

Report of the
MID-TERM EVALUATION
of the
MALAWI HEALTH INSTITUTIONS DEVELOPMENT PROJECT

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Evaluation Team:

J.D. Shepperd, MD. MPH Team Leader
S. Kupe, PhD. Nurse Educator
J. Kolange, BS., MOH, GOM Health Planner

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EXECUTIVE SUMMARY - MALAWI/HOWARD HEALTH INSTITUTIONS
DEVELOPMENT PROJECT EVALUATION, SEPTEMBER 1988

This executive summary contains the major findings and recommendations of the fourth year evaluation of the Health Institutions Development Project. The evaluation was originally scheduled for the mid-term (Dec. 1987) of the project but was postponed until this time. The project is funded through a cooperative agreement between Howard University and the United State Agency for International Development (USAID). The objectives of the Cooperative Agreement are as follows: (1) Training and retraining of Malawian rural health workers to implement the primary health care (PHC) strategy of the Government of Malawi's (GOM) Ministry of Health (MOH); and (2) the strengthening of Malawian health manpower institutions so that they will have the capability of preparing health workers beyond the life of the project.

In support of these objectives the project was to carry out a program to: (1) train Enrolled Community Nurse (ECHN), (2) support maternal and child health/child spacing (MCH/CS) training for all types of health workers, (3) support Medical Assistant (MA) and Health Assistant (HA) training. The agreement spelled out a series of requirements in terms of the numbers of health workers to be trained by category. The major numerical focus of the project is child spacing training for enrolled community health nurses. (See attachment A). The numerical targets were revised in 1987 when a supplement was added to the grant to provide student support for training. The project was designed in 1983 and implemented in 1984 (PACD 1990) in collaboration with the Ministry of Health, Government of Malawi. Howard University and its field team are essentially responsible to the Principal Secretary of the Ministry of Health.

The Howard University College of Medicine, Department of Community Health and Family Practice, is the managing office of the implementor. Thomas Georges, M. D., MPH, Chairman of the Department, is the Project Director.

The implementor has fielded a team of six technical advisors; purchased commodities, teaching materials, and equipment; provided support for participant training and in-country training. All inputs have been nearly completed, and they are discussed below. An extension was built at the Lilongwe School of Health Sciences which included classrooms, a laboratory, student hostels and offices. This construction was managed by USAID/Lilongwe.

The purpose of the evaluation is to assess the achievements of the project in relation to the projected targets and to determine if the achievements are viable and sustainable after project assistance has been withdrawn. The evaluation is also to suggest any modification in the project design or implementation that would help the GOM make a better contribution to the health status of its residents.

The evaluation was conducted by a three person team consisting of an AID/W Public Health Physician, a University of Botswana Nurse Educator, and a Health Planner from the MOH of the Government of Malawi. The team followed a protocol prepared by Howard University. After reviewing all the project documents, the team visited the training institutions and numerous field training sites. Interviews were conducted with students, tutors, MOH officials, USAID officials, and the Howard University technical assistance team.

MAJOR FINDINGS:

Overall, the project has been carried out in an outstanding manner, and has greatly pleased the GOM with its accomplishments. There have been very few management and implementation problems and many of the project targeted outputs have been reached or exceeded. The following major findings are presented regarding the components:

FAMILY HEALTH

By itself the Family Health component is larger than all other components put together. This training program encompasses almost all cadres of health workers in the country. Each cadre is trained to the extent of the service they provide and complementary to their backgrounds in family health. The component collaborates very smoothly with other donors in offering intensive training in seven well established centers in the country. The needs and demands for training in this area have grown rapidly since the inception of the program. It is very gratifying that those responsible have been able to meet these rapidly growing needs with a well organized, comprehensive, and smoothly administered program.

The numbers of health workers trained is impressive, but equally impressive is the effort made to provide high quality service providers; demonstrated by taking on added responsibilities such as monitoring and supervision, the development of protocols for family health practice, and involvement of the National Child Spacing Committee.

ENROLLED COMMUNITY HEALTH NURSING

The project's pioneering effort in the enrolled community health nursing component has been very successful in the quality and the quantity of Enrolled Community Health Nurses trained. The project is on target with the number of community health nurses to be trained. The graduates who are in practice have a good working understanding of community health work and the aspirations of the MOH in primary health care. In this component also the project has made efforts to assure high quality training and service by

preparing protocols for the practice of enrolled community health nursing. Conducting monitoring/supervisory visits to the graduates and offering in-service staff development sessions to the graduates based on findings from the supervisory visits, are part of the efforts at quality assurance.

This new cadre of health workers fits very well with goals of the MOH in their ten year national health plan (1986-1995). The ECHN will be in the Front Lines of the delivery of PHC Services.

MEDICAL ASSISTANT

The support to the Medical Assistant (MA) training program began in 1984 when a clinical officer (M.A. tutor) was sent to Howard University School of Allied Health Sciences for a Bachelors degree in the Physician's Assistant program. When he returned, a Physician Educator/Technical Advisor was assigned to the program. The project revised the pre-service M.A. program to produce 40 graduates per year and developed an in-service training program for 350 existing M.A.s. Family health was included in the pre-service training, but was omitted from the in-service. As a result, these front line providers are unable to offer limited child spacing services to the remote rural areas as had been hoped.

Three excellent tutor training workshops were held in conjunction with the Health Assistant program tutors. This training of trainers resulted in significant improvement in writing curricula and presenting educational materials in a far more effective manor.

The tutor, trained at Howard, left the project during the first year after his return in 1986; thus, leaving a serious gap in the leadership of the M.A. program at Blantyre. Two tutors are scheduled to return in June 1989 from participant training. Four new tutors have subsequently been assigned to the clinical program at Blantyre and to the in-service program at the Staff College in nearby Mpemba. Another tutor is also assigned to direct the in-service training. Unfortunately the tutors lack housing in Blantyre.

The preclinical M.A. training takes place at the Lilongwe School of Health Sciences. As a result of the fragmentation of the M.A. program and the instability of the tutors assigned, there is some serious questions about the sustainability of the achievements of this component. The inputs to this part of the program lag behind those of the Family Health, the Enrolled Community Health Nurse, and the Health Assistant. The technical advisor is scheduled to leave the project February 1989.

HEALTH ASSISTANT

The Health Assistant (HA) training program was initially supported by sending a Health Inspector to be trained at Howard University to become the Senior Tutor of the program. He returned in 1986 and was joined by a technical advisor in 1987. The H.A. curriculum was revised for the pre-service two year course. An in-service training program was developed for the 164 existing H.A.s. A needs assessment and task analysis preceded the curriculum revision, which was carried out with the help of a consultant in Environmental Health provided by the World Health Organization (WHO). The Health Assistants pre-service training capacity was increased from 10-12 per year to 40 per year. According to the National health plan, the HA will be responsible for Many Public Health interventions and training the Health Surveillance Assistants who will work with them at the health center level.

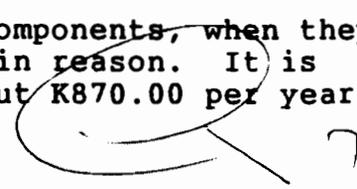
Assessment of the HA program revealed that the progress made during the project was substantial and with the relatively stable group of trained tutors, there is a reasonable likelihood that the H.A. training program can be sustained.

LILONGWE SCHOOL OF HEALTH SCIENCES

Although assessment of the LSHS was not a part of the scope of work for the evaluation, the status of the school is a critical factor in the issue of sustaining all the programs of the MHIDP. The school is a Ministry of Health operation, but does not have the status of an independent unit within the ministry. The director, staff, and tutors are assigned to the school by temporarily transferring them. At this time this appears to be an assignment without a real career path or permanence. While many of the tutors enjoy making their contributions to implementing primary health care, most felt that there was not a real opportunity to progress as they had with the clinical areas or within the educational institutions. Changes in courses and staff seemed to depend more on ministry of health decisions which did not involve the staff at LSHS.

The problems with the school became apparent when the evaluation team spoke with the various course directors about the integration of family health into all training programs. As a result of looking over the curricula and interviewing tutors, the evaluation team had the impression that there was a measure of instability at the school, as structured, and that steps needed to be taken to stabilize the LSHS in order to help assure sustaining the achievement under the MHIDP.

The financial sustainability of the project components, when they are turned over to the MOH, appear to be within reason. It is estimated that the recurrent cost will be about K870.00 per year.



MANAGEMENT

There seemed to be few problems with management of the project on the part of Howard University or the Ministry of Health. There was a question raised by the Mission about the unobligated funds remaining. An analysis made by the team of the projected spending over the remaining planned and recommended life of the project suggests that all project funds will be expended before the current PACD in 1990.

RELATION TO THE NATIONAL HEALTH PLAN 1986-1995

The MHIDP fits into the plan for the provision of human resources for the implementation of the national primary health care program by providing ECHN, MA, HA, as well as giving child spacing skills to all health workers. It also has begun the task of increasing the capacity of the MOH to improve the management of Health Services at the peripheral level by including management skills training in pre-service and in-service training courses.

MAJOR RECOMMENDATIONS:

1. The project should be redesigned and extended to permit the immediate commencement of training of health surveillance assistants and improvement of the other curricula at the LSHS (including Clinical Officers, Pharmacy Assistants, Dental Assistants) to the quality of the ECHN, the H.A. and the M.A. New curricula should include larger elements of management training. This may require a modest increase in project funding for an estimated PACD of December 1991.
2. Continue funding the Family Health component until 1991, supporting student and tutor subsistence, travel allowance, vehicles, and per diem.
3. Phase out the technical assistance for the Family Health and Enrolled Community Health Nurse program as planned. Continue the T.A. for the Health Assistance program until June 1989. Continue the T.A. for the Medical Assistant program until June 1989. Continue the T.A. for the Medical Assistant program until a "director tutor" is appointed at the Blantyre campus to take responsibility for the pre-service and in-service training.
4. Request that the MOH substantially increase the numbers of basic nurses trained in order to release the community nurses for their special work at the village level. The MOH might consider a special nurse service made up entirely of Community Health Nurses who would have no attachment to hospitals except to send and receive referrals.

5. The Medical Assistants should receive child spacing instruction during the in-service training provided by the project so that this front line worker can provide promotional services and deliver condoms and foaming tablet contraceptives.
6. Books and reference manuals or protocols should be provided to the H.A.s and M.A.s.
7. An effort should be made by the MOH to stabilize the teaching staff at the LSHS so that they feel they belong to an identifiable entity and have as good a career path as their colleagues in clinical service or in an educational institution.
8. The project should provide microcomputers with "desk top publishing" capability in order to enhance capacity of LSHS to produce its own teaching materials, as well as its use as word processor, data base management tool, a numbers manipulator, and a teaching tool.
9. Tutors from each of the components would benefit from study tours of African countries to share their new curricula and learn how others are using new teaching techniques, microcomputers, and practical learning experiences to improve the delivery of primary health care, child survival and family health services.
10. Local expertise in curriculum development should be developed so that there is permanent expertise available to continually develop and revise the numerous curricula.

PROJECT OUTPUTS

END OF PROJECT STATUS	REVISED END OF PROJECT STATUS	PRESENT STATUS	PROJECTIONS FOR 1988
CHN GRADUATED (105)	105 CHN GRADUATED	45 ECHN GRADUATED	29 ENROLLED
CHN TUTORS TRAINED (6)	6 CHN TUTORS TRAINED	1 + 5	
CHN STUDENTS ENROLLED (30)	30 CHN STUDENTS ENROLLED		
CHN PROGRAM INSTITUTIONALIZED	CHN PROGRAM INSTITUTIONALIZED		
MCH/CS TUTORS TRAINED (6)	6 MCH/CS TUTORS TRAINED	5 MCH/CS TUTORS IN TRAINING	15
MCH/CS TRAINERS TRAINED (30)	30 MCH/CS TRAINERS TRAINED	62 MCH/CS TRAINERS TRAINED	10
MCH/CS ENMS TRAINED (600)	512 MCH/CS ENMS TRAINED	331 MCH/CS ENMS TRAINED	100
	194 MCH/CS MRNS TRAINED	124 MCH/CS MRNS TRAINED	+ 30
	28 MCH/CS MAS TRAINED	28 MCH/CS MAS TRAINED	20
	210 MCH/CS COS TRAINED	110 MCH/CS COS TRAINED	+ 30
	105 MCH/CS ENHS TRAINED	75 MCH/CS ECHNS TRAINED	
		52 NURSING SUPERVISORS	27
		68 DISTRICT HEALTH INSPEC.	0
		44 PHARMACY ASSISTANTS	7
		40 PRECEPTORS	
		43 REFRESHERS - PNM	50 LABORATORY ASSISTANTS
			110 REFERESHERS
MCH PROGRAM INSTITUTIONALIZED	MCH/CS PROGRAM INSTITUTIONALIZED		
1 HEALTH EDUCATOR TRAINED	1 HEALTH EDUCATOR TRAINED	MAY 1988	
1 NUTRITIONIST TRAINED	1 NUTRITIONIST TRAINED	BEGIN AUGUST 1988	
4 HA TUTORS TRAINED	4 HA TUTORS TRAINED	ON GOING 1 + 6	
40 HA (NEW CURRICULUM) GRADUATES	40 HA (NEW CURRICULUM) GRADUATES	37 ENROLLED	
80 HA (NEW CURRICULUM) ENROLLED	80 HA (NEW CURRICULUM) ENROLLED		
5 HA TRAINERS TRAINED	5 HA TRAINERS TRAINED	12 HA TRAINERS TRAINED	
160 HA RETRAINED	160 HA RETRAINED	60	
NEW HA CURRICULUM INSTITUTIONALIZED	NEW HA CURRICULUM INSTITUTIONALIZED		
5 MA TUTORS TRAINED	5 MA TUTORS TRAINED	ON GOING 1 + 5	
40 MA (NEW CURRICULUM) GRADUATED	80 MA (NEW CURRICULUM) GRADUATED	40 GRADUATED	
120 MA (NEW CURRICULUM) ENROLLED	120 MA (NEW CURRICULUM) ENROLLED	80 ENROLLED	
5 MA TRAINERS TRAINED	5 MA TRAINERS TRAINED	3 TO START IN MARCH	
350 MAS RETRAINED	350 MAS RETRAINED	43 MAS RETRAINED	
NEW MA COURSE INSTITUTIONALIZED	NEW MA COURSE INSTITUTIONALIZED		

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1. INTRODUCTION

1.1 Background

Following the Government of Malawi's (GOM) endorsement of the Alma-Ata Declaration for Public Health Care (PHC), the country began to develop and design a PHC system for implementation. In 1978, a national inter-ministerial meeting was organized whose main purpose was to introduce PHC, as well as to work out the strategies of how to provide PHC.

