did the communities participate in the design, implementation and/or evaluation of Child Survival Activities?

At the **inception** of the project, community members helped identify the site where the HC was to be built and assisted in acquiring land from the Nairobi City Council. In addition, community elders assisted MIHV with introductions to the leaders of Dagoretti which resulted in meetings with other village elders and decision makers. During the meetings they discussed the community-based health care program and agreed to participate.

During implementation, community members have been able to set up an effective community structure which implements the project activities through health committees assisted by a team of Kenyan staff, expatriate volunteers, CHWs, Traditional Birth Attendants (TBAs) and CHWRs. All of these volunteers give their time and services free of charge.

The Joint Health Committee has participated in reviewing the HC fee structure and informing the community members about the changes. Community members participated as community survey interviewers in the evaluation survey and will be informed of the results. An area health committee member was trained and participated in a supervisory role during the community survey. Community leaders also participate in the selection and interview process of all non-MOH HC staff, including volunteer workers.

A5. What is the number of functioning health committees in the project areas? How often has each met in the last six months? Please comment on whether committee members seem representative of their communities?

There are three functioning Area Health Committees and one Joint Health Committee. Each of the Area Health Committees has twenty members and represents one of the areas served by the project: Mutuini, Ruthimitu and Waithaka. Both the Area Health Committees and the Joint Health Committee meet monthly.

Committees are not directly representative of their communities because the members were not elected by the general population. Instead, they were hand-picked by the chiefs of their areas. The committee members are considered elders. Therefore, they justify their participation on the committees by virtue of their age, wisdom, and position they hold within the community. This has not allowed the process of democratization to take place in the communities. Elections have not been held since the **inception** of the **project.**

A6. What are the most significant issues currently being addressed by these Health Committees?

The most significant issues currently being addressed by the health committees are the future ownership of the HC and CBHC programs, the plot allocation for the sanitary market, the establishment of new IGAs to help cover the incidental costs incurred by the committees, the expansion of the HC to include dentistry, eye/ear clinic and other services, and registration of the committees with the government.

A7. Please give specific examples of the methods used by the committees, and of their precise role in providing direction to the project.

The **Joint** Health Committee has several oversight responsibilities, including the hiring and firing of project staff, setting fees for the HC, and overseeing the management of the Community Based Health Care programs.

At the community level, the health committees assist the project during the selection of volunteer CHWs and community health worker representatives (CHWRs). They also help identify and assist in the planning of health care initiatives within the community.

The health committees have acted as a link between the project staff and the community members. They have mobilized community support in the AIDS awareness campaigns, immunization and family planning activities. At the request of the CHWs, the Area Health Committee members have accompanied them on home visits. These committees have also played an important role in identifying and helping community members who are unable to pay for their health care costs.

AS. What resources has the community contributed that will encourage continuation of project activities after donor funding ends?

Because the majority of the people living in the project area are poor, most of the program inputs that come directly from the community are in the form of donated time and skills, not funding. The health committees continue to be involved in the recruitment, training and supervision of volunteer CHWs, TBAs **and CHWRs who** provide services to the project free of charge. In addition, the health committee members also donate their time free of charge to the project. The community supports the clinic through a cost sharing program at the HC based on patient fees for curative services and medicines.

Other local means of raising financial support for the project also exist. The Chandaria Foundation, a local foundation which financed the construction of the HC, has expressed an interest in providing long term support for the HC and possibly the CBHC program. The Joint Health Committee is in the process of registering itself with the government as Dagoretti Community Health Volunteers. This group is also organizing to raise funds for the HC through a community harambee. This fundraiser is scheduled for December 1994.

A9. What are the reasons for the success or failure of the committees to contribute resources for the contribution of effective project activities?

The main strength of the project is the level of community participation it has been able to foster since the inception of the project. MIHV has continuously emphasized to the health committees and the community-at-large that the success of the project will ultimately depend on community ownership. This has resulted in the establishment of growing community-based institutions such as the health committees, the CHWs, and the Health Center.

