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MATERNAL AND CHILD HEALTH PROJECT
FOR
THE GAMBIA, WEST AFRICA
DAHOMY, WEST AFRICA
KINGDOM OF LESOTHO, SOUTHERN AFRICA

THIRD SEMIANNUAL REPORT
(July 1, 1972 - December 31, 1972)

Submitted by
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INTRODUCTION

This Third Semiannual Progress Report on the Maternal and Child Health/Child Spacing Project being conducted in Dahomey, The Gambia, and The Kingdom of Lesotho will be limited to an account of the Field Conference held in Cotonou, Dahomey, in November and December, 1972. The proceedings of this Conference provide a rather comprehensive view of the activities, events and settings of the project. In reading this report, it should be remembered that the University of California/Santa Cruz technicians had been in Africa for nine months at the time of the Conference and that this was the first occasion where all of the technicians and counterparts had assembled to discuss project objectives and developments.

During the period covered in this report a number of Africans had the opportunity to visit the campus here in Santa Cruz.

Mrs. Ts'idi Nts'ekhe was in Santa Cruz from November 4 through November 11 before attending the International Confederation of Midwives Conference in Washington, D.C. Mrs. Nts'ekhe, who is a public health nurse in Lesotho and one of the designated counterparts of our technician, Ms. Patricia Goodale, devoted most of her stay in Santa Cruz to working in a local hospital and in two rural family planning centers. Mr. Joe Bufelo, Director of the Department of Community Development in Lesotho, also visited Santa Cruz from November 10 through November 13, 1972.

On November 14, 1972, a delegation from The Gambia came to Santa Cruz on its way to the General Assembly meeting of the United Nations. Among the Gambian visitors were the Honorable Mr. Andrew Camara, Vice President of The Gambia; Mr. Eric Christensen, Secretary General of The Gambia; and Mr. Omadi Diarra, Deputy Permanent Secretary of the Ministry of External Affairs.

The Chancellor of the University, Dean E. McHenry, gave a reception for The Gambian visitors. Following the reception a meeting was held in the office of Carl Tjerandsen, Dean of University of California Extension/Santa Cruz. This meeting was extremely fruitful in providing an opportunity to review project status in The Gambia and to discuss plans for future program implementation.

Before proceeding to the report on the Cotonou Conference, we would like to note that the Fourth Semiannual Report will be devoted to an examination of goals and objectives addressed during the first full year of project operations. This report should be completed prior to the end of September, 1973.

Report of
THE FIRST FIELD CONFERENCE
for the
University of California Extension/Santa Cruz
Maternal and Child Health Project

Held in
Cotonou, Dahomey, West Africa
November 29 - December 5, 1972

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INTRODUCTION

Background

When the UCSC MCH Project was originally conceived, a conference to be held in Abidjan, Ivory Coast, was planned to enable all UCSC field staff and U.S. project director's office staff to meet and discuss project development and implementation. The original conference date was scheduled for June, 1972. Because of several month's delay in getting field staff into their respective countries, the conference was postponed and the date and planning of the conference placed in the hands of the Chief of Party, Dr. George Walter.

In correspondence from Dr. Walter in late September, 1972, it was decided to hold the conference in late November and early December. There were two major changes made in the original planning: First, because of financial considerations, it was decided to hold the conference in Dahomey instead of the Ivory Coast. This decision was also based on the added advantage of having access to project facilities and programs in Dahomey for demonstration purposes. The second change was to add field staff counterparts to the list of conference participants. (See Appendix A for complete list of conference participants.)

The purpose of the conference was expressed by Dr. Walter as being "an opportunity to share experiences and compare programs, develop better understanding, foster the team approach, affirm the status of the counterparts, provide in-service education for all, and tap the resources that are contained within the group".

Another purpose was "to clarify and define some of the administrative and communication relationships between the field technicians and University Extension in Santa Cruz".

In developing the conference agenda, Dr. Walter solicited suggestions from all planned participants. After receiving these suggestions it was finally determined to hold the conference in Cotonou, Dahomey, from November 29 through December 5, 1972. It was agreed that the Santa Cruz office would assume responsibility for coordinating all travel arrangements and travel advances, and the Central Administrative Office would make all hotel arrangements.

At this stage the Santa Cruz office worked directly with AID/Washington to secure permission for international travel for all staff in Lesotho, The Gambia, and the United States and approval from in-country AID and Embassy officials to hold the conference. Field technicians in The Gambia and Lesotho simultaneously contacted their Ministry of Health supervisors to gain permission for their counterparts to travel to Dahomey for the conference.

The decision to include field staff counterparts in the Conference was made because the success of the project depends on the extent to which we can establish effective working relationships with them. In addition to this reason, it was felt that a review of the project's activities to date would not be valid without the participation of the counterparts.

The decision to include counterparts posed the problem of making the Conference bilingual. The Dahomean counterparts do not speak English and the rest of the project staff, with the exception of those in Dahomey, do not speak French. To solve this problem, seven bilingual interpreters, most of them English teachers, were hired in Dahomey and were given a brief exposure to the vocabulary and ideas of material and child health. In shifts of two, they sat next to the Dahomean counterparts and translated the Conference discussions into French as they were taking place. The project staff in Dahomey translated the contributions of the Dahomean counterparts into English.

Having to take the time to translate everything that was said necessarily slowed the Conference proceedings. However, the full participation of the Dahomean counterparts in the Conference more than made up for this fact.

The presence of interpreters resulted in two other important benefits. The first was that it forced us to speak more precisely and clearly. The second had to do with what the interpreters themselves learned from the Conference. To virtually all of them, it was an educational experience. This fact came out during the Conference evaluation in which the interpreters participated.

THE CONFERENCE

All Conference participants arrived on schedule in Cotonou, Dahomey, on November 28, 1972. James Franks, Dale Flowers, Ts'idi Nts'ekhe, Olive N'Jie, Dick Keyes, Ione Armstrong, and Alberta Brasfield arrived early in the afternoon via Dakar, Senegal, and were greeted by the Walters, the Parks, Judy Migdal and Susan Malder. In the early evening Pat Goodale, Margaret Mokhothu, Ivy Monoang, Mokuba (Eliazar Petlane), Sunny Fong, and Robert Minnis came in on a dependable old DC-3 from Lagos, Nigeria.

After clearing customs and being taken to the hotel for rest and recuperation, everyone reassembled at the home of Tom and Kitty Park for a get-acquainted dinner. The Dahomean counterparts, Mesdames Ouendo and Facia, joined the group at this dinner which enabled all participants to meet each other in an informal setting.

NOVEMBER 29, 1972 (DAY 1)

On Wednesday morning, November 29, 1972, Conference participants met on the patio of the Hotel de la Plage for breakfast and, after waiting for one hour for cafe au lait et croissants, left for the 8:30 a.m. opening of the Field Conference. We had all learned something of the Francophone admiration for long, leisurely dining.

Introductory Addresses

The Conference was opened by Dr. George Walter, who introduced all the participants and set the stage for the Conference by distributing an agenda and briefly discussing the purpose of the meeting.

Ambassador Anderson

Ambassador Anderson, U.S. Ambassador to Dahomey, in a welcoming address gave an account of some of the projects in which the United States was engaged in Africa and, more specifically, in Dahomey. He stated that

he was very supportive of and hopeful that this Maternal and Child Health Project would be of great help to the people of Dahomey. He described it as a self-help project reaching into a critical area of need in Dahomey.

Dr. Gustave Perrin

Dr. Gustave Perrin, Director of Preventive Health in Dahomey, then made the following introductory comments:

"Excellencies, Ladies and Gentlemen, Conference Members, it is for me a pleasure to find myself among you this morning representing the Ministry of Health in welcoming the conference members coming from the United States, The Gambia, and from Lesotho.

This is without doubt an international gathering, a gathering which will be devoted to a week-long discussion of maternal and child health within the framework of family planning.

Your presence here in Dahomey is due to the assistance given by the University of California at Santa Cruz to three developing countries in Black Africa: The Gambia, Lesotho, and Dahomey, countries which take great pleasure in welcoming you and which will do all they can to make your stay as pleasant as possible.

Two Anglophone countries, one francophone, although African all three, it's necessary to honestly admit that foreign colonization has faded in its original conception. I hope, dear friends, that what's left of these attitudes will not be an obstacle to the carrying out of your work, so that together in your eyes, these three privileged countries profit from the University of California's efforts and support the extension of this program to other African countries.

Maternal and child health must be and can be the best method of making Africa accept family planning.

Indeed, if in the African family we could help the mother to be healthy, if we could help her keep her 4, 5, or 6 children in good health, she would realize for herself the burden that places on her, and thus, spontaneously, she would proceed to seek advice on planning her family. This is a long-term matter, and I am convinced along with you that it must involve every class of population.

The 85 to 95% of the rural populations are the most deprived. Thus, I'm thinking that, in your discussion, you ought to especially consider the ways and means of coming to their aid through MCH services. This is to say that the way is long, but it is not a reason for the UC/MCH project to become discouraged.

Dear conference members, I wish you a pleasant stay in Dahomey. I want you to work seriously because you are here to help a great continent in its social and economic development."

Dr. E. S. W. Bidwell

Dr. Bidwell, WHO representative for Dahomey, gave an extensive address on the organizational structure of WHO and the role WHO plays in Africa. Dr. Bidwell, speaking in French and English, pointed out that Congo, Brazzaville, is the South of Sahara regional office of WHO and is responsible for the implementation of policies established in Geneva.

Dr. Bidwell then stressed that nations in Africa should start MCH projects because the "most precious task in Africa is the care of children and mothers who represent 65% of the population". He next listed some facts concerning mortality and morbidity among African children:

1. Thirty to 40% of the babies born in Africa never reach five years of age.

2. The mortality rate of babies 0-1 year ranges from 150-300 per 1,000; the mortality rate of babies 1-5 years is 40-50 times higher than in developed countries.

3. Thirty to 50% of the children born in Africa die before adolescence.

The major child afflictions in Africa in order of importance:

1. Acute respiratory infections
2. Gastrointestinal infections
3. Protein-calorie malnutrition
4. Childhood infectious diseases, such as measles, whooping cough and their complications.
5. Malaria
6. Tetanus
7. Anemia
8. Tuberculosis
9. Cerebrospinal meningitis

Dr. Bidwell stressed that all of the diseases listed above can be prevented and the MCH center is the unit for preventive medicine. In the United States or United Kingdom, for example, it is not the duty of the MCH center to care for sick children; but in Africa, reality dictates that the center must care for sick children because African mothers bring their children in when they are ill and they cannot be turned away. Dr. Bidwell suggested that a goal of 50% time be spent on curative functions and the MCH center should strive to spend the other 50% time on preventive work.

The important duties of an MCH center were listed as follows:

1. First aid treatment of most common diseases.
2. Organization of evacuation system for the seriously ill.
3. Prenatal care of pregnant mothers.
4. Supervision of deliveries.
5. Post partum care.
6. Health education including:
 - a. Nutrition
 - b. Personal hygiene
 - c. Immunization against communicable diseases
7. Supervision of all preschool age children (0-5 years of age).
8. Immunization of all children.
9. Consistent with health policies of the country,
 - a. Distribution of medications
 - b. Distribution of supplementary facts
 - c. Education for voluntary procreation
10. Simple system of recording.
11. Selective home visits.

Dr. Bidwell also discussed the role of traditional midwives in modern society. Should these people be recognized as having a role in MCH? In the opinion of WHO they must be brought into the care because 25% of

African babies are born in the bush. We have the task of bringing them into the official MCH program which often involves convincing the government that these traditional midwives can play an important role.

In his closing remarks, Dr. Bidwell reminded Conference participants that family planning had been practiced in African society for many years. The system of polygamy, breast feeding, separation and other taboos had assured that women would not conceive more frequently than about every three years. He also reminded the group that family planning can never be justified for demographic reasons south of the Sahara where the total population is only 265 million. (Please see Appendix B for the complete text of Dr. Bidwell's presentation.)

Dr. B. Rayo-Perez

Dr. Rayo-Perez, WHO/MCH Advisor in Dahomey, who was introduced at the beginning of the session, made several interesting contributions during Dr. Bidwell's presentation.

Discussion of Structural and Functional Level of MCH Project

Margaret Mokhothu - MCH Project, Lesotho

The remainder of the first day's session was spent discussing the structural and functional level of our project. Mrs. Margaret Mokhothu opened this discussion with an extensive report on the project in Lesotho. Major statements that came out of her presentation were as follows:

1. The purposes of the project were not well understood at any level in Lesotho until project implementation began.
2. The project is operating at the planning level within the Ministry of Health.
3. The flow of communication within the Ministry of Health as related to our project is excellent and flow is both upward and downward among various levels of medical personnel.

Mrs. Mokhothu prepared a paper on Community Organization in Lesotho which is attached as Appendix C.

Susan Nalder - MCH Project, Dahomey

Susan Nalder then made a similar presentation concerning the organizational structure and level of operation of the project in Dahomey. The major points made in the presentation were:

1. that the Chief of Party, Dr. Walter, and the Deputy Chief of Party, Tom Park, are an integral part of the Dahomey project because the Central Administrative Office is located in Cotonou;
2. that the project has not been operating close to the planning level within the Ministry of Health;
3. that a power vacuum exists in the area of preventive medicine at the mid-management level in Dahomey; and
4. that the project is well understood at the operational level and project implementation has recently improved greatly.

Alberta Brasfield - MCH Project, The Gambia

Alberta Brasfield completed this portion of the Conference by presenting a paper on the project setting in The Gambia. (See Appendix D.) There was one significant fact that was brought out by Miss Brasfield--that communications in The Gambia project needed to be examined and improved.

Business Meeting of UCSC Staff; Cultural Event for Counterparts

Two different activities took place on the afternoon of the first day: The staff members of the University participated in a business meeting, while counterparts took advantage of the time to visit the Ethnographic Museum at Porto Novo.

At the afternoon meeting, it was agreed that time be set aside during the Conference to deal with specific business problems as they were

identified in the regular scheduled sessions. It was also agreed that counterparts would participate in all future business sessions so that they could observe the problem-solving methods used by Santa Cruz staff, assist in the identification of administrative problems, and contribute to their solutions.

NOVEMBER 30, 1972 (DAY 2)

Examine Problems of Resistance to Project

Problem Identification

The morning of the second day was spent examining factors which are causing or have caused resistance to our project and some possible solutions to overcome these problems. The following list contains those which were discussed as being the most significant.

1. Lack of communication between agencies and between levels of government structure.
2. Leaders not available to project personnel.
3. Leaders do not follow through to own staff.
4. Project not understood.
5. Fear of increased work load.
6. Without consent of leader, no one can do anything.
7. Concept of "Public Health" not well understood.
8. Roles poorly defined:
 - a. Women vs. men
 - b. Doctors vs. nurses
 - c. Professional snobbism
 - d. Spoils system
 - e. Nepotism
9. Delays

10. Staff too busy to take on project.
11. Lack of money at multiple levels.
12. Difference in motivation and commitment between leader level and worker level.
13. Instability of government.
14. Difficulties of counterparts selection and technician selection.
15. Value system conflict:
 - a. Expectations
 - b. Attitudes
 - c. Time sense
16. Fear of CHANGE.
17. The term "Family Planning" not well understood.
18. Poor utilization of existing resources.
19. Unrealistic time schedule:
 - a. Time schedule artificial.
 - b. Time schedule is out of context.
20. Problem-solving method inappropriate. It may in itself cause resistance.
21. Role of and use of statistics not understood (includes medical records).
22. Competition between donor agencies.
23. Possessiveness.
24. Stereotyping
25. Paradox: It's YOUR project; follow OUR rules.
26. Conflict between motivating and training others.
27. Inadequate local involvement in planning.

28. Coordination between the two technicians--counterpart team in each country (Lesotho particularly).
29. Counterpart designation and expectations of them are not compatible with local status system.

Alternatives

A number of ideas were advanced to address this resistance. These were finally lumped into six general solutions to reduce resistance:

1. Take advantage of counterparts--both the role and the person.
2. Emphasize availability, visibility, familiarity of project personnel: good public relations.
3. Frequent meetings with leaders.
4. Constant reinterpretation of project.
5. Reconsideration of project purpose.
6. Cooperative planning.

Define the Role of Women in an African Professional Health Structure

A lively discussion took place around the subject of the role of women in an African professional and health structure. Constance Facia started this afternoon session by discussing the situation of women in Dahomean society and painting a "not too bleak" picture. The fact that there are probably equal numbers of boys and girls attending schools in the urban areas was advanced as a sign of the decay of traditional roles which saw only male children attending school. Madame Facia saw a positive future in the health profession for Dahomean women because women have a greater facility or ability to make contact with the rural population than do men. Susan Naider entered the discussion with the observation that there is a fear that the modernization and liberation of women will make them sexually

permissive and will lead to the destruction of the traditional African society.

The session then turned to Lesotho when Pat Goodale explained that men generally played a more important role than women, largely because women were disorganized and were often their own worst enemies in making their rights and wishes known. Ts'idi Nts'ekhe did not agree completely with Ms. Goodale and was quick to point out that women in Lesotho won the right of equal pay for equal work in April, 1972. Further, she named a number of Basuto women who were currently holding important governmental positions, although no women hold positions at the ministerial level.

Dale Flowers was then asked for his views on the role of women in the professional world. Mr. Flowers summarized his views by suggesting that behavior patterns are formed within the personality, and though the mind may be changed by education, the semi-automatic behavior may persist. This works both ways. It is important that males understand the feminine elements of their personality and vice versa. Oppression is a symbiotic relationship. An oppressor cannot exist without the presence and permission of the oppressed; or stated more simply, women are downtrodden and dominated because they permit it. If the plight of women is to be changed, the women must do it. Factors controlling the evolution of the traditional role of women are often religion, tribal culture, and political milieu. We should remember that women's lib grows out of sufficient security on the part of the women to have the argument. Therefore, it cannot but represent the well-to-do or middle classes. It may, therefore, be completely inappropriate in an African setting. We, in this project, should ask ourselves if we have the right to press for women's lib in developing countries that have a small middle class? Mr. Flowers believes, however, that the status of women is important to the project and to health in general, because their role affects

the health of women, and women represent a major national resource in any nation.

Alberta Brasfield then discussed The Gambia:

"The role of women in a traditional professional and health structure and ministry should be viewed from the point of view of the role of women in the larger society. From discussions with colleagues and observations in our setting, I would say the main role of the woman is a homemaker; that is, to bear children and raise food for her family. Farming is done mostly in the villages by women and it is considered part of their role as mothers to provide food for their family. Of course, a woman with an education who lives in the city does not do any farming. If she is married and works outside of the home, it is usually in clerical jobs, teaching or in the health field. Many village women who have migrated to the city and do not have an education work as domestics.