In 1980, a new policy was developed. It combined the objectives of the fifteen year National Health Plan (1973-88) as well as the basic underpinnings of the PHC concept. This included, among other things, the following strategies:

- o Strengthening MCH services and health education
- o Strengthening disease control and prevention programs
- o Training and orientating health personnel at all levels toward meeting the needs of the communities.

With the adoption of PHC, Malawi shifted its emphasis and approach from a system that was largely emphasizing facility-based basic health services to a system that emphasized village level health workers and their immediate supervisors. A training and reorientation process was started for all health personnel from the Ministry of Health (MOH) central level to the Health Center level in order to prepare them for their new roles. Later, these trained personnel were to be the key resource personnel in supporting PHC and the village PHC teams - a thing that was to be done in phases on a pilot district basis.

In 1984 the GOM, through the PHC Core Group, recommended the establishment of what was termed Community Based PHC. In this new development, the thrust toward PHC was further enhanced by the addition of several more principles to the concept which, among other things, called for an integrated approach (i.e., PHC to be shaped around the life of the community in which it exists and, hence, it should involve an integrated approach of preventive, promotive, curative, and rehabilitative service in all sectors).

This, consequently, led to the need for training of health personnel. However, this was an already high priority area for the MOH because of severe shortages of health manpower in general. The consequent shortage of the frontline cadres in the provision of PHC e.g., Medical Assistants (MAs), Health Assistants (HAs), and Enrolled Nurse Midwives (ECHNs), gave this program an even greater push as well as a sense of urgency: The MA is equated to the surrogate physician at the peripheral level and works mainly in

ambulatory curative care in his or her present health system function. In view of his envisaged new role, it was found necessary to retrain him to assume the leadership of the PHC Health Center team which was to provide a balance of curative, preventative, and promotive health services. Similarly, the HA, who was originally trained to monitor the sanitation and public health of his catchment population and to assist in carrying out immunizations, was to be retrained to prepare him to play an extended role in environmental health, community organization/motivation, health education, and disease surveillance in a PHC context. The EN/M, who is presently providing a large portion and array of services, will need to be retrained into a Community Health Nurse/Midwife. In her new role, her main function will be to provide community-based curative/preventive/promotive health care focussing largely on mothers and children - the highest at-risk target group.

It was in the background of these chronological developments that the GOM/HU HIDP was designed in an effort to introduce a sustainable community based PHC system and structure.

THE GOM/HOWARD UNIVERSITY - HEALTH INSTITUTIONAL
DEVELOPMENT PROJECT: GOALS AND OBJECTIVES

The project's goal is to support GOM efforts to establish and institutionalize a capacity to produce mid-level health personnel in sufficient quantity and of acceptable quality to provide community-based PHC, with emphasis on preventive and promotive aspects of health, especially for mothers and children, including child spacing. These Maternal and Child Health (MCH) services are to be integrated within the PHC context. The project also aims at ensuring that these activities are sustained beyond the life of the project.

The project has three major objectives:

- a. To train and retrain health care personnel to carry out comprehensive and integrated community based PHC activities in line with existing PHC strategies, with an emphasis on child spacing.
- b. To strengthen health manpower training institutions so as to enable them to train the required health personnel of appropriate quality and in sufficient quantity.
- c. To institutionalize this training capability as well as the child spacing services started under the project.

The project life span was originally five years - 1984 to 1989. It has now been extended for one more year, largely to accommodate people still under training and scheduled to complete in 1990. Specifically, the project is intended to accomplish the following:

- a. To start a Community Health Nursing Training program at LSHS with a capacity of thirty Enrolled Community Health Nurses/Midwives (ECHN/M) per year.
- b. To retrain the ECHNs, MAs, HAs to deliver improved and effective child spacing services. This will be included in pre-service and in-service training, and the MOH will have to provide continuous training.
- c. To expand the MA and HA training programs at LSHS, as well as to revise the curricula to include knowledge and skills necessary for PHC delivery. The targeted output is 40 graduated per year for each cadre.
- d. To retrain the MAs and HAs in public health and supervision techniques. This entails revision of the curricula to include the appropriate methods and subjects as well as preparing them as trainers and motivators.
- e. To increase and institutionalize the MOH capability to conduct in-service training programs and the capability to develop relevant and appropriate curricula.

1.2. Evaluation Purpose and Methodology

The Howard University-Malawi project is funded through a cooperative agreement between USAID Malawi and Howard University College of Medicine, Department of Community Health and Family Practice of Washington, D.C. This cooperative agreement calls for Howard University to conduct a "mid-term evaluation" using outside assessors and an A.I.D. representative. The evaluation design was prepared by Howard and approved by the MOH and the Malawi Mission. An internal evaluation was conducted in 1985 by Howard.

The purpose of this evaluation is to determine the progress made by the project in attempting to achieve the agreed upon goals and objectives in qualitative and quantitative terms. The evaluation is also to make recommendations about how to improve all aspects of the project and consider what changes might be made in the project to help it meet the need for human resources for the health sector in Malawi. Some consideration will also be given to the relationship of the current project to a proposal for a new Health Manpower Development project submitted to USAID Malawi by the MOH/Malawi for A.I.D funding and the pending Public Health Interventions for Child Survival (PHICS) project.

Method of Evaluation: Howard University developed an Evaluation Design document which called for: (1) a review of project documents including the Project Paper, cooperative agreement, course curricula

for the training program, log frame, annual reports, status reports, training manuals, teaching materials, test results, needs assessments, etc.; (2) interviews with people involved with the project in the various organizations involved; and (3) field visits to the sites where project activities are being carried out.

Malawi/Howard prepared a matrix for the evaluation based upon several parameters. This document pulls together the EOPs, evaluation concerns, questions, hypothesis, references, sources of information, and the identification of the evaluation audience into a coherent plan.

A series of questions are provided for each EOP which calls for an examination of the achievement of planned project activities (inputs and outputs).

The examiners are also guided to look at the activities as they relate to national health plans.

The evaluation team called for the following skills:

- Public Health Physician, team leader
- Nurse Educator
- Health Planner
- A.I.D. Representative

The evaluation team was made up of the Senior Health Advisor to the A.I.D. Africa Bureau, a Public Health Physician, a Senior Professor from the National School of Nursing and Midwifery in Botswana, and a Health Planner from the Ministry of Health, Government of Malawi.

The evaluation team assembled in Lilongwe on 12 September 1988, and was briefed by the project staff, the USAID Mission, and the GOM Ministry of Health management teams. A series of interviews followed at the MOH, Lilongwe School of Health Sciences, the Kamuzu School of Nursing, the Zomba General Hospital, Ntcheu District Hospital, Blantyre School of Nursing Medical Assistant training site, etc. (see attachment 2). After enough material had been read and interviews held, the team began its analysis of the project sections in order to look for lacunea in their information gathering and seeking to formulate some issues and work toward a consensus on recommendations.

2. COMPONENTS OF THE PROJECT

2.1. Integration of "Family Health" into Curricula of Health Workers

The Family Health Program is the largest component of the project, constituting approximately 75% of the project. The program has been very flexible and has undergone several modifications to satisfy both current and long-term local needs.

Initially the program was designed to prepare the existing eight hundred enrolled nurse midwives, who are the frontline workers in PHC, as providers in family health. The project has, over the years, been modified to meet needs as they are identified. Currently the program has been modified to prepare all cadres of health workers in the country to provide family health services: Medical Assistants, Health Assistants, Clinical Officers, Registered Nurses, Registered Nurse Midwives, Enrolled Nurse Midwives, Pharmacy Assistants, Health Inspectors, Laboratory Assistants, Radiographer Assistants, Health Surveillance Assistants and Dental Assistants.

Enrolled Nurses, Registered Nurses, and clinical officers are full child spacing service providers, while all the others are motivators and may supply clients with birth spacing information, condoms, and foams for contraception.

2.1.1. Curriculum Development

The amount of content and length of time devoted to the training of each cadre varies according to the services each cadre will offer to the extent of basic training in family health.

This Family Health curriculum, like all other components of the project, is competency based and, accordingly, developed from that model. A needs assessment was conducted. The information gleaned from the survey of various health providers was used to develop a task analysis from which job descriptions were developed for each cadre to be trained. Based on these job descriptions, a curriculum was developed for each cadre of service providers, aimed at developing competence in the skills and responsibilities outlined in the job descriptions.

The curriculum was reviewed and found in concurrence with the various steps in the process of developing a competency based curriculum. The curriculum is a comprehensive one covering all the essential components of family health. Appropriate teaching modules have been developed by the trainers, coordinators, and technical assistants working in close collaboration in systematically organized in-service sessions. The teaching materials produced are of excellent quality and are well adapted to local needs and practices.

2.1.2. Teaching

A variety of teaching strategies are used by trainers in the daily teaching activities. The team was impressed by this effort, particularly since English is not the first language of the students.

While there are varieties of appropriate teaching materials which are adequate for the needs of the courses, a special effort was put

into ensuring appropriate clinical experience, both quantitatively and qualitatively. Outreach facilities were used where necessary and possible. The project, this year, trained preceptors to strengthen the clinical supervision of students. The preceptorship course is aimed at strengthening the service provider's capability to guide and supervise students in acquiring appropriate physical diagnosis and treatment skills and knowledge during their clinical experience.

2.1.3. Evaluation

Student Evaluation: Appropriate tools to evaluate student theoretical and clinical performance have been developed. The knowledge of theory is evaluated on the basis of continuous observation of class performance, written and oral examinations. Clinical competence is assessed on the basis of pre-conference and post-conference testing and observations of practical skills. Check lists for ensuring consistency in monitoring practical skills have been developed and utilized. These different modalities of assessment lend themselves to a comprehensive evaluation process.

The Elimination Process: The project has collaborated with the National Child Spacing Committee in developing an elimination process consistent with the objectives of a competency based program. The use of this process has resulted in the elimination of a small number of unsafe practitioners.

Trainer Evaluation: Opportunity is provided for students and coordinators to evaluate trainers, and appropriate tools have been developed to facilitate the process. The project participated in setting up criteria and doing the assessment.

Training Centers Evaluation: Selection of training centers is preceded by careful evaluation to determine suitability.

Supervision and Monitoring: The project regards supervision, monitoring, and in-service education as very important factors in ensuring high quality service which is one of the purposes of this training program. At the present time, a strong Family Health Supervisory system is not in place in Malawi. In the interest of upholding its ideals and attaining its goals, the project opted to find immediate and long term solutions to the situation in the following ways:

1. An extensive supervision program for the entire country was developed and executed by project staffing in 1987. Two analytic reports were written and are available. On the basis of information gleaned from the 1987 supervision program, a refresher course was designed and is being offered to service providers.

2. A supervisors' course was designed and is being offered to nursing supervisors. These supportive activities should be highly complementary to the effectiveness of the training program. The project staff deserve to be complimented for their industry, thoroughness and dedication to high quality Family Health Care.

2.1.4. Numbers Trained

The numbers trained in Family Health exceed the targeted output. (See Attachment 4). This component of the project has exercised great flexibility, initiative, and enterprise in addressing emergent needs. This dynamic yet well organized and smoothly executed training process, which, by its exemplary achievements in quality and quantity of service providers trained, demonstrates a rapidly growing need and strong desire and sacrifice on the part of the Ministry for adequate Family Health activities in the country.

Turors: Sixty-two (62) trainers have been trained - more than twice the targeted number of thirty (30). But the high attrition nearly nullifies one third of that working group. The high rate has been attributed to many factors. Most prominent among them is the constant mobility of married women caused by the movements of their spouses. To cope with this situation, the project is willing to mount trainers' courses when they are needed.

Participants: The project is training five (5) participants for family health in this component at the baccalaureate level. This exceeds the required number by two. Two of the participants have graduated and have taken over their responsibilities as Family Health Training Coordinators. The Family Health Coordinator in Zomba was clear and positive regarding her training, capabilities, responsibilities, and aspirations for her professional growth and for family health.

The Training Coordinator in Blantyre who received similar preparation was not very positive regarding her training and capabilities and did not seem highly motivated toward professional growth in this field.

Achievements: This component of the project has surpassed its targeted output in the area of curriculum development and the numbers trained in each cadre.

The integration of family health into basic health training curricula has been achieved for all cadres except Enrolled Nurses, Registered Nurses, and Health Inspectors. It is anticipated that this activity will be completed for the Registered Nurses and Health Inspectors by December 1988.

