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36 Month Progress Report  
and  
Workplan for Year IV: October 1987 to September 1988

CONTINUATION AND EXPANSION OF FAMILY PLANNING  
OPERATIONS RESEARCH IN ZAIRE

Cooperative Agreement DPE-3030-A-00-4051-00



Dr. Eamon Kelly, President of Tulane University, during visit to the Sona Bata CBD Project in February 1987

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36 Month Progress Report and Work Plan for Year IV

CONTINUATION AND EXPANSION OF FAMILY PLANNING

OPERATIONS RESEARCH IN ZAIRE

I. Overview of O.R. Projects and Findings to Date

The cooperative agreement (No. DPE-3030-A-00-4051-00) between Tulane University and USAID for the continuation and expansion of Family Planning Operations Research in Zaire covers a five year period from October 1, 1985, to September 30, 1989. The objectives of the agreement are:

1. To increase the use of modern methods of contraception among women of reproductive age, leading to a reduction in morbidity, mortality, and fertility in Zaire.
2. To strengthen the technical capacity of Zairian institutions in the field of operations research, design and evaluation of family planning programs.

The project is to achieve these objectives through (1) direct support of certain family planning (FP) service activities, (2) applied research to improve the delivery of FP services, and (3) transfer of microcomputer technology (hardware and software) to local institutions.

The original agreement called for eight sub-projects to be carried out during the life of the project. As we begin the fourth year of this five year agreement, the Zaire OR project consists of 10 sub-projects, nine of which are currently active, one which has been completed. Progress to date and plans for Year IV (October 1987 to September 1988) are described for each in the sections below. The geographical distribution of the sub-projects is shown in the map in Figure 1.

Of the ten sub-projects, six are designed to test the effectiveness and cultural acceptability of community-based distribution (CBD) as an alternative means of family planning service delivery. This set of projects has put Zaire on the map as a leader among the Francophone African countries in terms of innovative approaches to increasing contraceptive use.

One of the six CBD efforts--to begin shortly in Kinshasa--will test the feasibility of combining an AIDS prevention program with the community-based distribution of contraceptives. This experience will indicate whether this "logical pairing" of the two activities is in fact practical or whether the negative association with AIDS works to the detriment of family planning.

FIGURE 1 **MAP OF ZAIRE : O.R. SERVICE/RESEARCH SITES**



■ CBD Projet  
 \* AVSC Model Sites  
 ▲ AVSC Followup Study

● KINTAMBO Research  
 ○ Contraceptive Continuation  
 + AIDS Education

Another area in which Zaire is far ahead of other Francophone African countries involves voluntary surgical contraception (VSC). The Tulane project is working in collaboration with AVSC to establish six model sites for VSC service provision and eventual training of medical personnel in the procedure. One of the research activities involving 29 focus groups with men and women from five different regions of the country has provided fascinating insights into the attitudes and values behind childbearing in Zaire, which have implications not only for the acceptance of VSC but for the determination of family size in general.

We are still two years from the completion of the current cooperative agreement; moreover, most of the sub-projects are designed to yield the main results in the final year of operation--allowing for a maximum amount of time to demonstrate effect. Nonetheless, the work to date--both from the original Bas Zaire Project (1980-1984) and the first three years of the current project--has yielded a number of findings which are key to the future of family planning service delivery in Zaire. Among these are the following.

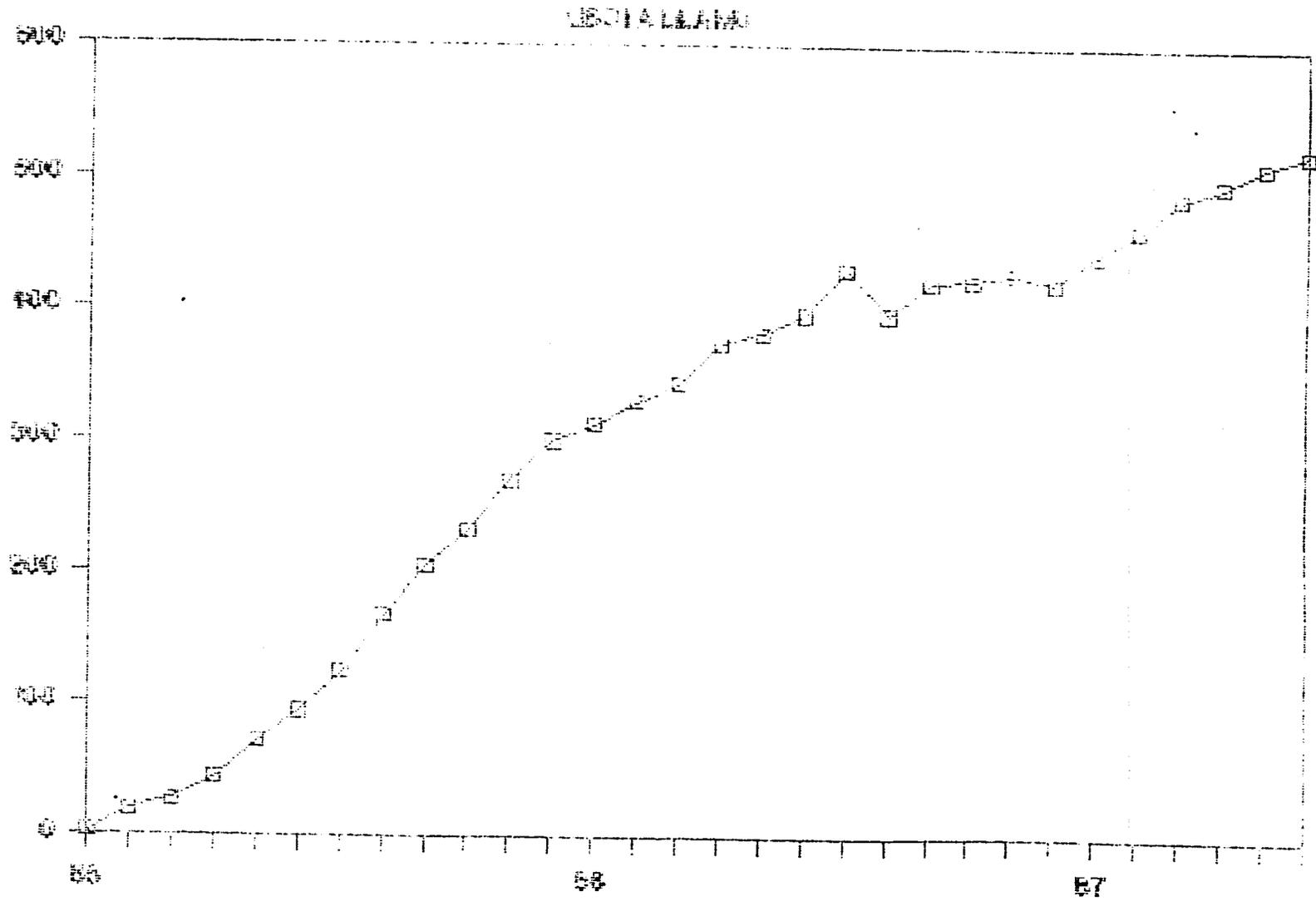
In both urban and rural areas of Zaire which have not had intense family planning efforts, the baseline prevalence of modern contraceptive use is between 2 and 5 percent of married women. This was found in the 1982-84 Contraceptive Prevalence Survey and has been further verified by the baseline surveys conducted in the O.R. project in three zones of Bas Zaire as well as Mbuji Mayi.

Contraceptive prevalence levels can be markedly increased by intensive family planning intervention. In the original Bas Zaire project, prevalence rose from the baseline level of 2-5 percent to 10-13 percent (depending on the strategy used) in the rural area and to 16-19 percent in the urban area of Matadi. The latter represents one of the highest reported prevalence levels of any area in Francophone sub-Saharan Africa.

Most Zairians want large families; however, the harsh economic realities are pushing many in the direction of family planning. This theme has surfaced repeatedly in focus groups conducted among both men and women in Kinshasa and in other regions of the country. As one participant put it, "Do you think it gives us joy to limit ourselves to just 2-3 children? But with the situation we face today, one has to do something."

Even where clinic-based services are available to the target population, it will be desirable to supplement them with community-based distribution (CBD) or contraceptive marketing programs. The one project which has been completed under the current agreement constituted an I-E-C program at the community level to increase the use of the Centre Libota Lilamu, the model clinic located beside the administrative offices of the Projet des Services des Naissances Desirables (PSND) in Kinshasa. This

figure 2. active users at the centre



program of education/motivation failed to increase the client load at the center, which suggests the desirability of further experimentation with non-clinical strategies for family planning service delivery.

The population accepts community-based distribution as a highly satisfactory means of obtaining contraceptives (and certain basic medications). The experience of the three urban programs (Matadi, Kisangani and Mbuji Mayi) and two rural efforts (Nsona Mpangu and Sona Bata in Bas Zaire) demonstrate the cultural acceptability of this mechanism for service delivery.

