

AGENCY FOR INTERNATIONAL DEVELOPMENT
WASHINGTON, D C 20523
BIBLIOGRAPHIC INPUT SHEET

FOR AID USE ONLY

Batch 83

1. SUBJECT CLASSIFICATION	A. PRIMARY Serials	Y-NH00-0000-G130
	B. SECONDARY Health--Maternal and child health care--Zaire	

2. TITLE AND SUBTITLE
Development of a maternal and child health/family planning program in Zaire; progress report, May, 1973-Jan. 1974

3. AUTHOR(S)
(101) Organization for Rehabilitation through Training, Geneva, Switzerland

4. DOCUMENT DATE 1974	5. NUMBER OF PAGES 162 p. 163 p.	6. ARC NUMBER ARC CG614.5992.A512a
--------------------------	-------------------------------------	---------------------------------------

7. REFERENCE ORGANIZATION NAME AND ADDRESS
ORT

8. SUPPLEMENTARY NOTES (Sponsoring Organization, Publishers, Availability)
(Activity summary)

9. ABSTRACT

10. CONTROL NUMBER PN-AAF-503	11. PRICE OF DOCUMENT
12. DESCRIPTORS Family planning Health delivery Zaire	13. PROJECT NUMBER
	14. CONTRACT NUMBER AID/CM/pha-C-73-9
	15. TYPE OF DOCUMENT

AMERICAN
O R T
FEDERATION

AID/CM/pha-c-73-9
CRT PN AAF-503

ORGANIZATION FOR REHABILITATION THROUGH TRAINING

OVERSEAS HEADQUARTERS
1, RUE DE VAREMBÉ
1211 GENEVA 20 - SWITZERLAND
TEL. 34 14 34 - CABLE: AMORTFED

REF. NO.

FIRST SEMI-ANNUAL REPORT

PROJECT: ORT Maternal and Child Health/Family Planning
Project - Contract No. AID/CH/PHA-C-73-9

PLACE: Republic of Zaire

PERIOD: May 1973 - January 1974

CONTRACTOR: American ORT Federation

TABLE OF CONTENTS

Introduction

Background

Sequence of Activities of ORT Team

Scope of Activities as Related to Project Objectives

Targets for Next Six Months

Conclusions and Problems

ANNEXES

- I - Report of Dr. S. Kessler
- II - Report of Dr. W. Berggren
- III - Training Activities - Miss F. Rutledge, PH Nurse/Educator
- IV - Report of Dr. C. White
- V - Report of Dr. M. Gorosh and Dr. D. Wolfers
- VI - Administrative Report

PROGRESS REPORT

INTRODUCTION

Project Title: Development of a Maternal-Child Health/Family Planning (MCH/FP) Program in Zaire.

Contract No. AID/CM/pha-c-73-9

This contract calls for ORT to provide technical assistance to the Government of Zaire to establish health clinics in Kinshasa and in the provinces of Zaire that will serve as a focal point and model for an MCH/FP national service. It is part of a larger agreement between AID and the Government of Zaire in establishing an effective network of MCH/FP services in the country.

This report summarizes the progress of the ORT technical assistance team from May 1973 to January 1974 in meeting the objectives of this contract.

The technical assistance program was launched in May 1973 when the Medical Consultant to ORT visited Kinshasa to define the operational plan for the ORT team in collaboration with AID and GOZ officials (Annex I). In July, Dr. Warren Berggren, a candidate for the position of ORT Team Leader made a consultation visit to Kinshasa and developed a series of recommendations for project activities. This served as a working document (Annex II). Dr. Berggren was approved as Team Leader, but unfortunately in November he indicated that he was not available for the position.

BACKGROUND

This project responds to three inter-related needs for upgrading the delivery of health services and for promoting the economic and social development of the country.

1. Following the introduction of the policy of Desired Births (Naissances Desirables), there is a need to establish an institutional framework for the organized delivery of family planning information, motivation and contraceptive services as well as for the systematic evaluation of these services and their impact on health, well-being and population growth.
2. Since the demand on most curative medical delivery systems exceeds institutional capacity, there is a need to strengthen and expand the preventive and public health services, especially health education and programs for pre-school children.
3. There is a need to decentralize the institutional base so as to reach a greater proportion of the population, especially the maternal and child groups and provide them with comprehensive basic health care, including family planning care. Strategies for using available and potential health manpower most efficiently and effectively can be developed in this framework.

The MCH center was seen as the optimal framework to meet these requirements. Traditional maternal and child services are also an excellent context in which to present and deliver family planning services.

FOMECO (Fonds Medicaux de la Coordination) has overall responsibility for the establishment and management of the MCH centers. FOMECO, a subdivision of the Presidency of the GOZ, is currently directing the operation of the Mama Yemo Hospital, largest general hospital in Kinshasa, and a number of provincial hospitals as well as special mobile health services. AID is providing funds to FOMECO for construction of MCH centers, for equipment, supplies and commodities, as well as for overseas training for Zairian supervisory and training personnel. Some counterpart funds are also available for these purposes. AID has contracted ORT to provide technical assistance for this project. Operational costs of the center are borne by FOMECO.

OBJECTIVES

The principal objectives of the ORT technical assistance team are to assist the Government of Zaire in developing a model for a national network of MCH/FP centers. This model will be based on the experience gained in setting up the centers and training personnel to staff them.

These objectives are to be realized by the following activities:

1. recruitment of four-person team (public health physician, two public health nurses and a management specialist) to provide guidance and overall direction for the project;
2. development of relevant curriculum and training program;
3. establishment of operational and administrative guidelines;
4. recommendation of suitable candidates for overseas training;
5. development of a distribution network for MCH/FP information and materials.

SEQUENCE OF ACTIVITIES OF THE ORT TEAM

1. Recruitment of Management Specialist - orientation and language training in Geneva (August) - Mr. S. Helfenbein.
2. Arrival of the Management Specialist -- first full-time team member (September).
3. Recruitment and orientation of Public Health Nurse (September) - Miss Frances Rutledge.

4. Arrival of first Public Health Nurse/Educator (October).
5. The assignment of counterparts to the Management Specialist and Public Health Nurse/Educator (mid-November).
6. The completion of an accelerated refresher course for hospital nursing and paramedical personnel engaged for the first center to orient them towards MCH activities, preventive medicine and health education (end of November).
7. Design of a record and data collection system to be used in the MCH centers and design of a baseline study by TDY consultants recruited by ORT (early December). (see Annex V)
8. Opening of first center and commencement of maternal and child health services (29 December).
9. Partial resolution of transport and logistical problems to facilitate integration of required support services into the General Services administration of Mama Yemo Hospital (end of January).
10. Initiation of discussions between managerial and medical/nursing personnel aimed at developing the most efficacious administrative (internal) structure for the MCH center network (end of January).

SCOPE OF ACTIVITIES OF THE ORT TEAM AS RELATED TO OBJECTIVES OF THE PROJECT

1. Recruitment of Technical Assistance Team.

Two of the four members of the team are currently working in Kinshasa (Public Health Nurse and Management-Administrative Specialist). The second Public Health Nurse has been recruited and will arrive in Kinshasa in April. Two candidates for the position of Team Leader have gone to Kinshasa on a TDY consultation. The first of these candidates found it impossible to accept the position and the second was not accepted by FOMECCO. The recruitment of the Team Leader has therefore not yet been finalized.

Initial tasks of the Management-Administrative Specialist involved coping with numerous aspects of preparing for the first MCH Center's opening, including logistics of equipment and supplies, transport, laundry, kitchen, pharmacy, laboratory, administrative integration with the Mama Yemo Hospital, arranging for office and classroom space, space utilization of the Center, patient flow, patient fees, etc.

Subsequently he was concerned with participating in the definition and organization of the MCH services to be offered at the Center, Center staffing, assisting with the logistics of training, and training of a counterpart administrator.

The Public Health Nursing Trainer has prepared the initial training curriculum for the Center staff and participated in the accelerated training program given prior to the opening of the Center. She is currently engaged in preparing the second training program as well as in-service training activities (Annex VI).

2. Development and Implementation of MCH Training Program - (Annex VI)

As originally conceived, the first four months of the contract period were to be spent on curriculum development and the subsequent training program divided into a three-month classroom course and nine-month practicum. This concept did not prove feasible, in view of the schedule for opening the first Center, the recruitment of staff for the Center and the arrival of the ORT team.

During the first accelerated refresher/training course, 13 persons were prepared for the child health section and 30 for the maternal side. Despite the typical difficulties encountered at the commencement of such a course, it achieved for the most part the following objectives:

- a. Preparation of staff for a 40-bed maternity, antenatal, and under-fives clinic offering traditional curative and preventive medical services as well as health education, and carrying out child development studies.
- b. Appreciation of the need for family planning and the importance of raising this subject with mothers who attend the various services of the clinic;
- c. An understanding of the benefits of health education and the public health aims of the Center.

The curriculum included obstetrics and gynecology, child care, disease prevention, health promotion and nutrition. Family planning courses, for the moment however, will be given to separate FP teams being trained in the Desired Births program of the Mama Yemo Hospital.

Although time, both to prepare the curriculum and to train the first group of MCH personnel, was insufficient, short refresher courses may be more useful and possible in this program, as most of the potential staff will have either just recently graduated from nursing school or be currently employed at the Mama Yemo Hospital or some other institution. Short-term courses will probably be adequate for paramedical personnel as well as to provide orientation for work in an MCH setting.

Before specific conclusions can be reached as to the optimal structure of a training program for a Zairian MCH program, it will be necessary to place the program in the long-term context of health manpower education programs, availability of personnel for training, the level of skills and knowledge required by various personnel in MCH centers and for related public health projects, etc. At present and for the immediate future, a flexible approach to the training program is indicated in order to evolve a program which is realistic both in terms of resources and needs.

3. Establishment of Operational Guidelines

On the basis of the operational needs of the first month of activity, a few tentative predictions can be made as to requirements of the first Center. These will help to some extent in the preparation of a 1974 budget for the program, or at least give indications to the Mama Yemo Hospital regarding the extent to which its budget must be increased to absorb the costs of the Center. Further elaboration of this activity must await full-capacity operations as well as establishment of MCH centers which are designed for widespread replication, as the operational requirements of a training center may well be in excess of those needed for less sophisticated centers, and thus exhibit an unfavorable cost/beneficiary ratio. The model for this program should be as economical as possible if it is to have long-term viability. The Maternal and Child Health Council, which has been created and in which the ORT team participates, will concern itself with establishing and codifying operational guidelines.

4. Candidates for Overseas Training

Selection of candidates for overseas training is still premature. This applies both to the counterparts assigned to the ORT team members and to other personnel working at the Center. Considerably more experience must be gained in the operation of the centers and the related health programs to determine additional training requirements. Similarly, the competencies and inadequacies of indigenous training programs must be weighed before other foreign training is recommended.

5. Distribution Network for MCH/FP Materials and Information

Plans call for the opening of the FP clinic at the Center in early March, when it is hoped that two motivators will be available. They are part of a group now being trained in the Mama Yemo Hospital's Desired Birth program to augment personnel. They are being trained by two nurse-midwives from the Downstate Medical School family planning program.

As soon as the family planning clinic starts off in the Center, studies will be made to determine the role this clinic will play in a potential distribution system. Such studies will give insight into the optimal mix of person-to-person and mass media communication as well as the extent to which other institutional set-ups should be used. The planned baseline studies contain large sections on FP attitudes, knowledge and practices, and they should provide the essential framework for the development of effective information-motivational materials. They will also provide guidance as to the best method of integrating FP information with other areas of health information and education.

A local slide series on family planning and a film prepared by Telestar (the Zaire television network) will soon be available and will be used in the centers to test effective ways of reaching target and general populations with information on FP.

Large supplies of family planning materials provided by AID and others are available, and studies will be carried out as to the most effective means of using medical and nursing personnel in distributing them.

TARGETS FOR THE NEXT SIX-MONTH PERIOD

1. Specification of long-range goals. This involves continued selection of priority public health activities for the MCH centers with a view to optimizing the interplay between FP services and other preventive health activities. Surveillance and health care activities directed towards maintenance of health are the major objectives.

The Center's program is being developed along five parameters (see Annex IV, page 6, for details):

- a. As a direct service to the population of the area for general medical care, for preventive health care, and for family planning.
 - b. As a nucleus for community action programs, particularly community health education and family planning.
 - c. As a host for extra-community action programs, i.e., mass campaigns.
 - d. As an element of mass media health education efforts - radio, TV.
 - e. As an experimental research and development facility for testing, training and evaluating.
2. Opening of the "Naissances Desirables" clinic in the first MCH Center in accordance with the clinic established at the Mama Yemo Hospital. Staff training for the ND program is being carried out by two consultants from the Downstate Medical Program
 3. Re-evaluation of logistical resources of the Mama Yemo Hospital to absorb needs of the MCH centers, especially in regard to support services. Greater coordination must be effected between the MCH and other programs in the area of logistics or alternatively the feasibility of making the MCH centers less dependent on the mother institution for support must be explored.
 4. Institution of more comprehensive planning techniques in preparation for the opening, staffing (and training of staff) and operation of the second and third centers this year as well as those during the second year of this contract. It is hoped that ORT guidance will be useful and accepted in this realm.

5. Continuation of activities of the current phase, such as work on curriculum development; resolution of logistical problems between the Center and Mama Yemo Hospital; amelioration of specific operational elements in the MCH Center; initiation of greater community contact to bolster attendance and reach increasing numbers among the vulnerable population, especially under-fives; inauguration of special nutrition education, immunization and other public health programs.
6. Assuring implementation of the recommended baseline surveys, either through on-going programs in Zaire or by obtaining necessary funding for direct implementation through the ORT-FOMECO program.

CONCLUSIONS

The MCH/FP program in Kinshasa has been initiated and shows promise of making substantial progress in the coming months. The first MCH/FP Center has opened and despite initial difficulties, the first month's statistics (Annex IV) attest to a good beginning.

Some constraints have resulted from the fact that planning of the Center's programs, policies and logistics, as well as staff training, have had to be developed simultaneously with the Center's opening rather than prior to it.

The lack of a Team Leader has posed difficulties. The delay in his recruitment is the result of the unanticipated late withdrawal of the selected candidate (Dr. Berggren), as well as the careful selection process requested by FOMECO for this position, requiring an on-the-job assessment prior to engagement.

Fragmentation of responsibilities between the various participants of the program has also posed coordination problems such as, for example, the carrying out of the baseline survey.

In the ensuing months, emphasis will be placed on perfecting the Center, on strengthening its training capability and on broadening the network for MCH/FP activities. Emphasis will be placed on adapting the centers to current and projected availability of economic, material and human resources, so as to maximize the capability of the MCH/FP network for the promotion of health and "naissances desirables".

* * * * *

ANNEX I

REPORT OF MISSION TO ZAIRE - MAY 10 - 22, 1973

Dr. S. Kessler - ORT

PURPOSES:

1. To lay the groundwork for implementation of the ORT-MCH-Zaire Project.
2. To obtain first-hand knowledge of the health system in Zaire, of MCH activities in Kinshasa, and of the activities of FOMECO (Fonds Medicaux de la Coordination).
3. To discuss the integration of the Project into the FOMECO activities.
4. To review with FOMECO staff candidates identified by ORT for the Project staff; to jointly make a selection; to establish a timetable for their participation in the Project; and to define consultant needs.
5. To review with AID/Kinshasa the relationship between ORT-AID-FOMECO in the implementation of the Project.
6. To discuss the logistic support for the ORT team with FOMECO.

APPROACH:

Discussions were held with individuals of the FOMECO staff:

Dr. Close, Chairman FOMECO

Dr. F. Pauls, Chairman, Dept. Obstetrics and Gynecology, Mama Yemo Hospital

Dr. Drinkhouse, Chief, Division of Pediatrics, Mama Yemo Hospital

Miss Penner, Chief of Nursing Service, Mama Yemo Hospital

Dr. Bazoonga, Chief Hospital Administrator, Mama Yemo Hospital

Mlle Chapponiere, responsible for student nurse training, Mama Yemo Hospital

AID Staff:

Mr. Davis, Mission Director, USAID/Zaire

Mr. Kelly, Assistant Director

Mr. Graham, Program Officer

Mrs. C. Edelman, Assistant Program Officer

Ministry of Health, MCH staff:

Dr. Ilunga, Director of MCH

Dr. Kabamba, Director of MCH Center, Najili

Peace Corps staff:

Dr. Sampson, P.C. Physician

WHO staff:

Dr. Siebert, World Health Organization Representative

Dr. Fahri, Associate WR, Pharmacist

Dr. Chung Chung, Malariologist

Mlle Beltzung, Nursing Advisor

Telestar Television Studio staff:

Pere Boscotte, Chief

THE SITUATION

FOMECO (Fonds Medicaux de Coordination) is a special division of the Office of the Presidency, completely separate from the Ministry of Health, responsible for a number of activities in the health sector in Zaire (Mama Yemo Hospital, FOMECO Hospital Ship, currently considering taking over a number of provincial hospitals). FOMECO receives its funds directly from the Presidency.

Two years ago, FOMECO took over the management and operation of the largest general hospital in Kinshasa, now called the Mama Yemo Hospital. The Hospital has 1600 beds, 450 of which are maternity beds, and has a turnover of 4000 OPD visits per day, 150 deliveries per day, 13,000 pediatric admissions per year. It has a staff administered by FOMECO of 700 nurses, 500 supporting personnel and 70 physicians, the majority of whom are expatriates.

Since taking over the management of the hospital, FOMECO has instituted improvements. With substantial financial resources, FOMECO has been able to make necessary renovations and repairs, has attracted a better physician staff and somewhat better nursing personnel, etc.

The Governmental health system in Kinshasa is an extremely fragmented one with responsibilities divided between the Ministry of Health, the Ministry of Education (Medical and Nurses training) and FOMECO.

RELATIONSHIP BETWEEN FOMECO'S MATERNAL AND CHILD HEALTH/FAMILY PLANNING PROGRAM AND ORT TEAM

A radical change in Governmental policy vis-a-vis Family Planning in Zaire occurred during the last 6 months. In December 1972, President Mobutu made

a public proclamation in favor of "naissances desirables" (desirable births) and created a national council for the promotion of desirable births.

Such a program is to be integrated into the program for MCH protection and promotion. MCH activities hold a high priority in the decennial health plan for the country for 1970-1980. There is little question that FOMEKO has played a major role in helping to effect this policy. FOMEKO staff members are included in the Council which will determine the mode of implementation of FP activities.

FOMEKO staff favors the careful integration of FP services in MCH activities. They are aware that this requires developing an MCH infrastructure which at the present time, particularly for preventive aspects, is extremely limited. To this end, they have established plans for the establishment of four MCH satellite centers in and around Kinshasa, which will also serve as a focus for services for "desirable births". It is in the development of these MCH centers that the ORT team will play a major role. FOMEKO staff have a realistic awareness of the problems of promoting contraceptive services in Zaire and are duly judicious, fearful of inducing a backlash if contraceptive services are pressed without careful planning and supervision.

The Department of Obstetrics and Gynecology at the Mama Yemo Hospital has already held one in-service training program for some of its staff in aspects of "naissances desirables" and has begun a small clinic at the Maternity which to date has served some 300 women.

PROJECT FOR DEVELOPMENT OF MCH SATELLITE CENTERS

Plans have been established for the establishment of four MCH centers in and around Kinshasa to be operated and administered by FOMEKO as satellites of the Mama Yemo Hospital. These centers are to provide a full range of MCH services (ante-natal, post-natal care, normal deliveries, immunizations, health education, nutrition guidance, and 24 hour dispensary services for children). A program of information and services for "desirable births" is to be an integral part of these centers. The MCH centers are designed also to serve as training centers for personnel in MCH. The first center is under

construction several kilometers from the Mama Yemo Hospital in an area of 150,000 population. The centers will be equipped by FOMECO with AID assistance and staffed by personnel recruited and paid by FOMECO. All operating costs are to be borne by FOMECO. The first center is destined to be completed in the early fall of 1973.

ROLE OF ORT TEAM

The ORT team is to include an administration-management specialist, a PH physician, a pediatric nurse and an obstetrical nurse or midwife.

The major function of the ORT team will be to train, prepare, supervise the staff for the first and subsequent MCH centers. The team will take a major role in curriculum development to this end.

The actual training program will be implemented by the ORT team together with staff of the Mama Yemo Hospital. ORT staff will be expected to take primary responsibility for the public health and nutrition training. As the FP is under the direction of the National Council for Desirable Births, its instruction will be determined by the National Program. It is likely that the team will be extensively involved in this training.

A tentative staffing pattern for the first clinic has been planned. A staff of 7 midwives and 36 auxiliary midwives, 12 pediatric nurses, 2 pharmacists, 3 lab technicians, 2 supervisors and 53 supporting personnel (for upkeep, etc.) is foreseen. Training is to be oriented to all these personnel categories.

The ORT Administrator is also expected to work with the local television and radio network and assist in the planning and preparation of mass communication programs relating to MCH and "desirable births". He will also participate in establishing the necessary logistics for distribution of the contraceptives and supplies for carrying out the FP program.

As stipulated in the contract, ORT will provide temporary experts in a number of fields. The initial need is for two consultants, one in the area of statistics and one in the area of communications. The statistics consultant is to be recruited as soon as possible to review the data collection process used at the Hospital and to set up an appropriate data collection and record system for the MCH/FP activities.

The ORT team is to be closely integrated into the FOMEKO program and operate under its administrative direction. Both Dr. Close and Dr. Pauls wanted to make this quite clear. They want to avoid separate activities which would not follow FOMEKO's direction and guidance. During our discussions, I pointed out that ORT is prepared to fit into the on-going system and the ORT team would obviously work under FOMEKO's guidance. Nevertheless, in light of the fact that we have certain contractual obligations to AID as well as its own staff regulations, the team would be expected to submit periodic reports both to ORT and to AID. Dr. Close was particularly interested in clarifying the relationship of the ORT backstopping staff to FOMEKO. In order to assure the closest possible integration of the ORT team into the FOMEKO operation, it was suggested that the ORT staff members initially spend one to two months in the relevant services of the Mama Yemo Hospital. The administrators would be come thoroughly familiar with the Hospital's administrative practices, the nurses with the nursing structure and the physician with the general program.

FOMEKO will provide all the logistic support both for the team personnel (housing, transportation, etc.) and for the implementation of the training activities.

Discussions with USAID/Kinshasa

USAID/Kinshasa is very interested in this project and promises to be as supportive as possible. AID recognizes FOMEKO's position of influence and organizational ability and views these as a potentially effective way of promoting family planning activities in Kinshasa. USAID is providing separate support for participant training for Zairois in all aspects of demography, family planning, administration related to MCH and FP, Etc.

REVIEW OF POTENTIAL CANDIDATES WITH FOMECO STAFF

Dr. Close, Dr. Pauls and I reviewed the files of a number of candidates which ORT has identified for potential participation in the team

For Team Administrator

It was agreed that Mr. Helfenbein was a suitable candidate and should be recruited for the position. It was agreed that an attempt should be made to have Mr. Helfenbein in Kinshasa before Dr. Pauls' departure for vacation in mid-July.

For Chief of Party

FOMECO staff were favorably impressed with the candidacy of Dr. Warren Berggren who is currently in Boston. Dr. Berggren has had long experience in Zaire and during the past five years has been involved in setting up maternal and child health and family planning services in Haiti. I called Dr. Berggren from Kinshasa and he agreed to arrange to come to Zaire initially on a consultancy in mid- or late June. Dr. Berggren has been working as a team together with his wife, who is also a physician, and with a nurse, Miss de Bruijne. Miss de Bruijne is also available for assignment in Zaire and we are considering recruiting the entire group.

We also agreed to attempt to recruit Miss Emily Lewis, a public health nurse who has had considerable experience in family planning training and who is currently in California, for the second nursing post.

