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SWAZILAND  
PRIMARY HEALTH CARE PROJECT PAPER  
(645-0220)

August 1985

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AGENCY FOR INTERNATIONAL DEVELOPMENT <b>PROJECT DATA SHEET</b>		1. TRANSACTION CODE <input type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete	Amendment Number _____	DOCUMENT CODE <b>3</b>
2. COUNTRY/ENTITY SWAZILAND		3. PROJECT NUMBER 645-0220		
4. BUREAU/OFFICE AFR		5. PROJECT TITLE (maximum 40 characters) Primary Health Care		
6. PROJECT ASSISTANCE COMPLETION DATE (PACD) MM DD YY 1 2 3 1 9 0		7. ESTIMATED DATE OF OBLIGATION (Under 'B.' below, enter 1, 2, 3, or 4) A. Initial FY 8 5    B. Quarter 4    C. Final FY 8 9		

8. COSTS (\$000 OR EQUIVALENT \$1 = )						
A. FUNDING SOURCE	FIRST FY 85			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total						
(Grant)	( 1559 )	( 441 )	( 2,000 )	( 4,538 )	( 1,162 )	( 5,700 )
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S.						
1. Host Country		180	180		2,245	2,245
2. Other Donor(s)						
<b>TOTALS</b>	1559	621	2,180	4,538	3,407	7,945

9. SCHEDULE OF AID FUNDING (\$000)									
A. APPROPRIATION	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE		D. OBLIGATIONS TO DATE		E. AMOUNT APPROVED THIS ACTION		F. LIFE OF PROJECT	
		1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan	1. Grant	2. Loan
(1) HE	534	510	-	-	-	5664.3	-	5664.3	-
(2) PN	429	420	-	-	-	35.7	-	35.7	-
(3)									
(4)									
<b>TOTALS</b>						5700	-	5700	-

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)						11. SECONDARY PURPOSE CODE	
530	550	580	420	563	440	584	

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)							
A. Code	BRW	BWW	NUTR	TNG			
B. Amount							

13. PROJECT PURPOSE (maximum 480 characters)

To improve and expand the primary health care system in Swaziland

14. SCHEDULED EVALUATIONS				15. SOURCE/ORIGIN OF GOODS AND SERVICES			
Interim	MM YY	MM YY	Final	MM YY	<input checked="" type="checkbox"/> 000 <input type="checkbox"/> 941 <input checked="" type="checkbox"/> Local <input type="checkbox"/> Other (Specify) _____		
	0 8 8 7			0 3 9 0			

16. AMENDMENTS/NATURE OF CHANGE PROPOSED (This is page 1 of a \_\_\_\_\_ page PP Amendment.)

A review of the financing methods selected for implementation of this project are included in this paper, and all the methods selected are in compliance with current Agency policy.

Concurrence: [Signature]  
 Controller, USAID/Swaziland

17. APPROVED BY	Signature	18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION
	Title	
	Director, USAID/Swaziland	MM DD YY
		0 8 2 1 8 5

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August 21, 1985

ACTION MEMORANDUM FOR THE DIRECTOR, USAID/SWAZILAND

FROM: Scott E. Smith, Program and Project Development Officer

SUBJECT: Swaziland Primary Health Care Project, 645-0220

PROBLEM:

Your approval is requested to authorize a grant of \$5,700,000 from the FAA Sections 104(b) and 104(c) Health and Population Appropriation to the Government of Swaziland (GOS) for the Primary Health Care Project (645-0220). It is planned that \$2,000,000 will be obligated in FY 1985.

DISCUSSION:

The goal of the Swaziland Primary Health Care project is to improve the health status of Swazi children under five years of age and women of childbearing age. The project purpose is to improve and expand the primary health care system in Swaziland, emphasizing eight specific maternal and child health/child spacing (MCH/CS) areas: pre-natal care, peri-natal care, post-partum education, childhood immunization, oral rehydration therapy, growth monitoring, child spacing, and treatment of infectious, parasitic and lower respiratory diseases. The project sets out end-of-project service targets in each of these areas, which will be the key operational objectives of the Ministry of Health (MOH) over the next five years.

The total project cost is \$7,945,000; out of this the AID grant will be \$5,700,000 and the Government of Swaziland (GOS) contribution is estimated to be \$2,245,000, or 28% of total project cost. Out of the AID-funded project cost, \$35,700 will be from the population account and \$5,664,300 from the health account. Initial FY 1985 obligation will be \$2,000,000.

The review of the Project Paper for the Primary Health Care project was held on Monday, August 12 and Tuesday, August 13 at USAID/Swaziland. An Issues Memorandum (Attachment 2) was developed by the USAID/S Program and Project Development Office and served as the agenda for the final PP review. An Information Memorandum is attached (Attachment 3) which delineates the main conclusions of the review meeting related to the major issues.

Following careful analysis of the issues, the Mission Project Review Committee concluded that the issues have been resolved.

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ACTION MEMORANDUM FOR THE DIRECTOR  
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Although the targets are ambitious, the Project is realistic and establishes a reasonable time frame for achieving the objectives, and recommends project authorization.

You have approved a Categorical Exclusion for the Initial Environmental Examination on the basis that the project only provides basic maternal and child health related technical assistance and training, with a small component for commodities and thus meets the criteria as specified in 22 CFR Section 216.2(c)(2)(viii) for a categorical exclusion. The Categorical Exclusion was attached to the PID and the Bureau Environmental Officer concurrence was provided in STATE 104536 (see Annex 1A in the Project Paper, Attachment 5).

The Congressional Notification for the Primary Health Care project expired on June 29, 1985 without objection from Congress.

The AA/AFR delegated to the Mission Director, USAID/Swaziland, the authority to authorize this project in the amount of \$5,700,000, subject to all of the conditions of AID Delegation of Authority 140, as revised, except for the requirement for REDSO concurrence (STATE 174333, in Annex 1C of the Project Paper).

RECOMMENDATION:

That you sign the attached Project Authorization (Attachment 1) and thereby approve funding of \$5,700,000 of which it is planned that \$2,000,000 will be obligated in FY 1985. You are also requested to sign the Local Cost Financing Determination in Attachment 4.

Attachments:

1. Project Authorization
2. Issues Memorandum
3. Information Memorandum
4. Local Cost Financing Determination
5. Project Paper

Clearances:

USAID/S/RHPDO; CDeBose	<u>C. DeBose</u>	Date	<u>8/17/85</u>
USAID/S/APPD; WHammink	<u>W. Hammink</u>	Date	<u>9/16/85</u>
USAID/S/RECON; NCohen	<u>(DRAFT)</u>	Date	<u>9/14/85</u>
USAID/S/CONT; GByllesby	<u>G. Byllesby</u>	Date	<u>8/11/85</u>
USAID/S/RLA; GBisson	<u>G. Bisson</u>	Date	<u>8/17/85</u>
USAID/S/DD; HJohnson	<u>H. Johnson</u>	Date	<u>8/17/85</u>

PROJECT AUTHORIZATION

August 21, 1985

NAME OF COUNTRY: Swaziland  
NAME OF PROJECT: Swaziland Primary Health Care  
NUMBER OF PROJECT: 645-0220

1. Pursuant to Sections 104(b) and 104(c) of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Swaziland Primary Health Care Project for Swaziland (the "Cooperating Country") involving planned obligations of not to exceed Five Million Seven Hundred Thousand United States Dollars (\$5,700,000) in Grant Funds over a five year period from date of authorization, subject to the availability of funds in accordance with the A.I.D. OMB/allotment process, to help in financing foreign exchange and local currency costs of the project. The planned life of project is through December 31, 1990.

2. The project seeks to improve the health status of Swazi children under five years of age and of women of child-bearing age to be measured by decreases in childhood mortality and by increases in life expectancy. The project will improve maternal and child health/child spacing (MCH/CS) services focusing on eight specific primary health care areas. The project will finance long- and short-term technical assistance; participant training to be conducted within and outside of Swaziland; commodities in support of all target areas; research, monitoring and evaluation; and other related costs.

3. The Project Agreement, which may be negotiated and executed by the officer to whom such authority is delegated in accordance with A.I.D. Regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

4. a. Source and Origin of Commodities, Nationality of Services

Commodities financed by A.I.D. under the project shall have their source and origin in the Cooperating Country or in the United States, except as A.I.D. may otherwise agree in

writing. Except for ocean shipping, the suppliers of commodities or services shall have the Cooperating Country or the United States as their place of nationality, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the project, except as A.I.D. may otherwise agree in writing, shall be financed only on flag vessels of the United States.

b. Conditions Precedent to First Disbursement

Prior to the first disbursement under the Grant or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

(1) a statement of the name of the person holding or acting in the office of the Grantee and of any additional representatives, together with a specimen signature of each person specified in such statement; and

(2) evidence that the position of Health Training Officer has been established in the Ministry of Health, and that the position has been filled with a qualified individual.

c. Additional Disbursement: Project Vehicles

Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for procurement of vehicles under the project, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D. a plan for maintaining and repairing these vehicles and evidence that a program for any driver education necessary for the effective use of these vehicles has been established and adequately funded.

d. Additional Disbursement: Radio Procurement

Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for procurement of radios, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D. a plan which identifies facilities in

which radios will be placed and a maintenance and repair program both for radios to be procured under the project and for other radios used by rural health facilities, which shall include adequate budgetary provisions for maintenance and repair.

e. Covenants

The Cooperating Country shall covenant, except as A.I.D. may otherwise agree in writing, that:

- (1) The proportion of the recurrent budget of the Ministry of Health devoted to primary health care will increase by at least 5 percentage points over the life of the project;
- (2) It will improve the conditions of service for rural health providers through the establishment of incentives packages, or by other means;
- (3) It will investigate and experiment with various forms of finance for health services in addition to normal Cooperating Country budgetary resources with a view to increasing by One Million Emalangi (E1,000,000) during the life of the project the amount of extra-budgetary funds spent by the Ministry of Health on health services;
- (4) It will assure that each long- and short-term advisor funded under the project will have a Swazi counterpart during the entire length of his or her assignment;
- (5) In recognition of the need to address development problems arising from Swaziland's rapid population growth, it will establish a high-level committee to review population issues and make recommendations leading to the adoption of a policy supportive of voluntary child spacing during the early years of the project; and

- (6) Persons in the Ministry of Health receiving training in the United States and other countries outside Swaziland under this project and under the Swaziland Manpower Development Project (A.I.D. Project Number 645-0218) in areas supportive of the objectives of this project, will return to Swaziland to work in the Ministry of Health in areas for which they have been trained for a minimum of twice the length of time of such overseas training.

Signature *Robert Huesmann*  
Robert Huesmann  
Typed Name of Approving Officer  
Director, USAID/Swaziland  
Title

Clearances:

RHPDO: Charles DeBose	<u>CD</u>	Date	<u>8/18</u>
APPD: William Hammink	<u>WGH</u>	Date	<u>9/16</u>
CONT: Gary Byllesby	<u>GK</u>	Date	<u>8/18</u>
RLA/SA: Gary Bisson	<u>GB</u>	Date	<u>8/19</u>
PPD: Scott Smith	<u>SS</u>	Date	<u>8/16</u>
DD: Harry Johnson	<u>HJ</u>	Date	<u>8/16</u>

Reference: STATE 174333 dated June 7, 1985

August 9, 1985

ISSUES MEMORANDUM

TO: Mission Executive Committee for Project Review (ECPR)  
FROM: USAID/S Program and Project Development Office, ~~WA~~  
SUBJECT: Swaziland Primary Health Care Project Paper Review

The Project Paper Review for the Swaziland Primary Health Care project (645-0220) is scheduled for Monday, August 12 at 2:30 p.m. in the USAID/Swaziland Conference Room. USAID/Swaziland has been given the authority to authorize the project (STATE 174333). The Mission review will be chaired by the Director. Participating will be Deputy Director, Regional Legal Advisor, Controller, Assistant Program and Project Development Officer, Regional Economist, Program and Project Development Officer, Regional Health/Population Development Officer, and International Development Intern. An Issues Meeting was held on Friday, August 2, in the USAID/S Conference Room which, plus subsequent review of the PP, is the basis for the issues formulated in this Memorandum.

The goal of the Swaziland Primary Health Care project is to improve the health status of Swazi children under five years of age and women of childbearing age. The project purpose is to improve and expand the primary health care system in Swaziland, emphasizing eight specific maternal and child health/child spacing (MCH/CS) areas: pre-natal care, peri-natal care, post-partum education, childhood immunization, oral rehydration therapy, growth monitoring, child spacing, and treatment of infectious, parasitic and lower respiratory diseases. The project sets out end-of-project service targets in each of these areas, which will be the key operational objectives of the Ministry of Health (MOH) over the next five years.

The total project cost is \$7,945,000; out of this the AID grant for the project will be \$5,700,000 and the Government of Swaziland (GOS) contributions are estimated to be \$2,245,000, or 28% of total project cost. Out of the AID-funded project cost, \$35,700 will be from the population account and \$5,664,300 from the health account. Initial FY85 obligation will be \$2,000,000. The CN for the Primary Health Care project expired on June 29, 1985 without objection from Congress.

ISSUES MEMORANDUM  
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The following represent the major outstanding issues to be addressed at the Project Paper Review and will also serve as an agenda for the meeting:

A. Technical Issues

1. The 1990 health sector goals in our CDSS are as follows:

- Decrease under-two mortality by 25% (1);
- Increase the number of acceptors of child spacing practices to 20% of fertile-age couples; and,
- Double the number of GOS clinics providing counseling in fertility management.

The project goals are:

- 15% decrease in under-five mortality
- 3 year increase in life expectancy
- 10% decrease in maternal mortality
- (Unspecified) declines in disease incidence
- Population (none specified)

Issues: What is the basis for the change in our CDSS health sector goals? Does the PP present an adequate technical rationale for the foregoing goals? What is the project goal with reference to FP acceptors? FP policy? Assuming the PP goals represent a more up-to-date, closer analysis of child health problems, how should the PP address the difference between CDSS and PP goals? Shouldn't the goals appear in the body of the PP (say, on p. 5)?

