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ANNEX III

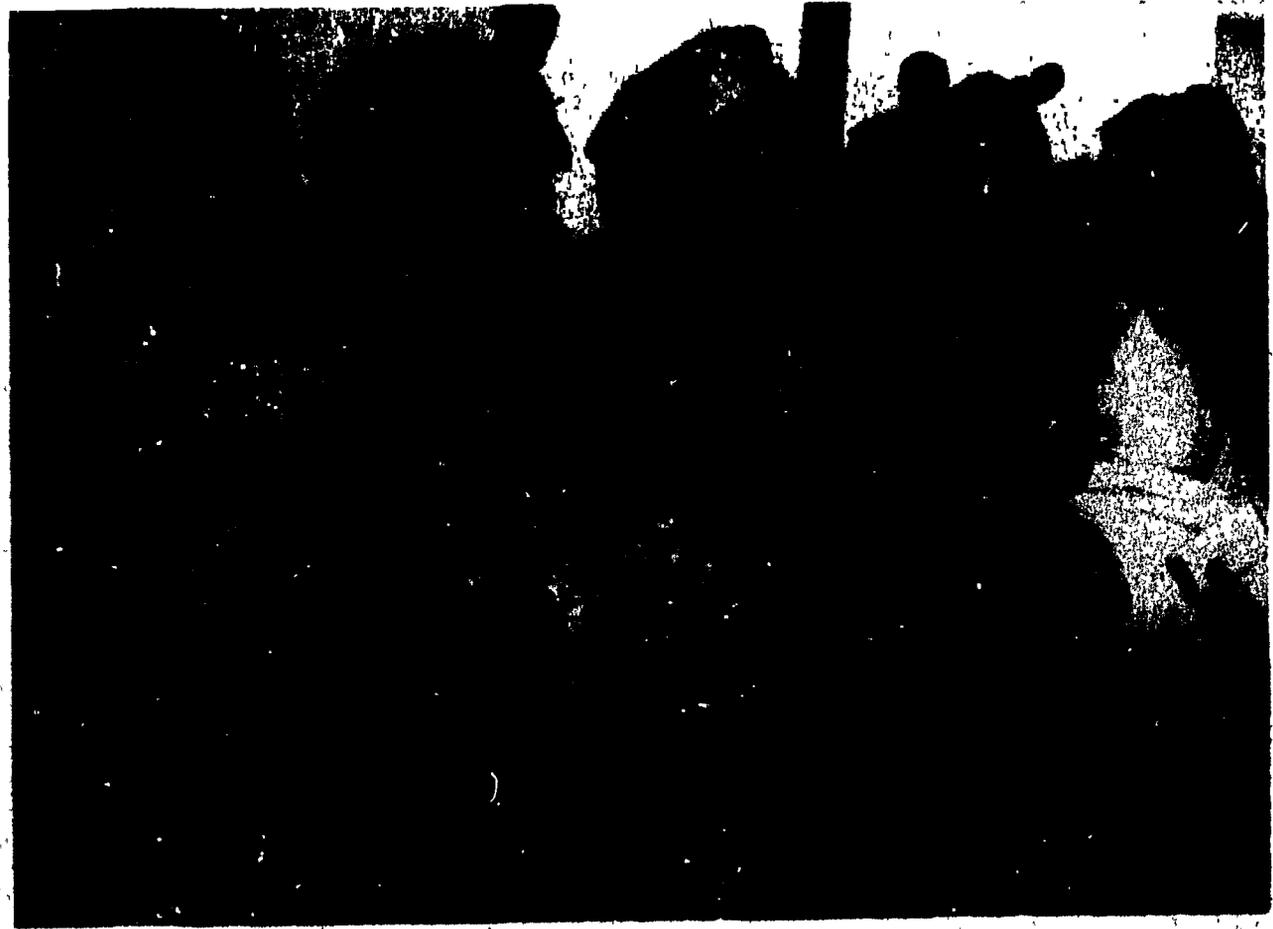


# MATERNAL AND CHILD HEALTH CENTERS

KINSHASA, REPUBLIC OF ZAIRE

A.I.D.  
Reference Center  
From 1968-70

## OPERATIONAL PROGRAM



A.I.D.  
Reference Center  
From 1968-70

**ORGANIZATION FOR  
REHABILITATION THROUGH TRAINING**

**MATERNAL AND CHILD HEALTH CENTERS  
KINSHASA, REPUBLIC OF ZAIRE  
OPERATIONAL PROGRAM**

A. I. D.  
Reference Center  
Room 1658 NS

## TABLE OF CONTENTS

	<u>Page</u>
PREFACE	
INTRODUCTION . . . . .	1
BRIEF OUTLINE OF THE CONCEPTION AND DEVELOPMENT OF THE MATERNAL AND CHILD HEALTH CENTERS . . . . .	3
THE MATERNAL AND CHILD HEALTH CENTERS AT KINSHASA . . .	7
ORGANIZATION OF THE MATERNAL AND CHILD HEALTH CENTERS AT KINSHASA . . . . .	9
THE "UNDER-FIVE" CLINIC . . . . .	12
THE PRENATAL CLINIC . . . . .	20
THE MATERNITY SERVICE . . . . .	23
THE "DESIRED BIRTHS" CLINIC . . . . .	27
THE AUXILIARY SERVICES: PHARMACY, LABORATORY, STERILIZATION . . . . .	29
TRAINING OF THE NURSING PERSONNEL . . . . .	31
ANNEXES	

## P R E F A C E

This manual was prepared with the collaboration of all those who work for and in the Maternal and Child Health Centers in Kinshasa, Republic of Zaire. It attempts to describe the organization and functioning of these Centers.

We express our warm thanks to all the personnel of the Maternal and Child Health Centers and of the Mama Yemo Hospital who participated in carrying out of the program and encouraged the preparation of this document. The assistance of Dr. Sabwa a Matanda, National Director of the Desired Births Program, was particularly appreciated.

Copies of this manual can be obtained in French or English from the Organization for Rehabilitation through Training (ORT), 1 Rue de Varembe, 1211 Geneva 20, Switzerland.

The ORT/MCH Team  
Maternal and Child Health Centers Project

April 1977

## INTRODUCTION

Ever increasing efforts are being made in the developing countries to create health services that meet the needs of the local population. Solutions to this problem differ, of course, depending upon whether urban centers or rural zones are concerned. Special importance is given today to helping rural areas, where 80 per cent of the population lives; but the provision of appropriate services for the millions of city dwellers living in marginal conditions remains problematical. City dwellers are often members of poor communities, subject to rapid changes and fluctuations, presenting complex social problems. For this reason the creation of adequate health services for this group presents a real challenge.

When local solutions are found, those responsible often hesitate to make their experiences known, fearing that their specific situation is too limited to be of value as an example.

We are aware of this limitation, but believe nevertheless that a description of the structure of the Maternal and Child Health Centers at Kinshasa may encourage a sharing of experiences and make an appreciable contribution to the solution of health care problems in Africa.

This description of the Maternal and Child Health Center program in Kinshasa, Zaire, was prepared with the intention of answering the questions of observers and visitors and of explaining the pragmatic methods that are applied.

Kinshasa is a rapidly growing metropolis of over two million inhabitants and presents all the characteristics of a large tropical city.

The sanitation services and public transport are often overburdened and under-equipped. The hospital services are, in general, overcrowded and the outpatient services lack coordination. The material resources at the disposition of developing countries unfortunately seriously constrain adequate health facilities to the entire population. Thus it is in a spirit of seeking practical solutions and of furthering decentralization of the ambulatory and maternity services which encumber the central hospitals, that the MCH program was envisaged. It is meant to be a pilot demonstration and training project in maternal and child health care.

BRIEF OUTLINE OF THE CONCEPTION AND DEVELOPMENT  
OF THE MATERNAL AND CHILD HEALTH CENTERS

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Public Health officials now agree that mothers and children (that is, over 60 percent of the population in developing countries) belong to the most vulnerable group of the population. The mortality rate, especially among pregnant women and children under five, is exceedingly high. A major cause of this high mortality rate is increased vulnerability to malnutrition, infectious diseases and the risks of too closely spaced pregnancies. These are problems that can be avoided.

The vulnerability of this group, and the fact that preventive and curative measures can overcome the difficulty to a large degree, have led Public Health officials to adopt a strategy focusing on health care for mothers and children. This strategy, drawing on local resources, is applied in the program of Maternal and Child Health (MCH).

The Maternal and Child Health Centers try to serve as many people as possible and to create a welcoming atmosphere of friendliness and understanding. At the same time, they serve as training and upgrading centers for the personnel.

The Centers attempt to integrate in a systematic fashion preventive and curative care - that is: regular health checks; prevention of illness through prophylaxis and education; early diagnosis and treatment.

The Maternal and Child Health Centers develop their programs in response to priority health needs of the region, using criteria such as the seriousness and frequency of various illnesses; guiding principles include: adaptation to local conditions; flexible training methods to prepare the personnel for specific functions in relation to local needs; and

progressive delegation of responsibility to lower-echelon personnel, under careful guidance and supervision.

It has been shown that the use of simple, well defined techniques can contribute effectively to the maintenance of good health in children and women. Auxiliary personnel, specially trained for this work, can be put in charge. With nursing staff assuming primary responsibility for health maintenance, doctors are released for other important functions: planning, administration, teaching and upgrading of personnel.

Three principles govern the delegation of medical responsibilities to nursing staff:

1. A selection system which permits the nurse to identify cases requiring special care, such as high-risk cases of persons presenting medical problems beyond the nurse's competence.
2. Standardization of care and treatment of patients, as set forth in Medical Directives prepared by a group of doctors and nurses.
3. The introduction of special record cards that permit nurses to follow easily the state of health of women and children, and to anticipate measures necessary to maintain or improve their health.

The best known record card is the "Road to Health" chart, where the condition of the child is reflected by the evolution of his weight in relation to his age.

In the Maternal and Child Health Centers the following services are offered:

- Consultations for children, especially those of preschool age: the "Under-Five Consultations".
- Prenatal consultations;
- Maternity: delivery and postnatal care.
- Consultations for spacing of pregnancies and for treatment of sterility.

The Centers can thus watch over the health of the mother during pregnancy, the most vulnerable period, while at the same time assuring the health and normal development of the child from its conception.

The principal activities of the Centers can be integrated within established health services - for example, dispensaries, city and rural hospitals, or community service organizations. It is not essential, therefore, that special quarters be set aside for these activities.

The "under-five" consultations were first introduced in Nigeria in 1953. Within five years, the death rate for this group fell to a quarter of what it had been. Since then, similar clinics have been set up in Africa, Asia and America.

The principles behind these consultations are the interaction of curative and preventive care - that is, not only are sick children treated, but inoculations are also given, diet and growth checked. Healthy children are brought to insure their continued good health.

During a child's regular check-ups, his weight gain and psychomotor developments are noted. Preventive measures center on a program of immunization and periodic administration of medication for malaria and intestinal worms, as well as on continuing health education.

In health education, special attention is given to maternal and child nutrition, of which the three main points are: the importance of good nutrition for pregnant women and nursing mothers; the encouragement of breast feeding for as long a period as possible; and the importance of adding nutritious foods as a supplement to the mother's milk for babies from the fifth month on.

#### Prenatal and Maternity Consultations

Health education extends also to the Prenatal Consultations and to maternity care. The mothers' stay in the post-partum ward is put to

profit to reinforce health education, to counsel them on breast feeding, baby care, and the services available to them at the "Under-Five" clinic, as well as to talk with them about "Desired Births".

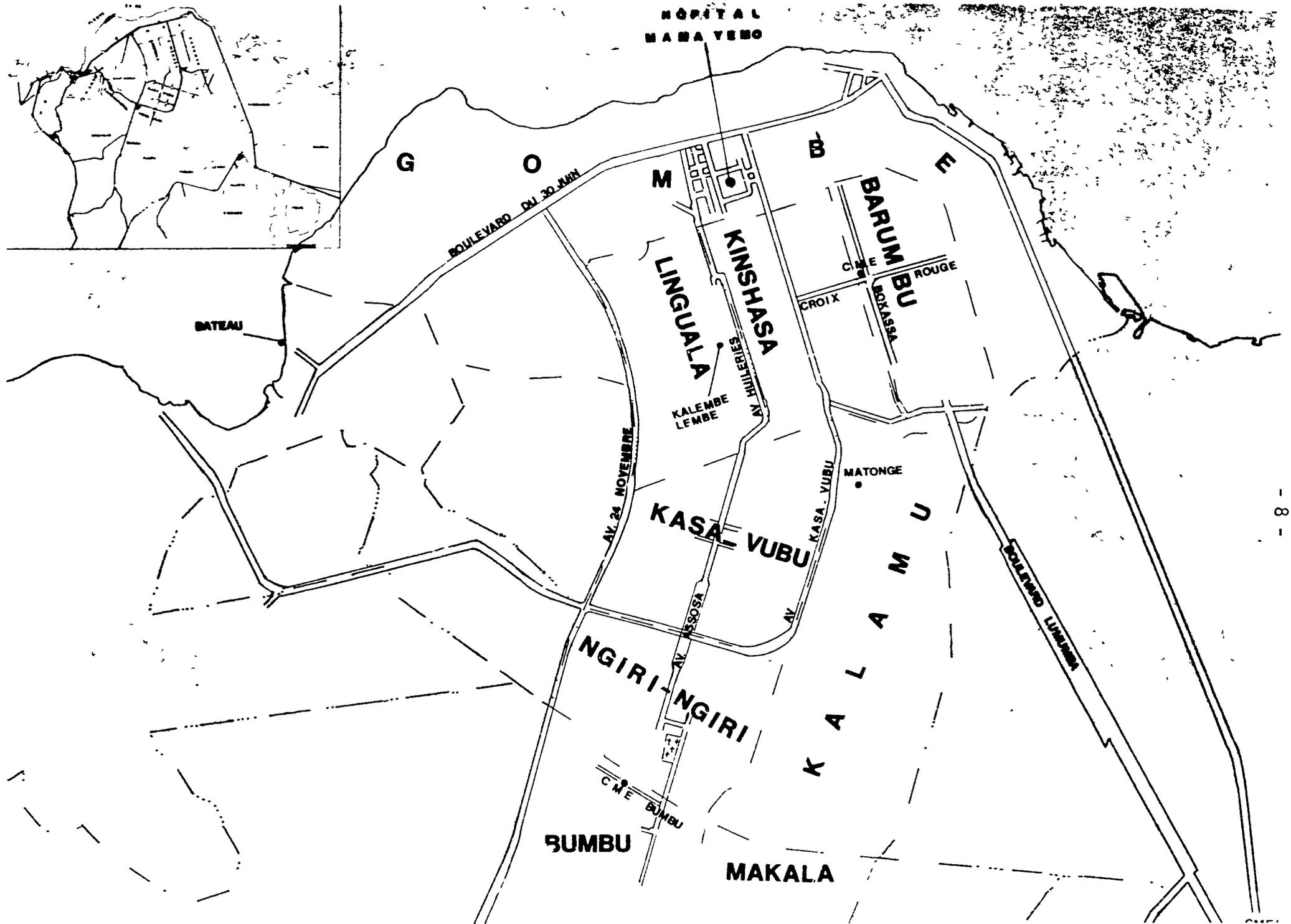
#### Consultation for Pregnancy Spacing

This service tries to improve maternal and child health by helping women to space their pregnancies as they wish. It furnishes reliable contraceptives, provides regular follow-up of women, and helps sterile couples to have children.

THE MATERNAL AND CHILD HEALTH CENTERS AT KINSHASA

The Maternal and Child Health Center program was begun at Kinshasa in 1973 under the auspices of FOMECO (Fonds Médical de Coordination: Medical Fund for Coordination) and of the Mama Yemo Hospital, in order to meet growing needs in the field of health service. The adoption of a policy of "desired births" and the creation of the National Committee on Desired Births required the establishment of services where contraceptives could be prescribed and given together with information and motivation. It was also deemed desirable to decentralize the prenatal and maternity services of the overcrowded Mama Yemo Hospital. The aim of the program was therefore to establish Maternal and Child Health Centers in Kinshasa and in rural areas. These Centers would serve as models for the national program for Maternal and Child Health and Desired Births.

The Maternal and Child Health Center at Barumbu was opened in January 1974, followed ten months later by the opening of the second Center at Bumbu. The Barumbu Center is located between two urban areas, known as "cités" or indigenous districts, about three kilometers from the Hospital. The Bumbu Center is about ten kilometers away from the Hospital. Each of these Centers serves a population of approximately 150,000, although the exact number has not been determined; the Centers receive patients from the surrounding region and from more distant areas. The Mama Yemo Hospital provides technical, administrative, and housekeeping support of the Centers: kitchen, laundry, transportation, maintenance, repairs, and so on. An ambulance is at the disposition of the Centers twenty-four hours a day, to insure immediate transfer to the Hospital of "high-risk" or emergency cases. These two Centers may thus be considered urban satellites of the Mama Yemo Hospital.



ORGANIZATION OF THE MATERNAL AND CHILD  
HEALTH CENTERS AT KINSHASA

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The Mama Yemo Hospital (1,770 beds) is the central institution of Kinshasa's hospital services. All specializations are represented, and its maternity is one of the largest in the world (over 44,000 deliveries a year). It also has a polyclinic, an emergency room and a general dispensary.

The Hospital also furnishes the necessary support to satellite institutions - hospital ship, rural hospital, the Kinshasa Maternal and Child Health Centers. This support is assured by the Department of Community Care, which supervises all the Hospital's satellite departments.