The second choice for the post of Chief of Party is Dr. Jean le Bail. If Dr. Berggren's recruitment is not possible, we will attempt to recruit Dr. le Bail.

Dr. Pauls had interviewed Dr. Leavitt, who is also one of the candidates we had presented. Although he did not exclude his recruitment, he felt that he was a bit too young and inexperienced for the position.

VISIT TO THE NAJILI HEALTH CENTER

The Najili Health Center is the sole comprehensive health center in Kinshasa. In theory, it includes maternal and child health activities. It is located in a suburb of Kinshasa and serves a population of 150,000. It has 50 beds for normal deliveries and performs 20 to 30 deliveries per day. Its dispensary serves about 150 patients per day. The Center was taken over by WHO about 10 years ago and at one time had a large WHO staff. It was designed to be a model training center for integrated public health care, including maternal and child health activities. At the peak of WHO activities, the Center was apparently well-equipped and functioning fairly effectively, but as WHO gradually withdrew its personnel, the Center service deteriorated and at present functions extremely poorly. At the present time, only a single WHO staff member is responsible for training of "stagiaires" who rotate in the Center from various nursing schools.

The physical facilities of the Health Center are basically good but extremely run down and poorly utilized. Pre-natal, post-natal and well baby clinics are held, but their organization is extremely chaotic. According to Dr. Kabamba, a young Zairois physician who has received some public health training at the International Children's Center in France, the Health Center is in a state of anarchy. The staff is very badly trained and poorly motivated. Personnel policies lack structure, i.e., one nurse may be paid three times what a far more qualified one is paid depending on the personal arrangements she is able to make with the Chief of the Center. The ambulance is used for private errands rather than for patient transfers and fees are frequently extracted from patients for delivery at the Center, such fees going into the pocket of the Chief of the Center. Dr. Kabamba, who had been assigned to the Center, gave the impression of being a well-trained and dynamic physician but extremely discouraged and frustrated, he noted that his attempts at reorganization of the Center were totally blocked by the senior physician, who is incompetent.

VISIT TO TELESTAR

Telestar is the national television network which has received a contract from USAID to prepare radio and TV broadcasts for family planning in conjunction with the MCH family planning program of FOMECO.

The TV studio is an extremely modern and sophisticated one and a large range of facilities for TV production is available. The studio has already produced a series of health education programs. They have recently started a weekly series entitled "Intimately Yours" where a Zairois gynecologist discusses various marital problems, including some aspects of family planning. Telestar looks to the ORT project for assistance in providing documentation on various aspects of family planning. They are then prepared to translate the technical material for mass media distribution appropriate to Zaire.

SCHEDULE

- Friday, May 11 - a.m. Meeting with USAID, Mr. Kelly and Mr. Graham. General discussions of program and AID's objectives.
- p.m. Meeting with Dr. Pauls and Dr. Close of FOMECO. Clarification of relationship between ORT team, FOMECO and USAID.
- Saturday, May 12 - a.m. Tour of Mama Yemo Hospital Obstetric Service. Review of program with Dr. Pauls.
- Monday, May 14 - a.m. Meeting with Dr. Pauls. Review of candidates for ORT project. Tour of Pediatric Service of Mama Yemo Hospital. Discussions with Dr. Drinkhouse, chief of Pediatrics.
- Tuesday, May 15 - a.m. Visit to ORT road maintenance training project and training Center.
- p.m. Visit of Peace Corps/Kinshasa. Discussions with Dr. Sampson, Peace Corps Physician.
- Wednesday, May 16 - a.m. Meeting at USAID. Discussions with Mr. Davis, Mission Director.
- p.m. Discussions with Dr. Close and Dr. Pauls of FOMECO and Mr. Kelly, USAID.
- Thursday, May 17 - a.m. Discussions with Miss Penner, Chief of Nursing, Mama Yemo Hospital.
- p.m. Tour of Telestar, national television station. Discussions with the Chief, Pere Boscotte.
- Friday, May 18 - a.m. Discussions with WHO staff.
- p.m. Meeting with Dr. Pauls.
- Monday, May 21 - a.m. Meeting with Dr. Ilunga, Head of MCH, Ministry of Health.
- p.m. Visit to Najili Health Center (WHO assisted).

ANNEX II

Report of a visit to Kinshasa, June 29 - July 10, 1973

by Warren L. Berggren, M.D.

Purpose of Visit :

To appraise the situation of the ORT-FOMEKO/MCH Project and to make recommendations concerning staffing, further consultations, and curriculum development and to aid in establishing the time table for teaching and occupancy of the first MCH Center.

The Mama Yemo Hospital (M.Y.H.)

The enormous number of patients cared for by this hospital and its relatively small staff has been described in other reports. The FOMEKO staff which operates the hospital is making admirable efforts to meet an apparently limitless demand for medical care. I was particularly concerned with those departments of the hospital which participate in the Maternal and Child Health Council which is the responsible body under whose authority the ORT training team and the program of satellite Maternal and Child Health (MCH) Centers will operate.

The Department of Obstetrics and Gynecology (Ob-Gyn)

This is the most utilized service of the M.Y.H.. The number of deliveries has doubled in six years with no corresponding increase in space allotment to the service. Such growth in demand for maternity services cannot be contained, however, and Dr. Pauls, Chief of Ob-Gyn envisages that some of the load shall be taken by the satellite MCH Centers when they begin to function. He has carried out a course of instruction in contraceptive services for his staff and other Doctors and Nurses. A regular clinic providing contraceptive services is held in the Ob-Gyn department. The services are intended to enable the people of Kinshasa to apply the principle of desired births promulgated by the President of Zaïre. Careful records of the clinic's activities are kept and will be of great value to the National Council for the Promotion of the Principle of Desired Births when it begins to establish the national norms regulating such services.

The Department of Pediatrics (Ped)

Dr. Drinkaus, the Director, explained that he will soon have a more adequate number of pediatricians on his staff and this will permit the improvements in the quality of Pediatric care which he envisions. Most of the children treated by the service have preventable diseases so Dr. Drinkaus made several suggestions for preventive services to be offered by the satellite MCH Centers. (Appendix A). He and his staff will soon be ready to assume

a key role in planning the services for children in the MCH Centers. They will be able to contribute to the technical content of the teaching for the personnel of the Centers.

The Nursing Service

This department serves the entire hospital. The Director, Miss Penner, makes the key recommendations for the employment of nursing and auxiliary personnel. She will be responsible to recruit the personnel to staff the satellite MCH Centers. A member of her department has prepared a tentative outline for a course of study to be given to the Center personnel. (Appendix B).

The Statistics Department

The reports of admissions, consultations, diagnoses, deaths and dismissals are gathered by this department from each service. It is important that the record system used by the satellite MCH Centers provides the usual statistics to this department.

The department may soon institute some changes and consulting services are being sought from USAID and Eurosixtem.

The satellite MCH Center of BARUMBU

Barumbu is an area of Kinshasa near the M.Y.H. containing an estimated population of 60,000 (Appendix C). The Center is 4 minutes by car from the M.Y.H. and is the first of the four MCH Centers projected for the first two years of the program. It will have 40 maternity beds and facilities adequate to perform 12 normal obstetrical deliveries per day.

The Center will also provide contraceptive services (Desired Births clinic) and prenatal, post-natal, under fives consultations and emergency medical treatment. There is space for a classroom and for a pharmacy and office space for a physician and for the nursing and administrative staff. The Center will be completed before October and equipped to open in October, 1973.

The staffing of the Center is still under discussion. Nurses and auxiliary nurses are in scarce supply and have not yet been recruited. Appendix D shows a proposed staffing pattern.

I recommend that a nutritional rehabilitation (mother-craft) Center be added to the plans. This very practical method of teaching nutrition is described in "A practical guide to combatting malnutrition in the preschool child". The builder will add the simple structures required for the nutritional rehabilitation activities.

The schedule for opening the Center is still under discussion. It is important that the Center opens as soon as possible after it is completed. Appendix F is a graphic representation of a proposed schedule for training the personnel and opening the Center.

RECOMMENDATIONS

Recruitment :

The recruitment of the personnel for the first Center should proceed as quickly as possible. At the same time a realistic inventory of the country's nursing schools and an assessment of their out-put of graduate and auxiliary nurses should be made. This assessment will help to guide further planning of the staffing pattern for the Center.

Services to be offered by the Barumbu Center :

Mothers : the model for these services should be those services presently offered by the Ob-Gyn department. The nutritional counseling for mothers should be strengthened.

Children : these services should follow the "Under fives Clinic" pattern used very successfully in several parts of Africa. (Appendix G). The pattern should be adapted to the local situation. It would be possible to compare the costs and benefits of this pattern with the one used in Haiti which may have several advantages because of its emphasis on regular health supervision of all preschool children and because of the lesser level of training required for its personnel.

Nutrition services should follow the pattern of nutritional rehabilitation Centers recommended by Bengoa and used with good effect in many nations. Their organization and operation is described in the book "A practical guide to combatting malnutrition in the preschool child". Further help on these Centers is available from experience in Haiti. The content of the nutritional information to be taught can be taken in part from the "Manuel d'éducation nutritionnelle des mères" which was developed for Zaïre by E. Wachter of the W.H.O.

Oral rehydration of children suffering from diarrhea should be taught to mothers in the Under fives Clinic and in the Nutrition Center.

It should go without saying that efforts must be made to reach the entire population of Barumbu with the relevant vaccines. A house-by-house registration with an appointment system for immunization at the Barumbu Center may be preferable to a mass program. Perhaps it can be carried out by enlisting the aid of neighborhood volunteers and thereby assure complete coverage of the population at a low cost.

Curriculum design :

This process depends upon the careful analysis of the level of the persons to be taught, the functions and conditions of the position for which they are being trained and the teaching situation. It would be helpful if the FOMECO staff could prepare in writing the descriptions needed of the trainees and their tasks. Those prepared by Miss Penner for hospital personnel would be an excellent beginning on this task and should be transmitted to ORT as soon as they are available.

The content of the curriculum must emphasize the practical knowledge required to operate the Barumbu Center. The classroom teaching should be given concurrently with on-the-job training in the M.Y.H. On-the-job training in the Barumbu Center will depend on the operating procedures FOMECO intends to follow there. It would be helpful if FOMECO could supply ORT with a written description of the operation of the Center as it is envisaged by FOMECO. The ORT team should help with the preparation of procedure manuals after they have had their orientation period in Kinshasa and while they are engaged in preparing teaching materials. At least three levels of training will need to be elaborated as infirmiers diplômés, infirmiers auxiliaires, and auxiliary personnel with no previous medical training will all have roles to fill in Center. Time should not be spent in repeating classroom work that the nurses already covered in their training. Deficiencies in that training discovered through the trainees performance on-the-job should be remedied with the relevant teaching. For example, a review of obstetrical or pediatric care relating to the out patient clinic may likely be indicated and instruction in the health education appropriate to each clinical situation will almost certainly be necessary. Training in family planning will be necessary and should emphasize the health advantages of conception control. All training should teach the trainee to give attention to providing service which considers the dignity and individuality of the persons served.

Evaluation :

Evaluation of the training and the trainees performance must be planned in the development of the curriculum so that the training program may be adjusted appropriately. Evaluation of the effectiveness of the Barumbu Center program and of its impact upon the community is a high priority as replication of the program in other areas of the city and

nation are already contemplated.

The Center's records must permit weekly analysis of the services performed. A random sample of the population of Barumbu should be drawn and regular home visiting begun as soon as possible to permit the regular recording of pregnancies, births, deaths, and migrations among the people in the sample. Selected criteria of morbidity such as the frequency of edema among children should also be recorded. The sample should contain at least 10,000 people from at least 20 geographically separated clusters. Consultation from a Demographer-sociologist would be helpful in constructing this important study of the impact of the Barumbu Center upon the community.

The methods used in Nigeria by the NCDC at Atlanta Georgia and those used by the Harvard demography project in Haiti might serve as guides since the Barumbu project will likewise need to monitor changes in age specific rates of pregnancies, births, deaths, morbidity, and migrations.

The evaluation of the services given at the Center and the evaluation of the training given to the Center's personnel should be planned along the lines usually used by FOMECO and ORT for these purposes. If necessary, special consultants should be recruited to assist with evaluation.

Composition of the ORT team :

FOMECO already has a number of nurses who will be able to transmit the practical skills of midwifery, detection of high-risk pregnancies and managing a labor room, delivery room, and maternity ward. The ORT nurses should be prepared to contribute skills in organizing courses of training and in teaching the community health approach to delivering the Center's services for mothers and children.

Orientation of the ORT team :

Imported techniques are not usually successful until they are adapted to local circumstances. The ORT team needs to orient itself to the Kinshasa situation and the FOMECO way of working. I recommend that a member of FOMECO staff be given the responsibility of arranging for members of the ORT team to observe, and where applicable, participate in the work of the four departments having membership in the MCH council. The ORT team will need contacts with community leaders in Kinshasa and FOMECO should provide any necessary introductions.

The ORT Project Director should be introduced to the leaders of the Barumbu community and should recommend the time table for carrying out the registration.

References that should be consulted in planning the services of the Center and the training of the personnel :

1. Medical Care in Developing Countries, by Maurice King
2. Health Care in the Developing World, by John Bryant
3. A practical guide to combatting malnutrition in the preschool child.
Report of the Bogota Conference on Nutritional Rehabilitation Centers published by the Research Corporation of New York.
4. Projet de Manuel d'éducation nutritionnelle des mères
WHO Publication in Zaïre by E. Wachter
5. A Manual for the Community Nurse, by Elizabeth Leedorn
6. A Manual for the Auxiliary Midwife, by Helen Cox
7. Diagnosis and treatment for the Medical Assistant, by George Wyatt
8. A Manual for the Laboratory Auxiliary, by Borgoff

(5,6,7, and 8 are published by McGraw-Hill, Dr. Fendell suggested that the most expeditive way of getting them would be to write to Walter Wolf at McGraw-Hill in New York).

Geneva, July 17th, 1973

Suggestions for Satellite Center Activities in Pediatrics - Dr. Drinkaus

Education

Nutrition in clinics for :

1. children with malnutrition
2. mothers with wellnourished children to prevent malnutrition

Home sanitation

Indigenous medicine

Immunizations

- D.P.T.
- Smallpox
- Polio
- Measles
- B.C.G.
- Tetanous to pregnant women

Clinics

- Well baby
- Follow-up clinics for treated children

Statistics

- Prematures - SGA ABA LGA
- Neonatal tetanus
- Preventable infections
- Malnutrition

OTHERS

- Fe to all children for 1-7 months
- Vitamins

CENTRES MERE ET ENFANTS

Cours d'études proposé

I. SOINS GENERAUX

1. Aseptie
2. Injections
3. Perfusions et transfusions
4. Prélèvements d'urine et de sang
5. Sondage
6. Principes d'hygiène
7. Signes vitaux
8. Balance de liquides
9. Médicaments : dosage
10. Stérilisation
11. Réanimation
12. Triage
13. Désinfectation

II. OBSTETRIQUE : Révision

1. Prénatale
2. Le travail
3. L'accouchement
4. Le post-partum immédiat (5 à 7 jours) : normal
anormal
5. Soins pour cas urgents
Comme (1) Hémorragie
Pré-éclampsie
Eclampsie
Retention placentaire
Travail prolongé
Rupture
2ème jumeaux
Siège
Candidates pour ventouse
Anémie

Comme (2) Quand est-ce qu'il faut appeler le médecin, qu'est-ce qu'il faut faire - "standing orders".
6. Visite post-partum à 6 semaines
- examen physique
- planning familial
7. Santé publique
1) Nutrition
2) Prévention de maladie

- a. immunisation
 - b. éducation (vers, malaria, gonorrhé)
8. Planning Familial
- (1) Quand est-ce qu'il faut en parler à la femme (pré, post, 4 semaines, etc)
 - (2) Différentes méthodes
9. Administration
- (1) Comment est-ce que la clinique est dirigée
 - (2) Statistiques

III. PEDIATRIE

1. Nouveau-né (en collaboration avec la maternité)
 - a) Observations à faire
 - b) Soins
 - c) Vaccinations
 - d) Nutrition
2. De 0 à 5 ans
 - a) Nutrition
 - b) Vaccinations
 - c) Maladies de l'enfance
 - malnutrition
 - diarrhées
 - anémies
 - maladies infectieuses comme :
rougeole, variole, tuberculose, tetanos, etc
 - Causes et effets
 - et
 - traitement
 - d) Consultation pédiatrique
 - anamnèse
 - contrôle poids et taille
 - contrôle pour les vers
 - Hgb
 - vaccination
 - e) Education de la mère
 - Nutrition d'enfants de différents âges
 - Eviter la maladie
 - (1) Propreté
 - (2) Prophylaxie contre malaria
 - (3) Vaccinations

REPARTITION POPULATION DE LA VILLE DE KINSHASA

<u>Désignation Communes</u>	<u>Population</u>
1. NGALIEMA	64.844
2. GOMBE	22.615
3. SAINT-JEAN	46.209
4. KINSHASA	73.826
5. BARUMBU	59.553
6. KINTAMBO	38.748
7. BANDALUNGWA	60.248
8. DENDALE	67.525
9. KALAMU	100.441
10. LIMETE	41.340
11. NGIRI-NGIRI	64.272
12. BUMBU	61.366
13. SELEMBAO	46.908
14. MAKALA	49.346
15. NGABA	36.702
16. LEMBA	61.607
17. MATETE	63.369
18. MONT NGAFULA	29.811
19. MASINA	36.158
20. N'DJILI	102.881
21. KIMBANSEKE	83.006
22. N'SELE	24.678

APPENDIX C (continued...)

23. MALUKU

14.678

24. KISENSO

39.578

CATEGORY	NUMBER	Adminis- trator	Prenatal, post- tal and ND clinic	Labor Delivery and Ward	Lab	Pharmacy	Emergen- cy Clinic	Under- fives' Clinics	Nutrition Center	Home Visit
Physician	1	1								
Administrator	1	1								
Graduate nurse	10	1	2	4			1	1		
Auxiliary nurse	28		6	16			4	2		
Laboratory technician	2				2					
Pharmacist	1					1				
Clerk *	30	1	4	2	2	4	4	6	1	6
Maintenance	26	1	4	16	1	1	1	1	1	
Nutritionist *	4		1					1	1	1

Suggested staffing for BARUMBU Center

* See next page definition

APPENDIX D (Continued...)

Clerk : young man or woman with at least two years of secondary school and possessing qualities of neatness, ability to establish rapport with mothers and ability to keep records.

The clerk will receive classroom teaching in general hygiene but the greatest emphasis will be placed on learning how to make out personal and central record forms how to interview patients, and how to weigh and measure children.

The clerk duties will depend on the service for which he works. Those working for the prenatal, postnatal and desired births' clinics will spend most of their time registering and making out personal health and immunization records for women attending those clinics, those working in the under-fives' clinics or the home visiting service will in addition to the above, take a census and weigh and measure children.

The clerk working in administration will have skill in typing and filing and will be the librarian for the death and birth registered and the census records and all other records collected, stored, or transmitted by the Center.

Maintenance personnel are synonymous with the designation "fille de salle" and "garçon de salle".

Nutritionist: Young woman with at least three years of secondary school or four years of Ecole Ménagère and ability to teach. This woman will be given three months of classroom and practical exercises in nutrition, normal pregnancy, and child growth and development. She will likewise learn to weigh and measure children, plan least-cost menus and keep records. Her duties will be to operate a nutritional rehabilitation Center and teach nutrition to the mothers of malnourished children.

ANNEX III

REPORT BY PUBLIC HEALTH NURSE EDUCATOR

November, December, 1973.

CONTENTS

- I. Background and Objectives
- II. Timeframe
- III. Accomplishments
 - 1. Counterparts
 - 2. Staff
 - 3. The Curriculum
- IV. Problems
- V. Plans and Suggestions

ANNEXES :

- a) Curriculum of the Orientation Course (in French)
- b) Cours pour Garçons et Filles de Salle
- c) Consultations des Sous-Cinq Ans
- d) Allaitement Maternal
- e) Rappel à l'Alimentation
- f) La Malnutrition des Enfants
- g) La Diarrhée et la Fièvre
- h) Les Immunisations
- i) La Pesée

TA/MCH Zaire

Report by Public Health Nurse Educator

I. Background and Objectives

In spite of the fact that Zaire is underpopulated (8/Km²) and that its resources are vast, it was coming to be recognized in the 1960's that the increasing birth rate combined with a greater survival rate threatened to result in a much larger number of children than the health, education and food production and distribution services could cope with.¹ Accordingly, in 1973, President Mobutu commended to his people the philosophy of Naissance Désirable and promised the facilities to put this into practice. A considerable amount of re-orientation was necessary : as services became available, people would have to be informed and then motivated toward acceptance.

One approach was to follow the accepted health educational precept of presenting a new idea in the framework of a service designed to satisfy an already felt need. This was one of the reasons for extending and decentralizing the maternal and child health services of the Mama Yemo Hospital. Along with traditional services, the principles of Naissance Désirable would be presented at every opportunity, especially to expectant mothers at the antenatal clinics, to newly delivered mothers, and to mothers presenting children at the Under-Fives clinics. Specially trained motivators would hold group sessions and services would be available in the six new centers planned for the MCH project.

II. Timeframe

The writer arrived at Mama Yemo on 1.11.1973. After introduction to administrative and certain medical personnel by the ORT administrator, discussions were held with and explanations and guidance given by Dr. F. Pauls, Chief of Obygn and Chairman of the MCH council, coordinating body for the six prospective satellite MCH centers. It was arranged that several days should be spent in the pediatric and maternity departments for orientation, particularly as the services of the new centers were to be based on those at the main hospital, where appropriate. The writer was also asked to attend a course on administration given by the Director of the Nursing Service for senior staff. As it turned out, orientation had to be curtailed and attendance at the course was postponed until January.

At a meeting on 6 November attended by medical and administrative staff responsible for preparing for delivery of health services and operational needs, Dr. Pauls asked each in turn if he/she could be ready to open the first center (located in the zone of Kinshasa approximately 3 km. from the

¹Eight to ten children per couple had been considered desirable ; family allocations were to encourage large families ; and, even "femmes libres" wanted children. A women who did not become pregnant within three years after her last child could find herself divorced or her husband taking another wife. The average offspring per woman increased by 2.11 between 1955 and 1967. (Houyoux, Université du Zaire, 1973).

hospital) on 1 December. All replied in the affirmative except for the ORT administrator who said that it depended on the timely delivery of furniture and medical equipment and supplies. In view of the apparent haste, the writer decided to abandon most of her orientation plans and agreed that with a week's preparation she and her two assistants could commence a two and a half week preparatory course on 14 November.

The Director of Nursing agreed that staff could be released part-time from that date and full-time from 1 December. In fact, the course was postponed to the 15th, then to the 16th, and finally opened on 19 November with about half the expected participants present, others joining later. For various reasons it was not possible to open the center until 29 December, but the personnel were sent there permanently from 3 December, and assisted in preparation, marking of linen, cleaning, etc.

III. Accomplishments

1. Counterparts

Two "coordinatrices"² were assigned to assist with the training program and later to take charge of the maternity and pediatric sections at the center. The coordinator of the maternity will be referred to in the next section. The second is a pleasant, well-educated, certified Zairoise nurse/midwife, herself the mother of a two-year old boy. Unfortunately, she was often not available for discussions during the preparatory period and was absent for family reasons during the greater part of the orientation course. However, she readily accepted the new concept of the Under-Fives clinic and the need to discover the child development norms for the Kinshasa area, required by the consultant paediatricians. She is also prepared to abandon the laissez-faire attitude (prevalent among many African nurses and doctors educated in the western tradition) towards the use of feeding bottles, imported cereals who high price militates against provision of adequate family diets, etc.