2. The PP identifies eight intervention areas which appear to be directly related to the measures of goal achievement.

Issues: Are the eight areas chosen the eight most important ones in relation to project goals? Is the PP clear as to why these 8, rather than seven, or nine? (That is, is the link between measures of goal achievement and EOPS indicators established clearly enough?) For example, how important is it that we assume a vigorous and successful potable water program?

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(1) Per Table 4A1, 0-1 mortality is 105/1,000; 0-2 is 192; 0-5 is 231.

ISSUES MEMORANDUM

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3. The proposed project inputs are heavily weighted towards increasing the supply of health services. Yet, we know that the existing health resources are under-utilized because mothers and children do not present themselves for services such as pre-natal, delivery, post-partum, immunizations, etc. (e.g., virtually all of the activities and inputs toward the 90% post-partum education target are related to the supply side.)

Issue: Are there sufficient inputs in the proposed budget to encourage the level of demand implied by the level of health resources to be supplied?

4. According to Annex 4A, 23% of hospital deaths of under-fives in 1983 were caused by malnutrition.

Issues: How reliable do we think the foregoing statistic is? If reliable, does the proposed project place enough emphasis on nutrition efforts?

B. Contractor Team/Input Issues

1. The long-term advisors' activities, consistent with the qualifications specified for them, fall into two categories: technical (MCH physician and Family Nurse Practitioner) and administrative/management. In the management area, the responsibilities of these advisors, if they do not overlap, are at least very closely related. (Each of them has responsibilities which impinge directly on the role and function of the principal operating institution of this project, i.e., the health centers and clinics.) In addition, the probability exists that the three individuals finally selected for the team may not have the precise combination of skills and experience specified in the PP, although together they may cover all of the needs now foreseen.

Issues: How is the management assistance provided by the project best coordinated? Should it be left to the COP to decide? Should there be a specified means of coordinating management advice and inputs?

2. Arguably, the MOH is stronger on the technical side than on management. Yet, the project proposes more long-term assistance in the technical areas than in management, and the long-term management assistance is all in the first three years of the project.

ISSUES MEMORANDUM

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Issue: Is the proposed assistance in the appropriate balance between technical and management? Is it realistic to assume that two of the management advisors can phase out in two years and the third in year 3? Could the long-term management expertise be combined into different "packages" so as to retain some management skills to the end of the project?

3. Project technicians' counterparts are as follows, per Annex 9:

MCH Physician - Chief of Mbabane Public Health Unit  
Family Nurse Practitioner - MOH Family Planning  
Coordinator

Health Administration Advisor - Not specified  
Health Planning & Budgeting - Chief of MOH Planning Unit  
Clinic Management Advisor - Not specified

Issue: The Grant Agreement requires the MOH to provide counterparts full time for each technician. Should these be spelled out more specifically? This project will be the MOH's principal external assistance project. Yet, there is no Swazi counterpart above Division Chief level, and the level is even lower on the technical side. How should the project be integrated into the MOH so that the P.S., U.S., and C.M.S. are actively and constantly involved?

4. The in-country training budget includes \$120,000 for one-year specialty training in public health. (4 annual sessions, beginning at \$22,500.)

Issue: / What costs are included in this budget item? Is financing for this type of cost consistent with USAID practice and policy?

C. Administrative/Financial

1. The decision to delegate full authority to the Mission is based on the understanding that the PP will contain an adequate, workable plan as to how the project will be implemented, rather than leaving development of a workable program until after obligation. The plan should detail responsibilities of various parties, time tables, procurement arrangements and other details that demonstrate feasibility of project implementation.

ISSUES MEMORANDUM

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Issue: Is the Mission satisfied that the PP contains an adequate, workable plan as required by AID/W?

2. The PP calls for the technical assistance contractor to administer the activities carried out by AID centrally-funded projects related to primary health care in Swaziland.

Issues: Should the resources expected from the centrally-funded projects be better detailed? Should the PP be more specific as to the specific responsibilities required from the contractor to "administer" the centrally-funded activities? How will the project relate specifically to CCCD?

3. The role of the Institute of Health Sciences (IHS) is not clear in the PP. Given the emphasis on staff development training and support for health service providers, what kind of emphasis or curriculum changes will have to take place at IHS and are any covenants necessary to make sure IHS agrees to any changes in emphasis or training?
4. Has the Government of Swaziland (GOS) agreed to fund vehicle repairs outside of CTA? Is it realistic to assume that CTA and the GOS will accept the conditions as spelled out in the Condition Precedent to additional disbursement for the vehicles?
5. The PP states that the GOS contribution to the project will be measured through the increased percentage of the MOH recurrent budget devoted to primary health care over the life of the project plus the amount of funds that are raised and provided for health services from extra-budgetary sources above and beyond those that would be generated from the existing structure of fees for health services. The additional expenditures are based on a 2% real increase in the MOH recurrent budget and a 1% per year (5% over five years) increase in the proportion of the budget devoted to primary health care and are estimated to be \$1,745,000. The funds for primary health care from alternative health financing over the project period are estimated at \$500,000.

Issues: How are these figures related to the estimated amount of additional funds which will be needed to actually meet the target indicators? Should the PP include a traditional way of counting the required 25% host country contribution as well as the more innovative focus on the primary health care recurrent budget increases?

ISSUES MEMORANDUM

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6. The PP states that in view of the "complexity" of the project, an Administrative Assistant will be required to prepare PIOs and PILs. Yet, by the time the project is in full implementation, we will have in addition to our present staff a Regional Population Officer. Also, the project is rightly designed for the contractor to plan, provide, administer and finance nearly all inputs; and two current health projects will have phased out by then.

Issue: Why is additional Mission staff needed?

7. The project requires the contractor to acquire most of the resources for project inputs: commodities, short-term advisors, researchers, etc.

Issue: Are there sufficient resources included in the project to provide the necessary project administration, both in the field and in the home office?

8. The proposed weighting of the criteria for contractor selection seems to give too much weight to the written proposal itself (35%) and not enough to the qualifications of the proposed personnel (25%). The firm's experience was weighted 40%.

Issue: Should the proposed weighting of the selection criteria be changed to reflect the importance of having the best people to implement the project?

D. Summary Issues

1. Is it realistic to think that Swaziland can achieve the goals of this project in five years without more inspired leadership; more more-experienced and better motivated managers; and better knowledge of the causes of sickness and death and of the effects of traditional "medicine" than is now apparent?
2. Is the project adequately funded in view of the magnitude of the task and the sparseness of GOS financial and human resources?

August 21, 1985

INFORMATION MEMORANDUM

FROM: William Hammink, Assistant Program and Project  
Development Officer

SUBJECT: Project Paper Review for the Swaziland Primary  
Health Care Project, 645-0220

The review of the Project Paper for the Primary Health Care project was held on Monday, August 12 and Tuesday, August 13 at USAID/Swaziland. An Issues Memorandum was developed by the USAID/S Program and Project Development Office and served as the agenda for the final PP review. This Information Memorandum will briefly delineate the main conclusions of the review meeting related to the major issues in the Issues Memorandum.

Technical Issues:

1. The 1990 health sector goals as delineated in the PP are slightly different than those in the CDSS. The three major differences involve the emphasis in the PP on the under-5 population group instead of the under-2 group, different targets for the number of acceptors of child spacing practices of fertile-age couples and the number of clinics providing counseling in fertility management. The PP Design Team agreed to include in the PP an explanation and rationale for the change in emphasis and level in the project goals as they are different from the CDSS health sector goals. A specific statement of PP goal achievement indicators will also be included.
2. The review committee asked whether there may be other areas of emphasis which have more impact on the target population than the eight target areas chosen in the project, such as rural water supply. In other words, the linkage between the eight target areas and the achievement of project objectives needed to be demonstrated. It was recognized that the project had undergone far more than the usual degree of analysis by competent technical experts, and that their analysis of problems in the health sector led to the conclusion that the stated eight target areas will have the most impact on the target population. It was agreed that this conclusion needed to be stated explicitly, but briefly, in the PP. With respect to water supply, the Committee decided that other donors were doing as much as can be done within the constraints in

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promoting clean water sources. However, this may be an area USAID may get involved with in the future if evaluations show that the other donors are not doing enough.

3. The project seems to emphasize increases in the supply of health services while placing much less emphasis on increasing demand for these services. The Design Team noted that in some target areas, the PP reflects an implicit assumption that the demand is there, but also recognizes that in a few areas the project will also need to increase demand to meet the target levels. After discussion, the Committee decided that statements should be included in the PP that recognize the need to increase demand as well as supply to meet the target service levels. While in the judgment of its designers project activities now provide adequate support for demand generation (health education, consumer incentives, etc.), it was agreed that this was an aspect of the project which needed careful attention, and perhaps operational research, during implementation.

4. Annex 4A of the PP states that 23 percent of hospital deaths of under-fives in 1983 were caused by malnutrition and/or gastro-intestinal disease. The Committee expressed concern that, given this high proportion, the project may not place enough emphasis on nutrition efforts. However, the Design Team noted that data related to malnutrition is very difficult to obtain and is not always reliable due to the closely interrelated nature of malnutrition and disease. The project will be closely involved in disease related aspects of malnutrition but not the food related aspects. The Committee agreed that early in implementation the project should provide short-term technical assistance to ascertain more clearly the malnutrition related activities of the project.

### Contractor Team/Input Issues:

1. The Committee raised some questions concerning the coordination of the three management members of the technical assistance team to assure that their recommendations to the Ministry of Health (MOH) are consistent and uniform. The proposed Project Implementation Committee, which includes other donors and mainly technical officers from the MOH, may not meet these concerns. The review Committee agreed that the management advisors have different but related functions that closely impinge on each other; thus the coordination of management inputs and recommendations needs careful attention by the Chief of Party (COP). The Request for Proposals (RFP) should request that a mechanism be proposed to coordinate the technical assistance team internally.

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2. With reference to the relative balance between technical and management technical assistance, the Design Team observed that the "technical" advisors (MCH physician and Family Nurse Practitioner) are also administrators and coordinators and thus the complete team are heavily involved in management and administration. The Design Team also felt that conceptually, the specific work requirements of the three administrative/management advisors can be completed within the first 2 or 3 years of the project. However, the PP acknowledges that some uncertainty is unavoidable regarding precise timing of completion of the management initiatives; the first project evaluation will closely examine this issue.

3. The PP is unclear concerning the intended counterparts for some of the long-term advisors. Also, the level of the identified counterparts in the MOH is such that high-level MOH management is not integrated into the day-to-day project operations. The review Committee decided that the PP and the job descriptions for all of the long-term advisors must specify clearly and specifically who the counterparts are. Also, since the project affects a broad range of operations within the MOH, close contact on a systematic basis between the COP and the Principal Secretary and/or the Undersecretary in the MOH should be maintained. The job description for the COP will include a requirement that he/she maintain such contact, perhaps monthly, using a short summary of project activities and issues as the basis of discussions with the Principal Secretary and the USAID Project Officer. In addition, the Project Agreement should include the provision that the Project Implementation Committee should be chaired by the MOH Principal Secretary to assure MOH management involvement.

4. The budget line item for in-country training includes training of Public Health professionals at the Swaziland Institute of Health Sciences. The Committee concluded that funding this type of training is inconsistent with USAID policies and that it should not be funded out of the project. The funds will be kept in the in-country training line item to cover other in-country training costs and the PP will be changed accordingly.

Administrative/Financial:

1. The AID/W field authorization delegation is based on the understanding that the PP will contain an adequate, workable plan as to how the project will be implemented. The Regional Legal Advisor ascertained that the PP satisfies all statutory design requirements; detailed scopes of work, illustrative

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commodity lists, a procurement plan and contracting plan are all included. The implementation plan, however, only includes activities for the first two years. The Committee decided that the PP must include an indicative implementation plan for the last three years of the project as well. The mix and level of project inputs are basically an informed judgment by qualified and experienced professionals, based on extensive analysis, and the Mission feels that the PP adequately delineates planned project activities.

2. Discussion on the use of centrally-funded projects raised the concern that the PP should not detail too specifically the centrally-funded resources because the Mission cannot commit them. The Committee decided that the PP should include a short summary of "project-related inputs" from centrally-funded projects where there is a reasonable expectation to anticipate complimentary assistance from these sources.

3. The PP contained little mention of the role of the Institute of Health Sciences (IHS) in the project. The review Committee would like the PP to reflect that the Mission is continuing the close relationship with the Institute of Health Sciences and that the IHS is integral to meeting the target service levels; and include a better description of the role of the IHS in the project, particularly related to in-country training.

4. The review Committee expressed concern whether the GOS would accept the CP related to vehicle maintenance. It was stated that the MOH Principal Secretary had an understanding with the GOS central Ministries and with the Central Transport Administration (CTA) that MOH vehicles could be maintained outside of CTA. The mechanism to enable this to take place and to decrease the levy on petrol by the amount for CTA maintenance must still be agreed upon. The Committee decided that the project must include repair work outside of CTA for the project-funded vehicles at least. The proposed Condition Precedent to Disbursement for Vehicles should remain given that the MOH feels they can get agreement. Also, the attempt to influence CTA through project funding of the outside repair work for the first two years is worth the effort, even if the outside repair work only continues for two years. The project designers should coordinate closely with the Principal Secretary of Health and other Principal Secretaries to assure that the understandings are correct and all parties are agreeable to the proposed activities.

5. In the past, the MOH budget was categorized by the percentage of the budget for "preventive" and the percentage

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for "curative" services. The project budget however, makes the distinction in terms of "curative" related versus "primary health care" related. The PP makes this distinction because the MOH budget includes a line item for "preventive" activities which is too restrictive and the focus on "primary health care" activities more fully represents the MOH commitments under this project. The Design Team also noted that primary health care costs include percentages of various line items, such as personnel costs, based on assumptions of how much time, effort, etc. is used for primary health care purposes. These clarifications were acceptable to the review Committee.