There are several reasons why the health committees have not fully developed. There has been a general misconception in the community that the project is producing a net profit. This is not the case, even when looking at the HC alone. Understandably, when the health committees turn to the members of these economically-poor communities seeking financial support, the response tends to be anemic. This is changing as more community members have become more directly involved in the project.

Initially the concept of volunteerism, although explained extensively, did not take hold. Many of the earlier volunteers - including CHWs, committee members, and elders - wrongly assumed that their volunteering would lead to paid positions or some other type of remuneration. As individuals have learned that this was not the case, some have left. MIHV continues to educate the committee members and the community-at-large on the concepts of volunteerism.

The committees, themselves, have been ineffective at encouraging community members to participate in the project activities. Committee membership was not decided democratically. The chief selected the committee members from the community elders. These elders are accountable to the chief and not to the communities they represent. Illiteracy rates among committee members is high. Therefore, their understanding of issues and possibilities of generating revenue is very low. Instead, they expect the project to pay them for services rendered. Illiteracy as a problem is now being addressed through adult education classes which are conducted at the HC twice a week. The project needs to provide guidance to the committees so that they can organize themselves better, especially in the areas of leadership skills, record keeping, communication skills and roles of various members such as chairman, secretary and treasurer.

B. Ability and Willingness of Counter-Dart Institutions to Sustain Activities

B1. Please identify persons interviewed and indicate their organization and relationship to the child survival project.

The evaluation team interviewed Mr. Manu Chandaria and Mr. Hari Shah, both of the Chandaria Foundation. A large part of the money used to construct the HC was provided by the Foundation. The two gentlemen reiterated the Foundation's continued support to the HC and CBHC program. They have promised to provide material to construct a sanitary market, and are also willing to look at alternative ways to finance the child survival project at Dagoretti.

The evaluation team also interviewed Dr. Wangai, Deputy Provincial Medical Officer of the Ministry of Health and Dr. Fred Were of the University of Nairobi School of Medicine Department of Pediatrics. The MOH is committed to assuming responsibility for the HC and CBHC program to a limited extent, (e.g. paying a portion of CBHC staff salaries). They are also willing to second nursing staff to be involved in the CBHC program. Dr. Were mentioned the possibility of the School of Medicine assuming administrative responsibilities over the HC and CBHC program. However, they are committed to another project over the next two years. They stated their interested in becoming more involved in Dagoretti after this other commitment expires.

B2. What linkages exist between the child survival project and the activities of key health development agencies (local/ municipal/district/provincial/state level)?

The Chandaria Foundation has provided funds for the construction of the HC. The Foundation also assists with management support to the project. Mr. Chandaria is still willing to provide additional funds for the construction of more rooms to accommodate the planned expansion of the HC to include dental services and counseling of AIDS patients. The Foundation is also a member of the Board of Management of the HC.

The Rotary Club is a member of the Board of Management and assists with supplies and the provision of equipment and materials. They have provided the project with funding for construction and installation of solar back-up equipment and other

Family Planning Private Sector (FPPS) has provided family planning and HIV/AIDS training to a number of clinic staff. FPPS also provides commodities such as contraceptive pills, condoms, and brochures. FPPS has provided a **one** time grant to the project. One community nurse is currently attending training on puppetry. The HC is also being used by FPPS as a training ground for health workers from other programs.

Kikuyu Hospital has trained traditional birth attendants to serve in the child survival project. It has also provided training on sterilizing equipment. Being conveniently located within reach, Kikuyu hospital has serviced the project as a referral center.

The African Medical and Research Foundation (AMREF) has assisted with setting up the laboratory at the HC and annually conducting quality assurance evaluations as well as providing consultations on many other health needs of the project.

The University of Nairobi School of Nursing provides community- based field experiences for their students at the HC as well as conducts surveys and community-based research.