A draft post description has been drawn up for a Coordinator in a Maternal and Child Health Center in collaboration with two coordinatrices. This is based on a post description prepared by the Director of Nursing and her staff. It went into operation, with modifications, recently at Mama Yemo. The WHO Nursing Advisor/Kinshasa kindly made available post descriptions for staff in health centers, based on some drawn up by a committee which included the writer and which were accepted some years ago by

²Coordinateur, -trice, is roughly equivalent to a head nurse in a US hospital, having responsibility for several wards or a department. In Mama Yemo, an expatriate coordinatrice works with a Zairois of the same title, the latter being male or female, and in some cases both have only basic nursing qualifications.

the then Minister of Health. The present draft awaits discussion with the Director of Nursing and, if accepted, will then be discussed with the ORT administrator and his counterpart.

2. Staff

The delay of one month in opening the center, a period full of rumors during which it was never known for certain when the center would open, was very bad for morale and for discipline, particularly on the Child Health side which required less practical preparation of material. Nevertheless, it did give the opportunity to orient the Chief Nurse of the section and another qualified nurse, who only joined the staff after the conclusion of the course.

The latter is in charge of the immunization department. She was taken to the WHO assisted vaccination campaign headquarters for special instruction. The former's organizing, supervising and practical abilities suggest that she is a potential candidate for promotion if the writer's suggestions for making one coordinatrice responsible for several centers is adopted.

One qualified male nurse of apparently high calibre showed ability for health education. In view of staff shortage at Mama Yemo and a limited amount of work in the early days at the center he has not yet been assigned to the center full-time, but will be in the immediate future. He may well prove worthy for recommendation as a counterpart at a later date.

The present staffing pattern is annexed. Unless there is actual unemployment of qualified nurses in the country (not yet known to the writer) it does not seem necessary or justifiable to have so many infirmier (e) s diplômé (e) s for the other centers and a recommendation to this effect was made to the coordinatrices who passed it to the Director of Nursing. It is noticeable that several "garçons and filles de salle" who have no professional training but who attended the special orientation course are among the most conscientious, effective and cheerful staff members.

It is difficult to forecast future requirements when it is not known what services may be required or provided outside of the premises and how much of the health and development inquiry at the center will need to continue.

Current Nursing staff at the MCH Center

<u>Title</u>	<u>Child Health</u>	<u>Maternity</u>
Coordinatrice	1	1
Infirmier (e) Chef	1	1
Infirmier (e) Diplômé(e)	3	3
Infirmier (e) Auxiliaire	3	17
Puéricultrice	1	
Garçons/Filles de Salle	4	8

Garçons and filles de salle assigned to the Domestic Supervisor or acting as clerks or guards are not included in the above. It is also understood that the Laboratory Technician and Pharmacist may also have this category of assistant ; however, they are not included either.

In the view of the writer, the Coordinator and Chief Nurse of the Child Health Section may be male or female, but it is highly desirable, if not essential, that female staff, preferably mothers themselves, and well trained auxiliaries, undertake the interview. (See Curriculum : D3.3 Consultation des Sous-Cinq Ans).

3. The Curriculum

It was endeavored to draw up a course to be given within two and a half weeks with the following aims :

- i. To prepare personnel to staff a 40 bedded maternity unit expected to handle 10 deliveries per day, a daily antenatal clinic and two specialist clinics weekly for patients whom midwives assess as "high risk".
 - A doctor visiting daily would deal with any problems. Abnormal cases would be sent to Mama Yemo for delivery. Expectant mothers would be immunized against poliomyelitis and babies against smallpox and tuberculosis (the latter in the Child Health Section).
- ii. To prepare other personnel to work in an Under-Fives clinic which in addition to the usual services offered in such clinics would include clinic-based records of weight, height, head circumference, psychomotor development and records of monthly examinations of lungs, heart and abdomen.

- iii. To educate staff to appreciate the need for family planning and the importance of raising this subject with mothers during the antenatal, postnatal visits and at other, as yet unspecified, times during visits to the Under-Fives clinics in the hope of motivating them towards acceptance. (Specially trained motivators and practitioners would be assigned to the center to hold bi-weekly clinics).
- iv. To convince all staff of the benefit of effective health education, especially when this is integrated into curative services.
- v. To endeavor to inform all staff, from senior to the most junior among all the disciplines represented, about the aims and services of the center and especially about the advice given. Maintenance personnel, guards, etc., to attend both for their own information and for their role in public relations.
- vi. To enable selected members to undertake group education.

A brief course was drawn up as follows :

UNIT A - Maternity

UNIT B - Child Health, Under-Fives clinics,
Introduction to Health Education

UNIT C - General

This was based as far as possible on a course drawn up by a member of the hospital nursing staff (See Appendix B of Berggren report) and Training Requirements suggested by Dr. Drinkhaus with certain modifications and changes in structure. The section "Soins Généraux" (section C of the Curriculum Outline) was integrated into the other two.

It was also planned to extend the orientation after the opening of the center (then expected to be on 1 December) during slack periods, mainly by discussions and role playing.

The orientation course was to be evaluated by a short test and by assessment of practical skills later.

It was planned that all participants attend certain sessions, e. g. Health Education.

Curriculum Outline (in French) is appended to the report at the conclusion of Section V.

IV. Problems

Most of the problems were of the type frequently encountered at the commencement of this type of program and should be capable of solution before preparation for the next center -- when doubtlessly they will be succeeded by others. Herewith some examples :

1. Lack of replacement for the Child Health counterpart kept her from participating during the crucial days of curriculum planning while her later, unavoidable absences made it necessary to devote much time to orienting her and the newly appointed Chief Nurse of the Child Health Section during the early days at the center when all three (of us) should have been occupied with personnel.
2. Since the classroom is adjacent to the Morgue and many die in the hospital, voices of both teachers and students were continually being drowned out by the wailing mourners and noisy hearses.
3. Students disliked airconditioners for the same reason.
4. Having been asked whether full or part-time clerical help was preferable, we were in fact not able to have either. The students who are accustomed to have stencilled notes at the time of the lecture found it difficult to understand why this was not possible. Later, several doctors permitted their secretaries to help. This was of great assistance, and their help still continues.
5. Each time the writer was about to take a copy of the course timetable to the Director of Nursing as a matter of courtesy, it had to be changed. It was only towards the end of the second week of the course that the writer learned that hospital services had been severely inconvenienced by the failure of certain students to return to their hospital duties when not required for class. We apologized for this breakdown in communications which we did not, however, consider to be mainly our fault.
6. In reply to a specific question about garçons and filles de salle, the writer was told in November that these were specially selected for training for various duties under nursing and that other personnel would be assigned to the center for maintenance, etc. An expatriate domestic supervisor who arrived unheralded at the center on 3 December naturally laid claim to the would-be trainees in this group. After a few days, though, a compromise was reached and their classes were only interrupted when they were required to help with the installation of furniture and equipment.
7. Doubt or ignorance on the part of the writer concerning certain services or logistics -- for example, at "rehearsal" she explained that immunizations would be given in one room but found as the center was opening that this was allocated to the pharmacist who now has two rooms with tap water; the

immunizations being carried out in one of the few without this facility.

Hopefully, nursing will be represented when such decisions are made and this situation will likely be amended in the future. As the senior paediatrician was away when the center was scheduled to be opened, there was also confusion among other doctors regarding policy towards children over five years. Decisions were given at a later date that children over five would not be immunized nor treated in the center dispensary.

The administrators had hoped to be stationed at the center from 1 December and the writer had arranged with Dr. Pauls to withdraw for several days to prepare for in-service training, etc. However, the former had many more pressing problems with supplies and transport, other key people were often absent, it was never possible to occupy all groups of staff and the writer never learned to escape !

V. Plans and Suggestions

In the immediate future, the Public Health Nurse Educator will continue her orientation. She is arranging to see directors of schools of nursing, both to make courtesy calls and to learn about public health content of courses.

In collaboration with the Director of Nursing, she will also spend more time observing nursing situations in several departments at Mama Yemo, including the General Dispensary.

However, she will continue to spend the most part of each day at the center in order to a) observe the functioning of the Child Health Section and overall Health Education ; b) assist with preparation of post descriptions for staff below the rank of coordinatrice ; and, c) finalize some job descriptions.

Early in February it is hoped to start drawing up an improved training program for personnel staffing the second MCH center of this project. This will be done in collaboration with the coordinatrices and it is also hoped there will be opportunity to discuss the program with the Director of Nursing. There will also be provision for evaluation.

Since the staff will be recruited specifically for the center, it is expected that it will be possible to know precisely when they are available to participate in the training program and to make recommendations concerning practical and effective internship.

Recommendations may be made to transfer certain staff members from the first to the second center, but it is too early to consider this matter at present, after two weeks of very limited activity. It has, however, been suggested that one coordinatrice (or one pair of coordinatrices) could supervise several centers.

Report of Public Health Nurse EducatorCURRICULUM OF ORIENTATION COURSEA. Section de la Maternité1. Consultation Prénatale

- 1i Buts : a) Essayer d'assurer que chaque femme enceinte aie un enfant sain et à terme, par un accouchement normal et sans aucune mauvaise suite à cause de la grossesse ou de l'accouchement.
- b) D'aborder le sujet de naissances désirables et de motiver vers une decision.

1ii Déroulement de la consultation.

1iii Petits ennuis et petites complications de la grossesse.

1iv Signes d'une grossesse anormale.

1v Les cas à risques élevés

1vi Conseils aux mamans - éducation sanitaire y compris nutritionnelle.

2. Le Travail3. L'Accouchement4. L'Episiotomie5. Soins au nouveau-né immédiatement après la naissance6. La période post-partum7. Hémorragie8. Les soins des bébés9. L'examen post-natal

A cause de la forme raccourcie du programme, ce cours a occupé 26 heures seulement. Lors du transfert du personnel au Centre, on a consacré plusieurs heures encore aux répétitions, démonstrations, discussions et travaux pratiques supervisés.

Ce cours a été discuté avec la sous-signée mais il était préparé par la Coordinatrice de la Maternité, en collaboration avec l'obstétricienne qui serait affectée au Centre comme conseillère et sous la direction entière du Dr. Pauls

Report of Public Health Nurse Educator

Curriculum (continued)

Ainsi que pour les autres sections, on prévoit une préparation prolongée et approfondie pour le prochain Centre.

B. Section Santé Infantile

- Unité 1. La Croissance (y compris l'emploi de la Fiche "Chemin vers la Santé)
Le Développement.
La Santé Infantile. (L'enfant sain montre de la joie de vivre, il n'est pas seulement sans maladie).
- " 2. La Nutrition de l'Enfant à partir de la conception.
 - " 2a. L'importance de l'allaitement maternel.
 - " 2b. Préparation pour le sevrage ; le sevrage et après.
 - " 2c. Lutte contre les pratiques néfastes, "le biberon qui tue", le sevrage abrupte, gaspillage de l'argent sur les produits peu utiles.
 - " 2d. La malnutrition des enfants : le Marasme, le Kwashiorkor, la "MPC Bénigne", (l'obésité), les carences de vitamines, minéraux.
 - " 3. La consultation des sous cinq ans.
 - " 4. L'examen physique (par un pédiatre)
La réanimation (" " ")
 - " 5. Plusieurs Maladies et leur traitement
(en collaboration avec le médecin affecté au Centre).

C. Soins Généraux

1. Température, Pouls, Répiration.
2. Les Microbes ; l'Asepsie ; la Stérilisation et Désinfection.
3. Les Médicaments (Deux cours donnés par un Pharmacien).
4. Les Piqûres.

D. Education Sanitaire

1. Introduction à l'Education Sanitaire
2. Les Aides Audio-visuelles
3. Education au Groupe : a) l'alimentation des enfants
b) la lutte contre le péril fécal
c) les naissances désirables (présenté par une motivatrice spécialisé)

Report of Public Health Nurse EducatorCurriculum (continued)

4. Discussions en Groupes Les Naissances Désirables (dirigés par une
(Trois groupes) accoucheuse spécialisée au sujet)
5. Fabrication et préparation des images pour un flannelographe par
plusieurs membres du personnel.

Where appropriate "Garçons et Filles de Salle" participated in the health education and certain other sessions. However, it was found that some of these had been acting as watchmen and a number of others had been absent for various reasons, so a short course was quickly prepared and given to them at the centre. Their interest and eagerness to learn were noticeable and they in fact prepared most of the visual aids. A copy of course is annexed.

ANNEX IV

REPORT OF CONSULTATION TRIP TO KINSHASA

Jan. 11-12, 1974 - Geneva

Jan. 16-30, 1974 - Kinshasa

Jan. 31-Feb. 1, 1974 - Geneva

Carleton B. White, M.D., M.P.H.

PURPOSE OF VISIT

- To evaluate present status of the ORT/FOMECCO/MCH-FP Center Project
- To provide guidance for program development and operation in respect to preventive medicine practices at the Center, including administration and training
- To consider personal involvement in the project as team leader.

General Considerations

Adequate descriptions of the Mama Yemo Hospital, its scope of activities, the services of the Departments of Pediatrics and of Obstetrics/Gynecology are found in reports of visits of previous consultants (Dr. Kessler, Dr. Berggren).

The primary reason for the establishing of the Satellite Centers is to relieve the patient load in the obstetrical service at the "Hopital Mama Yemo" (HMY) and at the same time inaugurate Preventive Medicine Services according to the desires of President Mobutu expressed in a speech last January 1973 in which he placed a high priority on preventive health activities. The annual growth of the HMY obstetrical services, as reflected in Appendix A, made decentralization of normal deliveries highly desirable.

The excellent periodic report prepared by Saul Helfenbein, dated 29 December 1973 is a perceptive and detailed account of events, activities, attitudes, problems, disappointments and achievements of the final weeks of preparation and ultimately the actual opening of the "Barumbu" MCH Center. Barumbu appears in quotation marks because shortly after its opening, it became known that although it would be serving the people living in the Barumbu Zone, it was actually constructed within the Kinshasa Zone, the street in front of the building being the zonal boundary. Tentatively called the Kinshasa MCH Center now, some persons feel that an official name should be selected which indicates that it really serves the people of both zones. One suggested name is the "Kin-Bar MCH Center".

The Center opened its doors to accept patients on 29 December 1973, a Saturday. As one would expect, a few individuals came for services over the weekend and the ensuing holiday with the first complete day on 2 January 1974.

Utilization of the Center services has increased encouragingly, without specific announcements or advertising of its purpose and objectives. Knowledge of its existence and the services being rendered appears to have spread fairly effectively by word-of-mouth communication. The obstetric services - prenatal visits, deliveries, and post-natal follow-up - as a decentralized extension of Mama Yémo Hospital's OB/Gyn Service has shown the most rapid growth. During the first month of operation about 2/3 of those seeking care have been patients of the Ob/Gyn Service.

The major emphasis of the Pediatric activity has been directed toward an effort to provide preventive health services to those under 5 years of age living in the 2 zone catchment area. Since the concept of preventive health care is limited to a few well educated Zairois, and is not generally understood by the populace nor even by many of the Zairois health workers, considerable general and special health education efforts are needed before community acceptance can be expected. For this reason the under-5 service is considered the top priority program objective in the MCH Centers. Appendix B lists the numbers of individuals who during the first month of operation have sought out the services offered at the Center. Many of the children brought to the under 5s service came because they are ill. Although the Center is designed for a preventive health care program rather than an out-patient facility for treating the sick, no one is turned away. Medications are dispensed to those who need treatment and the parents are instructed simultaneously in those areas of growth and development, immunization, and nutrition, the preventive care services now being offered. Cases of illness requiring medical attention are referred to the Pediatric Service at HMY. The ambulance assigned to the Center is used for such referrals. In addition to these initial services, Dr. Pauls intends to begin activities of the "Service de Naissance Desirables" in February.

Center Staff

The staff of the Center consists of 64 persons. Eight serve the Under 5s Service, 39 the Obstetrical Service, and 17 are administrative.

The Pediatrics program has 4 graduate nurses, one is the coordinatrice, one the chief nurse, one directs the immunization service and the fourth heads the examining and treatment area. There are also a nurses' aide, one "garçon de salle" and 2 "filles de salle."

The Obstetrical service has 4 graduate nurse mid-wives, one of whom serves as coordinatrice (Sister Kris, a Belgian RC nun), one as chief nurse, one heads up the prenatal clinic work and the fourth supervises the maternity activities. There are 21 mid-wives, and 14 "filles de salle."

The administrative personnel include the administrator, the pharmacist, the lab technician, 2 archive clerks, 2 cashiers, 4 sentries and 6 house-keeping persons.

The Center is considered a satellite of the Mama Yemo Hospital in respect to the Obstetrical Service and the under 5s Service. Dr. Yamashiro, an obstetrician from California, has been assigned to the Center for management of the high risk cases referred to HMY and for consultation of staff for obstetric policy. Dr. Horst, a pediatrician from Colorado, who also has the MPH degree from the Univ. of Michigan has a similar consulting supervision over the Pediatrics programs of the Center. Dr. McCullough, Director of Community Health Services, has been assigned for clinical surveillance and visits the obstetrics ward patients on most days. He also advises regarding problems that arise relative to the Pediatric program. Dr. McCullough speaks English, French and Lingala fluently and some Kikongo, having served for some years as Director of the Rural Hospital at Bilobo, on the river some miles above Kinshasa. As Director of Community Health Services, he is responsible for the Emergency Service and general dispensary (OPC) at HMY, and the medical program of the Hospital Ship, "the Mama Mobutu."

The Center vis a vis the ORT Team

The ORT team, when complete, will be expected to work closely with the Obstetrical Service, the Pediatric Service and the Community Health Service in all aspects of Preventive Medicine and Public Health Practice, especially as these pertain to the activities of the satellite centers, both urban and rural, now operating and under development, and will be involved in similar activities at the HMY. This, of course, includes all aspects of training and health education and all services now offered and additional services which may be developed.

Up to the present the two ORT team members on site, Miss Frances Rutledge, Public Health Nurse, and Mr. Saul Helfenbein, Administrative Officer, have been involved in assisting with the training and skill development of the Zairois staff assigned to the Center. They were involved in depth with the special aspects of staff training prior to the opening of the clinic and with-in-service aspects of training since opening. Saul has achieved some real successes in moulding the attitudes of M. Kingombe, Zairois Administrator, toward sound administrative practices in the operation of the Center from day to day. There have been many problems both logistic and in respect to personnel which have been met and resolved, at least in some degree, by Kingombe and Saul working together. Saul has purposely refrained from "doing things" himself which would have expedited problem solving, but which would not have aided Kingombe in developing administrative skills. Saul has been forced to point to the several problems daily to help Kingombe not only to recognize them as problems but also to consider relative priority in attacking them for resolution. Kingombe has also had to learn the difference between problems of an administrative nature and health program problems of a professional nature. Saul has been tremendously effective at this since he has an excellent sensitivity for appropriate action which will develop skills without loss of "face" on the part of his designated "Counterpart."

Frances, too, has a wealth of varied experience upon which to draw, and of knowing what areas need developing, and what require only encouragement. She has a definitely clever recognition of the degree of sophistication of a given program which may be applicable to the local situation. An example of this perceptiveness is her attitude toward infant nutrition. The Zairois general lack of knowledge concerning asepsis and its application to bottle feeding of infants results in the death of many infants when breast milk is insufficient. The problem is practically nonexistent in Western cultures, but in Zaïre there is little chance for survival when a baby is transferred to bottle feeding. Frances attacks the problem by teaching the preparation of a very small quantity of formula which is fed by spoon rather than by bottle, at each feeding. The "nursing bottle which kills" ("biberon qui tue") is avoided except in those cases where a Zairois family has the home situation and advanced knowledge adequate for employing western methods.

Although Frances has not yet been designated a specific person as a "Counterpart" she has probably been much more effective as she works with the staff on a one-to-one basis at all levels. I believe this utilizes her specific and unique abilities at a higher level than if she were limiting her contacts to a given individual at a fixed level of competency. She is also engaged in developing training needs and specific course content in respect to the development of staff for the centers to be developed, and for in-service training needs for existing staff at the newly opened first center.

And, in respect to future centers, it should be stated here that the construction of the second center to be located in the Bumbu Zone, is well advanced. The roof is on and interior finishing already begun. Opening is felt to be about 3 months away at the earliest.

The Maternal and Child Health Council.

Some months ago, after funding by AID of the MCH Centers had been assured, Dr. Pauls, Chief of Ob/Gyn Service, together with Dr. Drinkans, Chief of the Pediatric Service and Dr. Bazunga, Chief of Staff of the HMY, agreed upon the establishing of an advisory council to assist in planning and operation of the centers programs. Seven members of the Council were designated to be the following:

Chief of Ob/Gyn Service, Chairman
Chief of Ped Service, Member
ORT team leader, Member
Center Administrator, Member
Chief of HMY Nursing Service, Member
Center Lab Technician, Member
Center Pharmacy Officer, Member

Council members unable to attend are to designate an alternate, and interested persons, or those involved in a specific problem or program effort are invited to attend and participate.

The first meeting of the Council since the Center opening was held in Dr. Pauls' office on Friday, January 25, and as long as needed additional meetings will be held each Friday. Later it is felt meeting once a month may be sufficient, but at present many problems are being submitted to the Council.

Those receiving attention at last week's meeting were transport failures, waste collection, food and laundry service difficulties (really transport failures), echelons of administrative personnel management, echelons of professional personnel management, program content, program policy, achievement statistics, and various reports. The meeting on February 1 will address itself in part to what may have been accomplished towards satisfactory resolution of problems cited at the first meeting.

Center Program

Frances, Saul and I had many opportunities to discuss together by twos and threes various aspects of what the Center is doing, and may possibly be capable of doing in the future.

Saul's approach is the one I like best. He sees the Center in the light of what part it may play in respect to the people it is designed to serve. We developed the following considerations:

1. The Center as a Direct Service to the Zone Populace.
 - a. General Medical Care, curative rather than preventive in approach, is represented in the Obstetric Service designed as a satellite to relieve the HMY Obstetric Service of the tremendous load of daily deliveries. Routine normal uncomplicated deliveries will be done at the Center, with patients having complications specifically recognized by measurable parameters being taken immediately to Yamashiro's "difficult delivery service" at HMY. General medical care is also dispensed when a sick child presents at the Under 5s Service. Immediate curative care is given within the scope of center capabilities with immediate transfer to the HMY Pediatric service of children too ill to be treated effectively at the Center. Again triage depends upon a specific set of recognizable parameters.
 - b. Preventive Health Care, certainly, is the highest priority program area at the Center, the "raison d'etre" for the centers under development. The Under 5s Service is the initial and principal program of the Center. As in other countries where this program has been developed these centers will offer to the children surveillance and health care activities directed towards maintenance of a normal healthy condition rather than attending sporadically only to curing illness when the child has fallen ill.

The program will follow each child at regular intervals measuring and recording indicators of growth development. Special attention is directed to nutrition through educating mothers in practices of food selection and preparation which will promote a healthy child. Immunizations against specific diseases will also avoid such illnesses and epidemics. Prophylaxis of endemic conditions such as malaria, enteritis and other diseases will be approached by taking chemical, environmental and personal hygiene measures designed to contain or avoid these ever present threats to health. In respect to this program area, Dr. Chung, Malariologist with the WHO team in Zaire proposes a joint effort to control malaria effectively in the Kinshasa and Barumbu Zones through a WHO sponsored environmental attack and a center oriented Chemoprophylaxis and community educational attack.