Private Hospital Association of Malawi: There are a number of staffing and religious problems surrounding integration of family health into the curriculum of the nursing schools operated by the Private Hospital Association of Malawi. Until these problems are solved, integration into the enrolled nurse midwives training can only be established in the government sponsored Zomba School of Nursing.

In addition, this component has undertaken a number of activities to help strengthen family health education and services in Malawi. Very prominent among them are:

- o Developing protocol for family health practices
- o Monitoring and supervision
- o Providing supervisors, preceptors, and refresher courses

2.1.5. Problems and Issues

- (a) Difficulties in the distribution of drugs and supplies limits the operation of the teaching program and interferes with the quality of service that may be provided by graduates of the training program.
- (b) The Ministry now desires that all health personnel be trained in family health while the project has specific numerical targets which do not include all service providers.

Viability and Sustainability: Two counterparts have graduated from Howard University School of Nursing and are functioning fairly well. One does not express a high level of motivation. However, the participant working in Zomba as a coordinator expresses a high level of motivation. She is clear and positive regarding her training, role, capabilities, responsibilities, and aspirations for her professional growth and for family health. She seems ready and most suited to taking higher responsibilities.

Since curricula for integration have been completed and since integrations have been achieved in all but two cadres, it seems time for Malawians to take over the administration of the program. They have the qualifications and necessary experience to run the program effectively with the support of the Ministry of Health and that of the remaining team members. The only assistance that would seem indicated here is perhaps that of finance. There are senior trainers in the program who were heavily utilized (under sometimes less than satisfactory situations) this year to establish new training centers and see them through a fledging period. This core of dedicated, experienced trainers, if maintained, will certainly contribute greatly to the viability and sustainability of this component. It is recommended that they be considered for advanced training so that when the need for training at this level ends, they can be used at higher levels to assist the integration process.

Impressions and Conclusions: The integration of Family Health into all basic health provider training curricula in the country is the single most promising approach to ensuring that these skills are qualitatively and quantitatively distributed among health workers and present a pragmatic approach to increasing accessibility of the population to family health information and service. The planning and implementation of this aspect of the Family Health training program is demonstrative of the tremendous foresight in the design and implementation of this component of the project.

Recommendations:

1. That no extension of Technical Assistance is required beyond the planned lifetime of the project.
2. That the Ministry set up a proper logistics system for the distribution of drugs and supplies.
3. That the coordinator for the Zomba Center, who shows great promise and capability, be considered for higher responsibilities in the family health service.
4. That, in the future, the Lilongwe School of Health Sciences employ a full time sociologist with some psychology background to teach social sciences in all the programs conducted by the school.

2.2 Enrolled Community Health Nurses:

The Enrolled Community Nurses program is a post-basic program for Enrolled Nurse Midwives offered at the Lilongwe School of Health Sciences. The program prepares enrolled nurse candidates to be automatically promoted to the level of Senior Enrolled Nurses and given community assignments. Two classes have graduated and one is in session. Candidates must pass the examination of the Nurses and Midwives Council of Malawi in order to qualify to participate as Enrolled Community Health Nurses.

2.2.1. The Duties and Responsibilities of the Enrolled Community Health Nurses

Coordinates planning, implementing, and evaluating primary health care in the community.

- o Establish a working relationship with community leaders and members.
- o Participates in community diagnosis.
- o Assists the community to identify and meet their health needs using all available community resources.

- o Collaborates with traditional healers in meeting the health needs of the community.
- o Collaborates with members of other sectors to provide comprehensive services to the community.
- o Participates in the organization and implementation of the training for the primary health work and assists in their supervision.
- o Participates in the monitoring and evaluation of primary health care activities.

Participates in providing promotive, preventive, curative, and rehabilitative nursing services at static and mobile health units.

- o Uses communication skills which demonstrates respect for cultural beliefs and contributes to good client relationships.
- o Motivates the community to use established services.
- o Organizes maternal and child care clinics (pre-natal, under five, post-natal, child spacing, nutrition) to provide an integrated service.
- o Carries out a complete assessment on mothers and children.
- o Provides midwifery care during labor, delivery, and post-natal services at the health center.
- o Provides curative service, as needed, according to standing orders.
- o Identifies patients in need of home visits.
- o Carries out home visits on clients/patients from the clinic and refers patients from general and mental hospitals.
- o Initiates and participates in nutritional surveillance.
- o Participates in surveillance and control of communicable diseases.

Participates in training programs and supervision of Traditional Birth Attendants. Plans, provides, and evaluates health education.

- o Collaborates with the community members in identifying the community's health education needs.

- o Provides health education to individuals, groups, and families in the community, at the health center, at places of work, and in schools.
- o Participates in developing appropriate visual aids.
- o Uses the mass media in educating the community at large.
- o Collaborates with personnel from other sectors in establishing health education activities.
- o Uses a variety of indicators to evaluate the effectiveness of health education.

Participates in initiating and maintaining school health programs.
Participates in the overall administration of the health center.

- o Contributes to the teaching and supervision of health center personnel.
- o Maintains safe custody and economical use of all government supplies and equipment under her control.
- o Ensures that adequate equipment and supplies are available for appropriate nursing care and related health activities.
- o Maintains records and statistics according to established policies.
- o Uses records and statistics as a basis for planning and evaluating health activities.
- o Reports at regular intervals to the Public Health Nurse on her activities.
- o Makes recommendations for improvements of health services in the area.
- o Participates in the implementation of health programs and/or activities initiated by the Ministry of Health for the control of specific health problems.
- o Performs other duties as assigned or delegated to her.

2.2.2. Curriculum Development

The curriculum was developed in 1985 using the steps of competency based curriculum development, e.g., needs assessment, task analysis,

job description, and curriculum design. Since then the curriculum has undergone a continuous process of revision and upgrading. The curriculum is a comprehensive one covering the essential elements of community health nursing and well adapted to the environment. Even though it is important for a community nurse to have physical assessment skills, in light of her job description which focuses on a large number of community health tasks, the Enrolled Community Health Nurse could only reasonably be expected to identify cardinal signs, diagnose, and refer. The extensive knowledge and skills which the physical assessment module indicates, would seem unnecessary. It does not seem likely that these skills will be used to the depth that they are given. A less detailed module covering essential skills in physical assessment would be more appropriate. The teaching materials in some supportive subjects, for example sociology and psychology, could be better adapted to Malawian situations.

2.2.3. Faculty

The faculty consists of the following:

1. A Technical Advisor whose tour of duty ends in November 1988 after two years and three months with the program.
2. A Registered Community Health Nurse who has been with the program since July 1985.
3. Two Registered Community Health Nurses who have been with the program since January 1988.
4. A Registered Nurse with a Baccalaureate Degree and four years of teaching in the Medical Assistant program. She joined the program in June, 1987. She also did a one year Teaching Diploma at the University of Cardiff.
5. A Peace Corps Volunteer with a Baccalaureate Degree and no teaching experience before joining the program in 1987.
6. One faculty member who joined the program at its inception is now being prepared for the position of Administrator of the program. She is pursuing a Bachelor's Degree at the University of Botswana. She will graduate in May, 1989.
7. One faculty member who has been with the program since its inception is at Howard University pursuing a Bachelor's Degree and will graduate in May, 1989.
8. There is one more nurse who is being prepared at a Bachelor's level at Howard University for this component of the project. She, too, will graduate in May, 1989.

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Discussions with a Malawian counterpart, on the issue of taking over, revealed that she was ready to take over when the technical advisor leaves in November. She revealed that the technical advisor had done a good job in preparing them for takeover; she expressed confidence in the teaching of physical assessment, in classroom teaching, and in cooperating with the staff for the smooth running of the program. She was optimistic about her future role and the future of the program, expressed a desire to further her studies in the skills of the faculty, and seems prepared to use them effectively.

2.2.4. Issues, Problems, and Recommendations

Problems and Issues as Seen by the Outgoing Technical Advisor

The outgoing technical advisor has cited some issues which, in her view, are deterrents to her phasing out at this point. These issues are the following:

1. The designated temporary Administrator is an inexperienced and untrained teacher.
2. The Peace Corps Volunteer does not speak Chichewa and, therefore, is not very useful in supervising field experience.
3. The designated Administrator is not familiar with the revised curriculum.
4. The Peace Corps Volunteer leaves in August.
5. The faculty is not strong and is inexperienced in teaching physical assessment.

At least two of these issues could have been handled and eliminated in preparation for hand over:

1. The weakness of the faculty in teaching physical assessment.
2. The designated Administrator's unfamiliarity with the revised curriculum.

Some of the issues can be viewed from the positive rather than the negative side; e.g.:

1. The Peace Corps Volunteer remains with the program until next August, and it is not necessary for her to be fluent at Chichewa or to supervise field experience. The faculty is large enough to manage without her.

2. The designated temporary Administrator will have the assistance of one faculty member who has been with the program since its inception and another who has adequate teaching experience and a B.S. degree.
3. In this program, the Enrolled Nurse is being trained by Registered Nurses, three of whom are qualified Community Health Nurses and two of whom have B.S. degrees in nursing.
4. All the tutors will have had at least one year of teaching experience before the Technical Advisor leaves the program.
5. For a developing country, where shortage of staff is a critical problem, the Ministry of Health is making a tremendous sacrifice to staff this program. An equally big effort should be made at maximum utilization of such staff.

Problems and Issues as Seen by the Evaluation Team

The major problem is failure of the Enrolled Community Health Nurse to function fully as a community health nurse in the community. The reason for this failure is the extreme shortage of nursing personnel which exists in the country at this point and time. The hospitals and health centers are inadequately staffed. It is from these inadequately staffed health facilities that candidates for training as Enrolled Community Health Nurses are drawn. On completion they return to their previous positions in the hospitals and health centers; they are drawn into the routines of hospitals/health centers and have very little time left to do community health work. The solution to this problem lies in intensifying training of both Registered Nurses and Enrolled Nurse Midwives at basic levels to improve the staffing of hospitals and health centers so that the Enrolled Community Health Nurses and Registered Community Health Nurses can be freed to practice in the community. This is to be tied in with training of teachers. Perhaps it may help to point out that the ILO nurse population ratio is one nurse for every 200 persons. Malawi has a population of nearly 8 million people and a nursing population of approximately 500 Registered Nurses and 800 Enrolled Nurse Midwives!! This is less than a drop in the ocean and should be addressed soon.

The Enrolled Community Health Nurse supposedly works under the supervision of a Registered Community Health Nurse. The number of Registered Community Health Nurses in the country is negligible. In order to achieve adequate supervision of the Enrolled Community Health Nurses, there is need to resurrect and intensify the training of Registered Community Health Nurses.

The health situation in the country seriously requires large numbers of Community Health Nurses. Money invested in the training of these cadres will be money put to good use. The proposed integrated programs for Enrolled Nurses and Registered Nurses will not produce full fledged community nurses. It will only produce nurses with some skills in community health work who must function under the supervision of qualified Community Health Nurses.

Viability and Suitability

At the time that the Technical Advisor leaves in November, the faculty will consist of one Registered Community Health Nurse with three years experience in the program; two Registered Community Health Nurses with one year of experience in the program; two Registered Nurses with Bachelor's Degrees; and one Malawian with years of teaching experience. The other is a Peace Corps Volunteer with over a year's teaching experience in the program. Among the faculty there is a repertoire of relevant skills and experiences which, pulled together, should provide the necessary expertise for administering the program. The Ministry has chosen one of the Registered Community Health Nurses to temporarily administer the program until the designated Administrator returns from participant training. With assistance and support of the faculty project team, she should be able to discharge her responsibilities effectively.

Handing over the program at this time and giving the faculty a period to function on its own will help them test their skills in running the program before the project support is terminated. This component of the project, although new, is offered under the auspices of the Lilongwe School of Health Sciences and, as such, has been financed and managed by this institution from its inception. It will, therefore, not present any new budgetary burdens to the Ministry at this point.

Some of the differences and concerns expressed by the Technical Advisor, such as learning physical assessment, could have been addressed in a timely manner as part of the phasing out plans. However, there is still time to address the issue of the teaching of physical assessment in view of the two faculty members with Baccalaureate Degrees. They have strong backgrounds in teaching physical assessments skills.

If there is no major change in the faculty after the technical assistant's departure, then the viability of this program is assured and may be further strengthened by whatever assistance can be given by the project coordinator in the Ministry of Health.

Impressions and Conclusions

The overall Ministry of Health policy is to raise the level of health of all Malawians through a sound service delivery system

which will promote health by preventing, reducing, and curing diseases, protecting life, and by fostering well being and increased productivity. This is to be fulfilled by adopting primary health care as the major strategy of the health service delivery system. (The National Plan of Malawi 1986-1995, p.3-4). The close relationship between the health policy of the Ministry of Health and the purpose and specific objectives of the cooperative agreement cannot be over emphasized. The programs of the project mark a new and determined shift to primary health care which is the machinery through which the Government of Malawi hopes to achieve an acceptable level of health and well being for its people.

The purpose of the Enrolled Community Health Nurse is to prepare a competent nurse with practical skills who will be a contributing member of the health care team which renders comprehensive care to the community. The program encompasses all the elements of primary health care such as community participation, team work, and multisectoral cooperation in all primary health care activities. It proposes to take health care to the people wherever they may be - homes, schools, and places of work.