The University of Nairobi School of Medicine is a member of the Board of Management. It conducts health-related research in the project area and helps to train physicians in community health. The Department of Pediatrics is scheduled to conduct an orphan survey in the project area when the university resumes. The University has been on strike since late 1993.

The MOH is providing the HC with a total of US $1,250 per month in payment of salaries for 13 seconded staff. It also supplies vaccines and contraceptives for free distribution to the HC. The MOH is actively involved in the HC's Board of Management.

Kenya Red Cross has provided a room at its premises to the project for the purpose of testing and counseling AIDS patients. This location helps to ensure confidentiality to the patient. Referral of AIDS patients occurs between the two organizations.

United Nations Children's Education Fund (UNICEF) provides drugs, and TBA kits. The project participates in the Day of the Child sponsored by UNICEF. The project has coordinated it's outreach efforts with UNICEF's program rather than the mobile clinics which were discontinued in May.

Through **Marie Stopes International,** the project is able to provide free services for surgical contraception at the HC once a month. Surgical procedures are provided by Marie Stopes, while support services, presurgical counseling and nursing follow-up services are provided by the project.

The Embassy of the Netherlands provided an ambulance to the HC.

The Embassy of Japan provided a grant for the AIDS component of the project.

B3. What are the key local institutions the PVO expects to take part in sustaining project activities?

The key local institutions expected to take part in sustaining project activities include the Chandaria Foundation which is a major local donor, the University of Nairobi School of Medicine which may play a role in fulfilling the responsibilities of the medical director when MIHV leaves, MOH and possibly the Nairobi City Council who are actually mentioned in the agreement letter as the likely body to take over the management of the health center and the CBHC project after withdrawal of MIHV and Chandaria Foundation.

B4. Which child survival project activities do MOH personnel and other staff in key local institutions (including counterpart organizations) perceive as being effective?

The recruitment, training and on-going supervision of CHWs in MIHV's CBHC program is respected by the MOH and the NGO community in Kenya as being a model for such programs. The success of the immunization and the AIDS/STD interventions, as documented in the qualitative portion of the survey, has also been of strong interest to the MOH. As the project progresses towards self-sufficiency, MIHV will continue to foster these connections with MOH and seek to broaden their involvement in all of the project's child survival interventions.

B5. What did the PVO do to build skills of local MOH personnel or staff of key counterpart NGOs? Did they teach them to train CHWs, or manage child survival activities once USAID funding terminates?

The project has given opportunity to the Kenyan staff to undergo training in leadership skills, management competence and technical skills, through seminars, workshops and conferences organized both within and outside the country. For example, the Project Deputy Director, Lois Miano, has attended several workshops, which have enhanced her knowledge and competence in management. She has been to two USAID-sponsored workshops in Uganda and the USA. In addition, other staff members have attended workshops organized by MOH and other NGOs. These include seminars on the Bamako Initiative, family planning, laboratory training, Control of Diarrhea1 Disease (CDD), AIDS counseling, diabetes control, folk media, puppetry, IEC development for AIDS, and integration of FP/STD/HIV-AIDS programs.

The other method used to increase skills and provide experience to the Kenyan staff is through their pairing with MIHV volunteers who have skills in medicine, nursing, environmental health, epidemiology, midwifery and management. These expatriate volunteers have worked with the HC and CBHC staff to enhance their skills and competence in program management and in relevant technical areas. The project has also taken a keen interest in bridging with other NGOs that provide clinical training for both the expatriate and local staff.

B6. What is the current ability of the MOH or other relevant local institutions to provide the necessary financial, human, and material resources to sustain effective project activities once CS funding ends?

MOH is actively involved in supporting the project by providing 13 HC-based staff including seven community nurses. These two nurses are willing to join the CBHC project once additional nursing staff are seconded to fill in. MOH has also offered to second business office staff and a dentist in the future.