- c. Education and Training, at all levels directed toward staff development, continuing skill education and generalized health education within the community, is also a priority activity area for the centers. The ORT team by the nature of its contract will have its greatest impact on the centers influence in the community in this area. Any and all educational and training approaches which prove effective must be utilized and continued as a major effort of the overall center program.
 - d. Expansion of Preventive Programs at the Centers will be a gradual but continuing objective of the MCH Council and Center and HMY direction. A "Naissance Desirables" Service has been planned for each center from the earliest conception of developing satellite centers to reduce the patient load at HMY. As the efficiency and capabilities of the centers become better defined, other preventive programs may well be developed directed towards school age children, accident prevention, home safety, occupational health, or other areas where preventive measures prove effective in limiting personal illness and disability.
2. The Center as a Nucleus for Community Action Programs
- a. Community Health Education as opposed to the program oriented patient/family education outlined above, can well be an effort to which center staff may address itself. Again the ORT team should find this a fertile area for direct and extensive involvement. Environmental control through the decreed clean-up effort, "salon 70," has not been as effective as it might be if some educational effort were expended aiding the community in understanding why a clean environment is an aid to health. The Malaria Control joint center/WHO project will require a lot of community-wide educational activity, too.

- b. A General Dispensary operation, not now FOMECCO's responsibility area may soon become an added activity. This service is now conducted in the Kinshasa and Barumbu zones in a building adjacent to the MCH Center. If this service is merged with the FOMECCO program, this dispensary at least could operate in conjunction with the MCH Center sharing many of the needed administrative services and personnel. Another possible FOMECCO acquisition may be a private hospital in the Barumbu zone about to be turned over to Zairois control. FOMECCO proposes converting this institution, the "Hopital Kalembilembi" into a Pediatric Hospital as a satellite decentralized program of the Pediatric Service at HMY. This hospital is located not far from the Kinshasa-Barumbu Center and transfer of sick children to Kalembilembi would be very convenient.

3. The Center as Host for Extra Community Action Programs

- a. Specific disease control efforts would be coordinated with ongoing programs already operating at the center. An example is a proposed measles vaccination campaign which is to be city-wide with WHO providing the vaccine, FOMECCO the technicians. The centers would serve the zones for which they already serve as catchment areas, and additional adjacent zones as designated. The measles vaccination campaign may get under way within the next 6 months.
- b. Special problems involving the entire city, or nation might involve the centers as "Hosts." With expertise in Preventive Health Practice concentrated in the centers, a logical consequence would be the consultation with center staff and direction when extra community health action required a host organization.

4. The Center as an Element of Mass Media Health Education Effort

- a. Analysis of Results of the Base Study to be conducted in the Barumbu Zone and possibly also in the Bumbu Zone together with follow-up statistical information gathered in the centers will aid in the planning and development of city-wide Health Services and especially in the Health Education efforts throughout the nation.
- b. Mass Media efforts at health education directed to the populace has already begun. AID has awarded \$50,000 to FOMECCO for the preparation of taped radio messages and TV telecasts for dissemination of health information for mass consumption. A local company has demonstrated their capability to produce such materials in a cleverly acceptable format using French and Tribal languages designed to reach a large audience. The centers

cannot only serve as a source of what information needs airing, but also the centers can well serve as an evaluation mechanism whereby it can be learned who is listening to or seeing the messages, whether the material is presented at a level of understanding readily to educate people, and whether or not behavior is being changed. The center has a "captive" population useful for such exercises in evaluation. Not easy to evaluate would be whether the mass media messages or the center efforts at education were having the greater effectiveness! The ORT team should again be a very useful tool that FOMEACO could use in the development of subjective mass media educational materials--Saul is particularly experienced in this very field having worked in this area in several previous assignments.

5. The Center as an Experimental Research and Development Facility

This initial center certainly will serve well as a pattern for the program to be offered at the Bumbu Center and centers subsequently to be realized, whether urban or, with adaptation, rural. It is likely to serve as a "testing station" for new programs to be added later to the basic center programs. New programs or changes in existing programs can be tried out at the Kinshasa/Barumbu Center and adopted, rejected or modified in the light of such a test. The center can serve as a personnel training and development facility for other centers as they are opened. And to go further into the future the center may well play a part in the formal education and training requirements for various categories of health professionals and paraprofessionals in coordination with the University of Zaïre or other institutions existing or yet to be developed. Internship rotational training in Medicine, Nursing, Midwifery, Health Administration, and other categories of health worker training may well involve the center and thus mutually enhance the effectiveness of center operations as a sharp training facility and the trainee as a well trained health worker deserving of a certificate of proficiency in his field.

Meeting with Dr. Close.

Dr. Pauls arranged for me to meet and talk with Dr. Close on Tuesday, January 22, after I had been there one week and had an adequate overview of FOMEACO's program and ORT's position. I learned more about the present status of the proposed National Health Council which would assimilate the present Ministry of Health and bring under one direction all health activities in Zaïre including medical education which is now within the Ministry of Education. The NHC has the approval of President Mobutu and high government officials. I believe the present status needs only legislative action for it to become reality, and this is predicted for the near future. At the termination of my visit Dr. Close assured me that I was acceptable to his office as a candidate for the ORT team-leader position.

Family Planning

A prominent and major feature of the AID subcontract - ORT provides for education and training efforts in the area of family planning programming. President Mobutu in his discourse of December 5, 1972 (see Appendix C) stated that for Zaïre the term most expressive of the Zaïrois was "Naissances Desirables"--emphasizing desired births rather than planning families. I believe this to be a highly perceptive and sensitive name for Zaïre's program. Dr. Pauls, acting upon President Mobutu's decree, initiated a "Naissances Desirables" Clinic on January 24, 1973. Appendix D and E reports the achievements of the first year of ND clinic activities and graphically illustrates changing patterns in attitudes and practices resulting from the ND clinic and auxiliary educational activities.

Dr. Pauls ND clinic at HMY is at present using the services of 2 faculty members of the Downstate N.Y. Medical Center: Ms. Sokna Deme of Senegal and Ms. Lise Costeneau of Montreal, Canada in a training capacity. Their services on a short term basis - 3 months and 6 weeks respectively, will improve the capabilities of the ND clinic associated with the Dept. of Obstetrics at HMY, and are obtained through the AID contract with FOMECA. Dr. Pauls plans now to initiate ND clinics at the Kinshasa-Barumbu MCH Center sometime in February 1974.

The ND Clinics are built around the 5 essentials of such a program: Training, Service, Research, Communication and Statistics.

The clinics at the MCH Centers must certainly operate according to the same principles and continue to be an extension of the HMY Obstetric Department's operation.

An important consideration in the operation of any ND or Family Planning Service is a sensitivity to the religious convictions of the clientele seeking services. Such considerations must become a part of the training of all who are involved in the operations of Zaïre's ND services. Five religious groups predominate in Zaïre and each vary in respect to attitudes towards measures to control conception. These groups in order of estimated numbers of adherents are (1) Animism (native religions); (2) Roman Catholic Christianity; (3) The Church of Christ in Zaïre (Protestant Christianity); (4) The Church of Christ in the World of the Prophet Ezra Kimbangu; and (5) Mohammedism (Islam).

Problems

Probably the problem likely to have a serious consequence is the delay in conducting the statistical base-line study. This study was intended to be completed before the opening of the center or shortly thereafter. As the Wolfers-Gorosh report points out, a delay of 3 months may well result in some "contamination" of findings since the numbers of persons served by the center may well have influenced attitudes and practices for the survey to

fail completely to measure the base-line conditions. If the offered assistance of Dr. Nguete's office cannot be obtained as hoped for following initial contacts with him, the survey should be conducted as expeditiously as possible, using HMY persons specially trained for the information gathering. Possibly Dr. Horst, whose training in Public Health Epidemiology principles is adequate, could be relieved of his clinical duties for the period of time needed to conduct the survey. If the Bumbu Zone is considered to be sufficiently similar in respect to demographic characteristics to those of the Kinshasa/Barumbu Zone, one might consider a base survey only in the Bumbu Zone, especially if the delay is prolonged insofar as the first center is concerned.

Both the under 5s coordinatrice and Frances are concerned that informational news of the center's operations is spreading too slowly and perhaps inaccurately within the Kinshasa and Barumbu Zones. They have been eager to do some home visitation to spread the news and to inform people about the objectives of the center's program. The MCH Council considered this situation at the January 25 meeting and felt that a visit to the office of the zonal commissaires by the administrator and physician should precede such visitation. Following such a protocol visit neighborhood contacts by center staff would certainly not be out of place.

Center policy regarding malaria prophylaxis and/or treatment for the Obstetrical Service as well as for the Under 5s Service had become a subject for discussion. Dr. Pauls and I sought the advice of Dr. Chung, WHO's malariologist and a procedure for routine chemotherapy or chemoprophylaxis has now been established. If further difficulties are encountered, reevaluation of policies developed may well result in modification of "standing orders."

Shortly after opening of the Center, Kingombo, the administrator became perturbed when his office was being by-passed by the nursing staff in relations with the HMY Chief Nurses Office. The hospital administration stood behind Kingombo's position and required all contacts with the hospital to go through the center administrator's office. Both sides of the controversy were aired at the January 25 MCH Council meeting. I fully expect that shortly administrative matters will be identified which must be referred to HMY through Kingombo, while for professional matters the Center nursing staff must certainly have and maintain direct access to the HMY Chief Nurses Office.

Other problems of lesser significance were identified, but need not become a part of this report since in some cases satisfactory solutions had already been found or sufficient measures for their soon resolution were already being taken.

The one remaining major problem is the absence of a team-leader - the PH Physician - for the ORT Contract effort. This, too, promises to be resolved within a few weeks since several alternatives are now open for the filling of this position.

I should like to commend highly the 2 ORT team members now on site - Frances and Saul. They have already contributed significantly to the project activities. I exhort them to continue their good works bearing in mind that at this stage of the contract operations, to teach is their most important task.

MAMA YENO HOSPITAL - KIRSHASA

	1966	1967	1968	1969	1970	1971	1972
PREGnancies	22,018	22,872	26,049	30,631	33,885	35,885	44,136
Average daily	60	62.1	74.36	84	92.69	102.5	121
Deliveries total	21,607	22,368	25,498	29,963	32,901	37,468	42,987
Eutotic	20,312	20,816	23,923	28,892	32,789	34,878	41,52
Dystocic	1,295	1,552	1,575	1,455	1,105	1,172	1,135
Twins	405	495	592	664	817	877	831
Triplets	8	8	6	7	14	12	11
Présentations : breech	270	439	513	505	510	336	313
front	18	29	35	46	49	10	4
face	27	2	7	14	12	53	49
transverse	24	59	49	59	46	72	37
Cesarian sections	564	495	500	516	515	519	623
Ventouse	695	998	997	888	580	600	485
Forceps	6	3	1	3	7	1	0
Version-extraction	31	59	60	52	22	42	27
Uterine rupture	14	24	11	16	22	27	42
Placenta Praevia					29	64	72
Eclampsia + Pre-eclampsia	109	146	206	147	140	223	81+582
Afibrinogenemia	8	15	38	16	2	4	3
Maternal deaths	10	5	5	5	4	21	60
No-infants living at discharge	21,390	22,030	24,889	29,504	32,692	35,410	41,704
Prematures	1,315	1,514	1,686	2,080	2,245	2,638	3,208
Total infants died	443	86	91	96	137	180	177
Stillbirths or malformed	334	451	515	562	505	967	1,502
Death due to prolonged labor	27	48	46	76	37	47	70
Prematures died	192	238	334	334	193	630	807
Deaths - other cases	41	21	29	29	67	117	93
Perinatal mortality	49	40	43	38	34	46	54
Maternal mortality	5	2.5	3.0	1.7	1.3	5.9	1.
Section rate	2.6 %	2.2 %	1.9 %	1.7 %	1.7 %	1.5 %	1.5

HOPITAL MAMA YEMO
KINSHASA

ACTIVITE DE LA MATERNITE ANNEE 1972 - 1973
 Annuel

Nombre de naissances.....	43,796
Moyenne de naissances par jour.....	119.9
Nombre d'accouchement au total.....	42,691
Nombre d'accouchement: eutociques.....	41,608
dystociques (cés. forc. vent. vers. extr.).....	1,083
Jumeaux.....	903
Triplet.....	15
Présentation: siège.....	310
face.....	24
front.....	-
transverse.....	50
Césariennes.....	630
Symphisiotomie.....	7
Ventouses.....	392
Forceps.....	1
Version extractions.....	38
Rupture utérine.....	37
Décollement placentaire.....	124
Eclampsie - pré-éclampsie.....	76 - 906
Afribinogenomie.....	1
Mortalité maternelle.....	44
Nombre d'enfants vivants à la sortie.....	41,974
Nombre d'enfants prématurés.....	3,165
Nombre d'enfants décédés au total.....	2,182
Morts-nés, malformations, non-viables.....	1,274
Prématurés décédés.....	647
Par disproportion foeto-pelvienne, travail prolongé.....	114
Morts de causes diverses.....	129
Taux de mortalité brute - pour cent on tout.....	4.24 ‰
Taux épuré.....	2.10 ‰
Placenta praevia.....	217
Total des naissances: garçons.....	22,230
filles.....	21,586
Sutures et épisiotomie.....	3,346
Jumeaux: mâle - mâle.....	272
femelle - femelle.....	292
mâle - femelle.....	344

Maternal and Child Health Center at Kinshasa and Parumbu, Zaïre

First Month's Statistics: 29 Dec, 1973 - 30 Jan, 1974

Number of families enrolled during first month:	811
Number of children visiting Under 5's Service:	380
Number referred to general dispensary:	154
Number referred to Hospital Mama Yemo:	13
Number of visits to pre-natal clinics:	574
Admissions to Obstetrical Service:	155
Referred to Hospital Mama Yemo:	45
Delivered at Kinshasa/Parumbu Center:	110
Number of new-born (two sets of twins):	<u>112</u>
Total of visits through 30 Jan, 1974:	1221
Children receiving immunizations:	171
Doses of vaccines administered:	259

Service / Origin	Kinshasa/Parumbu	Other Zones	Numbers	Per cent
1. Under 5's Service	319	61	380	19.1
2. Prenatal Service	50*	73	574	14.6
3. Deliveries	<u>29</u>	<u>31</u>	<u>110*</u>	38.0
Totals	909	165	1064*	18.4

* These figures do not include the 45 patients referred to Hospital Mama Yemo nor the 112 new-born infants.

EXTRAIT DU DISCOURS ANNUEL
 du
 PRESIDENT MOÏSTU SESE SEKO
 devant le
 CONSEIL LEGISLATIF NATIONAL DU ZAIRE

5, Décembre, 1972

sur

LA SANTE

et

LES NAISSANCES DESIRABLES

Quant à la santé des populations, l'effort fourni jusqu'à ce moment, par la revalorisation des cliniques telles que Mama Yemo, Ngaliema, le bateau Hôpital, la Clinique neuro-psychiatrique du Mont Amba, ces efforts seront poursuivis et développés, et comme nous le disions tout à l'heure, le budget 1973 accuse pour la santé une augmentation de 51%.

Mais, la santé est avant tout la protection maternelle et infantile. Notre première volonté en cette matière, a été de supprimer la notion d'enfants naturels dans notre langage, afin d'obliger leurs auteurs à reconnaître et à s'occuper de leurs enfants.

DES NAISSANCES DESIRABLES

Vous savez que dans notre philosophie bantoue, le but ultime du mariage est la procréation. Mais cette procréation n'est pas illimitée, et nous pouvons même affirmer que dans nos sociétés traditionnelles, une forte mortalité infantile provoquait un sentiment d'insécurité, résultant de la petitesse de la famille, et entraînant automatiquement le désir de nombreuses grossesses.

Par exemple, un couple qui voudrait avoir 5 enfants, sera amené à en faire 10 ou 15, espérant qu'il y en aura au moins 5 qui survivront. Tandis qu'actuellement, les familles aisées tendent à avoir moins de naissances, car elles ont forcément moins de décès infantiles.

Le rôle de l'Etat est donc, de diminuer au maximum la mortalité infantile, afin que le nombre de naissances réelles, corresponde à peu de chose près, au nombre de naissances désirables.

Ce problème est connu sous l'expression de "Planning Familial", mais nous lui préférons celle de "Naissances Désirables", car en fait, si on constate même dans notre société actuelle, beaucoup d'avortements intentionnellement provoqués, c'est parce qu'un grand nombre de citoyennes préfèrent, au risque de leur vie, interrompre leurs grossesses, plutôt que d'avoir une naissance qu'elles ne désirent point.

Il est de notre devoir d'expliquer et de faciliter l'usage des contraceptifs, afin d'éviter à nos citoyennes, le désagrément de .. l'exploitation par des charlatans et féticheurs sans scrupules.

Une telle maîtrise de l'évolution de notre population, permettra aussi la maîtrise du développement national, car nous adapterons la croissance économique à la croissance de nos populations. Nous devons avoir à l'esprit également, que notre devoir est de bien élever nos enfants, et que ceux qui en ont beaucoup et peu de moyens, leurs enfants risquent de souffrir, plus que d'autres, d'un développement physique et mental insuffisant.

Ce qui risquerait de favoriser toujours les enfants des milieux fortunés, alors que nous-mêmes qui sommes ici présents, sommes issus des milieux modestes, à commencer par le Président de la République lui-même.

ORDONNANCE N°73-039 du 1^{er} Février, 1973, portant sur la création du
CONSEIL NATIONAL POUR LA PROMOTION DU PRINCIPE DES NAISSANCES DESIRABLES

LE PRESIDENT DE LA REPUBLIQUE

Vu la Constitution, notamment l'article 47,

O R D O N N E :

Article 1er. - Il est créé auprès du Bureau du Président de la République un conseil national pour la promotion du principe des naissances désirables.

Article 2. - Le Conseil a pour mission de concevoir le programme national pour promouvoir l'information et les services à la population en matière de naissances désirables, et de coordonner les activités concourant à la réalisation de ce programme.

Il est notamment chargé:

1°) De recenser tous les organismes publics ou privés qui, à titre principal ou accessoire, s'occupant de conseiller et d'éduquer les couples en matière de naissances désirables.

2°) D'informer ces organismes sur le principe des naissances désirables et de leur apporter une aide de nature à favoriser l'exercice de leurs activités.

3°) De centraliser et d'évaluer les résultats de leur action.

4°) De concevoir et d'organiser, par tous les moyens possibles, des campagnes d'information et d'éducation de la population.

5°) De coordonner les relations entre les organismes nationaux et les organisations internationales intéressées au principe des naissances désirables.

Article 3. - Le Conseil est composé d'un président et de membres nommés par le Président de la République.

Le Conseil fixe lui-même les règles selon lesquelles il fonctionne.

Article 4. - Le Président du Conseil est chargé de l'exécution des décisions prises par le Conseil National.

Article 5. - Les crédits nécessaires au fonctionnement du Conseil sont inscrits au budget de la Présidence de la République.

Article 6. - La présente ordonnance entre en vigueur à la date de sa signature.

Fait à Kinshasa, le 1^{er} Février, 1973.

MOÛTUTU SESE SEKO
Président de la République du Zaïre

HOPITAL MAIA YERO

SERVICE DE GYNECOLOGIE ET D'OBSTETRIQUE

PROGRAMME DE NAISSANCES
DESIRABLES

RAPPORT ANNUEL 1973

Dr. G. M. K. K. K.

The first Naissance Desirable Consultation began the 24th of January, 1973 with a police captain and his wife requesting contraceptive advice. From that beginning of 1 couple we have now arrived at 40-45 acceptors per clinic twice weekly. From its inception several basic principles were adhered to

- 1) all people coming should be informed clearly what Naissances Désirables was all about.
- 2) All should have a choice as much as possible as to what contraception they accepted.
- 3) An ideal Zairois family was thought of as 5 as indicated in the Presidents speech of December 5, 1972. This figure was utilized as a cut off for those asking for Depo Provera or permanent sterilisation.

We also followed the 5 basic areas of development for a family planning program applicable to a local as well as national program.

I. Training

As we needed Zairoises trained we set up a course of 8 weeks with 9 students from 4 different institutions. The staff were doctors and nurses from the Department of Obstetrics and Gynecology. The course was well received and has been reported on already during the year. Another course was also organized for 20 doctors but only of 2 weeks duration.

It is the three nurses trained in our course that have done the work in our clinics. I must also mention the invaluable assistance of Miss Paulette Chaponnière who help me organize and teach the courses and also to set up the clinics later on.

For 1974 we have another class scheduled to begin in January. It is a cooperation of 2 staff members from Downstate New York which will help us raise the level of teaching in this scheduled course. We hope to train the

the necessary staff for the needs in Naissances Désirables for our hospital as well as for the two MCH Centres of Barumbu and Kumbu. We also have requests from Kivu for training and may include them in our January class. Future training will be determined by needs. With Downstate we have this flexibility to establish a permanent training program if we want to.

II. Service

We had 2 clinics a week on Tuesday and Friday at 13.00. We found this adequate for the first 8 months of operation but then found that we weren't spending enough time with the patients. Our nurses motivated and interviewed the couples and Dr. Bourez, Dr. Saboa and I took our turns helping them make the final decisions. 2 rooms at P 13 were used for these clinics after an initial start in P 15. Over 700 women accepted some form of spacing or sterilization in 1973. See the 3 statistical reports to obtain an idea of who these women were and what they utilized. AID furnished us all the IUD's, condoms and pills used. IPPF supplied us the Depo Provera necessary.

In 1974 we have daily morning clinics planned to begin January 2. This will decrease the numbers per clinic temporarily. We also hope to have our clinics in P 15 when the Prenatals move out to P 26. This is important as P 13 is now hopelessly inadequate to do good motivation, teaching and service.

We plan to cover with specially trained non-nurse motivators the areas where we have prenatal clinics, post-abortion women and our post partum women in the hospital. All this to reach the high risk, easily motivated woman and bring her to the consultations in Naissances Désirables.

III. Research

We have done preliminary research in two areas - 1) Abortions
2) Contraceptive attitudes

The former has been written as a paper and presented at an all Africa meeting on abortions in Africa. It re-inforced our already indicated need to reach the young girl who is admitted to our wards with an abortion but also to go beyond that to the prophylaxis of sexual education and making our Naissances Désirables Services available to them.

In contraceptive attitudes we saw a clear need to do a cultural urban-rural study as suggested by the President. We found for example 5 % of couples utilizing a deuxième bureau. It was clear that if this was the cultural way and satisfactory to the couple then we need not to concern ourselves about IUD's and hormones. Preliminary reaction from the women was no and the same for the men but with a little hesitation.

We need to further evaluate the role of modern contraceptives in Zaire in 1974 and continue to record attitudes of our clientele.

From the base line study to be done in Barumbu we will know a lot more about urban knowledge and attitudes to contraception.

We hope that the demography department of the University will do several such projects together with us.

IV. Communications

We have tested a flip chart in our motivation classes with good results. Another series of African drawings from Ghana have been reviewed and will be possibly available to us thru Pathfinder in 1974. We have also used 2 movie films from U.S.I.S. with mixed reaction. We are trying to obtain permission from IPPF to have the color negatives for their flip chart so we can print a booklet for distribution to all our Naissances Désirables acceptors. Renapec is now ready to produce a 15 minutes motivation film which if it is good will be suitable for showing all over Zaire.

In 1974 we need to have Renapec produce several television series on Naissances Désirables as well as radio productions. We need also to develop our own local written information and investigate the role of all different media for bringing peoples attention to Naissances Désirables. This would mean hiring a person to co-ordinate the job in communication

V. Statistics

We have developed our own first visit chart and follow-up chart. Miss Chaponnière did our first statistical return and later showed Citoyenne Disengomoka how to do some of our returns. For the last 3 months of the year Mrs. Deme has taken responsibility. There is much to be done in recording and information retrieval but we are making progress in learning from our data. In 1974 we need to review our charts again for changes and decide if we want to join a world wide statistical analysis link up with the Inter-

national Fertility Research Program in North Carolina. They offer their forms filled out to their specifications and all data returns in turn for our data input. This means ^{the} computer analysis or could mean their computer programming here in Kinshasa if we want to use our own computers. They are willing to send one of their representatives from Geneva, Dr. Bernard for a preliminary look if we are interested. I would recommend we proceed with this first step in February 1974 and develop our statistics on the basis of what comes out of this contact.