The Enrolled Community Health Nurse is a middle level health worker. The program is designed to provide her with skills that will enable her to provide comprehensive health care in a culturally acceptable way. This new approach to health was evident during discussions with the graduates of the Enrolled Community Health Nursing programs. Despite the constraints of staff shortage, equipment, and supplies, they were enthusiastic about their new role. They were able to articulate it and were anxious to be full-time community health workers with all its ramifications.

The Enrolled Community Health Nursing program addresses these important special programs in the ten year national health plan:

- o Child spacing
- o Control of childhood communicable diseases
- o Expanded Program Immunization (EPI)
- o Bilharzia control
- o Leprosy control
- o Tuberculosis control
- o Environmental health and sanitation
- o Malnutrition

as well as other unlisted health care needs in a timely manner.

Recommendations

1. The phasing out of technical assistance should proceed as planned.
2. The Ministry should maintain the present staff members in their present positions, at least until the returning participants have been reoriented.

3. The Ministry should continue and intensify the training of Enrolled Community Health Nurses.
4. The Ministry should resurrect and intensify the training of Registered Community Health Nurses.
5. The Ministry should intensify the training of Enrolled Nurse Midwives at basic levels in order to adequately address the health situation in the country and to reap the full benefit of the programs that have been developed by the project.

2.3 Health Assistants

2.3.1. The project work on the Health Assistant (HA) training was started in 1987 along with the Medical Assistant program. This was two years after the start of the Family Health and the Enrolled Nurses portions, and this factor has some implications for the evaluation of the project achievements as well as the issue of sustainability. This program is housed in the Lilongwe School of Health Sciences. The training program originated in 1930 and continued in various forms on an ad-hoc basis with the product varying from year to year. As a result of the project, the Health Assistant training course has become a well defined two year curriculum with appropriate teaching methods and materials.

The role of the Health Assistant is defined by the national health plan as one with a multitude of public health tasks. The Health Assistant works with the Medical Assistant to carry out these public health duties at the village level on a population base of 10,000 people. The tasks include the following: community assessments, health education, community organization around public health issues, inspection of building construction, excreta and solid waste disposal, wastewater disposal, water supply, meat and food hygiene and safety, sanitary surveillance and control, vector and vermin control, environmental health disorders, and training of Health Surveillance Assistants.

The project objective was to revise the program to train forty new health assistants per year and to provide "in service" training for the existing 165 HAs working in the field. As with all training programs at the LSHS, "Family Health" is to be integrated into the pre-service curriculum and the in-service training.

2.3.2. Inputs

Early in the project, one tutor, Mr. George Malikebu, (all tutors are qualified Health Inspectors, trained at the University of Malawi Polytechnic with a diploma in Public Health) was sent to Howard University School of Ecology for a Bachelors' Degree in

Environmental Health. He returned and was joined by a technical advisor in 1987.

In May, 1988, a WHO consultant worked with the LSHS tutors and Technical Advisor to develop a new curriculum for the HA training program. Three extra classrooms and a student hostel of 40 beds was added to the LSHS. Vehicles, laboratory and audiovisual equipment were provided. Support for HA in-service training also came from the project in the form of per diem and travel monies. Teaching has been strengthened by the provision of teaching materials, teacher training workshops, and technical advice. According to the senior tutor, George Malikebu, the Bachelors' Degree at Howard prepared him to run the HA training program without prolonged technical assistance.

2.3.3. Curriculum Development

A review of the new curriculum and teaching methods reveals that an outstanding job was done in order to improve the HA program by the tutors, technical advisor, and WHO consultant. The two year course includes some remedial language and math instruction which should make the achievement of learning objectives in the scientific courses more likely and may be advisable for other health workers entering the program from the "O" level academic achievement examination. There are seventeen courses in the HA program which seems like a great number to cover satisfactorily within two academic years. The first year is primarily didactic learning while the second year is primarily supervised field work. In the second year, the student HAs are assigned three per district under the supervision of the District Health Inspector. The tutors tour the districts during the field training period. The students must write a report on their field experience. The curriculum was very well done, and appropriate teaching methods were specified.

2.3.4. Assessment of Participants and Tutors

One of the HAs interviewed reported that they were very pleased with the in-service training provided (164 of 350 have been trained). None had had any continuing education since completing their pre-service courses. New HAs have yet to complete the new course (40 in year 2 and 37 in year 1).

The tutors indicated that transport was a real problem and a barrier to successful conduct of the field portion of the training program. There appears to be a need for one vehicle specifically assigned to the program rather than to the LSHS motor pool. There was no office equipment provided by the project, no secretarial help, and no word processing equipment; therefore, the production of teaching material was hampered. Additional textbooks were ordered very recently. The tutors felt that the textbook series produced by AMREF best suited

the needs of the students and faculty. There was concern that when the financial support of the project is terminated, there will not be sufficient teaching material remaining to continue in-service training and that the pre-service training will be hampered by the lack of a real library at the LSHS.

2.3.5. Issues, Problems, and Recommendations

Issue 1: The technical advisor is scheduled to be withdrawn in February 1989. There is much to be completed before that time, including the start of a new school year, a technical training manual, preparation of other teaching materials, and installation and training on the use of desk top publishing capability from a microcomputer.

Recommendation 1: The technical advisor for the Health Assistant training course should continue working with LSHS until July 1989 in order to complete the tasks listed above.

Issue 2: The project has provided neither secretarial support nor microcomputer word processing capability to the project in general and the HA training program in particular.

Recommendation 2: The project should provide sufficient microcomputers for desktop publishing of teaching materials to the HA, MA, and to the Family Health and Enrolled Community Health Nurses programs. The project should also provide the training package necessary for the LSHS so that they can use the equipment to greatest advantage. A person might be named responsible for computer use within the project and sent on a study tour to see how other African Institutions are using this equipment to advantage.

Issue 3: There is reported to be a shortfall in the provision of textbooks, journals, and teaching material in the HA program at present because the program got a late start in the project.

Recommendation 3: If the training program is to continue, material and, probably, a library should be provided to cover at least four cycles of the pre-service training program.

Recommendation 4: The Senior HA tutor and other tutors can be sent on study tours to nearby states such as Kenya, Swaziland, Lesotho, and Zimbabwe to visit other HA programs, to share the excellent curriculum of the LSHS, and review the teaching material, practical demonstration exercises, and curricula of the other schools. Attention should be paid to the development of practical exercises and demonstration areas which were lost when the program moved from Zomba. See the excellent report of WHO consultant J.W. Kwamionz Duncan, May 1988.

2.4 Medical Assistant Assessment

2.4.1. The Government of Malawi health plan for the years 1986 through 1995 calls for a complement of approximately 1,200 Medical Assistants (MAs) by the year 1995. According to the plan, the task of these health workers is to serve as the leader of the primary health care team at the peripheral health center level. The MA is responsible to the District Health Officer and supervises all staff at the health center. The Medical Assistant serves as the principal provider of curative and preventive services at the most peripheral level of care in the MOH system. His staff includes an Enrolled Community Health Nurse Midwife (ECHN) or an Enrolled Midwife, a Health Assistant, and a laborer.

The responsibilities of the MA include management of the health center, direct patient care, promotion of child spacing, distribution of simple contraceptives (condoms and foaming tablets), record keeping, and supervision of the team.

Prior to the project, MA training had been carried out at the Lilongwe School for the Health Sciences. The curriculum had not been updated recently, and there was no in-service or continuing education program available. Since the Ministry of Health decided that the MA was to play an increased role in the delivery of primary health care, the project was assigned the task of giving MAs the skills in managing the health centers and adding child spacing and community health to their health care skills.

2.4.2. Inputs: In order to carry this out, a new competency based curriculum was developed for the new MAs in training at the Lilongwe School of Health Sciences, and an in-service program was developed for the existing group of MAs at the Staff College in Mpemba near Blantyre. The task analysis and needs assessment required of the competency based curriculum development method were completed prior to development of the two training programs. The project provided a Physician as a technical advisor to the LSHS and located him at the Blantyre School of Nursing to carry this out. One tutor, a clinical officer, was selected for long-term training at the Howard University School of Allied Health Sciences 'Physicians' Assistant program. He left the project within a year after returning to Malawi to enroll in Medical School. Three more clinical officers were given in-country training as tutors by Howard and assigned to the Blantyre site. They teach medicine, pediatrics, and surgery. A Registered Community Health Nurse has been assigned to teach community health, especially family planning. A fourth clinical officer was assigned to the staff college to run the in-service training. Howard also gave them workshops on how to teach management, planning, scheduling, communication, team building, letter writing, health information systems, problem solving, and control of pharmacy and medical supplies.

The project provided stethoscopes and diagnostic kits for the tutors and MAs. It also provided teaching materials, audio visual equipment, student per diem and travel costs, and support for supervisory visits by the tutors. The project did not provide manuals, protocols, or text books for the students to take with them after the course.

2.4.3. In-Service Training for the M.A.

The in-service training started in 1988 following a needs assessment which showed that the existing MAs lacked the following: updated medical care knowledge and skills, adequate record keeping know-how, concepts of community health care such as EPI programs and nutrition education, patient education, primary health care concepts (they had been left out of the orientation which was offered to the Health Surveillance Assistants), and mental health. Further, the survey showed that they lacked a clear line of authority from the District Health Officer who had clear authority over the staff at the health center. The HA reported to the District Health Inspector, and the ECHN reported to the District Nurse.

The four week in-service course started with a pretest and focused on a general review and update on clinical medicine of common illnesses for one week, community health for one week, and management skills for two weeks. Four sessions of that program have been offered to date. The curriculum is very crowded for such a short period, but the course content was highly relevant and well selected. The teaching methods spelled out by the curriculum appeared appropriate for the subject matter and the students. There were approximately 40 students in each class. To date, 164 out of 350 MAs have been trained.

Only one MA trainee was interviewed. He reported that this was the first in-service training he had had since his basic pre-service course in 1971. He said he greatly appreciated the training program, especially the clinical update and the management skills. He wondered why the child spacing information had been left out of the course, since there was a large unmet demand for these services. He felt he should have been taught about promoting child spacing and given at least the foaming tablets and condoms to dispense. (The decision to permit the MAs to do child spacing was only recently made by the Parliament of Malawi, too late to integrate the subject into the already full course of study. A second round of in-service training is being considered to address this gap.) He indicated that he now understood the significance of community health and primary health care and could now direct an ECHN if one were assigned to his health center. His record keeping practices had not changed as a result of the course, since he had no record forms nor a place to store them if he had them. There were no patient records kept by the health center. Each patient has his diagnosis and treatment recorded on a small piece of paper to be retained by the patient.

A summary check list of diagnoses was kept for the review of the District Health Officer (DHO). It included a tabulation on the number of immunizations given per month (52-60 measles, 51 BCG, 61 DPT, 61 polio). An average patient load of 500 patient visits per month were reported by the MA. He felt he had learned a great deal about management in the course but needed a record keeping set-up course in order to carry out what he had learned. The district officer, who visits every two months, was very pleased by his improved performance. His major problems were over work and lack of support staff, lack of easy communication by telephone, lack of training for baby deliveries which he called upon to assist the midwife, and lack of reference books. A post test given to each of the groups documents the improved understanding of the subject matter being taught. (Figure 1)

2.4.4. Pre Service Training of Medical Assistants

Pre-service training of the MA starts at the Lilongwe campus of the LSHS with the basic sciences and lasts one year. These courses are not taught in coordination with other programs at LSHS. The integration of Community Health and Child Spacing starts in the preclinical year and continues through the two clinical years. The clinical years are taught by tutors at the Blantyre campus belonging to the nursing school. The tutors cover medicine, pediatrics, surgery, obstetrics and gynecology - including child spacing. Most of the clinical experience takes place in the Queen Elizabeth Hospital during the second year. In the third year they are assigned to a district hospital for three months and are visited by the tutors twice a month. The medical officers grade them on specific clinical knowledge and skills.

2.4.5. Issues, Problems and Recommendations

Issue 1: Institutionalization of the in-service training is in doubt due to rapid turnover of tutors.

Recommendation 1: The technical assistance to the program should continue until the current tutors have defined sufficiently their leadership and the staffing of the group at Blantyre is stable. Financial support should continue until all existing MAs have completed at least one cycle of in-service training with a child spacing content. The project (which includes MOH, Howard Univ., and USAID) will have to solve the housing and logistics problems for the tutors assigned to Blantyre.