The required level of GOS project inputs in the overall program are estimated to be E3,909,000 which will be financed through (a) an additional 2 percent real increase in the MOH budget and a 1 percentage point increase per year in the portion of the MOH recurrent budget devoted to primary health care (est. E3,489,000) and (b) alternative financing methods where the extra-budgetary funds will be spent on MOH health services (est. E1,000,000). The PP proposes that the GOS contribution be tracked through the increase in the MOH primary health care budget plus the funds raised through alternative financing methods, rather than by an accounting for specific inputs. Recognizing the need for mutually agreed base-line data, however, USAID and the MOH should agree early in the project on the basis for allocating line items to "primary health care" and to "other" services.

As stated in the PP, by counting the proposed increases in the primary health care related budget and the extra-budgetary funds as the GOS contribution, the host country contribution will be 28 percent of total project cost (not including GOS costs for contractor offices, supplies, housing and furniture). However, it is also apparent that by counting GOS contributions in the traditional way (including all project related expenditures), the GOS contribution will still be well over the required 25 percent of total project cost. The Committee noted that in the event the innovative methodology for ascertaining host country contribution proves unworkable, the more usual method of counting should be utilized.

6. The PP states that a local hire USAID Administrative Assistant will be required to handle the workload created by the project. The Committee agreed that at least while the Health IDI is on board, USAID has adequate staff to manage the project properly and that the provision for additional USAID staff will be deleted from the PP.

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7. The review Committee requested the PP design team to reexamine the budget assumptions for the long-term technical advisors. The budget is very tight and does not include a line item for home office support even though it is likely that a full-time home office technical person will be proposed by most offerors. The Committee agreed that the budget is very tight but that the Mission should go ahead with the contracting process and see how the bids come in, noting also that PVO's are eligible for the contract and that their costs typically are less than contract firms.

8. The review Committee felt that in the proposed weighting of the criteria for contractor selection too much weight was given to the written proposal itself (35%) and not enough to the qualifications of the proposed personnel (25%). The firm's experience was weighted 40%. The concern underlying the proposed weight on personnel centered around the common problem of proposed personnel being withdrawn after a contract was awarded. The Committee decided that to reflect the importance of having the best people to implement this project the weight given to the written proposal should be reduced to 25 percent, the weight given to the qualifications of the proposed personnel raised to 40 percent and the weight given to the firm's experience and commitment should be 35 percent. In addition, to address the concern re withdrawal of proposed personnel the RFP should state that bidders must "provide evidence" that the personnel submitted are available instead of just "making assurances."

### Summary Issues:

1. The review Committee expressed concern about meeting the goals of the project given the present level of absorptive capacity in the MOH, uncertain knowledge of the causes of sickness and death, and the effects of traditional medicine. The Mission realizes that the stated service delivery targets are very ambitious. However, they were made ambitious to provide incentive for the MOH to give major priority to the objectives of this project. The design team feels that the problems in the MOH have been factored into the targets and that absorptive capacity will be able to handle the increased service loads. The assessment by qualified and experienced technical personnel concludes that the project is appropriately scaled within the present and future capacity of the MOH to carry out the project and that the targets can be met.

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2. With respect to the adequacy of project resources to achieve the ambitious target service delivery levels set in the project, the Design Team pointed out that the overall program includes resources outside of the project such as CCCD, Project HOPE, the Swaziland Manpower Development project (for training and development communications) and some centrally-funded project activities. The size of the AID inputs therefore are considerably larger than just the project inputs and represent an interrelated large effort at meeting the target service levels. The Committee agreed with this assertion, but would like to see the development of other donors in the sector that are currently not active in the sector so that USAID is not the donor of first resort in each instance.

Following the careful analysis of project activities and issues as delineating above, the review Committee has arrived at the informed judgment that the issues have been resolved, the project is realistic and establishes a reasonable time frame for carrying out the project, and recommended project authorization.

Clearances:

USAID/S/AHDO;MPSelvaggio	<i>M.P. Selvaggio</i>	Date	8/16/85
USAID/S/RHPDO;CDeBose	<i>C. DeBose</i>	Date	8/18/85
USAID/S/RECON;NCohen	(DRAFT)	Date	8/14/85
USAID/S/CONT;GByllesby	<i>G. Byllesby</i>	Date	8/14/85
USAID/RLA/SA;GBisson	<i>G. Bisson</i>	Date	8/19/85
USAID/S/PPD;SSmith	<i>S. Smith</i>	Date	8/16
USAID/S/DD;HJohnson	<i>H. Johnson</i>	Date	
USAID/S/DIR;RHuesmann	<i>R. Huesmann</i>	Date	8/20/85

August 21, 1985

Attachment 4

ACTION MEMORANDUM FOR THE DIRECTOR

FROM: Scott E. Smith, PPD

SUBJECT: Request for Positive Determination to Permit Local Cost Financing of Commodities and Commodity-related Services for the Primary Health Care Project (645-0220)

Discussion and Justification:

The Primary Health Care Project will be financing the purchase of various commodities and commodity-related services in support of the Ministry of Health's efforts to reach project objectives. Many of the items needed in the project are readily available in Swaziland. Smooth and timely implementation of project activities are more assured if USAID can finance the purchase of needed items in local currency.

Handbook 1B, Chapter 18 A 1 C (1) provides, "In order to support the recommendation for local cost financing for a project, the Mission Director is required to make a determination, based on a reasonable analysis of the supply and prices of indigenous and shelf item goods and services expected to be required, that such prices are reasonable, taking into account comparable delivery terms and prices from eligible sources, and the implementation schedule of the project."

Given the well-developed commercial market in Swaziland, the ready availability of a wide variety of types of goods which will be required in the project, the favorable present and foreseeable exchange rate between the lilangeni and the U.S. dollar, and the assumed positive effect which local procurement of needed commodity inputs will have on project implementation, the test of Handbook 1B appears to have been met.

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Recommendation:

That by your signature below you determine that local cost financing of commodities, within the limits and restrictions detailed in Handbook 1B, Chapter 18, be authorized in the Primary Health Care Project.

Approved: *R. Hersman*

Disapproved: \_\_\_\_\_

Date: 8/21/85

CLEARANCE: CONT:GLByllesby: *g*  
RHPDO:CDeBose: *C.D.*  
RLA/SA:GBBisson: \_\_\_\_\_  
DD:HRJohnson: \_\_\_\_\_

Swaziland Primary Health Care Project  
(645-0220)  
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  - B. Interim Report (Mbabane 1553)
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  - A. Detailed AID Project Budget and Assumptions
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  - C. Illustrative Requirements for Short-Term Technical Assistance
  - D. Detailed Estimates of In-Country Training Requirements
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8. Implementation Plan Details
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10. Other Donor Activities in Primary Health Care

List of Acronyms

AFR/RA	Office of Regional Affairs, A.I.D. Bureau for Africa
ARI	Acute Respiratory Infections
BCG	Bacille Calmette-Guerin (tuberculosis vaccine)
CCCD	Combatting Childhood Communicable Diseases Project
CDSS	Country Development Strategy Statement
CDC	U.S. Centers for Disease Control
CMS	Central Medical Stores
CTA	Central Transport Administration
DEPS	Department of Economic Planning and Statistics
DET	Department of Establishments and Training
DPT	Diphtheria, Pertussis, and Tetanus immunization
EEC	European Economic Community
EPI	Expanded Program of Immunizations
FLAS	Family Life Association of Swaziland
FPIA	Family Planning International Association
GOS	Government of Swaziland
HEU	Health Education Unit
IDM	Institute of Development Management
IHAP	International Human Assistance Programs, Inc.
IHS	Swaziland Institute of Health Sciences
IPPF	International Planned Parenthood Federation
MCC	Mennonite Central Committee
MCH/CS	Maternal and Child Health/Child Spacing
MMHP	Mass Media and Health Practices Project
MOH	Ministry of Health
NGO	Non-Governmental Organization
ODA	British Overseas Development Agency
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PACD	Project Assistance Completion Date
PASA	Participating Agency Services Agreement
PHC	Primary Health Care
PHU	Public Health Unit
PIL	Project Implementation Letter
PIO	Project Implementation Order
PSC	Personal Services Contractor
RAPID	Resources for the Awareness of Population Impact in Development
RFM	Raleigh Fitkin Memorial Hospital
RFP	Request for Proposals
RHM	Rural Health Motivator
RHMT	Regional Health Management Team
RN	Registered Nurse
SCF	Save the Children Foundation
STD	Sexually-Transmitted Diseases
SWAMDP	Swaziland Manpower Development Project
TB	Tuberculosis
TBA	Traditional Birth Attendant
UNDP	United Nations Development Program
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Childrens Fund
WFP	World Food Program
WHO	World Health Organization

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DRAFT PROJECT AUTHORIZATION

NAME OF COUNTRY: Swaziland

NAME OF PROJECT: Swaziland Primary Health Care

NUMBER OF PROJECT: 645-0220

1. Pursuant to Sections 104(b) and 104(c) of the Foreign Assistance Act of 1961, as amended, I hereby authorize the Swaziland Primary Health Care Project for Swaziland (the "Cooperating Country") involving planned obligations of not to exceed Five Million Seven Hundred Thousand United States Dollars (\$5,700,000) in Grant Funds over a five year period from date of authorization, subject to the availability of funds in accordance with the A.I.D. OYB/allotment process, to help in financing foreign exchange and local currency costs of the project. The planned life of project is through December 31, 1990.

2. The project seeks to improve the health status of Swazi children under five years of age and of women of child-bearing age to be measured by decreases in childhood mortality and by increases in life expectancy. The project will improve maternal and child health/child spacing (MCH/CS) services focusing on eight specific primary health care areas.

3. The Project Agreement, which may be negotiated and executed by the officer to whom such authority is delegated in accordance with A.I.D. Regulations and Delegations of Authority, shall be subject to the following essential terms and covenants and major conditions, together with such other terms and conditions as A.I.D. may deem appropriate.

4. a. Source and Origin of Commodities, Nationality of Services

Commodities financed by A.I.D. under the project shall have their source and origin in the Cooperating Country or in the United States, except as A.I.D. may otherwise agree in writing. Except for ocean shipping, the suppliers of commodities or services shall have the Cooperating Country or the United States as their place of nationality, except as A.I.D. may otherwise agree in writing. Ocean shipping financed by A.I.D. under the project, except as A.I.D. may otherwise agree in writing, shall be financed only on flag vessels of the United States.

b. Conditions Precedent to First Disbursement

Prior to the first disbursement under the Grant or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made, the Grantee will, except as the Parties may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D.:

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(1) a statement of the name of the person holding or acting in the office of the Grantee and of any additional representatives, together with a specimen signature of each person specified in such statement; and

(2) evidence that the position of Health Training Officer has been established in the Ministry of Health, and that the position has been filled with a qualified individual.

c. Additional Disbursement: Project Vehicles

Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for procurement of vehicles under the project, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D. a plan for maintaining and repairing these vehicles and evidence that a program for any driver education necessary for the effective use of these vehicles has been established and adequately funded.

d. Additional Disbursement: Radio Procurement

Prior to disbursement under the Grant, or to the issuance by A.I.D. of documentation pursuant to which disbursement will be made for procurement of radios, the Cooperating Country shall, except as A.I.D. may otherwise agree in writing, furnish to A.I.D. in form and substance satisfactory to A.I.D. a plan which identifies facilities in which radios will be placed and a maintenance and repair program both for radios to be procured under the project and for other radios used by rural health facilities, which shall include adequate budgetary provisions for maintenance and repair.

e. Covenants

The Cooperating Country shall covenant, except as A.I.D. may otherwise agree in writing, that:

- (1) The proportion of the recurrent budget of the Ministry of Health devoted to primary health care will increase by at least 5 percentage points over the life of the project;
- (2) It will improve the conditions of service for rural health providers through the establishment of incentives packages, or by other means;
- (3) It will investigate and experiment with various forms of finance for health services in addition to normal Cooperating Country budgetary resources with a view to increasing by One Million Emalangi (E1,000,000) during the life of the project the amount of extra-budgetary funds spent by the Ministry of Health on health services;

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- (4) It will assure that each long- and short-term advisor funded under the project will have a Swazi counterpart during the entire length of his or her assignment;
- (5) In recognition of the need to address development problems arising from Swaziland's rapid population growth, it will establish a high-level committee to review population issues and make recommendations leading to the adoption of a policy supportive of voluntary child spacing during the early years of the project; and
- (6) Persons in the Ministry of Health receiving training in the United States and other countries outside Swaziland under this project and under the Swaziland Manpower Development Project (A.I.D. Project Number 645-0218) in areas supportive of the objectives of this project, will return to Swaziland to work in the Ministry of Health in areas for which they have been trained for a minimum of twice the length of time of such overseas training.

## Executive Summary and Recommendations

### A. Financial Plan

The total project budget is \$7,945,000, of which the AID contribution is a \$5,700,000 grant. This is made up of long- and short-term technical assistance (\$3,399,000), overseas and in-country training (\$1,240,000), commodities (\$509,000) and the costs of operations research, other studies, project monitoring and evaluations (\$552,000). The Government of Swaziland (GOS) contribution to the project is the equivalent of \$2,245,000, approximately 28% of total project costs. The GOS will increase the Ministry of Health (MOH) recurrent budget by 2% a year in real terms and increase the proportion of this budget devoted to primary health care by a total of 5 percentage points over the life of the project. In addition, the GOS will undertake to implement alternative health financing programs intended to increase by \$500,000 the amount of extra-budgetary resources devoted to health care during the project period. Thus, the GOS contribution to the project is the value of the additional expenditures on primary health care which will be made as a result of these actions. See Section II., pp. 23-28, for further details on the project's financial plan.