VI. Staff

What staff will be necessary for 1974 ?

Doctors needs will depend on the policy decision made in how much we will require of our nurses. This could vary from what we now do where the doctor does the gynecological exam and authorises hormone treatment where desired or puts in the IUD. In which case we need at least 3 doctors on the staff of Mama Yemo to participate every day in clinics or 1 doctor who will direct the program and do the necessary work. We would also permit the nurses to do all this and call the doctor only for complicated cases. In this case we would need more qualified nurses and 1 doctor to direct the program.

I would suggest we do this gradually allowing nurses to do pelvic exams and put in IUD's under the doctors supervision and then reassess the situation. We will need at least 10 trained nurses and 6 non-nurse motivators to handle the work at Mama Yemo and the NCH Centers. If we expand beyond that we need more. The end of 1974 (October) we need to send some trained nurses to Downstate for teaching experience so that they will form the nucleus of our training center.

In conclusion we have had a kind of a year we were hoping for in Naissances Désirables with a slow progression of our services and a gaining of experience by our staff. We are looking to 1974 for an explosion of acceptors as we began to utilize the mass media and expand our facilities.

NAISSANCES DESIRABLES - BASEES SUR LA MATERNITE



Séminaire du 7 au 9 Mars, 1974

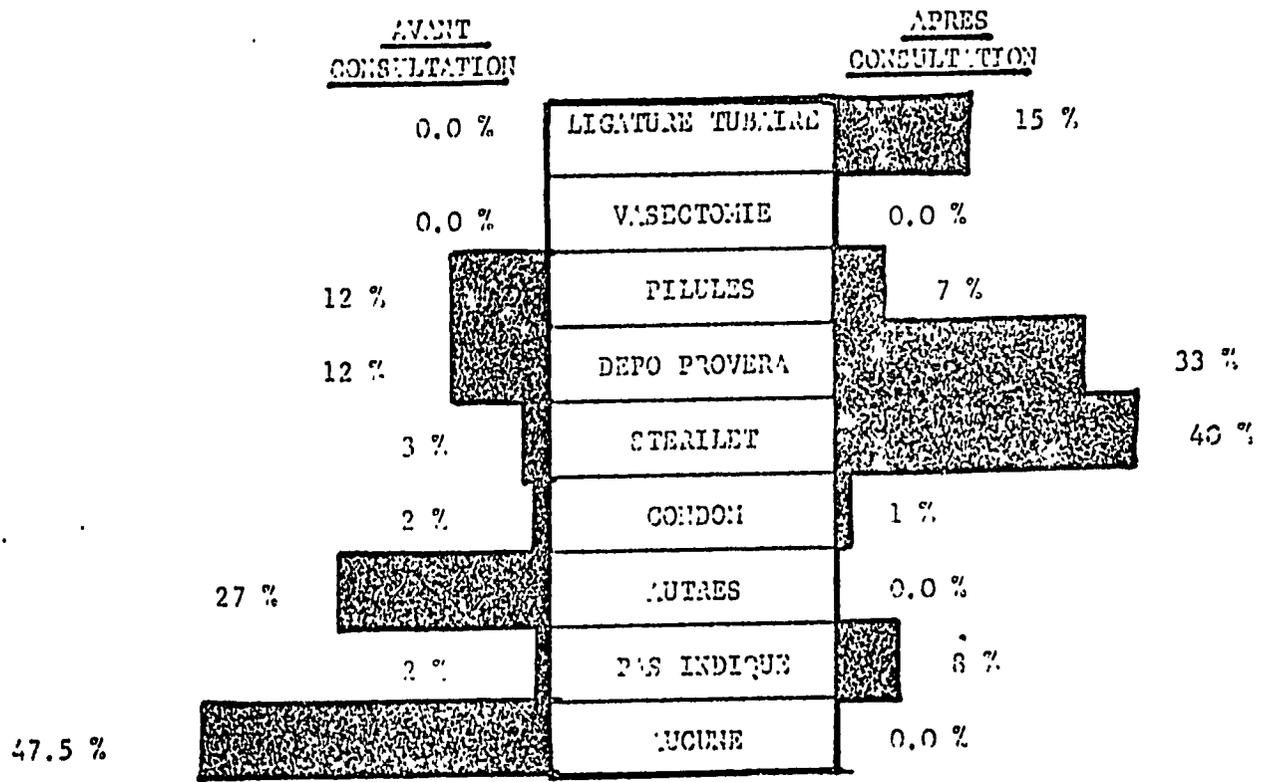
B.P. 169 - Kinshasa I - République du Zaïre

HOPITAL MAMA YEMO KINSHASA

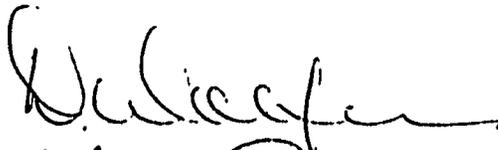
PROGRAMME NAISSANCE DESIRABLE

ACCEPTATIONS DES CONTRACEPTIVES

L'ANNEE - 1973



REPORT OF CONSULTANCY VISIT TO FOMECO/ORT MCH/ND PROJECT
KINSHASA, ZAIRE (25 November-6 December 73)




David Wolfers
Martin Gorosh

Columbia University
International Institute for the Study of Human Reproduction
78 Haven Avenue
New York, N.Y. 10032
U.S.A.

6 December 73

TABLE OF CONTENTS

INTRODUCTION AND SUMMARY	ii
PRELIMINARY RECOMMENDATION FOR COMMUNITY SURVEY	1
Community Survey	11
Questionnaire	12
Forms	32
Tabulations	35
Record Keeping and Service Statistics	48
Systems Description	48
Forms	61
Persons Contacted and References	90

INTRODUCTION

The background to, and objectives of, our consultation in Zaire was formally stated in the "scope of work" prepared by ORT-Geneva: "ORT is undertaking a program in Zaire to assist in developing Maternal and Child Health/Family Planning (MCH/FP) centers which will serve as models for an urban and rural MCH network, and to develop an appropriate training capability for effective MCH/FP training for Zairois personnel.

The MCH centers will be used to cover the basic health needs of the mother and child from pregnancy through the pre-school period, and will strive to combine preventive and curative health care to tackle the inter-related problems of infectious disease, malnutrition and unregulated pregnancies.

The ORT staff is currently assisting the FOMEKO (Governmental Division with primary responsibility for the MCH centers) to establish operational procedures for the MCH/Family Planning Program.

In this connection, the consultants are requested to assist the ORT staff and the FOMEKO group in the following activities:

1. Community survey of areas clinics are to serve; collection of baseline data on vital and other demographic statistics, major health problems, health behavior, knowledge of and attitudes toward family planning, health service resources and utilization, etc.
2. Establishment of a workable record system.
3. Development of a feasible evaluation system.

Upon arrival in Kinshasa, this scope of work was confirmed with FOMEKO and ORT principals in residence in Kinshasa and we proceeded to collect data and impressions upon which to develop recommendations. (A complete list of data sources and personal contacts is appended.)

Our detailed findings and proposals appear in the body of this draft report. Part I deals with the community survey.

Part II covers the record keeping and services statistics system for the Barumbu center. The following material briefly describes (1) the situation as we found it on arrival (2) the general thrust of our recommendation.

Community Survey

A proposal for a 100% census and registration system for Burumbu had been made by the OMS representative in Kinshasa. The proposal covered basic demographic and vital statistics information but did not include important dimensions of fertility, morbidity, nutrition, and naissances desirables.

Our first recommendation called for the inclusion of these areas of inquiry in the community survey. Our second recommendation called for the substitution of a sample survey (and periodic resurvey) for the complete census and registration first proposed. As noted in the section in preliminary recommendation, "the sample size should be chosen to provide approximately 1,000 births in the preceding twelve months and, from the information in our possession, we suggest that a twenty-five percent household sample will meet this requirement." To elaborate further on this issue: Assuming a population of Burumbu in the region of 70,000 and a birth rate of 50-55 per 1,000, a 25% sample will provide between 900 and 1,000 births. This will enable the ascertainment of the population birth rate within confidence limits of about 3% around the true figure for the last year, and of infant mortality rate with confidence limits of about 5% for the last five years.

It is felt that this degree of precision is adequate to monitor useful effects of the center over successive two-year periods.

The actual conduct of the survey may take one of two alternative paths. Based on discussions with Dr. Ngwete of the ONRD (Office National de Recherche et Développement) it appeared that the most desirable course would be for ONRD to carry out the survey. ONRD has considerable experience in all aspects of surveys from development of the survey instrument through processing and analysis of returns. In addition, ONRD has a staff of trained interviewers and supervisors and additional training would be limited to dealing with the specific aspects of fertility histories and Naissances Desirables questions.

If ONRD is unable to conduct the survey, FOMECO/ORT may have to develop its own survey capacity. Should this become necessary, we strongly urge the early involvement of an experienced survey methodologist to advise on, and participate in, all aspects of the survey.

In both cases, we would suggest the availability of Institute Personnel and facilities to backstop survey activities.

Record System and Service Statistics for Burumbu Center

Construction of the Burumbu center was completed and much of the equipment required was in place when we arrived in Kinshasa. Some draft forms had been prepared for use in the center. We participated in planning the patient flow in the center and proposed a record-keeping system to:

- (1) fulfill the administrative requirements of the center, i.e., to facilitate smooth and efficient service.
- (2) provide for rapid extraction of routine service statistics for monitoring the work of the center and measuring its case load.
- (3) ensure compatibility and comparability with the existing system of the MMY Hospital.
- (4) provide the opportunity for evaluation and special studies with respect to center activities.

Finally, we recommend that in two or three months (upon completion of analysis of the community survey) the following activities be undertaken:

1. review findings of community survey
2. review forms and procedures
3. review service statistics
4. develop details of evaluation for Naissances Desirables program.

PRELIMINARY RECOMMENDATION FOR THE
CONDUCT OF A COMMUNITY SURVEY

29 NOVEMBER 1973

The "baseline survey" will serve three purposes.

- A) to provide a description of the catchment area of the clinic to enable the rational estimation of expected workload and later estimation of population usage of facilities.
- B) to provide baseline statistics of birth and death rates and morbidity incidence/prevalence in the area to enable evaluation of changes attributable to the activities of the clinic.
- C) to provide insight into health service utilization and relevant attitudes, practices, and needs particularly in the fields of birth control and nutrition to guide clinical and educational strategy of clinic staff.

All of this information can be secured with sufficient accuracy to fulfill its practical ends by means of a sample survey in which the probability of inclusion in the sample is random. We have seen the proposal that a full census of the population be taken, establishing in effect a household register of the population. We do not believe that any real advantage will be gained by so comprehensive a procedure, for the problems of updating such a register appear insurmountable. Moreover, a full census would be very much more costly in time and money than a sample survey and would involve the establishment of its own continuing bureaucracy to maintain it.

The demands of group (B) purposes dictate a larger sample size than is necessary to obtain useful information pertaining to the first and the last groups, so that a sample submitted to questions involving group (B) questions and a smaller set within that sample being given the full questionnaire may, in the interests of economy, at least be considered.

The sample size should be chosen to provide approximately 1,000 births in the preceding twelve months and, from the information in our possession, we suggest that a twenty-five percent household sample will meet this requirement.

The method of sampling which we recommend is as follows:

1. In discussions with M. Kersauze (OMS) and C. Kingonbo-Mulula (FOMECCO), it was suggested that an important characteristic of families in Burumbu Zone was the matriarchal or patriarchal nature of the family structure. It was further suggested that attitudes and practices with respect to "naissances desirables" might vary with the two types of family structure. Therefore, we propose that as a first step, the register of families maintained for the Zone be reviewed by someone sufficiently conversant with the indicators of matriarchy or patriarchy and that a determination be made of the proportion of each type in the population. (This could be accomplished easily in one day.)
2. Obtain (or construct) a detailed map of the area, showing the position of each dwelling unit (parcelle) and distinguish matriarchal and patriarchal family structures by simple color coding.
3. Number each dwelling unit consecutively from 1 to fin.
4. Select as primary sample each dwelling unit with a number divisible by four.
5. Designate a reserve sample (for substitution where interviewing of a primary sample household is impracticable) consisting of every second odd-numbered household whose number is divisible by three.

Note: Depending upon the outcome of preliminary stratification by family structure type, steps 3, 4 and 5 may require slight revisions.

In the construction of the questionnaire, we suggest the guiding principles employed should provide for the rigorous exclusion of all questions for which no practical application of the answers can be demonstrated. The utility of the information derived from the survey should manifest itself in several ways.

- (A) providing information of immediate value to the organization of activities of the center
- (B) providing information on morbidity, mortality, and natality which can be used as a basis for judging the effectiveness of the center as an agent for change in relation to its clientele
- (C) providing information which, by resurvey at intervals, can be used to judge the impact of the center on the community
- (D) providing the denominators for calculating clinic usage rates for the different sections of the population
- (E) providing insight into the significance of categorical differences within the population, e.g., tribal, religious, economic, educational, family structure, etc.
- (F) giving experience for the design of future surveys in this and other areas.

The survey should be designed in such a way that information will emerge in the forms best adapted to its future use, bearing in mind particularly compatibility with center statistics.

While this document will indicate the areas of inquiry and the categories of questions which in our view should be included, the actual wording of the questionnaire must be done in consultation with one or more persons thoroughly conversant with the language and culture of the respondent population. Specimen forms for household and fertility history interviews are attached.

Interviewers

The use of personnel already experienced in interviewing will greatly facilitate training of interviewers which in this case need be concerned only with training in the specific questionnaire form and the special features of fertility and health inquiries. Special attention should be paid in selecting interviewers to these qualities required for intimate inquiry.

Supervision

A responsible and experienced person, preferably from the field of special science health disciplines, should be placed in charge of the survey team. The technique of spot check reinterviews is valuable to maintain accuracy and honesty on the part of the field interviewers.

Pre Test

The interview form (and the interviewers) will require a period of testing on a segregated sample of the population to determine the appropriateness of wording and the compatibility of staff. The final version of the interview forms should not be sealed until such a test (approximately 100 interviews) has been concluded and digested.

Analysis

The design of the questionnaire will be undertaken with the nature of final output in mind, and a list of desired tabulations would precede the final consolidation of the forms.

Analysis is feasible in Zaire by computer and this is the most efficient and rapid method. To this end, where possible, answers to questions will be precoded. Nevertheless, it will not be possible to avoid an intermediate step of coding. The process of analysis will therefore comprise:

- (1) checking of forms for inconsistent or absurd data
- (2) coding
- (3) code checking
- (4) card punching and verifying
- (5) computer analysis and tabulation.

Baseline Survey Management Committee

We propose the creation of a management committee to oversee the development and conduct of the survey. The committee might include

Survey Supervisor
Translator(s)
Statistical analyst/data processing specialist
Sociologist/anthropologist
Representative of Dept. of Obstetrics and Gynecology
Representative of the Dept. of Pediatrics
ORT MCH/FP Team Leader and Administrative Officer

The purpose of this committee would be:

- (A) To design the questionnaire and to employ survey supervisor and interviewing staff.
- (B) To monitor the pre-test of the community survey questionnaire.
- (C) To translate pre-test experience into the final survey instrument.
- (D) To monitor the first returns from the final survey instrument.
- (E) To direct the tabulation, analysis and interpretation of the survey.
- (F) To recommend tentative clinic operating procedures based on the survey findings.
- (G) To plan for future community surveys in this and other Zones for evaluation and for baseline purposes.

With respect to the selection and assignment of interviewers in (A) above, the Committee must have the capacity promptly to employ additional interviewers, re-assign interviewers, and in certain instances, to dismiss unsatisfactory interviewers.

AREAS OF STUDY

1. Population

- (a) Number
- (b) Age-sex composition
- (c) Literacy/educational attainment
- (d) Tribal grouping or ethnicity
- (e) Economic status
- (f) Type of housing
- (g) Density per parcelle
- (h) Marital status - age at marriage (s)
- (i) Occupation
- (j) Religion
- (k) Length of residence in Burumbu

2. Vital Rates

(a) Natality

1. Crude birth rate, last year
2. Age-specific fertility rates, last five years
3. Age-specific open intervals
4. Age-specific last live-birth intervals
5. Pregnancy outcome by ages and parities of mothers
6. Currently pregnant? Months gestation? Where attending?
7. Information on last live-birth - Where? Who attended?
Still surviving? Pre-natal care?

(b) Mortality

1. Crude death rate in last year
2. Age-specific death rate in last year
3. Stillbirth, neonatal, infant mortality rates and death rates age 1 and ages 2-4 for past five years by sex
4. Causes of death for 1 and 3 (esp. note maternal for 2)
5. Length of illness
6. Place of death For deaths in last 12 months.
7. Attendant

(c) Morbidity

1. Maternal for last delivery
 - A. Pre-natal
 - B. Delivery
 - C. Post-natal
2. Childhood, for each child under 5 years of age
 - A. Spells of illness in past month
 - B. Measles - Age of attack - immunized or not
 - C. Spleen felt or not

3. Immunizations

- (a) Ever immunized
- (b) If so, types of immunization from vaccination card

LOGISTICS

- (A) Interviewing proper.
Estimate: 3 households per interviewer per day
750 households in sample
10 interviewers
25 days of interviewing - 5 weeks
- (B) Pre-test
Estimate: 2 interviews per interviewer per day
100 interviews
10 interviewers
5 days of pre-test - 1 week
- (C) Training Depending on qualifications 1-2 weeks
- (D) Amendments to forms and printing of final forms say 1 week
- (E) Coding, checking, punching, verification, simultaneously with receipt of completed questionnaires.
- (F) Analysis The program should be prepared in advance and the results available promptly say 1 week
- (G) Special analyses and application of complex methodologies may be undertaken later, e.g., study of the relationship between birth interval and infant and child mortality.
Software for such analyses have been developed and arrangements could be made for their application in Kinshasa or on our computer facilities in New York. In this connection, we would suggest exploring the feasibility of developing more formal back-stopping arrangements between our Institute in New York and the Survey and Evaluation requirements of your program.
- (H) Total time from finalization of design and translation of tentative questionnaire to receipt of analyzed output is approximately nine to ten weeks.

USUAL HOUSEHOLD

Number _____

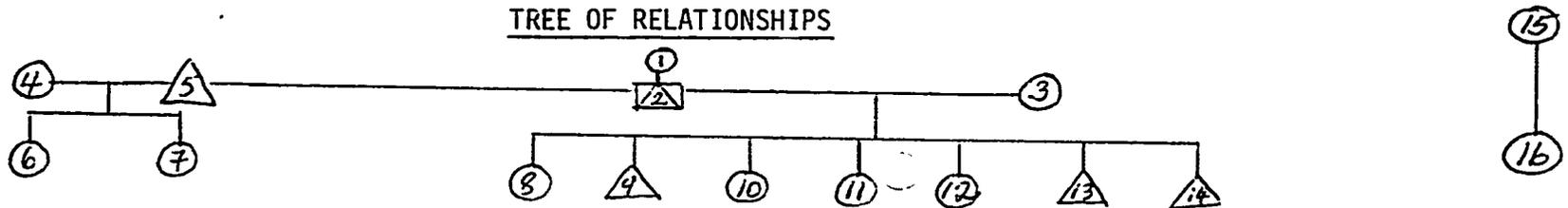
MATRIARCHAL
 PATRIARCHAL
 RELIGION OF HH
 ETHNIC GROUP
 TYPE OF HOUSE, ETC.

ATTACHMENT

No.	Name	Sex	Relation to Household	Age	Age at First Marriage	Educational Status	Occupation	Length of Residence in Burumbu	Present or Absent	If Absent		
										Where	Since	Why
			Head of HH									

-9-

TREE OF RELATIONSHIPS



PREGNANCY HISTORY

Household Number _____

Woman Number _____

Number ¹⁾	Name	Sex	Date of Pregnancy Termination		Living at Home	Pregnancy Outcome LB, SB, AS, AP, etc.	Months of Gestation	Now Alive	Date of Death		Age at Death		Cause of Death
			M	Y					M	Y	M	Y	

1) Twins to share pregnancy number.

COMMUNITY SURVEY

INTRODUCTION

The following material is an attempt to develop as specific as possible questions and guidelines for the community survey questionnaire. The intention is to provide the details necessary to an appropriate translation of the questions and to offer material which will be of use in training interviewers (this latter intention may at times lead to what may be described as belaboring the obvious). Also, by giving some indications of why certain questions are being asked, it should be possible to determine whether results of the pre-test are satisfactory or whether certain questions and approaches need to be modified.

SPECIFICATIONS FOR COMPLETING "USUAL HOUSEHOLD" REGISTER

(Revised Form Attached)

1. Household Number

The Household Number is taken from the map of zone and entered on each page of the interview questionnaire. The basic unit is the parcelle. If a parcelle has only one household, the parcelle number is to be used as the HH number. Where there are two or more households in a parcelle, each household is assigned the parcelle number plus an alphabetical suffix, A, B, C ... (precise definition of a household needs to be formulated).

2. Matriarchal/Patriarchal

A determination is made about the matriarchal or patriarchal nature of the family structure. We are informed that this may be done based on family name and ethnic and tribal origins. Specific guidelines are to be formulated for use by interviewers.

3. Religion

The religion of the head of the household is entered on the form. This is ascertained by direct questioning: "What is your religion?" or "What is the religion of the head of the household?" Of concern is current religious affiliation. If the person being interviewed doesn't know - enter "doesn't know". If the answer is no religion enter "None".

4. Ethnic Group

The ethnic and tribal origin of the head of household is entered on the form based on the answer to: "Of what tribe are you a member?" Interviewers should be trained to develop sensitivities to various indications of tribal origins, e.g., names, in order to judge the responses given.

5. Type of Dwelling

Type of dwelling has been used as an indirect material indicator of socio-economic status. Persons familiar with the construction aspects of the zone should indicate the most useful categories, e.g., brick, concrete, wood, clay, mixed composition, etc. Guidelines should be prepared in sufficient detail to enable an interviewer to classify, say, a wooden structure with a metal roof appropriately. The type of dwelling is entered on the form by the interviewer based on observation. Other material indicators of s/e status should be identified and included in the questionnaire.

5. The Register

The register is laid out in columns A-K. Note that two entries are preprinted - in column A the number 1 is preprinted and in column D "Head of Household" is preprinted. The first person to be recorded should be the head of the household. This term needs to be defined precisely. Ideally the H of H should be the first person interviewed. If the head of the household is not available, a guideline needs to be developed - should the interviewer proceed by obtaining the required information from other household members? Should the interviewer come back when the head of the household is present? How many attempts to interview the head of household should be made prior to obtaining information from another HH member?

- A. Number: As noted above, the H of H is assigned the number 1. There are many ways in which household members may be arranged on the list. The following ordering of entries should be attempted:

Head of Household

Spouse (definitions of various type of marriage are required)

Children of Head and Spouse

Second and later spouses (if applicable)

Children of Head and 2nd and later spouses

Brothers/Sisters of H of H and Spouse

Spouses of Brothers/Sisters

Children of Brothers/Sisters and Spouses

Other members of the household. Relatives and Non-relatives.

Each person listed in the register after the Head of Household should be numbered consecutively from 2 - the last person listed.

B. Name

The full name of each usual resident of the HH listed in the register is to be entered. Family name, first name, middle name is a common pattern. Name patterns of the community to be surveyed should be examined prior to fixing the procedures for name recording.

C. Sex

The sex of each person is entered (M or F) on the register. Observation of present household members and name - sex consistency and use of terms like brother or sister in connection with sex designations for absent members are methods for verifying sex reporting.

D. Relation of H of H

The relationship of each listed person to the head of the HH is entered. Usual designations include - Father, Mother, Spouse, Son, Son-in-law, Daughter, Daughter-in-law, Brother, Sister, Niece, Nephew, Aunt, Uncle, Cousin, Grandfather, Grandmother, Grandson, Granddaughter, Great Grandfather and Great Grandmother, Great Grandson and Great Granddaughter and unrelated. Often separate categories are set up for adopted or foster children. In some situations it is useful to specify caste-brother, tribal brother and whether a brother is of same father and mother, same father-different mother, same mother-different father, or different father-different mother. Patterns of kinship in the Zone must be appreciated prior to establishing family relationships.