We must remember that the role of women in the society today evolved from historical traditions, religious beliefs and tribal influences. Our society is predominantly Moslem and the largest tribe is Mandinka. Under these two influences the women are relegated to having children and farming. Historically, female children were not encouraged to attend school and in many instances the village children did not attend school at all. Therefore, we have a limited number of educated women in any professional field.

Our elected officials are predominantly Moslem and most of them belong to the Mandinka tribe, which means the same two forces which shaped the role of women in the past are in the position to reinforce the existing role.

Women unfortunately share in their own domination due to no fault of their own. Since the culture supports the submissive role of the woman, she grows up believing and living in such a way as to accommodate the system. Another influencing factor is the employment situation. The government is the major employer which limits the alternatives a person has to choose from. As a civil servant it is not likely that a woman would challenge the status quo, because she knows in advance she cannot win in a male-dominated society, so the oppressive cycle continues. However, I predict in the future that the role of women will change very gradually. As more people become educated and more alternatives for employment are available the role of women will have to change. This will occur if the leaders become more aware of the fact that human resources in the form of skills and education are needed in order for a society to progress as a whole."

Olive N'Jie added that women are free to express their views in The Gambia and that their role in the professional world is increasing.

Richard Keyes, at this point, voiced the opinion that U.S. project staff should carefully examine whether women's liberation was a valid concern for the UCSC/MCH Project. Mr. Keyes made the suggestion that this might constitute intervention into African social systems with problems of major concern only to Americans. The other participants agreed that this was a valid question, but there was no general agreement as to whether U.S. technicians should or should not be involved in the subject of women's professional relationships with men in the three project countries.

Discussion of How Field Staff Gained Acceptance in Existing Structures

The topic of how technicians in this MCH Project proceeded in gaining acceptance into the institutional structures of the three project countries was next on the agenda.

Judy Migdal stated that being introduced by the director of the PMI as a project participant helped her more than any other factor in being accepted by the Dahomean health professionals.

Sunny Fong felt that being a male had helped him "break in" in Lesotho. Mr. Fong emphasized that it was important to look for concrete evidence that you and the project were being accepted. He cited several examples among which were:

1. The Lesotho Ministry of Health had assigned two counterparts in health education while the original agreement only called for one.
2. The Ministry had established a section for Health Education on August, 1972.
3. Construction in the Mafeteng district was proceeding well, five housing units already completed.

Mokuba added another important indicator which was that other Ministries besides Health were involved in the project.

Alberta Brasfield stated that she and Ione Armstrong had not yet been accepted at a meaningful level in the governmental structure. The most useful tactic they have employed to gain acceptance has been face-to-face discussion. Miss Armstrong pointed out that they were accepted at the working level which would eventually help them gain acceptance.

DECEMBER 1, 1972 (DAY 3)

Visit to a Project Pilot Zone

Centre Social d'Akpakpa

The third day of the Conference began with a visit to the Centre Social d'Akpakpa which is the headquarters for the pilot zone activities in Dahomey for which Constance Facia and Susan Nalder are responsible.

Tour of Akpakpa Zone (Service Area)

Conference participants were driven through the Akpakpa zone to observe the population which the Centre serves. At the Centre Ms. Nalder discussed preschool activities taking place at the Centre that morning. Participants then returned to the Conference room.

Discussion: Introduction of Preventive Care in a Curative Setting

"How do you introduce preventive care into a strictly curative setting?" was the opening topic the third day. Ivy Monoang, Lucie Ouendo, Olive N'Jie, and Ts'idi Nts'ekhe pooled their knowledge to develop the following list of areas to stress in introducing preventive care:

- I. Health Education
 - A. Home Management
 - B. Waste Disposal
 - C. Personal Hygiene
 - D. Sanitation and Water
 - E. Nutrition
 - F. Preventable Disease
 - G. Health Maintenance

- H. Health Surveillance
- I. Human Relations
 - Staff
 - Students
 - Community
- II. Prenatal-Postpartum-Interconceptional Care
 - A. Immunization of Pregnant Women
 - B. Medical History and Record
 - C. Vitamin Supplementation
 - D. Medical Consultation Available
 - E. Breast Feeding and Weaning
 - F. Teaching of Grandmothers
- III. Demonstrations
 - A. Nutrition
 - B. Child Care
 - C. Gardens
 - D. Teaching Methods
 - E. Child Spacing
 - F. Sanitation and Water
 - G. Home Construction
 - H. Home Management
- IV. Visual Aids (Chance to Involve Men)
 - Posters, films, etc.
- V. Radio
- VI. Family Planning-Child Spacing
- VII. Public Health in Training Curriculum
- VIII. School Health Program and Preschool Program
 - A. Teachers
 - B. Students
 - C. Services
 - D. Environmental Health
- IX. Team Approach - Use of ALL Personnel
- X. Transport
- XI. Communication - Record and Referral Systems
- XII. Supply System
- XIII. Inter-agency Coordination
- XIV. Community (Village) Involvement

XV. Child Care Centers

XVI. Accident Prevention

Discussion: How to Perform Organizational Work in a Village for Health Purposes

In the afternoon Eliazar Petlane discussed how to perform organizational work in a village for health purposes. Below is an outline of the major points he made in his presentation:

1. "Know Thyself"
2. Know the Area
 - a. Climate
 - b. Geography
 - c. Economy
 - d. Employment
 - e. Demography
3. Know People
 - a. Politics
 - b. Race and Tribal Organization
 - c. Customs and Beliefs
 - d. Religions
 - e. Traditional Medical System
4. Know Leaders
 - a. Chiefs
 - b. Village Leaders
 - 1) Official
 - 2) Unofficial
5. Make use of existing village organizational structures.
6. Know what it is that you wish to do; get yourself organized.
7. Don't just talk--demonstrate what it is that you want to do.
8. Help villages understand their problems.
9. Help them to find their own solutions.
10. Follow through and reinforcement.
11. Evaluation.

Discussion: Motivation of Untrained Workers and Volunteers

Following Mr. Petlane's presentation, Constance Facia and Ivy Monoang talked about motivating untrained workers and volunteers. Madame Facia suggested many ways in which a health professional might work to motivate others. Among her recommendations were:

1. Form village groups.
2. Do not bring in ready-made solutions for problem solving.
3. Be available for consultation and to provide assistance.
4. Demonstrate a personal concern and involvement for their personal lives.
5. Introduce some diversions.
6. Know the area in which you are working.

Ms. Monoang listed the following as ways she has found to motivate paraprofessionals and volunteers:

1. Be on the spot.
2. Establish trust.
3. Clarify problem ("bad") before advancing solution ("good").
4. Identify influence holders.
5. Use established system as much as possible.
6. Convince of need for change.
7. Build on strengths; play down weaknesses.
8. Relate your approach to their interest.
9. Reconcile "scientific" and "folk" knowledge.
10. Employ indirect techniques.
11. Demonstrate concepts or content.
12. Share responsibility; transfer yours to them.
13. Do not be discouraged by failure.

14. Encourage a sense of responsibility.

15. Use peer group trainers.

DECEMBER 2, 1972 (DAY 4)

Visit to PMI-Maternity - Cotonou

Saturday opened with a visit to the PMI and Maternity in Cotonou. The PMI-Maternity is the pilot zone activity for which Judy and Lucie are responsible.

Upon arrival at the PMI, participants observed a health talk (causerie) being delivered to about 150 Dahomean mothers. The talk was delivered in Fon by Mme. Elisha, a staff nurse at the PMI who had been trained by Madame Ouendo and Miss Migdal. The subject of this talk was the dangers of poliomyelitis and how polio could be prevented by polio serum.

Following the health talk, a tour of the PMI and Maternity was conducted by Miss Migdal, Madame Ouendo, Dr. Walter and Dr. Assani, director of the PMI-Maternity. Participants were also introduced to Dr. Lawson, Director of the PMI, and Dr. Rossnel.

How to Organize a Health Education Program at the Ministry Level

Sunny Fong opened the discussion on how to organize a health education program back at the Conference room following the visit to PMI.

Mr. Fong directed his comments to organization at the Ministerial level. First, he noted that Lesotho operates under a five-year development plan in which each Ministry states its objectives for this period. An examination of this plan was necessary to determine how our MCH project objectives were or could be included in the objectives set by the Ministry of Health. (See Appendix E for a statement from the Lesotho Government on their plans to implement Health Education in Lesotho schools.)

Second, Mr. Fong worked with the Ministry of Health to assist in the establishment of a Health Education Section in the Department of Public

Health and Social Services. (See Appendix F for a description of the organization of this Section.) As part of this activity it was necessary to identify and cooperate with organizations such as Save the Childrens Fund (SCF), WHO, and Catholic Relief who were already involved in health education activities.

The third step in organizing health education at the ministerial level was identified as planning for implementation of the educational program.

How to Organize a Health Education Program at the Institutional Level

Lucie Ouendo and Judy Migdal then discussed how to organize health education at an institutional level; e.g., hospitals, clinics, schools, health training institutions. They related this discussion to their experiences in Dahomey. Major points made were that under the present organizational structure in Dahomey:

1. Health Education is recognized as providing advice only when a sick person comes in for information.
2. There is no mass health education program in Dahomey nor a concept of formal health education.
3. Someone must be selected at the institutional level and designated as responsible for health education. In the case of our project, this became Madame Ouendo at the PMI.
4. The health team at the PMI at first resisted the concept of health education, but it was pointed out that everyone from the doctors to the lowest level staff have a task in presenting health education.
5. A two-week in-house education program was carried out at the PMI in which it was stressed that health education must be carried out at two levels: person-to-person and person-to-group. The training also stressed the use of visual aids and demonstrations on how to use them were conducted.
6. Health talks were given by the newly trained staff and were critiqued on the basis of content and style of presentation. An important point was noted: that each talk should only address one subject. Discussing family planning and vaccinations at the same time, for instance, only breeds confusion.

7. Once the staff of the PMI had accepted the necessity of health education, several problems arose which should be anticipated in the future:
 - a. Staff wanted extra pay for this new job they were performing.
 - b. Staff wanted certificates for their training.
 - c. Staff wanted stipends to attend training.
 - d. Some professional staff felt that the health education program placed an extra burden on lower level staff.

Additional Comments - Health Education in Schools

Sunny Fong made a few additional comments about introducing health education in the elementary and secondary schools. Mr. Fong made an interesting observation that health education does not require a new curriculum for its introduction. Health can be included in most subjects. For instance, in geography the concepts of water and land pollution can easily be discussed. Even in math a teacher can design health related problems. Example: A family of five live in a rondavel; how much space does each have if the rondavel is 20' x 20'. Or Papa earns 10 Rand per month; there are five in the family; how many Rand per member of the family and how much food does two Rand buy. He also pointed out that the Lesotho Five-Year Plan includes provisions for providing running water and latrines at every school.

Introduction of Public Health and Preventive Medicine into the Curriculum of Health Training Institutions

Alberta Brasfield then discussed her experiences in introducing concepts of public health and preventive medicine into the curriculum of health training institutions.

The Gambia has a School of Nursing and Midwifery with a staff of four tutors, one tutor-in-charge who also teaches, one clinical instructor, one public health tutor and one midwifery tutor.

During the first part of their assignment in The Gambia, Miss Brasfield and Miss Armstrong were asked by the tutor-in-charge to assist her and the faculty in reviewing and up-grading their curriculum.

In discussing the curriculum, many questions were asked and answered in reference to the sequence of subjects and the content. The nursing curriculum covers three years and is divided into six major areas. First is the skills such as T.P.R., B.P., bedbaths, etc. Some practice is done in the laboratory, but practice in the clinical setting is preferred. The next area to which the students are rotated is Maternal and Child Health, which is about 14-16 weeks after the students enter the nursing program. MCH is a very important part of the curriculum as well as the country as a whole. If one had to identify the priority group for health care in The Gambia, one would readily agree that mothers and children are top priority. Since this is the case, the students are required to study care of the mother during pregnancy, delivery, lactation, and care of the newborn early in the curriculum. This indicates that the curriculum is designed to educate the nurses to deal with the health problems of The Gambia.

To introduce public health concepts and preventive medicine into the curriculum was rather easy, because the faculty was open to new ideas and welcomed help with the curriculum. It was suggested that the public health aspect of the curriculum be integrated into each of the other areas, i.e. teach the public health aspect of each area as opposed to teaching public health as a separate unit. This suggestion was accepted. Prevention of disease through health education was also incorporated to help the students become aware of the importance of prevention as well as learn the skill of teaching patients in the clinical setting and in the community.

The public health aspect was included in major areas, such as Care of the Sick Child (Pediatrics), Care of the Adult Patient - Part I,

which deals with the younger adult, and Care of the Adult Patient - Part II, which deals with the older adult with degenerative problems due to age.

Public health and preventive medicine are major concerns of the faculty because they discussed the expense involved in focusing on curative care to a limited number of people as opposed to focusing on keeping people healthy through prevention of disease through education. The faculty also recognizes the drain on the country's resources when curative care is given priority over preventive care.

It was apparent that the faculty of the nursing school was interested in change and was ready to incorporate public health and preventive medicine in the curriculum.

Introduction of Public Health Education at the Rural Level

Miss Brasfield's comments were followed by a presentation from Eliazar Petlane on how to organize health education at a rural level. Mr. Petlane spoke first of the Lesotho setting in which he was working then of community development techniques which could be utilized to implement a rural health education. For a complete summary of his presentation see Appendix G.

Slide Presentation on Lesotho

That evening Sunny Fong gave an excellent slide presentation on Lesotho. The slides presented a good view of the terrain in Lesotho and some idea of the health conditions that exist in that country. In addition to being informative and entertaining, the slides demonstrated how visual aids could be used in health education presentations. Dr. and Mme. Assani, Mr. Facia and Mrs. Walter joined the Conference participants in this event.

DECEMBER 3, 1972 (DAY 5)

Visit to Grand Marche

After four days of concentrated work, Sunday was set aside as a day for relaxation. Several individuals attended church services before joining others at the Grand Marche, the large open market held every Sunday in Cotonou.

Visit to the Floating Village of Le Ganvie

A visit to the village of Ganvie was scheduled for the afternoon and was one of the highlights of the entertainment that was planned during the Conference. Ganvie is a village of 20,000 inhabitants who live in houses built over a natural lagoon.

DECEMBER 4, 1972 (DAY 6)

Observe Health Education Talks at PMI - Cotonou; Report on Dahomey

The PMI Conference participants began the day with a return visit to the PMI to view another health talk presented by Mme. DeHoue. Madame Ouendo continued the discussion on how to organize health education programs by presenting a report on Dahomey. Madame Ouendo related much information about the setting in Dahomey and spoke of organizing health education at the institutional level in her country. (See Appendix H for this report on Dahomey.)

Dr. Gustave Perrin added that a new interest and emphasis was being placed on health education. Dr. Perrin also discussed traditional medicine in the context of health education stating the President Mathieu Kerekou was interested in studying traditional medicine and putting it into proper perspective in the overall health service of the nation.

Madame Ouendo's presentation completed what might be considered as the first phase of the Conference in which background information and activity

reports from representatives of three project countries were presented in a lecture-discussion format. The next phase of the Conference began with a discussion of the process of learning. The remainder of the Conference then emphasized workshops and evaluation exercises that utilized experiential learning techniques.

Dale Flowers discussed research that had been done into learning retention and explained that material retained was directly related to the method used in presenting the material. For example, on an average only 7% of the information presented by the lecture method is retained. If visual aids are used to supplement the lecture, 33% of the information is retained.

However, if learners participate in an exercise and use the information that is being presented, their retention rate is 68%. Mr. Flowers then presented a learning model that would be used in a team-building exercise.

1. Experience (Do it.)
2. Identify (What did I see and feel?)
3. Analyze (What did I learn?)
4. Generalize

Team Building

Dale Flowers and Richard Keyes then led a team-building exercise designed to determine how Conference technicians and counterparts were working together to achieve the goals of the project and to assist them in identifying their roles. The participants were divided into four teams: an administrative team composed of J. Franks, B. Minnis, T. Park, and G. Walter; a Dahomey team with C. Facia, J. Migdal, S. Nalder, L. Ouendo; a Gambian team with I. Armstrong, A. Brasfield, and O. N'Jie; and a Lesotho team with S. Fong, P. Goodale, I. Monoang, M. Mokhothu, T. Nts'ekhe, and E. Petlane.

Each individual was asked to record on a tablet what tasks he believed were the responsibility of each of the members of his team, including his own responsibilities. After completing these lists the team compared results and discussed areas of disagreement in an effort to improve each other's awareness of the tasks and responsibilities necessary to carry out their mutual assignments. A more complete description of this exercise and one additional exercise follows:

The staff of the University determined that an experiential approach to team building might put people more in touch with how they interact with members of their team, than a discussion of the issues. Therefore, the team-building session was composed of two exercises:

1. Role Clarification Exercise
2. Housebuilding Exercise

Role Clarification Exercise

Purpose

The purpose of the Role Clarification Exercise is to provide an environment where the staff of a small team can compare their perceptions of the roles of team members in order to determine how well roles are delineated and communicated among the members of the team.

Method

Team members review goals and objectives of their project. After a review of project goals and objectives they move off as individuals and outline the roles of each member of the team including themselves. After each individual has outlined the roles performed by each member of his team, the group returns and each member presents his outline. After the outlines have been presented the team members discuss the areas of similarity and the areas of difference in their outlines.

Exercise

Instructions for the exercise were given and each team, including the management team, moved off to a separate room to complete the exercise. Since we were short of facilitators for the groups, it was very difficult to observe the group interaction. However, at the end of the exercise individuals were brought into a fishbowl to discuss the experience in terms of:

1. What did I learn by doing this exercise?
2. How can I use it in my work?

The Lesotho team, which was larger than the other teams and had a much broader area of responsibility, took longer than the other teams and, therefore, missed the analysis segment of the exercise. Some of the comments from this exercise are included in the "Evaluation of the Dahomey Conference" section under "Feedback".

Housebuilding Exercise

Using the same learning model as before, another team-building exercise employed by the UCSC staff was the "Housebuilding Exercise". The Housebuilding Exercise is designed to have people perform a task as a team and then examine how they operate. It also provides them with the opportunity to be observers of a team performing the housebuilding task. The purpose of the exercise is to enhance the awareness of participants of their behavior in a work group. It tends to identify behaviors like who withdraws, who is supportive, can individuals delegate tasks, can they share, etc. The Conference participants were divided into three groups. Each group operated inside a fishbowl (or microlab) with six people on the inside and six people outside. The inside groups were each given one piece of paper that, when placed with the other five pieces, would form a two-dimensional paper house.