Administrative headquarters of the Centers are located at the Hospital. The doctor-in-charge is assisted by an administrator and a pharmacist. Two nurse-coordinators are responsible for the daily supervision of the Centers. In each Center, the head nurse is responsible for the smooth functioning of the program.

In Zaire - as elsewhere - the number of doctors, especially Public Health physicians, and of registered nurses is inadequate. It is therefore necessary to rely on auxiliary personnel as much as possible. Many duties are delegated to auxiliary personnel, who have benefited from a brief training program adapted to their needs and who are carefully supervised. The Centers' auxiliary staff is, therefore, given more responsibility than is usual for such personnel in other institutions.

Detailed job descriptions (see annexes) have been prepared in relation to present needs in Kinshasa. The physician-in-charge is a teacher and administrator, rather than a practising physician. He is responsible for directing the medical and administrative services, as well as for the training and upgrading of personnel at all levels. He is also responsible for the planning and modification of the Center's services with a view to improving them. As practising physician, he intervenes only in emergencies or to determine the

disposition of cases presenting special problems. From time to time, he is asked to replace consulting physicians in the obstetrics or pediatrics departments for "high-risk" consultations. He attempts to use these opportunities for promoting the practical training of the personnel.

The administrator of the Centers is responsible for the management of each Center, the coordination of the technical services, and for public relations.

Personnel in charge of the nursing services, the pharmacy, and the laboratory maintain close contact with the corresponding services at Mama Yemo Hospital. Nevertheless, directives and instructions issued by the principal Hospital services are not applied at the Centers until approved by the director. Similarly, any proposal addressed by the Center staff to the Hospital must be approved by the Center's director.

The major work of the Centers depends on the nurses, who assume a considerable part of the responsibility ordinarily confided to doctors. The Centers' personnel are supervised by two coordinators (registered nurses with experience in nursing-care supervision), who are in charge of the day-by-day operations and management of the Centers' activities. They are responsible for planning, and supervising the medical services and the training programs. One of the coordinators has special responsibility for pediatrics; the other, a midwife, for obstetrics. They meet at least once a week with the physician-in-charge and administrator to discuss all matters related to the management of the Centers.

In light of their roles, it is the coordinators who provide the guiding thrust to the Centers. At the present time, the number of coordinators (two) is a reflection of the fact that two specialties (pediatrics and obstetrics) are involved rather than the fact that two Centers exist. It will be necessary, at a later date, to determine how many Centers can be supervised by a single team of coordinators.

The head nurse of the Center is responsible to the coordinators for the smooth running of his or her Center. Any problems, questions, directives or proposals - medical or administrative - coming from the personnel or the director's office must cross the head nurse's desk. The head nurse,

in turn, delegates direction of the subdivisions (Maternity and "Under-Five" Clinics, etc.) to assistant head nurses. They, within the limits set by the Medical Directives, decide upon the treatment and care to be given. For example, when an auxiliary nurse notes that a patient shows signs of illness which are beyond his or her competence, he must refer the patient to the assistant head nurse. The latter will then decide whether the patient can be treated at the Center, should be referred to the doctor, or sent to the Hospital.

In summary, the organization of the Maternal and Child Health Centers program is based on a system of progressive delegation of responsibility and authority, medical and administrative. Documents distributed to each member of the team give precise instructions and spell out his or her particular responsibilities, the correct procedures to follow, the treatments and care to be given. Thanks to constant supervision, these directives are reinforced by on-the-job experience. It is thus possible to increase effectively the competence of the personnel at all levels after a brief, relatively inexpensive training program.

THE UNDER-FIVE CLINIC

The purpose of this clinic is to help keep preschool children in good health. The special aspect of the "under-five" consultation is that it gives equal importance to the following four activities:

- a. regular follow-up of a child's health;
- b. administration of medical care to sick children, integrated with preventive measures;
- c. identification of children who present special risks, in order to give them particular care and follow them more closely;
- d. promotion of health education.

Regular Follow-up of a Child's Health

To assure a child's normal growth and development, it is necessary to check his health regularly, to ascertain the evolution of his weight and psychomotor development, and to take certain preventive measures, such as immunization, malaria prevention, administration of vermifuges. These activities are carried out in the clinic in a "check-up room".

At each visit, the mother is asked to go to the "check-up room". Identified by a number entered on her child's card, she is always received by the same auxiliary nurse. During the consultation, the auxiliary nurse inquires about the child's general condition; he weighs the child, notes the weight on a chart, then examines him. Afterwards, he administers vaccines or gives preventive medication as required, according to the following chart:

Prophylactic medication regimen:

Anti-malaria: Chloroquine or Pyrimethamine - once a month  
Vermifuge : Decaris . . . . . once every three months

Immunizations:

Single dose:

Against smallpox . . . . . second day at the Maternity  
Against tuberculosis (B.C.G.) . . . . second day at the Maternity

	<u>Multiple Doses</u>				
	First	Second	Third	Fourth	Fifth
Antipoliomyelitis (triple vaccine, oral)	first month	third month	sixth month	eight- eenth month	five years
Antidiphtheria, D.P.T. Antitetanus, Antipertussis (I.M.)	first month	third month	sixth month	eight- eenth month	five years
Anti-measles (I.M.)	ninth month				

### Care of Children

Benign illnesses, such as coughs, diarrhea, fever, skin diseases, are treated in the check-up room according to Medical Directives which have been established for the Center. At the same time, the mother is advised how to prevent recurrence. More seriously ill children are sent to the Center's Dispensary, where the assistant head nurse gives them care according to a set of Medical Directives, available for somewhat more complicated medical problems. If necessary, these children are sent to the Hospital for treatment by specialists. After the check-up, an appointment is made for the next visit, according to the following calendar:

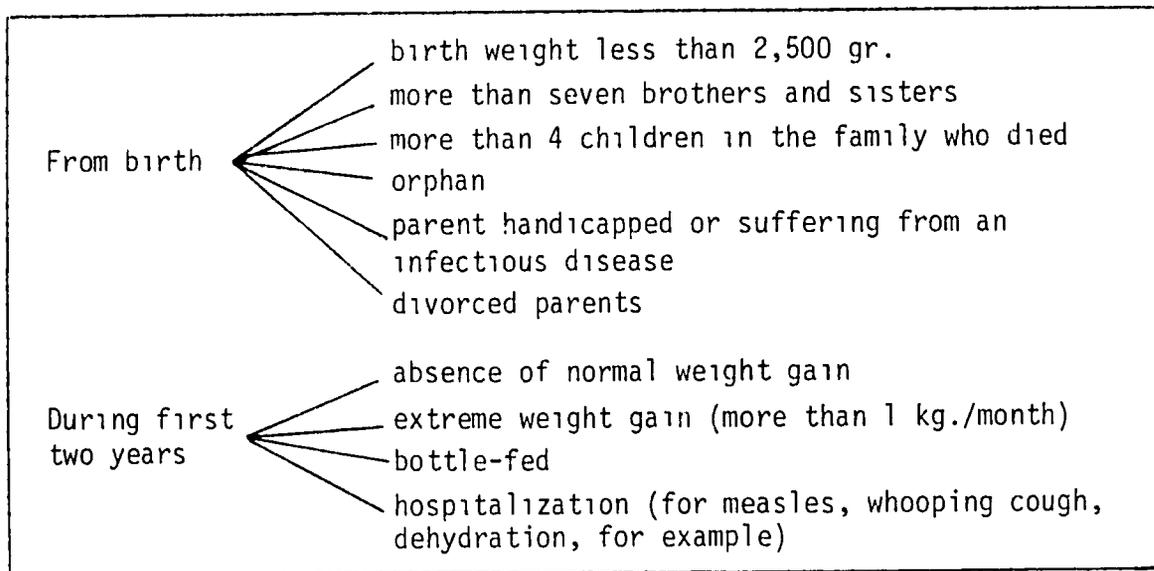
- 0 - 18 months - once a month
- 19 - 36 months - once every three months
- 37 - 60 months - once every six months

In each Center, there are three check-up rooms and four nursing teams. Each is composed of an auxiliary nurse and a male or female helper. Each team in turn makes weekly house visits to follow up special problems. Each consultation lasts about five minutes. Forty to fifty children a day are seen in each check-up room. The rest of the day is reserved for preparation, cleaning, and on-the-job training.

### Identification of Children presenting a Special Risk

One of the principal tasks of the "Under-Five" Clinic is to identify children presenting high health risks, so that they may receive special attention. Certain factors - social, cultural or physical - can be the cause of heightened susceptibility to illness. By identifying children exposed to these factors, it is possible to follow them more attentively and thus help counteract the harmful influences of their environment and special vulnerability. By applying certain criteria of high risk, it is possible to pinpoint cases requiring intensive or special care.

#### "High-Risk" Criteria



The identification of children presenting special risks begins at the time of birth in the Maternity, where the head of the "under-five" consultations accompanies the head of the Maternity on her rounds, in order to detect such children. The child's risk conditions is noted on his "Road to Health" card, which is given to the mother before she leaves the Maternity. Thus, when the child is brought to the "under-five" consultation, the nurse is able to tell at once that he requires special surveillance.

In the same manner, the nurse identifies "high-risk" cases at the "under-five" consultation, according to the history and examinations carried out at the first visit, or according to the evolution of the weight curve marked on the "Road to Health" card. The mother may point out symptoms indicating the

presence of risk factors. These symptoms lead the nurse to proceed to a more thorough examination and interrogation. Thus, for example, the fact that a child does not gain weight regularly during the weaning period may point to the existence of economic, social or physical problems (a new pregnancy of the mother, for instance) that expose the child to the risks of malnutrition or of serious illness.

#### Special Care

The high-risk child is watched with special attention, and the mother is given particular advice as to how to nourish him. Children presenting special risks are given appointments on a day when a physician is available for a "high risk consultation". While the nurse makes sure that each child has received the necessary immunizations and preventive medications prescribed, the doctor counsels the mother about how to feed her child in order to prevent malnutrition and improve his nutritional state.

The frequency of visits is determined by the seriousness of the case. High-risk children may be given appointments more often than the regular schedule calls for. If necessary, either because the mother does not bring the child or because the desired improvement does not take place, the nurse visits the family at home.

#### Special Counselling on Nutrition

The mothers of poorly nourished children or of children threatened with malnutrition as indicated by unsatisfactory weight gain, are often brought together in a group for special nutritional demonstrations presented by a nurse or a helper. In a relaxed atmosphere, the mothers can talk about their problems, discuss the causes of their children's slow growth, and bring up other subjects related to health in general. The nurse takes advantage of this occasion to show the mothers how to provide their children with local, inexpensive but nutritious foods, and to have the mothers prepare such food under her direction. In particularly serious cases, soy-flour and powdered milk are furnished, whenever they are available.

### Home Visits

Sick children who either fail to react favorably to a suggested treatment, or are not brought regularly to the clinic for follow-up, receive home visits from the nurse. During this visit, the nurse observes the physical and social conditions of the home and is able to learn a great deal about the underlying causes of the child's problems. The information gathered during a visit is used to improve the treatment and modify appropriately the advice given the mother.

The home visit also gives the nurse the opportunity to reinforce health education and to adapt it more satisfactorily to the patient's environment. The visits serve as well to make the Center and its services known in the neighborhood. The mother is sometimes encouraged to invite other women to the child nutrition demonstrations.

Each team of nurses who work in the check-up room sets aside one day a week for house visits. A special card is used to note observations and to report the results of the visit. A special file is maintained for children presenting special risks.

### Promotion of Health Education

Because health education plays an essential role in preventive medicine, the activities relating to it are of capital importance for the under-five clinic. An area, known as the "education room" is set aside for this purpose.

After being welcomed, the mothers and children are sent to this room, where they listen to an informal health talk or watch a nutrition demonstration.

Every two months, a calendar of health talks and nutrition demonstrations is established by the coordinator of the "under-five" clinic, in cooperation with the assistant director and the person responsible for the education. The program is fixed in relation to current health problems

encountered in the children. Modifications are made in accordance with the economic status of the families concerned, their level of education, and special interests expressed during the discussions.

### The Health Talks

Among the subjects treated during the talks, the most important are: the "Road to Health" card, the importance of regular visits to the clinic, the need for and means of protecting children against infectious diseases, how to avoid dehydration during episodes of diarrhea, and the value of a nutritious diet for children.

Diarrhea is a common and often devastating problem in small children. A great deal of time is devoted to convincing mothers to take measures to avoid dehydration when their children show symptoms of diarrhea. They are advised not to rely only on modern or local medicines, but to continue to feed the child and to encourage him - even force him - to drink sugar-and-salt water. (Recipe given in the annexes.) This solution is highly efficacious, and easy to prepare at home.

The nutrition talks place particular emphasis on the economic and health advantages of breast feeding. From the fourth or fifth month, the mother's milk should be supplemented by porridges composed of several nutritive elements, called "multimixes". Normal growth is thus favored, and problems associated with abrupt weaning can be avoided. The "multimix" recipes include different mixtures of foods according to the season. These mixtures contain foods which are complementary, and will furnish the child with the eight essential amino acids.

Nutrition counselling is adapted to the practices and customs of the region just as much as possible. An excerpt of the program followed in the education room at Bumbu is given here, as an example.

The meeting begins with a brief, informal talk. This is followed by a discussion, then by a demonstration showing how to prepare a particular porridge or solution.

Day	Subject of Talk	Demonstration
Monday	Weaning	A recipe including beans, fish, vegetables, tomato paste, and corn meal.
Tuesday	How to avoid diarrhea and dehydration	Preparation of the salt-and-sugar water solution.
Wednesday	Keeping in good health	A porridge composed of beans, peanuts (ground-nuts), green leaves, tomatoes and manioc (plantain) flour.

Whatever the subject, each talk takes up some aspect of nutrition, notably breast feeding and dietary needs during the weaning period, for adequate nutrition helps speed a child's recovery from illness and protects him from infection.

The discussions are led by aides who have been specially trained. One handles the administrative details, noting on the child's card the mother's attendance, and preparing a new card for each mother coming to the Center for the first time. Additions and modifications are made during each session in light of the audience present.

Equipment available in every home is used to prepare the porridges. At the end of the demonstration/talk, the porridge is distributed to the children, and the mothers are encouraged to feed it to their children and assure themselves that they will eat it willingly.

#### Visual Aids

Various aids are employed, such as flannel-boards, illustrations of health measures, and posters showing mothers breast feeding their infants, well-fed and poorly-fed children. These visual aids are prepared in Zaire, sometimes inspired by those in use in other African countries, but always adapted to meet the local need.

All foods used in the demonstrations are bought on the local market. The aides who help in the education room are responsible for the purchases and

for keeping records for control of expenses.

The funds for such purposes are controlled by the head of the Center, the coordinator of the "under-five" clinic, and the administrator of the Centers. A current-expenses "kitty" covers monthly expenditures.

## THE PRENATAL CLINIC

The aim of the prenatal consultation is to assure the health of the child from conception, to keep the pregnant woman in good health, and to take all necessary precautions for a delivery without complications.

The principal functions of the prenatal consultations are

1. Checking of normal pregnancies
2. Health education for pregnant women
3. Detection of high-risk women and the provision of special care for them.

### Checking of Normal Pregnancies

At the first visit, basic information is gathered from the history, the physical examination, and the hemoglobin level. Women presenting a high degree of risk are referred to the doctor in the "high-risk clinic". During subsequent visits, the woman is questioned in order to detect problems or possible complications. During each visit her arterial blood pressure is taken, and the height of the uterus is measured. Women presenting symptoms are treated in accordance with the Medical Directives.

Given the frequency of anemia, malaria, intestinal parasites, and neonatal tetanus, the mothers follow the prophylactic regime given below:

Medication	Dosage	Frequency
Folic acid . . . . .	5 mg	once every two days
Iron sulphate . . . . .	300 mg	once every two days
Vermifuge: Décaris . . . . .	150 mg	once every three months
Antimalaria: Daraprim . . . . .	25 mg	once a week
Antitetanus . . . . .	1 mg I.M	eight month

### Health Education for Pregnant Women

In conformity with the principles of the Center, special importance is attached to health education for the pregnant woman. The future mother receives detailed personal counselling at each consultation. She also attends three group talks where the following subjects are discussed:

- the importance of coming regularly to the prenatal consultations and the need for keeping appointments,
- development of a normal pregnancy and common minor symptoms;
- appearance of symptoms which require a visit to the Center, even without an appointment,
- nutritional requirements of pregnant women
- reasons for spacing pregnancies; availability of services for birth spacing.

### Detection of High-risk Women

By applying certain detailed criteria set forth in the Medical Directives (see annexes), the nurse detects cases of women whose fetus is in danger. The signs of risk are noted on the prenatal card, and the woman's name is entered in a special register. These women receive special care which includes an examination by the doctor, laboratory analysis, and appropriate treatment. According to the doctor's advice, the woman either continues to follow prenatal consultations at the Center or is admitted to the Hospital. Similarly, the decision is made as to whether the woman should give birth at the Center or at the Hospital.

At the present time, about 5 per cent of the women attending the Centers' prenatal consultations belong to the high-risk group.

The woman is asked to attend the prenatal consultations at least once a month from the beginning of her pregnancy. During the first visit, she undergoes an examination to determine the hemoglobin level. She is then requested to return the following Monday or Thursday, days when consultations for newly-enrolled women are held. The examination results are noted on the prenatal card, which is given to the woman.

In order to make certain that the nurses will be able to carry out a careful examination including a detailed history, visits are carefully scheduled.

