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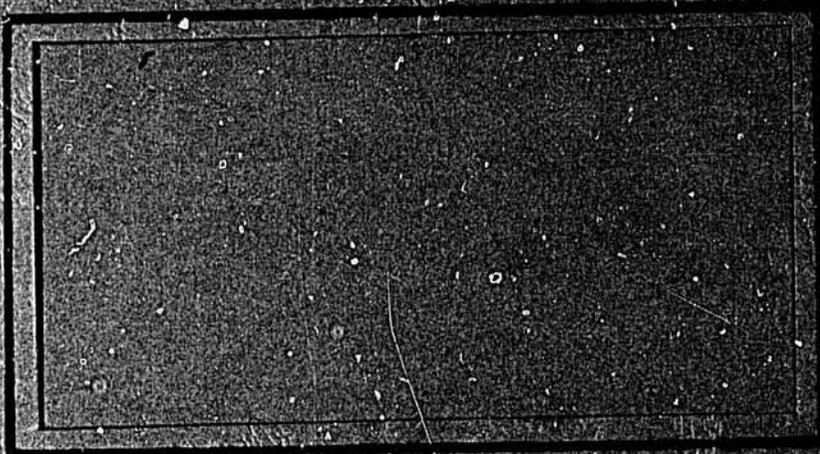
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AMERICAN OVERSIGHT BOARD  
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PROJECT DESIGN FOR A  
REPRODUCTIVE HEALTH PROGRAM  
IN CAMEROON

A Report Prepared By:

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PROJECT DESIGN FOR  
REPRODUCTIVE HEALTH PROGRAM  
CAMEROON

I. OBJECTIVE

The Regional Development Office (RDO) Health, Nutrition and Population Officer, Dr. Henn, in Yaounde requested two project design technicians to assist in the preparation of a project paper for a reproductive health program in the United Republic of Cameroon. The project paper was to be based on a Project Identification Document (PID) (Appendix C) which had been discussed with Dr. Mafiamba, the Technical Advisor to the Ministry of Health (MOH), and Dr. Nasah, Chief of OB/GYN of CUSS (Centre Universitaire des Services Sanitaires). The PID proposed to establish 50 fertility management service centers throughout Cameroon in Department level hospitals (40 Departments and 10 additional centers in densely populated areas). These centers were to replicate a combined high risk family planning and infertility clinic established by CUSS in Yaounde.

II. FEASIBILITY OF THE ASSIGNMENT

It was not feasible to achieve the objective as stated above. An Interministerial meeting, held to present the PID and explain the purpose of the consultancy, concluded that the approach outlined in the PID was unacceptable in its present form to the Government of the United Republic of Cameroon (GURC). The purported reasons for its unacceptability were: 1) The magnitude of the project was too great. 2) It appeared to place too much emphasis on family planning. 3) It was based on a model (Dr. Nasah's high-risk child spacing/infertility management clinic) which was not officially recognized nor fully evaluated. 4) Its objectives could not be related to any current government health or population policy.

The consultants were requested to develop a project concept which would be: 1) more modest; 2) demonstrational in purpose; 3) flexible; and 4) which would stress health education.

III. ACCOMPLISHMENTS

A new project concept was proposed which integrated preventive

maternal health services at the health center level, high risk obstetric and gynecological care at Departmental and provincial hospital level, infertility management, gonorrhoea control, child spacing, and family health education within an overall program objective of improving the health of women of child bearing age. The objective of the project was to establish pilot programs in each province in order to develop regional strategies for improving maternal health.

This project proposal (or concept) (Appendix F) differed slightly from the original PID in that; 1) it more explicitly stated maternal health as its long-range goal; 2) it specifically referred to child spacing as a voluntary activity and as a means of improving maternal health; 3) it aimed at the development of programs that would take into account regional differences, rather than aiming at the replication of the CUSS "experiment", which was itself in an initial stage of development; 4) it specified a more elaborate family health education program at the community level; and 5) it added gonorrhoea control as a major program component in dealing with infertility problems. In short, it placed the concept of reproductive health squarely in the context of maternal health.

#### IV. BACKGROUND TO PROJECT DESIGN FEASIBILITY

At the time this consultancy began, there was every reason to expect a favorable GURC response to the PID and a population-oriented program in general. In 1970, the GURC formally permitted family planning to be included in the medical curriculum. Dr. Henn and Dr. Nasah had attended a world population conference to present papers on fertility programs in Cameroon. This was interpreted as a tacit GURC acknowledgement of population programming as a viable concept in Cameroon. Dr. Henn had been holding discussions with Dr. Mafiamba, Technical Advisor to the MOH, about the reproductive health program, and Dr. Henn proceeded with the arrangements for project design and the Interministerial meeting on the basis of the latter's encouragement. This included the drafting of a letter from the Minister of Health to AID indicating interest in programming possibilities in the area of infertility.

In addition to the productive relationships evolving between the RDO and the GURC in regard to the reproductive health project, there was, as well, progressive growth and interest in family planning and child spacing activities among private and public health institutions. The National Women's Organization has been actively seeking U.S. assistance to expand

its family planning activities, and USAID has placed this organization's representative, Dr. Ngango, in contact with several private organizations, such as Pathfinder. The Women's Division of the Ministry of Agriculture is interested in starting some extension programs directed toward women which would involve child spacing education. (This information was obtained from the CARE representative who is developing a program in conjunction with the Community Development Division of the MOA). Many of the Departmental and provincial hospitals provided contraceptive services on demand, including sterilization.

#### V. DETAILS OF THE ASSIGNMENT AND DISCUSSION

The consultant first met with Dr. Henn for an initial briefing regarding the PID and the status of discussion with the Government of the United Republic of Cameroon on the reproductive health project. Dr. Henn informed us that an official request from the Ministry of Economic Affairs and Planning for the project design technicians was forthcoming. Until it was issued we would be introduced as AID consultants doing a feasibility study for a reproductive health program. (The request did not come through)

The consultants were subsequently introduced to Dr. Mafiamba, Technical Advisor to the MOH, Dr. Minkanda, Director of MCH Services, and Dr. Nasah, Chief of OB/GYN, CUSS, whose infertility, highrisk and child spacing clinic was the model for the PID. An Interministerial meeting was scheduled to introduce the PID and discuss plans for designing the project.

Prior to this meeting, the consultants spent a week visiting hospitals and health centers in Francophone and Anglophone provinces to discuss infertility problems and family planning activities with medical officers and health personnel at these institutions. At some provincial and Departmental hospitals, there appeared to be an attempt to perform some fairly sophisticated diagnosis and treatment of infertility though the results were poor. However, as there were no statistics, impressions varied as to the degree of infertility. There was also considerable variation in impressions as to the extent of family planning activities, and the demand for and acceptability of family planning in these areas. There was, however, general agreement that gonorrhoea was at an epidemic level and the major cause of infertility, and that treatment for gonorrhoea, when available, was often prohibitively expensive. (See Appendix B for further details.)

An Interministerial meeting was held on March 1, under the auspices of the Ministry of Planning. Attending were representatives of the Ministry of Health, Ministry of Social

Affairs and AID (Dr. Henn and Douglas Palmer). Dr. Nasah as well as other CUSS officials were absent. Dr. Henn described the project as proposed in the PID, and then invited comments from Ministry representatives. The representative of the Ministry of Social Affairs took the initiative and criticized the project proposal as inconsistent with President Ahidjo's statements regarding family planning. This position was supported by the other Cameroonian officials. They contended that there was too much emphasis on family planning (90% of the PID); that 50 Department hospitals constituted too vast an undertaking, and thus was inconsistent with the government policy of evolutionary change; that it did not take account of the current demographic research, particularly the World Fertility Survey, the results of which had to precede a population policy; that there was no provision for public education; and, that the CUSS model was not applicable to all of Cameroon. (See Appendix E.)

Four criteria were then offered as necessary in developing a reproductive health project: 1) It had to be a modest pilot project, perhaps only one center per province. 2) It had to emphasize health education. 3) It had to take into account regional and ethnic variations in health problems and resources. 4) It had to be susceptible to modification by policies that might result from the data collected in the World Fertility Survey and in other studies.

Several reasons are adduced for the equivocal response by the members of the Interministerial meeting to the PID. Although their reaction was unanticipated and disappointing, it did not imply a rejection of GURC interest in developing a population-oriented program in conjunction with AID. The consultants interpret the meeting as an occasion to air and resolve several outstanding inter-organizational issues which largely concerned prospective institutional management of this project. This presumption is based on the objections raised at the meeting and on subsequent discussions with participants following this meeting, as well as with Dr. Monekosso who did not attend this meeting.

One of the principle issues of contention concerned the major role assigned to CUSS in administering the project. Dr. Monekosso confirmed the general indications emerging from the meeting that relations between the MOH and CUSS have been less than congenial during the last two years, because of the apparent leadership CUSS has been assuming in the field of health development, and, in particular, because of a dispute over the jurisdiction of the new teaching

hospital, which still remains unopened except for the outpatient wing into which CUSS has moved its high-risk obstetric and family planning clinic.

Related to this general rivalry between CUSS and the MOH is the fact that the project appeared to be structured on the CUSS program and closely identified with one individual, Dr. Nasah. As Dr. Mafiamba is also engaged in research regarding the epidemiology and etiology of infertility, and as the PID appeared to give priority to Dr. Nasah's research interests, Dr. Mafiamba may have used this occasion to indicate his feelings regarding the exclusive reliance on CUSS in the area of research. Similarly, the basis for Dr. Ngango's objections may have reflected her institutional interest (the National Women's Organization and the Ministry of Social Affairs) which did not appear to be met in the context of the PID.

The French translation of the PID (See Appendix D), which was the working document for the meeting, used terms regarding family planning which connoted involuntary limitation of births rather than voluntary child spacing. An issue was made of the word "controle" particularly in regard to the budget allocation of \$100,000.00 for contraceptives. Dr. Mafiamba, for example, asserted that the English version was acceptable particularly in its explicit statement of the program objective; i.e. "improvement of maternal and child health through the reduction of health problems associated with reproduction" (See face sheet of PID). He claimed this objective was not evident in the French version.

The "French" issue may be a reflection of the Francophone-Anglophone rivalry in Cameroon. In this case language may have been used as a pretext for raising objections to or misinterpreting the intent of the document as part of the more general conflict between Anglophone CUSS and Francophone MOH. Although the first comment on the second document submitted to the MOH concerned the French version's linguistic barbarisms, the document was acceptable; i.e. considerations of style replaced considerations of language once the CUSS role was formally minimized.

Following this meeting, it was decided that the consultants should attempt to obtain maximum Cameroonian participation in any further elaboration of the project paper; that they should work primarily through the MOH rather than CUSS; and that their primary contact should be Dr. Mafiamba, as he was the MOH representative most familiar with the project. However, in a meeting with him the next day to review the

implications of the Interministerial meeting and to suggest that he take charge in organizing Cameroonian participation, the consultants were told that henceforth they would have to deal with the Director of Public Health, Dr. Atangana. They went directly to his office, where they encountered another obstacle.

Dr. Atangana informed them that he was not officially apprised of the project (although he had been invited to the Interministerial meeting, and had apparently been sent a copy of the PID), and that he could not pursue the matter until he received instructions from the Minister of Health. It was his opinion that in introducing this project, protocol had not been observed. However, he agreed to meet with the consultants the next day to discuss the matter further.

The next morning the consultants gave him a copy of the PID, which he rejected as being unacceptable to the MOH, and inconsistent with the current U.S. international population policy (as enunciated by President Carter in an address to the United Nations) which he read aloud. He refused to call an MOH meeting to discuss this project until he received a new project proposal. However, in discussing the general objectives of a project regarding reproductive health which would be acceptable, he asserted that such a project would be acceptable if placed within the general framework of maternal and child health and if child spacing activities were clearly indicated as voluntary. Further discussion with Dr. Monekosso, Director of CUSS, supported this view. Dr. Monekosso also suggested mention of CUSS be left out.

On the basis of these discussions, the consultants developed a "new" project concept which incorporated maternal health as the primary objective. It is conceived of as a demonstration project to develop long-term strategies for comprehensive programs that will improve the health of women of child-bearing age. It takes into account regional variation by aiming at identifying and testing the most effective combinations and balances of possible preventive and curative services for each region. The project places stronger emphasis on family health education, particularly in relation to gonorrhoea control, as one way of reducing the prevalence of infertility. The project is based on the MCH center rather than on the Departmental hospital, though the latter, as well as provincial hospitals, are involved as secondary and tertiary care referral institutions. It avoids all mention of CUSS, giving responsibility to the MOH for development and administration. Otherwise it includes all the elements of the original PID; i.e.,

infertility management, contraceptive services, and training and research. In total, we envision that there will still be about 50 health facilities involved in this project, though at least half will be MCH centers.

A major change concerns technical assistance. As the emphasis of this project is now mainly on operational research. (i.e., the development of regional maternal health program strategies), and as MCH, health education, and gonorrhea control constitute major component activities, experts in health planning and administration, public health nursing, and communicable disease control have been suggested as project technicians. An OB/GYN specialist would only be required on a short term basis to introduce new techniques or technology applicable to infertility management.

A provisional list of basic equipment and medications was also identified. Expenditures for contraceptives were sharply reduced for two reasons. The original budget of \$100,000 was criticized as excessive and indicative of the family planning objectives of the PID; it was emphasized that child spacing could just as well be accomplished by encouraging traditional practice of long-term post-partum abstinence. In regard to condoms for use in gonorrhea control, many officials find this idea amusing and further effort will be needed to convince them that this is a potentially effective use of contraceptives on a mass scale to combat infertility problems caused by gonorrhea.

The new project concept was submitted to Dr. Atangana after being reviewed and approved by the RDO staff. On March 15 the consultants met with Dr. Atangana, and on March 16 they participated in a meeting of MOH officials, chaired by Dr. Atangana. Dr. Nasah was present at this meeting. The result of these meetings was that the new project concept was found to be acceptable and that it formed the basis for discussing the details of a project.

The project principles were reaffirmed in a second Interministerial meeting which followed on March 17. Dr. Nasah was also present at this meeting. Furthermore, Dr. Minkanda, Director of MCH Services, MOH, made the principal presentation of the project at the Interministerial meeting. The Ministry of Social Affairs (MSA) representative asserted that since many of the project elements overlap with MSA objectives, the latter should be involved as well in its implementation. The representative of the Ministry of Economic Affairs and Planning suggested that coordination with other GURC organizations and Ministries should be sought in developing and implementing the project.

In view of these suggestions regarding development and implementation, Dr. Henn proposed that Cameroon officials take responsibility in developing the project paper. They agreed and indicated their eagerness to do just this. Dr. Henn proposes to give the MOH copies of the detailed project description, technical analysis, implementation plan, and evaluation plan, which the consultants prepared on the basis of the project proposal, to use as a model so that the project can be developed according to the AID format. (See Appendix G.) Dr. Henn plans to wait until May 1978 to see what progress the MOH will make before reassuming a more active managerial role in this project.

## VI. CONCLUSIONS

This consultancy resulted in the first official consideration of the reproductive health project by GURC representatives. The events described above were indicative of the GURC's continued interest in the general project concept and of their intent to participate in the design of the project. There was essentially no inconsistency in the GURC's position between the opening and closing Interministerial meetings. The first meeting was a necessary step in the project design as it provided necessary clarification in regard to the feasible magnitude of the project and its institutional setting. The second document prepared by the consultants constituted a modification of the original PID reflecting the GURC's input into the design process. Maximizing GURC input in the development of the reproductive health project has been the goal of the RDO and will continue to be the goal in further stages of project design.

This consultancy facilitated the development of the project by refining the framework and terminology of the original PID into a project proposal acceptable in principle to all potential participants in the project. The consultancy further served to move the development of the project from the initial stage of informal discussion to a necessary intermediary stage of formal definition of purpose prior to the technical design phase.

PERSONS CONTACTED

AID

Mr. J. Koehring, RDO  
Dr. A. Henn, Chief, Health, Nutrition and Population  
Mr. D. Palmer, Health Development Officer

Harvard-CUSS

Dr. G. Chamberlin, Chief of Party  
Dr. J. Naponick, Ob-Gyn  
Ms. S. Colgate, Nurse/Midwife

Downstate'

Ms. Lise Cousenau, Africa Representative

CUSS

Dr. G. Monekosso, Director  
Dr. B. Nasah, Chief, Ob-Gyn  
Dr. D. Lantum, Coordinator, Public Health Unit.  
Dr. T. Nchnida, Staff, Public Health Unit  
Mrs. Monekosso, Nurse/Midwife

Ministry of Public Health

Dr. S. Atangana, Director of Public Health  
Dr. P. Mafiamba, Technical Advisor  
Dr. M. Minkanda, Chief, MCH Services  
(For regional personnel see Appendix B)

Ministry of Social Affairs

Dr. C. Ngango, Chief, Demographic and Women's Division

Ministry of Economic Affairs and Planning

Dr. P. Mandeng, Chief, Human Resources Division

Ministry of Education

Mr. M. Tchegho, Chief, Training

WHO

Dr. R. Dackey, Regional Representative

CARE

Mr. E. Franklin, Country Director

Catholic Relief Services

Ms. C. Kellerher, Country Director

Names of chiefs of departments and other MOH staff attending 16 March meeting at MOH will be obtainable from minutes of that meeting. (Appendix B)

SUMMARY NOTES OF PRINCIPAL MEETINGS

This summary of meetings held during this consultancy will use the following format: Date, Participants, Purpose and major points made or raised during discussions.