The Chandaria Foundation has offered to continue to provide both financial and management support to the project. The evaluation team also recognizes the interest of MOH in continuing this support but fears that it may be inadequate to sustain the entire project in the event that MIHV leaves or USAID funding stops. The project will continue to need funding to fully sustain operations at the present level of activity.

B7. Are there any project activities that counterpart organizations perceive as effective?

The introduction of cost sharing/cost recovery mechanisms is making a positive impact in the appropriate use of HC services, both curative and preventive. The MOH used this model to explore a fee-for-service system countrywide.

B8. How have major project responsibilities and control been phased over to local institutions? If this has not been done, what are the plan and schedule?

MOH and Chandaria Foundation have actively participated in the management of the **HC through** seconded staff and representation on the Board of Management (BOM). The University of Nairobi School of Medicine, and Rotary Club International are also represented on the BOM along with MIHV. The current agreement with the Chandaria Foundation, MOH and MIHV is not time-limited, although the role of Chandaria Foundation and MOH is unclear after the departure of MIHV. A new agreement will need to be drawn up between MOH and Chandaria Foundation to clarify their role after the departure of MIHV.

Major project responsibilities outside the Board of Management have not been phased over to other local institutions. Strategic plans for phase-out of USAID funding are underway and will be incorporated into the Detailed Implementation Plan at the end of this calendar year. Efforts to involve MOH and other CBHC-related institutions in training and supervision of the CBHC volunteers will be a focus of the transition.

B9. Did any counterpart institutions (MOH, development agencies, local NGOs, etc.) during the design of the project (proposal or DIP), make a financial commitment to sustain project benefits? If so, have these commitments been kept?

Yes. The MOH has provided staff, essential drugs, vaccines and contraceptives to the HC. However, it has had to temporarily withdraw the supply of essential drugs after DANIDA stopped funding this program. MOH still provides 13 staff on secondment and pays their salaries regularly (US $1,250/mos). Plans are being developed between the project and MOH to secure additional MOH staff for the HC on secondment, including one medical records officer with computer skills and two enrolled community nurses to free up MOH nursing staff to participate in administration of the CBHC program.

The Chandaria Foundation, the initial local donor continues to provide financial as well as management support to the project. It provided financing for the construction of the HC.

B10. What are the reasons given for the success or failure of the counterpart institutions to keep their commitment?

The MOH cut off supplies of essential drugs to the HC when DANIDA stopped funding the Government of Kenya's essential drug program in 1993. This happened when the value of the Kenyan Shilling rapidly declined due to an ailing economy. Drugs were disappearing very fast from the public health facilities and the government was unable to maintain a satisfactory supply.

The project and HC have had to purchase drugs from local suppliers and adjust user fees to cover the cost of these drugs. Increased fees have resulted in a decrease in the number of patients visiting the HC for curative care. Financial shortfalls have not allowed these service fees to be used in the CBHC program, as was hoped.

MOH has continued to provide seconded staff which has successfully strengthened the clinic services. In addition, they have increased the number of seconded staff, adding a community nurse, a charge-nurse, a pharmacist technician, and a nutritionist. There has been a verbal commitment to second more support staff in the future when the HC is ready, such as an additional community nurse, business office clerk and dentist. Because the HC continues to provide quality care and management of health services, the MOH continues to support project efforts.

B11. Identify in-country agencies who worked with the PVO on the design, implementation, or analysis of the midterm evaluation and this final evaluation.

The African Medical and Research Foundation (AMREF)

MIHV Child Survival Project field and home office staff

USAID Kenya Country Office (Child Survival and Development Officer)

World Vision, Kenya

C. Attempts to Increase Efficiency

C1. What strategies did the PVO implement to reduce costs, increase productivity, or make the project more efficient?