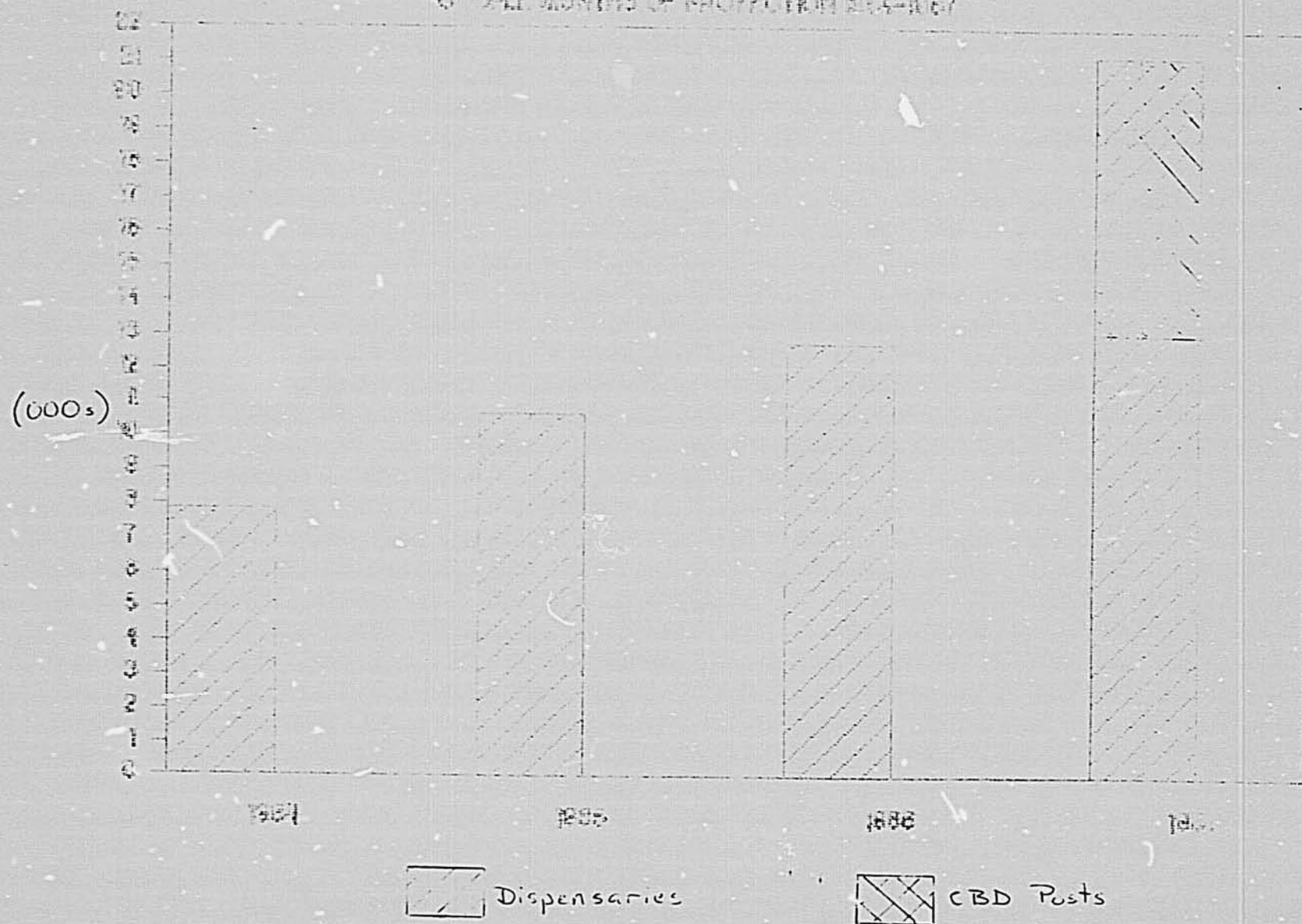
There is some opposition from the medical community to CBD in Zaire, but it is in fact less than might be expected, based on the experience of other developing countries. In Kisangani, a city with a medical school, it has been necessary to temporarily withdraw the pill from the CBD program there in response to pressure from the local "Ordre des Medecins." However, in the city of Matadi, the CBD program is operating with complete support of local officials, including the chief medical officer for the city. Similarly, the newly established program in Mbuji Mayi has the support of the Médecin Inspecteur of the region.

The rumors circulating with regard to modern methods are greatly exaggerated in comparison to the facts regarding side effects and complications of these methods. In focus groups among men and women in Kinshasa, the majority of participants were negative toward modern methods, believing they cause infertility, excess weight loss/gain, cancer, or in some cases death. By contrast, the population saw the traditional methods of withdrawal, rhythm, and "matrise de soi" as the most acceptable way to achieve child spacing (which is highly valued). Surprisingly little mention was made of the low effectiveness of these methods or the inconveniences they cause to the couple.

Certain improvements in the number of users may be taking place but go unnoticed because statistics are not available or have not been analysed. One case in point is the Centre Libota Lilamu. While the motivational activity described above did not result in higher levels of clinic utilisation which could be attributed to our intervention, in fact the number of active users has risen steadily since the opening of the clinic in December 1984 and continues to do so. This is in contrast to the generally held impression that there are few clients at this facility (see Figure 2).

With regard to tubal ligation, there is still strong resistance to the idea of child limitation among the majority of the population. However, at least one site in the VSC program (Kimpese) is showing promising results in terms of the number of operations performed. One reason for their success may be that the population of Bas Zaire is matriarchal; thus, the children belong to the mother's family, not to the father's. As such, the intense pressures brought to bear by the family upon the woman to bear children may be lesser in Bas Zaire than in the other

Fig 5. Matani Project  
OF THE MONTHS OF PROFFORATION 1964-1967



regions of the country where the system of lineage is patriarchal and the children belong to the father.

With regard to AIDS, the population of Kinshasa may be more willing to know of their sero-status than public officials have believed prior to now. The PSND is in the early stages of fieldwork for a 5000 case survey on contraceptive prevalence and KAP for AIDS among men and women of reproductive age in Kinshasa. In the pretest among 50 men and 50 women (which should not be extrapolated to Kinshasa as a whole but may be indicative of general trends), over 80 percent of the respondents indicated that they would be willing to be tested for SIDA. Other data which will be forthcoming from this study include levels of knowledge regarding AIDS, modes of transmission and prevention; sexual behavior and use of condoms both in and outside the home; and information regarding testing and informing the patient/family of HIV status, which will be useful in forming policy on these issues.

## II. ROLE OF OPERATIONS RESEARCH IN THE NATIONAL FAMILY PLANNING PROGRAM

In recent months there has been continuing debate over the value of centrally funded projects in the area of population/family planning in Zaire. Thus, in reviewing the progress of the Tulane OR project, it is useful to consider its role in the overall development of family planning in Zaire and more specifically in terms of increasing contraceptive prevalence.

--It was the Tulane OR project which was responsible for setting up the F.P. project which has resulted in the highest level of contraceptive prevalence in Zaire to date--the PRODEF program in Matadi (prevalence in the range of 16-19 percent of married women). Moreover, the quantity of contraceptives sold in the Matadi program continues to increase steadily with each year of project implementation (see Figure 3).

--the results of contraceptive distribution through existing clinics (which is the model used for the national program currently) have been disappointing in terms of number of acceptors. A major focus of the Tulane OR program is to integrate alternative modes of service delivery--specifically community based distribution of contraceptives by trained community volunteers--into the national program. In fact, the PSND project paper called for 15 CBD programs, but none were implemented prior to Tulane's activities with PSND. There are currently active CBD programs in five sites--Matadi, the rural zones of Nsona Mpangu and Sona Bata in Bas Zaire,

Kisangani and Mubji Mayi, with a sixth scheduled for implementation in Kinshasa in early 1988.

- To demonstrate progress in the area of family planning, it is necessary to have credible data on impact. Most development specialists look to evaluation research for this. From the start the Director of the PSND, Cne. Chirwisa Chirhamolekwa, has given strong support to the research and evaluation activities of the OR Unit, in part because she considers these essential for providing data which otherwise would not be available in Zaire.
  
- Operations research allows an organization such as the PSND to experiment with new and potentially controversial approaches under the cover of "research." It encourages them to take actions which they might be reluctant to do if such required an explicit policy change or commitment to a new direction, but which is much more palatable in the name of "experimentation." Indeed, CBD was first integrated into the PSND activities in this way.
  
- The OR Unit of the PSND provides direct support to other services in the business of increasing contraceptive prevalence. One example is I-E-C, which represents one of the major initiatives for increasing contraceptive prevalence in Zaire in the upcoming few years. The OR Unit will be responsible for pretesting and/or training others to pretest the messages and materials to be diffused to the general public. A second example involves the social marketing effort, coordinated by Population Planning Associates. The CPS/AIDS survey will collect data on contraceptive prevalence and source of supply in the three zones where the project is to operate, such that there will be a baseline against which to measure future gains in prevalence attributable to the social marketing program.
  
- In the early years of PSND, much of the emphasis was placed on simply establishing administrative systems and carrying out the activities outlined in the project paper in terms of training personnel, equipping clinics, and supplying them with contraceptives. Less accent was placed on the results of these activities in terms of number of users or volume of contraceptives sold. In this sense, the development of a research/evaluation unit within the PSND is important to focus attention on the issue of outcome.