The participants were given a ten-minute time limit to complete the house. After the housebuilding group completed the task the observer group was asked to report what they observed among the group members while the task was being performed. They were cautioned to report only what they observed in the here-and-now and not to speculate on the implications of the behavior. After each group completed the exercise and listened to the observers' report, the rules for housebuilding were changed and a new group became the housebuilders. After all teams had participated in the exercise, there was a short discussion by the total group. The topics of the discussion were "What did you learn about yourself in this exercise", "What did you learn about operating in a team".

That evening Judy Migdal and Susan Nalder hosted a dinner of special Dahomean dishes at their home. It was an enjoyable evening and a delightful dinner. Following the dinner two films on reproduction which were brought to Dahomey from the UC Berkeley film library were shown and reviewed for possible use in health education programs.

DECEMBER 5, 1972 (DAY 7)

After completing the first team-building exercise, Conference participants broke down into small groups to begin a series of Maternal and Child Health Workshops:

Workshop I: Nutrition Education

Leader: Margaret Petlane
Participants: A. Armstrong, I.
Monoang, L. Ouendo, D.
Flowers (recorder),
J. Migdal (recorder)

Nutrition education was defined by the workshop participants as educating the public in proper diet, the relationship of food and illness and local taboos, and teaching in terms of foods rather than in terms of elements; i.e., energy, calories, calcium content, etc. The discussion then turned to planning a nutrition education program.

At A Ministerial Level

1. Do not assume that everyone knows what is involved in nutrition education.
2. Use examples and comparisons to illustrate the points of instruction you seek to establish. Report the nature of the problem using records, statistics, reports of food production and distribution.
3. Stress the prevention aspect of nutrition education.
4. It is advisable to contact all Ministries (such as Health, Education, Welfare, etc.) who could become involved in nutrition education.
5. Show the Ministers how your work fits into the needs of the country.
6. Use statistics to demonstrate the relationship between diseases and diet.
7. Look at who is providing nutrition education; include volunteer agencies, schools, and dispensaries.
8. Find out what resources are available to you to conduct the program.
 - a. Food (In Lesotho there is a shortage of foods; in The Gambia and Dahomey the problem is unequal distribution and improper usage.)
 - b. Personnel
 - c. Participants
9. Examine the country's transportation system.

At An Institutional Level:

1. Make a distinction between service organizations and education organizations, then:
 - a. Complete a needs assessment.
 - b. Develop a plan.
 - c. Help the institution undertake the program.
 - d. Evaluate the success of instruction.
 - e. Move on.

2. How do you plan a nutrition education program at a rural level?:

- a. Work with village leaders and other appropriate individuals.
- b. Work in the preschool programs.
- c. Work with community development personnel.
- d. Use local resources.
- e. Summary by country:

Lesotho: In Lesotho where villages are distributed all over the countryside, it is necessary to work with village committees where people participate in a variety of activities--gardens, sewing, food preservation, laundry. Nutrition should be inserted wherever possible. A problem exists with people demanding certain food commodities. You have to insist on using local foodstuffs and raising products locally.

Dahomey: In Dahomey contact with village chiefs is important. Through them the community worker brings the food of the village and prepares it in front of the women. These community workers are throughout the country. In their own locale they have their own gardens which is their food supply for demonstrations.

The Gambia: In The Gambia, one must see the chief, study local resources and local preparation. Then correction of diet begins on this basis, using local resources. It is often said in Gambia, "No one goes to bed hungry, but what did they eat." There are certain social connotations to food which must also be recognized.

Workshop II: Health Surveys

Leader: Susan Nalder
Participants: R. Minnis (recorder),
E. Petlane, I. Armstrong,
P. Goodale, C. Facia. T.
Nts'ekhe, O. N'Jie, J. Franks

Miss Nalder began by referring to the General Plan of Action, page 2, of the Memorandum of Agreements between the MOH of Dahomey and UCSC Extension and cited Item 1 which states that the project will collect

demographic, health status, and knowledge attitudes and practices baseline data in the pilot area.

Methodology and Techniques

Health survey in Dahomey: Miss Nalder spent two months getting acquainted with the area (Akpakpa) and outlined the procedure which was used:

1. Got to know area--researched previously published materials on area, MOH material, etc.
2. Acquired maps--if aerial photos have been made, obtain them.
3. Questionnaire--met in committee--formed by our project:
 - a. Miss Nalder, Dr. Assani, Dr. Walter, Miss Migdal.
 - b. Brainstormed.
 - c. Developed questionnaire--looked for objective data
 - 1) One questionnaire for men.
 - 2) One questionnaire for women.
 - d. Reviewed interview schedule (and removed questions).
 - e. MOH removed questions.
 - f. 25-question maximum on questionnaire.
 - g. Questions must be concise; ex: a fisherman (prime occupation) may also be traditional midwife.
 - h. Be sure translation into tribal languages is concise. (Ex: In Fon "ditto" means doctor, nurse social aid, etc.)

Methodology: Administering the Questionnaire (population of 20,000 people)

1. Decisions must be made by how much money to allocate to survey resources.
2. Hold survey to 200 families in ten villages, randomly selected.
3. Who was to administer questionnaire?
 - a. Health training students were selected and paid by project.
4. Training of surveyors.
 - a. Background of our project--team building.
 - b. Lecture on public health terminology.
 - c. Ran through some practice interviews--role playing.
 - d. Techniques of interviewing.

5. Team composition--leader and five interviewers--two teams.
6. Two families were interviewed each day by each interviewer--no more, no less.
7. Talked to each village chief prior to conducting interviews; chiefs cooperated and had people stay home.
8. Political chiefs appointed by the government; they are department chiefs; survey is only as good as the questionnaire.

Types of Questions

1. Closed: Ask question and present alternative answers (See Question 3 or 10, Appendix I).
2. Open and Closed: (See Question 18, Appendix I).

Some Important Questions and Points They Made in the Discussions

1. How did interviewers get to Akpakpa: By taxi to staging area, then to Akpakpa by project vehicles daily.
2. Chiefs must accomodate interviewers if survey is to work.
3. Problems: People were expecting health services; sick were gathered; evacuated for medical service.

Workshop III: Referrals and Records

Leader: Judy Migdal
Participants: L. Ouendo, I. Armstrong, I. Monoang, C. Facia, T. Park, J. Franks, T. Nts'ekhe, A. Brasfield

The group initially discussed the rationale for the development of a record and referral system. The following reasons were cited:

1. Continuity of care.
2. Prevention of duplication of services.
3. Better follow-up of patients.
4. Maximum utilization of existing services.
5. Helps to uncover the needs of an area or the need for services.

6. Promotion of high quality care.

Members then discussed the precise nature of the problem of records and referrals in their respective countries:

The Gambia

1. The records do not yield the information desired.
2. There is an insufficient supply of record forms.
3. There is a failure to use the Ilesha growth curves.

Lesotho

1. There is an inadequate budget for the development of a record system.
2. Standard records are not used; each has his own system.
3. The records do not permit continuity of service and follow-up.
4. There is an excess of record forms which could be combined.

Dahomey

1. Information on forms is incomplete.
2. There is no coordination between services.
3. There are too many forms which do not permit continuity of care for each patient.

Noting, thus, the difficulties encountered with their existing record systems, the group proceeded to define what makes a good record.

The following qualities were stressed. The record must:

1. Give desired information.
2. Be concise and functional.
3. Be durable.
4. Be constructed for family or individual.
5. Be in a working system of identification.

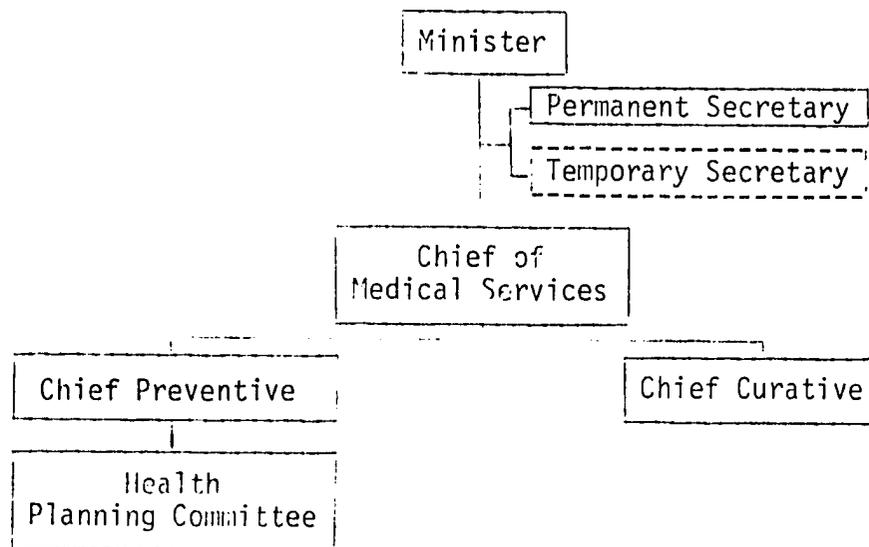
Finally, Susan proposed and explained the use of the Weed System of Records as a method of improving the record and referral system.

Workshop IV: Content and Activities of a Rural MCH Project

Leader: Dr. G. Walter

Participants: E. Petlane, B. Minnis (recorder), M. Mokhothu, O. N'Jie, D. Flowers, A. Brasfield

Dr. Walter opened this workshop by presenting a theoretical structure for a typical ministry of health:



Members of this workshop then assumed the role of the Health Planning Committee. Dr. Walter assumed the role of MOH or Chief Preventive. Dr. Walter then passed out two maps, one of the West Province and one of the second prefecture showing in detail the area requiring preventive health services. (See Appendix K.)

Members of the planning committee began the session by asking Dr. Walter a number of questions:

Bertie (Q): What are the health facilities of this district?

George (A): Health facilities are:

Capitol: Maternity Hospital, Clinic, General Hospital

Provincial Capitol: Maternity Hospital, Clinic

District City: Small Maternity Hospital, Dispensary

Santa Cruz: Dispensary with 1 dresser--dispenser and one assistant.

Capetown: First aid station at mine with one ex-patriot nurse.

Moscow: Nurse on staff of Mission--no organized clinic.

Joburg: Daily informal sick call by nurse on staff of Mission.

Bertie (Q): What is the population?

George (A): Population of Second Prefecture: Total - 20,000

Usual pattern badly skewed, for 70% of males over 15 join migrant work force in other parts of the country and are thereafter only transient residents of the prefecture. 60% of children are under 15; 25% of women are over 15; 15% of men are over 15; average age span, 43 years. Per capita income, \$40 per year; but ratio upset by 600 mine workers who each earn \$800 per year.

Mokuba (Q): What means of communication is there?

George (A): Telephone line from District City to Mine. There is a telephone in the gendarmeria at Paris, Santa Cruz, and Capetown. No other local subscribers. Post office stations at each village except the three fishing villages.

Dale (Q): What means of transportation is there?

George (A): Occasionally-graded dirt road from District City to Paris, Santa Cruz, Capetown, and Mine.

Unimproved bush roads:

Capetown-Bathurst-Moscow

Santa Cruz-Dakar

Santa Cruz-Peking-Berkeley-Saigon

Paris-London-Joburg

Unorganized bush taxi service to and from District City.

River: Dugouts, etc., ply it from District City to Santa Cruz, otherwise not navigable.

Ocean: Small boats pass along coast to Capitol.

Airport: Nearest bush airport at River Port. Jetport at Capitol.

Bertie (Q): What are the local products?

George (A): Crops

| | | | | |
|------------|-------------|----------|----------|----------------|
| Pineapples | Brown Beans | Coconuts | Palm Oil | Various Greens |
| Mangos | Lemons | Manioc | Papayas | Bananas |
| Maize | Grapefruit | Tomatoes | Peanuts | Oranges |
| Yams | Rice | | | |

Local Animals

| | | |
|-------|----------|---------|
| Goats | Chickens | Rabbits |
| Pigs | Turkeys | Agouti |
| Deer | Rats | Pigeons |

Dale (Q): How are the towns (villages) governed?

George (A): Smaller villages organized around chief, which may be male or female. Larger villages not organized. Regions fall into former domain of three king lines. Population falls into three divisions by major language families, with total of 41 different clans, many of which have their own dialects.

General Language: Wombi

Business Language: Falani

Official Language: English

Bob (Q): What diseases occur in this area?

George (A): Tuberculosis, leprosy, malnutrition, gastrointeritis, pneumonia (dryer season), parasites.

Dale (Q): What voluntary agencies are there?

George (A): None available.

Bertie (Q): Infant mortality and population?

George (A): Population of Second Prefecture - 20,000.

| | |
|--------------------|------------------|
| Santa Cruz - 5,000 | Capetown - 3,000 |
| Bathurst - 2,000 | Paris - 1,500 |
| Joburg - 1,000 | London - 800 |
| Dakar - 700 | Mine - 600 |
| Moscow - 600 | Saigon - 300 |
| Peking - 250 | Berkeley - 175 |

No vital data is available.

Olive (Q): Economy?

George (A): Employment--Mine at Capetown; 600 male workers who live full-time at Mine. The remainder of the employment is personal. No other concern in the prefecture hires more than five people.

Self-Employment Includes:

| | |
|----------------|------------|
| Petty Commerce | Fishing |
| Farming | Herding |
| Harvesting | Harvesting |
| Coconuts | Palm Nuts |

Bertie (Q): What is the education system?

George (A): Capitol

Junior College
Nurses training school - 20 per class in three-year course
Sage-femme training school - 20 per class in 4th year
continuation of nurses training school.
High school and a trade school.

River Port

High school and a trade school.

Provincial Capitol

Elementary school through 8 grades.

District City

Elementary school through 6 grades.

Santa Cruz

Elementary school through 6 grades (2 schools, 6 teachers in each).

Capetown

Elementary school through 6 grades (1 school, 1 teacher)

Bathurst

Elementary school through 3 grades (1 school, 1 teacher)

Paris

Elementary school through 3 grades (1 school, 1 teacher)

Joburg

Elementary school through 3 grades (1 school, 1 teacher)

NOTE: Families must pay 50¢ per child per month to attend.

Dale (Q): Is there any radio?

George (A): No.

Bob (Q): Are there funds available?

George (A): The MOH has assured that there are funds available.

Mokuba (Q): Who are village leaders?

George (A): Don't know.

Mokuba (Q): What are the taboos?

George (A): Don't know.

George: Land Tenure System

Land is either owned by chiefs or held in trust by the government.

Each man receives a basic allotment of two acres.

For each wife, he gets two additional acres.

For each child, he receives one additional acre.

Agriculture Report - Soil

Rocky, but fertile, in mountains. Alluvial along streams, alkaline around marsh. Otherwise moderately good for agriculture.

Sanitation

No sewer system anywhere.

Government sanitation engineer came through several years ago and talked about digging pit privies, but there was no follow-up.

Disposal of garbage and human excrement takes place in the bush. Pigs and goats scavenge.

Sanitation (Contd.)

The Mine has an adequate pit privy system, but the workers have not been taught to understand the importance of its use.

Water Supply of Second Prefecture

| | |
|------------------------------------------|-------------------------------------|
| Moscow - river | Bathurst - river |
| Capetown - river | Dakar - river |
| Santa Cruz - unprotected wells and river | Berkeley - swamp |
| Peking - swamp | Saigon - swamp |
| London - swamp | Paris - unprotected wells and river |
| Joburg - unprotected wells and river | Mine - protected, safe well |

George: What shall we plan?

Group
Response:

Nutrition, FP/CS, personal hygiene, program evaluation, sanitation, home economics (budgeting), gardening, (KAP) health survey, resource survey, immunization, transport system, communication, water supply, maternity care, health education, accident prevention, drug distribution, records, fisheries, animal husbandry, housing, preschool programs, school health programs, home visits, well-child supervision, training health personnel, training facilities, community education, coordinate with curative branch, Ministry of Education and Agriculture, community analysis.

Priorities

1. Talk to Ministry of Education and Agriculture.
Talk to curative people and statistical.
Talk to Missions in the area.
2. Train health personnel.
3. Community Analysis
4. Resource Survey
5. Health Survey (KAP)
6. Etc.

Staffing

- | | |
|---------------------------------|------------------------------------|
| 1. Sanitary Inspector | 9. Janitor |
| 2. Community Development Worker | 10. Record Keepers |
| 3. Nurse - midwife | 11. Local Wombi speaking surveyers |
| 4. PHN | 12. Nutritionist |
| 5. Doctor or equivalent | 13. Agronomist |
| 6. Health educator | 14. X-Ray technician |
| 7. Laboratory technician | 15. Statistician |
| 8. Driver | |

DECEMBER 6, 1972 (DAY 8)

The final day of the Conference was devoted to the subject of evaluation, which took two forms. The first was a discussion of the kind of evaluation of the project which would be necessary for marking progress, program planning, and justification of future budget requests. There was much concern as to whether or not USAID would expect an evaluation done at the rather esoteric level of our stated project goal of reduction of maternal and infant mortality and improvement of the quality of life--an almost unmeasurable quantity--or whether we would be held responsible for those intermediate types of activity-objectives listed in the various letters of agreement, by which we hoped to contribute to our overall goal. The discussion centered around those types of verifiable indicators which could be used to measure the latter, and the impossibility of accurate measurement of the former. The group conclusion was to request that the Santa Cruz office obtain a written statement from USAID saying whether we are to be held to:

the GOAL: Reduction of preventable maternal and
 infant morbidity and mortality
 or

the OBJECTIVE: Establishment or improvement and extension
 of basic MCH services

The remainder of the time was spent in an evaluation of the Conference itself, directed by Dick Keyes, Dale Flowers and Tom Park.

Several experiential exercises were used to provide answers to the following questions:

1. What did you learn about maternal and child health that you did not know before? Health education? Preventive medicine? Nutrition?
2. What did you learn about teamwork that you did not know before? Planning? Evaluation?

3. What did you learn from the project in the other countries?
4. What did you learn about people that you did not know before?
5. What didn't you like about the Conference, or where did you think it was weak?

The idea behind these questions was to determine how the participants felt about the conference and what information they had gained through their participation. The responses to the questions listed above and the results of the experiential exercises could be used as a basis to plan future conferences.

The Conference evaluation was divided into three sessions. In each session a different experiential exercise was used. The purpose of the first session was to find out what the participants learned from the Conference. The purpose of the second was to find out what was wrong with the Conference or where it was weak. The purpose of the third was to find out what the participants liked about the Conference. The different exercises will be described along with the results of each session.