The project is actively pursuing relationships with the MOH in the hope of continuing the involvement of seconded staff. This will minimize the costs incurred through staff salaries and other benefits. Currently, the MOH has seconded a team of 13 qualified staff, including a clinical officer, 7 enrolled nurses, a registered nurse, 2 lab technologists, a pharmacist and a nutritionist. Plans are under way to second additional staff, including a medical records clerk with computer skills and an additional nurse to allow rotation of nursing staff into the CBHC program.

Small scale, income generation schemes have been designed to help raise additional money through rental fees which will be used to off set some of the costs of running the projects. Among these schemes are the development of a sanitary market. The stalls will be allocated to the CHWs and other groups of people on a rental basis.

The possibility of constructing rental housing as an income-generator is also being discussed with donor, Manu Chandaria. Proceeds would go towards financing the HC and the CBHC programs in the future.

The project is trying out new sources of low cost drugs and supplies as a way to reduce costs. CHWs and their representatives are community based volunteers on whom the project heavily relies for the implementation of community based activities. If these 261 CHW volunteers currently serving in the project were to receive payment for the work they do, the project would find it impossible to sustain CBHC activities with the present level of donor support.

c2. What are the reasons for the success or failure of the attempts to reduce costs, increase productivity or efficiency of this project?

The MOH has seconded 13 qualified staff for whom the CS project does not pay, except for a transportation allowance of 1,000 Kenyan Shillings per month. This not only reduces staffing costs tremendously, but also strengthens linkage with the MOH.

The Project uses volunteer CHWs to carry out CBHC work in the communities. This is a low-cost prevention strategy for health interventions. CHW-related costs are primarily in training and supervision. The number of volunteer hours logged in the CBHC program makes it the most valuable in-kind contribution to this CS project.

The involvement of trained local and expatriate staff who are skilled in international health and committed to this CS project has greatly increased the transfer of useful skills and knowledge both ways.

Through networking with other organizations, the project has received numerous donated services and supplies, including contraceptives, health education materials, training of staff and the specialty clinics (i.e. diabetes, skin). Items donated from the U.S. have helped to offset costs for purchases in Kenya which demand higher prices (e.g. surgical/exam gloves, micropipettors, glucose -monitoring supplies, etc.)

Discontinuation of outreach mobile clinics reduced HC losses by several thousand Kenyan Shillings per month. Major related expenses were treatment costs for children’s colds, coughs, and infections which were a secondary focus for the mobile clinics. The primary focus, immunizations, was not cost effective. Coordination of efforts with the UNICEF programs has replaced the need for the mobile clinics as a means for reaching the targets for immunizations.

Charging for photocopying services to the public has defrayed the cost of photocopying for the project by approximately 20%. Providing this service may also increase the HC's visibility in the community - a means of advertising for which we have no measure of effectiveness.

The HC has made a comprehensive review of drug costs and prescribing habits. New relationships with local pharmaceutical firms were forged that have allowed the HC to purchase drugs at greatly reduced prices. Many prices were lower than those offered by the local, non-profit, mission-funded supplier, MEDS. A review of the fee structure for patients was conducted and revision has been instituted. Another analysis needs to be scheduled.

c3. Are there any lessons to be learned regarding attempts to increase efficiency that might be applicable to other PVO child survival projects or to USAID's support of these projects?

The project has successfully built up linkages with other NGOs and public institutions which have been beneficial to those involved in child survival programs. The linkages have enhanced sharing of experiences, skills, materials and information. This is a lesson for other NGOs which have not yet developed their networking potential.

D. Cost Recovery Attempts

D1. What specific cost-recovery mechanisms (i.e., revenue-generating measures) did the PVO implement to offset project expenditures? If cost recovery was part of the project, who managed implementation?

The project has successfully introduced a fee-for-service mechanism to try to recover some of the costs of providing services to community members. Currently, revenues generated by this mechanism off-set 68% of the total project expenses. The Project Administrator and the Project Director are reviewing financial controls and patient tracking systems to ensure efficiency. Plans are also being made to expand the HC to include a dental, psychiatric, and other specialty clinics (e.g. dermatology, ear-nose-throat, optical, etc.). These clinics will also use fee-for-service, the revenues of which will be directed to covering the other HC and CBHC expenses.