--While service statistics are a useful means of monitoring the evolution of a program, they are not generally sufficient to accurately measure contraceptive prevalence within a given population (because the "denominator" of eligible women is not known and service statistics do not reflect users in the private sector). The standard and most acceptable methodology for measuring prevalence is the contraceptive prevalence survey. The Fulane project is creating within the PSND the technical capacity to conduct such surveys, including data entry and processing locally with microcomputer.

### III. PROGRESS ON EACH SUB-PROJECT AND PLANS FOR YEAR IV

There are a total of 10 sub-projects being conducted under this cooperative agreement. The objectives, progress to date, and activities for year IV (Oct 87 to Sept 88) are as follows:

Sub-project #1. Nsona Mpangu, Bas Zaire: Long-term Evaluation of the Impact of Community-based Distribution (CBD) on Contraceptive Prevalence.

A. Objective : To test the impact of CBD efforts in three treatment and one comparison area. The interventions in each area are as follows:

Treatment Area A: Distribution of contraceptives and four basic medications in CBD posts and existing dispensaries since 1982, with household distribution of these products in 1982-1983.

Treatment Area B: Distribution of these same products in CBD posts and existing dispensaries since 1982, but no household distribution in 1982-1983.

Treatment Area C: Distribution of these same product in CBD posts and existing dispensaries since 1986 only (no household distribution.)

Treatment Area D: Comparison, no activities.

The purpose of the research is to evaluate the long term impact (over a seven year period) of CBD on contraceptive prevalence. Of particular interest are the questions:

--Does prevalence continue to increase after the initial gains during the first two years of a program or does it plateau once the "predisposed" are already reached?

--Do villages that come into the program later "catch up" to those that have had services over a long-term period or is time a factor in the level of prevalence attained by the program?

#### A. Accomplishments to Date

This project, known locally as PRODEF (le Programme d'Education Familiale), was the first and is now the oldest CBD effort in Zaire, having started service delivery in 1981. Currently, there are 39 distributors and seven dispensary nurses actively involved in the program. They receive bi-monthly supervisory visits, during which they are resupplied.

The volume of contraceptives sold through this program continues to increase steadily, as can be seen in the statistics on couple-months-of-protection (CMP) shown in Figure 4. (Note: the data for 1987 represent a projection; that is, we multiplied the volume of contraceptives sold during the first six months to obtain an estimate for the 12 months of 1987. However, our statistics for this period are not 100 percent complete, which may account for the apparent drop in sales in 1987.) Service statistics are now computerized and trimestral reports available to the project directors.

Data from the 1985 survey of the "new villages" (treatment areas C and D) have been entered onto microcomputer and edited; tabulations are now being prepared. The main value of these data will be as a baseline against which to compare prevalence at the time of the followup survey, which is scheduled for late summer 1988.

Work on the cost analysis of this project (i.e. cost per couple-month-of-protection) is progressing well. The cost data since 1985 are coded and being entered onto microcomputer by project staff, under the supervision of a Tulane consultant, Ms. Belen Baas, an M.A. economist. The final analysis of costs over time and over projects will be done by Tulane's longterm consultant to this activity, Dr. Mark McBride.

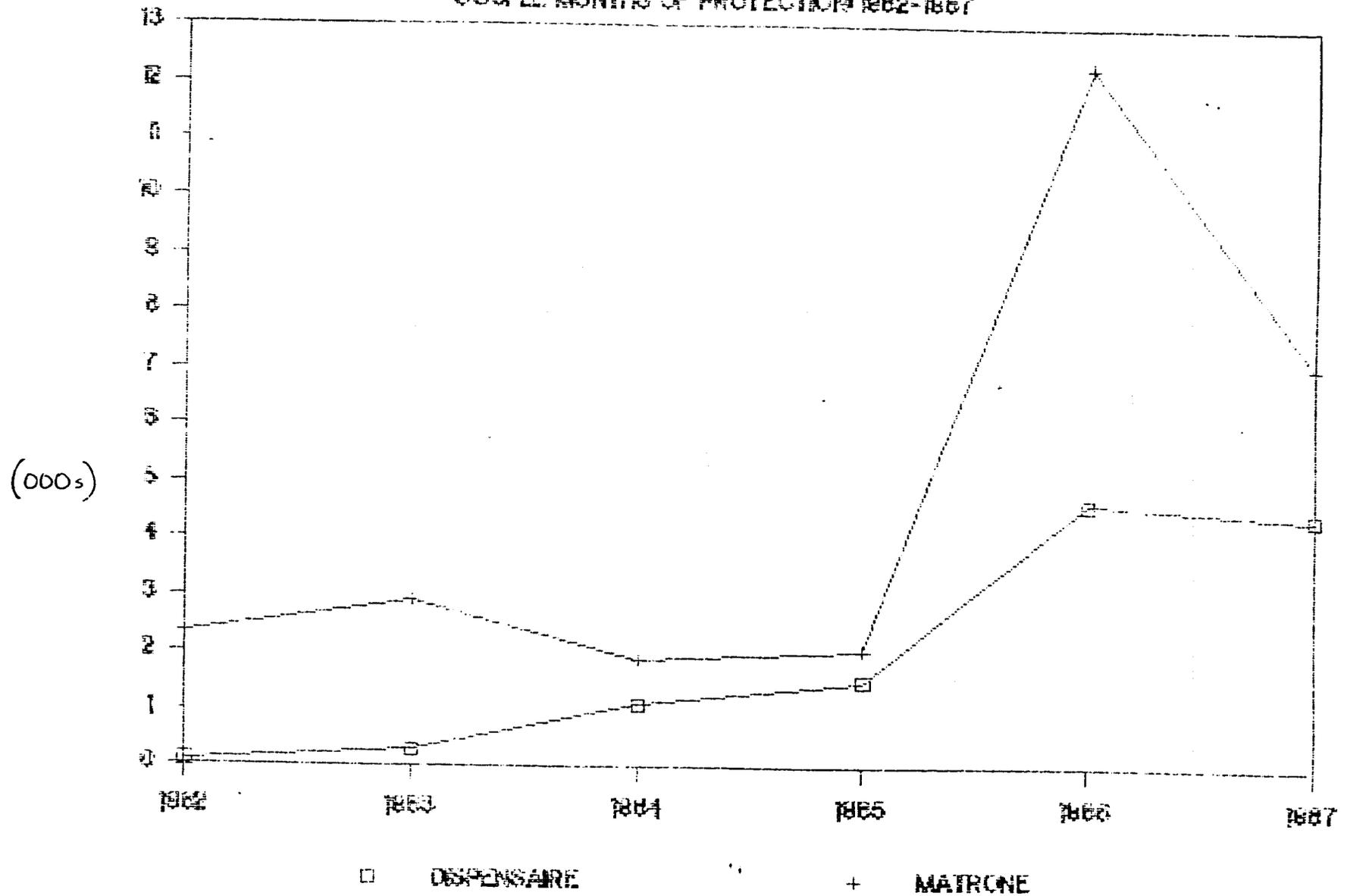
In brief, all activities outlined in the Workplan for Year III for this project have been completed.

#### C. Activities for Year IV

1. Conduct routine supervision and resupply of distributors and nurses participating in the project

figure 4. Neona-mpangu, Bas zaire

COUPLE MONTHS OF PROTECTION 1962-1967



2. Continue data entry and processing for service statistics and cost analysis
3. Conduct the followup survey to determine impact of project on contraceptive prevalence (scheduled to begin in July 1988). A Tulane graduate student will be employed to assist in supervising the field work for this study.

#### D. Problems to Date

While this project experienced difficulties in the first year of operation, it is now functioning as planned. The only problem on the horizon is that Dr. Nlandu Mangani, Project Director, will be leaving his position in Bas Zaire to become Medical Advisor to the PSND in Kinshasa. It is likely that project activity can be satisfactorily maintained through the next year (and period of evaluation), but it is less clear what the longterm effects of this change will be on this, the "oldest" CBD effort in Zaire.

#### II. Sub-project #2. Expansion of the Matadi Project to Include CBD Workers and Continuation of Distribution through Dispensaries.

Note : The original project tested two strategies: (a) making contraceptives available at low cost through existing dispensaries, vs. (b) three rounds of household distribution of contraceptives, in addition to making contraceptives available at low cost through existing dispensaries. Both strategies increased prevalence significantly, but household distribution did not make enough of an additional impact to justify its expense. Thus, since 1983, the project has consisted of the distribution of contraceptives through five dispensaries in Matadi.

#### A. Objective

To test the cultural acceptability of CBD workers in an urban setting and determine the preference for type of service provider when FP services are accessible both through dispensaries and CBD posts.

#### B. Accomplishments to Date

The Matadi CBD program is now well established and represents a model for other urban CBD efforts in Zaire. There are 23 distributors and five dispensary nurses in the PRODEF-Matadi program, which enjoys the support of the local political and medical authorities. In addition to the PRODEF outlets,

there are also five health centers in Matadi supplied by PSND directly, giving the Matadi population a high level of access to contraceptives, as shown in the map in Figure 5. Demand for contraceptives continues to increase steadily, as reflected by Figure 3.