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Feb. 21 Dr. Henn, RDO, and Douglas Palmer, USAID. Briefing on project background.

Discussion:

- 1) CUSS represented GURC's de facto family planning project.
- 2) Next step is to get the GURC to invite AID to participate in national family planning program.
- 3) MOH approved invitation to design project, but consultants will be introduced as doing feasibility study until official request is received.
- 4) Interministerial meeting scheduled for March 3 under auspices of Ministry of Economic Affairs and Planning (MOPlan) which is sending out invitations to Ministry of Health (MOH), Ministry of Education (MOE) Ministry of Social Affairs (MSA) and CUSS.
- 5) Design objectives: to replicate work of Dr. B. Nasah at Central Hospital and CUSS; i.e. to develop a network of infertility management, high risk pregnancy, and family planning clinics to which equipment and contraceptives will be provided, and to initiate regular series of training courses in these areas. (See PID for details.)

- 6) Dr. Monekosso, Director of CUSS suggested project be administered under MOH instead of CUSS.
- 7) Dr. John Naponick, Ob-Gyn. Harvard-CUSS, suggested as potential project coordinator.
- 8) Project Design Objectives:
  - a) National level: development of record/reporting system, continuing inservice education, publications, research.
  - b) Provincial level: development of training centers.
  - c) Departmental level: replication of National level activities using CUSS graduates.
- 9) Project paper deadlines and division of responsibilities: design technicians to write: Detailed Description, Technical Analysis, Financial Analysis and Plan, Administration, Implementation Plan, and relevant annexes--curriculum guidelines, equipment list, research protocols, publication format.

Feb. 22 Dr. Mafiamba, Technical Advisor to MOH; Dr. Minkanda, Chief, MCH, MOH; Dr. Henn, Douglas Palmer. Introduce design technicians.

Discussions:

- 1) MOH representatives briefed on purpose of project, design objectives, and planned series of site visits to departmental hospitals staffed by CUSS graduates.
- 2) Priority of infertility vs. fertility in project development. Henn explained project must relate to African needs in all areas of reproduction.
- 3) MOH questioned the official status of Dr. Nasah's project, and feasibility of family planning in rural areas.
- 4) Presentation of project proposal to Interministerial meeting: Dr. Mafiamba suggested presentation be made by Dr. Henn and Dr. Nasah.

Feb. 22 Dr. Nasah, Dr. Henn, Douglas Palmer. Briefing on selection of site visits.

Discussion:

- 1) Selection of departmental hospitals in South-west, West, North West (Anglophone) provinces, and Littoral (Francophone) province.
- 2) Dr. Nasah discussed project objectives at National Provincial, and Departmental levels; problems and inefficiency in managing services in provinces; preference at this time for training only doctors for the project; identification of male and female infertility problems; research on pregnancy wastage, age of menarchy, local practices related to sex, and birth, and male infertility (ex., baseline data on normal semen); need for standardized records and data collection systems.
- 3) Dr. Nasah mentioned need to support infant welfare programs, but Henn said that should be part of Mecam project, rather than of reproductive health.

Feb. 23 Visit to CUSS annex at Efouloulan Mvolye. Mrs. Monehosso, midwife; Susan Colgate, midwife, Harvard/CUSS.

Discussion:

- 1) CUSS student training program in rural family health; work with Village Health Committees; research on malaria in pregnant women being carried out by Dr. G. Martins, (CUSS).
- 2) Difficulties in coordinating activities of CUSS annex with adjacent MOH health center in view of the fact that patients use both facilities for same services; problems in referral system between annex and CUSS high-risk clinic.

Feb. 24-28 Site Visits. Consultants accompanied by Douglas Palmer and Dr. Naponick. To review situation in departmental hospitals vis-a-vis requirements for infertility and family planning programs.

Feb. 24 South West Province, Mbue. Dr. A. B. Yongbang, MOH Provincial Representative.

Discussion:

- 1) Infertility: Dr. Yongbang estimate 20% of Ob-Gyn patients come for infertility complaints, of which 80% are due to pelvic infection, mainly gonorrhoea; 20-30 isolated cases attributed to male infertility.
- 2) Uses standard methods of diagnoses and treatment: tubal insuflation, HSG, hydro-tubation, tuboplasty.
- 3) Noted emergence of resistant strains of gonorrhoea owing to incomplete therapy because of high cost of drugs; considers gonorrhoea to be of epidemic proportions.
- 4) Contraception: on demand and by medical indication in government hospitals; demand is under 5% of patient load, though there may be hidden demand in very young age group, mainly high school age girls, among whom there is also high incidence of criminal abortion and mortality from induced (criminal) abortions.

Feb. 24 Tiko Health Center. Mrs. Amoniba, Nurse Midwife. Center provides routine prenatal care, has 20 bed maternity, CRS supported preschool nutrition program. Very little equipment, or drugs available in pharmacy (run by municipality).

Discussion:

- 1) Infertility: cases always referred to provincial hospital. Calls g.c. "general condition."
- 2) Contraception: always referred to provincial hospital.
- 3) Referrals: system doesn't work as many patients go instead to private hospitals or doctors. In general, patients with problems tend to by pass MCH level as latter has to refer so many because it lacks drugs and basic diagnostic equipment.

Feb. 25 Littoral Province. Nkongsomba Departmental Hospital. Dr. Embe (Cooperation Francaise).

Discussion:

- 1) Infertility: Only about 2% of Ob-Gyn patients come for infertility complaints, mainly due to gonorrhoea; diagnoses and treatment by tubal insufflation, HSG, and tuboplasty and antibiotics (which are prohibitively expensive -- 2000-3000 CFA (\$8-12) per complete treatment). Generally poor results from treatment.
- 2) Family Planning: Negligible demand.

Feb. 25 West Province. Bafang Departmental Hospital. Dr. Menube, CUSS graduate.

Discussion:

- 1) Resident Ob-Gyn was on vacation. Dr. Menube had only vague idea regarding infertility problem; estimated 10% Ob-Gyn cases came for infertility complaints, mostly women with tubal occlusion and a few men with oligo - or azospermia (Lab reported 6 or 7 abnormal sperm counts in last 6 months). Diagnoses by HSG, Basal Body Temperature, spermagram; treats by antibiotics and surgery -- with poor results.
- 2) Contraception: No services; thinks cases referred to larger hospital in Baffoussam; knew of less than 20 demands and pessimistic about popular acceptance except among educated.

Feb. 27 North-West Province. Bamenda Provincial Hospital. Mr. J. Nchamukong, Director General; Miss. Geh, Chief Nurse, Ob-Gyn; Dr. Epanty, staff physician and lecturer in family planning at Nursing School; Dr. Nana, Technical Advisor.

Discussion:

- 1) Mr. Nchamukong noted difficulties in getting equipment and drugs from MOH.
- 2) Miss Geh did not see much infertility, referred demands for contraceptives to doctors; noted about 2 to 3 medically indicated sterilizations per month.
- 3) Dr. Epanty, (Masters in Community Medicine from

Liverpool) is teaching a course in family planning to graduating nurses; 5 in class; stresses patient education role of nurse/nurse midwife. Infertility: 3 or 4 out of the 500 patients seen per month, usually due to gonorrhea, rarely to T.B.

- 4) Dr. Nana (Univ. of Pittsburg); Infertility: one third of Ob-Gyn patients come for infertility complaints, mainly owing to gonorrhea; most will go from doctor to doctor is not satisfied with treatment. Family Planning: not too great a demand; suggested spacing program could be located in MCH centers under medical supervision of Ob-Gyn departments of referral hospitals.

Feb. 27 Bafoot. Presbyterian Health Center.

Discussion:

Family Planning: Contraceptive services started in 1976; so far 89 patient records, mostly from 1977; many drop outs, and many who come just for information.

Feb. 27 Bamenda. Dr. Fuching (Obgyn, Italy MOH provincial representative.

Discussion:

- 1) Infertility: great problem in the area among men and women; among women, 30% due to T.B.; among men, 40/49 had abnormal sperm counts. Diagnoses by insuflation, HSB, spermagram. Treats:
  - a) males with antibiotics, antiinflammatorys, argenine, Vitamin A and E, progesterone;
  - b) females with antibiotics, tuboplasty; results "very, very poor." Suggests headway in prevention could be made by keeping "free girls" in area under g.c. surveillance program.
- 2) Contraception: hospitals and private doctors provide IUD, pills, tubal ligation, but unsure of level of demand.
- 3) Research is difficult, as most laboratory analysis has to be done in Europe.

- 4) Sees various possibilities in establishing in-fertility family planning programs, both in MCH centers and through mobile clinic; major problem is organization.

Mar. 1 Interministerial Meeting, Ministry of Planning. Mr. P. Mandeng, Chief, Human Resources Development, MOPlan; MOH: Dr. Minkanda, MOH; Dr. Ngango, Chief, Demographic and Women's Division, Ministry of Social Affairs; Lise Cousenous, Downstate representative (formerly Harvard/CUSS midwife), Dr. Henn, Douglas Palmer, US AID. Absent: All CUSS representatives, and five other invitees from MOH and MOPlan (see AID request for meeting).

Discussion:

- 1) Dr. Henn presented Reproductive Health project proposal (using French translation of PID) then invited commentary and reactions from GURC representatives.
- 2) GURC Reaction: After much discussion largely initiated by Dr. Ngango, MSA, representatives rejected the PID project concept for the following reasons:
  - a) too much emphasis on family planning;
  - b) government policy on population must await results of various survey and studies currently underway;
  - c) CUSS project has not been fully evaluated and is not an official activity;
  - d) the proposed project is of too great a magnitude and inconsistent with government's policy of gradual evolution.
- 3) GURC representative assured us they were not opposed to the project in principle, but that a possible project would have to meet certain criteria:
  - a) more modest dimensions, possibly a demonstration project on provincial level but refuses to commit themselves to how many provinces;

- b) project would have to emphasize family health education at community level;
  - c) project would have to be flexible to adapt to regional variations in health problems and resources;
  - d) project would have to be sufficiently flexible to respond to new population or health policies that government might promulgate after survey results have been evaluated.
- 4) Much of their reluctance was couched in terms of not wanting to propose or support a program of a controversial nature, to their superiors, or to commit themselves to a project that might suffer a reverse if subsequently found to be inconsistent with government policy.
  - 5) Dr. Henn offered to send consultants home, but GURC asked consultants to stay on, continue their site visits, and present new proposal based on observations and comments made during the meeting.
  - 6) Second meeting scheduled for March 17.

Mar. 1 Dr. Henn, Douglas Palmer. Review of Interministerial meeting, and strategies for continuing consultancy.

Discussion:

- 1) Henceforth the approach would be to maximize input from GURC in development of this project; request GURC representative to participate in writing project description.
- 2) Decided it would be inopportune at the moment to seek Dr. Nasah's assistance; instead, approach Dr. Mafiamba, a principal contact in MOH, to assume or delegate responsibility.
- 3) The project could be limited to seven provincial hospitals, would not necessarily have to include family planning activities but would have related to reproductivity so as to be fundable under Title X.

4) Aim for a March 10 deadline for project paper.

Mar. 2 Demography and Women's Promotion Division, MSA. Dr. Ngango, MSA, Douglas Palmer. Exploration of reactions to Interministerial meeting.

Discussion:

- 1) Dr. Ngango stressed meeting should not be interpreted as discouraging to program efforts, but that, as there was no official government policy, there was no basis for a large scale project.
- 2) Project limited to seven centers might be acceptable. These could replicate CUSS model; thus it was not necessary to redefine project; however, health education should be included as major component.

Mar. 2 MOH. Dr. Mafiamba, Douglas Palmer. Explore reaction to and implications of interministerial meeting, and request him to coordinate project design efforts.

Discussion:

- 1) Mafiamba stressed need to limit program to pilot dimensions, possibly to seven centers in some key towns, giving priority to Ob-Gyn activities.
- 2) Given variation of reproductive problems in different regions, CUSS model of a fertility center would not be appropriate to all provinces.
- 3) Family planning might be acceptable in the context of high-risk pregnancy management, and education could apply to prevention of criminal abortions.
- 4) Objection to French version of PID was it's 90% emphasis on family planning; emphasis must be on non-family planning aspects.
- 5) Possible acceptable context would be for program objectives to clearly relate to maternal and child health, in general, and to the improvement of maternal health in particular.
- 6) Suggested meeting with Dr. Nasah and Dr. Minkanda for further discussion about project details, but

insisted that we go through the office of the Director of Public Health, Dr. Atangana, to arrange meetings.

Mar. 2 MOH. Dr. Atangana, Douglas Palmer. Arrange meetings with MOH and other officials to elaborate project details.

Discussion:

- 1) Dr. Atangana was concerned that protocol had not been followed in introducing project proposal; since he was not officially involved in this project, he would need instructions from Minister of Health before he could proceed further in this matter.
- 2) Asked us to return 3/3 for further discussion.

Mar. 3. MOH. Dr. Atangana, Douglas Palmer. Arrange meetings with MOH and other officials to develop project paper.

Discussion.

- 1) Received us cordially; read aloud entire Carter address to UN on U.S. role in international population programs, underlining passages which voiced U.S. readiness to support local policies.
- 2) Read French version of PID and asserted it was not in accordance with GURC policies as implications of family planning component was birth control.
- 3) Restated need for further instruction from Minister of Health before he could do anything, but suggested new project proposal be submitted based on recommendations of Inter-Ministerial meeting, which he would then circulate among his department heads for their reactions.
- 4) Meeting with other MOH officials could be arranged subsequently.

Mar. 6 USAID. John Koehring, RDO, Douglas Palmer.  
Review of project status.

Discussion:

- 1) Decided it was advisable to continue to work within the framework of the MOH, in anticipation of eventual CUSS/MOH coordination of activities.
- 2) Strategy devised was to continue as had been planned; i.e., present Dr. Atangana with a new project concept, unofficially as a draft, after approval by AID staff.

Mar. 6 Site visit to National Women's Organization's Social center to observe and discuss health activities; courtesy calls and discussion with, CARE, CRS and WHO representatives.

Mar. 7 CUSS. Dr. Monokosso, Douglas Palmer. Discuss current status of project design.

Discussion:

- 1) Advised Dr. Monokosso on results of Inter-ministerial meeting and criteria for project acceptability.
- 2) Monokosso suggested project have a wider family health orientation, focussing on care of pregnant women and neo-nates; project should not include mention of CUSS as a model or integral part of program; except,
  - 1) if project includes post graduate training in reproductive physiology, to use CUSS as research and teaching back-up for MOH, or
  - 2) to use CUSS staff on an individual consultant basis for the project; agreed to necessity of scaling down project to pilot dimensions.

Mar. 10 MOH. Dr. Atangana, Douglas Palmer. Submission of draft of new project proposal.

Discussion:

- 1) Dr. Atangana skimmed document and indicated he thought it would be viable; said he would distribute copies in English and French to MOH department chiefs, and arrange meeting for following week.

Mar. 15 MOH. Dr. Atangana, Dr. Henn, Douglas Palmer. Review of New Project Proposal (Avant Projet), and discussion of project details.

Discussion:

- 1) Dr. Atangana accepted project concept without changes, and, specifically, the integration of child spacing and reproductive health within the overall context of a maternal health program; the project would be undertaken by the MOH, with inputs from other government organizations (UCSS as well); project would be based on the health center with linkages to departmental and provincial hospitals by referral system; project would start in first year in Central-South and Eastern provinces, and then expand every six months to two other pairs of contrasting provinces.
- 2) Basic components would be strengthening maternal health services at health centers, highrisk obstetrics, gonorrhoea control, infertility management, child spacing, and family health education.
- 3) Pilot model for each province would be either;
  - a) based on a sample population of 25,000 and the health facilities serving this population, or
  - b) on three separate health centers, linked to three departmental hospitals, and then to the provincial hospital.
- 4) Technical assistance team would include health services planning and administration specialist, public health advisor in communicable diseases control and public health nurse; and several short term consultants among which an Ob-Gyn specialist would be included.