D2. Estimate the dollar amount of cost recovery obtained during the project. What percent of the project costs did this revenue cover? Did the cost recovery mechanisms generate enough money to justify the effort and funds required to implement the mechanisms?

Yes. 68% of project expenses are currently met from revenues from the cost recovery scheme. We believe that the effort and funds directed to developing cost recovery mechanisms were more than justified. The system which has been developed is currently under consideration as a model for similar clinics in Nairobi.

D3. What effect did any cost recovery activity have on the PVO's reputation in the community? Did the cost recovery venture result in any inequities in service delivery?

In August of 1993, fees for curative services were increased while maintaining free and low cost preventive services. The result of this was a drop in the number of patients reporting for curative services. An analysis of HC attendances has been given in detail in earlier sections of this report.

D4. What are the reasons for the success or failure of the household income generating activities of this project?

CHWs are engaged in running household income generation activities including the making of three different sizes of purses and neck ties. The income from selling these items is relatively small, however, the CHWs involved continue to be highly motivated and productive.

The success of this activity is related to the fact that individuals benefit directly form their own work and a market is readily available. Networking activities with local non-profit marketing organizations has begun. Product lines will be increased, training in quality control and marketing strategies has begun. The monthly income for the group has steadily increased over the year.

The IGAs that have failed have been larger cooperative groups where initial investments were high and profits are divided among many. Control of the businesses has fallen into the hands of a few who also happen to be powerful community elders. There is a lack of feeling of ownership among the members and therefore a general lack of interest in the success of the business. In one group, the issue of “artificially chosen” co-operative members has been key. An initial and growing distrust among members has caused dispute within the charcoal selling group and the loan is in danger of being defaulted on.

D5. Are there any lessons to be learned regarding cost recovery that might be applicable to other PVO child survival projects or to USAID's support strategy?

Yes. Cost recovery has worked in the Dagoretti Child Survival project to the extent that revenues received cover 68% of the total project expenses.

E. Household Income Generation

E1. Did the project implement any household income-generating activities?

The Tumaini CHW project was started in December 1993 with a membership of ten and has grown to twenty by August 1994. They did not receive initial start-up funds from the MIHV Child Survival project but received a small gift of materials from a departing MIHV volunteer who organized the group. They now have a monthly income of 2,500 Kenyan Shillings from the sale of three-sizes of purses. The monthly income generated is given to the members whose purses have sold. 20% of the income is retained and put into a group kitty. A US Peace Corps volunteer with business qualifications has been attached to the project to advise the various economic groups. The group has undergone training in basic aspects of business management including: record-keeping, bookkeeping, and aspects of quality control, and product marketing. The group is yet to be registered as an official business enterprise after which it can open a bank account.

A second IGA group is involved in selling charcoal. It received start-up funds from the Child Survival project. The charcoal group does not have a bank account either. However, due to issues of mistrust among the members of the cooperative group, this IGA is in danger of failing in the next year. CHWs and each of the three area health committees have pulled together resources to form a cooperative-run food kiosk on the premises of the HC.

E2. Estimate the dollar amount of income, added to a family or household's annual income, as a result of the income-generating activity of the project.

It is not yet possible to estimate the increased income resulting from the IGAs because these activities have only recently been put into place. In the case of the Tumaini sewing group, income has been directly related to individual productivity. The sale of one item brings a net income equal to one day's unskilled labor income. Some CHWs have produced and sold only one item, while others are consistently earning the equivalent of a half month's wages for a full-time job each month. The range is $3 - $30 per month.

E3. Did the revenues contribute to meeting the cost of health activities? What percentage of project costs did income generation cover?

The revenues generated went to individual community members. However, 20% of the profits in the Turnaini group are returned to the group as a whole, to fund group activity costs such as buying materials for production and transport costs for deliveries. This offsets project support expenses for the group's start-up costs.