The Matadi and Nsona Mpangu projects are administered jointly, under the direction of Dr. Nlandu Mangani with assistance from Cne. Matondo Mansilu. Thus, the situation regarding the computerization of service statistics and data for the cost analysis is the same as for Nsona Mpangu, i.e. on schedule. The total number of distributors (23 active) is short of the 40 which were originally planned; in fact, 31 were originally trained, but some have dropped out since then. All other activities planned for Year III have been completed.

#### C. Activities for Year IV

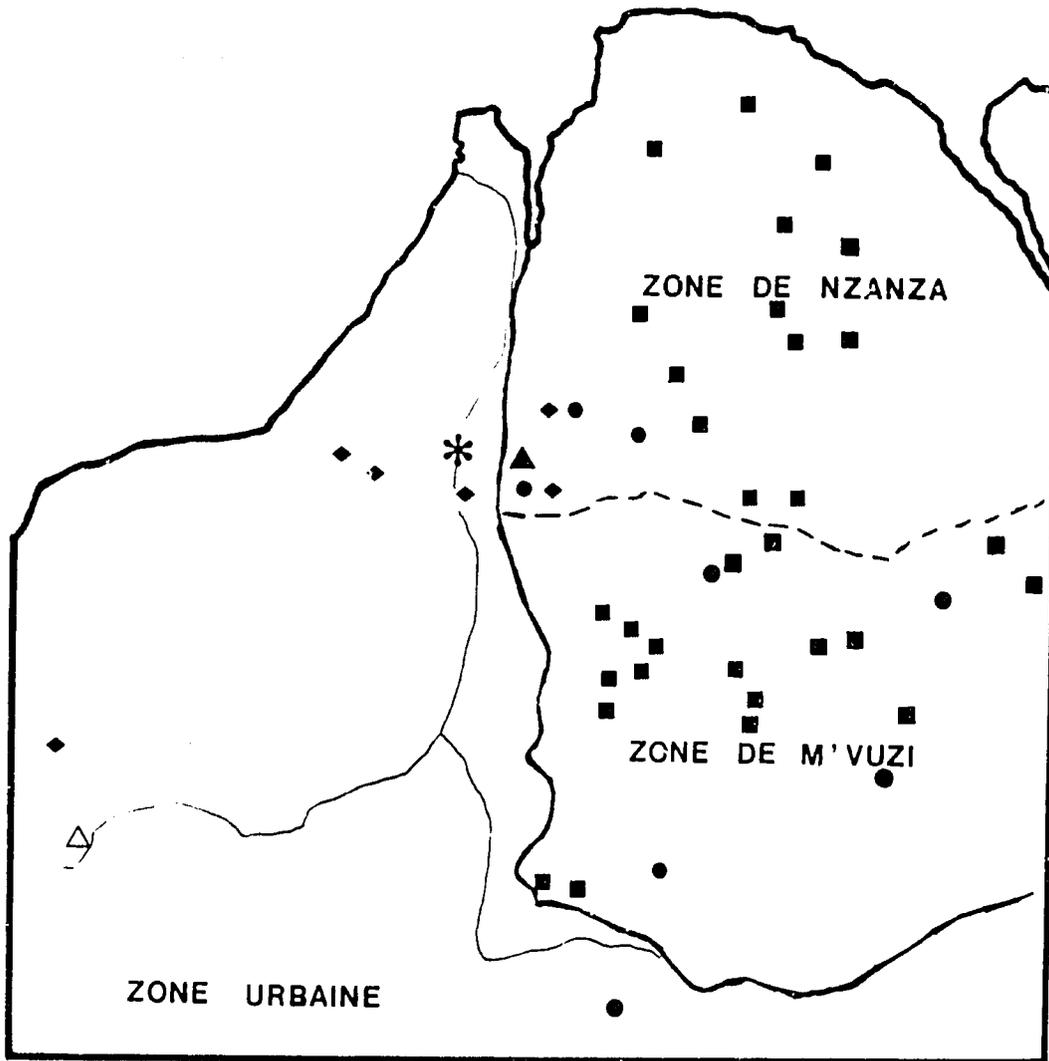
1. Continue to routinely supervise and resupply distributors and nurses in the PRODEF project.
2. Continue data entry and processing for service statistics and cost data.
3. Conduct the followup survey to measure impact in terms of contraceptive prevalence in fall 1988.

#### D. Problems to Date

The major problem in the Matadi project since the establishment of the CBD posts in September 1987 has been "rupture de stock" (stockouts). The program has consumed contraceptives, primarily the pill, at a rate far greater than was anticipated; consequently, the PSND had difficulty in supplying the project with adequate quantities of the pill. Now the PSND has received a new supply, this problem should not recur.

A potential problem in the three Bas Zaire CBD projects is that the PSND--which supplies the contraceptives to the projects--will no longer have Noriday available for distribution. Rather, this has been replaced with low Femenal. This change in brand (and dose) is to take place in the next few months and is expected to have a least a temporary effect on sales. However, the only response to this problem is to explain this change to the distributors and nurses, and to have them encourage their clients to make the switch.

FIGURE 5. FAMILY PLANNING SERVICE DELIVERY POINTS IN MATADI



Légende

- ▲ Bureau PRODÉF
- \* Bureau Zone de Santé Urbaine
- △ Bureau C.R.N.D. (P.S.N.D.)
- ◆ Centres C.R.N.D.
- Dispensaires
- Matrones

Subproject #3: Sona Bata, Bas Zaire: A Test of Dispensary-based versus Community-based Distribution of FP Services

A. Objective:

To test the cultural acceptability, impact on prevalence and relative cost-effectiveness of two different strategies to the delivery of FP services in some 40 villages.

B. Accomplishments to Date

The Sona Bata project, which from the start adopted the name PRODEF from the original project, currently has 31 distributors and 11 nurses at health centers participating in the project. The CBD program began in April 1986 and has continued to run smoothly since that time.

The project staff have learned to use the microcomputer located in Sona Bata for data entry of surveys, service statistics, and more recently cost data. They are less experienced however than the Nsona Mpangu team in cleaning data and generating reports. Thus, for this they will need continued assistance, which is now being provided very satisfactorily by the computer programmer in the OR Unit of PSND, Cn. Balowa Djunghu.

One of the less visible accomplishments of the Sona Bata project is the fact that the team, headed by Dr. Minuku Kinzonzi, organized and implemented this program very efficiently with relatively little technical assistance from the outside. The project continues to run smoothly because of Dr. Minuku's organizational skills and the dedication of his team.

C. Activities for Year IV

1. Continue the routine supervision of distributors and matrones.
2. Continue data entry and processing of service statistics and cost data.
3. Conduct followup survey to measure prevalence in the different treatment areas (scheduled for June 1987; technical assistance in supervising the fieldwork will be supplied by Dr. Nancy Mock of Tulane University).

D. Problems to Date

The main problem for the Sona Bata project involves cost recovery from the sale of basic medications (aspirin, chloroquine, vermoz and oral rehydration salts). From the start, the program has given the distributors a 50 percent commission on

the sale of both contraceptives and basic medications. However, they have priced the medications at the same level as the health centers in the zone (which is reasonable). By giving the distributors 50 percent of all sales, they do not recoup enough to cover subsequent purchases of these medications. (The original PRODEF project, which also gave 50 percent to distributors, did not run into this problem, because the Matadi program sells contraceptives only, which are given to the project free of charge; thus, the profits from the sale of contraceptives in the urban area go to cover the "losses" on the sale of drugs in the rural area.) The newer CBD programs in Kisangani and Mbuji Mayi have learned from this experience and have set the percentage for the distributors considerably lower. However, it is difficult to lower this percentage now that it has been established in the Sona Bata project. For the time being, project funds are used to cover the shortfalls, but the real problem involves the future of the activity if/when the current funding is terminated.

IV. Sub-project #4. PSND Kinshasa: Diagnostic Research on the Causes of the Sub-utilization of the Model FP Clinic and Efforts to Promote its Use.

A. Objective :

1. To determine via a sample survey of women of reproductive age and a series of 20 focus groups among men and women in the target population (a) attitudes toward FP in general and (b) knowledge of, attitudes toward, and use of the model FP clinic, the Centre Libota Lilamu.
2. To conduct group meetings in all blocks of the zone of Kintambo over a 5 month period to educate the population about FP and the Centre Libota Lilamu.
3. To assess whether there was an increase in clinic utilization following this 6-month motivational effort.

B. Accomplishments to Date

This is the first of the ten sub-projects to be completed. The activities outlined above were conducted, the results analysed, and the findings written up in the the PSND Etude de Recherche No. 3, "Resultats du Programme de Motivation dans la Zone de Kintambo pour Augmenter l'Utilisation du Centre Libota Lilamu."

The quantitative survey among women and the focus groups conducted among men and women in the target population indicated that close to half of this group did not even know of the

existence of the Centre Libota Lilamu. Moreover, the rumors circulating about modern contraceptives (e.g. that they cause infertility, excess weight gain/loss, cancer or even death) constituted a major obstacle to more widespread adoption of these methods.