The prenatal consultations are handled by two nurse-midwives (auxiliaires), under the supervision of the assistant head nurse of the Maternity. These nurse-midwives, at the present time, see between fifty and sixty women a day. They also lead the health education sessions. Once a month, they attend the clinic for high-risk cases held by the Maternity physician of the Mama Yemo Hospital.

## THE MATERNITY SERVICE

### Organization

The Centers' Maternities handle only normal deliveries. High-risk cases are screened and referred to the Mama Yemo Hospital. The two Centers are able to handle about twenty deliveries a day, 7,300 per year. Thus, one of the objectives of the program, to relieve the case load at the Mama Yemo Hospital Maternity, which is one of the largest in the world (over 44,000 deliveries a year), is achieved.

The work of the Maternity is carried out almost entirely by the nursing staff. Teams composed each of three nurse-midwives and a ward helper work in shifts - admitting women, performing deliveries and giving post-delivery care. Each morning, the head nurse and her assistants make the rounds in the Maternity ward, in order to examine the condition of the mothers and newborns, and to supervise the work of the midwives.

When a woman is admitted to the Center for childbirth, she is taken to the admissions "Screening" room for an obstetrical examination. She then goes to the labor room, where the progress of labor is followed. The delivery and newborn care take place in the delivery room. From there, mother and child are taken to the post-partum ward, where they usually remain for three days. It is during this post-partum period that the mothers receive intensive instruction in baby care, nutrition, and advice concerning methods of child spacing.

The Maternity depends on the Hospital for the patients' meals, for laundry, and for disposal of the placentas. Dirty laundry is bundled at the Center and sent to the laundry every two days. The placentas are placed in plastic bags and sent to the Hospital. During the lying-in, the Hospital kitchen provides two meals daily for the patients. The family usually brings additional foods.

### Admissions "Screening" Room

When the woman comes to the Center, she is taken first to the admissions screening room. On admission, the nurse carries out a gynecological examination to make sure that labor has in fact begun and to detect signs of possible risk. In cases of "false labor", the woman is sent home after being told when she should return.

For women in labor, the nurse fills out a new card, the "partogram" (see annexes), on which the progress is noted. She marks on this card the results of the examination, the weight, height, arterial blood pressure, and so on. From this information, she is able to judge whether the delivery will be normal or whether the woman shows signs of risk or of potential difficulties.

When signs of risk are detected, the woman is transferred to the Hospital; the nurse accompanies her in the ambulance to assure her immediate admission to the intensive-care unit of the Maternity.

### Labor Room

A nurse watches over the labor of the parturient, using the partogram to follow its progress, determine when more intensive surveillance is indicated, and decide whether it is necessary to transfer the woman to the Hospital. The surveillance includes periodic gynecological examinations, auscultation of the fetal heartbeat, taking of the mother's blood pressure, and continuous observation of her general condition. The nurse also looks for signs of danger for the mother and for signs of fetal distress. In a case presenting risk, she applies the measures indicated in the Medical Directives (see annexes).

### Delivery Room

The midwife is able to handle normal deliveries, twin births, and breach presentations, and to do episiotomies when necessary. Primiparas are taken to the delivery room when the mouth of the uterus is fully dilated, and multiparas when the dilation reaches about 8 cm. In cases presenting difficulties, the midwife applies the measures spelled out in the Medical

Directives. After the delivery, the woman receives the usual care - that is, washing of the vulva and taking of blood pressure. If she does not suffer from hypertension, she is given 0.5 mg. of methargine as a preventive against uterine atony.

Immediately after delivery, the baby, placed on a table covered with a sterile cloth, is given newborn care. This includes cleaning the nose and mouth, instilling drops of 1 per cent silver-nitrate solution in the eyes, and cutting and tying the umbilical cord and dressing it with iodized alcohol and sterile pads. Then the baby is given a light washing, care being taken not to remove the vernix. The time of birth and sex of the child are entered in the register of births. The "screening", or first examination of the baby, is then carried out by the midwife to detect possible malformations or signs of respiratory distress.

A reanimation unit with oxygen mask is at hand for use in case of respiratory distress of the baby. The midwife evaluates the vital signs according to the "Apgar Score" method (see annexes). If the result is below 6 (six), the baby is transferred to the newborn intensive-care unit at the Hospital. The nurse accompanies the baby and the mother to assure their prompt admission.

#### Post-partum Ward

The head nurse and her assistants make the rounds of the post-partum ward each day. She questions each woman about the lochies, bladder and intestinal evacuation. She controls the hematocrit as well, and, in case of anemia, this control is repeated the second and third days.

As a general rule, the woman is given vermifuges, folic acid, and iron sulphate as preventive medication. Women presenting problems follow the treatment indicated in the Medical Directives. The midwife examines each woman to detect any crevices, abscesses or breast lymphangitis and to follow the evolution of the condition of the uterus. The episiotomy wound is dressed two or three times a day.

### Care and Bath of the Newborn Baby

Each morning during the three-day lying-in period, the mothers and newborns come in groups of ten to a room set aside for umbilical care and toilet and bathing of the babies. A nurse weighs the babies, keeps the birth card (printed on the back of the partogram card) up to date, cleanses and dresses the umbilicus. The first day, it is she who bathes and dresses the baby, to show the mothers how it should be done. The second and third days, the mother - with the guidance and advice of the nurse - washes and dresses her baby herself.

### Post-partum Health Education

Mornings are reserved for the care and bathing of the baby. On the second day the baby is vaccinated against smallpox and tuberculosis. The nurse in charge profits from these activities to remind the mothers of the importance of inoculations and to convince them of the necessity of coming regularly to the "Under-Five" Clinic. In the afternoon, talks are held on child nutrition and on the Family Planning or "Desired Births" Service.

THE "DESIRED BIRTHS" CLINIC

The aim of Zaire's "Desired Births" program is to allow parents to choose when they wish to have children, to promote the health of the children and mothers, and to help couples who wish children, to have them.

Thus, the principal functions of the "Desired Births" consultation are to provide:

- information and motivation, in groups or individually, so that the couple may choose a method of child-spacing;
- services for the adoption and follow-up of the contraceptive method chosen;
- treatment of sterility.

Each Center has a "Desired Births" service. It is accountable to the national administration of the service. At the level of the Center, however, the program is coordinated by the head nurse. In each Center, all personnel inform mothers of the availability of the service. One nurse has special responsibility for seeing women and couples interested in contraception. These services are available daily, except on Saturday, the day reserved for the weekly meeting of all personnel working with the program.

Information and Motivation

The nurse assigned to the "Desired Births" service meets with groups of ten to fifteen women for an initial discussion which husbands are invited to attend.

During the session, the nurse, with the help of visual aids and contraceptive samples, reviews the most commonly used methods of birth control. She then guides the women in making a choice. Specific subjects discussed at these meetings, as well as the material used, are described in the appendix.

### Adoption and Follow-up of Contraceptive Methods

Individual consultations follow the group information meeting. Here, the nurse takes the medical history, makes a gynecological examination, and opens a file for each patient in which all results are noted. The woman indicates the method she has chosen. In case of contra-indication to that method for the patient, the nurse suggests an alternative or, if necessary, refers the woman to the Hospital for the advice of the doctor on duty.

Women who choose tubular ligation (tying off of the Fallopian tubes) must - as for any contraceptive - have the consent of their husband. After written agreement of the couple has been received, an appointment is then made for the woman in the department of gynecology for examination and surgery. Follow-up appointments are given according to a schedule established for each contraceptive method. The files of women who have not yet chosen a method and files of those whose husband has not yet given his consent are kept pending.

### Treatment of Sterility

All women who come to the "Desired Births" service for sterility problems are referred to the Hospital for consultation with the gynecologist.

THE AUXILIARY SERVICES:  
PHARMACY, LABORATORY, STERILIZATION

Pharmacy

The Center's pharmacy not only serves to provide medication, but also as a means of standardization and supervision of treatment.

Medications employed at the Centers are limited to an essential minimum and are selected with regard to their efficacy, price and availability by the physician-in-charge and the Standing Committee. A monthly report by the pharmacist indicates the type and cost of the medicines consumed by each service. This information is useful in supervising and evaluating the work of the various services.

At the present time, one pharmacist is responsible for both Centers. He is accountable to the chief pharmacist of the Hospital and to the physician-in-charge of the Centers. He is in charge of the provision, distribution and use of medications and pharmaceutical products in all the services, including the laboratory and the sterilizing room. Thus, he takes part in coordinating and supervising the work of the Centers. An assistant pharmacist handles the daily distribution of medications to patients.

At the "Under-Five" Clinic, medications and vaccines are delivered daily to the assistant director for distribution to the different sections of the Clinic (check-up, treatment, immunization). The nurses bottle or package them and are responsible for giving them to the mothers. They can thus instruct the mothers as to their correct use.

At the Maternity and the "Desired Births" consultation, the same method of delivering medications is used. The assistant directors submit a daily report on the medicines used. In the prenatal clinic, however, nurses write prescriptions which are filled at the pharmacy.

### Laboratory

The laboratory carries out only simple examinations and tests. All patients at the Center are required to have a hemoglobin or hematocrit test. Blood smears for malaria, stool examinations for worms or parasites, and urine examinations (sugar, albumin, bilirubin cells) are carried out if ordered by a nurse. An aide is responsible for taking samples of blood, urine and stool. He is given on-the-job training for this work and is supervised by the pharmacist. He submits a monthly report on the number and results of the examinations to the administrator.

### Sterilization

The sterilization room has an autoclave with a capacity of 4,000 cm<sup>3</sup> to cover all the Center's needs. Maternity instruments, gloves, syringes and needles, surgical gauze, cotton dressings and linen used in the operating room, are all sterilized here. Two nurse's aides, who have received on-the-job training in the Hospital's sterilization service, carry out these tasks under the supervision of the director of the Center. They prepare the surgical packets, wash and powder the gloves, clean the needles, check the distribution and supply of the material required. A reserve sufficient for two or three days is always kept on hand. The personnel is instructed to use items in the order in which they have been sterilized so as to assure sterility.

A portable autoclave is available for emergencies, and is also used for sterilizing small items.

## TRAINING OF THE NURSING PERSONNEL

### Introduction

Nurses' training in Governmental or private schools in Zaire is directed mainly toward hospital work. Public Health instruction is an integral part of the general curriculum. In addition, some schools for auxiliary nursing personnel offer an option in Public Health to students in the final year.

No single training program is common to all the nursing schools. Thus, although diplomas and certificates are officially recognized, the level of instruction varies considerably from one institution to another.

The nursing personnel is divided into two main categories:

1. Graduate (registered) nurses. They have completed six years of primary school and three years of secondary school before entering professional training for a period of three or four years.
2. Auxiliary (practical) nurses, nurses' aides, and midwifery aides. Auxiliary nurses must have completed six years of primary school and two years of secondary school, and have received two or three years of professional training. Nurses' aides and midwifery aides have varying educational backgrounds.

While there is a lack of registered nurses, auxiliary nurses are relatively abundant. It is difficult to obtain reliable statistics, but figures available for 1974 indicate:

- graduate (registered) nurses .....	1,572
- graduate nurse-midwives .....	300
- auxiliary nurses )	
- nurses' aides ) .....	10,702
- midwifery aides )	

### Training in Maternal and Child Health (MCH)

As mentioned previously, the concept of the Maternal and Child Health Center program is based on the delegation of responsibility at various levels, as well as on the preparation of personnel to assume these responsibilities. This is carried out through a program of in-service training, reinforced by intensive supervision. The Centers thus serve not only for delivery of health services, but also for demonstration and training.

Nursing personnel recruited for the Centers first attends a two-week orientation and basic training course, followed by four weeks of practical experience in Maternal and Child Health care (see annexes). Training is given either entirely at the Center, or, alternatively, in the Hospital classrooms and at the Center, depending upon the number of participants.

There are two levels of training: 1) for nurses, and 2) for auxiliary personnel. The teaching is adapted to the intellectual level and to the previous training of each category. The subjects studied are presented in such a way as to prepare the personnel to carry out correctly the specific tasks they will be assigned.

After the initial training period, the personnel continues to learn while on the job. Once or twice a week, before starting the day's work, staff members attend training sessions. The entire nursing staff is encouraged to participate, directly or indirectly, in the on-the-job training process. Thus, the graduate nurses contribute to the training of the auxiliary nurses, while the latter in turn transmit their knowledge and experience to their assistants in the course of their work together.

### Training of Head Nurses and Coordinators

The training programs described above apply the teaching of the principles of Maternal and Child Health to staff workers. Training of the experienced graduate nurses, the head nurses and assistant head nurses, who are responsible for the Center, is given informally by the coordinators, the doctor-in-charge, and the administrator. Management courses are also given at the Hospital.

The coordinator's role is of fundamental importance in the organization of the MCH program in Kinshasa. Candidates are selected from among nurses who are qualified and experienced in Public Health, or from among those who have already served as heads of centers. Coordinators are directly responsible for Center management, for training nursing staff, for establishing the program, and for the planning of activities. Meetings where coordinators raise problems encountered in their work serve as an additional training forum. Here they are encouraged and helped to find solutions. Periodic evaluation sessions also permit coordinators to measure what has been accomplished against the objectives set.

#### Training for Nursing Students

As a pilot project for MCH, the Centers attract the interest of the directors of the local professional schools. The School of Medicine, as well as the nursing schools, send students to observe the methods applied at the Centers. At present, the nursing students of the Institute of Medical Instruction in Kinshasa, and the students at the Nurse-Midwifery School of Kintambo Hospital, participate as observers in the Centers' activities. In groups of four, they follow two-week training courses, planned by the coordinators and the director of the Center.

#### Planning and Carrying Out of the Training Program

Training in Maternal and Child Health at all levels is under the direction of the doctor-in-charge, assisted by a team responsible for Public Health training. The coordinators, whose role is so essential, take an active part in the training program. Their role as instructors, of course, grows as they gain experience and assume greater responsibility.

MATERNAL AND CHILD HEALTH CENTERS

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BUMBU AND BARUMBU

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ANNEXES

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ANNEXES

TABLE OF CONTENTS

	<u>Page</u>
<u>GENERAL INFORMATION ON THE MATERNAL AND CHILD HEALTH CENTERS - BUMBU AND BARUMBU</u>	
Personnel for Both Centers . . . . .	1
Personnel for Each Center . . . . .	1
Services and Fees . . . . .	1
<u>ADMINISTRATIVE ORGANIZATION CHART OF THE PROGRAM</u> . . . . .	3
<u>MATERNAL AND CHILD HEALTH CENTER - ORGANIZATION CHART</u> . . . . .	4
<u>PRINCIPAL ACTIVITIES OF THOSE IN CHARGE OF THE MCH PROGRAM</u> . . . . .	5
Job Description: Doctor-in-Charge of the Maternal and Child Health Centers . . . . .	6
Job Description: Doctor-in-Charge of the "High-Risk" Consultations . . . . .	7
Job Description: Administrator of the Centers . . . . .	8
Job Description: Coordinator of the Centers . . . . .	9
Job Description: Head Nurse of a Center . . . . .	11
Job Description: Pharmacist of the Centers . . . . .	12
<u>THE "UNDER-FIVE" CLINIC</u>	
Itinerary . . . . .	13
Some Examples of Didactic Methods Employed in the Education Room . . . . .	14
Demonstration - Preparing a Salt-and-Sugar-Water Solution . . . . .	15
Quantities of Foods Necessary for a Nutrition Demonstration for Twenty Children . . . . .	16
Example of Medical Directives: Standard Treatment for "Under-Five" Consultations . . . . .	17
Example of Standard Treatment for "Under-Five" Consultations . . . . .	19
Record Cards and Statistics: "Under-Five" Clinics . . . . .	22
"Road to Health" Chart . . . . .	24
"Under-Five" Consultation Rooms: Suggested Equipment . . . . .	27

(THE "UNDER-FIVE" CLINIC continued)

Page

Job Description: Assistant Head Nurse of the "Under-Five" Clinic . . . . .	30
Job Description: Check-up Room Helper . . . . .	31
Job Description: Auxiliary Nurse in Charge of the Check-up Room . . . . .	32
Job Description: Auxiliary Nurse in Charge of the Immunization Room . . . . .	33
Job Description: Nurse's Aide in the Education Room . . . . .	34

THE PRENATAL CLINIC

Health Education at the Prenatal Consultations . . . . .	35
Criteria Applied in Diagnosis of "High-Risk" Cases during Pregnancy . . . . .	38
Examples of Medical Directives: Typical Medications Dispensed at the Prenatal Consultations . . . . .	39
Job Description: Auxiliary Nurse-midwife at the Prenatal Consultations . . . . .	40
Records and Statistics . . . . .	41
The Consulting Rooms: Suggested Equipment . . . . .	42

THE MATERNITY

Indications of Risk in Newborns . . . . .	43
Examples of Medical Directives for the Maternity . . . . .	45
Maternity Records . . . . .	49
"Partogram" Chart . . . . .	50
Current Activity Statistics . . . . .	53
Job Description: Assistant Head Nurse of the Maternity . . . . .	54
Job Description: Auxiliary Nurse-midwife for the Screen- ing, Labor, and Delivery Rooms and for the Post-partum Ward . . . . .	55
Job Description: Ward Helper in the Maternity . . . . .	56

THE "DESIRED BIRTHS" CLINIC

Administration of the "Desired Births" Service . . . . .	57
Example of a Program used for Motivating Women to use Contraception . . . . .	58
Examples of Brief Talks on Child-spacing Methods . . . . .	59
Examples of Medical Directives: Treatment of Side Effects due to Contraceptives . . . . .	62
Job Description: Nurse-"Animator" of the "Desired Births" Clinic . . . . .	63

THE AUXILIARY SERVICES

Examples of Laboratory Activities . . . . .	64
Job Description: Assistant Pharmacist . . . . .	65
Job Description: Assistant Laboratory Technician . . . . .	66
Job Description: Person Responsible for the Sterilization of Material . . . . .	67
Job Description: Head of Maintenance Service . . . . .	68
Job Description: Watchman-Guard . . . . .	69

TRAINING

Orientation of the Personnel of the Maternal and Child Health Centers . . . . .	70
Proposed MCH Center Personnel Orientation Program . . . . .	71
Teaching Directives for a Six-weeks' Course . . . . .	72



GENERAL INFORMATION ON THE MATERNAL AND CHILD  
HEALTH CENTERS - BUMBUM AND BARIUMBUM

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PERSONNEL FOR BOTH CENTERS

- 1 doctor-in-charge
- 1 administrator
- 1 pharmacist
- 2 nurse-coordinators

PERSONNEL FOR EACH CENTER

- 3 graduate (registered) nurses
- 22 auxiliary nurses (male or female)  
auxiliary nurse-midwives
- 5 clinic helpers (male)
- 10 clinic helpers (female)
- 4 cleaning personnel
- 4 watchmen-guards

SERVICES AND FEES

The Maternal and Child Health Center is open to all, irrespective of place of residence.