I. The Fishbowl Session

The Conference participants were divided into two groups. Group One, the inside group, sat in a circle. Group Two, the outside group, formed a circle around Group One. Group One was asked a question like, "What did you learn about health education that you didn't know before?" They were given a five minute time limit to discuss what they had learned. After the five-minute discussion the outside group, Group Two, was given two minutes to judge Group One's performance according to the criteria: Did Group One accomplish its task? Did the members work together? Did everyone contribute? At the end of the first sequence the two groups changed places and

the same question was asked. After each group had discussed the question inside the fishbowl, a new question was asked for another five-minute discussion. The session was recorded on tape.

The responses to the question, "What did you learn about health education that you didn't know before?" were:

1. Many of us overlook some problems that people have when we look from a curative point of view. (We) can combat sickness by teaching people health education.
2. Sunny (Fong) explained methods of introducing health education that are more subtle.
3. Dahomey has all workers informed that health education is part of their job. (Editorial comment: We wish that this were so, but unfortunately, it isn't.)
4. You don't have to stay in the health department to start your health education.
5. What I have learned is how to introduce health education into the schools.
6. I've learned new approaches to health education, like using different personnel, approaching different ministries and organizations, and incorporating new concepts of teaching health.
7. For Lesotho I think I accomplished how to use two concepts--how the health education team works and how it should work with the MCH team.
8. Some of the concepts used in this training are exactly like health education.

The responses to the question, "What did you learn about preventive medicine that you didn't know before?" were:

1. It is the BCG vaccination that leads to protection against tuberculosis.
2. BCG vaccination by scarification is worthless. It is only effective if given by intradermal injection.
3. I have learned the chemoprophylaxis for malaria. Dr. Bidwell said that it is appropriate to (use) it on our children from the ages of three months to three years. Up until now it has been done in their very first days of life.

The responses to the question, "What did you learn about teamwork that you didn't know before?" were:

1. (I) became aware of the different ways people can approach a problem and still make great contributions.
2. We have common problems even though at first glance they may appear different. In fact, there is this meeting that has allowed us to put together our difficulties (and to) overcome them by helping each other.
3. (I) learned a few English words, different methods of how to work, and also understand much better the project within which we have to accomplish teamwork instead of doing it individually.
4. One thing I learned in the situation was the exercise we had of perceptions of each other's role. Although it was an exercise, it was very good for the four of us in Dahomey to have this--that our perceptions aren't so different and our ideas are pretty much the same.
5. I learned how to come together and form a team--to bring them together to achieve their goals.

Other unrelated responses were as follows:

1. What struck me is how much the Conference has touched many of our functions.
2. I feel the Conference was a success and should be repeated more often, and next time it should not be in Dahomey.

II. Feedback Exercise

The purpose of this part of the evaluation was to find out what was wrong with the Conference. To answer this question two lines of inquiry were developed. The first was, "What was there in this Conference that shouldn't be included in future conferences?" The second was, "What did this Conference fail to provide?"

The participants were divided into groups of three. The task of each group was to develop responses to these two lines of inquiry. In each group one member took notes while the other two discussed their ideas on one of the questions. After a five-minute time period the note-taker

changed places with one of the discussants. The discussion of each question was divided into three five-minute periods so that each member could become a note-taker while the other two discussed.

In answering the line of inquiry, "What did the Conference fail to provide?", four major categories were mentioned. These were counterpart-related issues, health surveys, audio-visual aids, and program goals and evaluation.

Counterpart-related issues were mentioned seven times as a failure of the Conference. The comments are listed below:

1. I was disappointed that the session on business excluding the counterparts was of minimal value.
2. Not much information on school--kind of ultimate formal training of the counterparts.
3. We should take input from the counterparts as well as the technicians.
4. References were made to content but not to method. We have not tested to see if the counterparts understood the idea of process: "How do you do it?", not "What do you do?".
5. The program was not followed; especially the counterpart relations part. We did not get to this one.
6. There has been a meeting among Americans where specific discussions took place. This meeting might have been open to us.
7. Counterparts need to understand well the budget in order to know where we are heading.

Program goals and evaluation were mentioned six times as a failure of the Conference. Below are listed the comments of the participants:

1. Not enough discussion about evaluation.
2. We expected a description of the organization of the University of California by the people of Santa Cruz.

3. As the project is only at its beginning, I think that it is too early to take any optimistic or pessimistic stand on its success. It would be better if we wait for Phase II, especially if we want to use statistics.
4. Not much information on program planning. No information as to how the present Conference was organized to enable us to use the same techniques in the future.
5. There is no certainty that the process of evaluation was understood.
6. Information about what any of the team are doing about rewriting objectives. Project (written form) is very technical. Objectives should emanate from the field.

Audio-visual aids were mentioned five times. The comments are listed below:

1. Technical advice on the use of audio-visual aids--why was this topic scratched?
2. No technical advice on audio-visual aids; Sunny didn't have a chance to conduct a session on this.
3. This topic was not discussed. I was interested in information in this area on techniques, success and failure of approaches from our health education team, who have some experiences in Africa. I was disappointed because the topic was not discussed.
4. I was disappointed in whatever discussion there was on visual aids because I had hoped to get more practical ideas on the subject.
5. Audio-visual aids in health education--not discussed. So it is difficult to say whether or not it is an interesting subject.

NOTE: The planned workshop on visual aids had to be cancelled when unanticipated program needs of the Lesotho team developed which made it impossible for Mr. Fong to be free to conduct the session.

Health surveys were mentioned three times as a Conference failure.

The comments were:

1. I think that there is still a misunderstanding on the use of a health survey and I'm feeling that they aren't complete.

2. This topic was discussed in a workshop and the report of the workshop was not given following the workshop because of lack of time. We will receive the report in the Conference summary. However, I would have liked to have heard the discussion so I could have asked questions of the people who had done a survey, because we will be doing data collection in our pilot area.
3. I was disappointed in the way the workshop on health surveys was done; I had anticipated participation from the group. This was not so.

Other topics mentioned as causing dissatisfaction with the Conference were as follows:

1. Santa Cruz business meeting--we took a long time to get the agenda and this caused us to lose the time and interest in the discussions. Although the facilitator's idea was a good one, he blew it with all of the confusion of his recording. We still need to deal with that agenda.
2. The business meeting of the University staff was a disappointment. Although we could see the point of the group exercises, they were perhaps inappropriate, because we lost all of our meeting time, in an already crowded schedule, just in developing an agenda. We, therefore, neither dealt with the problems, nor were we able to hold out much hope of being able to do so during the Conference. This had three effects:
 - a. The exclusion of the counterparts from a strictly University business meeting had been a calculated gamble. The worthlessness of the meeting made the gamble not worth the risk. We lost . . . in terms of counterpart relationships.
 - b. It left the technicians with an unresolved frustration which affected their participation in the rest of the Conference. They were distracted by their own, unresolved problems.
 - c. The failure to accomplish much in an entire afternoon contributed to the necessity of telescoping other portions of the Conference, thus aggravating the complaint that other topics had to be left out, and that there was too much scheduled for too little time.
3. We discussed problems but we did not get a response or an answer to the problems--how to solve them. This pertains also to the resistance discussion.

4. I would have liked to have had more discussion on teaching strategies and methods in the African setting.
5. The amount of time consumed by translation was not considered in either the agenda, or by people with prepared presentations, which frequently took twice as long as the time allowed, thereby complicating our already too-full agenda.
6. The use of a facilitator and of group techniques considerably changes the way in which a seminar must be conducted. This should have been included in the planning for the Conference in order to avoid being trapped by a preplanned and fixed agenda. The flexibility required by the group techniques was not able to meet the expectations raised by the printed agenda.

The second part of the feedback exercise session had to do with what topics there were in this Conference which should not be included in future Conferences. Each group of three participants discussed this question in three five-minute time periods, each member serving once as recorder.

The results of this part clearly indicate that the Conference schedule had too many subjects and too little time in which to discuss them. Listed below are the participants' comments:

1. I feel that time constraints had a real effect on the Conference. Maybe fewer subjects--but the time period in days should not be longer. To break the day in the middle for rest was good.
2. Too many subjects were scheduled for the short period of time.
3. Time limited and program congested.
4. Conference did not provide time to review the Conference--a recapitulation of what went on. Team review of conference.
5. Pushed--Conference had too many subjects.
6. Did not have more time to meet with Tom Park to discuss specific administrative problems.

The rest of the responses to the question, "What was there in this Conference that I would not include in any future Conferences?", do not fall into any particular category. Below are a miscellaneous listing of the participants comments:

1. Visit to PMI--because I could not understand the teachings the mother were given, the questions they asked, and I did not like the set-up in the delivery room. Why encourage people if they deliver outside of the hospital.
2. The discussion on the organization of the ministry--because in our country higher level personnel are inclined to make decisions without consulting others.
3. The two movies shown Monday night must be the bomb of the Conference from my perspective.
4. Resistance--eventually this discussion seemed to lose its value because although each of us got a chance to add some resistance factor to the list and could see our problems, we never dealt with the problems except at a very superficial level. I left the discussion feeling very dissatisfied.
5. Content activities of rural MCH--major reason for my discontent is that I'm totally out of contact with the rural population being based in the city with no activities that even give me a glimpse of rural life. Thus, not seeing any relevance to these subjects to my work, I could not fully participate.
6. Content activities--not a lively subject for discussion because it is more narrative and does not give time for people to say much.
7. Team building--not much of a subject for discussion as the importance of team building is known to everyone.
8. Breaking into institutions--I had hoped for more of a problem solving approach than a this-was-my-experience approach.
9. I did not need nutrition education at the ministry level because it was already included in health education.
10. I would have liked to participate in all of the workshops to hear different ideas from all persons. A report from all workshops should have been discussed before the Conference ended.

11. More time in next conference. "How do you teach others?" needs to be stressed.

III. Session on "What I Liked Best"

The third and final session of evaluation was the simplest. Each participant was to put down what he liked best about the Conference, whether it was its organization, its content, its process, its composition, or whatever.

Most of the participants' choices fell into four major categories: the team concept; the organization of the conference; health education; and program goals and evaluation. Of the four, the team concept was mentioned the most often as what was liked best. It was mentioned eleven times, followed by Conference organization ten times, health education ten times, and program goals and evaluation five times. The remainder of the participants' choices are grouped by subject following the four major categories.

A. Team Concept or Team Building

1. Roles and understanding our roles. You can only function on a team if everyone understands his or her role and how that fits into a team, and I think this was accomplished.

2. Supervision. I chose this area for in Dahomey we need supervision on health, as anyone works like he wants. We have to learn how to supervise; must get a dynamic supervisor who will be able to organize work for the happiness of all.

3. Team organization. Within the area of preventive medicine the work has to be done by teams in order to be well planned and successful.

4. Involves different people with different ideas working together to solve problems.

5. The concept and the need to stress that we must work together as a team. We believe that material at every conference must be built around this concept.

6. To work in a team--had a good experience.

7. Participation was at a personally meaningful level, as well as professionally. This served to leave (or introduce) a new way for myself and my team to have open communications. We got off the immediate subject and found we could deal with areas of working relationships that had not been approached before.

8. The concept of a team in the health field is usually discussed and supported verbally, but is seldom practiced in a meaningful way. The practical exercise the groups performed was helpful because it not only permitted observable behavior but an opportunity was provided to give the participants a chance to discuss what they were feeling while going through the experience.

9. The exercise in team building where we were to put a house together taught how to restrain oneself from jumping in to help before help is asked for.

10. The topic was, I think, quite important because I could sense the equal input and interest of each of our country's team members. Up to now I never thought my counterpart understood what the project was and what we were trying to accomplish; nor that I adequately explained the project to her. I also felt some separation from other technicians in the country. I think the session on team building closed some of the gaps.

11. For the first time there was a sense of cohesion and common purpose in the group.

B. The Organization of the Conference or Process

1. Inclusion of the counterparts.
2. Ideas came in from the field--should have had input from the counterparts.
3. Development of the topics by the participants.
4. The possibility of having a facilitator for group process not just MCH content.
5. The opportunity to meet and talk to each of our counterparts provided me with as much information as did the formal sessions. The coming together was of immense value.
6. People have been able to express their feelings about how much they benefitted from the Conference and to see how they stand with their tasks.
7. Discussions between participants on any given subject.
8. Comparison of experiences between the three countries of the project.
9. Communications between groups--one word could mean altogether a different thing to the other. The opportunity to learn the culture and customs of the host country counterparts is essential for their contribution in a deeper understanding of the culture of the respective countries.
10. Learning about beliefs, taboos, faults of other countries.

C. Health Education

1. Because it can be incorporated into any subject or activity; can be done anywhere, anytime, and can be done cheaply.
2. Was not aware before of the many aspects of our project that are touched by health education.

3. In Dahomey the issue of information and education to the masses is most important. It is critical to our achievement of the goals of this project. Must incorporate it into the schools as well as the government level.

4. Health education fits into every aspect of the project.

5. Before we came I did not really see how health education could be incorporated into an MCH program, but after discussions on how the projects fit into the respective countries, I feel that an MCH program cannot succeed without health education because it is vital.

6. Sharing experiences of organizing health programs.

7. Organization at various levels, the presentations on health education were informative and gave me ideas and helped me to broaden my horizons. The sharing of ideas throughout the Conference was valuable to me.

8. Topic was interesting and important because it is an integral part of the program. Various techniques discussed were most helpful.

9. Subtle ways of introducing health teachings. Education at all levels of life.

10. Well presented by participants as it was able to point out how it should be done and taught at various levels. It points out how important it is to the project.

D. Program Goals and Evaluation

1. The session discussing the three phases of evaluation was helpful. I learned that the subject of evaluation of the project is still unresolved, although we made progress in this area.

2. Brought out the fact that UCSC is beginning to appreciate the difficulties that technicians are experiencing in the field.

3. Discussion of this topic helped to clarify the importance of evaluating what you are doing and why. The discussion of goals and objectives was educational, especially for The Gambia counterpart because writing objectives was the most difficult experience I had--in helping the faculty to understand how to write objectives so that they are measurable.

4. Without evaluation it is not possible to see the progression of a project or the regression of one's work. So an evaluation is necessary to know where one stands and take appropriate measures to carry on the project.

5. Without clearly knowing the goals and the best method to evaluate, one cannot plan a meaningful program.

The remaining, "What I liked best about the Conference" choices are as follows:

1. Nutrition Education

a. Knowing the high rate of Kwasiorkor cases caused by the absence of vitamins, (sic) I foresee that after education one should attack the problem of malnutrition which can be solved. For Dahomey has numerous nutritive products that are attainable.

b. Primary problem in Lesotho especially in preschool age at weaning period.

c. Clear that ignorance of better nutrition is the cause of many existing health problems in the three countries. Information gathering during the Conference discussions and especially in the workshops was excellent. All the steps we discussed about planning nutrition education at (1) Ministry, (2) institutional, and (3) rural level will help me make my work more effective.

2. Records and Referrals

a. The importance of filing systems in a country like ours is obvious. Even if it cannot be implanted on the government level (because of the financial requirement), this system might be experimental at our level.

b. Records and referrals is an area where I would like to enlarge my activities and, thus, I was interested in getting as many ideas and viewpoints as possible.

c. It is my daily work which must be improved, as many patients are lost if history and follow-up are not made.

3. Health Surveys

a. Health surveys are important as a first step. Entails a lot of research and training. Brings you closer to knowing more about the people, their ways of life, their standard of living.

b. Helps in planning because you will learn more of the resources and learn the customs and behavior of the community you are planning for.

c. Must, through a survey, know the community and existing resources.

4. Visit to the PMI and Centre Social

a. The best event of the Conference was the visit to the PMI. This visit provided me an opportunity to see what the health problems are here in Dahomey. It also provided me with a chance to witness the two "causeries" (health talks) that are a direct product of this project.

b. The treks (visits) to clinics were important because they gave you the inside view of what goes on in other countries.

c. To me this was the most effective because practically I was able to see where my failures are in someone who actually did the job,

i.e., organizing the groups for lessons, the techniques, set-up and demonstrations. I was also able to learn by some of the mistakes made by others.

5. Training Personnel for Rural Areas

a. Urban areas receive the majority of health personnel and it is only through training of rural personnel that we will reach all of the people. This was shown in presentations of Olive and Ts'idi. This Conference convinced me of the importance of rural training areas.

b. My interest in MCH content was because of the coverage of the area of training personnel for rural areas.

6. How Do You Organize Untrained Workers and Volunteers?

a. How do you motivate professionals, para-professionals? This subject interests me as the experience of homologues and technicians will be of use to me in the difficult task of motivating people in a rural community.

7. How Do You Organize a Village for Health Purposes?

a. Discussion on community development by Eliazar for reasons of content--he proposed many ways of working which broadened my ideas and helped me to get my head out of the institution and into the community.

8. Introducing Preventive Care Into a Curative Setting

a. This is one problem I am continually faced with and it was good to set down in concise terms what areas need the greatest change, especially in my own setting.

IV. Summary Comments

Since the feedback reflects the perceptions of the conferees, it is reported here in as pure a form as it could be. We attempted to edit as little as possible in order to retain the tone of the Conference.

Feedback cannot be evaluated as right or wrong, good or bad; it simply reflects the participants' view of events. It is another segment of information about the Conference.

We have attempted to retain the integrity of the responses so that the reader can assess from them how well the objectives of the Conference were communicated to the participants and how well it was received. The process is intended to be rational and logical, but not necessarily scientific. The information should be examined pragmatically so that planners can assess how to approach the next phase of program development.

Following the sessions on evaluation, all Conference participants, Dr. and Mme. Perrin, Dr. and Mme. Assani, Mr. and Dr. Lawson, Dr. and Mme. Rayo, Mr. Ouendo, Mr. Facia, and the Conference interpreters gathered for an early evening reception at the American Embassy in Cotonou. Ambassador and Mrs. Anderson hosted the reception, which was a very interesting and congenial event. Later that evening Dr. and Mrs. Walter hosted a final project dinner at the Hotel de la Plage.

This dinner formally brought the First Field Conference to a close. A word of appreciation should be extended to the Dahomean participants and the U.S. staff in Dahomey for their cordiality in hosting the Conference and to the interpreters, who did their vitally important work so well. A special thanks goes to Dr. and Mrs. Walter for entertaining all the participants at luncheons given during the Conference, to Tom and Kitty Park for a delicious opening-day dinner, to Susan Nalder, Judy Migdal, Lucie Ouendo, and Constance Facia for an "authentic" Dahomean dinner, and to Ambassador and Mrs. Anderson for a most enjoyable reception.