The intervention undertaken by the PSND/OR Unit to inform the population of the Center's existence and to combat the negative rumors regarding the methods was a series of small group meetings on a block-by-block basis in the zone of Kintambo (one of the 24 administrative zones in the city of Kinshasa, in which the Center is located). Thus, for a period of six months a team consisting of two male and two female educators conducted meetings throughout the zone, eventually reaching some 3800 women and 900 men.

Despite this intensive IEC activity at the community level, there was no increase in clinic utilisation which could be attributed to this motivational effort. In fact, the number of active users in the program continued to rise, as shown in Figure 2, but this was a trend which started long before the motivational program and was not significantly altered by the IEC intervention. The number of new acceptors, consultations for infertility, and total visits to the clinic did not increase as a result of the intervention (see Figure 6).

These findings are the cause for some dismay. If it is not possible to increase clinic utilisation even when special resources are invested in an intensive IEC program, what are the prospects for the vast majority of health centers that would not have the possibility of attempting such a program? Granted, it is not possible to generalize the results from this one center (which is atypical of FP services in Zaire because it is vertical) to other service providers. Also, it may be that the intervention would have been more successful if a larger number of people had been contacted through "mass gatherings" (popular in Zaire) rather than small group meetings (which had been purposely chosen to allow for two-way communication between the educators and the population).

On a more positive note, these findings underscore the importance of further experimentation with non-clinical approaches to service delivery--community-based distribution and social marketing--the former of which is a major component of the Tulane OR project in Zaire.

Sub-project #5. Mbuji Mayi: Community-based Distribution with Male Participation.

A. Objective:

To test the effectiveness and cultural acceptability (1) of

community-based distribution as a service delivery model and (2) of males as CBD workers.

The original project called for a quasi-experimental design, which would compare areas with just female distributors vs. areas with male and female distributors in both a urban health zone in Mbuji Mayi and in a rural health zone on the outskirts of the city. However, due to the departure of Dr. Kankonde Musole from the rural health zone, it now appears that the project will be carried out in the urban area only. Also, rather than setting up separate treatment areas according to the sex of the distributors, it has proven more practical to select a number of distributors, some of whom are male. We will then proceed to compare their effectiveness in selling contraceptives based on service statistics rather than via the followup survey. Nonetheless, the design of the research still calls for a baseline survey (already conducted) and a followup survey (to be conducted at a later date) in one health zone of Mbuji Mayi (Dibindi), where the CBD program will operate, and in a comparison health zone (Bipemba) to measure the impact of the CBD program on contraceptive prevalence.

#### B. Accomplishments to Date

The activities outlined in the Workplan for Year III have been completed, albeit six months behind schedule. The baseline survey ended in February 1987, the data were coded by local personnel, a Zenith microcomputer was installed and project personnel trained for data entry, which is now complete. In October 1987 the first group of 20 distributors were trained and they are now operational in the field.

#### C. Activities for Year IV

1. Supervise and resupply the distributors in the program
2. Train project personnel in the coding of costs for the cost analyses to be conducted subsequently.
3. Train project personnel in the use of the microcomputer for (1) processing of service statistics, (2) data entry of costs and (3) word processing.
4. Edit (clean) the data from the baseline survey; prepare tabulations and a preliminary report.
5. Assess the adequacy of the number, sex distribution, and location of distributors; train additional distributors, if necessary.
6. Explore the possibility of expanding the CBD activity to the rural zone of Miabi, as originally planned.

#### D. Problems Encountered to Date

The two new CBD efforts--Mbuji Mayi and Kisangani (described below)--were the source of the greatest problems during Year III of the Zaire OR project. The problems in Mbuji Mayi stemmed from the fact that in April 1987 the Minister of Health decided to remove Dr. Kankonde Musole (our project director) from his position as Medecin Chef de Zone de Sante de Miabi (outside Mbuji Mayi). Fortunately, a second doctor, Dr. Ntumbak Kalala, was already a member of the team and he has now taken over the direction of the PRODEF-Mbuji Mayi project. (Note: the new CBD programs developed by the PSND have chosen to adopt the name PRODEF to signify community-based distribution.)

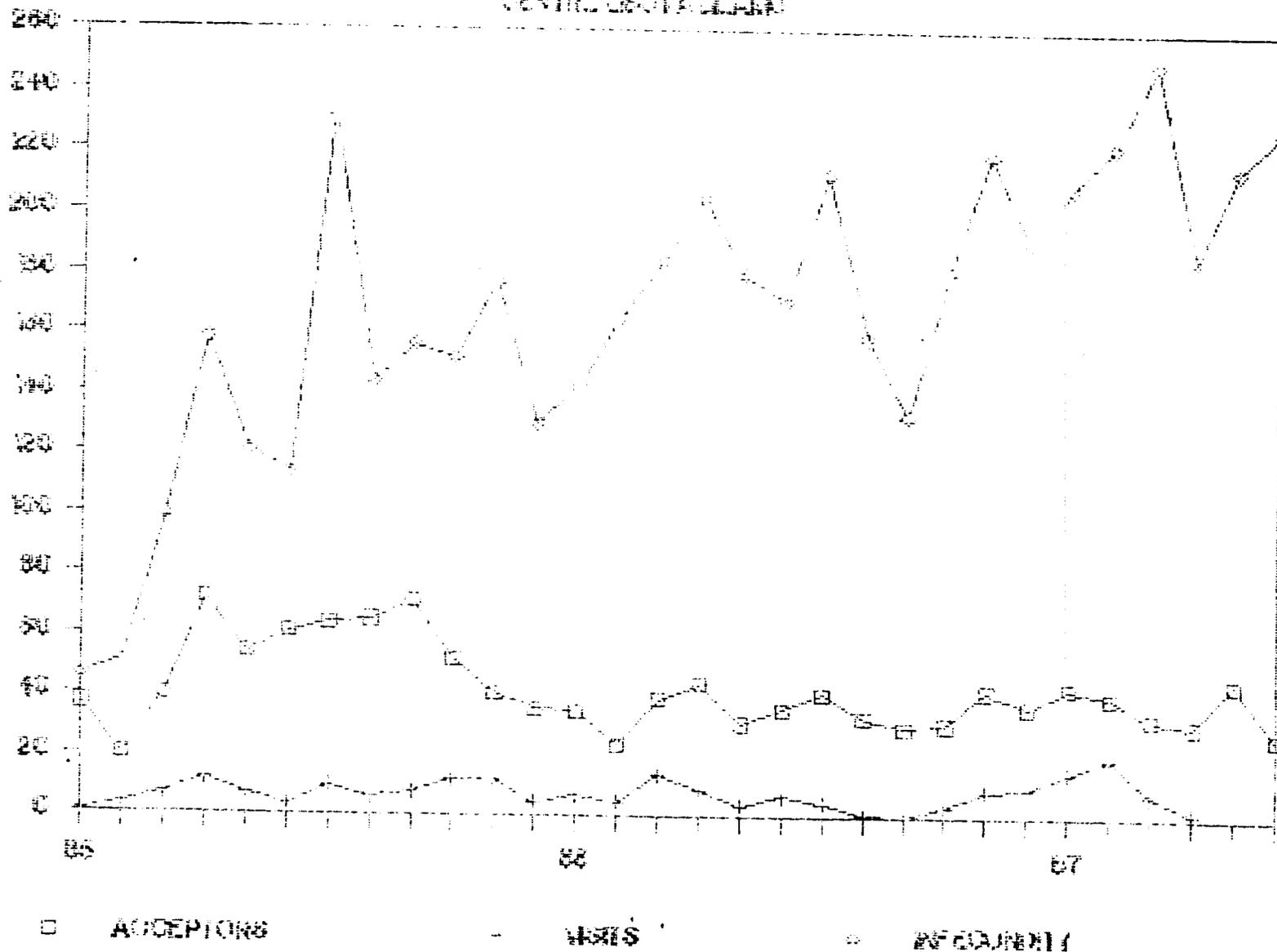
The transition period was not smooth. First, Dr. Kankonde hoped he would be able to hold onto his position, but that was not the case. Second, there was the physical transfer of items belonging to the project from the rural office in Miabi to Dr. Ntumbak's office in Mbuji Mayi. This included a jeep donated to the project by the PSND, the microcomputer, generator, and some 1600 questionnaires which were completed during the baseline survey. In the transfer, about 500 questionnaires were lost as well as the diskettes containing the data that were already entered. The only consolation is that we had hand tabulated five variables for the entire study population--age, marital status, education, residence, and current use of a FP method--such that we will be able to establish contraceptive prevalence for the area as a whole (although we have lost the data for the remaining items on one-third of the questionnaires).

Another problem which was disagreeable to those involved was that two supervisors who were hired to work on the survey in Mbuji Mayi had never signed a contract for their services and tried to come back to the PSND for supplementary payments. While these were not granted, this consumed a great deal of time and energy. Also, it is unlikely that we will want to/be able to use these individuals on the followup survey despite their experience.

