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The Population Council

PD-ABA-319

FINAL REPORT

1 July 1985 - 31 December 1988

KUBATSIRANA OPERATIONS RESEARCH PROJECT

A COLLABORATION BETWEEN THE
ZIMBABWE NATIONAL FAMILY PLANNING COUNCIL
AND THE POPULATION COUNCIL
COOPERATIVE AGREEMENT NO. DPE-3005-A-00-3003-00
(SUBAWARDS NOS. I85.19A, I86.53A,
I87.31A, I87.85A, I88.10A, I88.44A)

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September 1989

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I. EXECUTIVE SUMMARY.

A. This is the final report of an operations research project carried out in Zimbabwe as a collaboration between the Population Council and the Zimbabwe National Family Planning Council (ZNFPC). The project was carried out between July 1985 and December 1988 with funding from the Agency for International Development (A.I.D.). The project has been referred to as the Kubatsirana Project. The principal purpose of the project was to seek a strategy to expand access to family planning information and service in rural areas in an acceptable and cost-effective way. This learning and testing process was carried out within the overall context of a complex, integrated development model of the Government of Zimbabwe (GOZ). This model sought to link women's adult literacy, women's income generation through group efforts, and family planning. The role of the Population Council was to assist the ZNFPC to design, carry out, analyze and write up the information gathered during the testing of this integrated system. Because of the Population Council's and A.I.D.'s primary interest in the family planning component, and for practical reasons (e.g., resource constraints), more attention was paid to it. This prioritization is reflected in this report.

B. Objectives.

These were to:

- (i) gain a better understanding of women's groups and income generating activities to improve the success of such groups;
- (ii) develop better strategies for the development of training methods and of curricula, and management, for integrating literacy, income-generating activities, and family planning for rural women;
- (iii) expand family planning information, education and communication (IEC) activities; and
- (iv) expand family planning services through community depots for contraceptive resupply.

C. Project Strategy.

The two hypotheses which guided the project design were that:

- a community based contraceptive depot holder (CDH) would be an acceptable and accessible source of contraceptive resupply; and
- the use of existing adult literacy and women's income generation groups would be an effective strategy for family planning IEC through the community-based teacher (CBT).

The foregoing provided the rationale for the two interventions (CDH and CBT) which were to be evaluated. A baseline and an anthropological survey were done prior to the

interventions. Two follow-up surveys were done at the mid-point and at the end of the project to measure change. In addition, evaluative information was gathered on the process of creating and implementing the model, and on the cost-effectiveness of the model.

D. Results.

1. Community-Based Teachers. Survey and other evaluative activity showed that CBTs can be successfully trained and deployed to become effective family planning motivators. The CBTs showed themselves to be effective at increasing group literacy and as providers of family planning. Although knowledge of family planning showed little change from its already high level, attitudes toward use showed significant improvement. The project also led to important improvements in IEC materials, messages and strategies based on a better identification of key target groups.

2. Women's Income Generation Groups. In terms of a narrow economic criterion, assistance to these groups was moderately successful. The amount of income and savings realized by participants rose by about 25 percent. Perhaps more important, ZNFPC learned a great deal about working with these groups in terms of estimating the cost-benefit potentials of such complex undertakings.

3. Community Depot Holders. Although contraceptive prevalence was already high in the test district, the project succeeded in increasing the level from 55 percent to 67 percent after only one year. This finding is further strengthened by data on CBD and CDH performance in terms of couple years of protection (CYP) from pregnancy. Each of the 27 CDHs produced on average CYP of about 33. Under the best field conditions in the project, one CDH produced a CYP of 63 in only 8 months. Extrapolated to 12 months, this would provide a CYP of 94. Added to the CYP output of the CBDs, to whom the CDHs reported, the CBD/CDH output provided the best family planning performance in Zimbabwe.

The cost-effectiveness of the CBD/CDH model was shown to be highly favorable. Costs per CYP per worker were \$Zimbabwe 7.03 per CBD, and \$Zim 3.45 per CDH. Thus, the average CYP cost per CDH is less than half that of a CBD. The best case CDH cost per CYP is only \$Zim 1.80. Assuming that these levels could be reproduced and sustained, it would be more cost-effective to improve prevalence through the combined CBD/CDH model than simply increasing the number of CBDs. It was also noted that contraceptive prevalence increases as the number of CDHs per CBD was increased.

Survey II also showed clearly that members of the community found the CDHs to be an accessible and acceptable source of information, contraceptive resupply, and referral. By the end of the project almost as many

respondents desired to receive services from the CDH as the CBD.

Management support systems for logistics, MIS, and supervision were created to support the new model. By the end of the project, these systems were performing at an acceptable level of effectiveness, and without undue extra burden on the ZNFPC.

E. Dissemination and Conclusions.

A national dissemination workshop was held at ZNFPC in late November 1988. The meeting was well-attended by ZNFPC Headquarters and field staff, by representatives of several other local agencies, and by several donor agencies. A number of recommendations were made. The findings and recommendations from all project components were positively received, and were endorsed by the meeting. Specifically, the workshop endorsed the CBD/CDH service delivery model in principle.

One implication of this strong endorsement is that one or more variants of the CDH model (probably de-linked from the income generation and literacy components) will need to be tested in more "typical" field conditions, probably in other provinces.

II. BACKGROUND.

This is the final report of a three-year family planning operations research project carried out in Zimbabwe by the Population Council in collaboration with national counterparts. The project began on 1 November 1985 and ended on 31 December 1988.

Beginning in mid-1984, representatives of the Population Council began to work with the Zimbabwe National Family Planning Council (ZNFPC) to explore ways to integrate family planning and women's income-generating activities. These preliminary activities led to the development of a formal collaborative project between the Population Council and the ZNFPC, but which also involved the Adult Literacy League of Zimbabwe (ALoz), the Ford Foundation, and other organizations.

The project proposal -- nicknamed the "Kubatsirana" project -- was submitted to A.I.D. in 1985. The project was planned for three years, at a final total cost of about \$346,000. Project activities commenced in January 1986.

Although a number of changes were made regarding various details of project design and management, the basic aspects of design, implementation sequence, management, and evaluation strategy did not change. Moreover, the project's immediate objectives, and the research questions to be addressed, remained essentially stable throughout.