### B. Term of the Project

The PACD for the project is December 31, 1990, providing for an implementation period of approximately five years.

### C. Project Background and Description

The GOS, with assistance from AID and other donors, has invested heavily to improve and expand primary health care throughout the country during the past decade. Although there has been vast improvement in the training and placement of rural health personnel and accessibility to clinic facilities, and although the Government has adopted a health policy which emphasizes preventive health care, there has been only moderate improvement in infant/child mortality and morbidity since 1975.

Child mortality and morbidity in Swaziland is very high compared to other countries in the region with similar per capita incomes. Infant mortality is estimated at 105/1000, and close to one quarter of all children die before reaching the age of five. These high rates are attributed to the complex group of childhood diarrheas, infectious diseases, pneumonia, and malnutrition. To address this problem, the Government of Swaziland (GOS) has made substantial investments in its health system. The MOH has developed a five year plan which gives priority to preventive care, emphasizing maternal and child health, and has begun to decentralize the management of health services. However, improved maternal and child health/child spacing (MCH/CS) services are hampered by problems of ineffective management and support systems for health services, inadequate training for public health workers, logistical and transportation bottlenecks, and poor supervision of health personnel.

Significant improvements in MCH status and services can be attained in the next five years through focusing the increasing, but limited, health resources on improved management and delivery of these services. Much of the groundwork for a well-functioning primary health system has been laid. The project concentrates on key constraints which, if addressed, can provide significant improvements in the quality and reach of primary health care services in Swaziland by the end of the decade.

The goal of the project is to improve the health status of Swazi children under five years of age and women of childbearing age. The project purpose is to improve and expand the primary health care system in Swaziland, emphasizing eight specific MCH/CS areas: prenatal care, perinatal care, post-partum education, childhood immunization, oral rehydration therapy, growth monitoring, child spacing, and treatment of infectious, parasitic and lower respiratory diseases. An analysis of the health system by AID, the MOH, and outside consultants concluded that a focus in these areas will produce the maximum impact on current health problems. The project sets out end-of-project service targets in each of these areas, which will be the key operational objectives of the MOH over the next five years.

AID inputs under the project have evolved from an analysis of what is required to achieve the eight service targets by the end of 1990, activities currently underway or planned in these areas, and the assistance gaps which remain. They are designed to supplement resources provided by the GOS and other donors and other AID projects in the eight primary health care areas. Assistance is proposed both to the service delivery level and to improve management and support systems. The project provides long- and short-term technical assistance, overseas and in-country training, funding for operations research and other monitoring studies and evaluations, and a limited amount of commodities. The planned activities to achieve the service targets in the eight MCH areas respond to the technical, administrative, social, and financial analyses conducted during project design. These analyses concluded that the project targets and activities are achievable and feasible, and that the project design is sound.

#### D. Contracting Considerations

The project is complex and requires a contractor with a wide range of experience and technical and managerial expertise. Consideration was given to a list of small, small disadvantaged, and women-owned firms supplied by AID/W, but the Mission concluded that a fully competitive process was called for by the requirements of the project. "Gray Amendment" firms, as well as PVOs, will be encouraged to present proposals, either as prime contractors or as subcontractors, to provide services under the project.

E. Waivers Required

No waivers are expected to be required for project implementation.

F. Major Conditions Precedent and Covenants

A condition precedent to initial disbursement is recommended regarding the creation of the position of Health Training Officer in the MOH. Conditions precedent to disbursement for vehicles and radios are also included. A variety of covenants relating to health financing, population policy, and counterparts for technical advisors financed under the project will be included in the Project Agreement. A completed statement of the proposed conditions precedent and covenants is found in the draft authorization (pp. iv-vi) and Section VI., pp. 46-47.

G. Project Design Team

The project design team was made up of the following individuals:

USAID - Dr. Charles DeBose, Regional Health and Population Officer, USAID/Swaziland  
Scott E. Smith, Program and Project Development Officer, USAID/Swaziland  
Dr. Neal Cohen, Regional Economist, USAID/Swaziland  
Mary Pat Selvaggio, Assistant Health Development Officer, USAID/Swaziland  
Bruce Stader, Regional Commodity Management Officer, REDSO/ESA  
James Anderson, Regional Contracting Officer, REDSO/ESA

Ministry of Health - T.M. Zwane, Principal Secretary, MOH  
Dr. Ruth Tshabalala, Acting Director of Medical Services, MOH  
Sipho Hlope, Principal Personnel Officer, MOH  
Sister M. Makhubu, Chief Nursing Officer, MOH  
Lucy Gilson, Acting Chief, Health Planning Unit, MOH  
Nestor Dlamini, Principal, Swaziland Institute of Health Sciences

Technical Advisors - John Alden, PRITECH Project Director  
Dr. Melvyn Thorne, Johns Hopkins University  
Dr. Z.M. Dlamini, Former MOH Director of Medical Services  
Charlotte Leighton, PRITECH Project Financial Analyst  
Ted Green, Anthropologist  
Kess Hottle, IHAP Health Administration Advisor  
David Alt, IHAP Personnel Advisor  
Dr. F. Guinness, OB/GYN Specialist, Mbabane Government Hospital  
Dr. E. McGrath, Pediatric Specialist, Mbabane Government Hospital

## SWAZILAND PRIMARY HEALTH CARE PROJECT PAPER

### I. Project Rationale and Description

#### A. Primary Health Care in Swaziland

This project takes a sectoral view of primary health care in Swaziland. Through the variety of studies and analyses that have been conducted over the past several years (see Annex 4B), a complete assessment of the health sector in Swaziland is available and forms the informational and analytical basis for this project. Working closely with the Ministry of Health (MOH) and other donors active in primary health programs in Swaziland, AID has examined the problems constraining expanded primary health services and has concluded that by giving priority attention to a limited number of areas a major impact can be made on Swaziland's relatively poor maternal and child health status over the next five years. An analysis was conducted by AID and the MOH, with the assistance of outside consultants, of present activities in primary health care and the areas in which prospects were the greatest for making rapid and significant improvements in maternal health and child survival. This Project Paper presents the conclusions of this analysis, our judgments as to the areas where attention should be focused, and the inputs required to achieve a substantial expansion in the quantity and quality of services in these areas.

Annex 4A provides a description of primary health care in Swaziland. This section of the PP summarizes this description and the recent history of the health system in the country.

From independence through the 1970s, Swaziland suffered from severe problems of poor health among its predominantly rural population, manifested by high rates of infant/child morbidity and mortality. Infant mortality, principally caused by tuberculosis, gastroenteritis, and nutritional and parasitic disorders, was estimated at 168/1000 live births in the mid-sixties. These problems were exacerbated by a poorly developed resource base to address rural health needs. The distribution of health services was highly skewed, with hospitals, doctors, and nurses concentrated in the urban areas. Despite the presence of many missions and private religious/industrial health centers, most of Swaziland's people living outside the Mbabane-Manzini urban corridor were unserved by the national health system. About 17% of the total population (those living in the urban areas) received most of the available health services both preventive and curative. In 1974, it was estimated that the 30 government-run rural clinics were reaching not more than 15% of the under-five population with preventive health services.

In the late seventies, the Government of Swaziland (GOS) defined the need to bring preventive-based health services to the people rather than waiting for the sick to come to urban areas for curative care. Recognizing that manpower shortages were a key constraint to the development of an expanded health system, the GOS, with AID support through the Health Manpower Training project, created the Institute for Health Sciences (IHS), an auxiliary health training institution established to train nurses, dental hygienists, health inspectors, midwives and mental health nurses.

To assure access to health facilities for all members of the population, the GOS obtained funding from the U.K. and the African Development Bank for extending and renovating the health delivery system in the rural areas, specifically the building and support of six public health clinics.

The Third Development Plan (1977/78-1982/83) stated the government's commitment to providing preventive care, especially in the rural areas. This commitment was later reiterated in a National Health Policy in 1983. A major objective of the Plan was to increase the proportion of resources devoted to preventive services, primarily in the areas of pre-natal care, health education, control of infectious diseases and water/sanitation related diseases.

With assistance from the AID-funded Health Planning and Management OPG to International Human Assistance Programs, Inc. (IHAP), the MOH has recently instituted a policy of decentralization to strengthen the delivery of health services for rural areas, giving priority to preventive services and primary health care. Through four Regional Health Management Teams and regional and community level health advisory councils, the decentralization process will involve all providers of health services and communities in health planning efforts, improve management of health resources, and improve supervision of health care in each of the four regions.

These policy changes and a number of projects undertaken in the sector represent a considerable investment by the GOS to improve and expand health care services since the mid-seventies. Yet, despite efforts to emphasize primary health care, expand health facilities, and train health personnel, Swaziland still has severe health problems which decrease the quality of life of its people. Life expectancy is low, principally due to the continuing high level of infant and child mortality. Although the infant and child mortality rate has declined to an estimated 105/1000 in 1984, it is still very high compared to other neighboring and similar income countries. Under-five mortality is calculated to be 21-22%, as compared to a range of 14-19% in the neighboring countries of Lesotho, Botswana, Zimbabwe, and Zambia. The high rates of infant/child mortality reveal continuing problems of chronic malnutrition, poor pregnancy outcome as measured by low birth weight and neonatal mortality, high prevalence of diarrheal and respiratory diseases, and low rates of completed immunizations. Many of these deaths can be easily prevented through simple and inexpensive means.

The primary causes of death among young children in Swaziland are the complex group of childhood diarrheas, infectious diseases, pneumonia, and malnutrition. The prevalence of preventable infectious diseases among children in Swaziland is disturbingly high. Although children could be easily immunized against all these diseases, a 1984 survey found that only 24% of Swazi children were fully immunized before 12 months of age.

Parasitic and respiratory diseases are also major contributors to mortality and morbidity in women and children in Swaziland. Ministry of Health mortality data for hospital admissions indicate that acute lower respiratory infections are the third leading cause of child death after diarrhea and malnutrition. Syphilis during pregnancy is believed to be responsible for up to 50% of stillbirths. Ascariasis is a major parasitic disease of both mothers and children. Although malaria was a relatively small-scale problem through most of the 1970's, the number of cases reported has increased significantly in the last few years. Malaria is particularly serious in pregnancy where it contributes to maternal anemia, nutritional deficiency, and leads to the birth of low birth weight babies with consequent high rates of morbidity and mortality.

Malnutrition and inappropriate weaning practices contribute to the high rate of infant mortality, both directly and through the interaction with diseases. Much of this undernutrition is believed to be associated with a high incidence of diarrhea and infectious diseases, inappropriate infant feeding practices (especially the early introduction of breastmilk substitutes), and poor sanitary conditions.

Fertility levels are also very high and have not significantly declined over the last twenty years. The estimated total fertility rate is approximately seven children per woman, contributing to an annual population growth rate of at least 3.4%. Although access to family planning services has improved since the late seventies, there exists substantial unmet need for child spacing services in Swaziland, especially in the urban areas.

Progress has also been slow in increasing the allocation of government resources to preventive and primary health care to reflect the MOH's policy emphasis, although the current budget does provide increased funding in these areas relative to the average of the last few years. Even with this increase, however, only approximately 16% of MOH recurrent expenditures are for primary health care.

In analyzing the current trend of child morbidity and mortality, the GOS and international donors in the health sector have identified the following constraints to delivering effective health services and reducing child mortality: ineffective management and inefficient support systems for health services; need for further training of all health personnel; logistical and transportation bottlenecks; and need for improved supervision of all health personnel.

In summary, the GOS, with assistance from AID and other donors, has invested heavily to improve and expand primary health care throughout the country during the last decade. Although there has been vast improvement in the training and placement of rural health personnel (primarily nurses) and accessibility to clinic facilities, and although there have been increased resources devoted to improving MOH management of primary health care and of clinic services, there has been only moderate improvement in infant/child mortality and morbidity since 1975. In comparison to its neighboring countries of Botswana and Lesotho, Swaziland is worse off in terms of maternal and child health.

Significant improvements in MCH status and services can be attained in the next five years through focusing the increasing, but limited, health resources on the better management and delivery of these services. Much of the groundwork for a well-functioning and successful health system has been laid - a substantial health cadre is in place, substantive changes in the administration of health services (decentralization) have been recently established, and a policy-level commitment to primary health care exists. Now, to achieve the GOS's goals of expanded quantity and quality of primary health care services by the end of the decade, certain key constraints need to be addressed. These include improvement of services currently being delivered, but not being delivered adequately; improved supervision of health personnel; the need for on-going training to assure sustained delivery of quality levels of care; improvement of logistical and transportation bottlenecks; and improved management and support systems for all health services. This project is designed to provide the support needed by Swaziland to address these problems.

The USAID/Swaziland health, population, and nutrition (HPN) strategy, as articulated most recently in the November, 1984 CDSS, identifies fertility and infant/child mortality as the two variables to which the Mission should devote its HPN resources over the next several years. There are, however, a few differences between the goals set forth in the CDSS for the health program and those established for this project. First, the CDSS expresses AID's target group in the health sector as children under two, rather than the under-five group targeted by this project. The reason for this shift is that the 0-5 age group is the target population for both the GOS Five-Year Plan and AID's child survival initiative, and is the generally recognized target group for MCH/CS programs worldwide. In view of the extremely high under-two mortality in Swaziland, however, primary emphasis will still be given to this younger age group by the project. Second, the CDSS goal of increasing the number of child spacing acceptors to 20% of reproductive age couples by 1990 has been decreased to 12% in this project. While the Mission started with the 20% target in the early phases of project design, based on the technical, administrative, and social/political analyses conducted this target appeared unrealistic given the current level of estimated continuing users of 4-5% and drop out rates of between 20-25%, depending on method selected.