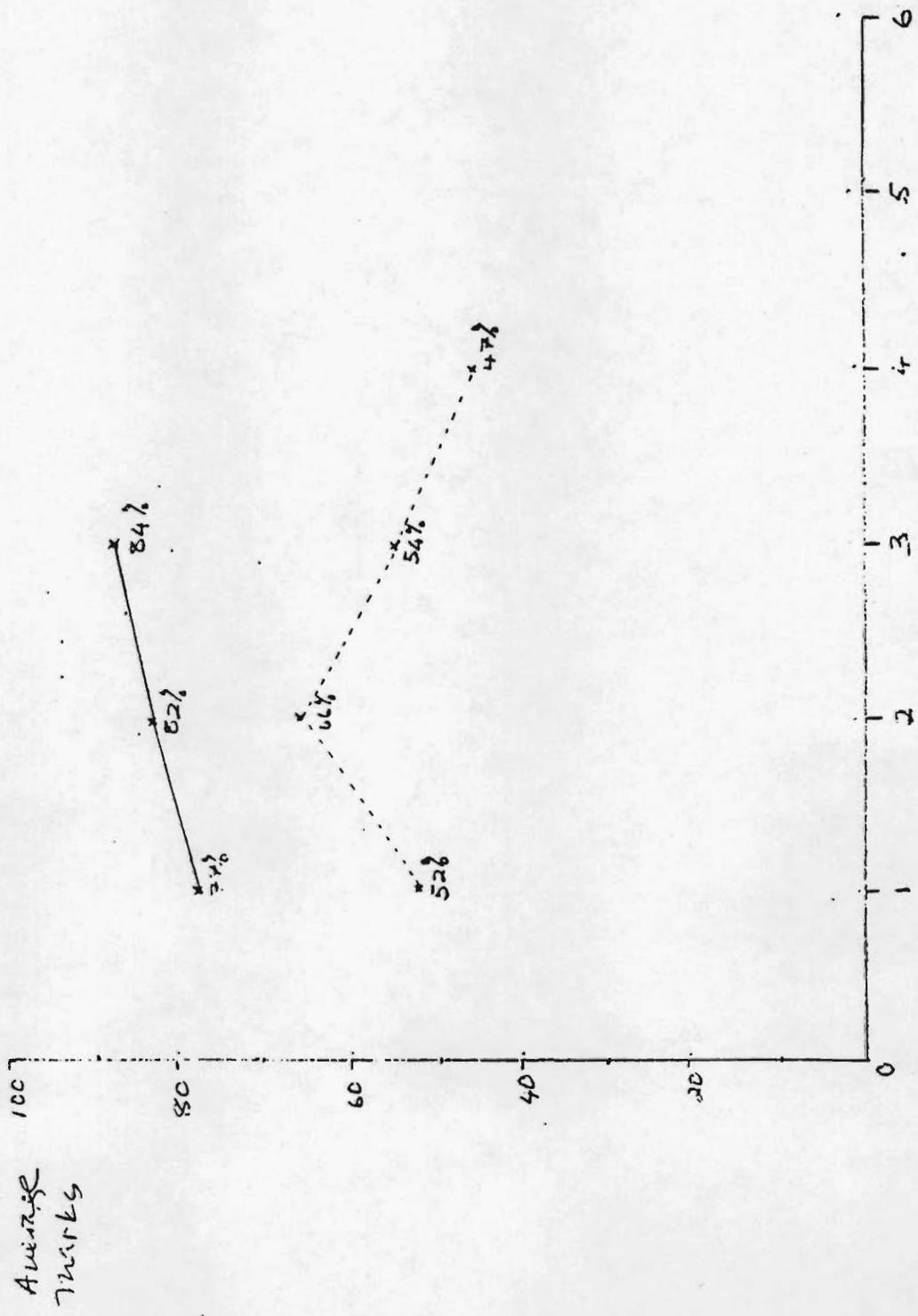
Issue 2: A great deal has been accomplished by the MA training program in a relative short period. The ten year health plan called for the MA to be the team leader at the peripheral health center level with considerable management responsibility. The curriculum

Figure 1

MISS MARKS

D. Perseus Staff Training College

Graph showing average marks by M.A. for IST



KEY
 — Boys - Tests
 - - - Pre - Tests

Groups of Med. Assistants

prepared by the tutors reflects the MOH priorities, but the problems of the course need to be addressed more seriously. They include a lack of a single location for pre-service and in-service training, lack of adequate support for the supervisory visits by the tutors, and a lack of housing for tutors who have to move to Blantyre.

Recommendation 2: The project should reexamine how it handles the MA program with an eye to solving its problems on a priority basis. The MA should be recognized as the front line rural health provider serving as the first contact with the health system for many patients and, therefore, more priority needs to be given to addressing the problems of this program.

Issue 3: The Medical Assistants were not given child spacing training during their in-service course for several reasons. One was that the child spacing course was considered too long for the time available. The recommended in-service course included anatomy and physiology of the reproductive system, promotion, pharmacology, and would have added six to twelve weeks to the current four week course.

Recommendation 3: Since the M.A. is to play only a promotional role in the effort to make child spacing services widely available, a long, intensive course would seem unnecessary. A much shorter course of 8-12 hours in the current in-service training program would give enough information about contraception in order to make referrals to the ECHN at the health center and to distribute, at a minimum, foaming tablets and condoms. A more complete course could be provided later if the need arises.

Issue 4: MA tutors have to try to teach management skills, but have not had adequate training in management or in teaching management. This also applies to the subject of community health.

Recommendation 4: Provide more short-term courses in management for the tutors to meet their needs for enhancement of their knowledge and skills.

Issue 5: Trainees have no reference material to take with them after the in-service program is completed.

Recommendation 5: The project should provide books and manuals to use when the M.A. returns to the Health Center. This will provide reference and guidance and reinforce the training program.

3. RELATIONSHIP OF THE PROJECT TO THE NATIONAL HEALTH PLANS

3.1 PHC Strategy

This section will attempt to examine how project goals, as outlined in the Project Paper, complement and relate to the overall health plans of the MOH, particularly to the PHC plans. This will be done by examining a number of selected objectives from the 1986-95 National Health Plan and relating them to the project objectives and targets in order to see how the project has attempted to support the MOH to realize its goals and objectives.

According to the National Health Plan, one of the overall objectives of the MOH is to expand the range and quality of health services directed at mothers and babies and children aged 1 to 5 years. This is to be done by addressing priority problems, and the main strategy is to strengthen family health services. The other major overall objective stated is to improve coverage through a rational network of available and acceptable services, as well as to improve the health status generally by strengthening relevant programs. In order to accomplish these objectives, a number of strategies and the activities to be carried out have been put forward. These are as follows:

- a) In order to improve coverage, services to be rendered have to be in line with the needs of the communities. This would require gearing the training of health personnel to this requirement. To achieve this, the basic program curricula would have to be revised. Emphasis will be placed on the curricula for PHC frontline cadres - MAs, HA, and EN/Ms. The revisions will have to be based on a detailed analysis of tasks for each cadre and their new roles as envisaged.

Comment: This has been done as outlined in section 2 above, and the revised curricula for the MAs, HAs, and EN/Ms is now available.

- b) In order to increase the amount and quality of knowledge of the health workforce in dealing with priority diseases and, particularly, in handling maternal and childhood health problems, including child spacing, a pre-service as well as an in-service training program will be started as a means of equipping the workforce with the relevant skills.

Comment: This is being done as stated above (ref: section 3, above).

The actual numbers trained for each of the four components (the FH, ECHN, MA, and HA programs) of the project is as outlined in Attachment 4 and the required emphasis on MCH/CS activities is attained by the fact that approximately 75% of the project funds are allocated for this purpose.

- c) The high infant mortality rate is partially attributable to ineffective PHC services as well as inadequate focus on priority problems in the most vulnerable age groups. The plan which proposes to improve these services has been adopted by the Government of Malawi.
- d) To reduce high infant mortality, the MOH must assign extended roles and new responsibilities to the health workers to provide integrated services and work as a team within the PHC context, the training of these cadres has to prepare them for their new tasks, and new job descriptions will have to be prepared in order to reflect this change. For instance, the MA, as the leader of the PHC area/health center team, has to have in his training an emphasis on managerial skills. These tasks include planning and coordination of the health center and community activities in addition to the responsibilities for providing preventive and curative services. Similarly, the EN/M training would have to stress provision of MCH services and support for MCH activities being carried out by the Traditional Birth Attendants (TBAs) and Health Surveillance Assistants (HSAs).

3.2. Strategy for Human Resources Development

To reduce the shortage of labor, training institutions will be improved to enable them to increase their outputs of health workers. At the same time, the necessary tutors will be trained to effectively carry out their roles. In this regard, the Lilongwe School for Health Sciences underwent some modest extensions in which dormitories, classrooms, laboratory facilities, and offices were provided. To support the various training programs, the following commodities and equipment were provided: vehicles, library books, audio-visual equipment, including VCRs, film strips, and slide projectors. To strengthen the training programs, the project provides for technical assistance and participant training. Six TAs have been provided, and a total number of twenty Malawians will have received overseas training at the degree level by 1990. A few short-term courses will be provided, as well.

The HA needs training shaped in such a way as to prepare him for his new role as the person with the broadest spectrum of activities on the health center/area PHC team in the community. He will be emphasizing support for and supervision of the HSA and the provision of environmental health services. The new curriculum for this group has been adequately worked out to meet this requirement.

4. SUSTAINABILITY AND VIABILITY - PROBLEMS AND ISSUES

In looking at the sustainability and viability issues of the project achievements, one must look at all the other factors that might affect the future of the total system. In this case, most of the issues being looked into for the sustainability of the project activities may be outside the domain of the project but are of more concern to the Lilongwe School of Health Sciences.

Summary of Issues for Consideration

- o Availability of posts.
- o Career structure for people trained.
- o Problem of high rate of attrition.
- o Administrative arrangements for a smooth phasing out of the project support (T.A.)
- o Financial sustainability.
- o Primary Health Care and integrated approach versus specialization and vertical programs.
- o Health Center management: MA vs. the EN/M.
- o Transport.
- o Community work vs. hospital/health center demands - shortage of staff.
- o Development of local expertise in curriculum development - short and long term solutions.
- o Status of LSHS - Control by the school vs. control by the Ministry of Health.
- o Staff housing.

4.1. Career Structure, Availability of Post, and High Attrition

Lilongwe School has, as of now, no structure of its own. All the members of staff manning the school were originally in the hospitals or elsewhere and were haphazardly posted to the school to teach as and when the need arose. Often they were posted without any orientation or training in teaching methodology. They are, therefore, there by default and not by design. This has, consequently, led to the school having no established posts, which has also led to a lack of definable career structure for the staff currently running the school. Tutors, trained overseas, find

themselves coming back and having no post to fill. This implies there is no incentive for them in the form of promotion. The future prospects for them do not seem to give a promising picture at this time. As a result, most of them opt to go back into the clinical service where, with their added qualifications, they would most likely rise faster. Others, with their new and higher qualifications, have found their way into other institutions such as the University, and a few others have used their new qualifications as a launching platform to enter training institutions for higher education which could eventually lead to a more promising future for them. All the problems caused by these two factors have resulted in a high rate of attrition of tutors.

Recommendation:

LSHS should have a staff structure of its own established. This structure would provide full time and part time posts for the school as well as laying a career structure for the tutorial staff. As much as possible, the structure should provide for positions at levels high enough to attract and encourage such people to stay on -- otherwise, the Government will have to continually train tutors for the school, have the school permanently understaffed, or be without properly trained personnel forever.

4.2 Phasing Out Administrative Arrangements

Although there is going to be documentation of the project, in order for the project to provide a smooth transition of the project from Howard to the MOH, it requires some continuity of project staff. There is a need for someone to be available who has an in-depth understanding of what is going on under the project, at what time, where, and in what magnitude. This resource person will advise on what is needed where and at what time, thereby assuring that project activities do not go in a 'stop-start' fashion. This person would also help make sure that adequate budgetary preparations are made.

Recommendation:

At least one person from the Ministry or LSHS should be attached to the project so that he/she gains a good understanding of the activities under the project and their administrative and financial implications, including an understanding of exactly where the various commodities/equipment purchased under the project are, their condition, and when they will be due for service/replacement.

4.3. Financial Sustainability

This is an attempt to examine the probability of the MOH being able to provide the necessary finances required to meet the cost of maintaining or even expanding the programs and activities started

under the project. These costs include additional staff salaries, per diem, student allowances, equipment and vehicle maintenance costs, vehicle operating costs, stationery, and sundries. These costs, as seen in Attachment 5, are estimated at less than MK 1m. With a total national MOH recurrent budget of MK 45m, the additional costs resulting from this project are obviously very minute (2.2%). The project should, therefore, be financially viable and sustainable. Although the impact of the project activities on the community does not easily lend itself to any quantitative measurement, in the long run, this would appear to be a cost-effective way of tackling Malawi's health/human resources problems.

Recommendation

The project does not have very high recurrent cost implications, and it is cost effective. The MOH should make every effort to ask for and secure adequate monies to sustain the project activities.

4.4 Development of Local Expertise in Curriculum Development

Under the project, the MA, HA, and ECHN curricula have been developed. The new curricula are impressive, and they clearly set out the objectives, content, teaching methods, and key activities of the courses in a logical timeframe. The curricula were developed and training conducted to the tune of the envisaged job descriptions of the cadres. The technical assistance provided under the project was largely used to develop these curricula.

Since such an assignment, especially revision of the curricula, will have to be done for all courses, a vacuum for such skills will be left when all TAs go at the end of the project.

Recommendation

There is obviously an urgent need to extend the exercise of developing curricula to all other cadres, e.g., COs, EN/M, etc. As a quick and short-term solution, we suggest that technical assistance should be sought. The long-term solution, on the other hand, is to develop local expertise in curriculum development. We, therefore, recommend that a local person, preferably someone with an education background, should go for long-term training in curriculum development.

5. RESOURCE STRUCTURE

5.1. Malawian Coordination and Collaboration

Establishing a smooth collaborative working relationship between two institutions of different cultural orientations is not an easy task. It is often fraught with difficulties and may result in a

total breakdown in communication between the two institutions involved. The task of establishing such a working relationship calls for a great deal of understanding and sensitivity to the needs and aspirations of the recipient country on the part of the local Director or Chief of Party. It should be noted that the Chief of Party has spared no effort in striving to achieve a healthy, smooth working relationship in a difficult and very sensitive situation. This has led to a very admirable working relationship between the staff of the Ministry of Health and the project staff. It has allowed flexibility of the project design to continue to expand in order to meet the needs of Malawi as they arise. This is certainly to be admired, and the Chief of Party is to be commended for the great success of the Howard project.