The principal rationale for the project was to seek ways to expand access to family planning services delivery in rural areas in an acceptable and cost-effective way. The challenge in Zimbabwe was, and is, to determine how to expand the effective "reach" of the existing and successful community-based distributor (CED)

network, but at lower cost. Although the present system is effective, it is relatively costly given the rather modest catchment area/target population per CBD. The option of creating/testing an alternate -- that is, non CBD-based -- strategy was not considered.

As in other countries, Zimbabwe wishes to link family planning with other development activities. Since the country was already experimenting with various women-focused rural development efforts -- particularly literacy and income generation -- the interest of the GOZ in linking these three development programs (family planning, women's adult literacy and income generation) was a natural development. The overall goal of the project was, then, to ascertain how to integrate these various activities, based on the integration model adapted, with particular attention to the effect that these strategies had on family planning knowledge, attitude and practice (KAP).

Given the focal role of the ZNFPC, the principal investigator during most of the project was Dr. Esther Boohene of the ZNFPC. ALOZ was responsible for the community-based teachers (CBT) and women's group components. The role of the Population Council was to assist the ZNFPC to design, carry out, analyze and write up all research and documentation needed to evaluate the field testing of the integrated model. Time permitting, the Council also provided technical assistance with other features of the interventions.

III. PROJECT DESIGN, ACTIVITIES, AND DISSEMINATION.

A. Project Design.

The specific questions to be answered by the project, and which also served as the project's immediate objectives, were to:

- (i) gain a better understanding of the operation of women's groups and income generating activities to improve the success of such groups;
- (ii) develop better strategies for the development of training methods, and of curricula and management, for integrating literacy, income-generating activities, and family planning for rural women;
- (iii) expand family planning information, education and communication (IEC) activities; and
- (iv) expand family planning services through community depots for contraceptive resupply.

An important, but not explicit, objective of the project was to improve the capacity of the ZNFPC and other participating agencies in operations and evaluative research. In addition to the "on-the-job" learning that took place during the project, the Population Council provided a local full-time project director, provided her with overseas training, and helped to analyze and disseminate findings internationally.

The project was tested in the Goromonzi District, a rural district of 112,000 people, about one hour from Harare.

Although this district could not be considered "typical" of other rural areas -- due primarily to the unusual number of development interventions already underway there, and the number of outside visitors and workers -- the ZNFPC chose this for the test site for a variety of other reasons. The ZNFPC also decided not to test the integrated model elsewhere, and ruled out the utilization of a control district. Therefore, for purposes of comparison, results in the Goromonzi project district were simply juxtaposed with various indicators in the rest of Mashonaland East Province (where Goromonzi is located), and with the rest of Zimbabwe. These decisions precluded the generation of information needed to predict how the model might work outside the Goromonzi district as regards impact and other outcomes. Despite these constraints, it was believed that a great deal would be learned about the process of setting up and managing a multicomponent system. The model would be evaluated in terms of how well these processes were established and managed, and in terms of three quantitative criteria:

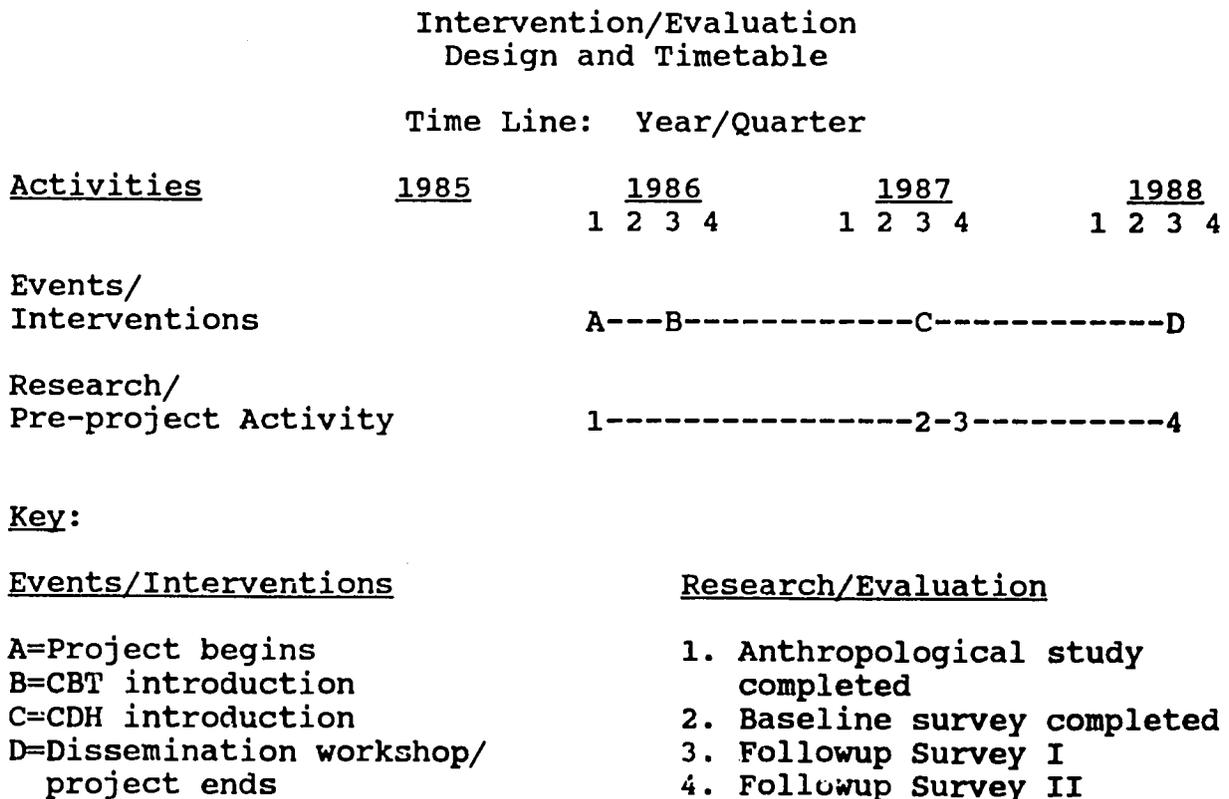
- (i) increased knowledge of family planning among women of reproductive age;
- (ii) increased contraceptive practice among this same group; and
- (iii) the cost-effectiveness of this model compared to the existing CBD model.