As indicated above, the GOS has identified the provision of primary health care, with an emphasis on preventive services, as the core of the 1983 National Health Policy and its Fourth Development Plan. Accordingly, this project is in agreement with both GOS and USAID strategies in the health sector.

## B. Project Concept and Rationale

### 1. Goal and Purpose

It is possible to reduce Swaziland's child mortality rate to a level comparable to similar countries by 1990 through a two-pronged strategy. At one level is a direct approach to reduce the incidence of childhood diseases by improving service delivery, training of health workers, and instituting appropriate interventions such as ORT, pre-natal risk identification, and growth monitoring. To be effective at the service level, however, attention must also be given to improving the management of health resources. This combination of approaches should result in substantial achievement of the service delivery targets listed below, and, overall, could result in having a reasonably effective primary health care system in place by 1990.

The goal of the project is to improve the health status of Swazi children under five years of age and women of childbearing ages. Achievement of the goal will be measured by a 15% decrease in under-five mortality, an increase in life expectancy in Swaziland by three years by 1990, a 10% decline in maternal mortality, and declines in the incidence of diseases and health disorders targeted by the MOH. Although improving health status requires many changes ranging from expanded food production, better education, improved housing and sanitation, and expanded health services, this project does not address all of these. However, USAID and the GOS believe that improvements in primary health services targeted on mothers and children can make a significant difference in child mortality, child morbidity, overall health status, and eventually population growth. Thus, the project purpose is to improve and expand the primary health care system in Swaziland. To achieve the goal and purpose, the project focuses on the key health and administrative problems which can make a significant difference to delivery of primary health services, and a concomitant improvement in maternal and child health status.

### 2. Project Approach

The approach taken in the design of the project was to identify with the MOH a limited number of key areas within primary health care which, if given priority attention, would make a substantial impact on infant and child mortality in Swaziland. Based on an analysis of health problems and the health system in Swaziland, the MOH and USAID have concluded that a major effort in eight areas would have the most impact on the maternal and child health problems identified. In reaching this conclusion, a number of possible areas for intervention were considered, including water and sanitation, treatment and prevention of accidents, leprosy, mental health,

hospital and curative care, and substance/drug abuse (including alcoholism), as well as the eight areas described below. It was believed that these other areas were either already being addressed sufficiently by the GOS and other donors (e.g., water and sanitation), or had a lesser impact on the project's target group of children under five and women of childbearing age than the areas selected.

In each area, a target service level has been established for the end of the project, i.e., the end of 1990. Each target has been analyzed in depth by the MOH and USAID, with the assistance of outside consultants, and it is our combined judgment that, while very ambitious, the target service levels are achievable by 1990. Activities have been identified at all levels of the health system needed to expand the demand for and quality of services as required by these targets. Programs already underway or planned by the GOS and other donors and by other AID-supported projects were taken into account, and the remaining activities needed to supplement these efforts and to achieve the targets were planned through this project.

The service targets, or end of project status indicators, and a brief description of the changes that will need to occur in order to achieve them, follow.

1. To provide better, earlier, and more frequent pre-natal care to 90% of pregnant women. While a large number of pregnant women currently make pre-natal visits, there is no system in place to identify at-risk pregnancies and visits are often made late in pregnancy and usually not more than once. As a result, many women who have complications in delivery are not receiving care at a health facility, which causes infant and maternal deaths that could be avoided. Achievement of this target will involve better identification and care of at-risk pregnancies, assuring that at least 90% of pregnant women make at least one pre-natal visit to a health facility, and determining and reducing the incidence of neonatal tetanus.
2. To increase to 70% the number of births attended by health personnel or trained attendants. This target is aimed at improving the safety of deliveries, decreasing infections which result in neonatal and maternal deaths, and decreasing deaths due to complications of delivery. Current estimates are that approximately 45% of deliveries take place in maternities or with the assistance of a trained attendant. Within the overall total of 70% attended births, achievement of this target will also mean that at least 80% of at-risk deliveries occur in health facilities, and that the number of home deliveries assisted by trained attendants increases to 4,000 per year by 1990.
3. To provide post-partum education for 90% of mothers who deliver in a maternity. At present, virtually no post-partum education is provided in Swaziland. By emphasizing family planning, neonatal care, breastfeeding, and the importance of preventive health care for infants and young children, this aspect of the project is

expected to decrease early childhood mortality and have a substantial impact on the achievement of other targets.

4. To immunize fully 70% of all children under one year of age. In 1984, only about 24% of children under one were fully immunized. While the percentage is higher for individual immunizations and the number of children who would be fully immunized but for provider errors is high, achievement of this target will require a substantial expansion in the number of immunizations given. New ways to encourage mothers to bring their children for immunizations and to reach out into communities with immunization services will need to be implemented to meet this target. Related to the achievement of this target is the objective that 90% of children under one have child health cards, on which immunizations are recorded, by the end of the project.
5. To make ORT available to 90% of children under five years of age, and have ORT effectively used in 50% of the incidents of diarrhea in this age group. Through the AID-financed Mass Media and Health Practices (MMHP) and Combatting Childhood Communicable Diseases (CCCD) projects, a successful effort has been made in disseminating ORT technology and information. This effort must be sustained and the effective use of ORT expanded for this target to be met.
6. To perform growth monitoring routinely for 90% of all children under five years of age that identifies children with problems and leads to improved diagnostics, treatment and nutritional repair, plus effective education of mothers. Growth monitoring is presently done infrequently and ineffectively in Swaziland, as in many countries. Through the efforts of UNICEF and UNFPA, a new child health card has been produced and disseminated, which will be the basis for improved application of this technique over the life of the project. However, growth monitoring will only be effective if health providers have a means of dealing with children who are found to be failing. This requires improved detection of treatable diseases that may account for growth failure, as well as the development of a simplified package of nutrition interventions based on local resources.
7. To increase to 12% the proportion of women of reproductive age who are continuing users of child spacing techniques. Present estimates are that between 4% and 5% of women in the target age group are continuing users of contraception. The policy environment for family planning in Swaziland is poor, and a major effort at developing a more positive population policy is required if the target is to be attained. Achievement of the target will also involve expanded collaboration between the MOH and non-governmental organizations active in this area, such as the Family Life Association of Swaziland (FLAS).
8. To provide to children and women of childbearing age appropriate and timely treatment against major parasitic, infectious, and lower respiratory diseases. Priority attention will be devoted to

treatment for acute respiratory infections (ARI), malaria, worms (ascariasis), syphilis, and tuberculosis, the diseases which have the greatest impact on morbidity and mortality among children and women of childbearing age in Swaziland. Achievement of the target will require that 90% of clinic personnel are trained in proper diagnosis of these diseases; that de-worming, antibiotics, and other essential drugs are routinely available at 90% of clinics; and that effective health education messages are reaching 90% of mothers by the end of the project.

### C. Project Activities

A detailed look at each target service area is reflected in Annex 5B. This annex includes a summary of the current level of services in each area, the constraints to expanded services, the project outputs necessary to achieve each target, and lists of the principal activities and inputs which, based on present analysis and information, appear to be needed to reach the target service levels by the end of the project.

The project will support activities of three different types: 1) those directly related to improved service delivery, 2) those related to support for health service providers, and 3) those related to improving management and support systems. This section of the PP summarizes the main activities that will be emphasized directly related to expanding services in each of the eight areas, and identifies the inputs to be provided directly associated with these activities. Next, the discussion examines a number of activities that will be funded by the project which support service providers and impact on the achievement of several of the target areas. Finally, management and systems improvements needed to achieve the expanded service targets are described, and project assistance at this level is discussed.

#### 1. Activities Directly Related to Primary Health Services

##### a. Pre-natal care

The principal innovation that will be brought about by the project is the development of a system for designating risk in pregnancy. Risk factors must be identified based on the characteristics of each country. Therefore, an early area of attention will be operations research to establish procedures and practical criteria for identifying each pregnant woman by risk. A protocol will be developed by the Ministry of Health's MCH Committee and will be the basis for preparing manuals for health providers which include the identification, care and referral of at-risk pregnancies. Additional priority activities in this area include (1) research on the incidence of neonatal tetanus in Swaziland and establishing a policy regarding routine tetanus toxoid immunizations as part of pre-natal care; (2) assistance to the MOH to revise and test a patient-retained pre-natal card; and (3) development of a protocol for syphilis testing, diagnosis, and treatment for pregnant women.

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#### b. Attended deliveries

In 1984, of the total of approximately 32,000 births which occurred, an estimated 14,500 took place in maternities. To reach the project target, approximately 22,500 deliveries will need to occur in maternities by 1990. This appears feasible, based on physical expansion already underway and reasonable assumptions about greater efficiency in the use of existing facilities at the principal and secondary hospitals and health centers in the country.

The major effort under the project will be directed at referring a high percentage of at-risk pregnancies to health facilities for delivery and at capacitating these facilities to deal with a higher proportion of at-risk deliveries. The focus will necessarily be on referring at-risk women to hospitals for delivery. In addition, many clinics have small (4 beds or less) maternities which are very underutilized at present. A series of constraints have been identified which help to explain the poor use of these facilities. The project will explore means of increasing the utilization of these maternities, including the provision, initially on a limited and experimental basis, of improved communications, emergency transport, incentives for clinic nurses, and waiting huts and cooking facilities for pregnant women at the clinics.

The project will also focus on training and equipping Rural Health Motivators to assist in more home deliveries of low-risk pregnancies following screening by clinic nurses.

#### c. Post-partum education

The project will help develop a new program of post-partum education, starting with the larger hospital maternities, where over half of the institutional deliveries occur, and expanding to smaller facilities and clinics over the life of the project. Maternity nurses do not now have much substantive contact with post-partum patients. Therefore, initial activities will be directed at identifying the appropriate providers of educational messages, motivating service providers in this area, and involving nursing staff in the development of this program. The project will then finance the preparation of materials on which the education effort will be based.

#### d. Immunizations

The Expanded Program of Immunizations (EPI) in Swaziland is presently the focus of attention of the CCCD project, as well as UNICEF activities, and this target will be met largely through these projects. Most of the vaccines, in-service training and transportation required to expand immunizations coverage substantially will be provided from these sources. To complement these inputs, responsibility for giving immunizations will be reassigned to nursing assistants, training (in addition to that provided by CCCD) will be provided to them, and operations research will be financed on incentives to communities and mothers and children to complete the full series of immunizations.

e. Oral rehydration

Continuing activities under the CCCD project will maintain and expand Swaziland's impressive effort in ORT and improve the effective use of ORT in the treatment of childhood diarrheas. Complementary assistance to expand the distribution of ORT through non-health agencies, such as women's organizations and schools, and to improve back-up services (e.g. nasogastric tubes and/or IV sets and solutions for hospitals) for the treatment of severely dehydrated children who cannot take fluids orally will be funded through this project.

f. Growth monitoring

An early focus will be on trying to implement routine growth monitoring effectively. While the use of the growth chart appears simple in concept, experience in Swaziland and elsewhere indicates that it is very difficult to implement well. New child health cards have been produced and are being distributed, and UNICEF plans to train most health workers and agriculture and home economics extension workers in growth monitoring over the next several years. This project will develop and implement means to improve detection of treatable diseases that may account for growth failure, and develop simplified nutrition interventions based on local resources. In addition, the project will expand the use of health centers and clinics with cooking facilities as nutrition rehabilitation sites (mothercraft centers).

If the target of reaching 90% of children under five with routine growth monitoring is achieved, a sizable expansion in the number of weighings and consultations between health providers and mothers will be required. To some extent, this can be accomplished by assigning responsibility for weighing and growth screening to nursing assistants and RHMs. The project will also explore ways to increase outreach for growth monitoring and other preventive health interventions, for example, through community meetings, schools, and trade fairs.

g. Child spacing

Project activities will concentrate on two levels: population policy and service provision. In the policy area, the GOS has recently formed a high level Population Committee, under the chairmanship of the Principal Secretary of the Department of Economic Planning and Statistics. However, the Committee has yet to meet; encouraging this process to continue will be a primary aim of the Primary Health Care project. The project will provide assistance to this committee, including the re-representation of the RAPID program for Swaziland (with central AID/W funding) in conjunction with a local institution.

At the service level, the project will fund expanded availability of contraceptives, improve contraceptive re-supply systems, expand information and education activities related to child spacing, attempt to identify and resolve problems associated with the use of various contraceptives, and improve information on

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contraceptive prevalence and continuation and complication rates. The number of health facilities offering regular child spacing counselling and services will increase by 30-40 over the project period, almost doubling the number of facilities providing these services. While the project will work directly with the MOH, collaboration between the Ministry and NGOs such as FLAS will be expanded.

#### h. Treatment of priority diseases

Treatment is already provided by the health system for the priority diseases included in this target area. For example, malaria is receiving priority attention under the CCCD project. Working with the Centers for Disease Control (CDC), Project HOPE, and other donor agencies, this project will focus on developing and improving protocols for the treatment of these diseases, and on the improvement of drug supplies and laboratory services to support expanded activities in this area.

### 2. Activities Which Directly Support Service Providers

In addition to the specific activities described above, the project will finance a number of activities which directly support the capacity of service providers to perform more effectively in several target areas. The principal activities of this nature are briefly described in what follows.

#### a. Training

Training of health providers is a priority for the achievement of all of the targets. In some areas, the training required is to refresh or update the knowledge that providers have already received through previous pre-service or in-service training. In others, such as determination of at-risk pregnancies, post-partum education, growth monitoring, and nutrition interventions, new approaches will be introduced through the project and training will be required for the personnel who will be responsible for administering these programs. In addition, the project proposes a reassignment of several activities, including pre-natal care, immunizations, and weighing and growth screening, to nursing assistants, and this cadre will need to be trained in these new areas. The principal focus for training efforts will be nurses, nursing assistants, and RHMs, although some attention will also be given to accountants, store keepers, planners, and members of Regional Health Management Teams. The CCCD project provides funding for in-country training in many of these areas, with which training can begin immediately. This project supplements these resources. An illustrative list of the types and frequency of in-service training courses that will be financed by the project is included in Annex 7D.