- "Under-Five" Clinic

With the exception of a modest fee for the "Road to Health" card, the consultations are free. Between 100 and 150 children are received daily; about 70 per cent are return visits, while 30 per cent are children seen for the first time.

- Prenatal Consultations

The prenatal consultations and delivery are paid for in a lump sum. The fee charged is in proportion to the patient's ability to pay. Fifty to sixty women are received at each consultation; the majority come three to five times prior to their confinement.

- Maternity

Deliveries: Ten to fifteen a day at each Center.

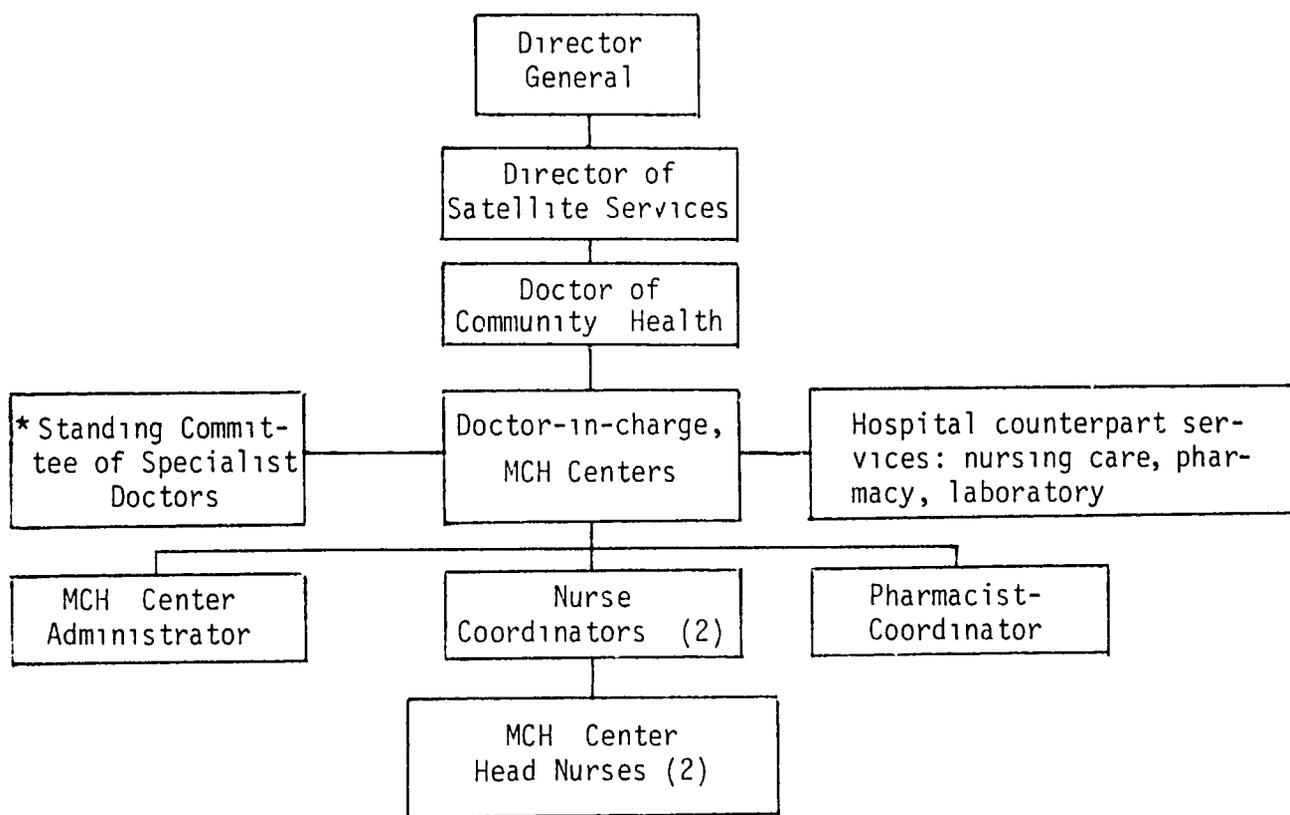
Capacity: 46 beds per Center.

- "Desired Births" Clinic

At the present time, the consultations, care and medications are free of charge.

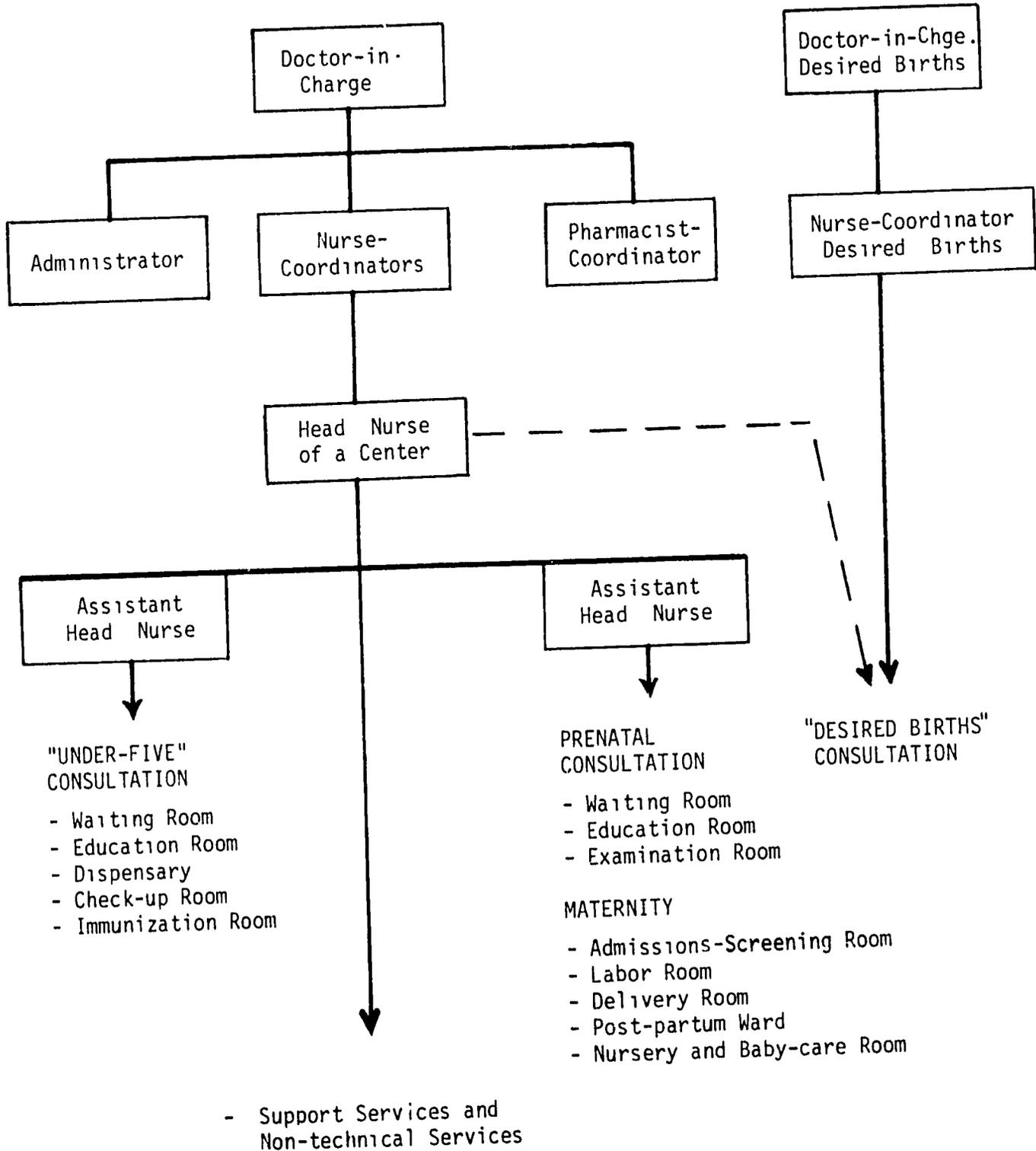
ADMINISTRATIVE ORGANIZATION CHART OF THE PROGRAM

At the present time, the MCH program is included in the division of satellite services of the Mama Yemo Hospital, whose technical services (nursing, pharmacy, laboratory) serve the Centers.



\* A Maternal and Child Health Center (MCH) comprises several specializations (obstetrics, gynecology, pediatrics); a Standing Committee, composed of chiefs of specialized services, functions as an advisory board to the MCH Center doctor-in-charge in technical matters. This Committee, for example, drew up the Medical Directives, in collaboration with the doctor-in-charge and the nurse-coordinators.

MATERNAL AND CHILD HEALTH CENTER  
ORGANIZATION CHART



PRINCIPAL ACTIVITIES OF THOSE  
IN CHARGE OF THE MCH CENTER PROGRAM

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The job descriptions of the posts occupied by the persons in charge of the MCH program are given in detail in the following pages.

This project is still in the development stage. The definitions and classifications given here are thus subject to modification in the light of future experience.

JOB DESCRIPTION

DOCTOR-IN-CHARGE OF THE  
MATERNAL AND CHILD HEALTH CENTERS

The doctor-in-charge should have a degree in Public Health or possess wide experience in this field. He is responsible for the development of all the services, and is accountable to the director of the department which oversees the Centers.

Principal Functions

1. To make decisions, in collaboration with the Standing Committee, on the choice of techniques, the drawing up of the Medical Directives, and the organization of the pharmacy and the laboratory.
2. To handle public relations within the framework defined by the General Administration.
3. To draw up study plans for refresher training and upgrading of nursing and administrative personnel, as well as for medical trainees. To teach some courses.
4. To carry out medical and statistical research regarding the population served by the Centers, and to evaluate the impact of these services on the population.
5. To assume responsibility for the short- and long-term operation of the Centers including their administrative requirements. To delegate to the administrator and coordinators responsibility for applying decisions concerning personnel, Hospital support services, and equipment and material supplies.
6. To supervise the clinic and make periodic visits to the services, to hold medical consultations as the need arises.

JOB DESCRIPTION

DOCTOR-IN-CHARGE OF THE  
"HIGH-RISK" CONSULTATIONS

The doctor-in-charge of the "high-risk" consultations should be a specialist in pediatrics or in obstetrics-gynecology. As a consulting specialist, he is accountable to the doctor-in-charge of the Centers.

Principal Functions

1. To hold "high-risk" consultations according to an established schedule. To instruct nurses on measures to be taken in each case.
2. To lead study conferences on "high-risk" consultations.
3. To act as liaison between the Centers and the Hospital specialty departments regarding "high-risk" problems.

JOB DESCRIPTION

ADMINISTRATOR OF THE CENTERS

The administrator is responsible to the doctor-in-charge for Center management. He is also in charge of liaison between the General Hospital Administration and the Centers.

Principal Functions

1. To participate in planning the services. To fulfill administrative requirements and back up technical services. To provide liaison with the Hospital services. To coordinate services for activities such as maintenance, repair, transport and short- and long-term supply.
2. To coordinate personnel recruitment in relation to need and to budgetary provisions.
3. To help settle disciplinary and personal problems beyond the competence of local Center staff. To see that the personnel are paid, and to supervise personnel employed on a part-time basis, such as those concerned with maintenance or transport.
4. To gather and analyze statistics and submit them to the General Administration.
5. To handle public relations according to the policy of the General Administration.

JOB DESCRIPTION

COORDINATOR OF THE CENTERS

The coordinator is a graduate nurse with Public Health training and with considerable supervisory experience. He or she is responsible for the development and supervision of the services, in the Centers and in the communities they serve. He is accountable to the doctor-in-charge.

Principal Functions

Planning:

To work with the doctor-in-charge in planning the services of the Centers and in training personnel, for carrying out the planned activities. Particular emphasis is placed on the Public Health instruction offered at the Center.

Direction of Technical Services:

1. Supervise the services and make sure that activities are carried out satisfactorily, from a technical and disciplinary point of view, and that a pleasant atmosphere is created.
2. To prepare material and equipment need estimates and to supervise their use and maintenance.
3. To organize services in new Centers as they are created, in collaboration with the head nurses. To keep head nurses informed of policy changes or program modifications, and to help implement them.
4. To organize and give in-service courses and to lead upgrading seminars for improving nursing services.
5. To make sure that new Center personnel receive an appropriate orientation.
6. To advise and assist the head nurse with personnel problems. Problems beyond the coordinator's competence are referred to the doctor-in-charge.

7. To follow up patients referred from the Center to the Hospital.

Administrative:

1. To keep the doctor-in-charge and administrator informed of the activities and problems related to the Centers.
2. To maintain relations with the Hospital's technical services. To attend meetings with representatives of other disciplines and inform them of the progress of the Centers.
3. To handle public relations, according to the directives of the General Administrator or of his delegate.
4. To check the accuracy and reliability of records and statistics before transmitting them to the administrator.

JOB DESCRIPTION

HEAD NURSE OF A CENTER

The head nurse is an experienced graduate nurse responsible for directing a Center's services. He or she is accountable to the coordinators.

Principal Functions

Director of Technical Services:

1. To work with the coordinators in organizing the services.
2. To assign duties and supervise the work of personnel in the Maternity, the prenatal clinic, the "Under-Five" clinic, and the "Desired Births" service. To make sure that the health education program is carried out satisfactorily in each of the clinics.
3. To assure that each new employee is integrated into the team, in conformity with the program.
4. To work with coordinators on preparing in-service courses for Center personnel and for student nurses.

Administrative:

1. To evaluate personnel; to prepare, with the assistant head nurses, an efficiency rating for each staff member, and submit it to the coordinators.
2. To examine, with the coordinators, problems of discipline.
3. To keep coordinators informed of the material needs of the Center.
4. To make sure that the service statistics and records are correct and up to date.
5. To carry out directives issued by the coordinators, the administrator, and the doctor-in-charge regarding relations with the authorities of the "Zone".

JOB DESCRIPTION

PHARMACIST OF THE CENTERS

A graduate (registered) pharmacist, he is accountable to the chief pharmacist of the Hospital and to the doctor-in-charge of the MCH Center program. He is responsible for the organization, supervision, supply, distribution and use of pharmaceutical products in all the services.

Principal Functions

1. To participate in the planning and coordination of the services.
2. To supervise the work of the pharmacy and the laboratory.
3. To be responsible for the supply, distribution and use of pharmaceutical products.
4. To give the on-the-job training of the assistant pharmacist, the assistant laboratory technician, and the person in charge of sterilization.
5. To prepare a monthly statistical report on consumption of medicines.

THE "UNDER-FIVE" CLINIC

Itinerary

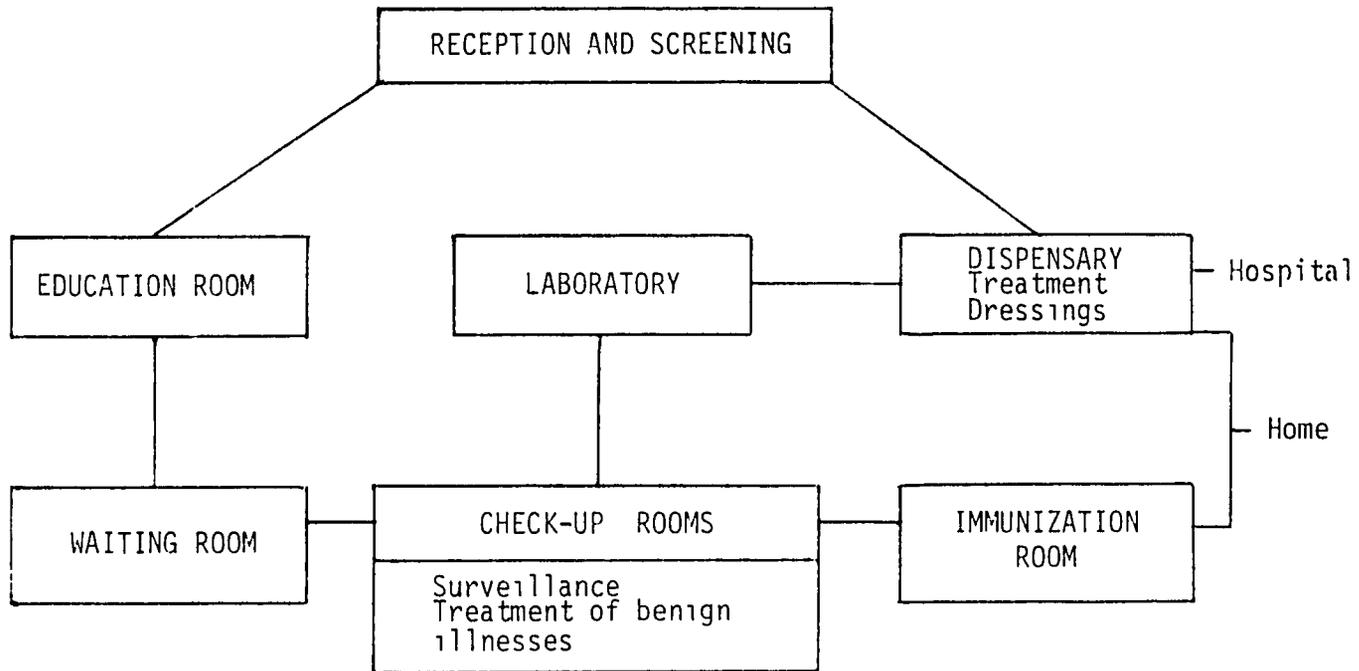


Diagram of the itinerary followed by the mothers and children at the MCH Center "Under-Five" consultation.