The two hypotheses which informed the design were that:

- a community-based depot holder (CDH) would be an acceptable and accessible source of contraceptive resupply; and
- the use of existing adult literacy and women's groups could be an effective strategy for family planning IEC, through the community-based teacher (CBT).

These two hypotheses provided the rationale for the project's two interventions which were to be evaluated. The project intervention-evaluation design is shown in Figure 1.

FIGURE 1



Research/Intervention Sequence. An anthropological study was carried out to identify existing women's groups, to learn about community perceptions of these groups, and to assess the perceived needs of women in the community. This information facilitated the selection of community women to be trained as CBTs, and influenced the tasks they were given to perform as well as the nature of their training. They were trained and functioning by late 1986; this was the first major intervention.

To determine changes in community KAP, a baseline survey was conducted in late 1986 with the help of the CBTs. The analysis of the data from the 1171 interviews was completed by mid-1987.

To measure the changes brought about by the two interventions (CBTs and CDHs), two follow-up surveys were done, using sub-samples from the baseline survey. The sample sizes were 216 and 90, respectively. In each of the three surveys, certain questions -- primarily those focused on family planning KAP -- were asked repeatedly to allow measurement of change.

In addition to these surveys, a great deal of effort was expended on data gathering to assess: the process of setting up and managing the women's groups, CBTs, and CDHs; the tasks of the extant CBDs as the basis for developing a workable CDH role; how well the depots and their administrative support functions work; commodity movements and acceptor output/activity through regular analysis of ZNFPC service

statistics data; and to document the costs of all inputs as the basis for later cost-effectiveness analyses.

The foregoing provide the information offered in this report.

B. Community-Based Teachers and Women's Income Generation Groups.

In output and evaluative terms, the CBTs played two overlapping roles:

- (i) to help women's groups to strengthen their management, to focus on viable income generating activities, and to introduce "self-help" practices, such as family size limitation and literacy; and
- (ii) to provide family planning IEC through these women's groups and beyond.

The CBTs were trained in basic management techniques, in literacy, and in family planning IEC. In addition to motivating clients to use family planning, the CBTs trained group members in literacy, and project management, and facilitated the selection of income generating projects. CBTs did not supply contraceptives.

The major literacy campaign in Zimbabwe is conducted by ALOZ. To do this, ALOZ trains persons in its targeted communities as literacy teachers (CBTs). One of their duties is to develop knowledge, skills, and attitudes in the literacy students. It was hoped that the students will use this

knowledge to better their way of life, by relating this learning to everyday life and everyday working situations.

ALoz has already defined a need for more literacy teachers in the Goromonzi district. They also had experience in combining literacy and income generation project management in the training schedule. To support this integration, specific functional literacy materials based on income generation activities had been developed. The Kubatsirana Project utilized this functional literacy material by using family planning and financial management-related situations as the focus for reading. Teaching aids such as village television were also developed.

Based on the anthropological study and other groundwork, 34 women's groups were selected for participation in the project. The women in these groups selected a total of 27 community women to be trained as CBTs. Each CBT was assigned some number of groups based on propinquity. The range of CBTs-groups was 1-4.

The training program was developed through collaboration between the ALOZ and the ZNFPC. The goal of this training was to provide CBTs with the necessary knowledge, skills and attitudes in literacy, family planning, and income generating projects to enable them to work effectively with women's income generating project groups. A ten-week training program, undertaken at the Kubatsirana Training Center in Goromonzi, had the objectives of ensuring that each participant would be able to:

- (i) provide income generating project groups with literacy skills, and advice on project management and family planning;
- (ii) refer project groups to services they are unable to provide;
- (iii) identify the learning needs of project group members;
- (iv) monitor and evaluate progress of projects, and provide feedback; and
- (v) understand the basic concepts of family planning, income generating projects, and literacy.

Each CBT was given a pretested teacher's kit by ALOZ. This kit contained picture codes, chalk, a blackboard, books, and a teacher's and student's manual. In addition, a specific teaching tool was developed by the Kubatsirana Project, a "Village TV." This concept was developed from a model used in Ghana for family planning motivators. The TV was designed to be built from locally available materials, including waste materials, e.g., toothpaste lids, and simple enough for women's groups to build for themselves. It aimed to assist the CBTs and other family planning motivators in their family planning motivation, literacy, and income generating skills and management training. This curriculum was considered to be sufficiently successful to be adopted by ALOZ for training all CBTs in Zimbabwe. More specifically, ALOZ decided that it was important to train all of its literacy workers to be family planning motivators.

Working through CBTs and others, the project provided assistance to pre-existing women's groups. The rationale for most of these groups was enhanced income generation. The following forms of assistance were provided to 34 women's groups:

- use of the Kubatsirana Training Center as a base for technical assistance in designing and carrying out income generating projects;
- training for group members in basic project management and marketing skills;
- assistance in obtaining credit and in establishing a revolving fund which could provide modest project start-up funds;
- a program of literacy training which also included information about family welfare and family planning.

Eventually, these 34 groups, assisted by 27 CBTs, community extension workers, and others, developed 46 different projects. These income-generating projects included pig-raising, poultry production, uniform making, beer distribution, a seeds/fertilizer cooperative and sales kiosk, and larger-scale gardening. Although not all these groups were successful in economic terms, a number of them were, and much was learned about the qualities which helped to create success. Moreover, progress was made in terms of knowledge and attitude which were worthwhile.

In general, the project members at community, district, and headquarters level felt that the project has proven the ability of literacy workers to be family planning motivators as well as income-generation and project-management skills trainers.

C. Community Depot Holders.

1. Introduction.

One of the objectives of the Project, and the main focus of the operations research, was to test the feasibility of expanding contraceptive service delivery.

In designing an expansion model, a variety of factors were considered:

- (i) existing service delivery systems (namely, clinic and community based);
- (ii) cost-effectiveness of expansion;
- (iii) legal framework for activity;
- (iv) existing management support systems, e.g., logistics, management information systems, training;
- (v) community support and involvement;
- (vi) financial and technical constraints on the research, e.g., determining the number of agents to be tested, time-frame, number of models, and comparisons available; and
- (vii) maintenance of program quality.

Barriers to improvement in acceptance and continuation rates had already been identified by ZNFPC.