DAHOMY CONFERENCE

From 29 November to 5 December 1972

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Address of Dr. E. S. W. Bidwell, Resident Representative of the World Health Organization in Dahomey, to the Seminar Organized by the Project of the University of California (Maternal and Child Health Project in The Gambia, Dahomey, and Lesotho):

Your Excellency, Mr. Ambassador, Director General of Public Health, Director of Social Affaires, Chief of the Project of the University of California, Ladies, and Gentlemen:

I must first of all thank the organizers of this seminar for having invited me to attend and to say a few words to you.

I. The Decentralization of the World Health Organization

I have been asked to begin by reviewing the organization of WHO. As you well know, WHO is one of the specialized organizations of the United Nations, which has its headquarters in Geneva. It is an organization which has absolutely nothing to do with politics. It is dedicated exclusively to the improvement of the state of health of the entire world.

One unique thing about WHO is its complete decentralization, which has as its principal objective the improvement of the services which it renders to its member states. For this reason, we have six regional offices; one at Copenhagen, for Europe; one at Washington for the Americas and the Antilles; one in Alexandria for Africa north of the Sahara and the Middle East; one at Congo Brazzaville for Africa south of the Sahara; one at New Delhi for South East Asia; and one at Manila for the Western Pacific. This decentralization is indispensable if one takes into account that the health problems and priorities are different from one region to another. The European regional office, for example, is concerned above all with the problems of cardiovascular diseases, cancer, air pollution, and drug addiction. The priorities of the African regional office are the training of health personnel, the development of basic health services, the fight against communicable diseases, and environmental sanitation.

In brief, I can say in a general manner, that our headquarters in Geneva is responsible for making the grand scheme of our health policies, but our regional offices have the task of applying them, taking into account the situation in each region.

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II. Maternal and Child Health Activities

Since your daily activities are devoted above all to MCH, I will limit most of my remarks to that subject.

MCH services are exceedingly necessary, for it is there that the first step in the socio-economic development of our nations must be made. As Dr. Brock Chisholm, first Director General of the World Health Organization has said, "The largest, most important, and most precious task in the world is to raise children." This declaration takes on a particular meaning in the African region, where mothers and children constitute around 65% of the total population. If children from 0 to 15 years represent 30 to 50% of the population, those of 0 to 5 years constitute around . Maternal and infant mortality rates vary from one country to another . are relatively high everywhere. The infant death rate (0-1 year) is between 150 and 300 per 1000. The mortality rate of children from 1 to 5 years is from 40 to 50 times higher than in the highly industrialized countries. Figures taken from many field surveys indicate that 30 to 40% of live-born children die before having attained their fifth year. Low birth weight is frequent among African babies, and many women receive no medical care during their pregnancy or at the time of their delivery.

Even though there aren't accurate demographic statistics for our Region, early field surveys showed that 30 to 50% of children die before adolescence. The period of weaning is particularly dangerous because of the risks to the infant caused by the mother's lack of knowledge concerning nutrition. The principal illnesses which affect the young children by order of importance are:

- Acute respiratory infections
- Gastrointestinal infections
- Protein-calorie malnutrition
- Infectious diseases of childhood, such as measles and whooping cough and their complications.
- Malaria
- Tetanus
- Anemia
- Tuberculosis
- Cerebrospinal meningitis

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The childhood mortality due to malaria alone is 6-7%, of whom more than 90% are children under three years of age.

Between 40 and 50% of neonatal mortality is due to tetanus. In addition, approximately 6% of mortality of children from 0 to 5 years is due to tetanus.

The most frequent causes of anemia, which account for 5% of the deaths of preschool age children, are the following: Bacterial infections, malaria, ankylostomiasis, and dietary deficiencies.

The supervision and control of tuberculosis is very poorly organized in many countries in the Region. Neonatal tuberculosis is very frequent, and among school age children, tuberculosis is the contagious disease most frequently causing death.

Almost all of these diseases could be prevented, whether by health education, immunization, or other means. Therefore, we must define the most important tasks to which our MCH efforts should be directed. In fact, what is an MCH center? To be sure, I would say right off that an MCH center is not a dispensary, not a pediatric service, but simply a preventive medicine unit which addresses itself first of all to well children, and whose mission is to preserve their health without waiting till they fall ill. Now, I'm sure you will agree with me that what exists in many African countries at the moment is exactly the opposite. It goes without saying that in our region, MCH activities cannot be devoted exclusively to preventive medicine, but "must be directed towards the care of the sick (mothers and children), for the care of sick children constitutes the basic motivation in auxiliary health training". Even taking into consideration that fact, I would say, anyhow, that you ought to devote at least half your time to preventive goals. And that, for reasons scientific as well as economic, for our countries are poor, and consequently, all sorts of waste should be avoided. Take, for example, tuberculosis: One can prevent this illness in a child by simply giving him an intradermic vaccination of BCG, using a vaccine that has been carefully preserved. A child thus vaccinated has an allergy to tuberculosis (or, if you wish, an immunity) of the order of 80%, which lasts at least 15 years--all that for the price of 10¢. Contrast this to the \$200 cost of effectively treating a child with tuberculosis.

- 4 -

MCH activities are equally directed toward pregnant women, maternity and post partum care, and nursing mothers. Among the problems related to pregnancy, the delivery, post partum care, infections, nutritional problems, hemorrhage, toxemia of pregnancy and obstetrical dystocias come to mind.

The period of pregnancy is the most opportune time for the teaching of the future mother. She ought to be taught the importance of the following points:

- The necessity of adequate nutrition.

- The advantages of spacing pregnancies to assure her own best health and that of the children.

- The advantages of adequate prenatal care.

It goes without saying that one ought also to:

- Discover and provide early treatment for complications.

- Prevent and treat anemia.

- Prevent communicable diseases, particularly malaria.

One very important thing in the African region is that the percentage of women who deliver in hospitals is very low. Because of this fact, the traditional birth attendants represent an extremely important group. Should one recognize them? That is a policy to be clarified by each government.

In summary, then, MCH activities ought to include:

- Emergency care for most common illnesses.

- Transport for evacuation of the seriously ill to regional centers.

- Care and supervision of pregnancy.

- Maternity care.

- Post partum care.

- Health education centered on: Nutrition, Personal Hygiene, Immunization against communicable diseases.

- Supervision of children up to five years of age.

- Immunization against certain communicable diseases.

- In agreement with the health policies of the country:

 - Distribution of medications for chemoprophylaxis.

 - Distribution of supplementary food supplies.

 - Education and counsel regarding voluntary procreation.

- Organization of a medical record system.

- Home visits when the need arises.

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With regard to immunizations, the program ought to include vaccination with BCG at birth, followed by vaccination against diphtheria, whooping cough, tetanus, and poliomyelitis, and finally, smallpox. Systematic vaccination against measles is probably not feasible at the present time in most countries because of the economic factors.

Chemoprophylaxis against malaria is advised beginning at three months of age and continuing at least until three years of age. Malaria is almost unknown in infants under three months because nursing, which is almost universal in the African region, gives the infant the necessary protection.

FAMILY PLANNING IN AFRICA

Family planning is not at all a new idea in the mind of African society, for polygamy and separation of the mother from the household until three months past weaning have helped space births. Nevertheless, we must recognize that the new techniques of family planning are much more certain, and permit couples to live together all the time without the constant fear of becoming pregnant.

Still, childbearing by choice can never justify itself in the African region for strictly demographic reasons, for the population of Africa south of the Sahara is only 260 million, which equals only half the population of India.

The World Assembly of Health and the Executive Council of WHO recognize family planning as an important factor in the health services. They also recognize that it is up to the individual governments to decide the priority that they will give to family planning activities.

A seminar on MCH activities organized by the African Regional Office of WHO in November, 1969, in which representatives of 26 of the 35 member states participated, has considered that family planning is necessary because it:

- Permits more adequate care and nutrition of children.
- Helps to reduce maternal mortality.
- Improves the health and nutritional status of the mother.
- Avoids criminal abortion amongst the young women.

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At this same seminar, and at the one organized by IPPF in Cotonou in November, 1971, all the participants placed emphasis on the fact that the relief of infertility (an enormous problem in Gabon and in the Central African Republic, for example) is an integral part of a family planning program. This is why one always says that the representatives of the donor countries should take into account in their activities the socio-cultural factors which exist in the countries where they are working.

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by Margaret Mokhothu

Part 1

A GENERAL INFORMATION ABOUT THE PEOPLE OF LESOTHO, THE CLIMATE AND
AVAILABLE FOODS.

1. The People of Lesotho

All the tribes that reside in Lesotho have their respective cultural patterns, behavior, etc. but they have the advantage of speaking the same language and are called by one common name, i.e. "BASOTHO."

There is, however, an outstanding tribe in the extreme Southern border of the country called the "Thembus" , their language is Thembu descending from the Xhosa origin, a language spoken by the Xhosas which is one of the tribes found in the Republic of South Africa on the Southern most district of Lesotho.

Geographically Lesotho is a mountainous country wholly surrounded by the Republic of South Africa, i.e. to the North and West lies the province of the Orange Free State, to the South and Southeast, the Cape province and to the East, the province of Natal. The total area of Lesotho is approximately 11,716 square miles, and a total population of one million.

2. The Climate

Rainfall and Temperature .

The climate in Lesotho is mostly sub-humid and varies from semi-arid to humid with warm summers and cold winters.

(a) Rainfall: The average rainfall in the Country is about 29". It varies from less than 20" in the Orange River Valley to 25"-33" in the low lands, to over 40" in the mountains. Most of the rainfall is between October and April and very little rain in the winter(from May to September).

(b) Snow: May occur at anytime of the year in the mountains and some may fall in the lowlands during winter months, although for short periods.

The Annual melt is of great importance in adding to the water supplied to the major rivers of the country.

(c) Temperature: Mean temperature over Lesotho varies according to altitude and probably decreases by 5 F, for each 1000 feet increase in height.

The mean temperature in the lowlands during winter is about 45 F with average and maxima and minima of about 60 F and 30 F respectively. Extreme temperature as high as 98 F and as low as 1, F have been recorded.

5. Crop Production for 1971. Wheat , maize and peas grow well throughout the country except in the mountain areas where they are grown on the mountain slopes or river valleys as a result fewer crops thrive well in the highlands.

The following figures are obtained from the Bureau of Statistics Report of 1971:

| | |
|---------|-------------------------|
| Maize | --755186 |
| Sorghum | --627181 |
| Wheat | --219241 (Summer wheat) |
| | 419026 (Winter wheat) |
| Beans | --40476 |
| Peas | --31022 (Summer peas) |
| | 18159 (Winter peas) |

N.B: The above figures are bags of grain each weighing 200 lbs.

PART IIA GLIMPSE INTO THE NUTRITIONAL DEFICIENCY DISEASES,
THEIR CAUSES AND HOW THEY AFFECT THE PEOPLE

You already know how many people there are in Lesotho, how their climate is and how it influences the type of food they eat.

It is quite evident that the climate is healthy, the food good, but we still have a number of nutritional deficiency diseases, and other health problems in the country.

Let me first mention some of the deficiency diseases prevalent in Lesotho before we go on to what their causes are.

1. Nutritional deficiency diseases:

1. Marasmus
2. Kwashiorkor
3. Pellagra
4. Rickets
5. Endemic Goitre
6. Sub-nutrition
7. Nutritional anemias
8. Scurvy
9. others

2. Causes:

- Ignorance:
- 1) Some people can still not associate food with illness.
 - 2) Mothers still do not understand the functions of food.
 - 3) Food preparation is hopeless because mothers still do not know the value of food.

Poor Farming Practices:

- (a) Most Basotho are peasant farmers who live on subsistence economy. Farming has been carried on for centuries and poor method have perpetuated through

ages. For instance, one piece of land is kept for one crop every year because our grandparents have been doing so without supplementing the plant food with manure or fertilizers. Nevertheless, this is beginning to change.

(b) Urbanization is a hidden cause of malnutrition in Lesotho. Parents flock to the towns in search of better jobs unaware that in towns they pay for food, shelter, transport and clothing. They are also not aware that:

- 1) Their hard-earned money seldom reaches home.
- 2) Children are usually left to fend for themselves.
- 3) Women and older children are left to cultivate the lands which they do with no success at all.
- 4) Others.

(c) Farmers will not believe that the soil, like people, needs to be fed and nourished in order to be able to give a better yield.

(d) Most of the people in Lesotho will sell all the good quality products i.e. beans and peas, for better money and buy other cheaper valueless food items.

Crop Damage: Agriculture Census of 1971 reveals that 15.7% of our crops are damaged every year by:

- 1) birds
- 2) insects
- 3) weeds
- 4) hail
- 5) rodents
- 6) soil erosion
- 7) others

Draught: We sometimes experience terrible draughts where crops wither and die. Animals die, too, in great numbers due to lack of water and grass. This again is a common cause of malnutrition particularly because 87.4% of the people depend on farming.

N.B.: (37.4% = Population Census Report 1966 Vol.1, page 95, Paragraph 13)

CULTURAL PATTERNS, CUSTOMS AND TABOOS

I have already mentioned that the different tribes in Lesotho have their respective cultural patterns, behaviors, etc.

Some of these are worth mentioning as their practice has caused malnutrition, for example:

- 1) Traditionally it is believed that the main cause of kwashiorkor is sexual intercourse before weaning the child off the breast or if a child who is already weaned is given milk of a cow that had already taken a bull.
- 2) Pregnant women are not supposed to eat eggs and are to live mainly on liquid and semi-solid diet, this is to make sure that the baby does not grow big to enable free normal delivery.
- 3) It is popularly believed that whatever illness the mother has, necessarily will affect the child through the breast and as a result the child should at once be removed from the breast and in most cases has nothing left to feed on.
- 4) Young unmarried girls are not allowed to eat eggs or the insides of animals because these are believed to accelerate their sexual instinct before marriage.
- 5) Unmarried girls are not allowed to eat any meat that has crossed a river.
- 6) All Thembu males and females, both children and adults do not eat eggs at all.
- 7) Father eats the best part of the meal in the family.

N.B.: These are some of the beliefs that exist in the country and are common causes of malnutrition and other health problems.

Poverty:

Poor people cannot afford to buy good food, if they do have some money it will only buy the cheapest food and usually these will be the predominantly carbohydrate food which are cheaper in Lesotho.

In Lesotho poor people are never healthy to do farm work, if they have to do it. It is never well done, as a result the yield is never good.

In my experience these are the families with more children to bring up and these are the people who fill up the hospital beds. They have so many problems that a worker like myself in a country just starting to develop and with no facili-

ties or resources finds herself crying over a problem that she has no where else to refer to for a better solution.

FUNDAMENTAL CAUSES OF MALNUTRITION AMONGST INFANT AND CHILD POPULATION

1. Among the infants
 - a. sudden weaning
 - b. lack of a well-balanced diet
 - c. gastro-enteritis
diarrhea
whooping cough
measles
2. Among the expectant mothers:
 - a. inadequate diet
 - b. closely spaced deliveries
 - c. others
3. Among the school children
 - a. inadequate diet
 - b. traveling long distances to and from school
 - c. lack of knowledge of the right kind of food
4. Among the general population
 - a. low energy output
 - b. low earning capability
 - c. low standard of education
 - d. low body resistance
 - e. mental distress
 - f. low learning capacity

Part IIIPRACTICAL WAYS IN TEACHING NUTRITION

May I repeat that we are very lucky in that we speak the same language, as a result we communicate much easier.

The Thembus speak and understand Sesotho, just as some of us speak and understand Thembu. There are, of course, some Thembus who will not speak Sesotho but will understand and follow all the same. Therefore, it is clear that each party sticks to its own language and communicates that way. Sesotho is an easy to follow language for those who speak it, because you still find people who have never been to school being able to read and write simple Sesotho words.

In cases where one does not read and write Sesotho at all, it is not difficult to communicate with, for as long as there are school children in the compound where she lives, any written article that contains a message to be read or a handout the people in the compound or the school children often read and pass out the information. There are, however, very few people who cannot completely read and write, there are, however, many ways of reaching them.

I shall give a very short account of how I communicate with the people in my field.

1. Film Shows:

It is not everyone who can follow a film and be able to say clearly what it really was about. I have myself, had difficulty before in following a film even if it is a sound movie, because everything goes on so fast. We have shown many motion pictures in our clinic and we wanted to find out their impact on the mothers, as a result we drew up a questionnaire (January, 1972) and asked a few simple questions like:

- 1) how many homes were shown on the film?
- 2) which one was a happy home?
- 3) what made that home to be such a happy home?

Of the 168 mothers, 141 wrote, 5 were not feeling well, 8 could not write at all and 16 had trouble with their babies or maybe they did not want to cooperate.

Now, of the 141 mothers who wrote most of them had the right answers, and some were somewhat confused.

With the result of the assessment we decided to continue to alternate health talks with a film show in order to:

- a) break the monotony
- b) to stimulate interest

And the only successful way to really get the message across would be to:

- a) deliver the talk first (subject)
- b) show the film
- c) ask questions regarding the film
- d) answer questions, if any

In this way the teaching becomes really effective.

2. RADIO BROADCAST

We speak the same language, eat the same foods, enjoy the same climate and we are all in danger when diseases creep in or when there are outbreaks. We travel freely from one point to the other using the same transportation, as a result we have to take precautionary measures that each and every mosotho in Lesotho is well informed about all the diseases that are prevalent in Lesotho, so that:

- 1) one can identify diseases and seek help before it is too late
- 2) diseases that can be prevented should be prevented before setting in.
- 3) so that we may be able to control its spread.

The fact is, we do not cover as many people in our clinics, schools, and villages during our daily activities as educators, therefore a radio being a mass media covers a better majority each day.

We have a 15 minute bi-weekly program which I think is effective as we are able to capture the interest of the people.

Our radio health talks are a success, this we have proven by:

- 1) picking up a by-gasser and interviewing him/her about what he feels about the health program.
- 2) letters coming in from the listeners.
- 3) an evaluation by way of questionnaires also proved how effective the broadcasts are.
- 4) 1972 has brought us another new discovery. Listeners wrote into Radio Lesotho requesting an increase of another 15 minutes. To us this is an achievement as we now have access to a larger audience than we have had in the past years.

Talking about the radio you might be interested to know that most of our people own radios.

The Government purchased cheap 2 and 3 wave radios for farmers to be able to listen to their agricultural programs.

In 1969-1970 the Government again purchased a number of radio sets from South Africa, America, China and Japan and were sold to people at a throw-away price.