Mar. 16 MOH, Dr. Atangana, Chiefs of MOH Departments, Dr. Henn Douglas Palmer. Presentation and Discussion of the Avant Project.

Discussion:

- 1) Although the GURC policy is pro-natalist providing contraceptive services would be legal as long as the emphasis is on maternal health rather than on family planning.
- 2) Maternal health in which the focus is on women of child bearing age rather than on the broader maternal-child couple was a viable and realistic program objective.
- 3) Management and operational objectives of the pilot project concept were acceptable in view fact that current MCH Centers and referral systems were not functioning effectively.
- 4) Project could start and expand as agreed in meeting on March 15.
- 5) Equipment and pharmaceutical needs would have to be considered in light of long-term problems of standardization and maintenance.
- 6) Long-term implications of the project would have to be determined.
- 7) Technical assistance needs would have to be reviewed and clarified.
- 8) Conclusions and recommendations of the meeting would be forwarded to the Minister of Health.
- 9) MOH representatives would summarize results of this meeting and make presentation of the of the Avant Project at The Interministerial meeting on March 17.

March 17. Interministerial Meeting, Under Auspices of Ministry of Economic Affairs and Planning. Dr. Mandeng, MOPlan; Dr. Meyono, Chief of Services for External Agreements, MOPlan; Dr. Minkanda, MOH; Dr. Ngango, MSA; Mr. Tchegho, MOE; Dr. Nasah,

CUSS; Lise Cousenau, Downstate; Dr. Henn, Douglas Palmer Fritz Gilbert, USAID Review of Project proposal status based on recommendations of first Interministerial meeting.

Discussion:

- 1) Dr. Minkanda summarized conclusions of MOH meeting: Avant Project accorded with MOH and national policy, took account of regional differences. Objective of maternal health and health of women of child-bearing age was realistic and feasible; program could be integrated into MOH administrative structure; details would be worked out in development phase.
- 2) Discussion which followed raised questions of interministerial cooperation as well as involvement of national research organization (ONRS) in project; possibilities of using qualified Cameroonians for technical expertise; need for standardization and maintenance of equipment.
- 3) Meeting concluded: project concept is acceptable and viable, and Cameroonians will be responsible for project design.

Feb 17

USAID dr. Henn, Douglas Palmer. Review of future strategy.

Discussion:

- 1) USAID will wait until May 1978 to see what steps GURC takes in project design.
- 2) USAID will provide GURC/MOH with copy of project description, technical analysis and administrative and evaluation plans developed by design technicians based on Avant Project as model to follow in their design efforts.
- 3) If there are no results by May 1978, USAID will reconvene conference to assess progress.
- 4) USAID will maximize opportunities for this project to be completely developed by GURC.

AGENCY FOR INTERNATIONAL DEVELOPMENT <b>PROJECT IDENTIFICATION DOCUMENT FACESHEET</b> TO BE COMPLETED BY ORIGINATING OFFICE				1. TRANSACTION CODE <input type="checkbox"/> A    A = ADD <input type="checkbox"/> C    C = CHANGE <input type="checkbox"/> D    D = DELETE		PID E. DOCUMENT CODE	
3. COUNTRY/ENTITY CAMEROON				4. DOCUMENT REVISION NUMBER			
5. PROJECT NUMBER (7 DIGITS)		6. BUREAU/OFFICE		7. PROJECT TITLE (MAXIMUM 40 CHARACTERS)			
[                      ]		A. SYMBOL AFR    B. CODE 06		[ Fertility Management ]			
8. PROPOSED NEXT DOCUMENT				10. ESTIMATED COSTS (\$000 OR EQUIVALENT, \$1 = 250 CFA)			
A. <input type="checkbox"/> 3    2 = PRP <input type="checkbox"/> 3    3 = PP				B. DATE    MM YY 03 17			
9. ESTIMATED BY OF AUTHORIZATION/OBLIGATION				10. ESTIMATED COSTS (continued)			
a. INITIAL FY [7] b. FINAL FY [19]				FUNDING SOURCE    646504 A. AID APPROPRIATED    1135 B. OTHER U.S. \$ C. HOST COUNTRY    2000 D. OTHER DCHOR (B) TOTAL    3135			
11. PROPOSED BUDGET AID APPROPRIATED FUNDS (\$000)							
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	PRIMARY TECH. CODE		E. FIRST FY		LIFE OF PROJECT	
		C. GRANT	D. LOAN	F. GRANT	G. LOAN	H. GRANT	I. LOAN
(1)				800		1135	
(2)							
(3)							
(4)							
TOTAL				800		1135	
12. SECONDARY TECHNICAL CODES (maximum six codes of three positions each)							
13. SPECIAL CONCERNS CODES (MAXIMUM SIX CODES OF FOUR POSITIONS EACH)						14. SECONDARY PURPOSE CODE	
15. PROJECT GOAL (MAXIMUM 240 CHARACTERS)							
[ Improvement of maternal and child health through the reduction of health problems associated with reproduction. ]							
16. PROJECT PURPOSE (MAXIMUM 480 CHARACTERS)							
[ Establishment of fertility management services for high-risk mothers in Cameroon through training and support of technicians at selected health facilities. ]							
L    PRM                      CON                      HNP                      DRDO							
17. PLANNING RESOURCE REQUIREMENTS (staff/funds)							
PP Design Team : 2 PM @ \$11,000 = \$22,000							
18. ORIGINATING OFFICE SIGNATURE						19. DATE DOCUMENT RECEIVED	
Signature						AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION	
Title			Date Signed			MM DD YY	
			MM DD YY			MM DD YY	

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SUMMARY OF THE PROBLEM

Maternal and child health continue to be adversely affected in Cameroon by problems associated with reproduction. The effects of unregulated fertility on health, usually related to "too many children too fast", are compounded in Cameroon by the problems associated with infertility. The latter problems are perceived as priority issues by the Cameroonians. This project, will be designed to deal with all problems of fertility, responding directly to the expressed needs of the people of Cameroon.

Cameroon has a population approaching 7.5 million (1976 Census results are expected soon) with a growth rate of 2.1% per year. Few areas of Cameroon demonstrate the effects of population pressure and the Government of Cameroon does not feel that population growth poses an immediate problem. On the other hand, the government does recognize the importance of making it possible for parents to determine the size and spacing of their families and is participating in the provision of full family planning services at the national hospital.

Involuntary subfertility and infertility is a problem which is seen with unusually high frequency in several central African countries. A 1976 WHO study in Cameroon showed a 16% incidence of primary sterility. In most OB/GYN outpatient facilities in Central Africa a sizeable proportion of patients have requested infertility services but few clinics are equipped to deal with problems of reduced fertility or infertility.

THE A.I.D. RESPONSE

Working with the Ministry of Health and the OB/GYN Division of the CUSS medical school, this project will provide training and commodity support to selected health facilities in Cameroon. The project will provide short-term faculty support for training Cameroonian health workers in the identification of high risk mothers and the provision of fertility management services. This training will be done at regular intervals throughout the life of the project and will focus on fertility management techniques reproductive counselling, health education and fertility research. Commodity support will be directly related to the provision of fertility management services and will include diagnostic and therapeutic equipment, contraceptive materials and educational materials. Approximately 50 referral health facilities will be aided direct through this project although the influence of the project will be felt throughout Cameroon as these facilities develop outreach relationships with the peripheral facilities they support.

DESCRIPTION OF THE PROJECT

Under the direction of the chief of OB/GYN at the CUSS medical school and the chief of OB/GYN at the national hospital Cameroon is developing a system of maternal and child health services throughout the country which utilizes a standardized approach to services and reporting. This project will help develop, at health facilities in each department and in the urban areas, fertility management services to deal with problems of reproduction.

Specifically the health workers of the selected facilities will be provided with training in fertility management directed at handling problems of infertility, subfertility for family planning. Although the patients will include all women desirous of services, a special effort will be made to identify and serve high risk mothers. Initial training will be for 2-3 weeks and will be conducted at several regional training sites throughout the country. This training will be followed by in-service training using a seminar or workshop format whereby health workers are brought together three or four times annually. The project will place one full-time technician in the field to work under the direction of the Director of OB/GYN at the Central Hospital. He will coordinate the short-term consultation, curriculum development, administrative support and commodity procurement for the project. The specific nature of the training, the identification of training sites and trainees, and the definition of commodity requirements and research goals will be developed during the design phase of the project.

#### ESTIMATED PROJECT OUTPUTS

1. Development of centrally coordinated system of fertility management services.
2. Establishment of 50 fertility management services center throughout Cameroon.
  - a. Training of physicians and middle level health workers.
  - b. Equipment support.

3. Development of active fertility research programs.

ESTIMATED PROJECT INPUTS

1. Long-term technical assistance (3 P. Years)	\$ 350,000
2. Short-term consultation (36 P. Months)	400,000
3. Training Costs	
a. Per Diem (150 x 8 x 7 x 12)	108,000
b. Transportation (150 x 8 x 10)	12,000
c. Educational materials	50,000
4. Equipment (medical/surgical)	100,000
5. Vehicle (1 Toyota Land Cruiser-Type)	15,000
6. Contraceptive Commodities	100,000
	<hr/>
TOTAL	\$ 1,135,000

MAJOR ASSUMPTIONS

The major assumption relating to this project is that the unwritten policy of the Government of Cameroon toward family planning has progressed far enough to permit Cameroon and A.I.D. to collaborate on a fertility management services project which deals with both infertility and child spacing.

Another assumption, which is well-supported in pilot projects, is that there will be a strong demand for the services offered by the fertility management centers.

It is also assumed that services delivered through the project will have a beneficial effect upon the health status of women and children in Cameroon.

#### RELATED ACTIVITIES

A.I.D. has engaged in sporadic training of Cameroonian health workers in family planning techniques and has contributed substantially to demographic and maternal and child health training, but this project will be the first which responds to the Cameroonian priority of addressing the problem of subfertility. Family planning services are currently being supported by A.I.D. at the CUSS maternity at the Central Hospital. After the services are developed by this project at the 50 target centers, the impact of this project will be further expanded through the health workers trained in the A.I.D. CUSS and MEDCAM projects. In addition, A.I.D. and other donors are contributing to a World Fertility Survey study of Cameroon.

#### REALISTIC ALTERNATIVES

This project utilizes the approach of developing family planning services in the context of comprehensive fertility management services. This context permits the project to respond directly to the priority problems of subfertility. Alternative approaches which dealt solely with contraceptive services would have little chance of receiving open support from the Cameroon Government at this time.

DIRECT BENEFICIARIES

The beneficiaries of this project will be the women of Cameroon who receive fertility management services including, inter alia, subfertility therapy, contraception and education/counselling.

SPREAD EFFECT

As fertility management services are developed at the 50 referral facilities, demand for these services is expected to increase. The health workers at these centers will train colleagues at peripheral facilities to deliver services, thus spreading the reach of the project to the village levels.

DEVELOPMENT OF PROJECT

Two months of design services will be required for full definition of this project. Ideally, the two designers would be a population technician capable of designing the training programs needed in fertility management, and a population project design officer familiar with identification of project personnel, commodity and management needs.

POLICY ISSUES

A. The establishment of a family planning or population policy by Cameroon will be advanced through direct participation in this project although this project does not confine, or even concentrate, its services or the problems of excess fertility.

B. The use of Title X funds to address the entire spectrum of fertility-related problems in Cameroon will represent a new AID policy to make its use of PHA/POP resources more responsive to the perceived needs of the recipients.

S A N T E D E L A R E P R O D U C T I O N

Projet de demande  
à adresser à l'USAID/Washington

Juin 1977

Approuvé par USAID/YAOUNDE

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### RESUME DU PROBLEME

La santé de la mère et de l'enfant continue à être contrecarrée au Cameroun par des problèmes en rapport avec la reproduction. Les effets sur la santé d'une fécondité non contrôlée, et qui sont habituellement liés au problème "trop d'enfants trop vite", sont associés au Cameroun avec les problèmes de la stérilité. Ces derniers sont considérés par les Camerounais comme des problèmes prioritaires. Ce projet sera conçu pour s'adresser à tous les problèmes de la fécondité répondant directement aux besoins exprimés par la population du Cameroun.

Le Cameroun a une population approximative de 7,5 millions d'habitants avec un taux d'accroissement de 2,1% par an. Peu de régions au Cameroun montrent les effets d'une pression de la population et le Gouvernement ne pense pas que l'accroissement de la population pose un problème immédiat. D'un autre côté le Gouvernement reconnaît qu'il est important de s'efforcer de donner aux parents la possibilité de décider de l'importance de leur famille et de l'espacement de leurs enfants et il participe à la prestation de services complets de planning familial à l'hôpital national.

La stérilité et la sous-fécondité sont des problèmes que l'on rencontre très fréquemment dans plusieurs pays d'Afrique Centrale. Une étude effectuée au Cameroun en 1976 par l'OMS a trouvé une incidence de 16% pour la stérilité primaire. Dans la plupart des dispensaires d'obstétrique-gynécologie en Afrique Centrale une importante proportion des malades a demandé des traitements de l'infécondité mais peu de cliniques sont

équipées pour pouvoir traiter les problèmes de l'infécondité ou de la fécondité insuffisante.

#### LA SOLUTION PROPOSEE PAR L'USAID

En travaillant avec le Ministère de la Santé et la Section d'Obstetri-Gynécologie du CUSS, ce projet offrira une formation et un soutien matériel à des dispensaires sélectionnés du Cameroun. Le projet fournira un soutien pédagogique à court-terme pour enseigner aux agents de santé camerounais la façon d'identifier les mères à risque élevé ainsi que la prestation de services de contrôle de la fécondité. Cette formation sera donnée à intervalles réguliers pendant la durée du projet, elle insistera particulièrement sur les techniques de contrôle de la fécondité, les conseils en matière de reproduction, l'éducation pour la santé et la recherche. Le soutien matériel sera lié directement à la prestation de services de contrôle de la fécondité et comprendra l'équipement pour les diagnostics et les soins, l'équipement pour la contraception et l'équipement éducatif. Environ 50 dispensaires d'orientation recevront une aide directe dans le cadre de ce projet mais cependant son influence se fera sentir dans tout le Cameroun à mesure que ces dispensaires établiront des relations avec les centres périphériques qu'ils encadrent.

#### DESCRIPTION DU PROJET

Sous la direction du chef de la Section d'Obstetri-Gynécologie du CUSS et celle du chef de la même section de l'hôpital national, le Cameroun

met en place un système de service de santé maternelle et infantile dans tout le pays. Ce système utilise des méthodes standardisées de prestations de services et de rapports. Ce projet aidera à établir dans les dispensaires de chaque département et dans ceux des zones urbaines des services de contrôle de la fécondité s'adressant aux problèmes de la reproduction.

En particulier les agents de santé des infrastructures choisies recevront une formation pour le contrôle de la fécondité visant à solutionner les problèmes de la stérilité, de la sous-fécondité et du planning familial. Malgré le fait que les malades comprendront toutes les femmes désireuses de bénéficier de ces services, un effort particulier sera fait pour identifier et traiter les grossesses à risque élevé.

La formation initiale durera deux à trois semaines et se déroulera dans plusieurs sites régionaux de formation dans tout le pays. Cette formation sera suivie d'une formation pratique sous forme de séminaire ou de stage où les agents de santé seront réunis trois ou quatre fois par an.

Le projet utilisera un expert à plein temps sur place travaillant sous la direction du Directeur de la Section d'Obstétri-Gynécologie à l'Hôpital Central. Il coordonnera les conseillers à court-terme, l'établissement du programme d'étude, le soutien administratif et l'acquisition des matériels et fournitures du projet.

La nature spécifique de la formation, l'identification des sites de formation et des stagiaires et la détermination des matériels et des

objectifs de la recherche seront précisés pendant l'étape de conception du projet.

#### REALISATIONS PREVUES DANS LE CADRE DU PROJET

1. Mise en place d'un système centralisé de services de contrôle de la fécondité.
2. Etablissement de 50 centres dans tout le Cameroun.
  - a. Formation des médecins et des agents de santé intermédiaires.
  - b. Soutien matériel.
3. Développement de programmes actifs de recherche sur la fécondité.

#### ESTIMATION DES APPORTS

1. Assistance Technique à long-terme (3 ans/homme)	\$ 350.000
2. Consultation à court-terme (36 mois/homme)	400.000
3. Frais de formation	
a. Entretien (150 x 8 x 7 x 12)	108.000
b. Transports (150 x 8 x 10)	12.000
c. Matériel pédagogique	50.000
4. Equipement (médical/chirurgical)	100.000
5. Véhicule (1 Toyota Land Cruiser)	15.000
6. Fournitures contraceptives	<u>100.000</u>
TOTAL	\$ 1.135.000

### HYPOTHESES DE BASE

L'hypothèse de base se rapportant à ce projet est que la politique non écrite du Gouvernement du Cameroun en ce qui concerne le planning familial s'est suffisamment développée pour permettre au Cameroun et à l'USAID de collaborer dans un projet de contrôle de la fécondité s'adressant à la fois à la stérilité et l'espacement des naissances. Une autre hypothèse, qui est fortement appuyée par les projets pilotes, est qu'il y aura une forte demande pour les services offerts dans les centres de contrôle de la fécondité. On présume également que les services offerts dans le cadre du projet auront un effet bénéfique sur l'état de santé maternelle et infantile au Cameroun.