The majority of project-financed training will be carried out in Swaziland, mostly at the regional level. Many of the courses developed will be repeated for similar groups of trainees various times over the next several years. To complement in-country training, provision is also made for a limited amount of overseas training.

At the Swaziland Institute of Health Sciences, the GOS has the capacity to train certain cadres of health personnel appropriate to the country's needs. The Institute now trains staff nurses, midwives, community mental health nurses, family nurse practitioners, health inspectors and dental hygienists. Plans are underway for IHS to begin training public health nurses and health assistants. At present, the Institute has the capacity for 120 female students and 60 male students. The faculty consists of thirteen full-time Swazi tutors, in addition to a small number of expatriates supported by USAID, WHO, and ODA. The IHS is now an important part of the MOH that has been highly successful in the development of mid-level, well-qualified Swazis to fill primary health care positions.

Under this project, the Institute will broaden its primary focus on pre-service training and have a major role in supporting in-service training activities. As indicated above, in-service and refresher training programs are critical to the success of the project, because many health workers need skills to function in new work areas and others need their skills and knowledge updated to carry out their functions.

The MOH will establish a position of Health Training Officer and will fill this post within the next several months, before project activities begin. The Training Officer will be located at IHS; this location will involve the Institute to a much greater degree in in-service training than has been the case up to now. This person will be a key participant in planning and organizing in-country training, and in projecting the in-service training needs of health providers and support staff during the next five years. With the assistance of faculty members at IHS and technical staff from the Health Education and Mbabane Public Health Units, the Training Officer will assist other MOH divisions and the Regional Health Management Teams develop and implement curricula, courses, seminars, workshops and training methodologies and materials. With the leadership provided by the Training Officer, IHS will coordinate the planning and scheduling of all in-service training programs to prevent duplication and to utilize better the small number of local trainers.

To assist in this effort, the Health Training Officer will be provided with short-term training under the project. In addition, 4 person-months of short-term technical assistance, and a vehicle (bus) are planned to support training activities at IHS. With this assistance, the Institute and the Ministry are expected to be able to continue to plan and execute in-country training programs on a routine basis in the future.

#### b. Transportation and communication

The absence of reliable transportation and communication adversely affects expansion of services in several target areas. For example, the lack of a telephone or radio link to a higher level facility or doctor, and the absence of reliable emergency transportation, have been identified as among the reasons why more

deliveries are not performed at clinics. Transportation affects the supervision of clinics, and with it the improved motivation of rural health providers that can come through regular visits from supervisors. Likewise, the absence of adequate transportation and communication affects the reliability of drug supply and the ability of the system to perform laboratory tests (e.g. for syphilis, TB, or acute respiratory infections) and to communicate the results back to the service level. The project provides funding for the procurement of vehicles and radios to supplement those now available.

Clearly, solving these problems involves more than supplying vehicles or radios to serve rural clinics. Maintenance is a serious consideration, as is the availability of sufficient operating costs for vehicles. Even driver's education has been a problem in previous projects which have provided vehicles to rural providers. The Ministry of Health is conducting a detailed analysis of its experience with vehicle maintenance and has concluded that serious delays characterize vehicle maintenance performed by the Central Transport Administration (CTA) for the Ministry. Therefore, the MOH will be allowed to contract with a private garage for repair and maintenance of project vehicles. A limited amount of funding is included in the project budget to cover these costs for the first two years after the vehicles are purchased. An early project activity will be an analysis of communication problems in clinics, which will recommend ways to address them. Radios will only be purchased as a last resort, when it is clear that telephone service is unavailable to a particular area, and only then when service and maintenance programs are in place for this equipment.

#### c. Laboratory services

Proper diagnosis of sexually transmitted diseases and other treatable diseases affecting mothers and children will have a major impact on reducing morbidity and mortality from these diseases. At present, lab services are poor in Swaziland. The project will provide funding to supplement the equipment and supplies at nine regional laboratories and at the central laboratory to address this area. In addition, the alternatives of privatizing some laboratory services will be explored. A separate grant to Project HOPE will fund training for laboratory technicians, which will also support this objective.

#### d. Health education messages

The need for health education messages and materials cuts across all areas in which the project will be involved. Through the technical assistance and training provided to the Health Education Unit by past AID projects (Rural Water Borne Disease Control, MMHP) and WHO, the basic capability now exists to develop, produce and disseminate quality materials to support the expanded service targets. The CCCD project also provides assistance in health education related to its three priority areas of concern. The project will provide short term technical assistance to help with specific materials development, funding for production and dissemination of new materials, and a limited amount of audio-visual

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equipment. The latter will be used primarily to support the post-partum education program and family life education and child spacing activities undertaken by NGOs such as FLAS. In addition, the project includes funding for training in U.S. and African universities for additional health educators to fill recently-established and proposed positions in the MOH.

#### e. Clinic management

The principal interface between the primary health care system and the target group for the project is the rural clinic. Expansion of services of the magnitude required to achieve the targets will require significant improvements in the productivity of clinic staff. In the design of the project, the reassignment of certain primary health care functions from the clinic nurse to nursing assistants and RHMs has been discussed as one way of addressing this issue. Improved supervision, emphasizing more frequent contact and positive reinforcement of clinic activities, will also be implemented through the project. In addition, the MOH has recently examined closely the terms of service of its primary health care staff, and has proposed modifications in its personnel grading system and salary package aimed at improving the conditions of service for these providers. Because of the importance of improved motivation of primary health care staff to the achievement of project targets, a covenant will be added to the project agreement regarding the implementation of these or similar changes. The project also provides resources to experiment with and replicate other possible incentives or rewards for superior clinic service.

In addition to these measures, the project will provide a long term advisor for the first two years of the project to work closely with the MOH and the Regional Health Management Teams to improve the management and productivity of clinics. Based on a comprehensive study of constraints to expanded clinic services to be conducted during the first months of the project, the advisor will help the Ministry identify a minimum of four (one per region) clinics in which a full package of improvements will be implemented on an experimental basis in an effort to judge the maximum productivity gains possible and to identify problems with any of the elements of the package. This experimental program will be closely evaluated with the assistance of the clinic management advisor and plans developed for improving clinic efficiency throughout the system.

### 3. Management and Systems Support

Much of the assistance needed to achieve the service targets by 1990 is related to the overall management of the health system, particularly within the MOH (see the Technical and Administrative/Institutional Analyses, Annexes 6A and 6B). The major area of need identified was support for the implementation of the administrative decentralization of the health system. Additional areas included coordination of MCH programs, planning and budgeting, financial management, health financing, monitoring of the performance of health programs and feedback to the service level, and nursing

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education. This section briefly discusses project activities designed in response to these requirements.

a. Decentralization

Decentralization has been chosen by the Ministry of Health as the principal means of improving the efficiency of the health system. Decentralization involves the integration of health services by all providers -- government, mission, and private -- at the regional level, and allows for a greater input from the local level in the planning and implementation of health services. It also is designed to improve communication, referral, and supervision among the various levels of health providers in a region by combining all elements of the health system in one administrative structure. To date, significant progress has been made on establishing the framework for decentralization through the creation of four Regional Health Management Teams and regional advisory councils. However, the decentralization effort has just begun, and 1986/87 will be the first fiscal year in which planning and budgeting at the regional level will be undertaken. The Regional Health Management Teams have only recently started to work together as a group, and in some regions this process is still in a very rudimentary state.

The decentralization of health administration has significant potential for improving productivity and local input and motivation, as well as for establishing a model which may be useful to other GOS ministries. While a new cadre of health administrators was recently approved and several people identified for these posts are in training, the present health administration advisor funded by IHAP under the Health Planning and Management project has been without a counterpart for much of his assignment and the capability to oversee and manage the decentralization process does not now exist within the MOH. Therefore, the project will include a full time advisor for at least three years to continue the work of the IHAP advisor and to assist the Ministry's senior health administrator. The need for continued assistance in this area will be evaluated in approximately two years, and recommendations made at that time regarding a possible extension of this assistance. The project will also provide training at IDM in Botswana for additional health administrators; graduate level training for up to two health administrators will be financed under the Swaziland Manpower Development project over the next five years.

b. Coordination of maternal/child health programs

The program described above is extremely complex and will require a substantial effort to coordinate. Within the MOH, the chief of the Mbabane Public Health Unit is responsible for overseeing MCH activities and will be the principal operational and technical officer in charge of the project's implementation. The PHU chief returned from long term U.S. training in July, 1985, and now needs experience in managing a complicated primary health care program. To assist in this effort, the project will provide the services of two long term advisors -- an MCH physician to serve as a

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direct counterpart to the PHU chief, and a family nurse practitioner with experience in family planning and midwifery, who will focus on project activities related to the reproductive process.

In addition, a Project Implementation Committee will be established and meet on a quarterly basis. The Committee will be chaired by the Principal Secretary of the MOH, and it will be composed of representatives from the MOH, USAID, the technical assistance contractor, the CCCD project, and other donors contributing to the primary health care program (e.g. UNICEF, UNFPA, WHO). It will serve as a means of monitoring progress toward project objectives, coordinating the inputs of the various donor organizations, and assuring that assistance provided by this project does not replace or duplicate activities carried out or planned by other agencies or projects.

#### c. Planning, budgeting and financial management

Assistance provided through the IHAP project has resulted in significant improvements in the MOH's macro-level planning and budgeting capabilities. This is demonstrated by the health policy statement issued in 1983 and the latest five year plan (1984/89) for the health sector. The health planning unit reports directly to the Principal Secretary and is in an excellent position to influence the direction of future Ministry policy and practices. However, Swazi leadership in health planning is weak, and the Ministry is only now turning its attention to micro-level planning and budgeting at the regional level and below. Related to this is the poor state of cost accounting and financial management within the health system, which provides managers with little useful information by which to judge the efficiency and productivity of various parts of the primary health care system.

Many of the tasks required to improve performance in this area, and to support achievement of the Ministry's target service levels, are involved in the decentralization process. While the health administration advisor will have a role in providing assistance in these areas, a full time micro-planning and budgeting advisor is also recommended for at least two years. The role of this advisor, whose work would be supplemented with specialized short term assistance and the services of a local accounting/financial management firm, would be to help improve the planning and budgeting process at the regional level and perhaps at several key regional health facilities, to help integrate regional plans into the overall Ministry plans and annual operating budgets, to devise systems by which the financial management of health activities could be improved, and to provide an orderly transition of the Health Planning Unit from expatriate to Swazi leadership.

#### d. Research, monitoring, and evaluation

The health system needs to experiment with new ways of providing primary health care services. In addition, improvements are required in the monitoring of the performance of health programs and in feeding back the results to the service level. The project will

fund a range of activities in this area. A number of operations research activities will be carried out, for example on criteria for evaluating risk in pregnancy, on ways to increase the demand for health services, on increased outreach for growth monitoring and other interventions, and on health financing issues. Research efforts will also be directed at areas such as determining the causes of child mortality, the incidence of neonatal tetanus in Swaziland, the effects of STD on birth, and the potential for expansion in the coverage of industrial health services. A number of surveys will help monitor performance toward target service levels in various areas. Included would be annual reviews of maternal and neonatal deaths, annual immunization surveys (funded initially by the CCCD project), and studies to evaluate the effectiveness of post-partum education programs, drug resistance, and contraceptive continuation and complications rates.

An important resource for conducting some of these surveys is the cadre of malaria workers who are relatively inactive during the winter months when malaria is not a significant problem. Training will be provided to these workers to permit them to undertake survey work associated with the range of studies foreseen under the project.

#### c. Health financing

As demonstrated in the financial analysis conducted for the project (Section II.B.; Annex 6E), health financing issues pose a serious constraint to the expansion of primary health services over the next five years. Even with increases in the percentage of MOH recurrent expenditures devoted to primary health care, there remains a gap between resources available and what the Ministry believes it is necessary to spend to achieve its expanded service objectives. As in many health systems, the MOH is considering ways to increase the amount of resources available to it through alternative financing approaches. In 1984, a uniform fee structure for health services at government and mission facilities was introduced. However, these fees raise only a small amount of income, all of which reverts to the Treasury and does not add to the resources available to the Ministry.

The project will provide funds for short term technical assistance and to study and experiment with various ways of increasing the resources available to primary health care in the future. Initially, a workshop involving people with experience in other countries on these questions will be organized to focus attention on financial issues and identify promising approaches that could be tried on a pilot basis in Swaziland. The workshop will be followed with attempts to introduce some of these approaches. AID funding under the project would underwrite the costs of these experiments, and provide assistance to evaluate their impact and replicate successful approaches. As a result of these efforts, it is expected that the MOH will raise a minimum of E1,000,000 from extra-budgetary sources for primary health care during the project.

#### f. Nursing education

Most nurses serving in clinics do not have public health training or formal training in management of health facilities. The curriculum at the Institute for Health Sciences does not now focus on public health nursing. Through a matching grant from AID, Project HOPE has recently begun a program of nursing education at the Nazarene Nursing College at RFM Hospital in Manzini. USAID plans to expand this program to provide assistance to IHS to develop a public health nursing program over the next four years.

In addition to the formal training of nurses, the quality of clinical and practical experience they receive as part of their education also needs to be improved. This is particularly true of the experience they receive in clinic-level operations. In addition, the nursing assistant training program at Good Shepherd Hospital in Siteki may require assistance to respond to new roles given to nursing assistants. At present, it is believed that the annual graduation of 20 nursing assistants from this school will be sufficient to meet the projected staffing vacancies in the primary health care system. If this proves not to be the case, assistance will be considered to help expand this program.

#### D. Project Outputs

Outputs in each target service area are included in Annex 5B. Because of the large number of individual component outputs, it is difficult to summarize these outputs. Therefore, the following briefly lists key changes that need to be brought about by the provision of project inputs in order to accomplish the project's objectives. These are more highly aggregated outputs than those in Annex 5B and should be read together with the above description of project activities for a complete understanding of the intended logical progression from purpose to inputs.