These included: geographical and/or time constraints to CBD access for certain groups, limit to the number of women each CBD could serve, and insufficient time to motivate new clients. One method of addressing this could have been merely to increase the numbers of CBDs in the country. However, the ZNFPC, GOZ and donors recognized this to be an expensive strategy for expansion (due to training, salary and supply costs). It was also feared that mere expansion might not address problems of providing services to inaccessible areas, or of community acceptance of the model. It was believed that a service delivery expansion model which involved the community in design and implementation might prove more acceptable to the community members.

The "obvious" strategy was community based re-supply agents who could augment the reach of the regular CBD but at lower cost. This approach has been used successfully in many Asian and Latin American countries, but the acceptability of them in a Zimbabwean context was unknown. The role of this re-supply agent, or "depot holder," would include re-supplying clients with contraceptives, providing appropriate counselling advice to continuing clients, referral to next level of service delivery when appropriate, and the motivation of new clients.

2. Development of Kubatsirana CBD/CDH Model.

The model that was chosen by the project team was for a voluntary, part-time community resident depot holder (CDH), who was attached to a CBD. The CDH would work with continuing users, referring new acceptors and clients with problems to the CBD.

Before final decisions were made about the role and responsibilities, or the recruitment characteristics, of this worker by the project team, community opinion was sought. Initially this was done through a series of meetings with the women's groups of the project, and with the community leaders.

Open-ended interviews were conducted within the Goromonzi district to gain more specific information on this concept. The respondents were chosen from key representative groups within the Kubatsirana Community. These included a head man, a ward counselor, a project member, a Party chairperson, a CBD, a nurse, and a villager (male) from each ward.

These interviews revealed that personal commitment by the worker and an ability to find the worker at or near the worker's home and community were the main factors that would facilitate success of this model. Many of the respondents (50%) spontaneously added that often the existing CBD could not reach everyone, and that sometimes people missed her on her rounds. Almost all of the respondents felt that the provision of additional support to the CBD was necessary and that it would enable

more complete coverage of the area as well as improve the supply situation.

Factors which they felt might inhibit the success of a village-based worker system were the possible lack of commitment by the worker, a catchment area that was too large, unreliable supplies, and poor training. If these were overcome, they felt that a depot holder would succeed in achieving improved family planning services.

In general, the community fully endorsed the ZNFPC's analysis that there was an unmet need for contraceptive services, and that a "depot-holder" could assist in improving the situation. These discussions generated positive support for the model of a "depot-holder" and a belief that it fulfilled a need identified by the community. The selection criteria for a CDH were:

- an ability to read and write;
- preferably having completed and passed Standard 5 or Grade 6 schooling;
- practicing family planning;
- having demonstrated an interest in development programs.

By recruiting approximately one CDH per women's group, a total of 27 CDHs were identified. Each women's group selected their candidate through a democratic process. Each CDH had an average client population of 931 women of reproductive age (WRA), with a range of 881-

979 women per CDH. Other components of this model were developed in order to finalize an appropriate task oriented training curriculum, and ensure timely implementation of the model once training had been completed. These components were:

- logistics and supplies;
- management information systems;
- supervision;
- financial support.

3. Training and Implementation.

Initial and follow-up training were developed by the ZNFPC Training and CBD Units and the project team. The curriculum was task-oriented, based upon the CBD model but excluding components that were not relevant to the CDH, e.g., taking blood pressure and screening of clients. The course duration was six weeks. Unlike the CBD training, which was held at Headquarters, the ZNFPC decided to hold this training at the district level, a site closer to the community. This was seen as a way to reduce costs, facilitate community recognition of the training, and encourage field work.

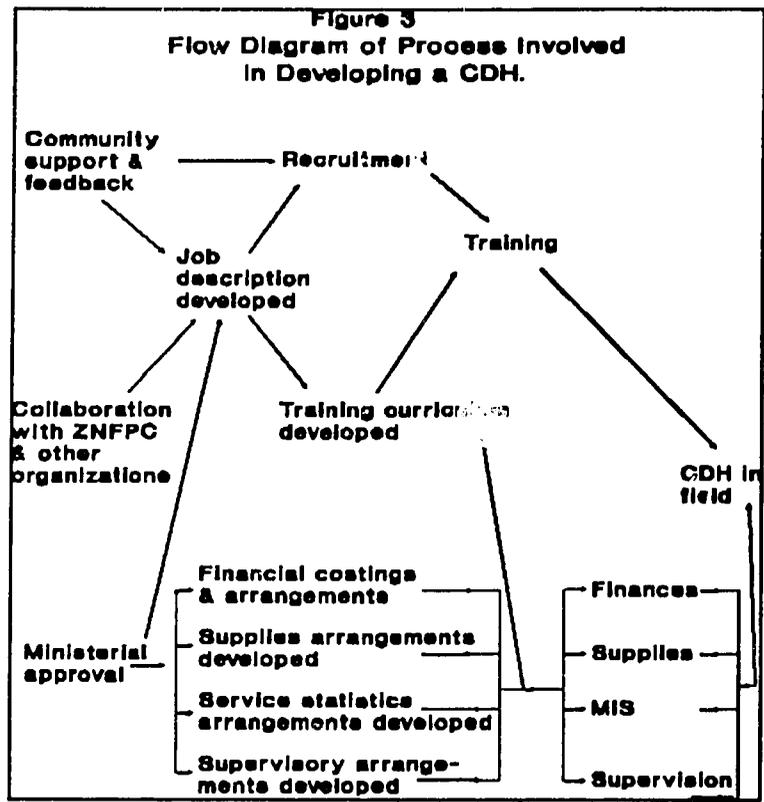
Refresher training by the supervisor was conducted after two months of the CDHs' work, as problems in record keeping were identified. In retrospect, more field based training in record keeping and referral procedures should have been included in the initial training.

An overview of the process of developing the CDH model is provided in Figures 2 and 3. The depot-holders worked in their communities for a full year prior to the final evaluation of their cost and effectiveness. The results of this experience are provided in the next section.