### ACTIVITES CONNEXES

L'USAID a participé à la formation sporadique d'agents de santé Camerounais dans les techniques du planning familial et elle a contribué de façon importante à la formation démographique et à la santé maternelle et infantile, mais ce projet sera le premier répondant à la nécessité primordiale au Cameroun de résoudre le problème de la sous-fécondité. Les services de planning familial sont actuellement supportés par l'USAID à la Maternité du CUSE à l'Hôpital Central. Quand ces services auront été mis en place par le projet dans les 50 centres visés, l'impact du projet sera encore diffusé par les agents de santé formés par les projets AID CUSS et MEDCAM. En outre, l'AID et d'autres donateurs contribuent à une étude au Cameroun effectuée par l'Enquête Mondiale sur Fécondité (World Fertility Survey).

### ALTERNATIVES REALISTES

Ce projet utilise la méthode de mise en place de services de planning familial dans le contexte de services complets de contrôle de la fécondité. Ce contexte permet au projet de répondre directement aux problèmes prioritaires de la sous-fécondité. D'autres alternatives qui s'occupaient uniquement de services contraceptifs auraient peu de chance de recevoir l'appui officiel du Gouvernement du Cameroun en ce moment.

### BENEFICIAIRES DIRECTS

Les bénéficiaires de ce projet seront les Camerounaises qui profiteront des services de contrôle de la fécondité comprenant entre autres, le traitement de la sous-fécondité, la contraception ainsi que des enseignements et des conseils.

### EFFETS DE DIFFUSION

A mesure que des services de contrôle de la fécondité seront mis en place dans les 50 structures choisies, on prévoit que la demande pour ces services augmentera. Les agents de santé de ces centres formeront leurs collègues des structures périphériques, étalant la portée du projet jusqu'au niveau des villages.

### MISE EN OEUVRE DU PROJET

Il faudra deux mois de conception pour parvenir à la pleine définition de ce projet. Il serait souhaitable que les deux experts de conception

soit un démographe capable d'élaborer les programmes de formation nécessaires au contrôle de la fécondité et un responsable de la conception des projets de démographie familial avec l'identification des besoins en personnel, en matériel et en gestion.

#### PROBLEMES D'ORIENTATION

A. L'établissement d'une politique démographique ou de planning familial par le Cameroun sera hâtée grâce à sa participation directe au projet, bien que ce dernier ne limite pas, ou ne concentre même pas, ses services sur les problèmes de la fécondité excessive.

B. L'utilisation des fonds du Titre X pour répondre à toute la gamme des problèmes en rapport avec la fécondité au Cameroun représentera une nouvelle politique de l'AID tendant à une utilisation des ressources PHA/POP répondant mieux aux besoins des bénéficiaires.

N° 551 / MINEP / PLAN / RH

Yaoundé, le 03 MARS 1978  
Yaounde, the

Le Ministre de l'Economie et du Plan  
The Minister of Economic Affairs and Planning

à Monsieur le Docteur MITCHELL Joseph R.  
to Mr. Bureau Régional de l'US-AID pour l'Afrique  
Centrale - YAOUNDE -

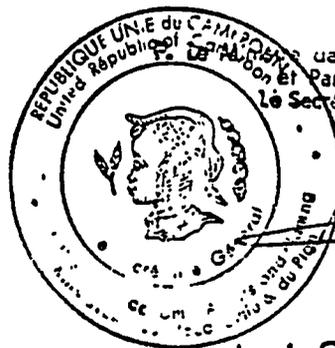
Objet : Réunion sur le  
projet Santé de la Reproduction.

Monsieur,

Suite à la réunion du 2 mars 1978 dont le compte-rendu ci-joint,  
J'ai l'honneur de vous demander de bien vouloir assister à la  
réunion de synthèse qui aura lieu le 17 mars 1978 dans la salle de  
Conférences de mon Département, 3ème étage à 9 heures précises.

Je vous prie d'agréer, Monsieur, l'expression de ma considération  
distinguée./-

REPUBLICQUE UNIE du CAMEROUN  
United Republic of Cameroon  
F. Le Président de la République  
Par déléation  
Le Secrétaire Général



*Nyassa*

Louis-Claude NYASSA



permettre à l'US-AID de présenter l'objet de la Mission des deux consultants.

Le Docteur HENN informe l'assistance que le projet sur la santé de la reproduction est différent des autres projets financés par l'US-AID dans le domaine du planning familial. Comme son nom l'indique, il s'agit d'améliorer les conditions sanitaires de la reproduction de la population. Aussi ce projet doit-il trouver des solutions sur les problèmes de la sous-fécondité, de la stérilité, de l'espacement des naissances et de l'éducation sanitaire des populations. Il précise que ce projet se repose sur les travaux menés actuellement à l'Hôpital Central de Yaoundé dans la section d'obstret-gynécologie et tend à généraliser cette expérience au niveau national.

Ensuite il analyse les différents niveaux d'intervention du projet. Au niveau national, il est prévu de traiter des problèmes de gestion, de la collecte des données socio-sanitaires, de la formation du personnel et de l'éducation des malades. Au niveau régional l'accent sera mis sur la formation du personnel et l'éducation des populations.

Après avoir donné une vue de l'apport de l'US-AID en personnel et en équipement dans ce projet, le Docteur HENN présente l'objet de la visite des deux consultants appelés à préparer le document du projet.

La discussion qui a suivi a porté essentiellement sur :

- a) l'opportunité de ce projet,
- b) la taille du projet.

Les représentants des départements ministériels ont exprimé certaines réserves sur ce projet. Ils ont tout d'abord constaté que les termes de référence du projet en français étaient en contradiction avec la version anglaise qui prend mieux en considération le souci du Gouvernement en la matière. Aussi a-t-il été recommandé de n'utiliser que cette dernière version.

Les participants ont été unanimes de reconnaître que les problèmes qui font l'objet du projet concernent en particulier les Ministères : de la santé publique, des Affaires Sociales, de l'Education Nationale, de la Jeunesse et des Sports, de l'Economie et du Plan et l'Office National de la Recherche Scientifique et Technique (ONAREST). Aussi a-t-il été recommandé que ce projet soit élaboré en étroite collaboration avec ces départements.

.../...

Ensuite, la discussion a porté sur l'opportunité de ce projet. Différents représentants ministériels ont exprimé beaucoup de réserve quant à l'opportunité de la réalisation de ce projet au moment où leurs départements ne disposent pas encore des résultats des grandes enquêtes en cours dont la connaissance est nécessaire en vue de la généralisation possible au niveau national de l'expérience de Yaoundé. Plusieurs orateurs ont fait valoir que leur département était en train d'étudier les possibilités de présenter à l'appréciation du Gouvernement un plan cohérent en cette matière. Ils ont insisté sur la nécessité de donner à ce projet une dimension susceptible de lui permettre par un simple ajustement de s'insérer rapidement dans un tel plan. Aussi ont-ils tenu à souligner que compte tenu de ces facteurs, le projet devrait insister sur la formation des formateurs et sur la formation socio-sanitaire de la population.

En ce qui concerne la taille de ce projet, les participants sont tombés d'accord que le projet devrait dans une première phase englober seuls les hôpitaux provinciaux. Son expansion devrait être envisagée après un certain temps compte tenu de l'expérience obtenue à ce niveau. A cet égard, les participants ont souligné qu'une généralisation de l'expérience de l'Hôpital Central de Yaoundé en la matière est problématique aussi longtemps qu'on n'a pas une évaluation de cette expérience. Par ailleurs, le Docteur HENN a attiré l'attention des participants sur le fait que cette première phase ne devrait pas être très longue compte tenu du délai de trois ans pour lequel le financement de ce projet est assuré et des difficultés pour obtenir un nouvel accord de Washington.

Les participants ont vivement souhaité que les deux consultants prennent en compte les observations faites de part et d'autre dans l'élaboration de l'avant-projet.

En résumé le projet a été retenu sous réserve qu'il ait une dimension modeste et insiste en particulier sur la formation des formateurs et sur l'éducation socio-sanitaire des populations.

La réunion de synthèse est prévue pour le 17 Mars 1978./-

AVANT - PROJET

United Republic of Cameroon

Proposition

This document is submitted for your consideration and provides a base for continued discussion regarding collaboration between the Agency for International Development and the Government of the United Republic of Cameroon in the development of a project related to maternal and child health.

Regional Development Office  
Agency for International Development  
B.P. 817  
Yaounde, Cameroon

March 1978

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## I. Introduction

The Government of the United Republic of Cameroon recognizes the provision of maternal and child health as one of its principal objectives in the development of national health services. This project proposes to support and reinforce the realization of these objectives by strengthening existing services which aim at ensuring the health and well-being of women of child-bearing age. It will support a broad spectrum of integrated services through its emphasis on the processes of family formation and parenthood.

Although this project does not provide services directly to pre-school age children, protection of maternal health before, during and after child birth will have positive implications for the health of infants, nursing children and young siblings.

### A. Health Problems of Women of Child-bearing Age

The normal process of child-bearing for Cameroonian women is complicated by a hard-to-separate set of interacting social, epidemiological and therapeutic factors which have led to concern about the high incidence of infertility, subfertility, induced abortions and pregnancy wastage, repeated exposure to venereal infection and its inadequate treatment, and insufficient services to deal with high fetal mortality.

There are several major demographic and epidemiological studies either in progress or being planned which aim at defining these problems further.

Although the development of a national health program to tackle the complexity of these problems must await the evaluation of the results of these studies, the development of existing services to deal with the general nature of these problems will provide the Government with a more effective infrastructure capable of implementing specific health programs when they are launched by the Government.

For the purpose of planning and implementing health programs for women of child-bearing age, it must be recognized that, firstly, there are a variety of disease causes and vectors and, secondly, that any program must take into account regional and ethnic variability. Thus, any program must be multifaceted in its approach and sufficiently flexible to permit a variety of alternative approaches in dealing with many configurations of health problems that face this vulnerable group of the population in the different regions of Cameroon.

#### B. Program Elements

The more basic elements of a program dealing with these problems are the following:

1. Further research is necessary to determine the variety of causal factors and the regional and ethnic variations.
2. One of the principal factors that should be explored is that of gonococcal infection, particularly among women and entering the child-bearing ages. Diagnostic and clinical procedures should be standardized in order to avoid the emergence of resistant strains of the microorganisms and to prevent secondary consequences of infection.

3. Immediate measures should be undertaken to deal with the problems of real or perceived infertility, which can derive from a variety of sources. This will necessitate improving diagnostic methods and providing adequate and effective treatment. At the same time, mass campaigns to reduce the prevalence of venereal infection and general health education to prevent reinfection will be necessary.

4. Health services should meet minimum prenatal, delivery and postnatal needs at the maternal and child health (MCH) level. Improved high risk obstetric and gynecological care should be available at departmental and provincial hospitals.

In view of the variety of measures that can be undertaken to tackle the variety of causal factors, strategies need to be developed to determine which are most effective from a preventive, educational and clinical point of view, which are needed in the different regions of the country, and which are, in the long run, most cost effective.

### C. Problems in Delivery

In addition, there are several problems related to the delivery of health services. These will have to be taken into consideration in the implementation of health programs for this sector of the population.

#### 1. Cost of care

The cost, for example, of one complete treatment for gonorrhoea varies from 2000 in some areas to 3000 CFA in others where medications are often only available in private pharmacies or through patent medicine vendors. In

many areas and for many of the risk group, this cost may be prohibitive, so that those who seek treatment may often not be able to afford prescribed medications, or may be able to afford only part of the treatment.

## 2. Partial or Incomplete Treatment

This problem is related to the cost of care and to the fact that most people generally tend to stop taking medications as soon as they feel better or their symptoms disappear. People who cannot afford prescribed medications often resort to local cures, which may be ineffective or harmful. Several physicians have observed the emergence of resistant strains of gonococcus, which they attribute to the problem of incomplete cures.

## 3. Competition for the Infertile Couple

In most communities there are modern and traditional doctors who compete for the infertile couple. Popular and medical definitions of infertility vary. People with subfertility problems will consult with many doctors in seeking a favorable prognosis, often resulting in great cost to them. Furthermore, erroneous procedures may worsen their problems.

## 4. Caseload/manpower

Available medical and paramedical personnel generally have a full case load of patients. The introduction of new, or the improvement of existing, services will tend to increase the number of people using the health facilities. In the absence of increased numbers of personnel, services and tasks will have to be reorganized to use existing personnel affectively and efficiently, so that other health services will not be adversely affected.

established in each of the seven provinces on a progressive basis. Provincial program activities will make use of existing infrastructure and personnel at the MCH, departmental and provincial hospital levels. The project will make use of infrastructure and personnel at the national level.

Each province program will cover a population of 25,000 people. It will make use of the health facilities and health personnel providing services to this population.

The provincial programs will be developed in the following manner:

1. They will begin with an initial survey to determine the principal reproductive and related health problems affecting women of child-bearing ages. A survey team will select the program area based on their findings. This site or sites will be the focus of health education, diagnosis and treatment of gonorrhoea on an individual or mass basis, and the improvement of MCH services.
2. These sites will be linked to the nearest departmental hospital and then to the provincial hospital by a referral system to insure adequate diagnosis and treatment of high risk pregnancies and cases of primary and secondary infertility.
3. The pilot activities will determine the most effective ways of dealing with problems of induced abortions, and of providing contraceptives to women who wish to avoid unwanted pregnancies or space their children, and to parents who have already reached their desired family size.
4. Each program will test a combination of service modalities.

a. Health education

The program will select various health workers at the community level, who will be trained to provide public and individual health education. They will use a variety of simple educational materials that will be developed for each area.

Health education will emphasize ways of encouraging women to use MCH services and to attend high risk clinics.

Health educators will be taught to respond to and to counsel women who seek advice on spacing pregnancies or avoiding unwanted pregnancies.

Health educators will be taught to respond to and counsel women or couples who seek advice on the treatment of primary or secondary infertility.

Health education will emphasize the protection of women of child bearing age against venereal infection, including early diagnosis and the necessity of complete treatment as well as the necessity to guard against reinfection. These education activities will be carried out in various ways to ensure the widest and most direct contact with the groups at risk. Health education will also be provided to the male population, who are part of the epidemiological and social problem.

b. Preventive Medicine

This component of the pilot projects will link up with existing venereal disease control programs. It will provide diagnostic and treatment facilities, and medications for a continuous control program. This will be directed primarily against gonorrheal infection. Various control

procedures will be tested in order to diagnose, cure, and bring under surveillance major sources of infection among male and female inhabitants of the pilot areas.

c. Organization of Health Delivery Services

Training will be provided for various levels and types of health personnel. Emphasis will be placed on clinical, educational and management needs of comprehensive health service for women of child-bearing ages. The provincial programs will determine the major training needs and service roles for each type of personnel, based on the available manpower in the region, and on the expected case loads. Clinical aspects of training will include but not be limited to diagnostic and treatment procedures for infection, primary and secondary infertility both among men and women, and high risk pregnancies and deliveries.

Education training will include, but not be limited to, counseling and motivational techniques for public and individual health education. Organizational training will include, but not be limited to, the organization of health services at local, departmental and provincial levels, utilizations of manpower, distribution of equipment and medications, record keeping, and data collection. (See appendix II for suggested details for training curriculum objectives.)

d. Research

An important element of each program will be the identification of research problems in order to provide social and epidemiological data needed to ensure that the major problems have been accurately identified and that the

most effective means have been deployed to solve them.

Research activities will include, but not be limited to, causes of infertility among women and men, effective health educational and motivational techniques, and traditional methods of treatment for venereal infection and primary and secondary infertility.

The results of the research activities will be incorporated into the implementation of the provincial programs.

e. Equipment and Medication

Appropriate equipment will be provided to each level of health service involved in the project. Equipment will include both nonconsumable and consumable commodities (see Appendix I.). The latter will be supplied in sufficient quantity to last during the life of the project.

MCH centers will receive equipment and medications to upgrade their antenatal, delivery and postnatal services.

Health services involved in venereal disease control will receive diagnostic and treatment equipment to establish a program for gonorrheal treatment.