To add to this, our people especially in the rural areas like to come together for a chat particularly in the evenings, therefore those who do not own radios are always welcome to share with neighbors, friends and relatives.

5. HOME VISITS AND FOLLOW-UPS

As I have already mentioned, we have malnutrition which manifests itself in many different ways, and have different stages of severity depending on the:

- 1) cause
- 2) condition of the body
- 3) social status
- 4) others

All cases that I am made to follow-up or visit are those that cause concern because these are cases which will be admitted to the hospital, treated and discharged but will in a short time return with the same condition in a worse state.

Having managed to trace the family with difficulty as most cases do not like being visited at home, one is sure to find a number of problems confronting these families:

- 1) too many children all looking about the same age.
- 2) no ...

- 5) no food except maize meal and a few commodities rationed at the clinic (preschool child clinic)
- 4) usually the father has deserted
- 5) no clothing for the children
- 6) mother unemployed
- 7) all the little money she raises maybe by selling eggs or vegetables; pays school fees or enables her to take other smaller children to the clinic for the sole purpose of rationing some food items and not for seeking advice or help as a result never takes any notice of any advice given her by the clinic staff.
- 8) no vegetable garden
- 9) when one looks at the smaller children, one seldom spots a healthy looking child.

Only after such visits and a close assessment of the family can one really help and in most cases where close follow-ups were made the families improved in many ways and as a result most of them never return to the hospital, but make full use of the clinics and health centers.

4. PITSO

These are conducted in the villages where the chief is first consulted and a suitable place chosen by him.

Pitso's are mostly successful because one is able to lecture and apply all the group dynamics and is able to have open discussions, answers questions and in this way be able to assess the group on the spot.

5. PRACTICAL DEMONSTRATION

- 1) cookery
- 2) housewivery
- 3) budgeting
- 4) shopping spree

The first three always progresses very well and all the mothers show interest as they are always involved in the demonstration.

d) Shopping spree

Observations: I have observed that mothers who cannot read when they first enter a shop to buy a baby formula the first thing they look for is the container:

1. colourful
2. inexpensive
3. picture of a healthy looking baby

During the shopping spree we selected ten mothers to take them to a shop, and with the permission of the shop management they are allowed to choose the formula they like just as if they were doing a normal routine.

After which we note down each formula chosen and return to the Clinic and before we could together analyze our findings we have one mother show us how she prepares her own baby formula at home and should tell others how and when she feeds her baby.

The lecture for that day will be determined by the mothers' answers.

- 1) if she did all the right things throughout the demonstration all I usually do is a short summary.
- 2) if not, I start the demonstration step by step
- 3) question time

THE GAMBIA: SETTING OF THE PROJECT

The Gambia consists of a narrow strip of land (about 10 kilometers in depth) on both sides of the River Gambia, running inland for a distance of about 320 kilometers in a straight line from the West Coast of Africa.

The population at the time of the 1963 census was given as 515,486, most of whom are engaged in agriculture, the chief product being groundnuts. The only available vital statistics are for the city of Bathurst, the capital, situated on an island at the mouth of the river, with a population of about 26,000.

Our MCH Project is designed to work with the existing health care system. One UCSC technician is assigned to the Health Center in Mansa Konko, our pilot area with the Nursing Sister in charge of the Health Center serving as her counterpart. The UCSC Technician and her counterpart are to (1) Develop a program for retraining of the personnel in the Lower River Division. (2) Assist in training village volunteer women to teach nutrition and infant and child care, (3) Develop methods of identifying high risk mothers and counseling them about child spacing, (4) Develop the Health Center at Mansa Konko and the surrounding dispensaries to serve as the center for continuing education for health workers outside of the Bathurst area and also for the training of student nurses.

This part of the project has been delayed because there is no permanent housing for the UCSC Technician, in the pilot area which is 112 miles from the city of Bathurst.

The second UCSC Technician is assigned to the Ministry of Health and is supposed to work with the Matron of the Country as a counterpart. Our main charges are to: (1) Develop an overall plan for the re-training of all existing health personnel, to include health teaching and child spacing methods for high risk mothers, (2) Develop a method of regular supervision of the 11 health centers and two hospitals to assure that health teaching is being carried out, (3) Develop a method of eval-

uation of services being given in the Health Centers. This component is important and necessary to give central support and a supervisory program for the pilot area. Unfortunately this component has not been started because a counterpart has not been appointed for the Bathurst Technician. I have related mostly to the Chief Medical Officer who is a physician.

The structure of our Ministry of Health is as follows:

The Minister of Health is appointed by the President. He may or may not be a Member of Parliament. The Minister is assisted by a Permanent Secretary. This position is next to the Minister I have been told, because it gives stability to the Ministry. The Ministers change more frequently than Permanent Secretaries. The Chief Medical Officer is the head of the Medical and Health Department, which includes the hospitals, health centers, dispensaries, sub-dispensaries and the Health Department. The Chief Medical Officer relates both to the Permanent Secretary and the Minister of Health as the Health Advisor to the Government of the Gambia. All nursing matters which require administrative policy decision is presented to the appropriate body by the Chief Medical Officer. The position of the Medical Officer of Health is next to or assistant to the Chief Medical Officer. The person in this position has been vacant for about five or six months. We have a physician whose title is Medical Supervisor of Child Health, both in the Royal Victoria Hospital and the outlying health Centers. There is a Medical Superintendent in charge of the Royal Victoria Hospital and the Matron is also based at the same hospital. One doctor, a Nursing Sister and supportive staff are assigned to Bansang, the other hospital in the country. BATHURST TO BANSANG 207 MILES. BANSANG TO BASSE 40 MILES.

The Health Centers are manned by a Nursing Sister with a supportive staff. Usually one or two midwives, a dresser dispenser and auxiliary nurses depending on the available staff and the size of the Health Center.

HEALTH NEEDS

The health needs in The Gambia one can assume are similar to the health needs in other developing countries where data has been collected to validate clinical observations and treatment. We have very limited statistics on health problems in The Gambia. One source gives the 1961 statistics for the city of Bathurst only, with a population of 26,000. There were 1,146 live births, 45.2 per 1,000 population, and 51 still births (44.5 per 1,000 live births). The infant mortality rate was 64.6 (74 infant deaths). From observations in the Health Centers and the Royal Victoria Hospital, nutritional problems such as kwashiorkor and Marasmus are apparent. But more so in the rural areas. Cases of diarrhea and an increase in malaria among children during the rainy season. We have had some cases of measles reported this year, the exact number of cases are not on record as of to date. Eye infections in both children and adults, localized skin infections mostly in children, few cases of neonatal tetanus and cases of tuberculosis exist in sporadic numbers.

Since many of the conditions I have listed are preventable through health education, improved sanitation, better nutrition through education and increased production and health supervision, it is believed that our MCH Project will contribute to meeting some of the health needs of a selected population.

HOW WE INTEND TO ACHIEVE THE TEACHING OF HEALTH IN LESOTHO SCHOOLSON EIGHT MONTH PROGRESS REVIEW, MARCH - OCTOBER, 1972.

- I. Introduction:
- A. Objectives of the Lesotho Government: The Lesotho First five-Year Development Plan - 1970 to 1975:
1. Ministry of Health:
 - a) "To improve the nutritional and health conditions of the population... also a pre-requisite for economic development...."
 - b) "To improve the quality of medical services and expand them to a larger section of the population and in particular to rural areas."
 - c) "To (give) consideration to preventive medicine which will be developed substantially over the five-year period."
 2. Ministry of Education:
 - a) "To determine the government's policy on primary and secondary education... the educational system should be geared towards improving both the quality and quantity...."
 - b) "To place emphasis on the maximum exploitation...of resources already devoted to education...."
 - c) "To improve the training of teachers and provision of basic equipment for schools."
- B. One of the objectives of the UCSC-MCH/CS Project is "...the UCSC health educator and his counterpart(s) will develop and test methods of health education...for all of Lesotho...."
- II. National School Health Committee (NSHC)
- A. Objectives:
1. To promote school health programs in health education, school health services and healthful school environment.
 2. To advise the Ministry of Education on health curriculum and health services in the primary and secondary schools.
 3. To co-operate and improve the working relationship with all other agencies which share services related with school functions.
- B. Memberships consist of representations from the government and community sectors.
- C. The present position of NSHC, as stated in Mr. P.M.J. Rasekoai's October 19th letter to NSHC, is:
- "We firmly believe that our Health Education cannot make any impact on the nation if it is not ingrained in the minds of the students who are the future citizens of Lesotho."

III. Approaches:

A. Thaba-ndipa Technical Agriculture Training Center, Maseru.

1. This school is a non-educational two-year vocational training institution for those who have completed at least standard VII. The age ranges from 17-21.
2. The health education curriculum is:
 - a) Designed for the first half of the school year.
 - b) Aimed toward offering the students a basic understanding of the relationship between health and disease. About 1/3 of this curriculum is devoted to family health.
 - c) Drafted and to be taught by health workers.
 - d) Prepared to evaluate both long-term feasibility and effectiveness of this approach of teaching health in a school.
3. This health education curriculum will be used in early 1975.

B. The Ketsesetse Primary School, Maseru.

1. This is a 11 year old school which covers grades ranging from kindergarden to Form C, e.g., the 6th grade. This is an experimental school selected by the Ministry of Education.
2. The health education curriculum development is that:
 - a) The school headmistress, her 11 teachers and the health education team meet twice weekly after school to:
 - 1) Discuss the potentials of and develop a health curriculum for the students, beginning with kindergarden and standard 1.
 - 2) Train teachers to conduct experimental teaching of the suggested health lesson after each discussion.
 - 3) Move on to the next higher grade when we have completed one grade.
 - b) The health education team offers both technical assistance and materials to develop learning and teaching aids.
 - c) Education and health experts will be invited to lead appropriated discussions, e.g., educational psychologist, psychiatrist, pediatrician, nutritionist, etc.
 - d) Evaluation is a continuous process to assess the methods, materials teaching experiences, and the realization of curriculum for the country.

C. Teacher Training Workshops, Qacha's Nek.

1. Sekake Mission (Christ the king) has 17 primary schools, 66 teachers, 1,800 students (standard I to VII) and a School Committee which has 17 members.

Nine of the members are women. Six additional schools sponsored by other missions have another 600 students in Selale mountain area.

A two day workshop was conducted on October 21 and 22 for the teachers.

- a) The objectives were:
 - 1) To promote health teaching in the schools.
 - 2) To offer the teachers some basic knowledge about health and how to teach health.
 - 3) To discuss basic attitudes, beliefs and behaviour that influence health.
 - 4) To establish a positive relationship with the mission in Lesotho for teacher workshops and school health curriculum development.
- b) The methods we are using:
 - 1) An informal approach,
 - 2) A general presentation followed by 6 small discussion groups. Each group had a question which aimed to seek answers. These questions were:
 - i) What is health?
 - ii) What health subjects should be taught in your school?
 - iii) How should these health subjects be taught in your school?
 - iv) What learning and teaching aids do you need to teach health?
 - v) How can you be better prepared to teach health?
 - vi) How can the School Committee help to effect the health teaching in your school?

The small group recorders reported their answers to the large group. A question and answer session immediately followed.

2. The St. Francis Mission, Qacha's Nek. This is the largest mission in Lesotho. (Sekake Mission is the second largest.) It has 26 schools, over 100 teachers, about 2,500 - 2,700 students and a School Committee. It serves over 45,000 people covering more than 150 square miles in the mountain region.

The approach is similar to that of the Sekake Mission plus the use of films borrowed from the USIS in Lesotho. This is conducted on October 27-29, 1972.

3. The Butha-Butha and Leribe Districts will be discussed in another outline when more demographic data becomes available.

The Butha-Butha Teacher Workshop will be conducted on November 3-4, and the Leribe Teacher Workshop will be followed on November 4-5, 1972.

Future plans are:

1. To assist the Ministry of Health in achieving those goals.

2. To assist the National School Health Committee become what it really should be, that is to promote health for the students and school personnel.
3. To assist in the development of a national school health education curriculum.
4. To assist in the organization and conducting teacher training workshops through teacher's colleges, schools, unions, etc.
5. To assist in the development of learning and teaching aids for the students and teachers.
6. To assist the BCR/MDC Project realize its purposes in Lesotho.

Health Department, Department of Health

Ministry of Health
100, Victoria
London, Ontario
October 10, 1954

TO: Dr. J. H. ...
100, Victoria
D.F. ...
N.O. ...
The Dept. of Health, Ottawa
All other offices in the ...

It is requested that you ...
Ministry of Health, Ottawa ...
...
...

As a result of the ...
...
...

John H. ... H-100-100

HEALTH EDUCATION

Health education is a process of providing information, knowledge, and skills to individuals, groups, and communities so that they can make informed choices and take action to improve their health and well-being. It is a key component of public health practice and is essential for the prevention and control of disease and the promotion of health. Health education is based on the principle that individuals and communities have the right and the ability to make decisions about their health and to take action to improve their health. It is a process that is ongoing and continuous, and it is based on the principle that health is a state of complete physical, mental, and social well-being, and not merely the absence of disease and infirmity. Health education is a process that is based on the principle that health is a state of complete physical, mental, and social well-being, and not merely the absence of disease and infirmity. Health education is a process that is based on the principle that health is a state of complete physical, mental, and social well-being, and not merely the absence of disease and infirmity.

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Health education is also fundamental in many of the processes carried on within an organization that are necessary to the development and implementation of a program. Some of these are: planning, teamwork, coordination, administration, training, supervision, consultation and evaluation.

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Health education activities are to be organized in
 of other health workers in order to help them to contribute
 contribution to the health education program.

principles, and procedures of health education in the
 use of health education, and to help them to contribute
 health education workers, and to help them to contribute
 on education and to help them to contribute to the
 the responsibility of health education.

I. General Objectives:

- a. To assist the learning and education in
 relation to all health workers.
- b. To form a health education unit and to make it
 responsible for the health education in
 the community of health.

II. Specific Objectives:

- a. To help health workers to understand the
 health education program of health work, and of the
 principles and procedures to be followed in achiev-
 ing the purpose.
- b. To foster an interest in health education in all
 health personnel.
- c. To enable health workers to incorporate effective
 health education in their daily work.
- d. To increase the ability of health personnel to
 communicate with people.
- e. To enable health workers to make continuing
 evaluation of the educational aspects of health
 programs.
- f. To stress the necessity of individual effort and
 teamwork for the realization of effective health
 education.

- III. *Community Health Education Program*
- a. The program should be designed to meet the needs of the community, and should be based on a thorough understanding of the community's health status, needs, and resources.
 - b. The program should be designed to be culturally sensitive and appropriate for the community's beliefs, attitudes, and values.
 - c. The program should be designed to be participatory, involving the community in the planning, implementation, and evaluation of the program.
 - d. The program should be designed to be sustainable, with a focus on building local capacity and resources.
- IV. *Community Health Education Program - Objectives*
- a. *General Objective* - To improve the health status of the community through health education.
 - b. *Specific Objectives* - To increase the community's knowledge of health and disease, to change health-related attitudes and behaviors, and to improve health status.
 - c. *Parental Objectives* - To educate parents on the importance of child health and to provide them with the skills and resources to care for their children's health.
 - d. *Community Objectives* - To increase the community's awareness of health issues, to improve health status, and to reduce health disparities.
 - e. *Political and Policy Objectives* - To educate policymakers and the public on the importance of health education and to advocate for policies that support health education.
 - f. *The patients* - To provide opportunities for health education among the sick in their homes, clinics, hospitals, etc.
 - g. *Professionals and allied personnel* - To educate and coordinate their efforts to improve the health conditions throughout Lesotho.

August 4, 1972.

JOB ANALYSIS REPORT FOR THE POSITION OF HEALTH EDUCATION OFFICER, MINISTRY OF HEALTH, Ottawa, Ontario, Canada

Title: Health Education Officer (1)
Health Administration Department (1)

Location:

The position is located in the Division of Health Administration, Department of Health, Ottawa, Ontario, Canada. The position is a full-time position and is responsible for the development and implementation of health education programs. The position is a professional position and requires a degree in health education or a related field. The position is a permanent position and is subject to the provisions of the Public Service Act and the Public Service Regulations.

Qualifications:

1. They should have at least a degree certificate and the ability to attain a higher level of education if necessary.
2. They should have at least three years of experience in health education.
3. They should have a good knowledge of the government system and community structure.
4. They should have the ability to work well with people.

Objectives:

1. To create a public awareness and understanding of the health and social problems and health education principles and techniques.
2. To stress the necessity of individual effort and teamwork for the realization of effective health education.

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ANALYSIS OF PUBLIC HEALTH:

1. Assists in the planning and organizing a program health education of suitable scope and activities to meet the needs of the community.
2. Assists community and individual groups in recognizing health problems and in solving them.
3. Assists in establishing cooperative working relationships with associations - and all agencies concerned with health education.
4. Assists in planning, organizing and directing, workshops, institutes in-service training programs, and discussion groups to promote public health and health education.
5. Assists in promoting health education aspects in the prevention and control of communicable diseases, water and food contamination, and all of nutrition, family health and other specialized public health programs.
6. Assists in studies and surveys of public health education needs; evaluation, analysis and reports results.
7. Assists in the organization and administrative duties such as health education budget estimates, personnel evaluation, equipment and supply inventories and requests of the Health Education Section.
8. Prepares and delivers talks on assigned health topics and on the objectives and a variety of prevention to interested groups and in radio lecture.
9. Prepares, produces, distributes and evaluates health pamphlets, posters, audio-visual aids, etc., used in health education program.
10. Prepares periodic reports and special feature articles on assigned health topics.
11. Advises the health education adviser on socio-economic conditions and cultural barriers in the area of public relations, community organization, in-service training, program planning and evaluation and other areas of health activity relating to public health education.
12. Performs tasks as directed by the D.P.C.S.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

1. Knowledge of the principles of public health education
2. Knowledge of the nature and functions of community agencies which may contribute to, or benefit by, a public health education program.
3. Knowledge of the facilities, media, methods and techniques of disseminating educational information to the public.

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4. Knowledge of educational psychology, adult education, group dynamics and community organization.
5. Some knowledge of the programs and objectives of various health programs.
6. Ability to present ideas accurately, effectively, and concisely, both orally and in writing.
7. Ability to use initiative and resourcefulness in gathering data, and composing articles and speeches on public health topics.
8. Ability to interpret public health subjects to community groups and individuals.
9. Ability to establish and maintain effective working relationship with associates, community agencies and general public.
10. Ability to organize and direct the activities of local committees for the development of community public health education programs.
11. Ability to explain and apply laws, rules and regulations pertaining to public health.
12. Ability to coordinate and evaluate public health education programs with associates, community agencies and the general public.