Seriously ill children and emergency cases are sent directly from the reception to the dispensary and, if necessary, to the Hospital by ambulance.

In general, all visitors go to the education room (demonstration time: 20 to 30 minutes) before going on to the waiting room and then to the check-up room. Afterwards, they go either to the dispensary or to the immunization room, or return home.

The pharmacy is situated near the waiting room, but is not shown on the diagram because the medications available to the "Under-Five" clinic are distributed and administered directly by the nurses.

SOME EXAMPLES OF DIDACTIC METHODS  
EMPLOYED IN THE EDUCATION ROOM

---

As a general rule, the simplest and most practical methods are employed. Photographs of other countries or areas should be adapted to local conditions before being used.

A picture or a flannel-board of the "Road to Health" card is used in discussing weight curves.

For discussions on weaning and child nutrition, the following aids are used:

1. A picture showing a mother giving the breast to her child, and a plate containing the child's food.
2. A sampling of local foods.

For sessions on malaria and intestinal worms, the aids developed by Dr. Courtejoie in Zaire, adapted to urban conditions, are used.

### DEMONSTRATION - PREPARING A SALT-AND-SUGAR-WATER SOLUTION

During discussions on diarrhea, held in the education room as well as at the "Under-Five" consultations, emphasis is placed on the necessity of avoiding dehydration by making a child drink a salt-and-sugar-water solution.

The preparation is simplified so that the mother may do it at home:

#### Equipment

1. An empty bottle (of the Primus beer type).
2. Cups and teaspoons boiled in a pan.
3. One box of salt, well sealed.
4. One box of sugar, well sealed.
5. A source of water.
6. A pan.

#### Method of Preparation

1. Wash the bottle (even if it is clean).
2. Put water into a pan and let it boil for two minutes.
3. Pour water into the bottle (contents: 600 ml.).
4. Pour this water into the pan; add two pinches (of three "fingers") of marine salt or one pinch (of three "fingers") of table salt, and three teaspoons of sugar. The quantity of sugar depends on the child's taste. IT IS VERY DANGEROUS TO USE TOO MUCH SALT.
5. Stir the mixture of salt and sugar thoroughly, pour the liquid into the bottle and then cap the bottle.
6. Pour the liquid, luke-warm, into a cup and spoon-feed it to the child several times a day.

QUANTITIES OF FOODS NECESSARY FOR A  
NUTRITION DEMONSTRATION FOR TWENTY CHILDREN

---

RECIPE	FOODS	QUANTITIES
Recipe 1	<ul style="list-style-type: none"> <li>- corn meal</li> <li>- fish</li> <li>- vegetables</li> <li>- tomato paste</li> </ul>	<ul style="list-style-type: none"> <li>- 2 tablespoons</li> <li>- 1 piece</li> <li>- a bunch</li> <li>- <math>\frac{1}{2}</math> can</li> </ul>
Recipe 2	<ul style="list-style-type: none"> <li>- manioc (plantain) flour</li> <li>- beans</li> <li>- peanuts (groundnuts)</li> <li>- green leaves</li> <li>- tomato paste</li> </ul>	<ul style="list-style-type: none"> <li>- 2 tablespoons</li> <li>- a handful</li> <li>- a handful</li> <li>- a bunch</li> <li>- <math>\frac{1}{2}</math> can</li> </ul>
Recipe 3	<ul style="list-style-type: none"> <li>- corn meal</li> <li>- caterpillars</li> <li>- pumpkin seeds</li> <li>- green leaves</li> <li>- tomato paste</li> </ul>	<ul style="list-style-type: none"> <li>- 2 tablespoons</li> <li>- a handful</li> <li>- a handful</li> <li>- a bunch</li> <li>- <math>\frac{1}{2}</math> can</li> </ul>
Recipe 4	<ul style="list-style-type: none"> <li>- manioc (plantain) flour</li> <li>- fish</li> <li>- peanuts</li> <li>- green leaves</li> <li>- oil</li> </ul>	<ul style="list-style-type: none"> <li>- 2 tablespoons</li> <li>- 1 piece</li> <li>- a package</li> <li>- a bunch</li> <li>- a spoonful</li> </ul>
Recipe 5	<ul style="list-style-type: none"> <li>- bananas</li> <li>- peanuts</li> <li>- tomato paste</li> </ul>	<ul style="list-style-type: none"> <li>- 1 banana</li> <li>- a package</li> <li>- <math>\frac{1}{2}</math> can</li> </ul>

These examples of "multimix" recipes are used in the education room. Their use is reinforced at the prenatal and "Under-Five" consultations, where samples of the foods are displayed on a table.

The "multimix" recipes are mixtures of two, three or more foods intended to be mutually complementary and, in particular, assure that the eight essential amino acids are included regularly in each meal.

EXAMPLE OF MEDICAL DIRECTIVES:  
STANDARD TREATMENT FOR "UNDER-FIVE" CONSULTATIONS

These Directives, drawn up by the Standing Committee and the nurse-coordinators, are intended for the auxiliary nurses (see following pages). The graduate nurses are allowed a wider margin of initiative in determining what treatments to apply.

SYMPTOMS/DIAGNOSIS	ADVICE/CARE TREATMENT	CHECK-UP ROOM	DISPENSARY/ ASST. HD. NURSE	REFER TO HOSPITAL DOCTOR
<u>ADENITIS</u>				
1. Sequel to B.C.G. - without fistulization - threat of fistulization	Reassure the mother	X	X	
2. Infectious	Extencillin 100,000 units/ kg. weight Max. 1,200,000 U		X	X
<u>ANEMIA</u>				
1. Hematocrit less than 20% (SS*+ or -)				X
2. Hematocrit superior to 20% (SS -)	Iron sulphate syrup during 2 months. Hematocrit control every 2 weeks.	X		
- SS positive				X
<u>DIARRHEA</u>				
Vomiting + Dehydration:	Advice + demonstration of salt-and-sugar-water solution	X		X
- tinged with blood - several episodes - without change	Falmonox (anti-ameba) and checking of weight	X	X	X X
* Sickling factor				

SYMPTOMS/DIAGNOSIS	ADVICE/CARE TREATMENT	CHECK-UP ROOM	DISPENSARY/ ASST. HD. NURSE	REFER TO HOSPITAL DOCTOR																
<p><u>COUGHING</u></p> <p>Rhinopharyngitis (Temperature below 38°C)</p> <p>Labored breathing Bronchial rasp</p>	<p>Nose drops Pectoral potion</p> <p>Extencillin I.M. Children under 2 years: Tri- sulfan 100 mg./ kg. weight/day</p>	<p>X</p>	<p>X</p>	<p>Below 6 months age</p>																
<p><u>FEVER</u></p> <p>- without apparent infection</p> <table border="0" data-bbox="403 1093 462 1249"> <tr> <td style="text-align: center;"><u>Age</u></td> </tr> <tr> <td style="text-align: center;">0-1</td> </tr> <tr> <td style="text-align: center;">1-3</td> </tr> <tr> <td style="text-align: center;">3-6</td> </tr> </table> <p>- with vomiting</p> <p>- with malaria prevention</p> <p>- with apparent infection</p> <p>- temperature over 38°C in a child under six months of age</p> <p><u>ETC.</u></p>	<u>Age</u>	0-1	1-3	3-6	<p>Lots of water to drink</p> <p>Nivaquine.</p> <table border="0" data-bbox="605 1059 847 1249"> <tr> <td style="text-align: center;">Days</td> <td style="text-align: center;">1+2</td> <td style="text-align: center;">3,4,5</td> </tr> <tr> <td></td> <td style="text-align: center;">100mg.</td> <td style="text-align: center;">50mg.</td> </tr> <tr> <td></td> <td style="text-align: center;">150mg.</td> <td style="text-align: center;">100mg.</td> </tr> <tr> <td></td> <td style="text-align: center;">200mg.</td> <td style="text-align: center;">150mg.</td> </tr> </table> <p>Propoquine 0.1 cc./kg. weight</p> <p>No anti-malaria treatment</p> <p>Treat the cause, and Nivaquine</p>	Days	1+2	3,4,5		100mg.	50mg.		150mg.	100mg.		200mg.	150mg.	<p>X</p>	<p>X</p>	<p>X</p>
<u>Age</u>																				
0-1																				
1-3																				
3-6																				
Days	1+2	3,4,5																		
	100mg.	50mg.																		
	150mg.	100mg.																		
	200mg.	150mg.																		

EXAMPLE OF STANDARD TREATMENT FOR  
"UNDER-FIVE" CONSULTATIONS

Directives to be followed by the nurses: listen to the mother, ask questions, observe the child and examine him. If you find:

Adenitis

1. Sequel to B.C.G.
  - a. Without fistulization: no treatment, reassure the mother.
  - b. Threat of fistulization: consult the head nurse of the doctor.
2. Probable infectious adenitis:  
Extencilin (100,000 units/kg. weight; maximum: 1,200,000 units).

Anemia

1. In all cases: screening for sickle cell anemia (SS) (at Center).
2. If positive, or negative with hematocrit under 20%: consult the doctor.
3. If negative with hematocrit above 20%: give iron sulphate syrup during two months:
  - a. weight under 10 kg..  $\frac{1}{2}$  teaspoon four times a day.
  - b. weight over 10 kg.. 1 teaspoon four times a day
  - c. check hematocrit every two weeks.

Diarrhea

1. Three (or more) liquid stools per day, without blood:
  - a. Basic treatment: demonstration of preparation of salt-and-sugar-water solution; give it to the child yourself, encourage the mother to prepare it at home.
  - b. Instruct mother to continue breast feeding the child (plus a dose of Reasec, if necessary)
  - c. If the diarrhea becomes serious, the mother should return immediately to see the head nurse, or go to the Hospital.

- d. If the child's condition remains unchanged: check his weight, continue to give the salt-and-sugar-water solution.
  - e. If there is no improvement after two days of treatment, see the doctor.
  - f. In cases of repeated episodes of diarrhea, refer the child to the "high-risk" consultation.
2. Diarrhea tinged with blood: Falmonox syrup.
  3. Diarrhea accompanied by vomiting and signs of dehydration: send the child to the Mama Yemo Hospital.

### Fever

1. Without apparent infection: Camoquine or Nivaquine.

a. Camoquine	<u>1st and 2nd days</u>	<u>3rd, 4th, 5th days</u>
0 - 1 year	100 mg.	50 mg.
1 - 3 years	150 mg.	100 mg.
3 - 6 years	200 mg.	150 mg.

- b. Nivaquine: same dosages as for Camoquine.

N.B. 1 teaspoon = 25 mg.; 1 tablet = 100 mg.

If the child is vomiting, give a single injection of Propoquine, one teaspoon per kilogram.

2. With apparent seat of infection

Treat the cause; and if the child is receiving no anti-malaria medication, apply the treatment indicated above.

In all cases, ENCOURAGE THE CHILD TO DRINK (PURE water!).

### COUGHING

1. Rhinopharyngitis (temperature below 38°C.)
  - a. Argyrol nose drops.
  - b. Pectoral potion.
2. Labored breathing, or bronchial rasp: Extencilin I.M. 100,000 units/kg. weight (maximum 1,200,000 units).
3. For children between six months and 2 years of age, also give 100 mg./kg. weight/day of Trisulfan syrup (i.e., combination of penicillin and sulphate). Children under six months, or with marked dyspnea at any age, should be taken to the Hospital.

4. Cough accompanied by vomiting: (whooping cough): refer to "high-risk" consultation.

In All Cases

1. If there is no improvement after two days of treatment, see the doctor.
2. If the general condition of the child worries you, consult the head nurse or send the child to the Mama Yemo Hospital.

## RECORD CARDS AND STATISTICS

### "UNDER-FIVE" CLINICS

#### Clinical Cards

##### 1. The "Road to Health" Card (weight curve)

This is the principal record card of the "Under-Five" clinic. Developed by Dr. Morley, the card is used for regular surveillance of the child. It permits recording of a child's weight graphically on successive visits, so that a curve is obtained. The graph shows the child's weight as a function of his age. Two heavily outlined slanting lines are marked across the graphs. All the normal average weights used as points of reference (i.e., 100 per cent) are printed on the upper line. Similarly, the weights (75 per cent of normal weights in function of age) are printed on the lower line. When a child's weight progresses steadily upward somewhere in the space between these two lines, he follows the "road to health". This indicates he is receiving an adequate diet and growing normally. If the line formed from joining the points representing the weight each month does not follow the upward direction of the "road", it is a first warning signal of impending danger of problems due to illness or malnutrition. This weight curve is also used in evaluating the effects of a malnutrition-corrective program.

The weight curve is a basic tool in watching over the child's growth. It is used extensively in the practical-nutrition education program.

The card on which the growth chart is printed also records information for identifying the child, the composition of his family, a vaccination record, administration of preventive medications, and important dates such as the start of weaning and the initiation of supplementary feedings.

The card is entrusted to the mother. Each of her preschool-aged children has one. Whenever a child comes to the Center, the mother brings this card.

2. Visit Notebook

This is an ordinary notebook, divided into three sections. The nurse notes in it the diagnosis and the treatment to apply in case of illness, as well as a summary of the child's general condition at each visit. In this manner, complete information on the child's medical history is readily available.

When the notebook is full, the nurse keeps it and files it for statistical purposes. The mother and her preschool-aged children receive a new one.

3. Card for Recording Special Care

For each "high-risk" child, the check-up room nurse fills out and keeps a card. This card serves to inform the medical personnel about special care given, progress observed, and information gathered during house visits.

Records and Statistics on Current Activities

1. Reception Slips

This card, filled out at the first visit by the reception clerk, contains information on the area of residence, and on where the prenatal consultations and delivery of the child took place.

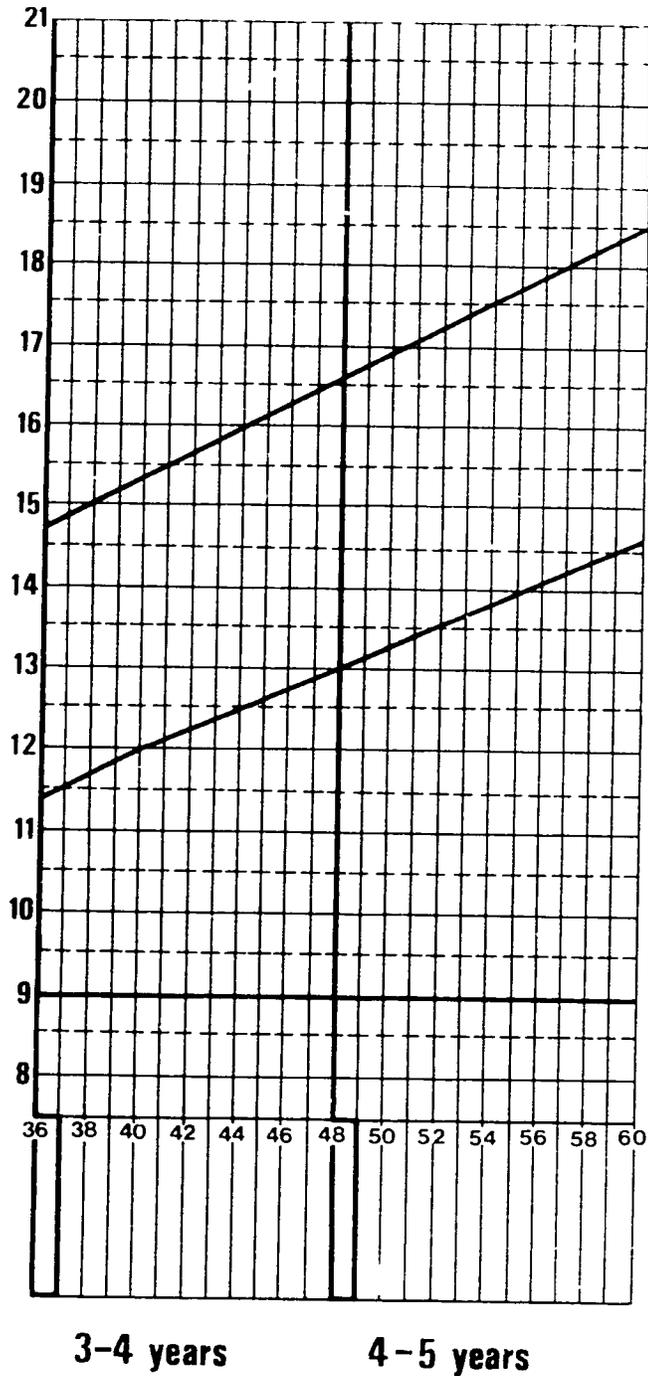
2. Daily Control Slips (day-sheet)

This card, filled out in the consulting room by the nurse or by his or her assistant, indicates the number of consultations held, the ages of the children who attended, and their areas of residence. It also shows the diagnoses, the number of children receiving preventive medication, and the number of children sent to the Mama Yemo Hospital.