Diagnostic equipment and treatment modalities will be provided to departmental and provincial hospitals to upgrade their capabilities for dealing with high risk pregnancies and deliveries and to improve gynecological and laboratory services to diagnose and treat cases of primary and secondary infertility among men and women.

Medications will include basic preventive and therapeutic pharmaceuticals start for antenatal, delivery and post-partum care, high risk pregnancies, as well as for the treatment of primary and secondary infertility. Included among the medications will be selected contraceptives, which will be available for women and men who wish to avoid unwanted pregnancies, space pregnancies, and for parents who have already reached their desired family size. Educational equipment and materials will be supplied to health educators.

#### IV. Administration of the Project

This project will be administered under the auspices of the Ministry of Health (MOH). Ministry officials will determine which division will manage the project and the manner of coordination, if more than one division is involved. Similar determinations will be made at the provincial level. The MOH will be responsible for coordinating the sequence of pilot activities, selecting program sites and personnel, and distributing and maintaining equipment and medications. The MOH will also be responsible for coordinating research activities, and analyzing and evaluating results.

#### V. End of Project Status

At the end of the project the following will be achieved:

1. Each region will have developed an effective strategy for the delivery of a variety of clinical, preventive, and educational services dealing with health problems of women of child-bearing age. These strategies

will reflect the individual characteristics of the region regarding primary and secondary infertility, unwanted pregnancies, gonorrheal infection and the possibilities of organizing effective health services.

2. Training, health education, and organizational requirements will have been tested. Roles for various health workers in multifaceted strategies will have been determined. Basic health educational materials will have been developed and tested. These achievements will provide the MOH with a broad spectrum of experience for selecting and expanding the most effective means of dealing with the health problems of this group on a national scale.

3. Experience in the organization and management of multifaceted health delivery system will be of utility in designing programs to reach other vulnerable groups in the population, such as pre-school children. This experience can either be brought to bear concurrently as the pilot activities develop, or after they are completed and evaluated.

4. Preventive measures and health education programs related to family formation and parenthood will be linked to basic health services at the MOH center level, and primary and secondary infertility diagnosis and treatment at the departmental and provincial hospital levels.

5. Regular, continuing research programs into the variety of aspects related to the health programs of women of child-bearing ages will have been started. The results will supplement past, present and projected studies needed to formulate and evolve a national health policy.

VI. Relationship of Inputs to Outputs to Achieve Purpose

1. Training of health workers and educators in the context of a team approach to the delivery of comprehensive and integrated services embracing both curative and preventive modalities will result in the more efficient use of each type and level of personnel, and, in general, the more efficient use of existing health facilities.
2. Health education will provide the important element of motivation for the acceptance of preventive health measures. It will also reinforce those measures by reducing the likelihood of re-infection, making women aware of alternatives to induced abortions in order to avoid unwanted pregnancies, and by encouraging both men and women to seek early diagnosis for venereal infection and to follow a complete course of treatment. Appropriate counselling by various health workers in cases of primary and secondary infertility will prevent misunderstandings about the nature of the problem and the prognosis.
3. Equipment and medications will make it possible to carry out large scale preventive programs against gonorrhoea, improve and expand antenatal delivery and postpartum services at MCH centers and to upgrade the safety as well as increase caseloads in the diagnosis and treatment of high risk pregnancies and of primary and secondary infertility at departmental and provincial hospitals.

4. Research will provide answers to immediate questions about health problems of women of child-bearing age, that will have direct implications for the health delivery system.

VII. Estimated Projected Inputs for Project Implementation

Summary Budget

1. Long term technical assistance:

Health services planning specialist	3 yrs.	
Public Health Advisor	3 yrs.	
Public Health nurse/educator	3 yrs.	
Total	...	\$ 500,000.00

2. Short term consultants - 14 person month

Lab. Technician	4 person month	
Obstetrician-Gynecologist	6 person month	
Statistician	2 person month	
Epidemiologist	2 person month	
Total	...	154,000.00

3. Research		100,000.00
4. Training <sup>+1</sup> ...		70,000.00
5. Health Education Materials...		60,000.00
6. Equipment <sup>+2</sup> ...		154,000.00
7. Pharmaceuticals <sup>+2</sup> ...		220,000.00
8. Vehicles (three)		<u>45,000.00</u>
Total	...	1,323,000.00

+1 See Appendix II for suggested details regarding training curriculum objectives.

+2 (See Appendix I for suggested details and functions of equipment and pharmaceuticals)

APPENDIX I: BASIC EQUIPMENT

A. BASIC MCH KIT

1 - Sphygmomanometer	...	...	...	...	...	\$ 37.50
1 - Ophthalmoscope/Otoscope	...	...	...	...	...	155.00
2 - Stethoscopes	...	...	...	...	...	40.00
12 - Vaginal Specula - assorted	...	...	...	...	...	110.00
1 - Gyn exam table	...	...	...	...	...	200.00
1 - Lamp-goose neck	...	...	...	...	...	35.00
1 - Stool	...	...	...	...	...	40.00
1 - Microscope - artificial or natural light	...	...	...	...	...	1,000.00
1 - Centrifuge - urine/hematocrit	...	...	...	...	...	400.00
1 - Scale with height	...	...	...	...	...	100.00
1 - Fetoscope	...	...	...	...	...	23.00
1 - Specialists Bag	...	...	...	...	...	<u>48.00</u>
						2,188.50

B. BASIC OBSTETRICS AND GYNECOLOGY KIT

1 - Sphygmomanometer	...	...	...	...	...	\$ 37.50
1 - Ophthalmoscope/otoscope	...	...	...	...	...	155.00
2 - Stethoscope	...	...	...	...	...	40.00
24 - Vaginal specula - assorted	...	...	...	...	...	220.00
1 - GYN exam table	...	...	...	...	...	200.00
1 - Lamp - Goose Neck	...	...	...	...	...	35.00
1 - Stool	...	...	...	...	...	40.00
1 - Microscope - Artificial or natural light	...	...	...	...	...	1,000.00
1 - Centrifuge - Hematocrit or urine	...	...	...	...	...	400.00
1 - Scale with height	...	...	...	...	...	100.00
1 - Fetoscope	...	...	...	...	...	23.00

1 - Specialist Bag	...	...	...	...	...	\$ 48.00
1 - Uterine sound-malleable, graduated in cm.	...	...	...	...	...	20.00
1 - Endometrial biopsy curette	...	...	...	...	...	100.00
1 - Endocervical biopsy curette	...	...	...	...	...	100.00
1 - Cervical Biopsy forceps	...	...	...	...	...	100.00
1 - Single tooth tenaculum	...	...	...	...	...	35.00
1 - Ring Forceps	...	...	...	...	...	20.00
1 - Forceps holder	...	...	...	...	...	10.00
1 - Instrument pan, small	...	...	...	...	...	18.00
2 - Bowls, large, stainless	...	...	...	...	...	35.00
1 - Insufflation canula	...	...	...	...	...	30.00
3 - Acorns for canula	...	...	...	...	...	7.00
2 - Dacron tape measures	...	...	...	...	...	15.00
1 - Ring cutter	...	...	...	...	...	20.00
12 - Boxes of microhematocrit tubes...	...	...	...	...	...	<u>90.00</u>
						\$2,898.50

C. BASIC RESEARCH KIT

1 - Basic Obstetrics and Gynecology	...	...	...	...	...	2,898.50
1 - New self-contained laparoscope	...	...	...	...	...	2,500.00
1 - Colposcope	...	...	...	...	...	1,500.00
1 - Cryosurgical	...	...	...	...	...	700.00
1 - Incubator	...	...	...	...	...	800.00
1 - Uterine sound-malleable, graduated in cm.	...	...	...	...	...	20.00
1 - Endometrial biopsy curette	...	...	...	...	...	100.00
1 - Endocervical biopsy curette	...	...	...	...	...	100.00
1 - Cervical biopsy forceps	...	...	...	...	...	100.00

1 - Single tooth tenaculum	...	...	...	\$	35.00
1 - Ring forceps	...	...	...		20.00
1 - Forceps holder	...	...	...		10.00
1 - Instrument pan, small	...	...	...		18.00
2 - Bowls, large, stainless steel	...	...	...		35.00
1 - Insufflation canula	...	...	...		30.00
3 - Acorns for cannula	...	...	...		7.00
2 - Key skin biopsy punches, 6 mm	...	...	...		30.00
24 - Vaginal Specula, assorted	..	...	...		<u>220.00</u>
					\$ 9,123.50

D. BASIC RESEARCH KIT - NATIONAL LEVEL

1 -Basic research kit-provincial level	...			\$	9,123.50
1 - Hormone laboratory-Radioimmunoassay	...				<u>14,000.00</u>
					\$23,123.50

E. FUNCTIONS OF THE BASIC KITS

MCU Kit

This kit will allow personnel to perform basic prenatal procedures:  
history, physical, blood urine, stool examinations.

Obstetric and Gynecological kit

Screening for infertility, anemia, urinary tract infections, gonorrhoea  
control, intestinal parasites and neoplasms.

Infertility: Cervical mucus for ferning, spermatazoa spin-  
barkeit, endometrial biopsy, tubal insufflation.

Neoplasm; Pap smears, biopsies of cervix and/or endocervix

Infections: Smears and microscopic examinations of material

BASIC RESEARCH KIT: Provincial Level

High risk problems and further evaluation of patients during treatment.

Infertility: Laparoscopy, Hysterosalpingogram, Tuboplasty

Neoplasms: Colposcopy and directed biopsies, endocervical biopsies, conization and hysterectomies, cryosurgery

Infections: Culturing capabilities including sensitivities

Anemias: Microscopic examination of the blood and bonemarrow, hemoglobin electrophoresis.

BASIC RESEARCH KIT: National level

Hormonal evaluation will be added to the aforementioned studies.

MEDICATIONS

Penicillin - complete dose for gonorrhoea ... ..	\$ 119,000.00
In a population of 25,000, the risk group will be 17,000 and the target group will be 25%: (4,250 x 7 = 29,750 at \$ 2/dose x 2)	
Tetracycline - complete dose for gonorrhoea ... ..	30,000.00
This will be for those with resistant disease and allergies to penicillin	
Clomiphene sulfate ... ..	500.00
Iron - FeSO <sub>4</sub> ... ..	25,000.00
Folic Acid ... ..	12,500.00
Chloroquine ... ..	25,000.00
Contraceptives ... ..	2,500.00
Germicides for instruments ... ..	1,000.00
Other ... ..	<u>4,500.00</u>
	<u>220,000.00</u>

Appendix II: Topics to be Considered in Developing Curriculum Objectives  
For Training and Refresher Courses

1. Varying cultural definitions of maternal health problems
  - a. Multiparity, fertility, infertility, high risk pregnancies
  - b. Intervals between onset of sexual relations and pregnancies
  - c. Spacing of children for personal, family and health reasons
  
2. Regional and ethnical variation in health problems
  - a. Infertility and subfertility; relative importance of causes and vectors
  - b. Methods of dealing with unwanted pregnancies
  - c. Differences in health services: facilities, manpower
  
3. Project administration
  - a. Adjustment to individual conditions of each province
  - b. Integration with other programs and research projects
  - c. New areas of research
  - d. Adjustment to evolution of a national health policy
  - e. Integration of different levels of health services, and different levels of health personnel.
  
4. Diagnosis
  - a. Evaluation of current methods
  - b. Introduction of new diagnostic systems such as a new self-contained laparoscope, colposcope, hormonal assays
  - c. Establishment of gonorrhoea diagnostic centers or mobile teams to support existing facilities to chart incidence, resistance and

treatment results

d. Function and needs of laboratories

5. Prophylaxis

a. Identification of organisms

b. Identification of reservoirs

c. Identification of vectors

d. Methods of control

6. Treatment

a. Evaluation of current methods

b. Problems in continuity of treatment

c. Cost and effectiveness

d. New forms of treatment

COMMENTS

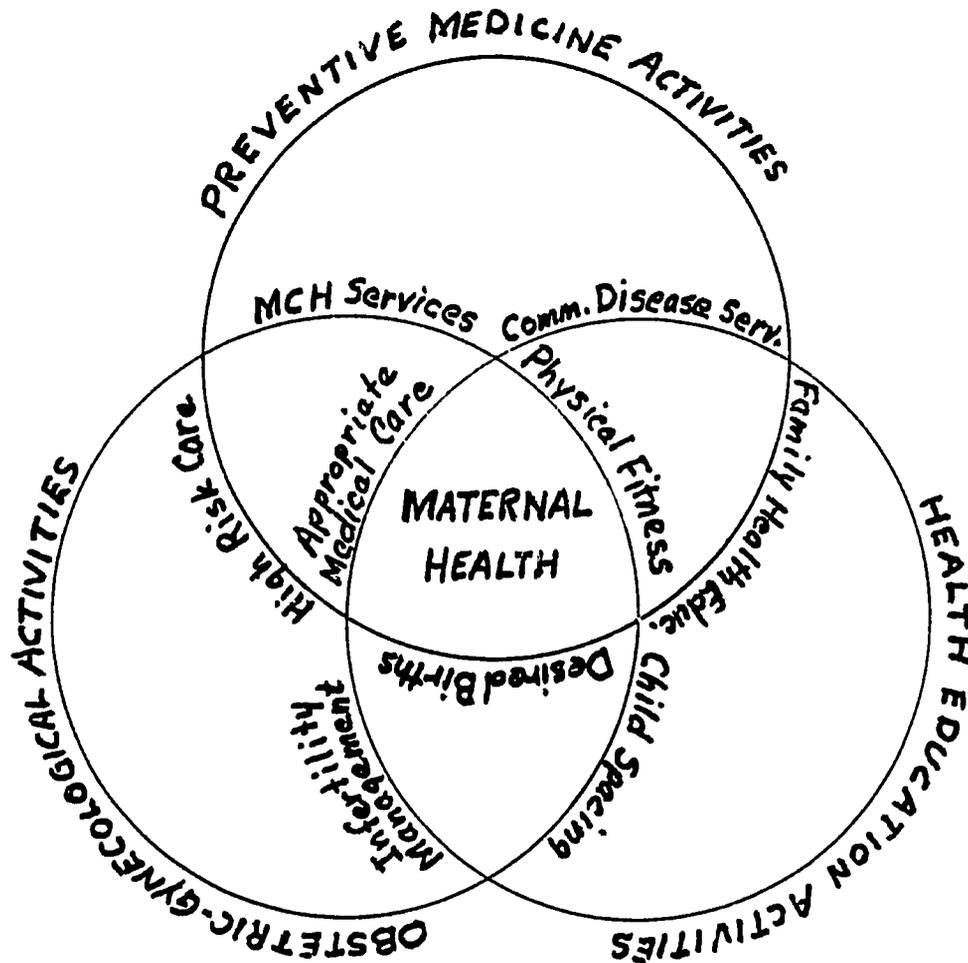
March 13, 1978

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DETAILED DESCRIPTION OF THE PROJECT

A. INTRODUCTION

In addressing the problem of improving maternal health, this project will be predicated on the assumption that the protection of the health of this group depends on three interlocking areas of program activity: preventive medicine, obstetrical and gynecological services, and health education. The relationship of these activities to each other, the services that are provided within each area of activity, and the contribution that each makes to maternal health are depicted in the conceptual model presented below:



First the conceptual model will be explained. Following this explanation, the project will be described as it relates to this model.

b. THE CONCEPTUAL MODEL

Each circle represents a domain of health activities. The area of the circles enclosed by the intersection of two adjacent circles represents complementary aspects of both domains of activity. The boundaries that enclose the central triangular portion of this basic health activities, represent the outcomes of each complementary set of services. The central triangular region represents maternal health, which is a result of the combined outcomes of the three pairs of complementary services.

Thus if one begins with the intersection of obstetrical and gynecological activities and preventive medicine activities, one observes that the services in each area which complement each other are MCH care in the case of preventive medicine, and high risk pregnancy management in the case of obstetrical gynecological services. The outcome of these two complementary services is appropriate medical supervision, for the women during the antepartum, intrapartum and postpartum phases of partruition.

If we turn to the intersection of preventive medicine and health education, we find that the two complementary services are communicable disease control and family health education. The outcome of these two services is physical fitness of women.

Proceeding to the intersection of health education and obstetrical and gynecology, one sees that the two complementary services are child spacing

and control of primary and secondary infertility problems. The outcome of these two services is a birth desired by both parents.

Using this conceptual model, we have identified the principal factors that lead to good maternal health. For the purposes of program development, this model permits us to identify 1) the most appropriate services areas in which inputs are needed to achieve the goal of maternal health, and, 2) the relationship of these inputs to that goal, through the desired outcomes of each service.