Finally, the PSND is generally pleased with the fact that Dr. Ntumbak has assumed the leadership of this project. However, just as the first set of distributors were to be trained and put into the field, he left for a three month training course in Belgium. The PSND reacted by sending in a team of two local consultants and a Tulane medical student currently working with the PSND to supervise the training and initial stages of program activity. The reports were fairly favorable but the PSND will feel more assured when Dr. Ntumbak returns in January to resume direction of the activity.

Fig 6. Other indicators of utilisation

CENTROBOTA LANA



Sub-project #6. Kisangani: A Test of Two Strategies for FP Service Delivery.

A. Objective

To test the relative impact on contraceptive prevalence and the cost-effectiveness of an urban CBD program (in the health zone of Kisangani) versus clinic-based services (in the health zone of Kabondo), with a third health zone (Lubunga) serving as a comparison area. Each health zone contains between 100,000 and 150,000 people; the three together cover Kisangani, the fifth largest city in Zaire.

B. Accomplishments to Date

The Kisangani project, which started at the same time as the Mbuji Mayi project, was the faster of the two in implementing its service activities. The baseline survey was completed in February 1987; CBD volunteers were recruited in March-April; the first training took place in May, after which the first 20 distributors began activities in the field. The second group of 20 distributors were trained in June and started in the field shortly thereafter. In the health zone where services were to be expanded through existing health centers and posts, nurses from 13 sites were trained in Jan-Feb. 1987, with the idea that they would be supplied with pills, condoms and spermicides shortly thereafter. Data from the baseline survey were coded and two-thirds of the 2200 questionnaires were entered by May 1987; the remaining ones are now being completed.

As of late summer Kisangani seemed to be very much on track, with all activities outlined for Year III completed (except for the data entry on the remaining questionnaires).

C. Problems Encountered to Date

Two weeks after the first set of distributors began their activities in the field, the Médecin Inspecteur--yielding to pressures from the local "Ordre de Médecins"--requested that the pill be withdrawn from the program until the situation could be further studied. The project directors accepted this, in an effort of save the program in general. The PSND then began plans to hold a colloquium in Kisangani, to be attended by local physicians as well as three well-chosen physicians from Kinshasa who are highly respected and persuasive regarding the benefits of CBD (Drs. Miatudila, Tshibangu, and Nlandu).

In September it became evident that our problems were not just from sources outside the project, but also from within. The three individuals responsible for different aspects of the project had not succeeded in working together and the lack of leadership by the person with the title of "Coordinator" was

evident. This resulted in the other two collaborators "defecting" in the sense of neglecting their respective responsibilities. In October Jane Bertrand made an initial visit there, followed by a second visit in November in the company of the PSND Director, Cne. Chirwisa Chirhamolekwa, and Dr. Lois Bradshaw of USAID/Zaire.

During the second visit we met with the Medecin Inspecteur for the region of Haut Zaire, who is very supportive of our efforts there in general (despite asking that the pill be withdrawn temporarily). After long discussions with all concerned, it has been decided to replace the director of the project. The new director is an Ob-Gyn, Dr. Wembodinga Utshudinyema, who has just finished a masters degree in Public Health at Tulane. (This is somewhat of a coincidence in that he won a Humphery Fellowship in Public Health for study in the U.S. and all Humphery fellows in Public Health are sent to Tulane.)

Two of the three previous collaborators will be asked to stay on during a transition period; the third, who submitted his resignation in October, will not be asked to stay on. Moreover, the PSND has approached the University of Kisangani School of Medicine (of which Dr. Wembodinga is a faculty member) to be the institutional base for the project. Once these arrangements are worked out, a final decision will be made as to the composition of the team.

Regarding the finances of this project, we are able to account for close to the total amount that has been withdrawn from the bank account in Kisangani. However, there is a question about the authenticity of certain receipts (especially with respect to the individual who resigned), and the PSND is going to have a audit conducted there.

A final problem in Kisangani concerns the distributors. PSND personnel who were in Kisangani in August 1987 for other reasons came back with strong doubts about the choice of the distributors who were in the project. Many had the equivalent of only 2-3 years post-primary schooling and reportedly had difficulties doing simple calculations. Also, the vast majority were not married (though it should be noted that Kisangani as a whole has a reputation for being less traditional regarding marriage than the rest of the country). In light of the criticisms by the local physicians regarding the program, it was decided to recall the material from all distributors, to test each one individually, and to retain only those who were knowledgeable about the products and the forms used to register sales. This recall took place in October 1987. Thus, one of the first tasks of the new director is to begin the process of recruitment and training for new distributors.

**D. Activities for Year IV**

1. Complete the period of transition from the old to the new team.
2. Test the old distributors and decide which ones will be retained in the new program.
3. Recruit and train new distributors (for a total of at least 40 in the program).
4. Conduct a colloquium in Kisangani on the topic of "Integrating Family Planning into Primary Health Care", to be attended by local physicians as well as key persons from Kinshasa, in an effort to obtain authorisation to have the pill sold by the distributors.
5. Regarding the baseline survey, clean and process the data; produce a preliminary report of the findings.
6. Computerize the service statistics
7. Establish system for coding the costs of project expenses, as part of the eventual cost analysis of the project.

**Sub-project #7. Motivations for and Barriers to Voluntary Surgical Contraception (VSC) for Women.**

**A. Objective :**

1. To identify factors which constitute motivations for and barriers to VSC for women. Two research techniques will be used: (a) focus groups among three selected categories of the population: women who have undergone VSC, active users of reversible methods that have at least 5 children, and husbands of active users who have at least 5 children; and (b) a followup (quantitative) survey among at least 500 acceptors of VSC to learn more about the consequences of VSC in this society.
2. To collaborate with the Association for Voluntary Surgical Contraception (AVSC) in a program to establish model centers for VSC in 3 urban and in 3 rural locations in Zaire.

**B. Accomplishments in Year III**

The main activity of this sub-project during Year III was to conduct a total of 29 focus groups in five different regions of the country on the topic of tubal ligation. The groups were comprised of:

--women who had undergone tubal ligation within the last four years (one group per site)

--users of reversible methods who had at least five children (two groups per site)

--husbands of users of reversible methods who had at least five children (two groups per site).

While a total of 30 groups were planned, only 29 were conducted due to difficulties encountered in Kinshasa in conducting one of the men's groups.

The results of this research are available in a working paper entitled "Attitudes toward Tubal Ligation among Acceptors, Potential Candidates and Husbands in Zaire." Partial results were presented at the American Public Health Association Meetings in New Orleans in October 1987. The paper is now being finalized and will be submitted for publication shortly.

The second research activity under the AVSC project has been the preparation for a quantitative survey among women who have undergone tubal ligation in Zaire. For this study six urban and eight rural sites have been identified which fit the criterion for inclusion: having the names and addresses of at least 50 women who underwent tubal ligation (apart from those who delivered by Caesarian section) between January 1984 and December 1986. It is probable that 11-12 of these sites will actually participate. The questionnaire for the survey has been prepared, as well as a manual of instructions for the interviewers. In early December 1987 field personnel were trained for eight locations, and field work is expected to begin in early 1988.

#### C. Activities for Year IV

1. Conduct training of field personnel from the remaining 3-4 sites that will participate in the followup survey of VSC acceptors.
2. Supervise the fieldwork in the different sites
3. Code and enter data from questionnaires
4. Process and analyse data; prepare final report

#### D. Problems encountered to Date

This activity has run fairly smoothly, thanks in part to the efforts of Cne. Kashwantale Chibalonza, supervisor for the AVSC research. There were logistic difficulties in getting out to all

the five sites in the Interior that participated in the focus groups, but none that were insurmountable.

The research activities are part of a larger VSC program involving the establishment of six model sites for VSC throughout the country (including training of physicians and operating room assistants, provision of equipment and supplies, renovation of operating rooms, and training of other health personnel for counseling in FP/VSC). This activity has experienced some setbacks in terms of completing the training of personnel for all three sites; currently three teams are active, a fourth has been trained but does not have an operating facility; and the final two will be trained within the next six months.

Sub-project #8. Incorporating Education/Prevention Activities for AIDS into a Contraceptive Community-Based Distribution (CBD) Project in Kinshasa.

A. Objective :

1. Assess the feasibility of incorporating an educational component on AIDS into the community-based distribution of FP services.
2. To increase knowledge among the target population of :
  - the nature of AIDS and the severity of the disease.
  - the modes of transmission.
  - measures to decrease risk of contracting AIDS.
3. To increase the use of modern contraceptive methods among married women 15-44 in the target population.
4. To increase the use of condoms among males who have multiple partners.
5. To reduce the number of sexual partners among males and females in the target population.

This project represents a controlled field experiment in which the intervention in the experimental group (three administrative zones in Kinshasa) will consist of installing a network of CBD posts and conducting a series of community meetings on AIDS throughout the zone; a comparison group (two zones) will have no special intervention. A baseline survey and followup survey in both the experimental and comparison areas will be conducted to determine the degree to which the objectives are achieved.

## B. Accomplishments in Year III

While the original design of this project called for the baseline to be conducted among both men and women in only five of the 24 administrative zones of Kinshasa (three experimental and two comparison), the decision was later taken to expand to a city-wide survey which will cover all 24 zones. It was felt that data which would be representative of Kinshasa as a whole would be of far greater worth to the scientific community grappling with the AIDS problem than the study of five zones. Moreover, in doing so the survey would constitute an update (five years later) of the original contraceptive prevalence survey for Kinshasa.