FIGURE 2

Processes Involved in Developing a CDH

- * GAIN COMMUNITY AND CBD WORKER SUPPORT OF THE CONCEPT AND COMMUNITY FEEDBACK DURING IMPLEMENTATION
- * COLLABORATE WITH OTHER ORGANIZATIONS
- * GAIN MINISTERIAL APPROVAL
- * DEVELOP A JOB DESCRIPTION FOR THE WORKER, IN CONSULTATION WITH THE CBD WORKERS
- * DEVELOP A SUPPLIES/LOGISTICS SYSTEM
- * DEVELOP A MANAGEMENT INFORMATION SYSTEM
- * DEVELOP A SUPERVISORY MECHANISM
- * DEVELOP A FINANCIAL SUPPORT AND MONITORING SYSTEM
- * RECRUITMENT
- * CONDUCT THE TRAINING OF THE WORKER, AND THE SUPERVISOR
- * IMPLEMENT THE LOGISTICS, MIS, SUPERVISORY AND FINANCIAL SUPPORT SYSTEMS
- * PLACE THE CDH IN THE FIELD
- * MONITOR AND EVALUATE ACCORDING TO PLAN
- * CORRECT OPERATIONAL POLICY AND STRATEGY, AS NEEDED



IV. RESULTS AND RECOMMENDATIONS.

A. Community Based Teachers.

Survey and other evaluative activity showed that, in general, CBTs can be successfully trained and deployed to become effective family planning motivators. More specifically:

- (i) the addition of family planning to the tasks of CBTs did not interrupt the successful carrying out of their other tasks;
- (ii) pass rates for trainees were similar to those for national ALOZ training (60%);

- (iii) there was an effective improvement in the number of client women at each level of literacy;
- (iv) all women interviewed confirmed that all subjects to be taught by the CBT, had been taught.

The record on changes in knowledge of contraception is more difficult to interpret. This is primarily because knowledge was already unusually high in the Goromonzi District compared with other rural areas. For example, knowledge of at least one method was 98 percent in Goromonzi, compared with 83 percent in all of Zimbabwe, and 92 percent in the rest of Mashonaland East Province.

Thus, relatively little could be expected in terms of absolute changes in knowledge, especially in view of the brief duration of the CBT intervention. However, measurable and significant change in knowledge was achieved, as shown in Table 1.

TABLE 1
Knowledge of Popular Family Planning Methods,
by Method

Method	Baseline Survey		Survey II	
	Number	%	Number	%
Oral Pills	1,099	93.9	86	95.6
IUDs	546	46.6	56	62.2
Condoms	540	46.1	42	46.7
Injectables	311	26.6	27	30.0
Traditional Methods	303	25.9	37	37.8

Discussion. Other data suggest also that the family planning motivation provided by the community based teacher influenced the women's expected duration of use of family

planning, as evidenced by many more women now stating that they will use a method until menopause. In addition, more women are now recognizing the economic relationship between family size and the use of family planning.

It appears, therefore, that although the CBT may not have increased the amount of knowledge possessed by a woman on family planning to any dramatic degree, they have influenced the commitment of the women to use family planning (i.e., most are now using it to limit family size to its present level) as well as their understanding of the economic benefits of family planning.

The project also demonstrated that one can justify the use of all of Zimbabwe's CBTs to motivate and educate on family planning within the context of their work. This would serve to reinforce family planning program efforts, and consolidate the commitment to family planning within the communities.

The final evaluation survey also highlighted several target groups/issues that could lead to improvements in IEC materials and concentration of effort. These are male motivation, older women of reproductive age, and breastfeeding and contraception. Results also indicate that family planning program managers should ensure that these special groups have access to suitable methods in an acceptable environment.

Recommendations. That:

- all literacy teachers should be trained to be family planning motivators. To ensure this, all existing literacy teachers should undergo refresher training, and all new teachers should be exposed to concepts of family planning during their initial training;
- the method of motivation should involve the literacy teachers using family planning as a focus for teaching functional literacy to adults;
- the trainers of ALOZ should receive special instruction on family planning. This would allow ALOZ to institutionalize the capacity to develop functional literacy materials and to train literacy teachers on family planning;
- community level literacy classes need to be programmed according to that community's normal routine, taking into account seasonal and agricultural cycles, and through joint planning between the community and the teacher, to ensure a successful training program.

B. Women's Income Generation Groups.

The Kubatsirana model was not dependent upon, or evaluated in terms of the success of, the associated women's income generation groups. However, it was felt that it was important to be able to work with these groups, and thereby to develop many aspects of women's socio-economic status as possible, not just family planning. Learning to plan,

organize and manage an income-focused group process was perceived to be central.

When evaluated in these narrower economic terms the assistance to these groups was moderately successful. Although about 25 percent of the group participants were making some income before and at the end of the project, the average amount of income per woman rose by about 25 percent. Participants also reported greater confidence in group management and the more democratic decision-making practices at the end of the project. Whether there was some "halo effect" which improved family planning KAP was impossible to measure.

Probably the most valuable outcome of the work done on the women's groups was that the ZNFPC management gained a much better appreciation of how time-consuming and costly it could be to take on such a vague, complex, and multifaceted intervention. Given the high "political" visibility of these women's groups and the high expectations raised among the participants, a disproportionate amount of ZNFPC time and resources were given to this component, perhaps to the detriment of the components more clearly related to family planning. This has been a valuable lesson for the ZNFPC. It should also be noted that little A.I.D.-provided project funds were utilized for this component.

A number of recommendations were presented at the dissemination workshop, that reflected these and other lessons learned. All were accepted by the participants with few

changes. Since these have little direct relevance to family planning, they are not reproduced here.

C. Community Depot Holders.

The introduction of the CBTs at the beginning of the project, and the intervention of the CDHs at a later stage, were to increase both knowledge and accessibility of family planning services. The CDHs and the CBDs were directly involved in the distribution of non clinic-based contraceptives (pills, condoms, foaming tablets) thus directly affecting contraceptive use. This component was evaluated according to several criteria. These include:

- quantitative changes in the use of contraception;
- couple years of protection (CYP) in Goromonzi compared with other areas;
- the cost-effectiveness of the CDH model;
- quantitative assessments of the acceptability of the CDH to the community; and
- qualitative assessments of the effectiveness of the management support systems.

The results of data gathering and evaluation on each of these criteria are provided below.

1. Contraceptive prevalence. The baseline survey indicated current use of a modern contraceptive method by 55 percent of the respondents. This is a high level compared with the rest of Zimbabwe, which was 27 percent and 38 percent for all of Zimbabwe and the rest of

Mashonaland East, respectively (the latter data are from the earlier 1984 Zimbabwe Reproductive Health Survey). Table 2 shows the changes in Goromonzi during the project.