#### C. THE PROJECT IN RELATION TO THE CONCEPTUAL MODEL

This project will be concerned with each of the three main areas of health service outcomes by providing inputs into each of the complementary sets of services. The project will have as its objective the support and development of the six services identified in the model. It will attempt to determine the appropriate constituents of each service area for the different regions of Cameroon, vis-a-vis the epidemiological and social, causes of the health problems of women of child bearing ages, and the available resources in each area to deal with these problems. The project will support each service area in order to achieve the outcomes necessary for the protection of maternal health.

1) To promote the possibilities of providing adequate medical supervision, equipment, pharmaceutical and management support will be given to MCH services to increase their capabilities in providing health care for normal antepartum, intrapartum and postpartum women, and to obstetric-gynecological services in departmental and provincial hospitals, so that women with high risk obstetric problems can be cared for safely and efficiently.

2) In order to improve the possibilities of keeping women both entering and within the child bearing ages free of disease affecting conception, this program will provide inputs into developing active communicable disease control programs, especially against gonorrhoea. Concurrently the project will support educational efforts that aim at increasing awareness about prophylaxis and other aspects of family health related to reproduction.

3) In order to increase the possibilities for all parents to achieve their desired number of birth and to avoid unwanted pregnancies, this project will provide inputs into facilities capable of dealing with problems of primary and secondary infertility, and of permitting parents to have children when they want to by using effective child spacing techniques.

#### D. THE MAGNITUDE OF THE PROJECT

During the life of this project, pilot programs will be set up in each of the seven provinces. The Ministry of Health in collaboration with other participating government agencies will select the sites. Selection criteria will include; 1) the incidence of maternal mortality and morbidity; 2) incidence and prevalence of gonorrhoea; 3) the prevalence of primary and secondary infertility; and, 4) the demand for child spacing services. Current and past data accumulated at provincial and departmental hospitals will be analysed before selecting the sites. As accurate complete statistics do not exist (one of the objectives of this project is to obtain them), it will be necessary to base the choice of sites on reasonable presumptions regarding the severity of these health indices.

Each pilot program will serve a target population of 25,000 persons, either in rural or urban areas, depending on both an assessment of the health problems and the availability of health services. Each program will involve three MCH centers, 1 departmental hospital and one provincial hospital. This will mean a total of 18 nurse and nurse midwives, per province at the MCH level; and 3-4 doctors, and 15 nurse midwives at the hospital level per province. In addition, 6-8 personnel per pilot program will be seconded from the Preventive Medicine Departments for the gonorrhoea control programs.

Thus, during the life of the project 126 nurse and nurse midwives will be retrained to provide more efficient MCH and elementary high risk care, child spacing counselling and services, and gonorrhoea diagnosis and treatments; 75 nurses/nurse midwives at the hospital level will be retained in the same area; 21-28 physicians will receive refresher courses in high risk pregnancy and delivery management and primary and secondary infertility case management; and 42-56 preventive medicine department personnel will be trained in mass control programs for gonorrhoea, i.e. screening, treatment, surveillance and prevention; and 175 persons from community health programs will be trained for the family health education program.

#### E. PROJECT INPUTS AND ACTIVITIES

The specific inputs into the health services and activities ~~the health services and activities are described below:~~ are described below:

##### 1) The organization of health services

The project will provide organizational and managerial input into each of the services areas through the services of three technical experts in health services management, public health and communicable

disease control, and in maternal child health care and education. These will be supplemented by other consultants throughout the life of the project. These technicians will be responsible for planning and developing strategies for each region as to the most effective utilization of the various health services relation to health conditions and available resources.

Following a regional survey of the extent, distribution and nature of health problems, and an assessment of health facilities, determination will be made as to <sup>1)/</sup>the most effective allocation of services and tasks in each area, <sup>and 2)/</sup>the degree of responsibility for diagnostic, therapeutic and preventive measures within each health facility and by each level of health worker for high risk care primary and secondary fertility management, child spacing and communicable disease (gonorrhoea) control.

Concurrent with efforts to develop standardized procedures to ensure quality care by qualified personnel, project technicians will consider the most efficacious distribution of tasks within a framework of interrelated levels of health activities. The following schematic diagrams represent an organizational model of technical elements of the health services under consideration as they relate to each other. These interrelationships will be the focus of developing management systems. In general, this management model for health services will serve as the basis for a) establishing the pilot projects in each area, and b) for determining the requisite balance between the various services to achieve the outcomes needed to ensure maternal health. This management plan reflects the principal services areas identified in the conceptual model.

levels of Contact	FIGURE I					
	PREVENTIVE MEDICINE	DISEASE CONTROL	HEALTH EDUCATION		OBSTETRICS & GYNECOLOGY	
			FAMILY HEALTH	CHILD SPACING	FERTILITY	HIGH-RISK
Research & Teaching			Continuing education to instructors for training and refresher courses		Hormonal studies	Hormonal studies
Tertiary			Continuing education for all workers at the provincial level		Laparoscopy, biopsy, treat infections, surgery	Evaluate & follow-up or refer to a lower level with guidelines Treatment-Medical or surgical
Secondary		Treatment of resistant cases	Continuing education of the staff			Evaluate and follow-up or refer to upper level with the guidelines
			Reinforcement of teaching at the local level	surgery as needed	Treat infections, culture infections, tubal insufflation, hysterosalpingography	
Primary	Basic antepartum care treatment of anemia Normal deliveries treatment of malaria	Basic immunizations Malaria prophylaxis Treatment of simple infections-urine, bronchitis Treatment of intestinal parasites	Waste disposal potable water nutrition hygiene Utilize the health facilities	Reasons for the spacing Methods of spacing (avoid abortion) Protect against the consequences of promiscuity	Smears for gonorrhea, trichomonas, monilia  Cervical mucus for: sperm, ferning, spinnbarkeit  treatment of pelvic infections, including gonorrhea	Initial evaluation and referral to the departmental level  Follow-up with the guidelines from the upper levels

2) The training of health personnel

Training both in the form of new course and refresher course will be an important element of the project. The objective of the training courses will be a) to introduce new technology, b) sharpen existing skills and knowledge, c) prepare new cadres of personnel or teach current cadres new set of tasks, and, d) to develop health care teams, so that the different areas and levels of health services can be effectively coordinated.

Short term refresher courses will be offered to physicians and nurses, or nurse-midwives. The training courses will last two weeks. The first week will be devoted to didactic clinical material, the demonstration of new technology, and the organization of health services and management systems.

This course will stress the allocation of task in each of the services, the prevention of gonorrhoeal infection, high risk pregnancy management, primary and secondary infertility management, and child spacing counselling and service.

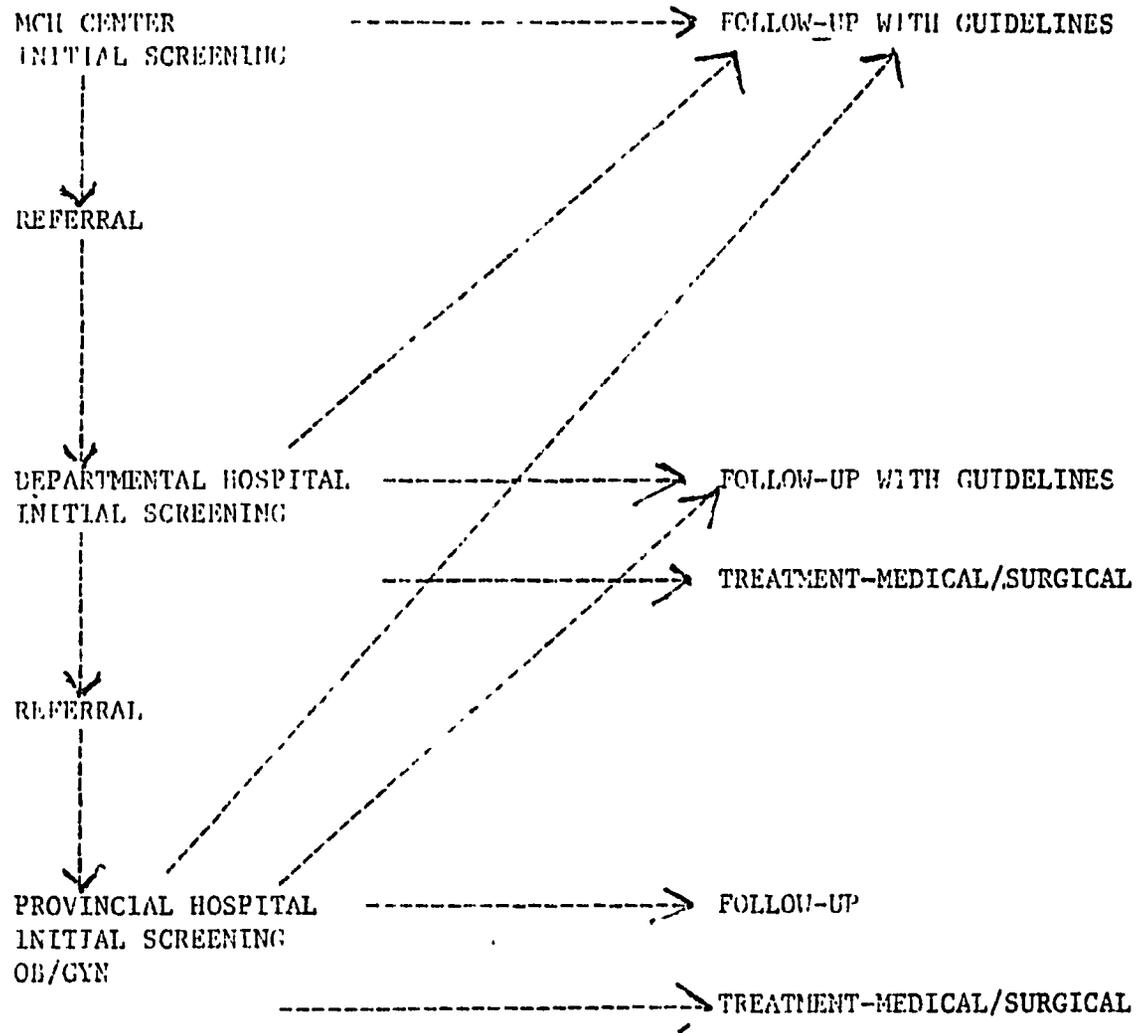
This course will be organized in the form of a problem oriented workshop so that participants can discuss theoretical issues in relation to specific problems found in their regions.

The second week will be devoted to introducing results of the workshops, and in utilizing the new technologies under the supervision of technical experts and instructors.

The training courses will be followed by inservice refresher activities. After the first training program, all others which are

FIGURE 1  
HIGH-RISK FLOW SHEET

CSA



All of the deliveries will take place at the MCH level unless dictated by the guidelines set up by the project. All high-risk patients do not have to be delivered in the hospitals. Generally the following will be referred to the hospitals: multiple gestation, abnormal presentations, third trimester bleeding, severe anemias (Hgb less than 60%), Infertility cases with any other high-risk feature, active malaria, heart disease, elevated blood pressure, failed progress in labor for over 1-1/2 hour.

organized prior to phasing in a new regional pilot project will serve as refresher courses for personnel of previous projects. The latter will only attend the first week. Their presence during the initial problem oriented workshops will make it possible to share valuable experience and to progressively discuss the project goals from a national perspective.

3) Upgrading MCH and Obstetrical and Gynecological services

It is anticipated that 21 MCH centers (three per region), seven departmental hospitals and seven regional hospitals will receive basic equipment to enable them to upgrade their services. This equipment will be sufficient to serve expected increases <sup>in/</sup> patient loads, so that other services are not unduly taxed. Basic drugs will be provided as well, and systems developed to ensure that they are distributed at cost proportional to purchasing power of the expected clientel. Cost will be adjusted for each region. Guidelines will be developed to ensure standardized prescription, and records will be carefully kept to determine overall needs per unit population in the region of the pilot program.

As part of its management objectives, this project will test an alternative to the current problem of insufficient pharmaceutical supply and high medication costs <sup>by/</sup> making each unit self-sufficient and by making them responsible for the management of their own supplies.

The project will supply the health facilities in each of the pilot areas with a start-up supply for one year. In the following years <sup>r</sup> this supply will be reduced by a certain percentage of the projected needs. The project health facilities will be responsible for buying

drugs with their own funds. The provincial pharmacy will buy directly from the Central pharmacy while lower level units make their purchases from the provincial pharmacy. The drugs will be sold at cost price. The MOH pharmaceutical budget will be used as a subsidy to make up the difference between the import cost and cost to the clientele of the MCH centers and referral hospitals, and to cover the administrative costs of storage and transportation.

Maintenance of equipment will be a second major focus in the management systems developed for the project. Each provincial hospital will establish a small repair and spare-parts unit. Operating expenses will come from two sources: subsidies from the MOH equipment budget and modest fees for services.

#### 4) Development of Family Health Education

The health education of the project will consist of a general health education program to be carried out at the community level. Each pilot project will train a team of 25 health educators or animators who will be responsible for a) reinforcing the educational component of the gonorrhoea prevention program; b) providing basic family and reproductive health education to the population through formal and informal means; and c) providing counselling to parents as to the services available for problems of primary and secondary infertility, unwanted pregnancies, and child spacing.

The choice of health educators will be dictated by the on-going health education activities in the region, the principal health problems, and available manpower. Whenever possible, efforts will be made to integrate family health education with other development oriented programs, particularly those which focus on improving the social and economic

status of women.

The health education teams will work under the supervision of nearby MCH center personnel. Part of their activities will be concerned with following high risk pregnant women to assure attendance at designated high risk clinics, and to serve as health extension agents in providing home health care for women with reproductive health problems, particularly regarding continuity of treatment.

The training of health educators will be carried out separately, as it is expected that more time will be required for both the selection of candidates and implementation of training courses. The health educators will be trained at the MCH centers for a period of not less than a month by project staff from the MCH and other organizations with related health and community development activities.

#### 5) Development of Gonorrhea Control Program

One phase of the preventive medicine component of the program will consist of upgrading and expanding basic MCH services, as discussed above. The second will focus on developing and testing the efficacy of public health oriented gonorrhea control programs in each of the pilot areas, as gonorrhea has been designated the principal cause of primary and secondary infertility. The major thrust of this component will be a) public education and awareness programs and b) active screening, case finding, and treatment.

Mobile information units will provide high intensity coverage of the pilot areas. These units will inform the public of the danger

of untreated infection, the need for treatment, and the availability of services and means of preventing reinfection. These public information campaigns will be reinforced by house-to-house visits and other informal contacts by the teams of health educators. A system of follow-up and surveillance of people under treatment will be developed. A data collection system to evaluate the rate of reinfection, and incidence of gonorrhoea will be instituted.

In addition, MCH center will be equipped with diagnostic ~~English~~ and treatment modalities and personnel will be trained to do smears, wet-mounts, cultures and treatment of infections.

These activities will <sup>be</sup>/coordinated with health education activities and counselling services given at all health facilities involved in the pilot programs.

#### 6) Research

While direct intervention can be made in the medical problems surrounding individual cases of primary and secondary infertility, the formulation of a national health and population policy regarding this demographic and social phenomenon requires more extensive research into its causes, distribution and consequences. The expected geographical and ethnic variations of this problem may lead to a mosaic of individual policies reflecting its regional characteristics and intensities. Hence this project will support research activities in each pilot area.

The basic research protocol will follow the model currently being used by the MOH in the Eastern province, as recommended by the National Task Force on Infertility. These studies will define the epidemiology of infertility and test hypotheses concerning its etiology. Couples from communities presumed to have high rates of infertility and couples

from control communities will be classified according to their fertility status based on previous pregnancy outcomes. Infertile couples and a sample of fertile couples will have clinical and laboratory examinations to define the causes of infertility.

Thus, a common research design, using common definitions and procedures will make it possible to undertake a comprehensive, comparative study of the infertility problem in Cameroon. In addition the study will supplement current collaborative efforts aimed at defining the epidemiology of this problem in sub-saharan Africa.

In addition, separate studies as needs and problems arise will be undertaken. Possible areas of research include a) antibiotic resistance of gonorrhoea, b) genital tuberculosis, c) treatment of tubal occlusion, d) evaluation and treatment of oligospermia, e) studies of the effects of traditional medicine on gonorrhoea, and other problems related to the preventive and educational aspects of regional programs.

Part 3 )

B. TECHNICAL ANALYSIS OF THE PROJECT

The appropriateness of this project for immediate implementation is examined from its 1) programming acceptability in addressing health problems and 2) feasibility in regard to the range of services which are envisioned in these programs.

Programming Acceptability

1. This project covers the total range of reproductive problems that are related to both the physical and social health of women of child-bearing age. Specifically, it recognizes services dealing with primary and secondary infertility as one of the principal components of a health delivery system aimed at protecting maternal health. This is a particularly important service for Africa where infertility is increasingly being recognized as a major health problem.