3. Immunization Card

This card, filled out in the immunization room by the nurse, indicates the number of vaccinations given. It also shows what doses were administered (first, second, third or fourth).

# ROAD TO HEALTH



Place of consultation		Child's number
Child's name		
		Boy/Girl
Mother's name		Mother's number
Father's name		
Date of first visit	Date of birth - birth weight	
Address - place of residence		
Brothers and Sisters		
Year of Birth	Boy / Girl	Observations

TUBERCULOSIS VACCINATION (BCG)
Date of vaccination _____
_____

SMALLPOX VACCINATION
Date of vaccination _____
Date of reading positive/negative _____
Date of Revaccination _____

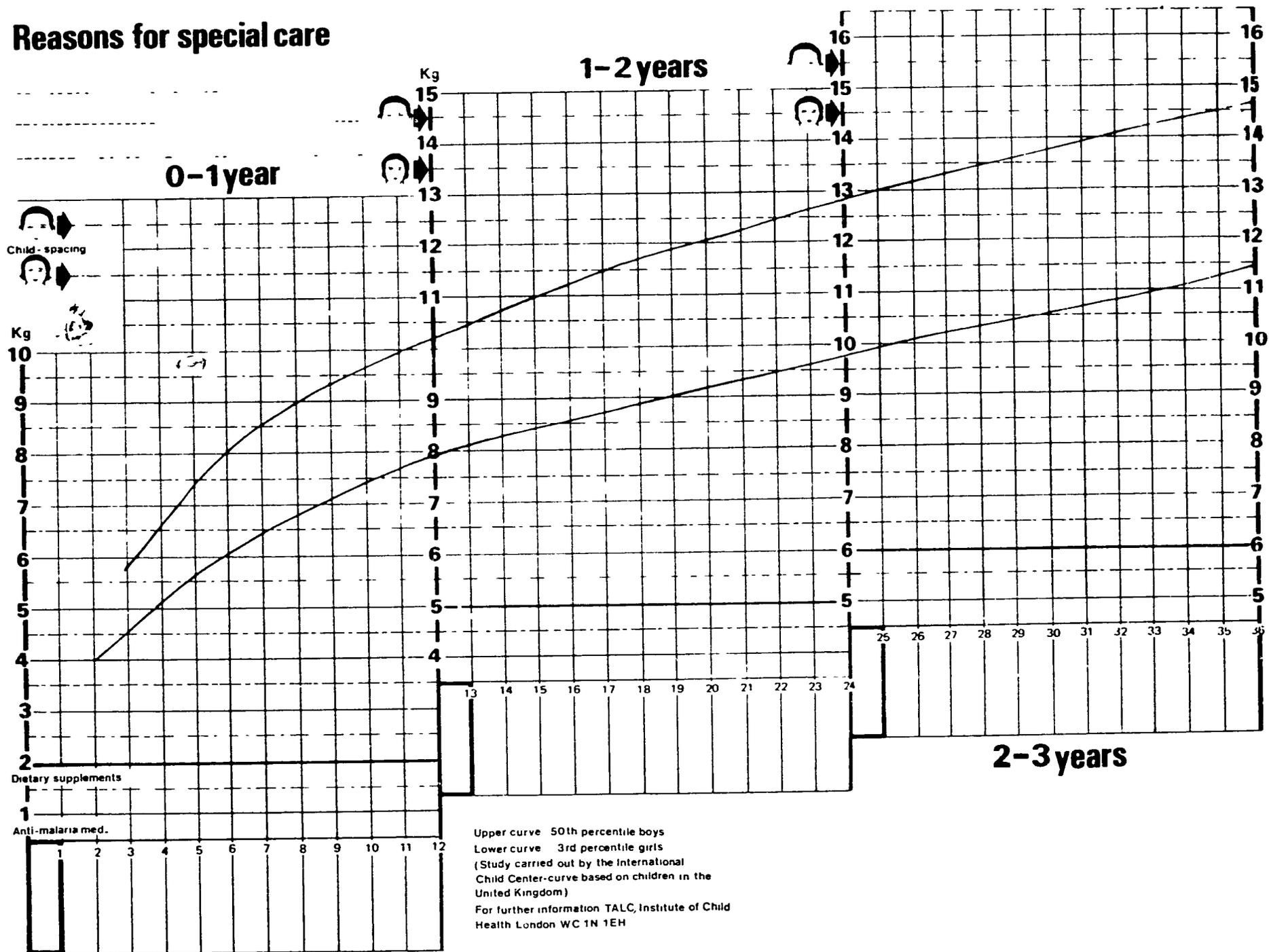
POLIOMYELITIS VACCINATION
Date of 1st vaccination _____
Date of 2nd vaccination _____
Date of 3rd vaccination _____

D P T VACCINATION
Date of 1st vaccination _____
Date of 2nd vaccination _____
Date of 3rd vaccination _____

MEASLES VACCINATION
Date of vaccination _____

OTHER VACCINATIONS

# Reasons for special care



4. Dispensary Register

The register, kept by the assistant head nurse, indicates a child's age, his area of residence, the diagnosis, the treatment, and whether he was referred to the doctor.

A monthly record-sheet summarizes the daily reports. The administrator of the MCH Center program receives it for tabulation and statistical analysis.

"UNDER FIVE" CONSULTATION ROOMS  
SUGGESTED EQUIPMENT

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Education Room (nutrition demonstrations)

1. Furniture

- stools (30 x 30 x 32.5 (height) cm.) are perfectly satisfactory for the mothers

In addition:

- 1 food cupboard
- 1 table
- 1 sink

2. Equipment

- heating element (hot plate or gas-ring)
- dishes
- mortars
- pestles
- boards
- pans
- plates (large and small)
- kitchen spoons
- tablespoons (soup spoons)
- strainer
- measuring cup
- shallow basket, for spreading out food samples
- 1 box for demonstrating pictures

In addition: local foods for preparation of the "multimixes".

Check-up Room - Screening, surveillance and treatment of benign illnesses.

1. Furniture

- 1 table
- chairs for the personnel
- 1 stool (30 x 30 x 32.5 (height) cm.)

2. Equipment

- scales for weighing infants and adults
- basin
- graduated measuring cup
- tape measure
- bottle of disinfectant
- teaspoon
- tablespoon
- thermometer

3. Medications

- anti-malaria
- anti-diarrhea
- expectorants
- analgesics
- antibiotics (topical and oral)

4. Samples

- local nutritive foods

Immunization Room

1. Furniture

- 1 table
- chairs
- benches

2. Equipment

- syringes and needles for B.C.G.
- syringes and needles for D.T.P.
- bifurcated needles for smallpox vaccination (V.A.V.)
- curved (kidney-shaped) basins
- cotton
- gauze
- denatured alcohol
- pincers

3. Medications

- B.C.G. vaccine
- V.A.V. (smallpox) vaccine
- D.P.T. vaccine
- polio vaccine
- measles vaccine
- aspirin

Dispensary

1. Furniture

- 1 table
- chairs
- benches

2. Equipment

- syringes and needles
- paper packets and bottles in which to take medicines home
- stethoscope
- tongue depressors

3. Medications

- antibiotics
- anti-malarials
- vermifuges
- analgesics, in accordance with the Medical Directives
- dressings and bandages
- sterile and non-sterile gauze
- pincers
- denatured alcohol
- mercurochrome

JOB DESCRIPTION

ASSISTANT HEAD NURSE OF THE  
"UNDER-FIVE" CLINIC

The assistant head nurse is responsible to the head nurse of the Center for the smooth functioning of the "Under-Five" clinic, for maintaining close collaboration with the Maternity, for the prenatal consultations, and for the "Desired Births" consultations.

Principal Functions

Supervisory:

1. To assure friendly relations between personnel and patients.
2. To supervise the nursing care in the check-up, immunization and education rooms. To supervise or give care to children referred for more thorough examination. To attend the daily post-partum ward rounds.
3. To oversee the supply, distribution and correct use of medications.
4. To supervise the home visits.
5. To make a daily check of the cards and records and, in case of error, to explain the mistake to those directly concerned.
6. To take part in organizing the upgrading courses for the personnel.
7. To supervise the subordinate personnel assigned to the "Under-Five" clinic.

Administrative:

1. To see that the "Under-Five" clinic premises are kept clean.
2. To oversee the supply and use of material. To supervise the purchases made for the nutrition demonstrations. To evaluate, with the head nurse, the aptitudes of the "Under-Five" clinic personnel.
3. To verify the accuracy of the clinic statistics, to fill out the monthly statistical record sheets and submit them to the head nurse.

JOB DESCRIPTION

CHECK-UP ROOM HELPER

The check-up room helper is accountable to the check-up room nurse.

Principal Functions

1. To greet the mothers, weigh and measure the children according to the established method and give the results to the nurse.
2. To give medications under the nurse's supervision, and to show the mother how to administer them.
3. To fill out the portions of the cards indicated by the nurse.
4. To accompany the nurse on house visits.
5. To clean the check-up room and its material.

JOB DESCRIPTION

AUXILIARY NURSE IN CHARGE OF  
THE CHECK-UP ROOM

The auxiliary nurse is accountable to the assistant head nurse.

Principal Functions

Nursing Care:

1. To make sure that the check-up room is clean, that the material and medicines are in order.
2. To follow the state of health of preschool-aged children, to diagnose and treat benign illnesses.
3. To screen sick children who should see the assistant head nurse.
4. To make house visits.

Administrative:

1. To supervise the helper employed as nurse's aide.
2. To fill out the cards and all the registers pertaining to the check-up room

JOB DESCRIPTION

AUXILIARY NURSE IN CHARGE OF  
THE IMMUNIZATION ROOM

He or she is accountable to the assistant head nurse for the immunization of children referred from the check-up rooms, as well as for immunizations of newborns in the post-partum ward.

Principal Functions

1. To make sure that the material is clean and aseptic and that the vaccines are carefully preserved.
2. To make sure that there are no contra-indications to vaccination, and that the rules of asepsis are respected in giving the vaccine.
3. To explain to the mothers the importance of all the vaccinations, and warn them of any minor after-effects that may occur.

Administrative:

1. To keep the register up to date.
2. To fill out the record sheets.

JOB DESCRIPTION

NURSE'S AIDE IN THE EDUCATION ROOM

She is accountable to the assistant head nurse of the "Under-Five" clinic.

Principal Functions

1. To check that the room is in order before receiving the mothers.
2. To give the nutrition demonstration and talk, according to the program set up.
3. To wash and put away the utensils and clean the room after each session.
4. To make preparations for the next day's activities.

THE PRENATAL CLINIC

HEALTH EDUCATION AT THE PRENATAL CONSULTATIONS

Individual counselling is given the woman during her interview with the nurse. She also attends group discussions in the education room.

Examples of Talks for Newly-enrolled Mothers

1. The Appointment

Good morning, and welcome!

We would like to remind all of you whose pregnancy is already well advanced to come to see us sooner the next time you are pregnant.

We are going to give you a card showing your next appointment. We ask you please to keep this appointment at the time fixed. But, come at once - even without an appointment - if you notice any of the following symptoms.

- bad, persistent headaches,
- swelling of the face or ankles,
- vomiting;
- vaginal discharges of water or of blood;
- abdominal pains.

2. Nutritional Needs

Have you ever thought that, from the moment you become pregnant up to the day that the baby is born, your child grows faster than he ever will again in his life? AND IT IS YOU WHO FEED HIM.

His teeth and his brain begin to develop already during pregnancy. So you should eat the same kind of food that you will give him later on, when he is five or six months old.

### 3. Examples of Food

- peanuts (groundnuts);
- pumpkin seeds;
- sesame seeds;
- beans;
- manioc (plantain) leaves and other dark-green leaves;
- caterpillars and other kinds of meat, as well as eggs and fish if you can afford them.

These foods have greater nutritive value for you and for your baby if you eat two or three varieties of them at the same meal.

Include fruit and palm-oil in your diet, too.

Eat manioc, or your staple food; manioc is better if it is mixed with corn, but don't eat too much at a time.

Remember that for you and your baby to be in good health, you should above all breast feed him. At five months, you will also give him "potos-potos" (porridges or strained baby food).

### Examples of Talks at the Following Visits

#### 1. Daily Life during Pregnancy

Good morning, and welcome!

Remember that it is important to:

- get a good night's sleep, and, if possible, take a nap during the day;
- continue to do your housework, but avoid heavy work such as carrying heavy loads, digging, cutting down grass; avoid long trips over bad roads, riding a bicycle, dances that tire you out; avoid drinking too many alcoholic beverages, such as beer, palm wine, and so on; don't smoke (women who smoke during pregnancy tend to have babies who weigh less at birth than the babies of women who don't smoke);
- wear loose clothing and flat-heeled shoes;
- eat the foods mentioned at the last visit; DON'T EAT FOR TWO; the quality of your food is more important than the quantity; you should gain about 1 kilogram of weight a month.

2. The Minor Discomforts of Pregnancy

Discomforts	Advice
<ul style="list-style-type: none"><li>- Nausea and light vomiting, very common at the beginning of pregnancy, more disagreeable if the stomach is empty</li></ul> <p>This "morning-sickness" should stop spontaneously after the fourth month.</p> <ul style="list-style-type: none"><li>- Backache, due to posture changes.</li></ul>	<ul style="list-style-type: none"><li>- Eat something before getting up (a banana, a biscuit). Eat several light meals. Drink after and not during the meals.</li></ul> <ul style="list-style-type: none"><li>- Avoid fatigue. Maintain good posture (demonstration).</li></ul>

CRITERIA APPLIED IN DIAGNOSIS OF  
"HIGH-RISK" CASES DURING PREGNANCY

---

1. Former caesarian section.
2. Former dystocis (ventouse (suction cup), forceps, symphysiotomy, induction)
3. Former stillbirth.
4. Former pre-eclampsis or eclampsis.
5. Arterial blood pressure over 140/90.
6. Babies weighing more than 4 kg. at birth.
7. History of more than three miscarriages.
8. Pelvic/fetal disproportion.
9. History of illness (tuberculosis, diabetes, heart, kidneys, etc.).
10. Anemia with 20% hematocrit persisting after three weeks of treatment.
11. Sickle-cell anemia.
12. Abnormal fetal movements and sounds (heartbeat).
13. History of more than two premature births.
14. Rhesus negative (Rh-).
15. Jaundice.

EXAMPLES OF MEDICAL DIRECTIVES  
TYPICAL MEDICATIONS DISPENSED AT THE PRENATAL CONSULTATIONS

1. In Case of Fever
  - a. If the patient has not yet been given Camolar: give her three tablets plus Camoquine.
  - b. If the patient has been given Camolar, and if the fever persists: refer her to the doctor.
  
2. In Case of Diarrhea
  - a. Not blood-tinged: Reasec: 2 tablets three times a day.
  - b. Blood-tinged: Falmonox: 1 tablet three times a day during three days.
  - c. If the diarrhea persists after three days, refer to the doctor.
  
3. In Case of Coughing
  - a. Pectoral syrup: 1 tablespoon three times a day for three days.
  - b. If the cough persists: refer to the doctor.
  
4. Lumbar-sacral Pains
  - a. Accompanied by fever: refer to the doctor.
  - b. Without fever: 1 or 2 aspirin tablets per day and 1 calcium tablet per day.
  
5. Threat of Miscarriage

Perform a vaginal examination.

  - a. If the cervix is closed: R/Valium, 5 mg. twice a day by mouth.  
Two tablets of folic acid per day during ten days.
  - b. If the cervix is open: refer to the doctor.

JOB DESCRIPTION

AUXILIARY NURSE-MIDWIFE  
AT THE PRENATAL CONSULTATIONS

The auxiliary nurse is accountable to the assistant head nurse of the Maternity.

Principal Activities

1. To make sure that the consulting room is clean and the equipment and material in good condition.
2. To carry out the medical examination: take the medical history, measure and weigh the patient and take her blood pressure, then perform the obstetrical examination. the height of the uterus, the position of the fetus and the fetal heartbeat. Screen women presenting risks and make appointments for them for the "high-risk" consultations.
3. To lead the group education sessions. To give individual counseling during the consultations.
4. To assist the doctor during the "high-risk" consultations.
5. To attend special courses.

RECORDS AND STATISTICS

1. Prenatal Card

Originally devised for the Center, this card was later extended to the prenatal consultations at the Hospital. The main points of the anamnesis (medical history) and the results of the periodic medical and obstetrical examinations are noted. "High-risk" cases are clearly marked in order to be easily spotted. The woman keeps the card with her and returns it to the Center after her delivery.

2. Appointment Book

Here are written the names of all women who have appointments on a given day. This avoids scheduling too many appointments for the same day and also permits the nurse to check whether appointments are kept.