E4. Are there any lessons to be learned regarding household income generation that might be applicable to other PVO child survival projects or to USAID's support strategy?

The project staff have held meetings with several small business/IGA experts over the last six months to assist in evaluation and guidance of the project's activities. Recommendations have been to discontinue the project's involvement in granting loans, especially large group loans. This is further discussed in the "Program Recommendations" section of this report.

F. <u>Other</u>

F1. Describe what sustainability-promoting activities were actually carried out by the PVO over the lifetime of the project.

Commitments to on-going support of the project from local entities such as MOH, the Chandaria Foundation, and the University of Nairobi.

* The introduction of fee-for-service at the HC.
* The training of 261 CHWs, 5 TOTs, 2 Community Based Distributors (CBDs) and 13 TBAs.
* **Pairing of Kenyan staff** with MIHV expatriate staff.
* Phasing out of the post of volunteer administrator and replacement by a Kenya associate administrator.
* Establishment of BOM, Area and Joint Health Committees.
* Development of the income generating activities.
* Networking with local agencies.

F2. Indicate which aspects of the sustainability plan the PVO implemented satisfactorily, and which steps were never initiated. Identify any activities which were unplanned, but formed an important aspect of the PVOs sustainability effort.

The aspects of the sustainability plan that have been successfully implemented are listed above in section F 1. The most noted step that was not initiated was earlier on in the history of the project. The Dagoretti community, represented by the Joint Health Committee, who identified the project six years ago, was not mentioned in the agreement as a partner. They are now demanding to be included. Unfortunately, they cannot qualify to sign any legal documents as they are not a registered entity. The project is now in the process of working with the JHC to help it gain this legal standing so it can increase it's governance over the project.

F3. What qualitative data does the PVO have indicating a change in the sustainability potential of project benefits?

The increased willingness of the Joint and Area Health Committees to take on HC and CBHC supervision and some administrative responsibilities may indicate increased potential for continuation of project benefits. Improved HC finances, although the HC currently runs at a loss, may indicate greater potential for HC finances to be used to sustain CBHC activities after the end of USAID funding. On the staff level, several of the nurses have demonstrated a strong interest in the CBHC project through their participation in folk media training and outreach clinics. The willingness of MOH to provide staff, such as an enrolled community nurse to work directly in the CBHC project, and the Chandaria Foundation's interest in contributing towards the sanitary markets and expansion of the HC demonstrate that a strong momentum has been developed that can provide the on-going support necessary for the future of this Child Survival project.

III. EVALUATION TEAM

A. Identify by names. titles and institutional affiliation all members of the final evaluation team.

Leonida Atieno, Assistant Project Director, MIHV-Chandaria Child Survival Project, Kenya.

Stella Chao, Volunteer, MIHV-Chandaria Child Survival Project, Kenya

Eric Jarnison, MD, MIHV Volunteer Medical Director, Chandaria-MIHV Health Center

Michael Jordan, Peace Corps Volunteer, Kenya

Helen Kohler, RN, MIHV Volunteer

Julia Kunguru, Independent External Evaluator

Lois Miano, Deputy Project Director, MIHV-Chandaria Child Survival Project, Kenya.

John Ngugi, Clinic Administrator, MIHV-Chandaria Child Survival Project, Kenya

Judith Robb-McCord, USAID Kenya Country Office, Nairobi

Michael Shannon, MD, MIHV Medical Director, Minneapolis, Minnesota, USA.

Michael Smyser, MPH, Project Director, MIHV-Chandaria Child Survival Project, Kenya

Eban Taban, MPH, Independent External Evaluator and Team Leader

B. Identify the author of the evaluation report.

The writing of this report was a group effort, which included all of the above participants and the following:

Angie Nelson, PhD, Executive Director, MIHV Home Office

Garth Osbom, MPH, Program Officer, MIHV Home Office