1. Improved outreach and service delivery approaches, cost recovery mechanisms, and incentive schemes to increase demand for health services developed and implemented.
2. More productive health providers, brought about by improved training, reassignment of work responsibilities, improved conditions of service, improved transportation and communications, and improved supervision and management support.
3. Health facilities (including clinics, health centers, hospitals, regional laboratories) supplied with necessary MCH/CS equipment, ORS, supplies, vaccines, drugs, and contraceptives on a steady, reliable basis.
4. A decentralized system of planning, budgeting, financial management, supervision, and management in place and operating effectively.
5. An increased proportion of GOS recurrent expenditures for health devoted to primary health care.

6. Development and implementation of a GOS population policy which is supportive of voluntary family planning.

E. Project Inputs

1. AID

AID inputs to the project include long- and short-term technical assistance; overseas and in-country training; a limited amount of commodities; costs for research, monitoring, and evaluations; and support for population policy development.

a. Long-term technical assistance (197 person-months)

This constitutes the major AID project input. A team of five long-term advisors is proposed for the first two years of the project, with two of the members of this team continuing throughout the five year life of project. Scopes of work for these advisors are contained in Annex 9.

(1) MCH physician (57 person-months)

This advisor will assist the MOH officials responsible for the primary health care program to implement and coordinate MCH/CS activities over the five years of the project. The advisor will be the counterpart to the Chief of the Mbabane Public Health Unit, who is the senior MOH official responsible for MCH/CS services.

(2) Family nurse practitioner/child spacing advisor (56 person-months)

Together with the MCH advisor, this person will provide assistance in the overall coordination of the project, focusing primarily on project activities related to population, family planning, pre-natal care, post-partum education, and attended deliveries. This advisor will also work closely with NGOs active in family life education and child spacing. The advisor will be the counterpart to the MOH Family Planning Coordinator.

(3) Health administration/decentralization advisor (36 person-months)

This advisor will provide continuity of support to the implementation of the decentralization program. He/she will be the counterpart of the Senior Health Administrator. While located at MOH headquarters, he/she would work closely with and advise the four regional health management teams and provide on-the-job training to the senior and regional health administration officers. The advisor will also work closely with the long-term advisors in clinic management and health planning and budgeting, as well as short-term advisors in areas related to health systems management. This advisor will also provide assistance to improve financial management in a decentralized health system, in conjunction with the planning advisor and the local financial management/accounting firm. The requirement for continued technical assistance in this

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area beyond the three years proposed will be judged at the time of the first external project evaluation in mid-1987, and recommendations will be made at that time regarding the duration of this assistance.

(4) Clinic operations/management advisor (24 person-months)

This advisor will focus on clinic-level operations, and be responsible, together with the relevant Swazi counterparts, for the development and evaluation of activities aimed at improving the efficiency and productivity of clinics and clinic personnel. In view of the large proportion of work expected to be done at the regional level, the regional health administrators in each region and a health planner at MOH headquarters will be the counterparts for this advisor.

(5) Micro-level planning/budgeting advisor (24 person-months)

This advisor will work with the Health Planning Unit and the regional health management teams to improve the planning, budgeting and financial management of primary health care. In addition, he/she will be the counterpart to the chief of the Health Planning Unit and provide on-the-job training and support to this official.

(6) Contract administration

The technical assistance contractor will be responsible for providing advisors in the areas mentioned above, coordinating all short-term technical assistance and training funded by the project, subcontracting for local accounting/financial management services, handling most project-financed procurement, administering the activities carried out by AID centrally-funded projects related to primary health care in Swaziland, and coordinating and funding the majority of research, monitoring and evaluation studies. Considering this workload, funding is included for a locally-hired Administrative Assistant for the length of the contract to help administer field operations.

b. Short-term technical assistance (80 person-months)

Short-term technical assistance needs have been identified in the following areas: design of in-country training programs, financial management, health education materials development, protocol development, research and evaluations, incentives development, health financing, procurement planning, community mobilization and service outreach, family planning information, education, communication and motivation (IECM), personnel management, improvement of laboratory facilities, transport management, health education in schools, health information and reporting systems, development of nutrition interventions, and population policy development. An illustrative list of the person-months required in each of these areas, which is the basis for estimates of project financing required, can be found in Annex

in the same area over a period of time, efforts will be made to have the same advisor make return visits in order to build in continuity to the advice provided. The effectiveness of short-term technical assistance and the adequacy of the amount budgeted will be assessed during the first external project evaluation in mid-1987.

c. Local accounting/financial management firm

The project provides funding to subcontract with a local accounting firm to provide assistance as required to develop improved financial management and cost accounting systems. This approach was viewed as preferable to long-term external technical assistance because local firms are more familiar with the GOS accounting and financial management system, it will permit the MOH and the technical assistance contractor to call on the services of this firm as required, it will provide access to a range of skills and experience available through several local offices of international accounting firms, and it will provide continuity of assistance and hopefully develop an institutional relationship between the Ministry and the firm over time.

d. Training

The project will finance three participants for long-term training in the U.S. and twelve participants for long-term training in African countries. The U.S. training will be for BS degrees for one health statistician and two health educators. Most of the long-term training in Africa will be for health administrators at the Institute of Development Management in Botswana. (See Annex 7E for details.)

The majority of resources provided will fund the development and implementation of in-country training courses for health providers and their supervisors, regional management teams, and other support personnel. In addition, as a complement to in-country training, short-term overseas training in the U.S. and other African countries will be financed for approximately 33 people (49 person-months) over the life of the project. (See Annexes 7D and 7E for details.)

Additional long-term training to support project objectives will be financed through the Swaziland Manpower Development project. An estimated 5-6 persons will be sponsored for graduate-level training in areas supportive of this project. In addition, long-term overseas training within the Southern Africa region will be provided for lab technicians and dispensers through an expansion to the matching grant with Project HOPE planned for early FY 1986.

e. Commodities

The project will finance a limited amount of vehicles, laboratory and clinic equipment and supplies, audio-visual equipment to support health education efforts, radios to improve communications between isolated clinics and referral facilities, and the development and dissemination of health education materials. Annexes 7F and 7G contain a more detailed illustration of the commodities proposed for procurement under the project.

f. Research, monitoring, evaluations and studies

A total of \$480,000 will be provided to cover the costs of operations research, studies, monitoring surveys, and evaluations, including pilot efforts to try out consumer and other incentives and awards to increase the demand for health services and the costs of experimental health financing ideas. A detailed, illustrative list of the requirements in these areas can be found in Annex 7H. In addition, funding is included in the project for two external project evaluations, the first in mid-1987 and the other in early 1990.

g. Population policy support

A limited amount of funding to provide direct support to the secretariat of the GOS Population Committee is proposed. This will be supplemented by specialized short-term technical assistance, and funding for the presentation of the RAPID program in Swaziland from central AID resources.

2. Inputs from Other Donors and Other AID Projects

AID inputs to the project have been designed around the resources already available or planned from other donors, as well as other on-going AID-financed projects. The project was designed in a way to supplement other resources available to help Swaziland achieve the eight primary health care targets, rather than to replace them. Therefore, the inputs of other donors and AID projects are important elements in the overall program which this project supports. Coordination between all donors and between donors and the MOH has been unusually close in Swaziland. All of the major donors were consulted by AID in the design of this project, and it is expected that the existing good relationships among the donor community in the primary health care field will continue through the implementation period for this project.

Annex 10 details the inputs of other donors in primary health care and the estimated amount of resources devoted to these programs over the next several years. The principal donors active in this area are a number of United Nations agencies: UNICEF, UNFPA, and WHO. The major share of UNICEF funds go for the training of Rural Health Motivators and provision of basic MCH equipment, vaccines, and ORS packets. UNICEF also provides weighing scales and training of health workers and extension agents aimed at improving growth monitoring. Although its present assistance agreement continues only through 1988, UNICEF is expected to continue assistance in these areas after that date. WHO provides a health education advisor and supports long- and short-term training programs for health personnel, as well as the supply of essential drugs and vaccines. UNFPA funding is expected to cover training for family nurse practitioners and in midwifery, a number of other in-country training sessions, and MCH/CS commodities and supplies. In addition, UNFPA has a continuing assistance relationship with the Family Life Association of Swaziland.

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In addition to the U.N. agencies, IPPF provides technical assistance and training in MCH/CS, contraceptive supplies, and other support to the Ministry's programs. IPPF and FPIA also support FLAS. The British Overseas Development Agency (ODA) and other bilateral donors provide technical assistance, operational experts, and training in the health sector. The West German government has recently signed an agreement with the GOS to construct two new health centers and three new clinics, and the maternity unit at Mbabane Hospital is being expanded through a loan from the African Development Bank.

As mentioned above, other donor and current AID-funded and GOS efforts in water and sanitation are considered to be sufficient in view of the absorptive capacity of the implementing agencies in this area. Donor activities in this important aspect of primary health care are described in Annex 4A. If at some point in the future USAID concludes that more in the water and sanitation field could be done than other donors are funding, consideration will be given to providing additional assistance in that area.

Two other AID-financed projects provide inputs essential for the success of this project. The CCCD project, funded centrally by AFR/RA, provides \$709,000 (of which \$670,000 was undisbursed as of June 30, 1985) for the costs of training, commodities, short-term technical assistance and other support in health education and health information systems, and operations research related to immunizations, oral rehydration, and malaria control. In addition, the services of a part-time technical officer from CDC are provided through a Regional PASA, and AFR/RA has recently agreed to expand the technical and administrative services available to the Swaziland program to include a PSC technical officer, a local technical assistant, and a locally-contracted administrative assistant. Except where noted in the description above, it is expected that inputs from the CCCD project will provide the necessary assistance to achieve the targets in immunizations coverage, use of oral rehydration therapy, and reduction of morbidity and mortality from malaria.

The Swaziland Manpower Development project (SWAMDP) finances several activities supportive of this project. Long-term overseas training in several areas to be funded under this project has been mentioned above. In addition, SWAMDP provides for a significant expansion of development communications messages via radio and other media, through the creation of a Center for Rural Broadcasting and Information. This component of the SWAMDP project builds on mass media activities in the health sector carried out under the MMHP project, and will provide a vehicle for expanding health education messages through the media. SWAMDP also provides funding for a program of training courses on development topics for traditional leaders and rural women's groups, which will also be used as vehicles for providing health education and other messages related to primary health care to these very influential groups.

In addition to these bilateral projects, support for primary health care activities in Swaziland is anticipated from various centrally-funded projects, including the following:

a. Assistance from the Resources for Awareness of Population Impact on Development (RAPID) II Project (936-3017) to update the Swaziland presentation using computer simulation to explain the impact of population growth on development. In addition, this project will prepare analyses to present to senior government officials via a series of seminars and short-term training workshops.

b. Assistance under Project 936-3000.A from the U.S. Bureau of the Census to strengthen the capacity of the GOS Central Statistical Unit (CSU) to process, evaluate and analyze demographic and family planning data.

c. Assistance from the Population Policy Research Project (932-0643.5) with the National Academy of Sciences to work with the GOS Population Committee to help organize this committee, assist the committee in reviewing and accessing existing evidence bearing on the relationships between population growth and economic development, and assist the committee to identify government actions, in addition to family planning, that will encourage lower fertility.

d. Assistance from the Population Communication Services Project (936-3005) to improve skills in IECM related to child spacing, and to develop health education programs both for FLAS and the Health Education Unit.

e. Assistance from Westinghouse Health Systems under Project (932-0624), to design and carry out a baseline health and contraceptive prevalence survey, with subsequent surveys and analyses for project evaluation purposes.

f. Assistance from Manhoff International under the S&T/Nutrition Project (931-1010) to improve maternal and infant diets through mass media promotion of improved weaning practices and better diets among pregnant and nursing women.

g. Assistance from the S&T/Nutrition Nutrition and Food Technical Services Project (931-0831) to develop and introduce low-cost, nutritious weaning foods, improve dietary and infant practices, and develop appropriate "food technology" through fortification of maize meal and/or promoting soybean based infant/weaning foods.

h. Assistance from Child Survival Fund activities planned for FY 86 to support institutional development of the MMHP project methodology and activities for maintenance of ORT and assistance with social marketing/mass media for EPI, child spacing and nutrition education.

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### 3. Swaziland Contributions to the Project

The GOS contribution to the project will be measured through the increased percentage of the MOH recurrent budget devoted to primary health care over the life of the project plus the amount of funds that are raised and provided for health services from extra-budgetary sources above and beyond those that would be generated from the existing structure of fees for health services. This approach and the supporting calculations are discussed more completely in Section II of the PP. Based on a detailed examination of the MOH budget and the additional recurrent costs the Ministry believes will be necessary to achieve the project's targets, an estimated E3,489,000 (\$1,745,000 at the present exchange rate) more will be provided by the GOS for primary health care than would have been if expenditures on primary health care remained at their relative level within the MOH budget in 1984/85. In addition, the GOS will attempt to raise E1,000,000 (\$500,000) from extra-budgetary sources for health services during the project. Thus, the total GOS contribution from these two sources is \$2,245,000, which represents approximately 28% of total project costs. In addition, the GOS will provide office space and housing for the long-term technical advisors.

It has not been possible to calculate the increased expenditures for primary health care that will be provided by the private sector, especially religious missions which run a large number of clinics and other health facilities in the country. However, it is reasonable to expect that contributions from these sources will also increase over the next five years as a result of project-funded activities.

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## II. Cost Estimates and Financial Plan

### A. Project Budget

The total amount of funding required to implement the project is \$7,945,000. This is the amount of AID inputs provided through this project and the increases in spending for primary health brought about by additional MOH recurrent budget allocations and extra-budgetary resources raised during the project period. Funding is also provided for primary health care activities related to the target areas of the project from other AID projects (CCCD, Project HOPE, SWAMP), the current level of MOH recurrent expenditures for primary health care, and other donors (see Annex 10).