Throughout our discussions with the various officials in the Ministry of Health, it became very clear that they were knowledgeable about the project and its various components and how these components fit into their overall health policy. They were cognizant of the evolution of the project and the contributions it has made in terms of training and improving the quality of services. All this attests to the good collaborative relationship that exists between the project staff and the Ministry.

Furthermore, the project team has worked with the MOH staff to:

- a) prepare protocols for Family Health in Malawi,
- b) mount an extensive supervision and monitoring program for Family Health,
- c) mount a supervisory course for senior nurses, matrons, and preceptors,
- d) mount an in-service course for service providers in Family Health,
- e) provide expertise on the integration of Family Health content into the various curricula for health cadres to provide child spacing services,
- f) develop protocols in the teaching of Family Health,
- g) develop national data forms for the collection of information on Family Health.

These collaborative efforts are certainly admirable considering that they were outside the scope of the project. The Chief of Party and her staff are to be highly commended for such rare collaborative efforts.

5.2. Donor Coordination and Collaboration

Family Health is an area of great interest for many donors. Consequently, the Malawi Family Health program has enjoyed considerable donor coordination and collaboration.

Family Health has several components in which donor coordination was found; they include:

- 5.2.1. Training: The initial support in the area of training was by UNFPA. Some came from FPIA, then came the Howard project. The World Health Organization also joined the effort by providing expertise in maternal and child health by providing a physician, a health educator, and a statistician. A further collaborative effort by WHO was in providing a consultant to work with the Howard team in developing a new curriculum for the Health Assistant program.
- 5.2.2. Orientation of Community Leaders and the General Public to Family Health: A series of programs aimed at orientating the Malawi community to family health, were funded by FPIA, UNFPA, PATH (Program for Adaptation of Technologies for Health). These programs support development of materials for orientation of people to public health. The Howard project has increased the collaborative effort in this area by funding, providing materials, and participating in the reorientation of various cadres of health personnel.
- 5.2.3. Construction of Buildings for Family Health Programs: The main donor in this area has been the World Bank through involvement in many family health projects. The Howard University project has been involved in constructing classrooms and boarding facilities for the education of various health cadres at the Lilongwe School of Health Sciences.
- 5.2.4. Provision of Commodities and Contraceptives: The agencies which have collaborated in this effort are:
 - o The World Bank, which has provided equipment and furnishings.
 - o UNFPA - equipment and commodities.
 - o USAID and FPIA have also contributed contraceptives and equipment for family health programs.
 - o WHO has provided expertise and equipment.
 - o UNICEF has also provided vehicles and equipment for child survival programs and EPI programs.

6. PROJECT MANAGEMENT

6.1. Few project management problems have been encountered during the implementation of the Malawi Health Institutions Development project. This was apparently due to the outstanding performance of the Howard University Chief of Party, Claudette Baily. She brought several years of experience in working on health projects in the Southern Africa region with her to this Malawi project. She had established excellent rapport with the Ministry of Health staff, the USAID Mission and with the two major health training institutions during the design phase. The significant involvement of the MOH in the design phase may have assured its support and cooperation for the implementation phase. While USAID handled the building construction and vehicle procurement, the Howard Chief of Party organized the commodity procurement, transfer of Technical Advisors, and other administrative details.

The project program activities in Malawi were also led by the C.O.P. to produce results of high technical quality. When it was apparent that the original project design did not provide for adequate student support, a supplementary budget was orchestrated. This supplement placed an additional burden on the Howard Lilongwe office to arrange per diem, subsistence, travel, and participant training for students. This new responsibility has been accommodated without interfering with other operations.

The Chief of Party has handled relations with the MOH in an exemplary way and was so effective that the USAID Health Officer rarely had to become involved in those negotiations. MOH support for the project has been very strong as a result.

The team of technical advisors has been well managed. Their working conditions have been very good for the most part, and they have been able to work effectively. At the end of the first two years, two advisors were replaced and two additional advisors added to the team. All advisors were provided to the project in a timely manner.

6.2 Howard University's Washington office is led by the Project Director and the Project Manager. This U.S. backstopping office maintains the support for the field team and manages the programs for the twenty participant trainees in the United States. Regular supervisory visits are made to the field for technical inputs, planning, and problem solving. The University's Financial Management Office and the Procurement Office have done a satisfactory job of keeping track of obligations, disbursements, and procurements.

6.3 The Ministry of Health project management rests with the Deputy Chief Medical Officer who is also responsible for Preventive Health Services. The MOH management responsibilities are shared with the Chief Nursing Officers, since nurses represent the largest part of human resources in the health sector. The recommendation of the project manager is that the project be extended in order to "make the training component sustainable.

6.4 The USAID Office in Lilongwe is responsible, through the Health, Population, and Nutrition officer, for support, monitoring, and general management of the Agreement between A.I.D., Howard University, and the MOH. The project management responsibilities were reported by its HPN officer to be particularly easy; thus, his involvement was limited. He was primarily responsible for the construction of buildings at LSHS.

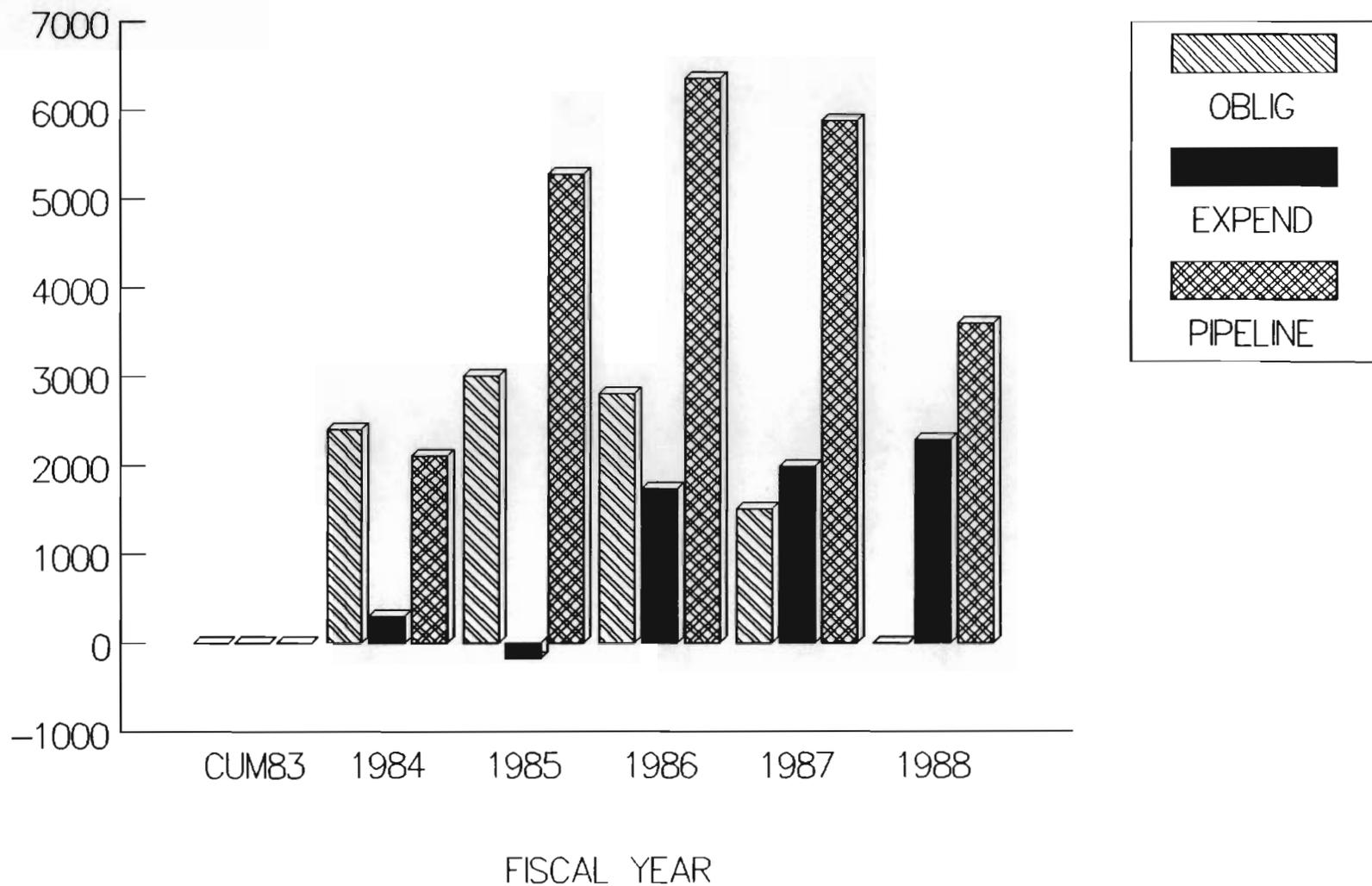
6.5. Supplementary Budget for 1987: The internal evaluation of 1986 revealed that project progress was being hampered by the lack of funds to support students in their field training, in-service training, etc. In addition, a need for more participant training was recognized, if the project achievements were to be sustained, by having adequate numbers of teaching staff. The supplement added \$1,500,000 to the budget, and the training targets were adjusted to reflect a better understanding of how many persons were to be trained in pre-service courses, ECHNs, Health Assistants, and Medical Assistants with "community health" and "child spacing" added to their newly revised curricula; how many were to have "family health or maternal and child health/child spacing introduced into their in-service curricula; and how many in various health provider disciplines would have in-service training on the subject of child spacing promotion.

6.6 The financial analysis provided to the evaluation team by Howard's Financial Management Office revealed that, as of July 31, 1988, an unobligated fund level of approximately \$3.2 million existed. The funds made available to the project were \$7,750,000 of which \$4,500,000 have been obligated.

Figure 2. Expenditures appear to be lagging, with the resulting large pipeline. The cause could not be determined by the evaluation team.

Malawi Subproject Totals 612-0211

OBLIGATIONS, EXPENDITURE, PIPELINE



DOLLARS X 1000

FISCAL YEAR

7/7

The planned obligations for the last years of the project are as follows:

From the 1987 Supplement

In-country training *	\$1,000,000	by 1990
Howard University 13 participants	<u>510,000</u>	by 1990
Subtotal	\$1,500,000	

From the Regular Budget

a) Technical Advisors	760,000	
b) Return of Field Staff from Malawi and closing office	600,000	
c) Howard University Management Expenses, R&R, Consultants	200,000	
d) Non-University consultants	240,000	
e) Miscellaneous	<u>100,000</u>	
Subtotal	<u>2,050,000</u>	
Total	\$3,250,000	

*Rate of disbursement unknown

A balance of \$400,000 remains from construction of buildings at Lilongwe School of Health Sciences. The Mission has offered the MOH these funds for the Howard University run HIV/AIDS project, but has not had a response from the MOH after 12 months.

6.7. Construction and Furnishings: The following additions were made to the Lilongwe School of Health Sciences:

- 3 classrooms
- 2 student hostels (40 beds each)
- 10 offices
- 1 laboratory

Attachment 1

LIST OF PEOPLE INTERVIEWED

Ministry of Health

Ms. L. Kadzamira, CNS/MCH, Controller of Nursing Services
Dr. Mbvundula - Technical Advisor
Dr. Alice Msachi, MOH/CPHS, Controller of Preventive Health Services Asst. C.D./MOH
Ms. Ndiza Mbvundula, MOH, Deputy Chief Nursing Officer
Mr. S. Chizimbi, Chief Health Planner
Ms. C. Mzebe, Reg. Ph.N. - North
Ms. N. Mnyemnyembee, REG. Ph.N. - Center
Ms. Rosemary Chinyama - Chief PHN
Dr. Sam Darfoor - MSH/CS/Advisor WHO
Ms. Ann Matekwe Phoya - Nursing Officer/MHIDP Coordinator/MOH
Dr. Mukiwa - Principal L.S.H.S.
Ms. E. Chirambo - Nursing & Midwifery Consultant - PHAM
Health Assistant Tutors
Medical Assistant Tutors
Director ECHN Program L.S.H.S.
ECHN Tutors, L.S.H.S.
Ms. Gunda, Reg. Ph.N. - South Blantyre Center
Mr. L. Chjipungu - Senior Public Health Officer - Chief Accountant

AID/Malawi

Ms. Carol Peasley - Mission Director
Mr. Charles Gurney - Health Officer
Mr. Gary Newton - Health Officer

Howard Team

Ms. Claudette C. Bailey, Chief of Party
Mr. Peter A. Shelman - Health Assistant/TA
Ms. Diana Beck - Family Health Nurse/TA
Ms. Evelyn Isaacs - Family Health Nurse/TA
Dr. James LaRose - Medical Assistant/TA
Ms. Cindy Kaufmann - Enrolled Community Health Nurse TA

Graduates (Long-Term Participant Trainee(s))

Ms. Jane Banda - MCH/CS (Family Health Nurse)
Ms. Mellina Mchombo - MCH/CS
Mr. George Malikebu - HA
Ms. Ann Matekwe Phoya - CHN - Nursing Officer
Ms. Naomi Luwanja - Health Educator
Ms. Munlo at Kawale
Ms. Culver
Ms. Manda at Ntcheu
Ms. McHombo - Family Health Center
Ms. Phaya - Zomba School of Nursing
Superintendent, Zomba Hospital

Attachment 2

LIST OF SITES VISITED

Kauma Government Clinic
Mwenyekondo City of Lilongwe Clinic
Mawale Government Clinic
Zomba General Hospital
Zomba School of Nursing
Lilongwe School for Health Sciences: CHN/MA/HA
Mponela Health Center
Kamuzu Center Hospital (FH)
Queen Elizabeth Central Hospital (FA & MA)
Chiromoni Health Center
Thyolo District Hospital
Kasungu District Hospital
Kasungu District Hospital (FH)
Mulanje District Hospital (FH)
Mpemba Training Center/MA
Mponela Training Center/MA
Bottom Hospital - ECHN Mental Health