While we are still convinced of the worth of this activity, its implementation has consumed a major part of the energies of the staff of the PSND/OR Unit over the past six months. We are fortunate to have the services of Cn. Bakutuvwidi Makani and Cn. Kinavwidi Lewu as consultants; they were the country directors of the 1982-84 CPS conducted in collaboration with Westinghouse.

Over the past 10 months we have designed the questionnaire, translated it to Lingala, pretested it among 50 men and 50 women, trained 50 interviewers for the "quick count" required to obtain an updated random sample of the population and completed the quick count. In addition, we have done some prospection of the three experimental zones in terms of existing health infrastructure, geographical layout, and transportation systems, in preparation for the eventual installation of the CBD activity there.

When this program was planned in December 1986, it was one of the first interventions for AIDS in Zaire. However, within six months WHO began its plans for major research and intervention strategies in Zaire. The fact that our survey will be city-wide is seen to contribute greatly to a better understanding of how the population views AIDS and reacts to this threat. Moreover, it in no way duplicates the work of the WHO group. (Rather, they have approached the PSND to become involved in such studies in other cities of Zaire.)

The WHO intervention--greatly needed in Kinshasa--does nonetheless change the design of the proposed OR intervention. There will no longer be a true "comparison group," because all of Kinshasa is being deluged with information about AIDS. Rather, there will be two treatment groups: one which receives a special program including group meetings at the community level with increased access to condoms through CBD posts (in addition to whatever they receive from the national AIDS campaign), the second which will receive whatever AIDS information flows from the national campaign alone.

### C. Activities for Year IV

1. Train 50 interviewers and complete data collection among 2500 women and 2500 men in the city of Kinshasa.
2. Code, enter onto microcomputer and process the findings.
3. Prepare a report of the survey results.
4. Establish the CBD program in the three experimental zones; this includes obtaining authorisation from local authorities, recruiting and training distributors, supplying them with contraceptives, and supervising them on a monthly basis.
5. Computerize the service statistics for the sale of products.
6. Code and enter onto microcomputer the cost data for this program for the eventual cost analysis

### D. Problems Encountered to Date

The main problem to date has been to administer an activity of this size. In addition to the permanent PSND/OR Unit staff, there are 55 other people hired for the baseline survey. The staff of the OR Unit, including the Resident Advisor from Tulane, have a tendency to focus more on the technical problems and less on the administrative measures needed to assure the smooth implementation of an activity. In addition, the accounting service of PSND has had some difficulties in submitting financial reports to Tulane University in a timely fashion to assure reimbursement of funds, despite concerted efforts on the part of Mr. Brad Barker, the Deputy Director in charge of Administration. In fairness to the PSND, the OR activities have grown at a rate faster than was foreseen at their start, and thus we place a disproportionately large administrative burden on an already fragile financial system. We are trying to work out strategies to improve these mechanisms, but to date problems of this nature exist.

### Sub-project #9. Kinshasa: Study of Continuation of Contraceptive Use and Reasons for Abandoning Contraceptive Methods.

#### A. Objectives:

1. To determine the percentage of new acceptors who are still active in the program seven months after initiation.
2. To determine the percentage of new acceptors who are actively using contraceptives (even if they no longer use the original FP service) seven months after initiation.

3. To determine the reasons why:
  - a. clients discontinue use of the specific FP clinic, and/or
  - b. clients discontinue the use of a modern contraceptive method.
4. To compare discontinuation rates by clinic and by method (taking into account in the latter case the self-selection process inherent in choosing a method).
5. To identify clinic procedures which determine "who gets what," which may influence satisfaction with the method/services.

#### B. Accomplishments to Date

This study requires data collection at three points: an admission interview for new acceptors at time of first visit, a followup interview for each subsequent visit to the clinic, and a followup interview for home visits to dropouts.

A total of 1300 women (new acceptors) are to be included in this study. To date, admission questionnaires have been completed for three-quarters of this number. In addition, there are data on 150 followup visits, and 100 home visits to dropouts have been conducted. It is estimated that data collection will continue for another eight months.

#### C. Activities for Year IV

1. Complete data collection
2. Code and enter data onto microcomputer
3. Process data and analyse the results
4. Prepare a final report.

#### Problems Encountered to Date

This project is funded under the Tulane project, but it is being implemented by the Comite Regional des Naissances Desirables (CRND)-Kinshasa, with technical assistance from Family Health International. As such, the UR Unit of the PSND is less involved with the day-to-day functioning of this project. Representatives of FHI (Kathy Jesencky and Susan Wright) have made periodic visits to Zaire to oversee the progress, and it is our impression that at the current time there are no major problems.

Sub-project #10. Development of a Model for Evaluating the Quality of Care in CBD Programs in Zaire

A. Objectives:

1. Assure that women who use the services of CBD workers are properly screened for use of the pill (if that is the method they choose), that they receive correct information about the products and how they are used, and that they are referred to other levels in the health system when appropriate.
2. Strengthen the position of existing CBD programs if they come under attack in the future over the issue of quality of service.
3. Develop a methodology which could be used in other CBD programs outside of Zaire as well.

B. Accomplishments in Year III

This project is less than a year old; thus, any progress made to date has occurred during Year III. In March 1987 Jane Bertrand met with Dr. Sam Wishik in New Orleans and discussed the approach to be taken in establishing a methodology for evaluating the quality of care in CBD programs. It became clear that a first priority was to establish how the program should work before trying to evaluate whether it is conforming to certain standards. To this end, three activities have taken place.

First, in June 1987 the PSND held a three-day workshop on CBD programs in Zaire, which was attended by 30 people, half of whom were actively involved in an existing (or soon to be existing) CBD program. This allowed for an open exchange regarding a number of key issues: recruitment, training and supervision of the distributors; medical standards regarding the prescription of the pill; financial and administrative procedures; use of service statistics to monitor program achievement, etc.

Second, based on this meeting, members of the OR Unit wrote the first draft of a set of guidelines for implementing CBD programs in Zaire. Subsequently a medical student from Tulane who is in Zaire for three months, Ms. Susan McLeilan, has assisted in editing the manual. This document (in French) is intended to serve as a reference for existing programs as well as a set of guidelines for those who wish to develop CBD programs in the future (which is a direction in which the PSND is expected to move in upcoming years).

Third, we are developing a set of instruments with which to evaluate the quality of care in CBD programs. These will include (but not be limited to):

--a knowledge test for distributors, to assure that they are able to answer basic questions about the contraceptives and other medications they sell (correct use, side effects, contraindications). Susan McLellan in collaboration with Zairian counterparts has developed this set of questions and it has now been used in assessing knowledge levels of distributors in the three Bas Zaire projects and in Mbuji Mayi.

--a list of points to cover during supervisory visits

--quantitative indicators which may reflect problems with the quality of services: for example, method mix for each distributor, percentage of women requesting the pill who get it, most frequent reasons for not giving the pill, etc.

### III. Activities for Year IV

1. Finalize the "Guidelines for Implementing CBD Programs in Zaire."
2. Develop a companion guide which will be used in the actual training of distributors and as a reference for them after training.
3. Test and implement the different aspects of the strategy for improving quality of care in CBD programs (testing of distributors, in-depth supervision periodically, analysis of quantitative data for qualitative implications, etc.)
4. Hold a second meeting of personnel involved in the Zaire CBD program to discuss problems in implementing this system and means of further improving it.

### IV. RESEARCH PUBLICATIONS AND DISSEMINATION OF FINDINGS TO DATE

Of the ten sub-projects under this cooperative agreement, nine are still in progress. Moreover, most are designed to yield results only in the last year of the five-year agreement. Nonetheless, some results from these OR activities have become available and are being disseminated through the following channels.

#### A. Publications in French

Results from the original Bas Zaire project which have been published during the current cooperative agreement include:

Bertrand, J.T., Nlandu Mangani, Matondo Mansilu, Mark McBride and Jeffrey Tharp. 1986. "Strategies pour la fourniture de services de planning familial au Bas Zaire." Perspectives Internationales du Planning Familial, (numero special): 2-10. (translated from original article in English.)

Nlandu Mangani, Matondo Mansilu, and Jane T. Bertrand. 1986. La Promotion des Naissances Desirables au Bas Zaire. New Orleans, LA: Tulane University. (Monograph)

Under the current cooperative agreement, the results of the PSND projects will be presented in a series of research reports in French, the first two of which are now available and the third which will be forthcoming shortly.

PSND Etude de Recherche No. 001. "Naissances Désirables et Le Centre Libota Lilamu: Connaissances et Utilisation par la Population Feminine de la Zone de Kintambo," Août 1986.

PSND Etude de Recherche No. 002. "Ce que les Hommes et les Femmes de la Zone de Kintambo Pense des Naissances Désirables: Analyse de 20 Groupes de Discussion." Sept. 1986.