Although the true nature of the problem has not yet been fully evaluated, several studies suggest that African countries have an abnormally high percentage of infertile couples, sometimes twice that of couples in Europe or North America. Recent work by African gynecologists in Kenya, Zaire, Tanzania and Cameroon is beginning to reveal the full extent of this pathological and social problem. They urge the immediate development of health services to deal with problems of sexually transmissible diseases, mainly gonorrhoea, which is regarded by many as the principal cause of infertility in Africa. They also advocate developing diagnostic and treatment centers which provide appropriate care and counselling for parents who would otherwise be likely to suffer enormous expense and psychological (and sometimes physical) ordeal in seeking a cure for their infertility problem). Some

doctors are convinced that only the tip of the iceberg has been revealed and that infertility and related fertility wastage represent a significant human problem that should rank high among the priorities of national development planning.

The problem of infertility is also evident in Cameroon. A WHO study, in 1974, of the Eastern province concluded that the level of primary infertility (i.e., a woman who has never conceived despite cohabitation and exposure to pregnancy for a period of two years) is 16% and that the level of secondary infertility (i.e., the woman has previously conceived but is subsequently unable to conceive) was 26%, "which is high for an area where birth controls as such are not practiced" (WHO, Falaha, 1975). The study found a definite correlation between infertility and gonorrhoea, as well as a possible relationship between infertility and thyroid gland deficiency. Among the principal facts to emerge was that infertility was accompanied by considerable emotional anguish for women. Doctors in many areas of Cameroon confirm the large number of women seeking treatment for infertility. Although causes are often psychological, or a function of particular cultural concept of fertility expectations, it is recognized that there is a problem, which may be even greater than supposed. Moreover, while many probable causes exist (ovarian, tubal and cervical) the general consensus is that the most common cause of infertility is tubal occlusion due to pelvic infection, mainly gonorrhoea.

2. The second feature which makes this project appropriate for Africa and Cameroon is the inclusion of the concept of child spacing within the overall context of maternal health and as a part of general program enabling parents to achieve desired family size. Child spacing has traditionally been a

normal practice in African culture, often supported by prohibition against cohabitation for a period of two years following a birth -- a period which allows the mother to devote full attention to the nursing infant. The problem which many African women face today is that traditional supports for abstention during the critical nursing period are declining. As a result, they are exposed to conception, though pregnancies are unwanted. Girls in secondary schools suffer similar consequences of unwanted pregnancies. Both often resort to induced abortions, many of which result in maternal death as well as infertility. Recent studies have focused attention on the problem of criminal abortion in Cameroon, and a national commission has been formed to investigate its extent.

As it has also been recognized that infant mortality often results from the physical condition of mothers who have been weakened by venereal disease, overwork and other deleterious family and environmental conditions, the traditional practice of child spacing can be regarded as a critical link in the protection of both the mother and child. A child spacing program would, therefore, be acceptable in the light of the total health and social environment of the Cameroonian women. This is viewed as one among many ways (as suggested by the conceptual model of this program) of insuring maternal health, and as part of a general program for achieving desired family size.

#### Technical Feasibility

The technical feasibility of the project for immediate implementation will be considered from two points of view: 1) the existence of an adequate infrastructure in most parts of the country to carry out pilot programs aimed



of care is examined. At the present, there is a cadre of trained obstetrician-gynecologists in Cameroon, who are providing high risk care. Many complicated obstetrical and gynecological problems are also managed by general practitioners and surgeons in provincial hospitals. The medical school is graduating approximately 25 physicians annually, who are being posted in rural and urban health facilities in the provinces, so that the cadre of qualified personnel will increase by more than 100 during the life of this project. In addition, the medical school plans to provide specialist training in obstetrics and gynecology for current general practitioners, in regard to which, the training component of this project is viewed as a possible preliminary input.

The clinical work of these physicians also includes many procedures related to primary and secondary infertility including diagnosis and treatment of pelvic infections, evaluation of semen, evaluation of the tubal factor (insufflation and hysterosalpingogram), treatment of tubal factor (hydroinsufflation and tuboplasty), and treatment of oligospermia (progesterone and amino acids). These procedures are being carried out despite inefficient ancillary technical services, such as laboratory and X-ray facilities.

The existence of trained cadre already providing these services, serves as a basis of developing primary and secondary fertility management program as part of integrated maternal health activities. Existing services can be substantially improved by the introducing simple technological and procedural advances and by standardizing diagnostic and treatment techniques. These inputs will enhance the safety and prognosis of the procedures, as well as provide means of dealing with the expected increase of other types of gynecological problems that larger case loads of patients seeking treatment will likely present.

The technological inputs include i) a new and inexpensive "self-contained" laparoscope, ii) colposcope and iii) cryosurgical equipment.

i) Laparoscope

The new laparoscope is reduced in size and handling ease. The light source is battery operated, which solves the power problem. The technique of "direct-vision-entry" will allow for the use of filtered room air, eliminating the need for carbon dioxide with its problems of supply and physiological complications. The "direct-vision-entry" will also eliminate the complications and risks arising from current invasive diagnostic techniques. After a brief course in its use, this instrument can be utilized safely and immediately at the provincial level. Its use will result in reduction of risky operations for gynecological evaluation. Another important feature is that this instrument provides a means of performing tubal ligation for a patient who has medical problems or who wishes to avoid unwanted pregnancies after attaining her desired family size.

ii) Colposcope

This instrument will be used to manage the growing number of gynecological malignancies which are expected to be identified as more women use the health services. Part of the improvement in maternal health will result from screening women for neoplasms. The colposcope is aimed primarily at cervical cancer; it can also be used to evaluate lesions of the vagina, vulva and oral cavity. It allows for directed biopsies and the evaluation of lesions which cannot be evaluated by direct vision. Moreover, early diagnosis and treatment of neoplasm will preserve fertility. This instrument will,

in addition, minimize hazardous diagnostic surgical procedures that can cause infertility.

iii) Cryosurgical Equipment

This equipment will also be utilized to treat benign and early neoplastic lesions at low cost.

2. Existing models and/or programs for integrated maternal services, health education, V.D. control, and research

The other aspect which supports the technical feasibility of this project is a) the existence of an experimental program which integrates maternal and child health, child spacing and primary and secondary infertility care; b) the establishment of V.D. clinics in several major cities, c) the inauguration of several major health education programs, and plus d) the implementation of research projects to determine the causes of infertility.

a) The experimental clinic providing high-risk, child spacing, and infertility services has been in operation in Yaoundé since 1972. This clinic has been established within the framework of the University of Yaoundé's Center for Health Sciences. High-risk patients are referred to the clinic from the city's MCH centers. Nurses and nurse-midwives have been trained to provide child-spacing assistance to women who wish to avoid unwanted pregnancies. Obstetrician/gynecologists diagnose and attempt to treat cases of primary and secondary infertility in both women and husbands. This clinic has demonstrated, on the one hand, the feasibility of establishing such integrated services, and on the other, the emerging demand in the population for comprehensive maternal care facilities.

b) The MOH is in the process of undertaking a major study of infertility in the Eastern province. It will test the hypothesis that gonorrhoea is the principle cause of infertility problems in this region. This cause was suggested by a preliminary study in this area carried out by UNO. The MOH study aims to determine the extent of infertility problem, its causes, and whether the problem results from pregnancy wastage, a high stillbirth rate or a high infant mortality.

c) At present the preventive medicine division of the MOH operates V.D. clinics in many parts of the country. These clinics mainly engage in passive case finding and treatment. However, several provincial preventive medical officers have independently mounted active case finding and prophylaxis efforts, the results of which indicate popular interest in and acceptance of such programs.

d) General health and family health education, principally directed to women, has become a major program activity. At present the MOH is in the process of extending out a project aimed at practical training in health education (see AID project No. 041-02303). The Ministry of Social Affairs has launched a 5 year project to train 350 rural animators who will in turn identify, train and support village women who can become community leaders in improving family welfare. Several U.S. voluntary agencies (CARE, CRS for example) are supporting similar health and community development oriented education projects under the auspices of the MOH and Ministry of Agriculture. Thus a cadre of health extension agents working at the community level either exists or will be formed in most regions

of the country. These programs can serve as models, and their workers as resources in realizing the objectives of the health education activities of this project.

#### ALTERNATIVE APPROACHES

As a result of these considerations, it is necessary to place the problems of reproductive health within the context of overall maternal health. A program with only a single focus, such as child spacing, would not be viable everywhere, as the reproductive problems differ considerably from region to region. In the case of Cameroon, the need for child spacing is inextricably related to the problems of primary and secondary infertility, and both are only one aspect of the necessary configuration of services to protect the health of women of child bearing age. Similarly, since maternal health problems exhibit regional variation in kind and degree, the appropriate programming package can only be selected by testing what composition of services is needed for each region. Thus any project which emphasized the delivery of only one particular service, such as child spacing, or infertility control, etc., would not be effective in itself, nor universally applicable given the social and epidemiological variations in maternal and reproductive health problems in Cameroon.

### CONCLUSIONS BASED ON THE TECHNICAL ANALYSIS

This analysis has considered the feasibility of this project from two perspectives; 1) the necessity of approaching the problems of reproductive health from a program addressing the entire range of maternal health problems, and, 2) the capabilities of the Cameroonian health services to manage the development of such programs. In view of the above analysis the following conclusions are drawn as to current the appropriateness and viability of this project:

- 1) it accords with the government's long term objectives of improving maternal and child health.
- 2) it supports the government's objective of developing population policies to meet the reproductive situation in each of the major geographic and ethnic regions of the country; and,
- 3) it coincides with the Ministry of Health level of technical capabilities, i.e. infrastructure, medical manpower, and coordinative and management skills, to carry out multiple pilot projects in addressing the formulation of regional and, ultimately national, population policies.

### ENVIRONMENTAL IMPACT

There will not be any major environmental impact as a result of this project, other than the anticipated improvement in the health of the target populations. As this project is concerned with developing long-term regional maternal health program strategies, the ultimate environmental impact will depend<sup>upon</sup> the consequences of these strategies. However, since maternal health and

the question of reproduction are viewed as integral concerns, it is expected that environmental problems resulting from any impact improvements in maternal health will have on the various ecological systems will be considered in the process of elaborating the health service strategies.

PART IV IMPLEMENTATION PLANNING

A. ADMINISTRATIVE ARRANGEMENTS

Overview

The Minister of Health of Cameroon will assume primary administrative responsibility for this project. The Minister of Health will delegate responsibility for the execution of the project to a special Project Director who will work in conjunction with appropriate department and services of the MOH which will include but not be limited to the Directorate of Hospitals, Directorate of Preventive Medicine and Central Pharmacy. The Project Director will coordinate the overall implementation of the project through the provincial health officers and counterpart departments. In order to provide for a broad spectrum of intersectoral technical input and support for the execution of the project, and intersectoral advisory committee will be established. The Project Director will be responsible for over all management for the delivery of the proposed health services. The Director will be assisted by a support staff which include persons responsible for the preventive medicine, health education, and obstetrics and bynecology.

The project will be staffed by three full time AID sponsored technicians and three part time consultants, who will function as counterparts to the Project Director and his support staff. The AID sponsored technicians will be provided through a contract with a U.S. based university or other contract institution, or through personnel service contract. The contract team will be responsible to AID for technical inputs into the project and will report directly to their counterparts needs.

B. SPECIFIC PROJECT ADMINISTRATIVE RESPONSIBILITIES

Minister of Health

The Minister of Health or his designated representative will assume overall responsibility for establishing policies regarding project activity. The specific responsibilities include:

1. Assuring the coordination and liaison among project participants, including other Cameroonian Ministries.
2. Planning, convening meetings of the coordinating committee and serve as staff to the coordinating committee.
3. Assigning a representative of the Ministry of Health as Project Director.
4. Negotiating Project Agreements with relevant participants.
5. Arranging for periodic MOH Project Progress Reports.

Coordinating Committee

The Coordinating Committee will have the principal responsibility of advising the MOH on intersectoral cooperation in this project. This coordinating committee, through its president, a representative of the MOH, reports directly to the Minister of Health. The specific responsibilities include:

1. Meeting periodically to identify areas of intersectoral support.
2. Recommending means of providing intersectoral support to pilot projects.
3. Providing supervision and administrative support to Project technicians from respective sectors.
4. Providing input for the development of project design strategies.
5. Assuring that appropriate personnel in participant Ministries are fully informed regarding the maternal health project.

6. Organize sub-committees as needed for the project.

Project Director

The Project Director will be a staff person designated by the Minister of Health to implement and coordinate the project, and will have direct supervisory responsibility for the project technician staff. The specific responsibilities include:

1. Supervising the implementation of the Maternal Health project activities in manner constant with policies established by the Minister of Health.
2. Providing leadership to the project staff in planning, designing, and evaluating project activities.
3. Assuring that required MOH administrative procedures are followed.
4. Providing administrative liason between the Maternal Health project and the existing administrative structure in the pilot zones.
5. Assuring that required MOH project records are maintained and that needed project reports are prepared.
6. Acting as President of the Coordinating Committee.

Chief of Party (AID Technical Assistance Team)

The chief of the AID technical assistance team will be one of three AID-financed technicians, whose nomination must be approved by the Ministry of Health and USAID. As counterpart of the Project Director, the Chief of the Technical Assistance Team will be responsible for coordinating the technical input in accordance with the objectives of the input as stated in the project paper. The specific responsibilities include:

1. Assisting the Project Director with the planning, design, evaluation of project activities.
2. Implementing project activities in accordance with policies established by the Minister of Health and the Coordinating Committee.
3. Contributing substantial technical expertise to the teaching and research activities of the project.
4. Providing supervision and administrative support to other project technicians.
5. Providing liaison between the contracting organization and the project.
6. Preparing necessary project reports including those documents required as part of the AID contract process.
7. Assisting the Project Director with liaison activities regarding the Coordinating Committee, by serving as the non-voting committee executive director.

#### U.S. Contract Institution

The U.S. contract institution in cooperation with the MOH will assume administrative responsibility for the logistic and support of the AID-sponsored technicians staff and related project training activities. The specific responsibilities include:

1. Recruiting, selection, and dismissal of project technician staff.
2. Providing logistical and technical backstopping for the technician staff
3. Providing short-term technical assistance to the project when required.
4. Handling the logistical support for participant training activities including payment of travel, per diem and tuition.

Other Project Technicians

The other Maternal Health Project technicians will be directly responsible to the Chief of the Technical Assistance Team. They will function primarily in a technical capacity.

C. MANAGEMENT CAPACITY OF PROJECT ORGANIZATION

This project will be administered and managed by MOH personnel. However, multiple technical and personnel inputs will be forthcoming in order to make maximum use of all available personnel and facilities at all levels of the project implementation. The MOH is in the process of demonstrating its capacity to manage programs with multifaceted inputs in the Practical Training in Health Education Project as well as its ability to promote intersectoral coordination in the implementation of health programs. Other sectors as well, such as Social Affairs, Education and Agriculture, who are in the process of developing programs and building up management expertise in relation to education and the promotion of health and well being of women, have also demonstrated capacity in management skills and intersectoral cooperation.