Training Centers/FH

Kasungu
Mulanje
Mangochi
Ekwendeni
Lilongwe
Blantyre
Zomba

Other Agencies/Organizations/Committees

1. Surces and Midwives Council/Malawi
2. National Child Spacing Committee
3. World Health Organization

COMMUNITY HEALTH NURSE UNICEF KIT

Navy Blue Vinyl Bag with Liner and Shoulder Strap

Tuning Fork

Reflex Hammer

Tape Measure

Mantoux Ruler

Otoscope with 2 Batteries

Aneroid Sphygmomanometer with Cuff

Spring Baby Scale

Binaural Stethoscope

Soap Box

Scissors

Tongue Depressor (Metal)

Tongue Depressor (25 wooden)

Oral Thermometer

Safety Pins (25)

Hand Towels (2)

Attachment A

PROJECT OUTPUTS

END OF PROJECT STATUS	REVISED END OF PROJECT STATUS	PRESENT STATUS	PROJECTIONS FOR 1988
105 CHN GRADUATED	105 CHN GRADUATED	45 ECHN GRADUATED	29 ENROLLED
6 CHN TUTORS TRAINED	6 CHN TUTORS TRAINED	1 + 5	
30 CHN STUDENTS ENROLLED	30 CHN STUDENTS ENROLLED		
CHN PROGRAM INSTITUTIONALIZED	CHN PROGRAM INSTITUTIONALIZED		
6 MCH/CS TUTORS TRAINED	6 MCH/CS TUTORS TRAINED	5 MCH/CS TUTORS IN TRAINING	15
30 MCH/CS TRAINERS TRAINED	30 MCH/CS TRAINERS TRAINED	62 MCH/CS TRAINERS TRAINED	10
600 MCH/CS ENMS TRAINED	512 MCH/CS ENMS TRAINED	331 MCH/CS ENMS TRAINED	100
	194 MCH/CS MRNS TRAINED	124 MCH/CS MRNS TRAINED	+ 30
	28 MCH/CS MAS TRAINED	28 MCH/CS MAS TRAINED	20
	210 MCH/CS COS TRAINED	110 MCH/CS COS TRAINED	+ 30
	105 MCH/CS ENHS TRAINED	75 MCH/CS ECHNS TRAINED	
		52 NURSING SUPERVISORS	27
		68 DISTRICT HEALTH INSPEC.	0
		44 PHARMACY ASSISTANTS	7
		40 PRECEPTORS	
		43 REFRESHERS - FNM	50 LABORATORY ASSISTANTS
			110 REFERESHERS
MCH PROGRAM INSTITUTIONALIZED	MCH/CS PROGRAM INSTITUTIONALIZED		
1 HEALTH EDUCATOR TRAINED	1 HEALTH EDUCATOR TRAINED	MAY 1988	
1 NUTRITIONIST TRAINED	1 NUTRITIONIST TRAINED	BEGIN AUGUST 1988	
4 HA TUTORS TRAINED	4 HA TUTORS TRAINED	ON GOING 1 + 6	
40 HA (NEW CURRICULUM) GRADUATES	40 HA (NEW CURRICULUM) GRADUATES	37 ENROLLED	
80 HA (NEW CURRICULUM) ENROLLED	80 HA (NEW CURRICULUM) ENROLLED		
5 HA TRAINERS TRAINED	5 HA TRAINERS TRAINED	12 HA TRAINERS TRAINED	
160 HA RETRAINED	160 HA RETRAINED	60	
NEW HA CURRICULUM INSTITUTIONALIZED		NEW HA CURRICULUM INSTITUTIONALIZED	
5 MA TUTORS TRAINED	5 MA TUTORS TRAINED	ON GOING 1 + 5	
40 MA (NEW CURRICULUM) GRADUATED	80 MA (NEW CURRICULUM) GRADUATED	40 GRADUATED	
120 MA (NEW CURRICULUM) ENROLLED	120 MA (NEW CURRICULUM) ENROLLED	80 ENROLLED	
5 MA TRAINERS TRAINED	5 MA TRAINERS TRAINED	3 TO START IN MARCH	
350 MAS RETRAINED	350 MAS RETRAINED	43 MAS RETRAINED	
NEW MA COURSE INSTITUTIONALIZED	NEW MA COURSE INSTITUTIONALIZED		

Estimated Recurrent Project Costs

Salaries	Not applicable. All staff already on MOH pay-roll and assumes no additional staff will be required.
Vehicle maintenance	<u>K80,000</u> Roughly estimated at K4,000 p.a. for each of the 5 small cars and K7,500 p.a. for each of the bigger cars - i.e. mini buses/Nissan patrol/one-ton truck (8 in all).
Equipment maintenance	Est. <u>K5,000</u> p.a.
Vehicle running cost	Est. at K13,050 p.a. for each small car, and K20,880 for the bigger ones calculated as follows: Av. daily value of fuel and lubricants used by each small car - K50 each bigger car - K80 Total No. of working days per year - 261 Annual est. cost for all cars <u>K232,290</u>
Stationery and Sundries	Est. <u>K12,000</u> p.a.
Per Diems	<u>K223,824</u> (Based on the actual figure of K18,652 for the month of June 1988)
Student allowances	<u>K204,000</u> (Based on June 1988 figure at the rate of K60 per fortnight per student and assumes the current numbers of student intakes as well as the current number of training centers remains constant.)
Student subsistence allowances	Est. at <u>K84,804</u> (Based on May 1988 figure - highest so far.)
Teaching materials incl. VCR tapes, slides and computer software	Est. <u>K20,000</u>
Total estimated project recurrent cost	<u>K861,918</u>

SCOPE OF WORK

SCOPE OF WORK FOR INTERIM (1984 - 1987) EXTERNAL EVALUATION TEAM

OBJECTIVE OF THE EVALUATION	EVALUATION TEAM ACTIVITIES AND TASKS
<p><u>OBJECTIVE I:</u> Examine the Malawi Health Institution Project Design, inputs, and implementation process.</p>	<p><u>OBJECTIVE I Activities and Tasks</u></p>
<p><u>OBJECTIVE II:</u> Measure the level of inputs and the attainment of outputs and purposes.</p>	<ul style="list-style-type: none"> ° Pre-Evaluation Review <ul style="list-style-type: none"> - familiarization with project - review the project goals in relationship to the host country priorities. - review the projects conformance with AID Statutory and policy provisions. - review specific project targets at output, purpose and goal levels.
<p><u>OBJECTIVE III:</u> Analyze progress (performance data)</p>	<p><u>OBJECTIVE II Activities and Tasks</u></p>
<p><u>OBJECTIVE IV:</u> Make recommendations for use in:</p>	<ul style="list-style-type: none"> ° Measuring Inputs <ul style="list-style-type: none"> - Collect progress/performance data generated during the project implementation period under review (1984-87) - Measure progress in attaining Outputs. - Are there changes not in the logical framework? - assess unplanned change - search for casual factors - Draw conclusions and inferences for replanning, including a documentation of lessons learned. - Write the first draft evaluation report.
<ul style="list-style-type: none"> - Project redesign - the remainder of the project implementation phase. 	<ul style="list-style-type: none"> ° Post-Evaluation Conference <ul style="list-style-type: none"> - Discuss the Evaluation report with MHDP staff (Malawi and Howard University) GOM/MOH and USAID, to clarify interpretation of evaluation data. - Write the Final Draft of the <u>Evaluation Report</u> including recommendations, if any, for rescheduling implementation activities. - Submit the Final Evaluation (Interim) Reprot to the various evaluation audiences (Howard University, USAID, GOM/MOH).
<p><u>OBJECTIVE V:</u></p> <ul style="list-style-type: none"> - Reporting to USAID, GOM/MOH and Howard University. 	

SCOPE OF WORK AND PLAN FOR INTERIM (1984 - 1987) EXTERNAL EVALUATION

I. Objectives of the External Evaluation

1. To examine the project design inputs and implementation process.
2. To measure the level of inputs and the attainment of outputs.
3. To obtain assessment for use in the second half of the project implementation phase and in project redesign.
4. To measure progress for:
 - reporting to USAID, GOM/MOH and Howard University
 - rescheduling implementation activities

II. Evaluation Questions

General Hypotheses

- | | |
|---|--|
| <ol style="list-style-type: none">1. Are the planned project targets being achieved?<ol style="list-style-type: none">1.1 What are the reasons for success or failure?1.2 Are inputs:<ul style="list-style-type: none">- adequate?- on schedule?2. Are end of project expectations probable?3. What unforeseen circumstances have arisen since the project started? | <ol style="list-style-type: none">1. If all inputs provided by project midpoint are sufficient in quantity (magnitude) and quality, then outputs projected at project midpoint have been produced.2. If expected mid-point outputs have been produced, then end of project expectations are probable.3. If unforeseen circumstances have arisen then project inputs, outputs and end of project status will:<ol style="list-style-type: none">a) be affected negativelyb) not be affectedc) be affected positively |
|---|--|

SUMMARY OF RECOMMENDATIONS
MID-TERM EVALUATION
OF THE
MALAWI HEALTH INSTITUTIONS DEVELOPMENT PROJECT
612-0211
September 1988

MAJOR RECOMMENDATIONS:

1. The project should be redesigned and extended to permit the immediate commencement of training of health surveillance assistants and improvement of the other curricula at the LSHS (including Clinical Officers, Pharmacy Assistants, Dental Assistants) to the quality of the ECHN, the H.A. and the M.A. New curricula should to include larger elements of management training. This may require a modest increase in project funding for an estimated PACD of December 1991.
2. Continue funding the Family Health component until 1991, supporting student and tutor subsistence, travel allowance, vehicles, and per diem.
3. Phase out the technical assistance for the Family Health and Enrolled Community Health Nurse program as planned. Continue the T.A. for the Health Assistance program until June 1989. Continue the T.A. for the Medical Assistant program until June 1989. Continue the T.A. for the Medical Assistant program until a "director tutor" is appointed at the Blantyre campus to take responsibility for the pre-service and in-service training.
4. Request that the MOH substantially increase the numbers of basic nurses trained in order to release the community nurses for their special work at the village level. The MOH might consider a special nurse service made up entirely of Community Health Nurses who would have no attachment to hospitals except to send and receive referrals.
5. The Medical Assistants should receive child spacing instruction during the in-service training provided by the project so that this front line worker can provide promotional services and deliver condoms and foaming tablet contraceptives.
6. Books and reference manuals or protocols should be provided to the H.A.s and M.A.s.
7. An effort should be made by the MOH to stabilize the teaching staff at the LSHS so that they feel they belong to an identifiable entity and have as good a career path as their colleagues in clinical service or in an educational institution.

8. The project should provide microcomputers with "desk top publishing" capability in order to enhance capacity of LSHS to produce its own teaching materials, as well as its use as word processor, data base management tool, a numbers manipulator, and a teaching tool.
9. Tutors from each of the components would benefit from study tours of African countries to share their new curricula and learn how others are using new teaching techniques, microcomputers, and practical learning experiences to improve the delivery of primary health care, child survival and family health services.
10. Local expertise in curriculum development should be developed so that there is permanent expertise available to continually develop and revise the numerous curricula.

Problems and Issues - Family Health

- (a) Difficulties in the distribution of drugs and supplies limits the operation of the teaching program and interferes with the quality of service that may be provided by graduates of the training program.
- (b) The Ministry now desires that all health personnel be trained in family health while the project has specific numerical targets which do not include all service providers.

Viability and Sustainability: Two counterparts have graduated from Howard University School of Nursing and are functioning fairly well. One does not express a high level of motivation. However, the participant working in Zomba as a coordinator expresses a high level of motivation. She is clear and positive regarding her training, role, capabilities, responsibilities, and aspirations for her professional growth and for family health. She seems ready and most suited to taking higher responsibilities.

Since curricula for integration have been completed and since integrations have been achieved in all but two cadres, it seems time for Malawians to take over the administration of the program. They have the qualifications and necessary experience to run the program effectively with the support of the Ministry of Health and that of the remaining team members. The only assistance that would seem indicated here is perhaps that of finance. There are senior trainers in the program who were heavily utilized (under sometimes less than satisfactory situations) this year to establish new training centers and see

them through a fledging period. This core of dedicated, experienced trainers, if maintained, will certainly contribute greatly to the viability and sustainability of this component. It is recommended that they be considered for advanced training so that when the need for training at this level ends, they can be used at higher levels to assist the integration process.

Impressions and Conclusions: The integration of Family Health into all basic health provider training curricula in the country is the single most promising approach to ensuring that these skills are qualitatively and quantitatively distributed among health workers and present a pragmatic approach to increasing accessibility of the population to family health information and service. The planning and implementation of this aspect of the Family Health training program is demonstrative of the tremendous foresight in the design and implementation of this component of the project.

Recommendations:

1. That no extension of Technical Assistance is required beyond the planned lifetime of the project.
2. That the Ministry set up a proper logistics system for the distribution of drugs and supplies.
3. That the coordinator for the Zomba Center, who shows great promise and capability, be considered for higher responsibilities in the family health service.
4. That, in the future, the Lilongwe School of Health Sciences employ a full time sociologist with some psychology background to teach social sciences in all the programs conducted by the school.