1. Marital Status (not shown on register form - column to be added)

Determine and enter marital status:

- Not married
- Married
- Polygamous marriage
- Common law marriage

Widow
Divorced
Separated
Other

Note: It is possible that polygamous marriages could be usual or common law marriages. Only one answer should be recorded. Polygamous marriage should take precedence over specific type of marriage.

E. Age

The age in years of each listed HH member on his or her last birthday is entered on the register. Ages under one month should be recorded in days with the word "days" entered after the number. Ages of one more or more but less than one year should be recorded in months with the word "months" entered after the number.

F. Age at First Marriage

This is entered for all ever-married persons listed on the HH register. Guidelines given in E above may be applicable in determining and recording age at first marriage. If pre-pubertal marriage practices exist, it may be necessary to obtain age at consummation instead of age at marriage. If age at consummation is used it should be accompanied by the letter "C" to distinguish it from age of marriage information.

G. Educational Status

Two questions are asked of HH members above predetermined age. No entries are to be made for absent HH members. First, to establish literacy or illiteracy, the person is asked whether he/she can read or write and in which language. This may be followed with a specimen paragraph which the respondent is asked to read. Literacy is entered as "L" on the form and illiteracy as "I". Space is to be provided for designating the language in which a respondent is literate. Next, years of schooling are ascertained. How many years did you attend school? What was the last grade attended?

H. Usual Occupation

This is determined by direct questioning. What is your usual occupation? Where do you work? What do you do? After entering usual occupation, the interviewer should determine whether currently employed or unemployed. Employed is entered as "E", unemployed as "U". For school age children attending school, enter "student".

I. Length of Continuous Current Residence in Burumbu

The number of years of continuous current residence in Burumbu is ascertained for each household member. Rent receipts, property purchase records may be used to document this. As with age estimation, notable events may be used to estimate duration of residence. How long have you lived in Burumbu Zone?

J. Present or Absent

If any usual resident of the household is absent at the time the interview is conducted, as complete as possible entries for that person should be obtained for all columns of the registry. In this particular column "P" is entered for each person actually present during the interview, "TA" for those temporarily absent (persons) and "EA" for persons on Extended Absences. A useful method for distinguishing between "TA" and "EA" is to ask whether an absent person has slept in the house in the past seven days; if yes - "TA", if no - "EA".

K. If Absent

For those household members designated "EA" in J above, the interviewer must determine "where", "how long", and "why". Where is the absent person? How long has he/she been away? or when did he/she leave? Why did he/she leave? Holiday - Business - Visit Village - Pilgrimage, etc.

L. Number of Persons Interviewed

The body of the register is now completed. In some cases, the head of a household may furnish all of the required information for all of its members. More often, this is not the case and interviewers should be instructed to interview as many as possible of the adults who usually reside in the household. The

registry numbers (from column A) of all adults actually interviewed are to be entered on the form.

M. Usual Household Residents who Died in the Past Twelve Months

The H of H and adult members of the HH should be asked to recall whether any members of the household died in the previous year. The pregnancy history (completed later) should be reviewed (Col. I) to insure that deaths of children are listed in this item. The tree of relationships (see below) may be used to obtain clues about deaths, e.g., children without parents, adopted children, fathers and mothers without reported spouses, etc. Other relevant indicators should be developed. For each person who died, the following information should be obtained and entered:

Name (see 6, B above)

Age (see 6, E above)

Sex (see 6,C above) further, for all female deaths, it must be determined whether the death was in any way associated with pregnancy, childbirth or the immediate post-partum period.

Duration of Illness - in days

Place died - the zone, city or village

Facility - hospital, health center, or other health facility

Attended by - doctor, nurse, auxiliary, indigenous practitioner, etc.

It is possible that a particular adult member of the household may not recall all of the details of a particular death. Other adult members should be queried to fill in gaps and to verify details given hesitantly by another household member.

Reassurances should be given to members of the household that reported deaths will not be communicated to governmental authorities dealing with taxes, pensions and other matters which may create obstacles to accurate reporting.

Note: This reassurance should be given to apply to all information collected in the survey.

Tree of Relationships

The construction of a tree of relationships is an excellent method for checking the household relationships given on the register and for checking the pregnancy histories which are to be taken from each woman of reproductive age in the Household. We would suggest trial of this method during the pre-test. If the interviewers and supervisors are not comfortable with it and if it is determined to be of little value, it may be discarded.

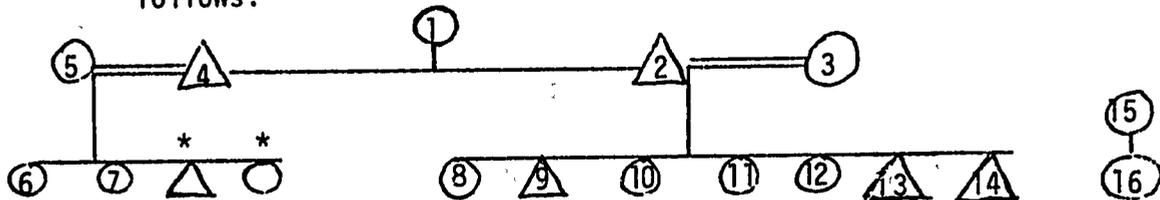
Construction rules are simple:

-  = Male
-  = Female
-  = Marriage (Polygamous marriages are simply indicated by multiple sets of bonds ()).
-  = Sibling
-  = Parent-child link
-  = Parent-adopted child link

Example - The registry shows:

<u>A</u>	<u>C</u>	<u>D</u>
1	F	HH
2	M	SON
3	F	DTR IN LAW
4	M	SON
5	F	DTR IN LAW
6	F	G DTR
7	F	G DTR
8	F	G DTR
9	M	G SON
10	F	G DTR
11	F	G DTR
12	F	G DTR
13	M	G SON
14	M	G SON
15	F	TENANT
16	F	TENANT

From the registry and with the assistance of the head of the household, we are able to depict the structure of the HH as follows:



Indicates child still alive but no longer living in household. To be ascertained by direct questioning after tree is constructed from register.

Pregnancy History (revised forms are attached)

Note: Revised form is presently on two pages. Final version should be prepared on one sheet, folded if necessary.

The number of pregnancy history forms to be used is determined by reviewing the register and selecting each woman who was ever married whose age is reported as less than fifty years. The tree of relationships offers a visual aid to identifying these women. A pregnancy history form is set up for each woman so selected and the number assigned to that woman in the household register is entered on the pregnancy history form in the space designated "woman no." IMPORTANT: a separate pregnancy history form is set up for each ever-married woman under fifty, whether she has children or not.

A fertility history is often difficult to obtain. Not only are there problems with respect to recall of events long past, making distinctions between still births and early infant deaths, and perhaps conjuring up unpleasant memories. Rapport between interviewer and interviewee is absolutely essential. This rapport is a qualitative aspect of the interview and is not easily characterized or taught. There are certain mechanical steps which may be taken to minimize the breakdown of rapport. The history is set up in such a way that interviewers must be trained to know when to stop. If a pregnancy outcome was SB, do not ask whether now alive or whether living at home. For children now alive, do not ask for date of death or age at death.

A. Number

Each pregnancy listed on the pregnancy history form is to be numbered consecutively; starting with the first through the most recent. Twins and other multiple births should receive the same number but each is to be given a separate line on the form.

B. Name

Enter the name of each child. Interviewers should be instructed not to press for names on stillbirths and abortions.

C. Sex

Enter the sex of the child.

D. Date of Pregnancy Termination

Enter month and year.

E. Pregnancy Outcome

Enter for each pregnancy LB - livebirth, SB - still-birth, AS - abortion spontaneous, AI - abortion induced, ECT - ectopic. It is important to know terms used popularly to describe these outcomes.

F. Months of Gestation

This entry may be derived from the following sequence of questioning: For each pregnancy whose outcome is given as LB ask whether the baby was full term or premature. If full-term, enter nine. If premature, ask how many months premature and subtract the number of months premature from nine and enter the difference.

G. Now Alive

For each pregnancy whose outcome is LB determine whether the child is alive on the date of the interview.

H. Living at Home

Determine whether each child now alive is living in the household.

I. Date of Death

For each child reported as not now alive (G) enter the date of death.

J. Age at Death

For each child reported as not now alive (G) enter age at death. See item E under Household Register for age reporting instructions.

K. Cause of Death

For each child reported as not now alive (G) enter cause of death.

Note: When the above information A-K has been obtained for each pregnancy, it is useful to pause and review the information collected thus far with the woman being interviewed. Particular attention should be given to the completeness of the entries (are all pregnancies and their outcomes, especially abortions and stillbirths, listed), biological impossibilities (too many pregnancies reported for a particular time period), excessively long periods between pregnancies, deaths which occurred to live born children and the order in which the pregnancies are listed. To cross-check, children listed as currently alive should match-up with the number of children shown for the woman in the "tree of relationships". It is important that pregnancies be listed in their proper order. In many cases, the determination of the proper order will involve erasures, corrections, and strikeovers. If such is the case, the form is to be recopied. We recommend that RECOPYING be done at this stage of the interview, in the presence of the woman being interviewed, to insure as correct as possible rendition of her pregnancy history.

L. Pre-natal Morbidity - Last Pregnancy

Ascertain whether the woman experienced excessive bleeding during her last pregnancy and whether she was identified as "high risk" patient.

M. Caesarian Delivery - All Pregnancies

Ascertain which, if any, of the pregnancies involved caesarian delivery.

N. Post-natal Hospital Readmission - Last Pregnancy

Ascertain whether the woman (not the baby) was admitted or readmitted to a hospital following her last pregnancy for reasons associated with that pregnancy and delivery.

O. Under 5 Illness Past Month

Determine whether any of the children under 5 were ill during the month preceding the interview. Probe with queries about hospital stays, clinic and dispensary visits, fever, diarrhea, etc. Specify the complaint in the space provided.

P. Under 5 Measles

Determine whether any of the children under five have had measles, the age at which the disease occurred, and whether the child had been immunized against measles.

Q. Under 5 Spleen

If interviewers are instructed in palpating the spleen for malaria, indicate whether the spleen is enlarged by two finger breadths or not.

R. Under 5 Immunizations

First ascertain whether each child under five has ever been immunized, and, if so, check the immunizations received in the appropriate boxes. The different immunizations should be preprinted on the form and interviewers should be instructed to ask for immunization records as evidence. They should also be informed of the past conduct of any mass campaigns in which certificates may not have been given in order to be able to judge whether a statement that a child has been immunized fits in with the type of immunization claimed and the date given.

S. Under 1 Feeding and Weaning

Determine whether any child under one is or was bottle or breast fed and the age in months at which the child was weaned.

T. Past Year Use of Health Facilities

For each person on the history form, determine whether use was made of inpatient or outpatient health facilities in the past year. If response is affirmative, determine and enter the name of the facilities used.

U. Currently Pregnant

Are you now pregnant?

V. Desired Pregnancy - Yes or No

Obtaining the answer may require probing, e.g., pregnancy planned, contraceptive use prior to pregnancy, contraceptive failure, spacing, prior births all same sex, family pressure, etc.

W. Current Pregnancy

If currently pregnant, how many months of gestation? Probe, for example, about missed period, date of last menstrual period, etc.

X. Where Attending

Determine whether the woman is being seen for pre-natal care and if so, enter the name of the health facility at which she is being cared for.

Y. Last LB Delivered at

Enter the place (institution or home, etc.) at which the woman's last live birth was delivered.

Z. Attended by

Enter the type of attendant at the delivery of the last live birth. Interviewers should be presented with the full range of possible delivery attendants, e.g., doctor, nurse, nurse-midwife, midwife, paramedical, auxiliary, indigenous midwives, family members, friends, self, etc.

Space Available for Additional Questions

This may be found at the right edge of the form. It might be possible, for example, to train interviewers to take height, weight, head circumference (under 1's) etc. If so, and if deemed appropriate, these items could easily be accommodated on the form.

THE FOLLOWING QUESTIONS ARE TO BE SET UP ON INTERVIEW FORMS AND ARE TO BE ASKED OF ALL MEN AND WOMEN IN THE HOUSEHOLD WHO HAVE REACHED MAJORITY (PERZAIRE PRACTICE) AND OF ALL MEN AND WOMEN WHO HAVE NOT REACHED MAJORITY BUT WHO ARE MARRIED. UPPER AGE LIMIT FOR WOMEN IS 50. NO UPPER LIMIT FOR MEN. ONE QUESTION FOR EACH PERSON LISTED, HH NUMBER AND PERSON NUMBER TO APPEAR ON ALL PAGES OF INTERVIEW FORMS.

Naissances Desirables

1. Have you used any contraceptive methods in the past? If yes, specify methods used.
2. Are you now using a contraceptive method? If yes, specify method in use.
3. What is your understanding of the term "Naissances Desirables" ? - Interviewers should be instructed in the range of possible answers, e.g., from the-more-births-the-better through childlessness-as-an-ideal-state, with particular emphasis on spacing, delay of first pregnancy, age of marriage considerations, and social, educational, economic interpretations of the term.
4. What is the ideal time that should elapse between consecutive births to a woman, in general, and for you (or your wife) in particular?
5. How many more children do you want, i.e., intended completed family size?
6. Of the total obtained by adding those you already have to the number in 5, how many would you wish to be sons?
7. Do you think it is sinful to use contraception, employ birth control or seek abortion? Look for terms like "God's will", "Duty", etc.
8. In terms of religion given, ask whether religious authorities would approve or disapprove of birth control, abortion.
 - A. What is a large family? What is a small family? (create tabulation)
9. Large Families - social/economic assets or liabilities. Culture specific probing is required, e.g., relating to feeding, clothing, educating, caring for health needs, rearing in general of children, old-age economic security provided by children, income derived from employed children, using children for household work, etc. It may be helpful to ask this question in the context of a predetermined set of family

sizes, i.e., relate the above considerations to families with 3 or 4 children to those with 8 or 10 children. Two separate questions. One for economic and one for social.

10. Do large families help the country? Look for terms like - growth, progress, strength, burden, etc.
11. Do you think the President wants Zairois to have small or large families?
12. Are women who have large families healthier than women with smaller families? Interviewers should direct this question to the consequences of having large families and not to any implied assertion that a woman must be healthy in order to have a large family.
13. Are children of large families healthier or less healthy than children of small families?
 - A. Knowledge of contraceptive methods. Indicate methods with which respondent is conversant. Judgment to be made based on knowledge of use, procurement, timing, method of operation, etc.
14.
 - A. What methods would you consider using yourself?
 - B. What methods would you approve for use by your spouse?
 - C. Whose responsibility should contraceptive practice be? Husband or wife, man or woman?
15. Have you ever been concerned about the inability to conceive? For men ask about wife.
 - A. Have you ever been worried or afraid of becoming pregnant? for men ask with reference to wife's becoming pregnant.
16. Who makes the decision to use contraception? Man, Woman, Couple, other parties involved (doctor, clergy, elders)?
17. Views on Reproductive Physiology
 - (a) How often does a woman release an egg?
 - (b) When is a woman most likely to become pregnant (relative to menstrual cycle)?
 - (c) How soon after birth of a child can a woman become pregnant?

- (d) How soon after birth of a child should a woman become pregnant?
 - (e) At what age do men become capable of reproduction?
 - (f) At what age do women become capable of reproduction?
 - (g) At what age do men cease to be capable of reproduction?
 - (h) At what age do women cease to be capable of reproduction?
18. When does an embryo become a person? When does life begin, months of gestation, delivery, some period of time following delivery (naming, etc.)?
19. Was your (your wife's) last pregnancy a desired pregnancy?
20. If appropriate, consider formulating questions to determine:
- (a) Menstrual taboos (men and women)
 - (b) Condoms and increased/decreased sexual pleasure
 - (c) Association of use of condoms with prostitutes
 - (d) Views with regard to infertility
 - (e) Post-partum taboos on intercourse

(Note: appropriate tabulations to be developed)

To be Asked of Mothers

1. See Pregnancy History - Item 5
2. Do you believe sudden weaning or gradual weaning to be the best practice?
3. How long do you like to breast feed a baby? (Age of baby, not time per feeding is the issue.)
4. Do you approve/disapprove of bottle feeding for babies of women who have an adequate supply of breast milk?
5. At what age (age of child) was your youngest breast fed child weaned?
6. Reason for weaning youngest weaned child - reached age for weaning, not enough milk, child became ill, mother became ill, mother became pregnant, other.

7. Is breast feeding while pregnant harmful to the child, the mother, the pregnancy?
8. What foods are usually eaten by children?
9. Are there any foods that are specially given to children?
10. What are the reasons special foods (8 above) are given to children? Health, growth, intelligence, mystical reasons, etc.
11. Are there any foods specially withheld from children?
12. Reasons for withholding certain foods (10 above) from children?
13. Are there any foods specially given to pregnant women? Reasons.
14. Are there any foods specially given to nursing mothers? Reasons.
15. Are there any foods specially withheld from pregnant women? Reasons.
16. Are there any foods specially withheld from nursing mothers? Reasons.
17. Are there any foods specially given to women? Reasons.
18. Are there any foods specially withheld from women? Reasons.
19. If appropriate, determine whether there are any basic categorizations of food groups, e.g., hot or cold foods.
20. Determine the significance of any categorizations in 19.
21. If more money were available, what additional food items would or would not be purchased? Note: appropriate list needs to be developed.
22. Do any foods help a man or woman to conceive? Specify.
23. Do any foods hinder conception? Specify.

Treatment

1. Where would a man or woman go in case of illness?
2. Where would you take a child in case of illness?
3. From pregnancy history Col. T.
4. Have you ever heard of the Burumbu Center?
5. Is the Center for everyone, adults only, children only, mothers and children only?
6. Given a choice and given equal therapeutic efficacy, what method of treatment preferred? Injection, pills, mixture, operation, suppository, ointment, etc.

Miscellaneous Noted

List of Parcelles

As noted in the preliminary recommendations, the parcelles in the Zone are to be numbered consecutively and shown on a map of the Zone (if possible in advance of the survey, if not possible, then during the survey). Survey supervisors should prepare a listing comprised of the numbers of each parcelle in the sample. The list should also itemize the number of households in each parcelle. As interviews are completed, they should be checked against this listing to insure that all parcelles and all household in all parcelles are covered.

Translation and Language

Decision needs to be made concerning the use of French, Lingala, and other translations of the questionnaire. Depending upon these decisions, it may be necessary to record information on the language spoken in each household and the language used in the interview.

Forms

There are three basic interview schedules:

1. Household Register
2. Woman's Form including:
 - a. pregnancy history
 - b. naissances desirables
 - c. other questions to be asked of women
3. Men's naissances desirables questionnaire (essentially these are the same questions that appear on the woman's naissances desirables Form. Some of the questions in 2.c. above may also be included on the men's form. If this is done, the questions should be re-phrased to apply to men.

Completeness

Forms should be reviewed for completeness by the interviewer and by the supervisor. The interviewer should conduct the review while still in the household surveyed. The supervisory review should take

place upon return of the completed questionnaire. Reviews are to be made for completeness and accuracy (e.g., some of the obvious inconsistencies and double checks noted earlier. In case of missing, incomplete, or questionable information, it may be necessary to return to the household for clarification.

Consistency

Training of interviewers should emphasize consistency in asking questions among different interviewers and for the same interviewer in different interviews. Another area of concern is the need for consistency between the way in which naissances desirables questions are asked during the survey and the way in which similar questions are to be asked of naissances desirables acceptors in the clinics.

PREGNANCY HISTORY

Household Number _____

Woman Number _____

A	B	C	D	E	F	G	H	I	J	K			
1) Number	Name	Sex	Date of Pregnancy Termination		Living at Home	Pregnancy Outcome LB, SB, AS, AP, etc.	Months of Gesta- tion	Now Alive	Date of Death		Age at Death		Cause of Death
			M	Y					M	Y	M	Y	

-33-

1) Multiple births (twins, etc.) to share same number, but each to be given separate line.

- U - currently preg.
- N - était désiré
- W - mos gest.
- X - where attending
- Y - last LB deliv. at
- Z - attended by

Yes	No

TABULATIONS

The following suggested tabulations, while not exhaustive, are a reasonably comprehensive list of the useful arrangements of data which can be derived from the proposed questionnaire.

Should it be felt desirable, the number of tabulations can be reduced by expunging categories of cross-tabulations. Where data are suggested for cross-tabulation with age or parity, however, these should always be retained.

Note: A program for analysis of infant and child mortality in relation to family formation patterns - an issue of great importance to the establishment of medical standards for naissances desirables - is underoing development at the moment at the International Institute for the Study of Human Reproduction in New York. The data sheets of the Burumbu study as proposed are easily adapted to this program. If desired, this analysis could, after the tabulation program described herein has been completed, be performed either by sending us the data in New York, or by our sending the computer program to you in Kinshasa.

TABULATIONS

A. Population

1. Population by age (0, 1, 2, 3, 4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-59, 60-69, 70 and over) and sex.
2. By sex and tribal group.
3. By age in 5 year group from 10 up to 49 and 10 year groups 50-69 and marital status for each sex separately.
4. For five year age groups 10-49 and 10 year groups 50-69. Age and literacy for each sex and each language.
5. Same age-groups, education attainment by age each sex separately for each tribal group.
6. Distribution number of persons per household for each tribal group.
7. Distribution number of married women 15-49 per household each tribal group.
8. Distribution number of children.0-4, 5-9, 10-14 per household in each tribal group.
9. Age by Age at marriage, each sex married persons only.
10. Frequency distribution occupations, men > 15 only.
11. Age at marriage by tribal group each sex married persons only.
12. Working/non-working by age and sex.
13. Religion by tribal group (households).
14. Length of residence in Burumbu by age, each sex.
15. Persons per household by type of housing.
16. Persons per household by economic indicators.

B. Vital Rates, etc.- Natality

1. Crude birth rate last year: All births recorded in pregnancy forms as in previous 12 months plus total population sample (incl. absentees).
2. ASMR's, last 5 years:
Numerators: Births recorded on pregnancy forms in last 5 years by ages of mothers and years since births.
Denominators: For each year, women then married by age. Use 5-year age-groups 10-49.
3. Age-specific open intervals. For all women < 50 with at least one live birth: Open interval in months = date of survey minus date of last live birth. Age = Age at last live birth date. Use 5-year age-groups; 3 month interval groups.
4. Age - specific last live birth intervals. For all women < 50 with at least two live births.
 - (a) Prospective: Interval = date of last live birth minus date of second last live birth. Age = Age at date or second last live birth.
 - (b) Retrospective: Interval as above. Age = Age at last live birth. Use 5-year age-groups; 3 month interval groups.
5. Pregnancy outcome by Age of mother. For all pregnancies:
Outcome 1 = liveb 2 = stillb 3 = spontaneous A/B
4 = induced A/B 5 = ectopic 6 = live multiple birth
7 = live & still multiple combined 8 = still multiple birth.
Age of mother = Age at pregnancy termination 5-year age-groups.
6. Pregnancy outcome by Parity. For all pregnancies.
 - (a) Gravidity. Outcome as above by pregnancy number (group p. nos. 1, 2, 3, 4-5, 6-7, 8-9, 10 +).
 - (b) Parity. Outcome as above by number of previous live births plus 1 (multiple births) count as 2 or 3) (group parities, 1, 2, 3, 4-5, 6-7, 8-9, 10 +).