TABLE 2
Current Use of Any Family Planning Method

Currently Using	Baseline		Survey I		Survey II	
	Freq.	%	Freq.	%	Freq.	%
Yes	648	55.3	123	56.9	60	66.7
No	317	27.1	78	36.2	22	24.4
Not Stated	206	27.1	15	6.9	8	8.9
Totals	1,171	100.0	216	100.0	90	100.0

These data confirm a significant increase in contraceptive prevalence in Goromonzi during the project. Prevalence rose from 55 percent at the beginning to 67 percent at the end of the project, with an intermediate level (recorded by Survey I) of 57 percent. These results are generally confirmed by survey data on contraceptive use by respondents the month prior to each survey, which show some increase in contraceptive use between the Baseline Survey and Survey II.

2. Couple Years of Protection. The performance on this indicator for Goromonzi District and elsewhere, prior to and during the project period, was as shown in Table 3.

TABLE 3
CYP per Quarter, CBDs and CDHs

Quarter/ Year	Goromonzi			Mashona- land East	Rest of Zimbabwe	Period
	CBD* Only	CDH* Only	CBD* & CDH			
<u>1987</u>						
January-March	151.01	-	-	90.56	90.72	Pre-project
April-June	120.40	-	-	92.28	88.86	Pre-project
July-September	114.10	-	-	103.10	95.90	Pre-project
October-December	82.00	10.03	90.03	85.00	95.80	Project
1987 Subtotals	467.51	-	-	370.94	371.28	
<u>1988</u>						
January-March	91.11	7.16	98.27	86.90	-	Project
April-June	130.11	7.93	138.04	98.28	96.27	Project
July-September	100.67	7.64	108.31	-	-	Project
Project Period Subtotals	403.89	32.76	442.29	-	-	

* Average performance per CBD and CDH

The above data from the ZNFPC Evaluation and Research Unit show clearly that average CBD performance was higher in the Goromonzi District than elsewhere in Zimbabwe, both prior to and during the project. It also seems that CBD performance in Goromonzi fluctuated more than elsewhere. One can only speculate about the reasons for this fluctuation, but it might be a reflection of the numerous interventions (with their need for training time, meetings, etc.) and visitors to the district.

As shown above, the average CYP for each of the 27 CDHs (later 26) was 32.76. This figure would have been even higher had much time not been taken away from field work by refresher training and other project and non-

project related tasks. To illustrate what is possible, it is useful to note that a CDH in one district achieved a CYP of 62.93 in only 8 months of the 12-month CDH intervention period. This extrapolates to a hypothetical performance for 12 months of 94.4 CYP. It should be recalled that these were part-time, voluntary workers, with relatively little training or experience, and in their first year of such work.

Figure 4 illustrates in graphical form the improved performance of the CBDs in Goromonzi through the CDH intervention. The implications of this increase in population coverage are significant, considering that one CBD can supervise and backstop up to four CDHs. The remaining issue is whether CDHs can achieve this output at an acceptable cost. This issue is addressed in the next section.

3. Cost-effectiveness. The total annual cost per year per CBD is \$Zim 2839. \$Zim 2208 of this is for salary, the rest is for equipment, supplies and training costs (amortized, as appropriate). The total annual cost per CDH is \$Zim 113. \$Zim 13 of this is for training (amortized), the rest is for equipment/supplies.

Based on CYP performance during the project period October 1987 - September 1988 (see table), the costs per CYP per worker were:

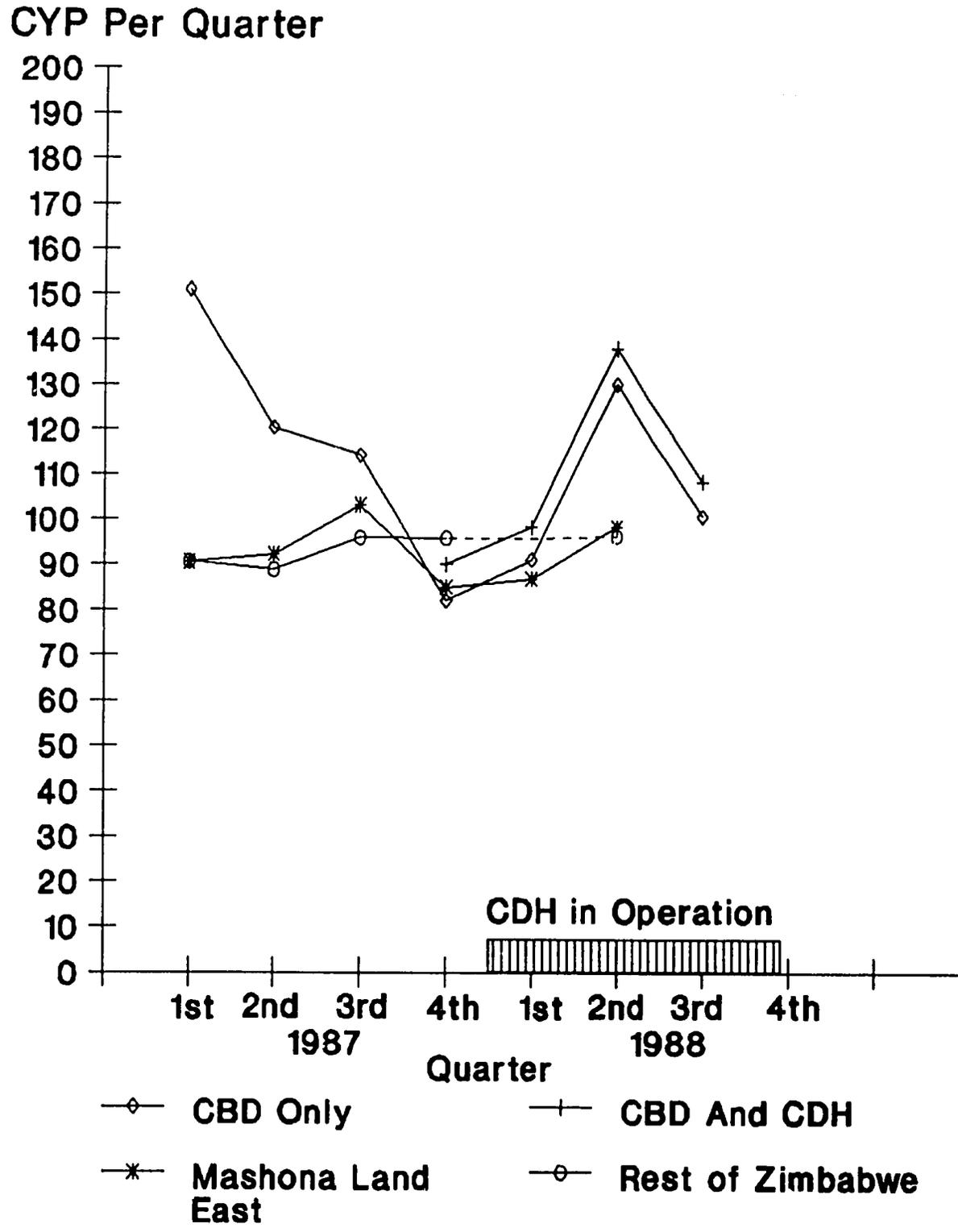
■ CBD: \$Zim 2839 : 403.89 = \$Zim 7.03

■ CDH: \$Zim 113 : 32.76 = \$Zim 3.45

These CBD figures in Goromonzi are, of course, lower than the cost per CYP for the rest of Zimbabwe, which is about \$Zim 7.65 (based on 1987 services data).

Thus, the CYP cost per average CDH is less than half of that per CBD, and the best case CDH cost per CYP is only \$Zim 1.80. Extrapolated to 12 months, the best case CYP cost per CDH would be only \$Zim 1.20. These are low costs per CYP by almost any standard.

Figure 4
CYP PER QUARTER,
CBDs AND CDHs



The foregoing figures help to demonstrate that it is more cost-effective to improve contraceptive prevalence through the combined CBD-CDH model than simply increasing the number of CBDs.

Another question which was addressed was the effect on prevalence of the number of CDHs per CBD. Table 4 shows the prevalence levels in the number of wards which had between one and four CDHs per CBD.

TABLE 4
Performance of CDHs According to
the CDH/CBD Ratio

Number of CDHs per CBD	Number of WRA	Percent Prevalence ^(a)		Percent Increase Due to CDH
		CBD only ^(b)	CBD plus CDH	
1	936	32%	37%	16%
	956	62%	67%	8%
2	979	51%	54%	6%
	934	31%	42%	35%
3	930	35%	49%	40%
	910	65%	77%	18%
4	934	42%	68%	62%
	962	60%	76%	27%
	881	66%	88%	33%

^(a)Prevalence = Total CYP divided by Number of Women of Reproductive Age (WRA)

^(b)2nd and 3rd Quarter 1988 CYP Data extrapolated to one year

The above data suggest that there is a trend towards higher contraceptive prevalence per ward as the ratio of CDHs per CBD was increased. No plateau effect was noted. It will be noted, however, that there were large

performance variations among the wards with the same CDH/CBD ratios, e.g., increases of 27 to 62 percent prevalence in wards with four CDHs per CBD. Although such large variations are not unusual in the Zimbabwe program, as we have noted, they inhibit ambitious conclusions, especially given the very modest sample offered here. Nevertheless, CDHs clearly do increase contraceptive prevalence, and do so at much lower cost than the alternative of adding CBDs. Common sense suggests that economies of scale could be achieved, with the optimal ratio varying according to the population density, catchment area, management support services and other factors.

4. Acceptability of the CDHs to the Community.

Qualitative research was conducted throughout the project. The goal of the project was to provide quality services and to be quantitatively successful as well. Services delivery design attempted to ensure that CDHs would provide a more acceptable and accessible source of family planning information and contraceptives through good client/provider relationships, full and accurate information to the client, reliable supplies, provider competence, and referral.

Nearly all women interviewed (97 percent) felt that the CDH was accessible. The particular reasons offered for this were that the CDHs were:

- easy to locate

- available at all hours
- reliable about keeping resupply/revisit appointments

Respondents also reported high acceptability of CDHs. Reasons for this included being pleasant, approachable, and motivated. Being members of the community, respondents stated that CDHs could more easily relate to their problems. According to her clients, the CDH was well trained and had adequate knowledge to do her job. The privacy afforded to contraceptive users by the CDHs was mentioned as an important advantage.

In the baseline survey, the interviewees identified the CBD (56 percent) and the clinic (32 percent) as preferred sources for family planning supplies. These were the major -- virtually the only -- sources available to them at that time. Although the ZNFPC had encouraged CBDs to refer all their continuing users to the CDH, the service statistics show that this did not occur. However, many clients transferred to and stayed with the CDH. Only six months after the introduction of the CDHs, 39 percent of respondents preferred the CDH as the major source of supplies, and 49 percent the CBD. This points to the affirmation by the community for a community based, and readily accessible, supply agent.

5. Management Support Systems. The principal support systems that needed to be developed, or more accurately

adapted, were logistics, MIS, and supervision. These are described briefly. Each of these systems was developed after much discussion, and each evolved during the course of the interventions as learning took place.

Logistics. The supply model adopted was basically an expansion of the existing CBD supply system. This included a monthly resupply of the CDH by the CBD to keep her at a minimum stock level of 100 condoms, 100 cycles each of "Lo-femenal" and "Ovrette," plus MIS stationery. Stock levels per individual CDH were adjusted upward in more active wards. Provision was made for quick resupply in case of stock-outs. Normal resupply was done during the CBD's village visitation rounds, or at an agreed time and place within the community.

MIS. To facilitate the use of existing procedures and facilities, ZNFPC made some adaptations to their existing CBD collection, tabulation and analysis formats. The CBD was made responsible for collecting CDH service statistics and adding these as a separate item to the CBD data. These were then sent upward to the district and the province for aggregation.

Supervision. As is obvious from the above, the CBD was made the overall supervisor (as well as supply agent and MIS contact) of some number of CDHs. Somewhat detailed procedures were developed to clarify the relative roles. Although the ZNFPC amended the CBD's job description to reflect this additional task, little consultation with the CBDs was attempted, and no

supervisory training was provided. Not surprisingly, many CBDs felt this new role to be an unwelcome imposition, and some lack of cooperation was experienced initially. Exceptional efforts by the project team, assisted by the CBD supervisors, helped to improve the attitudes and the supervisory capacity of the CBDs.