ENROLLED COMMUNITY HEALTH NURSE

Problems and Issues as Seen by the Evaluation Team

The major problem is failure of the Enrolled Community Health Nurse to function fully as a community health nurse in the community. The reason for this failure is the extreme shortage of nursing personnel which exists in the country at this point and time. The hospitals and health centers are inadequately staffed. It is from these inadequately staffed health facilities that candidates for training as Enrolled Community Health Nurses are drawn. On completion they return to their

previous positions in the hospitals and health centers; they are drawn into the routines of hospitals/health centers and have very little time left to do community health work. The solution to this problem lies in intensifying training of both Registered Nurses and Enrolled Nurse Midwives at basic levels to improve the staffing of hospitals and health centers so that the Enrolled Community Health Nurses and Registered Community Health Nurses can be freed to practice in the community. This is to be tied in with training of teachers. Perhaps it may help to point out that the ILO nurse population ratio is one nurse for every 200 persons. Malawi has a population of nearly 8 million people and a nursing population of approximately 500 Registered Nurses and 800 Enrolled Nurse Midwives!! This is less than a drop in the ocean and should be addressed soon.

The Enrolled Community Health Nurse supposedly works under the supervision of a Registered Community Health Nurse. The number of Registered Community Health Nurses in the country is negligible. In order to achieve adequate supervision of the Enrolled Community Health Nurses, there is need to resurrect and intensify the training of Registered Community Health Nurses.

The health situation in the country seriously requires large numbers of Community Health Nurses. Money invested in the training of these cadres will be money put to good use. The proposed integrated programs for Enrolled Nurses and Registered Nurses will not produce full fledged community nurses. It will only produce nurses with some skills in community health work who must function under the supervision of qualified Community Health Nurses.

Viability and Suitability: At the time that the Technical Advisor leaves in November, the faculty will consist of one Registered Community Health Nurse with three years experience in the program; two Registered Community Health Nurses with one year of experience in the program; two Registered Nurses with Bachelor's Degrees; and one Malawian with years of teaching experience. The other is a Peace Corps Volunteer with over a year's teaching experience in the program. Among the faculty there is a repertoire of relevant skills and experiences which, pulled together, should provide the necessary expertise for administering the program. The Ministry has chosen one of the Registered Community Health Nurses to temporarily administer the program until the designated Administrator returns from participant training. With assistance and support of the faculty project team, she should be able to discharge her responsibilities effectively.



Handing over the program at this time and giving the faculty a period to function on its own will help them test their skills in running the program before the project support is terminated. This component of the project, although new, is offered under the auspices of the Lilongwe School of Health Sciences and, as such, has been financed and managed by this institution from its inception. It will, therefore, not present any new budgetary burdens to the Ministry at this point.

Some of the differences and concerns expressed by the Technical Advisor, such as learning physical assessment, could have been addressed in a timely manner as part of the phasing out plans. However, there is still time to address the issue of the teaching of physical assessment in view of the two faculty members with Baccalaureate Degrees. They have strong backgrounds in teaching physical assessments skills.

If there is no major change in the faculty after the technical assistant's departure, then the viability of this program is assured and may be further strengthened by whatever assistance can be given by the project coordinator in the Ministry of Health.

Impressions and Conclusions

The overall Ministry of Health policy is to raise the level of health of all Malawians through a sound service delivery system which will promote health by preventing, reducing, and curing diseases, protecting life, and by fostering well being and increased productivity. This is to be fulfilled by adopting primary health care as the major strategy of the health service delivery system. (The National Plan of Malawi 1986-1995, p.3-4). The close relationship between the health policy of the Ministry of Health and the purpose and specific objectives of the cooperative agreement cannot be over emphasized. The programs of the project mark a new and determined shift to primary health care which is the machinery through which the Government of Malawi hopes to achieve an acceptable level of health and well being for its people.

The purpose of the Enrolled Community Health Nurse is to prepare a competent nurse with practical skills who will be a contributing member of the health care team which renders comprehensive care to the community. The program encompasses all the elements of primary health care such as community participation, team work, and multisectoral cooperation in all primary health care activities. It proposes to take health care to the people wherever they may be - homes, schools, and places of work.

The Enrolled Community Health Nurse is a middle level health worker. The program is designed to provide her with skills that will enable her to provide comprehensive health care in a culturally acceptable way. This new approach to health was evident during discussions with the graduates of the Enrolled Community Health Nursing programs. Despite the constraints of staff shortage, equipment, and supplies, they were enthusiastic about their new role. They were able to articulate it and were anxious to be full-time community health workers with all its ramifications.

The Enrolled Community Health Nursing program addresses these important special programs in the ten year national health plan:

- o Child spacing
- o Control of childhood communicable diseases
- o Expanded Program Immunization (EPI)
- o Bilharzia control
- o Leprosy control
- o Tuberculosis control
- o Environmental health and sanitation
- o Malnutrition

as well as other unlisted health care needs in a timely manner.

Recommendations

1. The phasing out of technical assistance should proceed as planned.
2. The Ministry should maintain the present staff members in their present positions, at least until the returning participants have been reoriented.
3. The Ministry should continue and intensify the training of Enrolled Community Health Nurses.
4. The Ministry should resurrect and intensify the training of Registered Community Health Nurses.
5. The Ministry should intensify the training of Enrolled Nurse Midwives at basic levels in order to adequately address the health situation in the country and to reap the full benefit of the programs that have been developed by the project.

Issues, Problems, and Recommendations - Health Assistants

Issue 1: The technical advisor is scheduled to be withdrawn in February 1989. There is much to be completed before that time, including the start of a new school year, a technical training manual, preparation of other teaching materials, and installation and training on the use of desk top publishing capability from a microcomputer.

Recommendation 1: The technical advisor for the Health Assistant training course should continue working with LSHS until July 1989 in order to complete the tasks listed above.

Issue 2: The project has provided neither secretarial support nor microcomputer word processing capability to the project in general and the HA training program in particular.

Recommendation 2: The project should provide sufficient microcomputers for desktop publishing of teaching materials to the HA, MA, and to the Family Health and Enrolled Community Health Nurses programs. The project should also provide the training package necessary for the LSHS so that they can use the equipment to greatest advantage. A person might be named responsible for computer use within the project and sent on a study tour to see how other African Institutions are using this equipment to advantage.

Issue 3: There is reported to be a shortfall in the provision of textbooks, journals, and teaching material in the HA program at present because the program got a late start in the project.

Recommendation 3: If the training program is to continue, material and, probably, a library should be provided to cover at least four cycles of the pre-service training program.

Recommendation 4: The Senior HA tutor and other tutors can be sent on study tours to nearby states such as Kenya, Swaziland, Lesotho, and Zimbabwe to visit other HA programs, to share the excellent curriculum of the LSHS, and review the teaching material, practical demonstration exercises, and curricula of the other schools. Attention should be paid to the development of practical exercises and demonstration areas which were lost when the program moved from Zomba. See the excellent report of WHO consultant J.W. Kwamionz Duncan, May 1988.

Issues, Problems and Recommendations - Medical Assistants

Issue 1: Institutionalization of the in-service training is in doubt due to rapid turnover of tutors.

Recommendation 1: The technical assistance to the program should continue until the current tutors have defined sufficiently their leadership and the staffing of the group at Blantyre is stable. Financial support should continue until all existing MAs have completed at least one cycle of in-service training with a child spacing content. The project (which includes MOH, Howard Univ., and USAID) will have to solve the housing and logistics problems for the tutors assigned to Blantyre.

Issue 2: A great deal has been accomplished by the MA training program in a relative short period. The ten year health plan called for the MA to be the team leader at the peripheral health center level with considerable management responsibility. The curriculum prepared by the tutors reflects the MOH priorities, but the problems of the course need to be addressed more seriously. They include a lack of a single location for pre-service and in-service training, lack of adequate support for the supervisory visits by the tutors, and a lack of housing for tutors who have to move to Blantyre.

Recommendation 2: The project should reexamine how it handles the MA program with an eye to solving its problems on a priority basis. The MA should be recognized as the front line rural health provider serving as the first contact with the health system for many patients and, therefore, more priority needs to be given to addressing the problems of this program.

Issue 3: The Medical Assistants were not given child spacing training during their in-service course for several reasons. One was that the child spacing course was considered too long for the time available. The recommended in-service course included anatomy and physiology of the reproductive system, promotion, pharmacology, and would have added six to twelve weeks to the current four week course.

Recommendation 3: Since the M.A. is to play only a promotional role in the effort to make child spacing services widely available, a long, intensive course would seem unnecessary. A much shorter course of 8-12 hours in the current in-service training program would give enough information about contraception in order to make referrals to the ECHN at the health center and to distribute, at a minimum, foaming tablets and condoms. A more complete course could be provided later if the need arises.

Issue 4: MA tutors have to try to teach management skills, but have not had adequate training in management or in teaching management. This also applies to the subject of community health.

Recommendation 4: Provide more short-term courses in management for the tutors to meet their needs for enhancement of their knowledge and skills.

Issue 5: Trainees have no reference material to take with them after the in-service program is completed.

Recommendation 5: The project should provide books and manuals to use when the M.A. returns to the Health Center. This will provide reference and guidance and reinforce the training program.

Overall Project - Problems and Issues

In looking at the sustainability and viability issues of the project achievements, one must look at all the other factors that might affect the future of the total system. In this case, most of the issues being looked into for the sustainability of the project activities may be outside the domain of the project but are of more concern to the Lilongwe School of Health Sciences.

Summary of Issues for Consideration

- o Availability of posts.
- o Career structure for people trained.
- o Problem of high rate of attrition.
- o Administrative arrangements for a smooth phasing out of the project support (T.A.)
- o Financial sustainability.
- o Primary Health Care and integrated approach versus specialization and vertical programs.
- o Health Center management: MA vs. the EN/M.
- o Transport.
- o Community work vs. hospital/health center demands - shortage of staff.
- o Development of local expertise in curriculum development - short and long term solutions.
- o Status of LSHS - Control by the school vs. control by the Ministry of Health.
- o Staff housing.

Career Structure, Availability of Post, and High Attrition

Lilongwe School has, as of now, no structure of its own. All the members of staff manning the school were originally in the hospitals or elsewhere and were haphazardly posted to the

school to teach as and when the need arose. Often they were posted without any orientation or training in teaching methodology. They are, therefore, there by default and not by design. This has, consequently, led to the school having no established posts, which has also led to a lack of definable career structure for the staff currently running the school. Tutors, trained overseas, find themselves coming back and having no post to fill. This implies there is no incentive for them in the form of promotion. The future prospects for them do not seem to give a promising picture at this time. As a result, most of them opt to go back into the clinical service where, with their added qualifications, they would most likely rise faster. Others, with their new and higher qualifications, have found their way into other institutions such as the University, and a few others have used their new qualifications as a launching platform to enter training institutions for higher education which could eventually lead to a more promising future for them. All the problems caused by these two factors have resulted in a high rate of attrition of tutors.

Recommendation:

LSHS should have a staff structure of its own established. This structure would provide full time and part time posts for the school as well as laying a career structure for the tutorial staff. As much as possible, the structure should provide for positions at levels high enough to attract and encourage such people to stay on -- otherwise, the Government will have to continually train tutors for the school, have the school permanently understaffed, or be without properly trained personnel forever.

Phasing Out Administrative Arrangements

Although there is going to be documentation of the project, in order for the project to provide a smooth transition of the project from Howard to the MOH, it requires some continuity of project staff. There is a need for someone to be available who has an in-depth understanding of what is going on under the project, at what time, where, and in what magnitude. This resource person will advise on what is needed where and at what time, thereby assuring that project activities do not go in a 'stop-start' fashion. This person would also help make sure that adequate budgetary preparations are made.

Recommendation:

At least one person from the Ministry or LSHS should be attached to the project so that he/she gains a good

understanding of the activities under the project and their administrative and financial implications, including an understanding of exactly where the various commodities/equipment purchased under the project are, their condition, and when they will be due for service/replacement.

Financial Sustainability

This is an attempt to examine the probability of the MOH being able to provide the necessary finances required to meet the cost of maintaining or even expanding the programs and activities started under the project. These costs include additional staff salaries, per diem, student allowances, equipment and vehicle maintenance costs, vehicle operating costs, stationery, and sundries. These costs, as seen in Attachment 4, are estimated at less than MK 1m. With a total national MOH recurrent budget of MK 45m, the additional costs resulting from this project are obviously very minute (2.2%). The project should, therefore, be financially viable and sustainable. Although the impact of the project activities on the community does not easily lend itself to any quantitative measurement, in the long run, this would appear to be a cost-effective way of tackling Malawi's health/human resources problems.

Recommendation

The project does not have very high recurrent cost implications, and it is cost effective. The MOH should make every effort to ask for and secure adequate monies to sustain the project activities.

Development of Local Expertise in Curriculum Development

Under the project, the MA, HA, and ECHN curricula have been developed. The new curricula are impressive, and they clearly set out the objectives, content, teaching methods, and key activities of the courses in a logical timeframe. The curricula were developed and training conducted to the tune of the envisaged job descriptions of the cadres. The technical assistance provided under the project was largely used to develop these curricula.

Since such an assignment, especially revision of the curricula, will have to be done for all courses, a vacuum for such skills will be left when all TAs go at the end of the project.

Recommendation

There is obviously an urgent need to extend the exercise of developing curricula to all other cadres, e.g., COs, EN/M, etc. As a quick and short-term solution, we suggest that technical assistance should be sought. The long-term solution, on the other hand, is to develop local expertise in curriculum development. We, therefore, recommend that a local person, preferably someone with an education background, should go for long-term training in curriculum development.