PSND Etude de Recherche No. 003. "Résultats du Programme de Motivation dans la Zone de Kintambo sur l'Utilisation du Centre Libota Lilamu." (Janvier 1988)

#### B. Publications in English

Data from the original Bas Zaire project, published under the current agreement, include:

Article which appeared in English in International Family Planning Perspectives, vol. 12, no. 4, 1986, cited above.

Tsui, Amy O., Julia De Clerque, and Nlandu Mangani. 1987. "Maternal and Sociodemographic Correlates of Child Morbidity in Bas Zaire: The Effects of Maternal Reporting." Accepted for publication in Social Science and Medicine.

Two manuscripts which are completed and ready for submission for publication include:

Bertrand, Jane T., Chirwisa Chirhamolekwa, Kashangabuye Mahama, Balowa Djunghu and Kashwantale Chibelonza.

"Post-partum Events and Fertility Control in Kinshasa, Zaire."

Chibalonza, Kashwantale, Chirwisa Chirhamolekwa and Jane T. Bertrand. "Attitudes toward Tubal Ligation among Acceptors, Potential Clients, and Husbands in Zaire."

C. Presentation of Findings at Professional Meetings

The above mentioned article by Amy O. Tsui and co-authors was presented at the Population Association of American meetings in April 1987.

The above-mentioned report by Kashwantale Chibalonza et al. on tubal ligation in Zaire was presented by Susan Hassig of Tulane University at the APHA meeting in New Orleans in October 1987.

D. Dissemination of Findings within Zaire

The CBD workshop held in June 1987 and attended by 30 participants represented the first attempt under this cooperative agreement to share the experiences learned in the different CBD projects with other Zairian professionals.

V. TRANSFER OF TECHNOLOGY AND INSTITUTION BUILDING

One of the primary objectives of this cooperative agreement is to strengthen the technical capacity of Zairian institutions in the field of operations research, design and evaluation of family planning programs.

To this end, the main activity has been the establishment of the Operations Research Unit within the Projet des Services des Naissances Desirables (PSND), which is the urban family planning services project. This is a governmental institution which has the primary responsibility for family planning in Zaire.

Within this Unit we have developed different areas of competence. Since all large scale survey work requires computerization, we have put a special emphasis on this. There are four microcomputers in the OR Unit, which are in constant use for data entry, data processing, graphics and word processing. We are fortunate to have the services of Cn. Balowa Djunghu, who came to the project with some computer skills and developed substantially more over the past 30 months. He, as well as three Zairian colleagues, underwent a four week microcomputer course at the Social Development Center in Chicago in 1986, which also

improved their abilities in this area. As well as overseeing all aspects of PSND computer work, Cn. Balowa periodically assists other institutions with computer problems (e.g. he has served as a trainer for both the School of Public Health and the Nutrition Planning Center).

In addition to the four microcomputers at PSND, the Operations Research Project has four micros functioning in the Interior of the country (at Nsona Mpangu, Sona Bata, Kisangani and Mbuji Mayi). In each case Zairian personnel were trained on site by Cit. Balowa to use the micros for data entry of the surveys (involving from 1500-2200 cases each). To date, we have had very positive results in keeping the machines going in these isolated locations.

Five large scale surveys have been carried out under this cooperative agreement. The most ambitious is the CPS/AIDS survey being conducted among 2500 men and 2500 women in Kinshasa. The technical assistance for this activity is being provided largely by two Zairian demographers from the Institut National de la Statistique, Cn. Bakutuvwidi Makani and Cn. Kinavwidi Lewu. They in turn are providing excellent on-the-job training to four staff members within the OR Unit on all aspects of questionnaire design, interviewer training, pretesting of the instrument, mapping, and interviewing. With this experience, the PSND will have one of the strongest survey research teams in Zaire.

We have also developed a survey research capability in each of the locations in which a large survey has been conducted. Local personnel were used as supervisors, interviewers, and coders. However, this experience is limited primarily to the data collection phase, whereas the Kinshasa survey englobes all aspects of the research process.

In addition to quantitative research techniques, the OR Unit has also developed a capacity for conducting qualitative research, specifically focus groups. The personnel of the Unit have been involved in three different studies (for a total of 60 focus groups). In the most recent case the Centers for Disease Control contacted the PSND OR Unit to assist in moderating focus groups regarding AIDS and discordant couples, because of our previous experience with this methodology in Zaire.

One aspect of "institution-building" which is weak is that the OR Unit is currently operating without a Division Head. We have been waiting to identify an individual with appropriate academic training as well as field experience for this position. There is one promising candidate on the horizon, and it is our hope that this problem will be resolved within the next six months.

## VI. FINANCIAL STATUS OF THE COOPERATIVE AGREEMENT

The total budget for this cooperative agreement is \$2,801,034 for a five-year period; of this total, \$1,609,956 was budgeted for the first three year period. A breakdown of amounts budgeted vs. expended by year appears in Table 1. In general, the project is expending funds in line with the original budget. However, it should be noted that funds have been shifted among budget categories to better serve the needs of the project. The main changes have been the following:

First, during Year I the project overspent on on-campus costs and underspent on off-campus costs (salaries, travel, post-differential, quarters allowance) because the P.I. was working primarily out of Tulane University (on-campus), and there was no resident advisor in Zaire.

Second, in Year II (and continuing into Year III) the P.I. became resident advisor in Zaire; thus, the bulk of the project costs shifted to the "off-campus category," since relatively little technical work was then being done at Tulane. This resulted in our overspending in the (off-campus) categories, specifically on salary, travel and equipment. Throughout, we have underspent on quarters allowance, since most of the Bertrands' housing is covered under another AID contract.

Third, in both Years I and II we overspent in operational supplies, because of the purchases of three vehicles (all authorized by AID) and other equipment needed for the field activities in Zaire. (These items were originally budgeted under the individual sub-agreements, but had to be purchased by Tulane in hard currency).

Fourth, in Years I and II we underspent on sub-agreements for two reasons: (1) the sub-projects did not begin as soon as scheduled, and (2) the cost of the vehicle for three projects, which was "budgeted" under the sub-agreements, in fact was paid in hard currency and appears on the ledgers as "operational supplies" at Tulane (as explained above). However, by Year III the amount expended on sub-projects exceeded that which was budgeted (a trend which will continue in Year IV), which represents "making up for lost time."

Of the total amount budgeted for this 5-year cooperative agreement, \$1,025,000 is to be used for the implementation of activities in Zaire, through sub-agreements with local institutions. To date, Tulane has entered into sub-agreements with two institutions, as outlined in Table 2. The total amount allocated to date for projects in the field is \$838,420. However, it is almost certain that the CBD projects in Kisangani and Mbuji Mayi will have cost over-runs (especially since they are behind schedule in implementing activities), and it is possible that the same will be true for the Kinshasa CBD/AIDS project. Thus, Tulane feels it is advisable to reserve the

remaining funds allocated for sub-agreements to cover this eventuality.

At the current time we expect to complete seven of the 10 sub-projects by the termination date of this sub-contract. The three which are in doubt -- Mbuji Mayi, Kizangani, and Kinshasa (CBD/AIDS) -- all involve the establishment of CBD activities which should ideally be allowed to run for a minimum of 18 months before the followup survey is conducted. Because of the delays in initiating the survey delivery components of these projects, we are now very tight on time in all three cases. This will be the subject of discussions with the new AID/W Technical Monitor for this project, Ms. Carol Dabbs, in January 1988.

TABLE 1. EXPENDITURE OF FUNDS : ZAIRE FAMILY PLANNING PROJECT, YEARS I TO III

	Year I		Year II		Year III		Total	
	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended	Budgeted	Expended
On Campus	263,154	290,025	259,784	274,716	268,972	118,792	791,910	683,532
Off-Campus	97,611	126	70,701	94,825	74,729	138,355	243,046	233,306
Sub-agreements	170,000	60,006	195,000	134,150	210,000	276,155	575,000	470,312
Total	530,765	350,157	525,485	503,690	553,701	533,302	1,609,956	1,387,150

- The actual amount expended for the sub-agreements is in fact higher than this; this figure does not include the sub-project expenses for the PSND from May - September 1987.

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TABLE 2. ZAIRE FAMILY PLANNING OPERATIONS RESEARCH : SUMMARY OF ALLOCATION OF PROJECT FUNDS TO SUB-PROJECTS.

Recipient Institution	Number of Sub-project	Location	Amount Allocated
Communauté Baptiste du Zaire Ouest (CBZO)	1	Nsona Mpangu	
	2	Matadi, Bas Zaire	\$ 193,868
	3	Sona Bata	\$ 108,212
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Projet des Services des Naissances Désirables	4	Kinshasa:	\$ 127,432
	10	Kintambo survey, admin. support costs for Kinshasa office	
	5	Mbuji Mayi	\$ 120,363
	6	Kisangani	\$ 96,310
	7	AVSC research	\$ 63,535
	8	Kinshasa: CBD/AIDS	\$ 107,700
	9	Continuation Study	\$ 21,000
		<b>Total of Sub-project Allocations</b>	<b>\$ 838,420</b>

• The amounts shown cover the life of the project (through 6/30/89 in most cases, when sub-agreements are scheduled to terminate).