7. Currently pregnant by open interval and age.
8. Currently pregnant by open interval and last pregnancy number (open intervals grouped in 3 months).
9. Currently pregnant by months durations and place attending (Individual months duration).
10. For last live births:
 - (a) Where attended by age of mother
 - (b) Category attendant by where attended
 - (c) Surviving or not by age x parity of mother.
(5-year age-groups; Parities: 1, 2, 3, 4-5, 6-7, 8-9, 10+)
 - (d) Surviving or not by pre-natal care or not
 - (e) Surviving or not by where attended
 - (f) Surviving or not by who attended

C. Vital Rates, etc. - Mortality

1. Crude death rate in last year. All deaths in households in past 12 months x 1000 : Population total (incl. absentees).
2. Age-specific Mortality Rate in last year.
Numerators: All deaths in past year by ages at death and sex (Age groups 1, 2, 3, 4, 5-9, 10-14, 15-19, etc.)
Denominators: Population by age and sex as presently constituted (Note: correction for change in population size + age-distribution not warranted).
3. Stillbirth Rates. All pregnancy terminations of stillbirth category + by all pregnancy terminations of either live or stillbirth category for each of the past five years.
4. Infant mortality rate for past year. All deaths up to age 1 year in past year + Population up to one year of age plus all deaths up to one year in past year. For each sex separately.

5. Neonatal mortality rate past year: All deaths before 1 month of age in past year divided by population under one year of age plus all deaths under one year of age in past year. For each sex separately.
6. Post-neonatal mortality - past year: All deaths 1 month of age or older and less than 12 months of age in past year divided by population under 1 year of age plus all deaths under one year of age in past year for each sex.
7. Infant mortality rate, etc. All deaths up to one year of age in past 5 years. All births in last five years. Separately for each sex.
8. Neonatal mortality rate, last 5 years. All deaths less than 1 month of age for past 5 years ÷ All births in last 5 years. Separately for each sex.
9. Post-neonatal mortality rate last 5 years. All deaths older than 1 month and younger than 12 months in past 5 years ÷ All births in last 5 years. Separately for each sex.
10. Death rates aged 1, last five years.

All deaths, aged 1 year and under 2 years in last 5 years ÷
(All children born later than 6 years before survey and earlier than 2 years before survey plus 1/2 (All children born later than 7 years before and sooner than 6 years before or later than 2 years before survey and sooner than 1 year before) - 1/2 (All deaths aged 1 year and under two years in past 5 years)).

11. Death rates 2-4 years, last 5 years.

One third of:

All deaths aged 2 years and under 5 years in last 5 years

	1/6	all children born between	10	and	9	years ago		
+	1/2	"	"	"	"	9	"	8
+	5/6	"	"	"	"	8	"	7
+		All children born between	7	"	5	"	"	"
+	5/6	all children born between	5	"	4	"	"	"
+	1/2	"	"	"	"	4	"	3
+	1/6	"	"	"	"	3	"	2
-	1/2	(all deaths aged 2 years and under 5 years in last 5 years)						

12. Infant mortality by cause of death, past 5 years. All deaths under 1 year of age in last five years by cause of death, separately for deaths under 1 month and 1 month of age and over.

13. Deaths of women aged between 10 and 49 in past year. Associated with pregnancy ÷ Number of live births in past year.
14. Deaths in past 5 years at age 1 and less than 2 years by cause of death.
15. Deaths in past 5 years at ages 2 - under 5 years by cause of death.
16. Deaths in past year:
 - (a) Distribution of lengths of last illness. group \leq 1 week; $>$ 1 week; $<$ 1 month; 1 - $<$ 6 months; 6 months or longer.
 - (b) Place of death by age and sex (Age groups 0 - $<$ 1, 1-4, 5-9, 10-49, 50 +).
 - (c) Attendant by age and sex (group as above).

D. Morbidity

1. For last delivery
 - (a) Pre-natal bleeding by Age-groups (5 years). All last pregnancies.
 - (b) Pre-natal bleeding by Pregnancy orders (1, 2, 3, 4-5, 6-7, 8-9, 10 +).
 - (c) Pre-natal high risk by Age groups. All last pregnancies.
 - (d) Pre-natal high risk by Pregnancy orders. All last pregnancies.
 - (e) Caesarian Section by Age group. All last pregnancies with outcome live or still birth.
 - (f) Caesarian Section by Pregnancy order. All last pregnancies with outcome live or still birth.
 - (g) Post-partum re-admission by Age group. All last pregnancies.
 - (h) Post-partum re-admission by Parity. All last pregnancies.
2. All Pregnancies. Caesarian Section ÷ All pregnancies of outcome live or still birth by years of delivery (group: 1972-4; 1969-71; 1965-68; 1960-64; before 1960).

3. Children under 5 years of Age. Last month
 - (a) Spells of illness by single years of age
Number of children of that age currently living
 - (b) Spells of illness by single years of age by type of illness. (Note: Illness to be specified on form. Categories and codes to be established after inspection of data).
4. Children under 12. History of measles by age of attack and whether immunized. No history of measles and by age of child and whether immunized.

5. Children under 12.

Spleen 2 finger breadths by age

	Age												
	<1	1	2	3	4	5	6	7	8	9	10	11	Total
Spleen felt													
" not felt													
Unknown													
Total													
Ratio felt:													
(Felt + not felt)													

E. Immunization

1. Immunization under 5.

Ever immunized by single years of age.

2. For those ever immunized under 5. Types of immunization by age.

	<1	1	2	3	4	Total
Variole						
DTP						
BCG						
Polio						
Measles						
Other						

F. Naissances Desirables

1. Previous practice by method and age, method and parity, method and tribal group, method and literacy (each language), method and education, method and religion, method and length of residence. For each sex (parity of wife for men).

2. Current practice by all of above.

3. Understanding of term by age, by tribal group, by literacy, by education, by length of residence and by whether previous practice or not, each sex.
4. Views on spacing (a) personal (b) general by age, by education, by tribal, by length of residence (each sex).
5. Family-size intentions by parity, by age, by tribal group, by education, by religion, by length of residence, by whether previous practice or not. (Each sex, parity of wife for men.)
6. Number of sons desired by number of children desired. (Each sex.)
7. Thinks birth control, abortion not sinful/sinful by age, cross-tabulated with: (a) education (b) tribal group (c) religion (d) economic status index, by parity cross-tabulated with (a), (b), (c) and (d) both sexes.
8. Thinks religious (church) authority approves/disapproves of birth control/abortion tabulated as for 7 both sexes.
9. Thinks large families (a) economic (b) social assets/liabilities tabulated as above and by age and occupation, age and occupation of husband, parity and occupation; parity and occupation of husband. Both sexes (not parity + age by occupation of wife for men).
10. Thinks large families help Zaire/do not help. Tabulated as in 7.
11. Thinks the President wants families to be larger/smaller. Tabulated as in 7.
12. Thinks large families healthier, less healthy for women. Tabulated as in 7.
13. Thinks large families healthier, less healthy for children. Tabulated as in 7.
 - (a) Knowledge of injection, pill, I.U.D., condom, spermicide, sterilization, withdrawal, rhythm, by age, by education, by tribal group.
14. Can imagine (a) self (b) spouse using contraceptive
Preference for method by age, by education

Injection	Withdrawal
Pill	Rhythm
I.U.D.	
Condom	
Spermicide	
Sterilization	

 - (a) Responsibility for contraception by age, by education,
by tribal group

15. Ever been worried because failed to conceive? by age and parity.
 - (a) Ever been worried about or afraid to conceive? by age and parity.
16. Who shares with your decision to use family planning or choice of methods by age, by tribal group, by education.
17. Views on physiology of reproduction. Correct/incorrect or tabulated by category of response (for each question) by age, by education, by tribal group.
18. At what age does an embryo become a person? Replies by age, religion, tribal group, education.
19. Last pregnancy desired/not desired by age, pregnancy no. of last pregnancies, education.

G. For Children under 1 Year

1. Breast, bottle, either by age of child (in months)
2. Mothers of children under 5
Mother believes in sudden weaning/gradual weaning by age and tribal group, by age and education.
3. Mother likes to breast feed how long? by age, by tribal group, by education.
4. Mother approves/disapproves bottle feeding for women with supply of breast milk; by age, by tribal group, by education.
5. Youngest weaned child (if any) breast fed how long? by age, by tribal group, by education
6. Reason for weaning youngest weaned child by age, by tribal group, by education. Reasons: reached age for weaning; not enough milk; child became ill; mother became ill; mother became pregnant; other.
7. All mothers: believes breast feeding while pregnant harmful (a) to child (b) to mother (c) to pregnancy, by age, by tribal group, by education.
8. Foods children usually eat by tribal group.
9. Foods specially given to young children by tribal group.

10. Reasons for giving special foods to young children by tribal group.
11. Foods specially withheld from young children by tribal group.
12. Reason for withholding special foods by tribal group.
13. Foods specially given to pregnant women by tribal group.
14. Foods specially withheld from pregnant women by tribal group.
15. Foods specially given to nursing mothers by tribal group.
16. Foods specially withheld from nursing mothers by tribal group.
17. Special women's food by tribal group.
18. Foods not given to women by tribal group.
19. Hot foods/cold foods by tribal group.
20. Significance of hot/foods/cold foods by tribal group.
21. If had more money would/would not buy more
 - (a) meat
 - (b) milk
 - (c) eggs
 - (d) fats
 - (e) vegetables
 - (f) food altogetherby economic status, by parity.
22. Do any foods help a woman/man to conceive? If so, which? Do any foods hinder? If so, which, by tribal group.

H. Treatment

1. Where would go in case of illness, self or husband by age, by tribal group, by education?
2. Where would go in case of illness, child, by age, by tribal group, by education?

For Women + Children under 12

3. Facilities used in past year by sex, age, and by education.
4. Has heard/has not heard of Burumbu Center by age, by parity, by tribal group, by education, by literacy.

5. Believes Center for everyone, for adults only, for children only, for mothers and children only, by education, by literacy, by tribal group.
6. Preferred treatment by tribal group, by age, by education.

RECOMMENDATIONS FOR RECORD-KEEPING SYSTEM

AT BURUMBU MCH CENTER

The system outlined below has been designed primarily to fulfill the administrative requirements of the Center, facilitating smooth and efficient service. A secondary aim has been to provide for the rapid extraction of routine service statistics for the monitoring of the work of the Center and measuring its case-load. A third consideration has been to ensure compatibility and comparability with the record-system currently in use at the Mama Yemo Hospital, while a final one has been to provide the opportunity for evaluation and special studies in each of the clinics.

We have taken note of the various forms in use at the MMY and the several new designs which have been proposed for the MCH Centers. To some of these forms we have certain modifications to propose which we suggest may improve their usefulness or render them simpler to use.

We recommend a central filing system for the Center in which the same number is used by all members of the one family at all clinics. In a service seeking to integrate a variety of interconnected forms of medical and health care, in which the same patient, or her children, will successively or contemporaneously, make use of divers clinics staffed by different personnel, this is the only reliable way of ensuring that relevant information is not constantly inaccessible, and likewise the only satisfactory way in which relationships between events at different points in a woman's reproductive life can be established.

To this end, a central core file is suggested in which all individual clinic patient records (except N.D. cards) will be stored.

Day-Books

Each clinic (including each of the separate sections of the Paediatric Clinic) will maintain its own Day-Book in which will be noted, in addition to names and number of all attending patients, such details as are necessary to provide informative tallies on daily, weekly, monthly and/or annual basis of the nature and amount of work done in each clinic and the characteristics of the patients attending. We suggest that (with the exception of the Delivery-room Day-book (which will be identical with the well-tried pattern in use at MMY) each Day-book should contain two blank columns to allow for additions later found to be necessary or desirable, and to permit from time to time the ready collection of specific information for special studies.

Personal Records

Each clinic will provide an individual record of each patient attending. With the exception of a part of the Under-fives Record (growth-chart) and an extract of the immunization record (which should in our view be amalgamated on the one sheet) which are entrusted to the patient's mother, and the N.D. Record Card which will be filed at the ND Clinic, all individual records are designed to be stored in the central file folders until the patient re-attends the appropriate clinic.

Appointment Cards

Appointments are recorded on Appointment Cards at each clinic and these are entrusted to patients.

Referral Slips

All referrals are made in writing in duplicate, one copy being given to the patient, the other being sent with the relevant clinic record to the referee institution. Records "lent out" in this way incur a notation on the central file folder, as do records borrowed for research or evaluation analysis.

The detailed processes of the record system are described in a later section. At this point, particular recommendations regarding certain forms are noted:

1. Pre-natal, Delivery, Post-natal Personal Records

Excellent pro-formata for the first two of these have already been developed. We would suggest that these two forms be combined and, with a slight modification, accommodated to include the third. I.E. Using a sheet twice the size of the existing "partogramme" form, print on one side, side by side, the front and back of the pre-natal form B.2. On the other side, print the front and back of the partogramme. This will leave the two related histories inseparable.

By raising by about one inch the block provided for following the in-hospital course of mother and child, an additional space for observations at a post-natal return visit could be provided.

The form would fold down the center and could be opened to display on one side the entire pre-natal history, on the other the history of labour, delivery and its aftermath. The value of this juxtaposition for exploration of the prognostic significance of events and findings during pregnancy is clear.

2. Under-Fives Personal Record Form

The proposed forms, which incorporate a study of development, consist at present of ten or twelve separate sheets. We believe these could be consolidated into a double two-sided sheet with no loss of information but very considerable gain in clarity and susceptibility

for analysis for the purpose of setting standards based on local data. A design of such a form is included herewith, together with a description of how it might be used.

3. Naissances Desirables Personal Record (Motivation) Form

The information obtained from this form will be used in the design and modification of the coming national program of N.D. and we have therefore considered it in special detail. There are, we believe, a number of additional items of value which should be added to the form in order to provide the most useful possible picture for this purpose and in particular, we feel it necessary to provide for regular recording and processing of follow-up visits both in the clinics and, where clients have ceased attending, in their homes.

To this end, we have used the existing form as a model for designing a new and somewhat more comprehensive form, particularly adapted to mechanical or electronic processing. One item - "source of referral" - has been transferred to the Day-book to provide more rapid assessment of motivational campaigns and specific inputs, and because linkage of this item to other individual client characteristics has little value.

Statistics and Studies

Four sources of statistics will be available from the Center.

1. Day-books will provide tallies easily and rapidly producible of the numbers of clients attending each clinic, their division between new and pre-existing clients, their zones of habitation, whether attending by appointment or not, and details of referrals and new appointments. For children there will additionally be information as to age, sex and where the child was born. Information regarding internal transfers between Under-fives, Immunization and Dispensary Clinics will be available and details of immunizations given will be extracted. The N.D. Day-book will also distinguish contraception from infertility clients, record re-visits by method, new visits by method prescribed and enable determination to be made of method changes. Delays in returning for appointments - a good index of faulty use of pills and injections - will also be noted. The Maternity Day-book will serve, as at MMY, as a source of legally required statistics.

2. Individual Record Cards

These will contain a large amount of additional information extractable by directed effort. Because it is anticipated that relatively frequent and detailed analysis of N.D. experience will be required, special features relate only to N.D. cards. These include the adaptation of the form for key-punching and the segregation of N.D. records from the central filing system of the Center.

The assessment of "family planning" programs depends primarily on

- (a) analysis of the characteristics of acceptors, and
- (b) on the determination of the diligence and effectiveness of use.

While (a) can be done exhaustively from the record form, (b) will require in addition home-visiting follow-up of "delinquent" or non-returning clients to determine whether or not they are continuing use (e.g., of I.U.D.'s) and why they have discontinued attendance and/or contraception.

If desired, a schedule for the analysis of (a) and (b) can be provided later.

The extraction of information of a systematic nature from other clinic records will be done on an ad hoc basis, and may be done from all forms or from a sample of them.

3. By Follow-up Survey

A re-survey of Burumbu is tentatively planned for 1976. This will present the opportunity to make comparisons between that part of the population availing itself of the Center's facilities and the remainder. Many specific questions, including e.g., mortality rates of children attending the clinics, satisfaction with services provided, discontinuation of use of the Center, use of rival facilities, can only be answered by such means.

4. Cardex File

Certain specific studies of clinic utilization can most readily be conducted using this source.

Patient and Forms Flow and Record Processing

The registry of the Burumbu Center is the first stop for all patients coming to the Center. Numerical patient files (with all members of the same family using the same number) and alphabetical cross-reference cardex files are to be maintained at the registry.

We propose that a unique numbering system be established for the Burumbu Center (and for each new center that may be opened). This may be accomplished by using an alphabetical prefix and the standard configuration (____ / __) now used at the Mama Yemo Hospital. Thus, the first patient to be seen at the new facility will be designated: Q 00001/73. Any of her children using the Center will be assigned the same number with each child further designated A, B, C ...n.

When a number is assigned to a patient a file folder (A1) is opened, and an identity card (A2) is issued, and a cardex file card (A3) is created. Separate cardex cards are not to be made for children. Their names are to be entered on cards established for their mothers.

To illustrate the use and processing of the proposed forms, we shall take a hypothetical case of a primiparous woman who first appears at the Center for ante-natal care and follow her through the course of ante-natal, routine delivery, post-natal, and naissances desirables services for herself and child health services for her baby.

First Ante-natal Visit

1. At the first ante-natal visit, the Center registry opens a file folder (A1) for the woman. At the same time, an identity card (A2) is issued and a cardex file card (A3) is prepared.
2. The woman carries her clinic record to the ante-natal clerk station where the clerk records her attendance in the ante-natal clinic Day-book (B1).
3. Upon being seen by clinical personnel, her ante-natal record (B2) is completed, routine laboratory tests are requested (on existing forms), and the date of her next appointment is set.
4. Returning to the clerical station, the woman is issued an appointment card (B3) and the clerk completes entries for that woman in the ante-natal Day-book (B1). NOTE: In later visits, appointments are entered on the previously issued appointment card. Only when the previous appointment card is lost is a new one issued.

5. The woman proceeds to the laboratory where the required tests are performed.
6. The woman returns to the registry where she deposits her ante-natal clinic record (B2) and departs.
7. Registry personnel file the clinic record (B2) in the woman's file folder (A1).
8. Laboratory reports are sent to the registry where they are filed in the woman's file folder (A1).

Later Ante-natal Visits

9. The woman presents her I.D. card (A2) or her appointment card (B3) at the registry. Her file folder (A1) is located and she is given her record (B2) which now may include the results of laboratory tests.

or

10. If the woman appears without her I.D. card (A2) and without her appointment card (B3), she gives her name at the registry. The cardex (A3) is consulted, her I.D. number is obtained, and her file folder (A1) is located. She is given her clinic record (B2) which now may include the results of laboratory tests. NOTE: If an I.D. card is lost a new one is to be issued at this step.
11. The woman proceeds to the ante-natal clinic where steps 2-8, as appropriate, are repeated.

Delivery and Neo-natal

12. The woman appears at the registry where step 9 or 10 takes place. She is given her chart (C2) and she proceeds to the maternity.
13. During her stay in the maternity, her chart (C2) is maintained and upon delivery, appropriate entries are made in the delivery Day-book (C1).
14. Post-delivery observations are entered on the woman's chart (C2).
15. Neo-natal observations are entered on the woman's chart (C2).
16. Upon discharge, the woman is given post-natal and pediatric appointment forms (B3) (D8), and if motivated, N.D. appointment form (E4).
17. The woman deposits her chart (C2) at the registry and departs.
18. The chart (C2) is replaced in the file folder (A1).

Post-natal Consultations

19. Step 9 or step 10 followed by step 11.

Pediatric Consultations

20. When the child is brought to the Center for the first time, steps similar to 9 or 10 are carried out to establish that the child had not been a prior patient at the Center.
21. The registry enters the child's name and number on the file folder (A1) and on the mother's cardex file card (A3). The registry creates the following forms (each including the child's name and number); Clinic record, growth chart and immunization record (D5 D6 D7).
22. The child is brought to the pediatric clerk where clinic attendance is recorded in a Day-book (D1).
23. The child is seen at the Under-fives clinic where it is examined. The clinic record (D5) is updated (this may include copying information from the mother's delivery chart (C2) and from any other forms established while the child was in the nursery).
24. The child's growth chart (D6) is updated and given to the mother.
25. The child's attendance at the Under-fives clinic is noted in the Day-book (D2).
26. The child's next appointment is noted on the appointment card (D8).
27. The child is brought to the immunization clinic where the child is immunized and the clinic record (D5) is updated.
28. The immunization record (D7) is updated and given to the mother.
29. The child's attendance at the immunization clinic is recorded in a Day-book (D3).
30. The child's next appointment is noted on the appointment card (D8).
31. Mother and child exit via the registry where records (C2 D5) are deposited for refiling.

Dispensary

A child may proceed to the dispensary via the Under-five or immunization clinics or directly from the registry. In certain types of emergencies, it should be possible for a child to bypass the registry and proceed directly to the dispensary. In such cases, a dispensary clerk should obtain the appropriate records from the registry.

32. The child is brought to the dispensary where he or she is seen and the clinic record (D5) is updated.
33. The child's attendance at the dispensary is noted in the Day-book (D4).
34. The child's next appointment is noted on the appointment card (D8).
35. The child leaves via the registry where records are deposited for refiling.

Naissances Desirables - First Visit

36. Again, the first stop is the registry. If the woman is already a clinic client, a naissances desirables clinic card (E2) is issued and her clinic number is entered on the N.D. card. The file folder (A1) and the cardex (A3) should be annotated to show that the woman has requested naissances desirables services. If neither the woman nor any member of her family had previously been seen at the Center, step 1 would precede the issuance of the N.D. card.
37. The woman is given her naissances desirables clinic card (E2) and her delivery chart (C2), if applicable, and is directed to the naissances desirables clinic.
38. The woman's attendance is entered in the naissances desirables Day-book (E1) and a naissances desirables cardex card (E3) is created and filed at the N.D. clinic.
39. The woman is served at the N.D. clinic and her clinic card (E2) is updated and filed at the N.D. clinic and the services rendered are entered in the N.D. Day-book (E1).
40. The woman's next N.D. appointment is entered on her N.D. appointment card (E4).
41. The woman exits via the registry where any non-N.D. records are deposited for refiling.

Naissances Desirables - Subsequent Visits

42. The woman clears the registry and proceeds to the N.D. clinic.
43. Steps 38-41 are followed with minor variations, as follows: in step 38 cardex card is not created during subsequent visits, and in step 40 new appointment card is issued if old one is reported lost.

In addition to the routine processing of normal cases proceeding logically through orderly sequences of maternal and child health and naissances desirables services, exceptions to routine handling must be considered and procedures devised to incorporate them within the overall system.

Emergency Referrals to MMY

Emergency referrals required during the pre-natal period, during delivery, and for acute pediatric problems are to be handled in the following manner:

44. Patient records, together with an appropriate referral form, go with the patient directly to MMY Hospital. Appropriate Day-books are to be noted accordingly and the referral is noted on the file folder in the registry.
45. The MMY Hospital should keep such referred records apart from its own records and upon completion of the services requested in the referral, the entire record (including MMY records or abstracts) should be returned to the center for refiling in the file folder. Unless a patient is proceeding directly to the Center, records should be returned by messenger and not by the patient.

Routine Referrals to MMY

Routine referrals are those which call for consultation at MMY to take place at some future scheduled date. These are to be handled as follows:

46. An appropriate referral form is prepared in duplicate and Day-books are noted to show referral has been made.
47. The patient presents the referral form at the registry. Relevant material from the patient's file is clipped to one copy of the referral form and this package is sent to MMY to await the appearance of the referred patient. Records referred from the Center to the MMY Hospital should be kept separately at the MMY Hospital. The patient's file folder cover is annotated to show that a referral has been made.
48. The patient presents the referral form at MMY Hospital.

NOTE: MMY Hospital gatekeeper must be alerted to honor these referral forms.

49. Upon completion of the services requested, the entire record (including MMY records or abstracts) should be returned to the Center for refiling in the patient's file folder. The folder cover should be noted that the forms have been returned.