It may be generally concluded that, by the end of the project, the management support systems were performing sufficiently well to sustain the CBD/CDH model at an acceptable level of effectiveness. In the process, some mistakes were made and much was learned by the ZNFPC headquarters and field staff. To help ensure that this learning experience is not lost, the project team has documented in considerable detail the process followed in setting up each support function.

6. Recommendations. These recommendations relate only to what was learned in the process of developing the outlines of, and process for, creating a more cost-effective CBD-based services delivery model. They do not necessarily reflect on the larger issue of how best to test the needed, more rigorous, model as the basis for national implementation. This issue is addressed in the final section.

In considering the further development and testing of the CBD/CDH model, the ZNFPC should:

- involve CBDs, group leaders, and local opinion leaders in the selection of CDHs;

- be flexible about educational entry levels for CDHs, so as to facilitate services delivery to the most needy communities;
- make CDH training shorter and more task oriented than that for CBDs. Where possible, the training should be done close to the depot holder's wards;
- ensure adequate training in supervision for CBDs, plus clear task protocols to guide his/her supervisory work;
- consider the payment of a small travel allowance for the CDHs; and
- continue to evolve the design and management systems for this model, or of a model similar to it, which could lead to appropriate testing, eventually resulting in national replication.

V. DISSEMINATION.

The project concluded on 31 October 1988, and the National Dissemination Workshop was held at ZNFPC on 24 November 1988. The Workshop was attended by a broad cross-section of ZNFPC staff, including field staff who had been directly involved in the project. The meeting was opened by the Permanent Secretary from the Ministry of Health, and was chaired by Ms. Tendai Bare, Permanent Secretary of the Ministry of Community and Cooperative Development, and Women's Affairs. USAID/Harare, Ford Foundation (a co-funder), and the World Bank were also represented. The

Population Council was represented by Dr. Richard Moore, Dr. Maxine Whittaker, and Ms. Andrea Eschen.

The Workshop Agenda is provided as Figure 5.

The results shown in the materials presented at the Workshop are derived from:

- approximately 12 months of CDH-CBD services and cost data;
- a partial hand-tabulation of results from the baseline survey and two post-intervention surveys;
- a partial reanalysis, which was done immediately following the workshop, of the data from the three surveys.

In general, the findings and recommendations from all project components were positively received by members of the Workshop. The four working groups endorsed the recommendations offered by the researchers. The project component of greatest concern to the Population Council and A.I.D. was that related to Community Depot Holders. The Workshop unequivocally endorsed this services delivery strategy in principle, based on the results generated during the project. The recommendations set forth in the "Community Depot-Holders" handout at the meeting were unanimously accepted.

PROGRAMME FOR KUBATSIRANA
NATIONAL DISSEMINATION WORKSHOP
24 November 1988

- 8:00 - 9:00 Official opening with a brief introduction by the Executive Director of Zimbabwe National Family Planning Council
- Opening address by the Permanent Secretary, Ministry of Health
- Policy perspective on Community Mobilization and Participation. Permanent Secretary, Ministry of Community and Cooperative Development
- 9:00 - 9:20 Brief introduction to the conceptual background of the project (Grace Chiura - ZNFPC)
- 9:20 - 9:40 MORNING TEA
- 9:40 - 9:50 "Community Mobilization" (ALOZ)
- 9:50 - 10:00 Question Time
- 10:00 - 10:15 "Community-Based Teachers" (ALOZ)
- 10:15 - 10:25 Question Time
- 10:25 - 10:40 Women's Income Generating Activities (E. Muchatuta -ZNFPC)
- 10:40 - 10:50 Question Time
- 10:50 - 11:20 Community Depot Holders (Grace Chiura - ZNFPC)
- 11:20 - 12:00 Question Time
- 12:00 - 13:00 LUNCH
- 13:00 - 14:45 Group Work (Four groups on four main topics)
- The aim of the group work is to specifically discuss, by people especially interested in one of each of four topics, the study, its findings, its implications, and to develop recommendations about the findings, future research and/or programme development
- 14:45 - 15:00 AFTERNOON TEA
- 15:00 - 15:20 Plenary - Rapporteurs report
- 15:20 - 15:50 "Roundtable" open discussion on implementation strategy -contributions from the floor (specifically want "how to proceed from here")
- 15:30 - 16:00 Closing address (Representative from the Ministry of Community and Cooperative Development and Women's Affairs)

One implication of this strong endorsement is that variants of CDH model (probably de-linked from the income generation and literacy components of Kubatsirana) will need to be tested in more "typical" field conditions in other provinces. Even before the Workshop, Population Council staff were able to agree in principle with the ZNFPC Executive Director on the need to carry out this follow-up research.

VI. CONCLUDING OBSERVATIONS.

Given the complexity of the integrated development model favored by the ZNFPC, the lack of a quasi-experimental research design, and the often politicized nature of the research site and management, the Kubatsirana project could not be expected to make "scientific" conclusions about its impact on the numerous variables studied. Instead, the project had different, but more realistic and equally valuable, research questions to address. As noted in the opening paragraphs of this paper, the objectives of the project were to create and test a system of CBTs (working largely through women's groups) and CDHs. These primarily would seek to provide IEC about family planning, and to provide contraceptive resupply services, respectively. In the original project design these two components were closely associated with the component attempting to strengthen women's income generating groups. However, the tenuous relationship of the latter with the first two, for purposes of family planning, plus the enormously labor-intensive quality of the women's groups, forced a tighter recognition of Population Council priorities. Nevertheless, the project met all of its original objectives.

It was clear that the ZNFPC was interested in a more cost-effective CBD model during the design period of the project (i.e., 1984-85). It is also clear, however, that a period of experimentation and managerial growth was needed before the ZNFPC would have the knowledge and capability even to test effectively and rigorously a model that could be the basis for confident national expansion. Whatever its other contributions, the present project has provided that process of learning and growth. In addition to its substantive and process accomplishments, the Kubatsirana project represents a good, and unusual, example of institution-building. As mentioned above, the ZNFPC now desires, and is in a position, to test a simplified CBD-CDH "type" model more rigorously, and under meaningful field conditions. To take fullest advantage of the Kubatsirana experience and staff, this next stage should begin as soon as possible.