3. Register of "High-Risk" Women

This register lists all the women who have been given appointments for the "high-risk" consultations. A summary of the clinical situation of each woman is included.

4. Day-Sheet

Similar to that of the "Under-Five" clinic, this day-sheet summarizes all the day's activities. Information which is noted includes: the names of new patients and the stage of their pregnancy (which trimester), the number of visits of previously enrolled women, their areas of residence, where they delivered previously, the cases of anemia which were detected, the number of women diagnosed as "high-risk", and women transferred to the Hospital.

5. Monthly Statistical Summary

This record summarizes, on a monthly basis, the information of each day. It is submitted to the administration for analysis and preparation of reports.

THE CONSULTING ROOMS: SUGGESTED EQUIPMENT

Prenatal and postnatal consultations are carried out as classically developed by clinical obstetricians. It is not necessary to describe here the equipment and the setting, but rather to emphasize those preventive and educative aspects to which the Maternal and Child Health program attached particular importance.

Tetanus vaccination equipment, pictures and samples of foods used in the education program have been added to the conventional equipment of the prenatal consulting rooms. Copies of the Medical Directives are also placed in each room.

It is important to note that, for reasons of hygiene, shower and toilet facilities for the admissions screening room should be separated from those for the post-partum ward.

A clearly visible "Apgar Score" chart, and readily available copies of the Medical Directives, are the only items added to the standard equipment of the delivery room.

Forty-six beds of the single post-partum ward are arranged in rows of eleven and twelve. A room with a large window, used for baby care and vaccinations, adjoins the post-partum ward and the bathrooms.

The general layout of the Maternity section facilitates:

1. Surveillance of the mothers by each other, reducing supervision required by the midwives,
2. Hygiene demonstration, vaccination and care of the newborns;
3. Group discussions, for example on birth control or the importance of the "Under-Five" consultations.

THE MATERNITY

INDICATIONS OF RISK IN NEWBORNS

At Birth

The midwife examines the baby at birth to determine whether he shows signs of prematurity, of malformation, or of respiratory deficiency. In case of respiratory deficiency or of general weakness, she applies the "Apgar Score" to determine the gravity of the case. A score below 6 to 5 means that the nurse should send the baby to the Hospital for intensive care.

"Apgar Score"

1.	Cardiac rhythm	- absent	0	at 1 min.	at 5 min.
		- - 100/min.	1	"	"
		- + 100/min.	2	"	"
2.	Respiratory movements	- absent	0	"	"
		- slow	1	"	"
		- normal	2	"	"
3.	Muscular tone	- flaccid	0	"	"
		- hypotonic	1	"	"
		- active movements	2	"	"
4.	Irritation reflex	- none	0	"	"
		- grimace	1	"	"
		- cough or sneeze	2	"	"
5.	Color	- blue	0	"	"
		- body pink, extremities blue	1	"	"
		- pink	2	"	"

Total

Following Birth

Each day, during post-partum ward rounds, the head nurse and his or her assistants examine the babies.

Children presenting the following symptoms are sent to the Hospital:

1. Serious malformations: e.g., intestinal obstruction, meningocele, club-foot, Ortolani positive.
2. Respiratory or cardiac distress.
3. Cerebral distress. e.g., "Moro" absent, convulsions, prolonged trembling, bulging fontanel, cranial circumference less than 31 cm. or over 38 cm.
4. Poor general condition: e.g., jaundice, anemia, infection, hemorrhage, absence of urine after twenty-four hours, swollen and tender testicles
5. Infected amniotic liquid.
6. Birth weight under 1,800 gr.
7. Obstetrical trauma.

EXAMPLES OF MEDICAL DIRECTIVES FOR THE MATERNITY

Guidelines for the Labor Room

1. Pre-eclampsis

- a. If the blood pressure is over 140/100, checked twice in a thirty-minute period, send the woman to Mama Yemo Hospital, with 10 mg. of Valium I.M.
- b. If the blood pressure is 130/90, give an injection of 10 mg. of Valium I.M., plus 5 cc. of Magnesium.
- c. If accompanied by agitation, repeat the 10 mg. of Valium I.M., and even administer 10 mg. of Valium I.V.

2. Rupture of Bag of Waters

If the woman is not in labor after the waters are broken (dry labor) for over twelve hours, send her to Mama Yemo Hospital.

3. Breech Presentation

The woman may deliver at the Center if it is not her first pregnancy (a primipare), and if her first child weighed at least 3,300 gr. at birth.

4. Twins

The woman may deliver at the Center.

Guidelines for the Delivery Room

1. Breech Presentation

The woman may deliver at the Center if it is not her first pregnancy (a primipare) and if her first child weighed at least 3,300 gr. at birth.

2. Twins

- a. Break the waters immediately after the birth of the first infant.
- b. Instill one liter of physiologic serum and twenty units of Syntocinon after the delivery.

3. Third-degree Perineal Tear

The woman should be sent to Mama Yemo Hospital.

Standard Medications for the Post-partum Ward

1. In the following cases, the woman should be given one liter of physiologic serum and twenty units of Syntocinon over an eight-hour period:
  - a. multiple pregnancies,
  - b. hydramnios,
  - c. premature placental detachment,
  - d. placenta praevia,
  - e. multiparous from fourth child,
  - f. former caesarian section,
  - g. induced labor with Syntocinon,
  - h. blood pressure of 140/90.

2. Post-partum Hemorrhage (more than 500 ml.)

One liter of physiologic serum and twenty units of Syntocinon in one hour should be given. In addition:

- a. If after thirty minutes the arterial blood pressure is 80 or below, add one-half liter of Haemacel and ten units of Syntocinon
- b. If after forty-five minutes the arterial blood pressure continues to fall, send the woman to Mama Yemo Hospital.
- c. If after forty-five minutes the hemorrhage persists, send the woman to Mama Yemo Hospital.

3. Anemia

- a. Imferon if the hematocrit is less than 20 per cent: keep the woman at the Center.
- b. Transfusion if the hematocrit is less than 15 per cent: send the woman to Mama Yemo Hospital.

4. Temperature

With abdomen supple and non-tender:

- a. Either Camoquine: three tablets the first day and two tablets the second day;
- b. Or Nivaquine I.M.: 300 mg. twice a day for three days.

5. Temperature

Abdominal pain and tender uterus:

- a. Same treatment as for case 4 above, and 2,400,000 units of Extencillin I.M. plus three tablets of Methergin a day for three days.
- b. If the temperature persists after forty-eight hours, or if it rises, refer the woman to the doctor.

6. Post-partum Edema without Hypertension

One tablet of Hygroton a day for three days.

7. Edema with Arterial Blood Pressure over 140/90

a. One tablet of Lasix twice a day for two days.

b. 2.5 mg. I.M. of Reserpine twice a day for two days.

8. In all Cases

a. One tablet of Decaris.

b. One tablet of folic acid.

c. One tablet of iron sulphate.

## MATERNITY RECORDS

### 1. The Partogram

Developed by the department of obstetrics of the Mama Yemo Hospital, this card presents, in graph form, an over-all picture of the stage and progress of labor. It indicates at a glance whether labor is progressing normally. Thus, one can easily determine when medical intervention is required.

The vertical axis of the graph represents the extent of cervical dilation, the horizontal axis the hours since the onset of labor. On the graph a series of lines (the result of plotting cervical dilation against time) indicates the normal rate of progress of dilation of the cervix. When the woman reaches 4 cm. of cervical dilation, the midwife marks the point on the graph. The upward broken line from this point becomes the "vigilance line" and is marked on the graph by the midwife. She then finds the upward broken line which starts at the point on the horizontal axis three hours after the point where 4 cm. dilation occurs. This upward broken line represents the "intervention line". She now follows the cervical dilation each hour, plotting the result on the graph. If the woman is not ready to deliver when the dilation curve crosses the "vigilance line", the midwife intensifies her surveillance. If the woman has not yet delivered when the dilation curve crosses the "intervention line", the woman is sent to the Hospital.

A card is filled out at admission after the examination. The anamnesis (medical history) is noted, also the reason for admission (pains, waters broken), the weight, the height and the arterial blood pressure. During labor, the midwife makes a vaginal examination, listens to the fetal sounds, and takes the blood pressure every hour. These results, along with general observations on the woman's condition, are marked on the partogram. In this way, an objective picture of the progress of labor is obtained.

### 2. The "Apgar Score"

This score is determined by the midwife for each infant presenting respiratory or cardiac difficulties. The baby's vital signs are also recorded, permitting the nurse to determine when the baby should be sent to the Hospital.

FOME CO  
Mama Yemo Hospital  
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# PARTOGRAM

Obstetrics Service

N° \_\_\_\_\_

Name \_\_\_\_\_ Age \_\_\_\_\_

Address \_\_\_\_\_

Husband \_\_\_\_\_

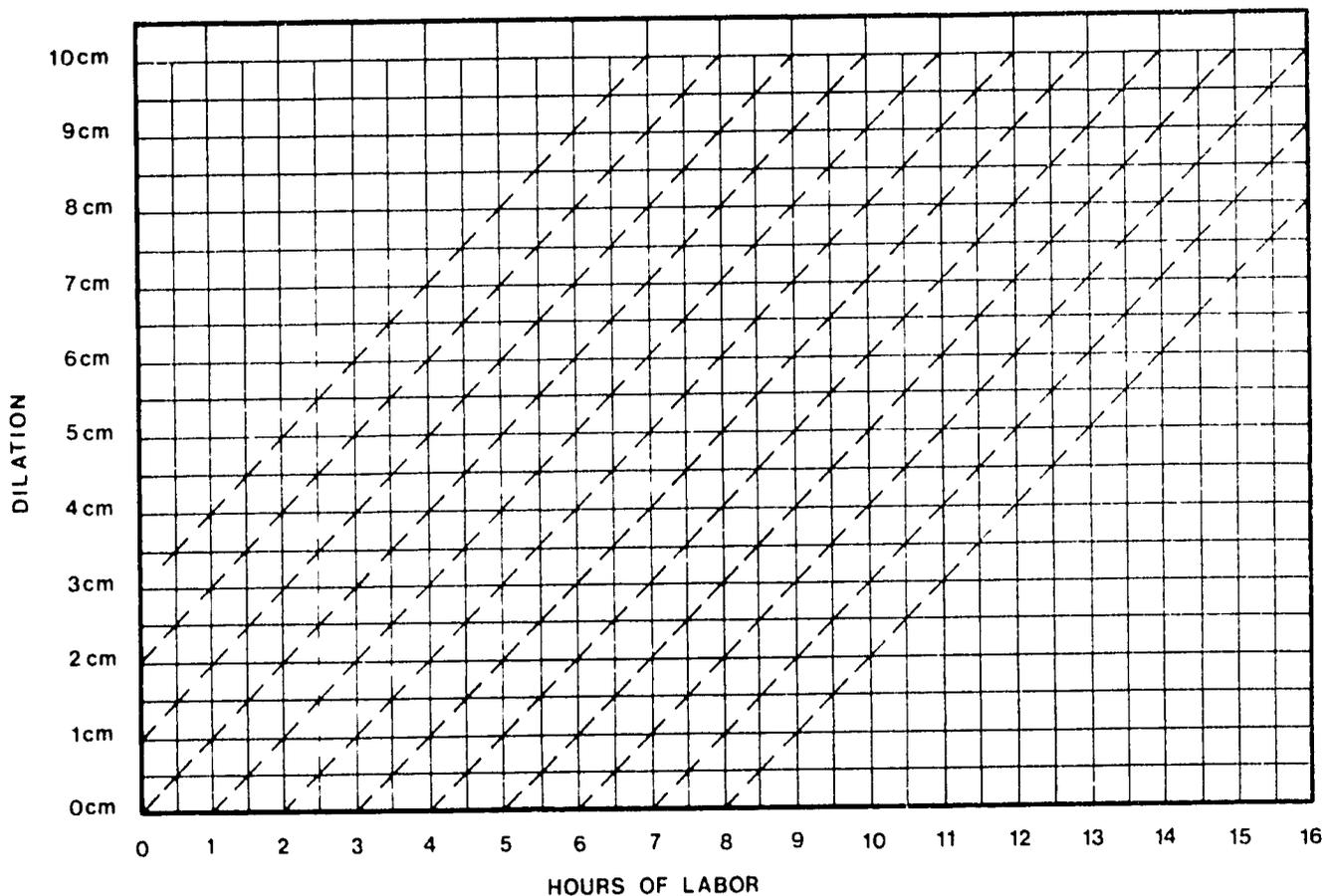
Parity \_\_\_\_\_ Gravity \_\_\_\_\_ Primipara \_\_\_\_\_ Miscarriage \_\_\_\_\_ Caesarian \_\_\_\_\_

History \_\_\_\_\_

Date of last menstrual period \_\_\_\_\_ Expected Date of Delivery \_\_\_\_\_

Admitted for Pain \_\_\_\_\_ Waters broken \_\_\_\_\_ Hemorrhage \_\_\_\_\_

Arterial blood pressure \_\_\_\_\_ Urine \_\_\_\_\_



Date \_\_\_\_\_

Pelvis Good \_\_\_\_\_ Limited \_\_\_\_\_ Caesarian \_\_\_\_\_

Presentation \_\_\_\_\_

Child born on (date) \_\_\_\_\_ at \_\_\_\_\_ o'clock

Sex \_\_\_\_\_ Weight \_\_\_\_\_

Placenta delivered \_\_\_\_\_ at \_\_\_\_\_ o'clock

Apgar \_\_\_\_\_ Eyes \_\_\_\_\_ Umbilical Cord \_\_\_\_\_

Delivery Normal \_\_\_\_\_

General Aspect Normal \_\_\_\_\_

Perineal tear \_\_\_\_\_

Abnormal (explain) \_\_\_\_\_

Episiotomy \_\_\_\_\_

Ventouse (suction cup) \_\_\_\_\_

Transferred of mother \_\_\_\_\_

Caesarian \_\_\_\_\_

P 17 \_\_\_\_\_

Person in charge \_\_\_\_\_

Premature \_\_\_\_\_

Post Partum

Uterus \_\_\_\_\_ Arterial blood Pressure \_\_\_\_\_

Episiotomy \_\_\_\_\_ Hemoglobin \_\_\_\_\_

Observations \_\_\_\_\_

MOTHER						CHILD					
DAYS						DAYS					
Temperature						Fontanel					
Uterus						<input type="checkbox"/> laut <input type="checkbox"/> sunken <input type="checkbox"/> flat	<input type="checkbox"/>				
Lochia						Eyes					
Normal	<input type="checkbox"/> yellow <input type="checkbox"/> white <input type="checkbox"/> red	<input type="checkbox"/>									
Abnormal	<input type="checkbox"/> cyanosed <input type="checkbox"/> dehydrated <input type="checkbox"/> pink	<input type="checkbox"/>									
Hemoglobin						Umbilical cord					
TREATMENT						<input type="checkbox"/> cleansed <input type="checkbox"/> sore <input type="checkbox"/> clean	<input type="checkbox"/>				
						Weight					
						Stools					
						<input type="checkbox"/> diarrhea <input type="checkbox"/> normal	<input type="checkbox"/>				
						Sucking					
						<input type="checkbox"/> good <input type="checkbox"/> poor	<input type="checkbox"/>				

3. Consultation Request

The nurse fills out a consultation request and submits it to the doctor on duty for cases of women requiring intensive care at the Maternity

4. The Newborn Card

The nurse fills out a "newborn card" and submits it to the doctor on duty whenever a newborn requires intensive care.

CURRENT ACTIVITY STATISTICS

1. The Register of Deliveries

Filled in by the midwife after the delivery and the immediate post-partum care of mother and baby, this register records the name, address, area of residence of the mother, the sex, weight and time of birth of the child. The number of former pregnancies (gravity) and the number of previous deliveries (parity) of the mother are noted. When these entries have been made, the nurse-midwife signs the register

2. The Maternity Register

The person in charge enters the date, name, address, date of the post-partum examination appointment, place where the prenatal consultations were held, and the number of visits made.

3. The Monthly Statistical Summary

Prepared by the assistant head nurse, this record summarizes all the principal Maternity statistics. It is submitted to the administrator. Here are noted the number of deliveries, the results, the number of visits to the Hospital, the parity and the age of the mothers, and the number of visits to the prenatal clinic.

JOB DESCRIPTION

ASSISTANT HEAD NURSE  
OF THE MATERNITY

The assistant head nurse (graduate nurse-midwife) is accountable to the head nurse for the smooth functioning of the Maternity, for the prenatal clinic, for coordination of the "Desired Births" service at the Center, and for collaboration with the "Under-Five" clinic.

Principal Functions

Supervisory

1. To assure that activities are carried out in a sympathetic and educational atmosphere, and that good relations between personnel and patients are maintained
2. To supervise care given in the prenatal consulting rooms and in the Maternity. To advise the midwives concerning clinical problems. To make post-partum ward rounds
3. To order medications, supplies and material, and oversee their distribution and correct use
4. To participate in organizing the up-dating of courses for the personnel and contribute to the training of students.
5. To oversee the sterilization service.

Administrative

1. To make sure that the premises are clean.
2. To check the supply and use of material.
3. To evaluate, with the head nurse, the work of the personnel
4. To check the accuracy of all Maternity statistics, prepare the monthly record sheets and submit them to the head nurse.

JOB DESCRIPTION

AUXILIARY NURSE-MIDWIFE FOR THE SCREENING,  
LABOR, AND DELIVERY ROOMS AND FOR THE POST-PARTUM WARD

The auxiliary nurse is accountable to the assistant head nurse of the Maternity.