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COMMUNITY ORGANISATION IN LESOTHO

1. Country: Health Education Section by E.M. Petlane

Geographical Position: Lesotho is a small enclave surrounded by the Republic of South Africa. It covers an area of about 11,716 square miles, one third of which is a low lying area where six out of the nine district towns are located. It must be clear that the boundaries of these six districts extend and cover most of the dissected Maluti's--mountains of Lesotho where the remaining three district towns are located.

It is clear, therefore, that two thirds of our country comprises the maluti mountains with several innavigable rivers and rivulets traversing her.

Climate: Lesotho has cool sub-continental temperate climate with dry winters and late summer/autumnal rainfall.

Some Natural Resources

- a) Water--Although Lesotho generally has a poor rainfall, there is a lot of ground water in the form of rivers which have been constantly flowing into the Atlantic Ocean. It was only after attaining her independence in 1966 that Lesotho, with aids from outside countries, has been able to harness her waters and use them locally on a small scale.
- b) Manpower can also be classified as a natural resource in this country.
 - 1) In almost all community development activities in Lesotho, like road constructions, dams and other self-help projects, manpower has played a very important role--particularly women.
 - 2) Most illiterate and semi-literate Basotho men, because of lack of employment at home, flock into the mines in the neighboring Republic of South Africa. A great majority of these mine workers present a social and health problem when they come back home because of disability due to mine accidents and diseases like pulmonary tuberculosis acquired there.

The People

The inhabitants of the Kingdom of Lesotho are called the Basotho and speak one common language called Sesotho. Population is about one million.

In the Southern district of Lesotho there is a particular group called the Thembus. They are of Xhosa origin. Their language, customs and beliefs are different. They are, nevertheless, called the Basotho. Lesotho has a high agricultural potential. The mode of life in Lesotho is mixed farming.

In the lowlands the Basotho specialize mostly in agricultural farming. Maize, wheat, and sorghum are the main crops. None of these is grown for export.

In the mountains livestock farming is practiced in a larger scale. Cattle, sheep and goats are reared. Even though Lesotho does not have enough for her own use, she is able to export beef cattle, sheep, goats, wool and mohair as raw material into the Republic of South Africa.

The Basotho are a religious nation even before the arrival of the French Missionaries who talked about Christ as the son of God, Basotho believed in the existence of God, the Almighty. They believed that their grandparents when they die join a big family of their ancestors seated beside God. The Basotho may believe that these ancestors have some protective power over them and that their supplications to God can be submitted through these gods--ancestors.

This traditional belief in God together with the western form of religion has formed a very strong christianity in Lesotho.

There are a lot of other beliefs which acutely affect our health habits. For instance, if a member or members of a certain family suffer from a disease--especially infectious diseases, it may be believed that the ancestors are showing anger and dissatisfaction with that family and, thus, forsaking it. In order to appease them the patients will be treated traditionally. This, on many occasions, contributed to wider spread of infection--particularly among the illiterate and semi-literate.

Malnutrition in children and other deficiency diseases are, in the majority of cases, attributed to some beliefs, attitudes and behaviours related to food.

Because of low income, and perhaps lack of education or its acceptance in some instances, health habits in the rural areas are minimal:

- 1) People may not eat balanced diet because they do not have money to buy all the necessary stuff.
- 2) They do not know which food to buy.
- 3) They may not have the latrines because they do not see the need for latrines; they may shun to use latrines because of some superstitions or fears.

- 4) The Thembus will not wash because they want to use ochre and keep their traditional identity.

Nowadays in Lesotho--with increase in Public Health Personnel--people are beginning to identify some of their health needs and problems.

Lesotho, although so much under-developed, is enjoying a high standard of literacy.

In organizing any community or village the first leaders to work with are the chiefs.

Chiefs are the traditional leaders in any village in this country and they conduct a great influence in their community. Chiefs are the only gateway through which a health worker can get to the people and be accepted.

Second come the literate, semi-literate, local healers, ministers of religion, and politicians.

The people themselves in a community need not be overlooked. Their fears, beliefs, habits and prejudices should be thoroughly understood.

In all dealings with the people, I as a health worker--in order to organize a successful program--must have direct contact with the chief and his supporting committees in the following manner:

1. Informal self-introduction to the chief and his subordinates.
2. General discussion of health matters with the chief, and help him identify health needs and problems.
3. Show him the need for cooperative effort of his people to solve health problems and that I am always at their disposal for assistance.

It is very important when interviewing the chief, where possible, to encourage him to invite his village advisory committees.

Organization of Pitsos

It may be necessary, at this stage, to organize an educative meeting for every member of the community. This type of meeting in Lesotho is called a pitso. Pitsos are usually held in an open place which is commonly used for the purpose.

Procedure

Notification of a pitso is usually made by letter to the responsible chief who will in turn communicate with his subordinate chiefs and their people; a health worker may have to directly communicate with such chiefs because instances do occur where junior chiefs would not recognize their superiors.

Another group of leaders who cannot be overlooked in organizing any programme in the rural areas are politicians because of their reasonable standard of education. Politicians, after being won to our side, will help influence their followers to get involved in health activities. Sometimes they are even better listened to than chiefs.

How to Conduct a Pitso

A local chief or ward chief usually acts as a chairman and an open speech covering all health related matters--especially those affecting that community.

This will be followed by questions and answers by the lecturer and participants themselves. This is a way to test their resourcefulness in solving their health problems.

Demonstrations

During my stay at Mphaki Health Centre in the Maluti, teaching by demonstrations had a great significance and communicated the health message to the illiterate Mosotho. They begin to realize how easy it is to construct a pit latrine or protect a source of water supply with minimal or no financial costs.

Demonstration on general cleanliness of body and clothes worked out so successfully during the anti-typhus operation at Mphaki. The Thembus began to gradually abandon the use of ochre and washed their clothes with soap and water.

We had a high incidence of typhus among the Thembus who did not wash. This sad state of affairs demonstrated to the whole Mphaki population what healthful habits or lack of them can do for the community.

It also helped to make them understand what is meant by healthy practices.

During the treatment of typhus cases at Mphaki, eggs were included in the patients' daily meals. This helped to improve their nutritional standard and also changed the Thembus' attitude towards egg consumption; it was a demonstration.

With cooperative efforts of Community Development, Agricultural and Health personnel, communal gardens have been established throughout the country.

This has helped to (1) foster teamwork for the common good, and (2) improve nutritional standards by the use of what we produce ourselves.

Home Visiting

Visiting villagers in their homes plays a very important part in the organization of a successful health program.

A health worker will be able to assess each individual in his home, identify their needs, eliminate barriers, and see what stimulus or stimuli to give in order to get a positive reaction--particularly fathers.

Success will always be demonstrated by regular participation in all organized health programs by members of visited families and their neighbors.

At all times close collaboration and coordination in community organization with other government and non-government agencies like Agriculture, Community Development, Food-Aid Programme must be exercised.

Agricultural Nutrition Agents and Agricultural Information Service, who are more skilled in the use of audio-visual aids, have been extremely helpful in educating illiterate communities on health related subjects.

Problems in Community Organization

The following are some of the difficulties confronted in organizing rural communities:

- 1) Inaccessibility of some communities by road--for intensive health program planning and follow-up.
- 2) To some extent attitudes, beliefs and behaviors affect our efforts to bring the people together.

- 3) Lack of cooperation by some community leaders.
- 4) Lack of adequately trained staff and materials to be used.

A presentation by Mme. Lucie Ouendo:

DAHOMEY

Dahomey, a country called under-developed, on the way to development, or to under-development, is sovereign. It occupies only a small portion of West Africa--about 112,622 km² at the most. It has a population of about three million. If one refers to the statistics for 1971, this population is composed mostly of children and young people, supported by a minority of adults and elderly with limited resources. Eighty-nine percent of the population is rural.

Since 1960 Dahomey has been divided into six departments, more on an economic basis than upon population differences. These departments are, from south to north, Ouémé, Atlantique, Mono, Zou, Borgou, and Atacora.

Ouémé

Ouémé is abundantly watered and is the region of the oil palm and the following agricultural crops: corn, manioc, beans, and tarots. There are experimental rice farms in the valley of the Ouémé River and a small amount of sugar cane under the supervision of the Nationalist Chinese Agricultural Mission. (Note: Since this speech, this aid has been withdrawn as a result of Dahomey's recognition of mainland China.)

The chief city of the department is Porto-Novo, which is at the same time a commune administrated by a deputy of the Government. Other chief cities are the sub-préfecture towns of Sakété, Pobè, Ketou, Avrankou, and Adjohoun. Porto-Novo, in principle, the capital of Dahomey, is situated on a low plateau, and the rest of the department is mostly very low hills and shallow valleys. Throughout Ouémé, the soil is adobe. Here one finds clay which is used in the making of pots, bowls, and cooking fireplaces. Traditionally, the houses are built of adobe blocks, sometimes fired, and roofed with straw.

In Oueme there are only two high schools: the Lycée Behanzin and the Lycée Toffa The First. There is only one under-equipped hospital with several maternities and dispensaries where the sanitation is practically non-existent. This region is inhabited by the Goun, the Toris, the Nagots, and the Yoruba, with the Nagot being the dominant race.

Ouémé has a population of close to 535,000. One could add that the humidity of the region is conducive to tropical diseases such as malaria,

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trypanosomiasis, elephantiasis. The people raise significant numbers of pigs and a few cattle and sheep.

Atlantique

The southern part of this department is bathed by the ocean whose name it bears, and its population is around 426,000. The chief city of the department is Cotonou, which, like Porto-Novo, is also a commune directed by a Government deputy. The villages around Cotonou are administered directly by the préfet of Atlantique. The main towns are those of the sub-préfectures: Abomey-calavi, Allada, Ouidah. The department is almost entirely a region of plains. The area around Cotonou is sandy because of its proximity to the ocean. All the rest of the department has adobe soil, with deposits of clay that can be used for making cooking utensils and fireplaces. Houses are traditionally made of adobe with thatched roofs like Ouémé, or from bamboo, thatched with straw.

In Atlantique there is only one high school, the Lycée Technique, and several secondary schools, like everywhere in Dahomey. There is only one acceptable hospital, with several maternities and dispensaries. The dominant race of the region is the Fon. Principal crops are foodstuffs, truck gardening; orchards and oil palms, though there are fewer than in Ouémé. Basically, that which makes Atlantique different from Ouémé is the industrialization which one sees, in effect, at Cotonou, Ahozon, and Pahou. One sees assembly plants and factories side by side. In addition, Cotonou, because of its port, is the communication center with the rest of the world.

Mono

Well-watered by the Mono River, this area is the region of agriculture par excellence: Oil palm, root crops, and all foodstuffs grow there quickly and well.

The region is densely populated by the Adja, Popo, or Pla; the Houéda or Péda, and the Mina races. The raising of pigs is very widespread.

The chief city of Mono is Lokossa, which is at the same time a commune. The department has a population of around 366,000. The principal towns of the department are those of the sub-préfectures: Athiémé, Aplahoué, Dogbo, and Bopa. Mono is generally sandy and flat with scattered low plateaus. Houses are made of clay of a characteristic color, and thatched with straw. Mono has no high school, hospital, or true maternity.

Zou

Although Zou has little water and a dry climate, agriculture is nonetheless well developed. In addition to foodstuffs, crops for export are the main products: tobacco, coffee, cotton, groundnuts, and jute for making bags. There exists, therefore, in Zou, a beginning industrialization. Bohicon is, after Cotonou, an industrial center which cannot be overlooked. The major tribe is the Fon, with additional Mahi, and Yorubas who come from Nigeria. Abomey, an historic city, and capital of the ancient kingdom of Danhomè, is important because of its museum, which attracts tourists from the whole world, just as do the lake village of Ganvié in Atlantique and the national parks of Borgou and Atacora.

The capital of Zou is Abomey, which is at the same time a commune administered by a governmental deputy. The main towns of Zou are Bohicon, Dassa-Zoumé, Savé, Cové, Zagnanado, Savalou, which are also the seats of government of the sub-préfectures.

Zou is basically adobe soil of a very dark color, and very dusty. It has plateaus and hills of fairly good size. The houses are of adobe with thatched roofs.

Zou has a population of close to 535,000. There is only one high school in Zou, and like in the rest of Dahomey, there are both public and private secondary schools. There is only one ambulance, quartered at the hospital.

Borgou and Atacora

These two departments are difficult to separate in reality. Here there is commercial production of groundnuts, castor oil, cotton, karité (an oil), and foodstuffs, notably root crops and millet.

The Bariba, Soma, and Dendi are the major tribes in these two departments. They have long had profitable farming methods. Traction plowing has been recently introduced by FAO and UNDP but is still in an experimental state.

The capitals of Borgou and Atacora are Parakou and Natitingou, respectively. The chief cities are those of the sub-préfectures: Malanville, Djougou, Kouandé, Banikoara, Tanguiéta, Boukoumbé, Bassila, Ségbana, Kandi, Nikki, Bimbéreke. These two departments are very dry and mountainous. The highest peak in Dahomey is Mount Atacora, which is 800 meters high. The soil

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is very hard, but where there is irrigation, it is fertile and well used. Houses of the Somba are made like a clay fort, with the individual living areas divided off and thatched with grass, which is cheap and extensively found throughout the area.

Borgou and Atacora furnish practically all of the meat for the entire country. There is, however, very little fishing.

Dahomey is watered by the rivers: Ouémé, Mono, Zou, Couffo, and by the lakes: Nokoué, Toho, Ahémé, which provide fish to the people along their banks. Lake Nokoué has one of the best supplies of fish in the world but there is little use made of this source.

Dahomey has about 40,000 foreigners. On the basis of what we have just said, one would note that Dahomey is essentially an agricultural country. The efforts of the United Nations, through FAO and UNDP, are now trying to develop agriculture, fishing, and livestock raising.

The World Bank, the Financial Society, and the International Bank for Reconstruction and Development, as well as USAID, work in Dahomey in the same sense. The state has created the National Society for Rural Development, the National Forestry Society, the National Society for Palm Oil Refining, the Society for the Development of the Ouémé Valley, and the Dahomean Office of Port Workers, in order to develop and sustain the efforts of both urban and rural population by fixing objectives and creating employment.

The history of Dahomey is divided into three major periods. The first is the pre-colonial period. During this period Dahomey was actually divided into several kingdoms, which made war on each other, motivated by the imperialistic desire for domination. The most powerful of all the kingdoms was that of Danhomè, whose powerful army was composed of valliant warriors and Amazons. They battled everybody, like the kingdoms of the Baribas and of Bio-Guéra, who were fiercely beaten. During this period, also, Dahomey was the victim of slave trade, which emptied it of its most valuable elements.

In 1894 Dahomey capitulated to the imperialism and the colonialism of the French. During the second period, or the colonial era, Dahomeans contributed a great deal to the French administration. Actually, this

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country, which was called the Latin quarter, furnished, in addition to the key administrative posts, all the elite of the bureaucracy. In other words, the Dahomeans became the founders and salesmen of all the various expressions of the French culture.

It was during the colonial period that the country was unified, under the administration of France. Dahomeans were trained, either locally or abroad, to work in the French administrative services of other colonies, such as Ivory Coast, Mali, Sénégal, Guinée, etc.

In the third historical period, the time since independence, in order to resolve all these problems the new government decided to break into the total backwardness of the country and establish an encouragingly realistic, practical, and pragmatic program for all Dahomeans. Industrialization constitutes one ray of hope, with the petroleum of Sémé, the cement of Onigblo, the mineral water and the rivers which can produce electricity, and which traverse the entire country.

"One can do so many things in Dahomey, for there is so much valuable human potential available." This sentence is taken from a realistic book by René Dumont, L'Afrique Noire Est Mal Partie, published by les Editions Marabout. This book asks many questions about under-development and proposes some nearly adequate solutions.

Despite all the food products rich in vitamins, one notes considerable vitamin deficiency, due to the fact that most of the rural population does not know how to use the foodstuffs in the most nutritious manner. These deficiencies are not so prominent in the North, due to their large consumption of meat, cheese, beans, and vegetables.

In order to help the peasants have better nutrition, there has been constructed at Ouando a nutrition center, supervised by the Dutch volunteers. There they train animators, who are then sent throughout the region to teach their experiences to the masses. On their first visits, they bring with them the produce from the gardens at Ouando, to use in their cooking demonstrations. Thus, the animators motivate the villagers to make similar gardens.