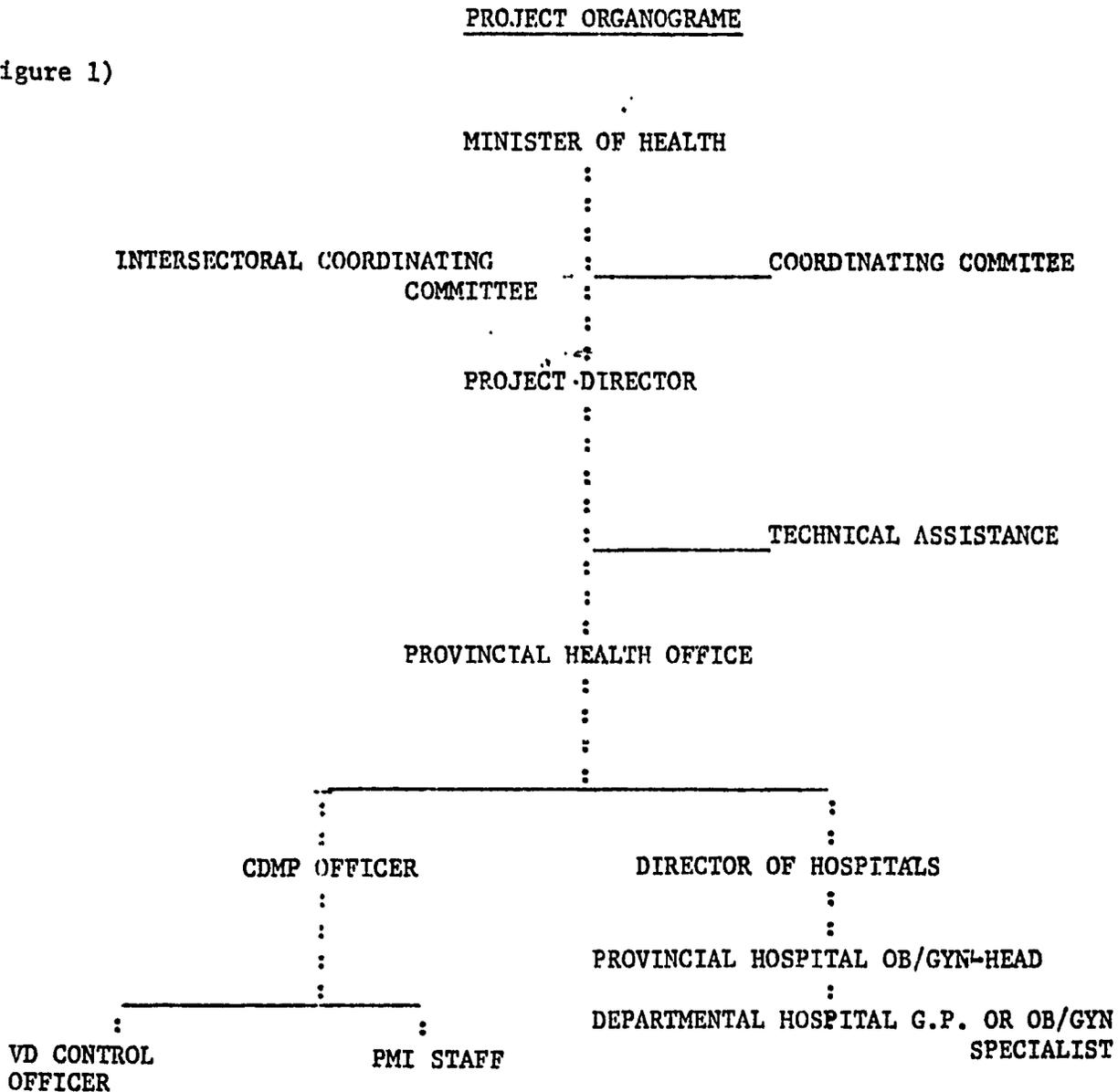
An additional consideration regarding the management of this project is the capability of the U.S. institution selected to provide the project technicians. The demonstration of management skills in the management or implementation of international health programs in developing countries will be an essential criteria in their selection. In view of

the numerous approaches entering into the design of effective health delivery service, it is essential that contract organization staff demonstrate ability in the management of the multiple components that will be involved in the achievement of the objectives of this project.

D. AID INVOLVEMENT

Additional ATD staff commitments will not be required to complete the organizational structure required for the implementation of this project. (see figure 1).

(Figure 1)



Additional details regarding AID's roll in evaluating this project are discussed in the evaluation plan (see section).

### JOB DESCRIPTION

#### Chief of Technical Assistance Team

##### A. General

The Chief of the Technical Assistance team within the organizational and management structure of the project has been described in the previous section. In general, the Chief of Technical Assistance team will be responsible for the overall management of technical inputs in the clinical, preventive and educational components of the project.

##### B. Specific

The Chief of Technical Assistance team will be the senior technician and counterpart to the Project Director. As senior technician, the Chief of Party will work within the framework of the organizational structure established for the administration of the project. Technical responsibilities will include designing and evaluating management systems for integrated rural and urban health care delivery systems. The Chief of Party will participate in the training programs, both in the development of curriculum and syllabus and in teaching, and will assist the Project Director and provincial level officials in designing, implementing and evaluating delivery of integrated health education, OG/GYN and preventive medical service for the target population in the project sites. The specific responsibilities include but are not limited to:

1. Provide administrative and technical supervision to technical staff.

2. Assume major responsibility planning and evaluation of project activities.
3. Provide technical assistance in the development of research activities.
4. Provide teaching assistance.
5. Prepare management and operational manuals.
6. Prepare required program reports.
7. Provide other related program assistance as required.

C. Qualifications

The Chief of Party should have a doctoral degree in health services administration, and a minimum of three years related experience, related to the planning, implementation and development of maternal child health services in international health programs. Additional skills in planning, supervising and evaluating research programs are necessary. Verbal fluency in French at a minimum Foreign Service Institute level of 3 and a facility in writing at a minimum professional level are essential. In addition to these academic and professional credentials, the Chief of Party should have leadership ability which can be exercised within the context of the national development policies of the the Government of the United Republic of Cameroon.

PUBLIC HEALTH NURSE-MIDWIFE

A. General

This project technician working under the supervision of the Chief of Party and in cooperation with a Cameroonian counterpart, will be responsible for upgrading MCH and high-risk services, training health educators and integrating all health educational components at the community level.

B. Specific

1. Responsible for design and evaluation of education curriculum for health educators.
2. Provide direct teaching assistance in training programs for health educators.
3. Provide direct assistance in child spacing for MCH and high-risk services.
4. Assist the Chief of Party in the management and organization of the integrated preventive, curative and educational components of the project.
5. Provide direct assistance in setting up management systems for logistic and administrative requirements of the health services.
6. Prepare necessary project reports when required.
7. Provide other related program assistance as required.

C. Qualifications

The candidate should have a MPH with a minimum of 4 years experience in the development of maternal child health programs in developing countries, preferably in Africa. Experience should include training nurses and nurse-midwives in managing routine and high-risk pregnancies and deliveries, child spacing and health education services. Fluency in French is essential at a minimum Foreign Service Institute level of 3.

PUBLIC HEALTH ADVISOR IN COMMUNICABLE DISEASE CONTROL

A. General

Under the supervision of the Chief of Party, this technician will be responsible for strengthening and/or developing communicable disease control program, principally dealing with gonorrheal infection. This technician will assume responsibilities for logistic, communication and management aspects of mass campaign to identify source, to treat, and to reduce incidence of infection.

B. Specific

1. Responsible for planning and evaluation of control programs in conjunction with other project components.
2. Provide direct teaching and inservice supervision to control staff.
3. Provide direct assistance in program implementation including data gathering analysis and reporting.
4. Assist the Chief of Party with overall program planning, evaluation and research activities.
5. Provide necessary project reports when required.
6. Provide other related program assistance as required.

C. Qualifications

The candidate should have an MPH in epidemiology with experience in managing communicable disease programs, specifically venereal disease. Experience should include casefinding, prophylaxis, research, community awareness and communication programs. Several years experience in developing countries, preferably in Africa is desirable. Verbal fluency in French is essential at a minimum Foreign Service Institute level of 3.

SHORT TERM SPECIALIST CONSULTANCY (Obstetrician- Gynecologist)

A. General

The OB/GYN specialist will be responsible for teaching new techniques and introducing new technology to Cameroonian counterparts. This technician will be responsible for planning and evaluating short term refresher courses in maternal health in collaboration with other project technicians and their counterparts.

B. Qualifications

This specialist should be at least a diplomate of the American Board of Obstetrics and Gynecology, or the equivalent. This specialist should have several years teaching experience in developing countries and possess a verbal fluency in French at a Foreign Service Institute level of 3.

LABORATORY TECHNICIAN

A. General

This technician will be responsible for setting up laboratory facilities at the National level and for demonstrating the use of the equipment to counterpart personnel. This technician will be responsible to the Chief of Party and will work in collaboration with other project technicians and their counterparts.

B. Qualifications

The laboratory technician should be a U.S. Certified Medical Technologist, or the equivalent, with experience in radioimmunoassay techniques. The technician should have some experience in developing countries, and have verbal fluency at a minimum Foreign Service Institute level of 3.

STATISTICIAN

A. General

This technician will be responsible for designing data collection, and reporting systems to be used for the planning and evaluation of provincial activities. This technician will be responsible to the Chief of Party and will work in collaboration with other technicians and their counterparts.

B. Qualifications

This technician should have an MPH in biostatistics or epidemiology, with some experience in developing information systems for health services management and evaluation in developing countries. This technician should have a verbal fluency in French at a minimum Foreign Service Institute level of 3.

EPIDEMIOLOGIST/ANTHROPOLOGIST

A. General

These technicians will be responsible for identifying and developing research designs related to health and social problems arising in the process of implementing regional projects. These technicians will be responsible to the Chief of Party and work in collaboration with other project technicians and their counterparts.

B. Qualifications

These technicians should have at least a Masters level degree in their respective fields, with experience in carrying out research programs in developing countries. These technicians should have verbal fluency in French at a minimum Foreign Language Institute level of 3.

IMPLEMENTATION PLAN

The Ministry of Health of Cameroon will be the agency directing this project as outlined in figure 1 (organogramme). The AID technical assistance input will be provided primarily through contract with an American institution such as a university school of public health or a private contractor. Additional project input will be provided by other participants through the Coordinating Committee established by the Ministry of Health for that purpose.

The U.S. based contracting institution will be responsible for the on-going daily management of the project including the recruitment of personnel, maintenance of logistical support and participant training expenses, such as travel, per diem and tuition. It is essential that the project be managed by one institution with full agreement and commitment to work within the organization structure already developed for the project.

The roles of each of the principal project participants can be summarized as follows:

MINISTRY OF HEALTH: Overall project direction and the provision of Ministry of Health personnel for training.

AID: Primary resource for long and short term technical assistance.

OTHER MINISTRIES OF CAMEROON: Technical assistance for ministry related aspect of the project.

A more detailed description of each participant's role has been included in the project description.

Part 4  
C. EVALUATION

INTRODUCTION

The principal objective of this project is to test combinations of various health services in each region of the country so that effective-cost conscious strategies can be developed which will reflect the particular configuration of health problems and available resources of each region. On the basis of this objective the evaluation methodology will have to measure several parameters.

1. The effectiveness of inputs in upgrading the health services.
2. The effectiveness of each particular service
3. The relative impact of each service dealing with one or more of the principle maternal health problems.

METHODOLOGY

The exact methodology for the process of evaluation will have to be developed as the project is carried out. However, by referring to the conceptual model which underlies the development of this project, it is possible to indicate specific factors which will have to be taken under consideration in any evaluation.

An examination of the conceptual model shows that maternal health can be viewed as a product of outcome of specific combination of services. Thus, this suggests that overall status of maternal health can be implicitly deduced by measuring the concerned outcomes; and each outcome can be assessed in terms of the relative contribution of the services which produce it.

Thus, for each indicated outcome, the following measures are suggested because it is possible to quantify them if good records are maintained.

at the services. (Incidentally, this will be a test of the record system developed).

Although it can be argued that in reality each of the designated outcomes is a result of the influence of all health services and other social and economic factors not included in the model, this should not have too substantive effect for this evaluation, since the objective is not to find cause and effect relationships but rather to point to the most likely service needs which will lead to better maternal health.

INDICATORS FOR OUTCOME

The following are the suggested indications for outcomes of each pair of complementary services.

I. Appropriate Medical Supervision

1. The increase in utilization as a function of upgrading MCH services.
2. The ability to manage high risk problems at the MCH level as a function of guidelines.
3. Success in screening cases that must be managed at the departmental or provincial levels as a function of improving the levels.
4. The number of patients removed from the high risk category as a function of improving the levels of care.
5. Decreased perinatal mortality among the high risk deliveries.
6. Decreased maternal mortality among high risk deliveries.

II. Desired Births

1. Fewer cases of infertility secondary to pelvic infection.
2. Fewer cases of complications of provoked abortions.
3. Intervals between subsequent children as a function of effective child spacing.
4. More couples requesting methods in order to avoid exceeding desired family size as a function of family health education.
5. Fewer number of patients with infertility secondary to pelvic infection in patients 15 and under.
6. The number of positive therapeutic results after correction for normal conception patterns.
7. Change in the age specific fertility rate in age group with high prevalence of primary and secondary infertility indicators will have to be developed to evaluate the relative impact of child spacing services on desired birth.

### III. Physical Fitness

1. Increasing number of women visiting for gonorrhoeal infections;
2. Decreasing reinfection rate as a function of information awareness campaigns.
3. Women who have gonorrhoea with the first pregnancy do not have it with subsequent pregnancies.

The above indicators will be used to determine the relative impact of the two complementary services via-a-vis the desired outcome. This will enable decisions to be made regarding the most effective balance in these services in relation to the total objective of insuring maternal health.

It is important to underline that the function of this project is to identify the most effective inputs the Ministry of Health can make as to services needed for the protection of maternal health and the health of women of child bearing age in general, with the realization that multiple inputs from all the developmental sectors are required to actually achieve satisfactory maternal health.

#### BASE LINE DATA

Since a precise quantifiable evaluation will be sought, it will be necessary to have adequate baseline data prior to commencing the

project. This data will have to include 1) an assessment of the current level of utilization and services provided by each of the health facilities to be involved in the various regional projects and, <sup>2)</sup> basic data concerning the health status of women of child bearing age in relation to reproductive performance. Since the population to be covered in the pilot project is relatively small, it will be feasible to do sample studies of health and reproductive performance to supplement available statistics. In addition, it is expected that each pilot program will be preceded by the Ministry of Health research program on the epidemiology and etiology of infertility. Since these research projects provide for the collection of basic demographic and clinical data, they will provide major input<sup>s</sup> into the development of baseline information.

In addition to the evaluation of the health services as they directly relate to their associated outcomes, other administrative and management aspects related to the development of these services will also be evaluated. They will provide necessary information about the essential feasibility as well as constraints to be expected in implementing the strategies that result from the pilot project.

#### EVALUATION PLAN

This maternal health project will be evaluated both internally and externally at various intervals during its life. Internal evaluation will be the responsibility of the Project Director, the technical assistance team and other administrative bodies involved in the project. External evaluation will be conducted by AID at midterm and at project termination in collaboration with the other participants. Other AID

evaluations will be consistent with AID policy.

Part of the evaluation process will consist of monthly and quarterly progress reports which will be prepared by technical assistance technical assistance teams for submission to the Project Director. The monthly reports will briefly describe the status of each of the project activities, the up-to-date inputs, the problems, proposed solutions and anticipated activities during the following reporting period. The quarterly progress report will summarize and analyze the monthly reports and, in addition, provide a full financial summary.

The progress reports will focus on 1) the development and implementation of the training courses, 2) the success with which new technology is introduced and subsequently employed, 3) the management innovations in drug supply and equipment maintenance, 4) and target group's utilization of MCH centers and hospitals after they<sup>are</sup> equipped and supplied with drugs, 5) activities of health educators and gonorrhea control program, and, 6) relevant data from the various services including child spacing and infertility management.

Reports will also discuss the extent to which the various health services are being coordinated and integrated internally and with other health development-oriented programs in their regions. The reports will also describe inputs from other sectoral sources, and assess the extent to which existing models or experimental efforts at integrating different aspects of health services are relevant to other regions, and to the long-term operational goals of this project.

It is recognize that many of the above content areas in the progress report will reflect subjective judgements. Therefore, in order to be able to objectify several of the important elements, several indicators are recommended for the various project activities.

1. Training courses

Pre-and post-exams results should be analyzed. All materials produced at the workshop will be compiled appended and assessed. New technology introduced will be evaluated periodically by course instructors as to quality, frequency, and the purposes regarding its use. New tasks introduced at MCH or hospital levels will be similarly evaluated. One indicator of effective task performance at the designated service level will be the number of inservice refresher courses needed to insure that personnel maintain a minimum acceptable standard of performance.

2. Health Education

In assessing the health educators, the project will assess such aspects as recruitment, activities following training, i.e. the number of formal and informal contacts, duration of perseverance, number of women referred to MCH centers/ <sup>for</sup> high risk care, infertility management/ and child spacing, and number of women and men referred to gonorrhoea control service.

3. Preventive Medicine

Aspects of the gonorrhoea control program which will be considered in evaluating management, organization and effectiveness will be the extent of active case finding, number of complete treatments, proportion of reinfections, popular acceptance of the service, public awareness of the danger of VD and ways of preventing gonorrhoea.

EVALUATION OF PROJECT COSTS

Since one of the elements in determining the most effective regional strategies in protecting maternal health and the operational requirements for a national health and population program will be the cost effectiveness of the various project activities, it is essential that the evaluation include indicators of cost effectiveness. Cost effectiveness must relate not only to the actual implementation of services but also to the resources that will be required to put the strategies into effect. The specific indicators of cost effectiveness with regard to development and operational costs will be developed during the life of the project. However, the cost effective analysis methodology will have to consider the total cost in relation to both the individual activities as well as to the desired outcomes, namely, appropriate medical supervision, physical fitness and desired birth, as they relate to the protection of maternal health. It will be necessary to insure consistency in using data from different domains of activity in order to sustain valid conclusions.

D. CONDITIONS, COVENANTS AND NEGOTIATING STATUS

There are no special host country actions which must be taken prior to the execution of the Project Agreement. Additionally, there are no special conditions or covenants proposed for the Project Agreement.