Infant Care Starting in the Nursery

Where immunization and well baby care starts in the nursery, the child's clinic record (D5), immunization record (D7), and growth chart (D6) are to be established in the nursery. Any procedures performed should be incorporated in the appropriate pediatric Day-books via special forms set up for use in the nursery and transferred at the end of each day to the appropriate pediatric clerical station. Upon discharge of the mother and the child, appointment cards are to be issued and records are to be deposited at the registry for refiling. At the time of re-filing, file folders and cardex files are to be updated with information on the new child.

Entry Points to Center Services

Regardless of the point of entry to services, attempts should be made to establish files and cardex records for each new person seen at the Center. For example, if a child who has never been seen at the Center or whose mother has never been seen at the Center appears for dispensary services, a file and a cardex should be set up for the family.

New Clients

All new clients must be screened carefully to determine their past use of Center services. Prior to issuing a number to a client (whether for MCH or N.D. purposes), it is imperative to check the cardex file at the registry. Also, procedures should be employed to ascertain whether new Center clients were formerly clients of MMY or other centers and whether MMY clients without referral forms were formerly Burumbu or other Center clients.

Patient Sequence at the Center

The system of Day-books employed at various clinic locations provides a basis for the orderly flow of patients at the various clinics. Upon leaving the registry each patient proceeds to the clinic Day-book station. The order of entries in the Day-book becomes the order in which patients are seen at any particular clinic.

ADDITIONAL NOTES

A. Case-Load

Patients will come to the Center from both Burumbu and Kinshasa Zones. The base-line survey will provide detailed information about the former population, but little will be available from the latter.

Pending the results of the survey, it should be noted that women of reproductive age will represent approximately one-fifth of the total population in each Zone, and children under five years of age little less than one-quarter.

B. Records at MMY

Two specific questions were asked on this score. We recommend -

1. That no attempt be made to incorporate the past records of normal pregnancies into the central filing system.
2. That the Naissances Desirables clinic continue to maintain its own independent filing system, retaining records on its own premises.

C. "Naissances Desirables" towards a Definition for Zaire

This felicitous term appears to have a double connotation - the selection of number and timing of births in accord with the desires of parents, and the guidance of parents towards the selection of reproductive patterns which optimize probabilities of healthy outcomes for mothers and children. There are several ways in which information collected at the Center may help to elucidate the health implications of differing reproductive patterns:

1. The analysis of fertility histories (obtained in survey and at pre-natal clinic) as indicated in the document "Preliminary Recommendations for the Conduct of a Community Survey, p. 9, G. to show relationships between child spacing and other aspects of family formation and child mortality.
2. Analysis of maternity record cards (combined pre-natal, delivery, post-natal) to establish relationships between maternal and peri-natal morbidity and family formation patterns - especially parity, age, and spacing patterns.

3. Analysis of growth and development as recorded at the Under-fives Clinic in relation to birth order, size of family, interval to birth of next child, age of mother, etc.

The establishment of medical standards for naissances desirables suggests also methods of monitoring actual reproductive performance and partitioning births between medically desirable and medically undesirable births and observing changes in their relative frequency over time. The method used would be the "Numerator Analysis" technique designed by Ravenholt and Fredriksen.

To do this, an age-parity grid is constructed from the Maternity Day-book thus (Minimum number of births required: 1,000)

Age/Parity	1	2	3	4	5	6	7	8	9	10+	Total
15											
15-19											
20-24											
25-29											
30-34											
35-39											
40-44											
45 +											
TOTAL											

Certain age-parity combinations may be designated as "undesirable", for example, all births to women under 15 years or over 40 years of age; all births of parity 8 (or a lesser number) and over; second or later births before age 20; fourth or later births before age 25; etc., as indicated by medical information obtained.

We have, however, noted that at MMY a high proportion of births is recorded with no note of mother's age. We suspect that these contain a high proportion of older mothers. An analysis of the above kind is not possible unless all, or nearly all, records of age and parity are complete. We understand that older women do not know their ages precisely, but urge that every effort be made to obtain estimates from such women to enable them to be placed within a five-year age-group.

Thus: 30+ to indicate 30-34
 35+ to indicate 35-39
 40+ to indicate 40-44

are adequate for these purposes.

A combination of regular, say quarterly, analyses of this kind, and naissances desirables services, counselling and education, should provide locally an excellent and simple measure of the progress being achieved in this politically delicate area, from criteria which, being medical, are beyond reproach.

In two or three months - coincidentally with completing of the community survey - it is suggested that the following activities be undertaken:

1. Review of findings of community survey to determine whether Cetner services are appropriate.
2. Review of forms and procedures to assure smooth and orderly processing and correct procedures found to be faulty.
3. Review of service statistics to ensure that they meet program requirements.
4. Development in greater detail of the analytical strategies for evaluation of naissances desirables program.

Other Centers

Only minor modifications should be required to accommodate the needs of other urban Satellite Centers to be affiliated with the MMY Hospital and FOMEKO program. These may largely be dictated by experience gained at the Burumbu Center, and by the greater distance from the Hospital of the newer centers. It is our view, however, that the patterns of service applicable to urban centers are not well adapted to rural centers, so that the design, organization and record system of rural centers should be approached as a separate exercise.

M. Gorosh
D. Wolfers

BURUMBU CENTER

PROPOSED LIST OF FORMS

A. REGISTRY

1. File Folder
2. Identity Card - issued to patient
3. Cardex File

B. PRE-NATAL

1. Day-book
2. Clinic Record
3. Appointment Card
4. Referral Form

C. DELIVERY

1. Day-book
2. Labour Record Chart (?Attached to B.2)
3. Referral Form

D. PEDIATRIC

1. Day-book (General)
2. Day-book (Under-five Clinic)
3. Day-book (Immunization Clinic)
4. Day-book (Pediatric Dispensary)
5. Clinic Record
6. Growth Chart - issued to patient
7. Immunization Record - issued to patient (7.A Imm. Record, Clinic)
8. Appointment Card
9. Referral Form
10. Clinic Record (Dispensary)

E. NAISSANCES DESIRABLES

1. Day-book
2. Clinic Record
3. Cardex File
4. Appointment Card - issued to patient
5. Referral Form

NOTE: We have attempted to design most of these forms in the French language. Numerous corrections of infelicities and errors will certainly be necessary.

Barumbu Centre

Form A.1. Designation: File Folder
 Location: Permanently retained in Registry
 One File Folder for each Family Unit
 Contents: All Pre-natal, Delivery & Paediatric
 Clinic Records. Lab.Test results.
 Referral Reports

CENTRE MERE ET ENFANT
 Fomeco-Barumbu

Date _____ Nombre de File _____

Nom de la femme _____

Nom de son mari _____

Adresse _____

Zone _____ Parcelle N° (si Barumbu) _____

Addressé d'un(e) contact(e) _____
 et nom _____

CARTES EXPEDIES

B. PRE-NATAL

N° DATE

C. ACCOUCHEMENT

N° DATE

E. NAISSANCES DESIRABLES

DATE _____

D. PEDIATRIQUE

N° DATE NOM

N° DATE NOM

CARTES MIS DEHORS DU CENTRE

Nombre													
Date													
A													

Mettre une contre-marque sur retour de la carte

Form A.2. Designation: Identity Card
Location: Issued at Registry. Permanently held by Client
One Identity Card per family Unit

<p>CENTRE MERE ET ENFANT - FOMEKO - BARUMBU</p> <p>CARTE D'IDENTITE</p> <p>Nombre _____</p> <p>Nom de la mere _____</p> <p>Si trouvee, veuillez retourner au Centre au-dessus.</p>	
--	--

Form A.3. Designation: Cardex File
Location: Permanently retained @ Registry
One Card for each File Folder opened

<p>Nom _____</p> <p>Adresse _____</p> <p style="text-align: center;">Nombre: _____</p> <p>Noms des enfants qui font attention au Centre</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>M</p> <input type="checkbox"/> <p>M.D</p> <input type="checkbox"/>
--	--

Form B.2.
(Face)

Designation: Personal Record, Prenatal
Location: Stored in File Folder
Personal record for antenatal attendance and post-natal visit.

Note: Recommend amalgamation with Form C.2. and transfer of post-partum section to that form. See accompanying introduction, p.2.

CENTRE MERE ET ENFANT: Fomeco-Barumbu

Date _____ Nombre _____
Nom _____ Date de naissance _____ Age _____
Nom de Mari _____ Son Age _____ Son emploi _____

ANAMNESE OBSTETRICALE

Parite _____ Gestite _____ Avortiments _____
Dernieres Regles _____ Terme Probable _____

Grossesse

Accouchement

NO	Date	Nl a terme	Poids Enf.	Prem.	Av.	Jum.	Ces.	+ ne	En vie	Accouche :
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										

Examin Preliminaire:

Evaluation de bassin

Reactifs: Groupe Sanguin:
VDRL
Pap-nicalau:
Autres:

Rhesus:

Form B.3.

Designation: Appointment Card (Pre-natal)
Location: Issued at Reception Desk, Pre-natal
Retained by Client

CENTRE MERE ET ENFANT
Fomeco- Barumbu

Consultations Prenatales

Nom _____

Nombre _____

Rendez-vous

(Verso)

Rendez-vous

Form C.2. Designation: Labour record chart (Partogramme)
 Location: Issued on admission for delivery. Retained
 at Maternity until discharged. Stored in
 Central File Folder.

OR PREFERABLY

Forming inner two pages of two-leaved Pre-natal-Delivery
Post-partum card, issued at Registry on first pre-natal
attendance. (See accompanying introduction, p. 2)

Enfant né le à h Sexe : Poids :
 Délivrance à h Apgar : Yeux : Omphalique :
 Accouchement Normal : Aspect Général Normal :
 Déchirure : Anormal (indiquer) :
 Épisiotomie :
 Ventouse : Transfert chez la maman :
 Césarienne : P. 17 :
 Responsable : Prématuré :
 Post Partum
 Utérus : T. A. :
 Épisiotomie : Hgb. :
 Observations ;

MERE						ENFANT					
JOURS						JOURS					
Température						Fontanelle --- tendu	<input type="radio"/>				
Utérus						Fontanelle --- enfoncé	<input type="radio"/>				
Lochies	Normales	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Fontanelle --- plat	<input type="radio"/>				
		Anormales	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Yeux --- jaune	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hgb						Yeux --- blanc	<input type="radio"/>				
TRAITEMENT						Yeux --- rouge	<input type="radio"/>				
							<input type="radio"/>				
						Peau --- cyanosé	<input type="radio"/>				
						Peau --- déshydraté	<input type="radio"/>				
						Peau --- rose	<input type="radio"/>				
						Ombilic --- nettoyé	<input type="radio"/>				
						Ombilic --- plaie	<input type="radio"/>				
						Ombilic --- propre	<input type="radio"/>				
						Poids					
						Selles --- diarrhé	<input type="radio"/>				
						Selles --- normal	<input type="radio"/>				
						Téter --- bien	<input type="radio"/>				
						Téter --- mal	<input type="radio"/>				

Barumbu Centre

Form D.1.

Designation: Day-Book, Paediatrics (General)
 Location: Reception Desk, Paediatric Clinic
 Source of periodic summaries of paediatric services
 One book (with supplements) per year.

-71-

-71-

Nom d'enfant	No de Cliente	Age	MOIS		JOUR			Zone			Clinique				
			M	F	Assistance		Convoque		Accouchement			< 5	Imm	Disp	
			1°	autre	oui	non	Bar	MMY	aut.	Bar	Kin				autre
Totale															

EXAMIN

VISITES (Continuation)

TRAITEMENT

-76-

(Comme ~~page~~ 1.)

Month	
2 Months	
3 Months	
4 Months	
5 Months	
6 Months	
7 Months	
8 Months	
9 Months	
10 Months	
11 Months	
12 Months	
18 Months	
2 Years	
2 1/2 Years	
3 Years	
4 Years	
5 Years	

Secret

Support de la tête
 tiens la tête
 Tenir un objet
 dans la tête et pointer
 Reule ventue à dos
 Reule des à ventue
 Rit
 Rampe
 S'assoit sans appui
 S'assoit toute seule
 Rester debout sans appui
 Relève objet à la demande
 Marcher avec appui
 Jouer avec autres joues
 Peut dire ma ma, pa-pa
 Peut agiter la main au nez
 Marche sans appui
 Reule esquisse en plusieurs
 Peut tenir petit objet entre
 les doigts et utiliser
 Est propre
 Peut se lever
 Montre l'endroit en touchant le
 terrain tout de 3 objet
 l'occurrence de 10 sec
 Peut monter l'escalier lui-même
 Demande avec un mot
 tenant tout de 6 objet
 Vocabulaire de 200 mot
 Parle avec phrases de 3 mot
 Griffonne
 Peut atteindre les pieds par
 monter et descendre
 Utiliser en descendant
 Compte jusqu'à 4
 Imite une voix
 Peut sauter à cloche pied
 Peut bondir
 Compte jusqu'à 10
 Imite un triangle
 Prend du sein

A
 T
 T
 L
 E

C
 H
 I
 L
 L

Poids
 Longueur (taille)
 P.C.
 Hct.
 } Penes
 } Dentition
 } Appareil
 } Mère
 } Sibling
 Birth

IMPORTANT NOTE TO FORM D.5 Page 4 - Designation: Record of Development

To construct definitive version of this:

1. Arrange signs of development in normal order of appearance. It may be as well to reduce somewhat the number of signs used, and to ascertain that all of those used are readily applicable in this social setting.
2. Shade in the normal range of ages of appearance of each sign.
3. At examination, if child has reached a particular milestone, place a heavy cross in the corresponding square.
4. Crosses falling in shaded areas indicate development within the normal range.
5. Crosses falling outside shaded area indicate exceptional advance or retardation.
6. After accumulation of an adequate number of completed forms, local variations from overseas standard used for shading can be established and means and quartiles can be derived for the population studied.
7. Finally, the form can be re-drawn with shading corresponding to normal range in the local population.
8. The addition or transfer to this form of information on height, weight, Hct. P.C. and breast feeding record enables correlations between these and development to be studied.
9. The opportunity might be taken to study eruption of teeth on the same form.
10. The effect (if any) of the birth of a next sibling on development could also be scrutinized by allowing for its noting on the same form.

C O N S U L T A T I O N

A : Département Date

De : Département

Malade : Numéro clinique

Résumé du problème de malade :

.....

.....

.....

.....

.....

.....

Diagnostic et avis : Demande de transfert

Intérêt scientifique Traitement

(Signature)

=====

Réponse à la consultation demandée

Diagnostic :

.....

.....

.....

.....

Traitement :

.....

.....

.....

Hospitalisation oui non

Date d'hospitalisation :

Ou hospitalisé (Pav. et lit):

(Signature)

Si le malade était hospitalisé, remplissez au moment de la sortie et envoyez au Secrétariat de Pédiatrie ()

Si le malade n'était hospitalisé, remplissez et donnez au malade pour porter au Centre des Mères et Enfants

(HD/HA)

Form D.10 Designation: Personal Record, Paediatric (Dispensary)
 Location: Stored in Central File Folder

 Nom. _____ Sexe _____ Age _____ Nombre _____
 Client of Under-fives: Yes/No. Pre-natal: Yes/No Date of first visit _____
 (If not client of other clinic, complete following section)

* Date of birth _____ Birth weight _____ Birth Length _____ Where born _____
 Age of mother at birth _____ of father _____ *Tribe _____
 Complications of pregnancy or delivery _____
 Birth order _____ Brothers & Sisters by age _____ : _____ : _____ : _____ : _____ : _____ : _____ : _____ :
 *Depistage SS _____
 *History of major illnesses _____

Date	Findings	Treatment or disposition	Next app

* For adults, only these questions to be answered.

Barumbu Centre

Form E.1.

Designation: Day-book , Naissances Desirables
 Location: Naissances Desirables clinic
 Source of certain periodic summaries of N.D. attendances
 1 Book (with supplements) per year.

		MOIS _____									JOUR _____								
Nom	N°	Premiere visite									Autre visite			Methode Courante	Methode Ordonnee	Zone			Prochaine Visite
		Referee par									Ev.	Avant	Tardif			Bar	Kin	Autre	
		1	2	3	4	5	6	7	8	9									
Totale																			

* 1: Accouchement Barumbu. 2: Accouchement MMY. 3: Ami(e) 4: Membre de famille
 5: Motivateur ou Agent de Sante Publique. 6: Motivateur ou Agent de Sante Private
 7: Autre Clinique. 8: Elle-meme. 9: Autre.

Form E.2.

CONSULTATION NAISSANCES DESIRABLES

Note: This form is not as bad as it looks. With proper design and layout and the use of different size characters, it can be made into a more appealing, easily used document.

1. Number ---6 2. Date Da Mo Yr 7-10

3. Status: New (1) Prior this clinic (2) Prior other clinic (3).....

4. Name _____

5. Address _____

6. Zone 7. Years at 5 8. Name and address of relative or friend living in zone _____

9. Age 10. Age married 11. Age 1st preg

12. Ethnic grp 14. Married (1) Unmarried (2) Widow (3) or Separated or Divorced (4).....

13. Religion 16. No boys alive 17. No girls alive

15. No Childn Alive 19. Abort spon..... 20. Abort ind.....

18. Parity..... 22. Years of Education: Zero (1), one-six yrs (2), seven-ten (3), eleven-fifteen (4), sixteen and over.....

21. Lit (1) Illit (2) 23. Reason: Spacing (1), Health (2), Limiting (3) Other _____ (4).....

24. Date Dern Gross NOTE Jamais enceinte __ voir au 28...

25. Desiree? Oui (1) No (2) 26. Resultat de la derniere grossesse: naissance vivante (1), Mort-ne (2), Avort prov (3) Avort spon (4) Gross tubaire (5).....

27. Allaitment actuel? Oui (1) ou Non (2)..... 28. Avez-vous des pertes sanguines des seins ou une tumeur aux seins? Oui (1) Non (2).

29. Date du commencement des dernieres regles ___/___/___ ou pas de regles depuis la derniere grossesse ____.

30. Regles: Reg (1) Irreg (2) 31. Flux menstruel: Leger (1) Moyen (2) Importante (3). 32. Avez-vous eu une phlebite (1) une anemie SS (2) le diabete (3) migraine (4) epilepsy (5) liver disease (6) hist of high BP (7) inf. disease (8) major illness (9) (society) _____

33. Methode deja utilise DIU (1) Pill (2) Con (3) CI (4) RYT (5) DP (6) DB (7) Autre _____ (8) Aucune (9).....

34. See list in 33 and indicate whether currently using.....

35. Entrevue par _____ Date ___/___/___

36. Designation Medecin (1) Infirmiere N.D. (2), Infirmiere Aux (3).....

37. Examen Gynecologique:

Col	irrite	saigne	norm
Uterus	fibrome	volume augmente	norm
Uterous	retroverted	anteverted	norm
Annexes	masse	doleureuses	norm
Breasts	tumor	nipple disch	norm
Veins	varicose		norm
Vaginal Disch	heavy	moderate	none

38. Examen fait par _____

39. Designation Medecin (1) Infirmiere N.D. (2) Infirmiere Aux (3).....

40. Examen physique et laboratoire: T.A. ___/___ Poids ___ Kgs
 Urine: Glucose Pos ___ Neg ___ Albumine Pos ___ Neg ___
 HGB _____ VDRL _____
 PAP # _____ Vag Smr _____
 Pregnancy Test _____

41. Comments _____

42. Methode donnee a cette visite:

<u>DIU</u>	<u>Pillule</u>	<u>Injection</u>	<u>Lig. tubaire</u>
Lippes (11)	Norelstrin (21)	Depo Provera (31)	Laperotomy (41)
Dalkon (12)	Norinyl 1/50 (22)	_____ (32)	Laproscopy (42)
_____ (13)	_____ (23)	_____ (33)	Culdoscopy (43)
Vasectomie (50)	Condom (60)	Rythme (70)	Aut _____ (80).. <input type="checkbox"/>

43. Date of Next Visit ___/___/___

	1	2	3	4	5	6
er/Home.....						
Supply.....						
Check-up.....						
Disat.....						
plaint.....						
USING.....						
Change to.....						
Change to.....						
Change to.....						
Continue (why)						
Change outside						
Program.....						
Comments						
Next Visit..						
	7	8	9	10	11	12

AT AS
 30VE

Barumbu Centre

Form E.3.

Designation: Cardex File Naissances Desirables
Location: Naissances Desirables Clinic
One Card for each Clinic record issued.

Nom _____
Nombre _____
Adresse _____

Barumbu Centre

Form E.4.

Designation: Appointment Card, Naissances Desirables
Location: Issued at Naissances Desirables Clinic,
Retained by patient.

CENTRE MERE ET ENFANT
Fomeco-Barumbu
Consultations N.D.
Nom _____
Nombre _____
Rendez-vous

(Verso)

Rendez-vous

PERSONS CONTACTED

FOMECO

Dr. Pauls
Dr. Horst
Mme Nicou
Dr. Yamahira
Dr. Mitchell
Dr. McCulloch
Ct. Kingombo Mulula
Dr. Dick

ORT

Mr. Helfenbein
Miss Rutledge

USAID

Mr. Graham

OMS

Mr. Kersauze

ONRD

Dr. Ngwete

References

- Kersauze, "Etude de population sur la Zone de Burumbu".
ONRD, "Etude socio-deomgraphique de Kinshasa 1967".
L'Institut National de la Statistique, "Perspectives Demographiques Provisoires pour la République dy Zaire", April 1972.
Houyoux, Joseph, "Budgets Menagers, Nutrition et Mode de Vie à Kinshasa" (1972).
Forms and records in use at the MMY Hospital.
Forms and records proposed for use at the Burumbu Center.
Reports required by Government authorities.
Drinkhaus, H., "Suggested Paediatric Program to be Associated with the MCH Center at Burumbu".
Ordonnance No. 73-089 (14 Feb 1973) creating National Council for the Promotion of the Principle of Desired Births.

Government of Zaire, Summary of Urban Surveys of the Institut Nationale de la Statistique.

Bush, R.D. (USAID/W), Trip Report - July 1973.

Summary Statement, ORT MCH/FP in Zaire.

American ORT Federation Proposal MCH/FP Zaire.

Berrgren, W., Trip Report - July 1973.

Kessler, S., Trip Report - May 1973.

Owens, R., Trip Report - July 1973.

Statistiques-Naissances Desirables, Feb-Sep 1973 (FOMECC)

Projet sur la numeration des dossiers-FOMECC.

"Profiles of Zaire", Office of the President, GOZ.

Pre-trip Briefings

S. Kessler, ORT, Geneva, Switzerland

R. Owens, MSH, Boston, Massachusetts

W.B.R. Beasley, Downstate Medical Center, Brooklyn, New York

CONTRACT NO. AID/CM/PHA-C-73-9

ORT - MATERNAL AND CHILD HEALTH/FAMILY PLANNING PROJECT

ADMINISTRATIVE REPORT

I. Expenditures under Contract, April 17 - December 31, 1973

Salaries	\$ 40,485.40
Consultants	3,495.00
Fringe Benefits	9,664.86
Travel and Transportation	8,460.78
Allowances	7,123.73
Other Direct Costs	3,427.82
Overhead	4,416.96
	<hr/>
Total	\$ 77,074.55

II. Personnel Employed under Contract

A. Field Staff

Saul Helfenbein, Management Specialist
Frances Rutledge, Public Health Nurse

B. Geneva Backstopping Staff

Susi Kessler, M.D., Technical Coordinator
Abraham Ahav-El Goldstein, Pedagogical Coordinator
Eugene B. Abrams, Ann Gooch, Management
Mauricette Feller, Secretary-Bookkeeper
Marjorie Agabekov, Marie-Jose Verderosa, Other Administrative

C. New York Backstopping Staff

Isador Rader/Hyman Wachtel, Management
Donald Wein, Procurement Officer
Tsipora Dichter, Secretary