Interviewer APPENDIX I

Interpreter _____

Date _____

INTERVIEW OF THE HEAD OF THE HOUSEHOLD

Area Code _____ Village _____

Family _____

Individual Number _____

Home Number _____

| No | | Code |
|----|-------------------------------------------------------------------------------------------------|------|
| 1 | Age _____ unknown (birth certificate) | |
| 2 | (QUESTION 2 DELETED ON FINAL QUESTIONNAIRE.) | |
| 3 | Marital Status Single _____ Divorced _____ Married _____ Widower _____ Separated _____ | |

| No | | | | Code |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------|------|
| 4 | Place of Birth - City _____ Country _____ Institution _____ Midwife or Assistant at Birth _____ | | | |
| 5 | Tribe _____ | | | |
| 6 | Religion _____ | | | |
| 7 | Languages _____ _____ _____ _____ | | | |
| 8 | EDUCATION: Village School _____ Public School _____ Private School _____ Missionary School _____ Technical School _____ Apprenticeship _____ Other _____ None _____ | LENGTH | PLACE | |

| No | | Code | | | | | | | | | | | | |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|--------------|--------------------|------------------|-------------------|---------------|--------------|-------------|-------------|------------|-------|--|
| 9 | <p>PROFESSION:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Fisherman</td> <td style="width: 50%;">Chauffeur</td> </tr> <tr> <td>Farmer</td> <td>House maid</td> </tr> <tr> <td>Worker</td> <td>_____</td> </tr> <tr> <td>Store owner</td> <td>_____</td> </tr> <tr> <td>Clerk</td> <td>_____</td> </tr> <tr> <td>Other</td> <td>_____</td> </tr> </table> | Fisherman | Chauffeur | Farmer | House maid | Worker | _____ | Store owner | _____ | Clerk | _____ | Other | _____ | |
| Fisherman | Chauffeur | | | | | | | | | | | | | |
| Farmer | House maid | | | | | | | | | | | | | |
| Worker | _____ | | | | | | | | | | | | | |
| Store owner | _____ | | | | | | | | | | | | | |
| Clerk | _____ | | | | | | | | | | | | | |
| Other | _____ | | | | | | | | | | | | | |
| 10 | Number of actual wives _____ | | | | | | | | | | | | | |
| 11 | <p>Number of living children of each wife (in marriage order)</p> <table style="width: 100%; border: none;"> <tr> <td>1 _____</td> <td>5 _____</td> </tr> <tr> <td>2 _____</td> <td>6 _____</td> </tr> <tr> <td>3 _____</td> <td>7 _____</td> </tr> <tr> <td>4 _____</td> <td>8 _____</td> </tr> </table> | 1 _____ | 5 _____ | 2 _____ | 6 _____ | 3 _____ | 7 _____ | 4 _____ | 8 _____ | | | | | |
| 1 _____ | 5 _____ | | | | | | | | | | | | | |
| 2 _____ | 6 _____ | | | | | | | | | | | | | |
| 3 _____ | 7 _____ | | | | | | | | | | | | | |
| 4 _____ | 8 _____ | | | | | | | | | | | | | |
| 12 | <p>Where do you go to be cured when you are sick?</p> <table style="width: 100%; border: none;"> <tr> <td>Dispensary _____</td> <td>Charlatan _____</td> </tr> <tr> <td>Healer _____</td> <td>Witch Doctor _____</td> </tr> <tr> <td>Pharmacist _____</td> <td>Doctor (MD) _____</td> </tr> <tr> <td>Midwife _____</td> <td>Matron _____</td> </tr> <tr> <td>Nurse _____</td> <td>Other _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">None _____</td> </tr> </table> | Dispensary _____ | Charlatan _____ | Healer _____ | Witch Doctor _____ | Pharmacist _____ | Doctor (MD) _____ | Midwife _____ | Matron _____ | Nurse _____ | Other _____ | None _____ | | |
| Dispensary _____ | Charlatan _____ | | | | | | | | | | | | | |
| Healer _____ | Witch Doctor _____ | | | | | | | | | | | | | |
| Pharmacist _____ | Doctor (MD) _____ | | | | | | | | | | | | | |
| Midwife _____ | Matron _____ | | | | | | | | | | | | | |
| Nurse _____ | Other _____ | | | | | | | | | | | | | |
| None _____ | | | | | | | | | | | | | | |

| No | | Code |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 13 | <p>What do you do to prevent sickness?</p> <p>Eat well _____ Witch doctor _____ Wear shoes _____</p> <p>Wash _____ Medicine _____ Mosquito netting _____</p> <p>Clean water _____ Vaccination _____ Nivaquine _____</p> <p>Pray _____</p> | |
| 14 | <p>Which are the common causes of sickness?</p> <p>Bad spirits sent by someone _____</p> <p>Other sick persons next to you _____</p> <p>By eating or drinking poison _____</p> <p>By eating or drinking old or spoiled food _____</p> <p>Natural phenomena:</p> <p>Sun _____ Wind _____ Thunder _____</p> <p>Moon _____ Rain _____ Lightning _____</p> | |
| 15 | <p>Do you separate the sick and non-sick in your house?</p> <p>Yes _____ No _____</p> | |
| 16 | <p>What kind of sicknesses require separation?</p> | |

| No | | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 17 | <p>Have you ever been vaccinated against:</p> <table border="1"><thead><tr><th data-bbox="373 431 685 475">TYPE</th><th data-bbox="685 431 1015 475">No. of Times</th><th data-bbox="1015 431 1154 475">YEAR</th><th data-bbox="1154 431 1406 475">PLACE</th></tr></thead><tbody><tr><td data-bbox="373 497 685 541">Small pox</td><td data-bbox="685 497 1015 541">_____</td><td data-bbox="1015 497 1154 541">_____</td><td data-bbox="1154 497 1406 541">_____</td></tr><tr><td data-bbox="373 564 685 608">Yellow fever</td><td data-bbox="685 564 1015 608">_____</td><td data-bbox="1015 564 1154 608">_____</td><td data-bbox="1154 564 1406 608">_____</td></tr><tr><td data-bbox="373 630 685 674">Cholera</td><td data-bbox="685 630 1015 674">_____</td><td data-bbox="1015 630 1154 674">_____</td><td data-bbox="1154 630 1406 674">_____</td></tr><tr><td data-bbox="373 696 685 741">Thyphoide</td><td data-bbox="685 696 1015 741">_____</td><td data-bbox="1015 696 1154 741">_____</td><td data-bbox="1154 696 1406 741">_____</td></tr><tr><td data-bbox="373 763 685 807">Dyphtheria</td><td data-bbox="685 763 1015 807">_____</td><td data-bbox="1015 763 1154 807">_____</td><td data-bbox="1154 763 1406 807">_____</td></tr><tr><td data-bbox="373 829 685 873">Pertussis</td><td data-bbox="685 829 1015 873">_____</td><td data-bbox="1015 829 1154 873">_____</td><td data-bbox="1154 829 1406 873">_____</td></tr><tr><td data-bbox="373 895 685 940">Tetanus</td><td data-bbox="685 895 1015 940">_____</td><td data-bbox="1015 895 1154 940">_____</td><td data-bbox="1154 895 1406 940">_____</td></tr><tr><td data-bbox="373 962 685 1006">B.C.G.</td><td data-bbox="685 962 1015 1006">_____</td><td data-bbox="1015 962 1154 1006">_____</td><td data-bbox="1154 962 1406 1006">_____</td></tr><tr><td data-bbox="373 1028 685 1072">Measles</td><td data-bbox="685 1028 1015 1072">_____</td><td data-bbox="1015 1028 1154 1072">_____</td><td data-bbox="1154 1028 1406 1072">_____</td></tr></tbody></table> | TYPE | No. of Times | YEAR | PLACE | Small pox | _____ | _____ | _____ | Yellow fever | _____ | _____ | _____ | Cholera | _____ | _____ | _____ | Thyphoide | _____ | _____ | _____ | Dyphtheria | _____ | _____ | _____ | Pertussis | _____ | _____ | _____ | Tetanus | _____ | _____ | _____ | B.C.G. | _____ | _____ | _____ | Measles | _____ | _____ | _____ | |
| TYPE | No. of Times | YEAR | PLACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Small pox | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yellow fever | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cholera | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyphoide | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dyphtheria | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pertussis | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tetanus | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.C.G. | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measles | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | <p>Do you take something to prevent Malaria?</p> <p>Yes _____ No _____</p> <p>If yes, what? _____</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | <p>Where do you find water for the household?</p> <p>The well of the house _____</p> <p>The river _____</p> <p>The pond _____</p> <p>The lagoon _____</p> <p>The village wells (neighborhood) _____</p> <p>The well for several villages _____</p> <p>Pump water _____</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| No | | Code |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 20 | Where do you keep the water? _____ In what container? _____ | |
| 21 | Do you have a septic tank? Yes _____ No _____ | |
| 22 | Do you have a dry tank? Yes _____ No _____ | |
| 23 | Generally where does your family go to the bathroom? Someplace in the house _____ On the path _____ On waste ground _____ In the ponds _____ In the septic tank _____ In a receptacle that you clean at night _____ In another place _____ | |
| 24 | Where does your family bathe? In the concession _____ In the bathroom _____ In the house _____ In the lagoon _____ In the pond _____ In the sea _____ In the puddle _____ In the lake _____ | |

| No | | Code |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 25 | Who wears shoes? Men _____ Women _____ Children _____ | |
| 26 | Do you have mosquito netting for each bed? | |
| 27 | Do you raise animals in your house? Pigs _____ Poultry _____ Goats _____ Dogs _____ Ducks _____ Cats _____ Cows _____ Rabbits _____ Deer _____ Other _____ | |
| 28 | Do you have a special place reserved for raising the animals in your concession? | |
| 29 | Where do you throw your garbage? In the concession _____ On the path _____ On the waste heap _____ In the river _____ In a hole _____ In the lagoon _____ In another place _____ | |
| 30 | Do you have a well in your concession? Yes _____ No _____ If yes, is it covered _____? or Open _____? | |
| 31 | Do you have a well for the whole village? Yes _____ No _____ If yes, is it covered _____? or Open _____? | |

Interviewer APPENDIX J

Interpreter _____

Date _____

WOMEN

Area code _____ village _____
Family _____
Individual No. _____
Home No. _____

| No | | Code |
|----|----------------------------------------------------------------------------------------------------|------|
| 1 | Age _____ unknown (birth certificate) | |
| 2 | (THIS QUESTION DELETED ON FINAL QUESTIONNAIRE.) | |
| 3 | Marital Status Single _____ Divorced _____ Married _____ Widow _____ Separated _____ | |
| 4 | Place of Birth - City _____ County _____ Clinic _____ Midwife or assistant at birth _____ | |
| 5 | Tribe _____ | |
| 6 | Religion _____ | |

No

Code

11 For each pregnancy:

| <u>Year</u> | <u>Delivered by whom</u> | <u>Place of Birth (maternity ward, clinic, dispensary, or at home)</u> | <u>Complication during delivery</u> |
|-------------|--------------------------|------------------------------------------------------------------------|-------------------------------------|
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| | | | |

No

Code

12 During Pregnancy: Have you been sick during your pregnancies?

Year

Illness During Pregnancy

13 After Delivery: Have you been sick after the birth of the child?

Year

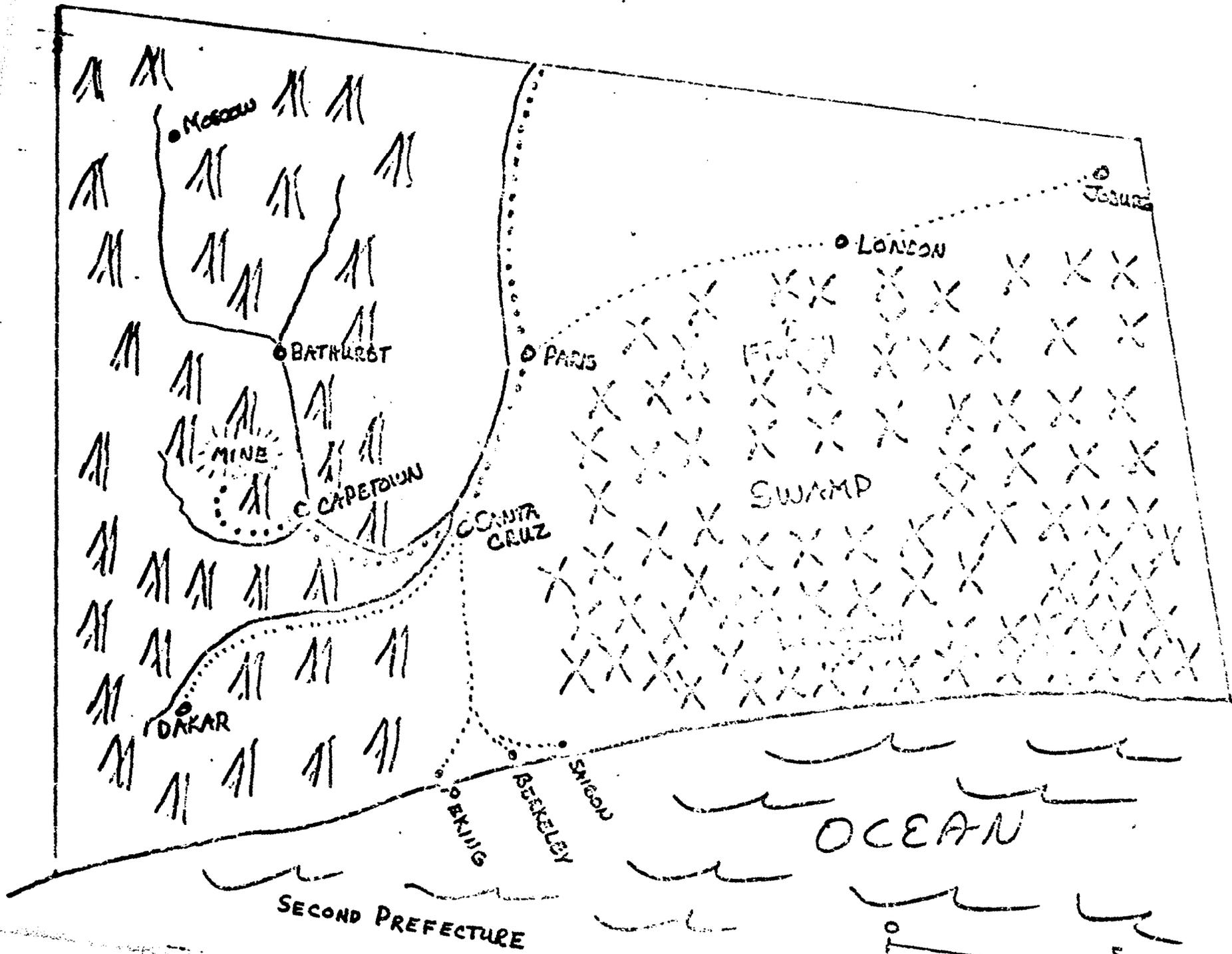
Postnatal Sicknesses

| No | | Code |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 14 | If you have never been pregnant, what do you do? | |
| 15 | What do you do when you do not want to become pregnant? | |
| 16 | <p>How long do you nurse your baby?</p> <p>1 to 3 months _____ 4 to 6 months _____ 5 to 9 months _____</p> <p>10 to 12 " _____ 13 to 15 " _____ 16 to 18 " _____</p> <p>19 to 21 " _____ 22 to 24 " _____</p> | |
| 17 | <p>When you are pregnant, who do you consult: at what month?</p> <p>A man who delivers in the village _____</p> <p>A woman who delivers in the village _____</p> <p>Midwife _____ Charlatan _____ A member of the family _____</p> <p>Other _____ None _____</p> | |
| 18 | <p>Are you planning to consult someone after the delivery?</p> <p>Yes _____ No _____ If yes, who? _____</p> | |
| 19 | <p>Do you wait between pregnancies? Yes _____ No _____</p> <p>If yes, how _____</p> <p>And how long _____ ?</p> | |

| No | | Code |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 20 | If yes, with your husband's agreement? Yes _____ No _____ If yes, how? | |
| 21 | Who knows the methods to provoke an abortion? The men _____ The women _____ With what _____ | |
| 22 | Where do you go to be cured when you are sick? Dispensary _____ Charlatan _____ Healer _____ Witch doctor _____ Pharmacist _____ Doctor _____ Nurse _____ Other _____ None _____ | |
| 25 | What do you do when your children have: Diarrhea _____ Whooping-cough _____ Measles _____ Respiratory troubles _____ Worms _____ Fever _____ Other sickness _____ They refuse to eat _____ | |

| No | | Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| 24 | <p>What kinds of things do you do to prevent sickness:</p> <p>Eat well_____ Wash yourself_____ Pure water_____</p> <p>Wear shoes_____ Witchdoctor_____ Medicine_____</p> <p>Vaccines_____ Other_____</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | <p>What are the usual causes of sickness?</p> <p>Bad spirits sent by someone_____</p> <p>Another sick person near you_____</p> <p>By eating or drinking spoiled or old food_____</p> <p>Natural phenomena:</p> <p>Sun_____ Wind_____ Moon_____ Rain_____ Other_____</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | <p>Have you ever been vaccinated against:</p> <table border="1"> <thead> <tr> <th data-bbox="430 1251 520 1285">TYPE</th> <th data-bbox="725 1251 916 1285">No. of times</th> <th data-bbox="1078 1251 1147 1285">YEAR</th> <th data-bbox="1286 1251 1373 1285">PLACE</th> </tr> </thead> <tbody> <tr> <td data-bbox="430 1318 583 1351">Small Pox</td> <td data-bbox="725 1340 916 1351">_____</td> <td data-bbox="1078 1340 1147 1351">_____</td> <td data-bbox="1286 1340 1433 1351">_____</td> </tr> <tr> <td data-bbox="430 1384 626 1417">Yellow fever</td> <td data-bbox="725 1406 916 1417">_____</td> <td data-bbox="1078 1406 1147 1417">_____</td> <td data-bbox="1286 1406 1433 1417">_____</td> </tr> <tr> <td data-bbox="430 1451 548 1484">Cholera</td> <td data-bbox="725 1473 916 1484">_____</td> <td data-bbox="1078 1473 1147 1484">_____</td> <td data-bbox="1286 1473 1433 1484">_____</td> </tr> <tr> <td data-bbox="430 1517 565 1550">Typhoid</td> <td data-bbox="725 1539 916 1550">_____</td> <td data-bbox="1078 1539 1147 1550">_____</td> <td data-bbox="1286 1539 1433 1550">_____</td> </tr> <tr> <td data-bbox="430 1583 583 1616">Dyptheria</td> <td data-bbox="725 1605 916 1616">_____</td> <td data-bbox="1078 1605 1147 1616">_____</td> <td data-bbox="1286 1605 1433 1616">_____</td> </tr> <tr> <td data-bbox="430 1650 548 1683">Tetanus</td> <td data-bbox="725 1672 916 1683">_____</td> <td data-bbox="1078 1672 1147 1683">_____</td> <td data-bbox="1286 1672 1433 1683">_____</td> </tr> <tr> <td data-bbox="430 1716 531 1749">B.C.G.</td> <td data-bbox="725 1738 916 1749">_____</td> <td data-bbox="1078 1738 1147 1749">_____</td> <td data-bbox="1286 1738 1433 1749">_____</td> </tr> <tr> <td data-bbox="430 1782 548 1816">Measles</td> <td data-bbox="725 1804 916 1816">_____</td> <td data-bbox="1078 1804 1147 1816">_____</td> <td data-bbox="1286 1804 1433 1816">_____</td> </tr> </tbody> </table> | TYPE | No. of times | YEAR | PLACE | Small Pox | _____ | _____ | _____ | Yellow fever | _____ | _____ | _____ | Cholera | _____ | _____ | _____ | Typhoid | _____ | _____ | _____ | Dyptheria | _____ | _____ | _____ | Tetanus | _____ | _____ | _____ | B.C.G. | _____ | _____ | _____ | Measles | _____ | _____ | _____ | |
| TYPE | No. of times | YEAR | PLACE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Small Pox | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yellow fever | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cholera | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Typhoid | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dyptheria | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tetanus | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.C.G. | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Measles | _____ | _____ | _____ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| No | | Code |
|----|----------------------------------------------------------------------------------------------------|------|
| 27 | Do you take something to prevent malaria? Yes _____ No _____ If yes, what? | |
| 28 | At what age do you stop nursing your children? | |
| 29 | What do you give your children when you begin to wean them? | |
| 30 | Do you feed your child milk because you have weaned him? Yes _____ No _____ | |
| 31 | At what month do you give solid food, other than maternal milk, to your child? _____ What food? | |



APPENDIX K