Principal Functions

Nursing-Care:

1. To check the cleanliness of the Maternity rooms, and to make sure that the material is sterile.
2. To make sure that all medications and material are ready for use.
3. To assist the woman in the course of her labor, and watch over mother and child in the post-partum ward. Take the anamnesis (medical history), carry out the medical and obstetrical examinations. Fill out the partogram and decide whether the mother should be taken to the Hospital ("high-risks"). Determine according to the "Apgar Score" whether newborns should be sent to the Hospital.
4. To accompany the mothers and newborns to the Hospital and assure their admission.
5. To take charge of the education sessions, group or individual, held in the post-partum ward

Administrative:

1. To submit to the assistant head nurse the daily lists of medications needed.
2. To fill in the Maternity admissions and births registers, then those of discharge.
3. To supervise the ward helpers responsible for cleaning, for the linen, and for keeping the Maternity rooms in order.

JOB DESCRIPTION

WARD HELPER IN THE MATERNITY

The ward helper is accountable to the auxiliary nurse-midwife.

Principal Functions

1. To help the nurse welcome the woman to the Maternity or to go with her to the Hospital, and to report to the nurse on the woman's condition.
2. To receive, put away, check and distribute clean linen; collect, sort, rinse and bundle dirty linen.
3. To clean all the Maternity rooms and equipment, under the nurse's supervision.
4. To distribute meals to the women in the post-partum ward.

THE "DESIRED BIRTHS" CLINIC

ADMINISTRATION OF THE "DESIRED BIRTHS" SERVICE

Although an integral part of the Maternal and Child Health Center, the "Desired Births" clinic is formally a subdivision of the Obstetrics-Gynecology department. The service "Desired Births" is directed by a doctor, with the assistance of an administrator. The doctor is responsible for the functioning of the service, for all medical decisions, for the training, upgrading and supervision of the nurse-"animators". The administrator is responsible for supplies, including contraceptives, and for gathering statistical data. In order to assure integration of the nurses of the "Desired Births" service into the Center activities, it is the head nurse of the Center who is responsible for coordinating their work. Problems are thus handled by the coordinator of the Center in cooperation with the director and the administrator of the "Desired Births" service.

Contraceptives are delivered each month to the Hospital storeroom, according to need.

Statistical reports are prepared from the three record cards filled out daily by the nurse:

1. The Patient's Card

This card shows the area of residence, age, and education level of the patient. It notes the patient's source of information about the existence of the service, her motive for adopting contraception, the method chosen, the method advised, and, if applicable, the reasons for refusing assistance. This card is used in drawing up a daily summary.

2. The Register of Daily Activities

This register also indicates the reason for the visit.

3. The Distribution Sheet

There is a distribution sheet for each contraceptive. It shows the total number of contraceptives distributed each day. The number of women adopting a particular contraceptive for the first time are also noted.

EXAMPLE OF A PROGRAM USED FOR  
MOTIVATING WOMEN TO USE CONTRACEPTION

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Definitions and Aims

1. Mention the President's declaration concerning the adoption of a "Desired Births" program.
2. Explain that the "Desired Births" program helps couples to have children:
  - a. when they desire them, so that they can raise them in the best possible conditions;
  - b. when the mother has recovered her health fully after her previous pregnancy;
  - c. when there are problems of infertility.
3. Distinguish the difference between the idea of birth control and that of spacing of births.

Reasoning Underlying a "Desired Births" Program

1. Speak of the importance of the child in society - traditional and modern; and also of the high infant-mortality rate.
2. Point out that this high mortality rate is often due to the ignorance of the mother, the malnutrition of the child, and too closely spaced pregnancies, combined with limited economic means. All these factors endanger the life of mother and child.
3. Explain that the health of mothers and children can be protected by practicing methods of spacing pregnancies and by regular check-ups at the Maternal and Child Health Center.

Practical Demonstration

1. Give a simple explanation of the anatomy and physiology of the reproductive process.
2. Point out that contraceptive methods exist for both men and women.
3. Describe the methods, mention the contra-indications and side effects of each method.

EXAMPLES OF BRIEF TALKS ON CHILD-SPACING METHODS

1. The Intra-Uterine Device (IUD)

- Show the device, pass it around among the audience.
- Explain that the IUD occupies the place that the egg would eventually occupy in the uterine cavity.
- Emphasize the fact that there is no surgical operation, that the IUD is placed in the uterus and that the insertion takes only a few minutes.
- Mention the contra-indications for IUD insertions. It should not be inserted unless it is certain that: the woman is not pregnant, that she has no infection, no uterine hemorrhaging, and no uterine malformation.
- Speak of the efficacy of the method (not absolute) and its reversibility; once withdrawn, the IUD has no effect upon the woman's ability to conceive.
- Mention the side effects: bleeding or temporary discomfort following insertion in some cases, and occasional cases of spontaneous expulsion of the device.
- Make it clear that these minor problems are due merely to phenomena of adaptation of the uterus to the IUD, that they usually take care of themselves with a little patience on the woman's part or with the help of a simple treatment.
- Emphasize the fact that the IUD, although it constitutes a foreign body, in no way affects the sexual pleasure of either the woman or the man.
- Emphasize the fact that the IUD does not make a woman sterile.

## 2. The Pill

- Show a box of pills, pass it around among the audience.
- Explain that there are three rows of white pills and one row of brown pills. These pills, taken every day at the same hour, prevent ovulation, and therefore pregnancy. An occasional forgotten pill can be taken when one remembers. Afterwards one continues to take them normally.
- Point out the contra-indications: diabetes, hypertension, history of thrombo-phlebitis, of diseases of the liver or the kidneys, of serious mental illness; in these cases, a thorough examination is necessary.
- Speak of the efficacy of the method and its reversibility: the pill, correctly taken, offers nearly 100 per cent protection from pregnancy. It does not render the woman sterile, even after a long period of use.
- Mention the side effects and discomforts: disturbances in the menstrual cycle at the beginning of use, occasional nausea or dizziness.
- Make it understood that these side effects wear off, in most instances, after three months, once the woman's body has adjusted to the pill.
- Underline the fact that the pill loses its power to protect from pregnancy if the woman forgets to take it too often.

## 3. Depo-Provera

- Explain that this is a solution to be injected every three months which protects the woman during that entire period.
- Mention the contra-indications: the same as for the pill. Depo-Provera is not to be administered to women who have fewer than five living children.
- Speak about the efficacy and reversibility of the method: the efficacy is absolute. Mention that the administration of the Depo-Provera during the post-partum period stimulates lactation. Explain that menstruation may not occur for about four months after the last injection. The woman is usually able to conceive again nine to eighteen months after the first injection.
- Speak of the side effects which may occur and note that they are not dangerous: spotting or bleeding between menstrual periods, absence of menstruation (amenorrhea), etc.

4. Tubular Ligation (tying off of the Fallopian tubes)

- Explain that this involves surgery requiring one to three days' hospitalization. The Fallopian tubes are tied off and cut. The woman will have normal menstrual periods and her sexual pleasure will not be diminished.
- Make it clear that this method is irreversible. The woman can never again become pregnant. After agreeing to this procedure, both the husband and the wife must sign a permission slip.
- Speak of the indications for this procedure: a woman who has had seven or more children and wishes to have no more; a woman who has had three caesarians; a woman who suffers from a serious heart condition or another serious medical problem which would make a pregnancy dangerous to her life.

EXAMPLES OF MEDICAL DIRECTIVES  
TREATMENT OF SIDE EFFECTS DUE TO CONTRACEPTIVES

1. Oral Contraceptives

- Bleeding or "spotting" with a pill at low dosage (Norinyl 1/50, for instance): give a slightly stronger pill (Norinyl 1/80, for example) for the following cycle.
- Absence of menstruation (amenorrhea) during the interval between two packets of pills: send the woman to a doctor.

2. Depo-Provera

- Excessive or prolonged bleeding: administer 0.1 mg. of Ethinyl oestradiol per day for five days, or 2.5 mg. of Stilboestrol, or 2.5 mg. of Equigyne.
- Absence of menstruation (amenorrhea): do nothing except to reassure the patient.

3. Intra-Uterine Device (IUD)

- Bleeding or "spotting": reassure the patient during the first two or three months; reinforce the coagulation system by administering calcium, vitamin K, or Hemacaprol; remove the IUD and replace it correctly with another.
- Absence of menstruation (amenorrhea): examine the patient; have a pregnancy test made if suspicious of pregnancy.
- Threads seeming to have disappeared: examine the patient; have an X-ray taken of the abdomen if thread absent.
- Infection of the uterine cavity: give massive antibiotic therapy for three to four days. Then remove the IUD, and continue the antibiotic treatment until the seventh day.

JOB DESCRIPTION

NURSE-"ANIMATOR" OF THE "DESIRED BIRTHS" CLINIC

The nurse-"animator" is accountable to the head nurse of the Center for integration of the program into the other Center services. She is responsible to the doctor-in-charge and the administrator of the "Desired Births" service for technical matters and nursing care.

Principal Functions

Technical:

1. To make sure that the consultation room is clean, the material aseptic and readily available.
2. To make sure, in collaboration with the head nurse, that all Center patients are informed of the existence of a child-spacing service.
3. To lead meetings for interested women and couples, discuss with them the aims and methods of the service.
4. To hold individual consultations with women or couples who seek child spacing (after the woman has had a gynecological examination), to help them choose the most appropriate method. Decide whether a pregnancy test or any other laboratory analysis is necessary, and have them performed. In case of any problems, suggest that the couple consult a doctor.
5. To fill out the "Desired Births Consultation" card.
6. To work with the head nurse in making the personnel and trainees conscious of the importance and techniques of motivation and contraceptive methods.

Administrative:

1. To fill out the daily record sheets; information on new cases, on the day's activities, and on contraceptive distribution.
2. To keep the head nurse informed of any changes in the program, and activities planned for each day.

THE AUXILIARY SERVICES

EXAMPLES OF LABORATORY ACTIVITIES

The laboratory is only equipped for carrying out simple tests and examinations. More complicated diagnostic problems are referred to the Hospital. The assistant laboratory technician is trained on the job, and from time to time takes refresher courses.

Examinations to detect cases of anemia, albuminuria, glycosuria and pyuria are carried out.

1. Hemoglobin

The hemoglobin count is taken once for each patient, preferably during the first visit.

2. Hematocrit

The hematocrit is determined in cases of doubt or if anemia is suspected the day following childbirth.

3. Albuminuria

Albumin tests are made regularly for pregnant women who show signs of high blood pressure, edema, or pyuria accompanied by pelvic pain.

Blood smears for malaria and stool examinations for parasites are also made if requested.

JOB DESCRIPTION

ASSISTANT PHARMACIST

The assistant pharmacist is responsible for distributing the medications indicated by the Medical Directives, and for checking daily the available stock. He is accountable to the pharmacist-coordinator for technical matters and to the head nurse for his work program.

Principal Functions

1. To make sure that the pharmacy premises are clean and in order, and that material, equipment and medications are provided.
2. To handle the preparation and packaging of medications in boxes or bags.
3. To distribute the medications to the "Under-Five" clinic, the Maternity, the "Desired Births" consultations, according to the orders placed by the persons in charge. To distribute medications directly to the women sent from the prenatal consultations, and show them how to use the medicines.
4. To check the quantities of medications distributed daily to each service. To maintain distribution records and statistics and to submit them to the pharmacist-coordinator.

JOB DESCRIPTION

ASSISTANT LABORATORY TECHNICIAN

The assistant laboratory technician is accountable to the pharmacist-coordinator for technical matters, and to the head nurse for his work program.

Principal Functions

1. To make sure that the premises, material and equipment are clean and in order.
2. To carry out routine tests (hemaglobin, hematocrit, urinalysis), and special tests (stool and blood smears for malaria).
3. To keep the register of test results and submit it to the pharmacist-coordinator.

JOB DESCRIPTION

PERSON RESPONSIBLE FOR THE  
STERILIZATION OF MATERIAL

He is accountable to the head nurse.

Principal Functions

To make sure that the sterilization room and material are clean and in order, that the equipment is functioning correctly.

2. To wash, dry, pack and sterilize the instruments and material of the Maternity and of the other departments. To constitute a reserve for several days. To distribute the sterile packets in their order of sterilization.
3. To keep a record of all the material received and distributed. Inventory the material and submit reports to the head nurse.

JOB DESCRIPTION

HEAD OF MAINTENANCE SERVICE  
(WARD HELPER)  

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He is accountable to the head nurse.

Principal Functions

1. To make daily distribution of housekeeping and maintenance products, in the quantities required, to the cleaning personnel.
2. To supervise maintenance and check that each cleaning person carries out his work correctly.
3. To inventory maintenance products. To keep distribution records and submit them to the head nurse for verification before ordering more products.

JOB DESCRIPTION

WATCHMAN-GUARD

The watchman-guard is accountable to the head nurse.

Principal Functions

1. To guard the Center day and night.
2. To give visitors information about the services.
3. To assist women entering labor to reach the screening room.  
To call the nurse-midwife on duty if the woman is in distress.
4. To inform the head nurse of any problems concerning visitors.
5. To answer the telephone.

TRAINING

ORIENTATION OF THE PERSONNEL OF THE  
MATERNAL AND CHILD HEALTH CENTERS

Introduction

The training program aims at preparing the personnel to carry out efficiently the work assigned at the Centers. It is therefore necessary to define the work to be done and to determine what sort of knowledge is required for doing it. A clear, objective method is to analyze the work program and then divide it up into individual tasks. Each task represents a specific activity which corresponds to a specific situation. For example, the aim of the "Under-Five" consultation is to watch over the healthy child. This comprises the following activities: welcome the mother and child, ask for the "Road to Health" card, question the mother, weigh and examine the child, advise the mother, take preventive measures (vaccinations and prophylactic medications), make an appointment if necessary. If the nurse sees that the child is ill, her task consists in analyzing the complaints and symptoms and in treating them according to the Medical Directives.

This task analysis serves as the basis for drawing up a list of the qualifications needed. This list constitutes the base of the teacher-training program.

The personnel orientation program, directed toward practical work at the Center, is adapted to the level and to the former training of the personnel. Special attention is given to the auxiliary nurses, who carry out the major part of the Center's medical activities. These auxiliary nurses, who have already received basic hospital-care training, take a two-week course at the Center, followed by four weeks of intensive on-the-job training in an ongoing, in-service training program.

## PROPOSED MCH CENTER PERSONNEL ORIENTATION PROGRAM

### Participants

The administrative, nursing and pharmacy personnel; the cleaning staff and watchmen-guards.

### Aims

The program is intended to convey the following principles to the participants:

1. The value of integrating preventive and curative medicine, from the economic, medical, social and human point of view.
2. Effective communication with members of the community, individually and collectively, in order to convince them of the importance of the Center's services.
3. Efficient carrying out of individual tasks and development of a sense of teamwork.

### Teaching

Theory and practice should be closely linked. In order to bring about real changes in attitude and behavior, theory is reduced to a minimum, and most of the time is devoted to discussion, group work, practical applications or simulated situations.

TEACHING DIRECTIVES FOR A SIX-WEEKS' COURSE

1. Introduction

The Centers

- Their aims.
- Their role in the health services.
- The services expected and their evaluation.

Course Orientation

- Work methods.
- Evaluation, present and ongoing.

2. Prenatal Consultation

- Aims and values.
- Examinations.
- Screening of "high-risk" cases.
- Care.
- Education.

3. Maternity

- Techniques.
- Care.
- Education.
- Administration.
- Records and Statistics.

4. "Under-Five" Consultation

- Background.
- Aims and values.
- Administration.
- Services, atmosphere.
- Role of each member of the personnel.
- Techniques to use.
- Indications for special care.
- Education.
- Records and statistics.

5. Development of the Unborn Child during Pregnancy

- Normal development.
- Factors influencing fetal development.
- Ways of influencing these factors in order to assure the well-being of the child and of the family.
- Detection of cases presenting anomalies or abnormal development, and of infants requiring special care.

6. Childhood Diseases

- Symptoms.
- Significance.
- Prevention and treatment.
- Interaction among illness, malnutrition, and intestinal worms.
- Treatment to be given at home by the family, especially in case of fever or diarrhea.

7. House Visits - Other Community Services

- Aims.
- Priorities.
- Techniques.

8. "Desired Births"

- Definition and explanation.
- Importance.
- Integration of motivation in the various Center activities.
- Contraceptive use.

9. Introduction to Health Education

- Definitions, aims, values.
- Techniques, leadership of sessions, advice to mothers.
- Auxiliary teaching personnel, their use and their limits.
- Choice of specific subjects for the area where the health education activities will take place.

10. Nutrition

Good local, inexpensive food: how to convince families of its value in assuring harmonious development.

Three fundamental bases:

- Good diet for the pregnant woman.
- Breast feeding for as long as possible.
- Absolute necessity of adding other foods from the fifth month.

The main sources of essential nutritive elements in local, inexpensive foods.

Pure drinking water.

Malnutrition and dietary insufficiency.

Feeding of non-breast-fed infants.

11. Techniques and General Care

- Uncleanliness, disinfection, asepsis, sterilization.
- Temperature, arterial blood pressure, weighing, measuring.
- Administration of medications by oral, intramuscular (I.M.), intravenous (I.V.), and topic methods.
- Taking of blood samples.

12. Emergencies

- Bites.
- Hospitalizations.
- Drowning.
- Hemorrhage.
- Intoxication.