Table 1 presents the summary cost estimate and financial plan for the project. AID inputs total \$5.7 million over five years. Technical assistance makes up the largest portion of AID funding requirements: \$3,399,000. A substantial amount of training, both overseas and in-country, is also budgeted, totalling \$1,240,000 over the life of the project. AID-funded commodities are valued at \$509,000, and \$552,000 is budgeted to cover the costs of research, studies, and evaluations, including two external evaluations of the project. Inflation has been added into the calculations of these costs at 6% per year for dollar costs and 12% per year for local costs. The details of the amounts of inputs in each of these areas are contained in Annexes 7C, 7D, 7E, 7F, 7G, and 7H. The cost estimates for each item, the sequencing of project inputs, and other budget assumptions for the AID contribution to the project are spelled out in Annex 7A.

Of the AID total, \$35,700 will be provided from the Population account, the result of the deobligation of funds from the Health Manpower Training project (645-0062) and their reobligation to this project. These funds will cover the costs of assistance to the GOS Population Committee. The remainder of AID funding will be made from the Health account.

Table 1  
Summary Cost Estimate and Financial Plan  
(in thousands of current year U.S. dollars)

Source	AID		GOS		Total	
	FX	LC	FX	LC	FX	LC
Technical Assistance	3,250	149	-	-	3,250	149
Training	773	467	-	-	773	467
Commodities	202	307	-	-	202	307
Research, Monitoring, Evaluation	313	239	-	-	313	239
Increase in Primary Health Expenditures	-	-	-	1,745	-	1,745
Alternative Financing	-	-	-	500	-	500
<b>TOTAL</b>	<b>4,538</b>	<b>1,162</b>	<b>-</b>	<b>2,245</b>	<b>4,538</b>	<b>3,407</b>

The GOS contribution to the project is valued at \$2,245,000, or approximately 28% of total project costs. This equals the value of the additional expenditures on primary health care which are made as a result of a 2% real increase in the MOH recurrent budget plus a 1 percentage point per year (5 percentage points over five years) increase in the proportion of this budget devoted to primary health care (\$1,745,000), and of the additional extra-budgetary resources the GOS expects to raise through alternative health financing over the project period (\$500,000). The basis for these calculations is described in Annex 7B and in the Financial Analysis, Annex 6E. This calculation of the host country contribution does not include any of the current level of MOH expenditures on primary health care, the provision of housing and office space to the technical advisors, or the increased expenditures by non-government organizations (e.g., missions, industry, FLAS) on maternal and child health/child spacing as a result of project activities. Thus, Swaziland's contribution to the project exceeds by a considerable amount the statutory requirement of 25% of project costs.

Table 1 also presents a breakdown of foreign exchange and local costs. Of the AID contribution, \$4,538,000 is calculated to be foreign exchange costs, approximately 80% of total AID funding.

Table 2 presents a projection of AID and GOS expenditures by year over the life of the project. AID's initial obligation to the project will be \$2.0 million in FY 85, with subsequent obligations from deob-reob and future fiscal year funds made as they are available. The timing of the GOS contributions is based on the calculations of the effect of the increases in MOH recurrent expenditures for primary health care, as described in Annexes 7B and 6E.

Table 2  
Projection of Expenditures by Year  
(in thousands of current year U.S. dollars)

<u>Year</u>	<u>AID</u>	<u>GOS</u>	<u>Total</u>
1985	125	0	125
1986	1,190	180	1,370
1987	1,605	296	1,901
1988	1,161	454	1,615
1989	861	569	1,430
1990	758	746	1,504
TOTAL	5,700	2,245	7,945

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Table 3  
 Costing of Project Outputs/Inputs  
 (in thousands of U.S. dollars)

Project Inputs	Project Outputs						Total
	#1	#2	#3	#4	#5	#6	
<u>AID Appropriated</u>							
-Technical Assistance	1,730	524	332	568	83	162	3,399
-Training	480	300	50	321	89	-	1,240
-Commodities	121	166	222	-	-	-	509
-Research, Monitoring and Evaluation	110	110	80	110	110	32	552
<u>Swaziland</u>							
-Increased Spending on Primary Health	500	*	*	*	1,745	*	2,245
<u>Total</u>	2,941	1,100	684	999	2,027	194	7,945

Outputs:

- #1 = Improved delivery approaches, cost recovery, incentives
- #2 = More productive health workers
- #3 = Health facilities supplied
- #4 = Decentralized system functioning
- #5 = Increased financing for primary health care
- #6 = Supportive population policy

\* Not specifically identifiable; subsumed in outputs #1 and #5.

## B. Financial Analysis Summary

A major issue in the design of the project was the ability of the GOS to meet the recurrent cost implications of expanded primary health care services. Achievement of the target service levels will require substantial increases in the number of visits to clinics and other health facilities, thus putting additional pressure on health workers who are already reported to be overworked. While the activities to be tested and implemented under the project are expected to make a major improvement in the productivity of personnel at all levels of the primary health system -- and, in fact, the targets cannot be met without such an improvement -- it is clear that some additional staff will be required and that MOH spending on drugs, medical supplies, and training will have to be increased.

AID approached the issue of recurrent costs from the standpoint of the portion of the MOH recurrent budget devoted to primary health care. In reality, this project does not represent a new undertaking, per se, but is largely an expansion of activities and programs currently underway. It was believed that a commitment by the GOS progressively to increase the amount of recurrent expenditures allocated to primary health was a unique way to assure an adequate level of funding for expanded activities in this area while at the same time giving substance to the Government's stated policy emphasis on preventive health.

The GOS has consistently allocated just under 10% of the national recurrent budget to health. Current real per capita spending by the GOS is less than it was five years ago. Inflation and high population growth continue to make it difficult for the recurrent health budget to increase in real per capita terms. In fact, recurrent spending for preventive services as a percentage of total MOH recurrent expenditures declined in the early 1980s, although major gains were made in the 1985/86 budget year.

Projections for government revenue for the rest of the decade are pessimistic. The GOS's forecasting model shows negligible real growth in revenue and, barring any changed attitude regarding deficit financing, there will have to be extreme restraint on overall government spending during the next several years. At the same time, it is recognized in the GOS that the Ministry of Health historically has not received a share of increases in government spending commensurate with its importance, and the Ministry of Finance appears willing to consider a projected increase of 2% per year in real terms in the overall MOH recurrent budget during the project period. Even this increase, disproportionate as it may be relative to the increase that can be expected by other government ministries, will not be enough to keep up with population growth or to expand the level of primary health care services. Therefore, the project provides for the MOH to increase by 5 percentage points (an average of 1 percentage point per year) the portion of its recurrent budget devoted to primary health care. With these increases, real per capita expenditures on primary health grow from E2.42 in 1984/85

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to E3.19 in 1990/91. With these assumptions, an additional E3,489,000 will be provided for primary health care during the period over what would have been allocated if the portion of recurrent expenditures for these activities remained the same throughout the period as it was in 1984/85.

To determine whether the amounts produced by these increases will be sufficient to meet the additional recurrent costs that can be estimated as a result of this project, the financial analysis also calculated the recurrent cost implications based on assumptions about the number and level of additional personnel required to achieve the service targets, as well as other costs such as drugs, supplies, and training. Following detailed discussions with the MOH and other GOS ministries, a list of additional staff was developed which represents current best estimates of the level required to carry out project activities. In developing this list, substantial increases in the productivity of health providers were assumed; these efficiency gains must be tested during project implementation and, if necessary, assumptions regarding the need for additional personnel adjusted as a result of this experience. The analysis of additional MOH recurrent budget requirements, contained in Annexes 6E and 7B, concluded that approximately E3,900,000 would be required during the project period. This amounts to over E400,000 more than would be available through increased recurrent budgets for primary health care.

Consistent with another policy emphasis in USAID's relationship with the Ministry of Health, the solution to this shortfall focused on alternative means of health financing. While this has been a topic discussed with the GOS over the past year or two, little in the way of positive progress has been made by the government. As part of this project, with AID assistance the GOS will undertake to experiment with and implement approaches to raise at least E1,000,000 from extra-budgetary resources for health services during the next five years. This commitment on the part of the GOS is sufficient to meet the remaining additional recurrent costs estimated to be attributable to this project. On this basis, the project was determined to be financially feasible.

### C. Methods of Implementation and Financing

Almost all project disbursements will be made through the technical assistance contractor. The contractor will be responsible for funding all inputs included in the contract, including local costs, and for requesting reimbursement from AID on a periodic basis. The method of payment will be chosen in accordance with AID preferences and based on the nature of the contractor selected, i.e., through Federal Reserve Letter of Credit if the contractor is a non-profit organization or through direct reimbursement if it is a profit-making firm. No advances of funds are foreseen. The contractor will make financial progress reports to the USAID Controller at least quarterly. These reports will break down expenditures by the major project elements, to facilitate financial monitoring of implementation.

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Only two exceptions to this implementation and payment procedure are envisioned. The first is for the procurement of vehicles, which will be done through the GOS Central Transport Administration (CTA). USAID has procured a number of vehicles through CTA in the past without difficulty. Orders will be placed by CTA based on prices it negotiates periodically with suppliers, and payment will be made directly by USAID to the supplier upon receipt of the vehicles. No advances are anticipated for this procurement activity.

The other exception is assistance to the secretariat of the GOS Population Committee. Funding is provided for locally-hired professional and support personnel. AID has financed similar personnel under other projects. Normally, these individuals are contracted by the GOS and payment is made to them by the hiring ministry. That ministry, in this case most likely the Department of Economic Planning and Statistics (DEPS), then requests reimbursement from USAID. Experience under the SADCC Regional Training Council Technical Support Grant, also managed by DEPS, indicates that a small revolving advance account may be necessary for this input. In view of the limited amount of funds budgeted for this activity, and the limited and identifiable nature of the items to be financed, this does not appear to present a major problem.

Project accounts maintained by the contractor will be audited periodically by AID, other U.S. Government agencies, and/or private auditors. The contract will provide that proper accounts be maintained during and for a reasonable period after completion of the contract. An AID audit of the project may be scheduled to coincide with the first evaluation of the project in mid-1987 if there are major issues constraining progress toward project objectives.

### III. Implementation Planning

#### A. Implementation Schedule

Detailed implementation schedules for the project through the first external evaluation in mid-1987 are presented in Annexes 8A and 8B. This section of the PP summarizes the highlights of implementation planning that has been carried out for the project.

Major attention will be given in the first six months following authorization to contracting for technical assistance. The RFP for long-term technical assistance and other project support has been drafted as part of the project design process (see Annex 9) and will be issued as soon as possible after the project agreement is signed. However, it will be March, 1986, at the earliest before the first long term advisor arrives. By mid-1986, all of the long-term advisors are expected to be in place, the contractor will have developed its work plan for its first year of activities, and the principal project activities will begin at that point. This will provide a minimum of one year of experience before the first external evaluation.

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Because of the long lead time associated with contracting technical assistance, a number of activities have been identified which can take place in the first six to nine months of the project before the long term advisors arrive. The present Health Planning and Management grant to IHAP has been extended to February 14, 1986, to provide continuity in assistance to the decentralization process and personnel management. As a result of assistance in the latter area and the recruitment of a training coordinator within the next two months, the MOH will be able to develop its training plans for the initial project period.

In addition to the IHAP project, several activities will be carried out through IQCs or buy-ins to centrally-funded projects. These include an initial study of constraints to improved clinic management and productivity which will provide the basis for the work of the long-term clinics management advisor, a study of constraints to improved clinical experiences for nursing students, research on weaning practices, and a workshop on alternative health financing. A baseline child mortality survey will be undertaken during this period, and the CCCD project will finance an annual immunization survey to provide updated information on the impact of the EPI. Studies will also be undertaken on laboratory equipment needs and clinic communications requirements, as a basis for developing specific commodity requirements for project financing in these areas. Vehicle procurement will be initiated, with the objective of having the vehicles in place when the long-term advisors arrive.

The MCH advisor will give priority attention during his/her first year to providing assistance to the MCH committee in developing a series of protocols and a national MCH plan that will guide the provision of primary health care to mothers and children in Swaziland for the remainder of the decade and beyond. The family nurse practitioner will focus on improving and expanding the provision of child spacing services, overseeing operations research on risk factors in pregnancy, and beginning the post-partum education program. The clinics management advisor will help set up pilot clinics in the four regions to implement and evaluate the provision of a variety of facilities, incentives, and other interventions, and work with the MOH and regional health management committees to improve the productivity of clinic services. The decentralization advisor will continue the work of the IHAP health administrator in nurturing the decentralization process. Working with this advisor, the planning/budgeting advisor will assist the Health Planning Unit and the regional management teams to improve their regional submissions for the 1987/88 GOS fiscal year, and to coordinate with the local financial management firm and the new Financial Controller located in the MOH improvements in financial management in the health system. The CCCD project will continue to focus priority attention on improving the EPI, expanding the effective use of ORT, and treatment and prevention of malaria.

Assistance to the GOS Population Committee will proceed on an independent, but related, track. It is expected that the Committee will hold its first meeting before the end of September, 1985, and that following this, assistance to help the Committee establish and

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staff a small secretariat would be appropriate. Planning would begin in late 1985 for the RAPID presentation, which would be conducted with the University of Swaziland. The RAPID presentation is scheduled for mid-1986.

The first project evaluation, to be completed by August, 1987, will examine project implementation performance to that point, and will include recommendations for future implementation planning. While a number of changes in the implementation of the project may result from these recommendations, an indicative implementation plan for the remainder of the project is included in Annex 8B.

#### B. Contracting Plans and Schedule

The principal responsibility for supporting project activities and AID-financed inputs will be given to a technical assistance contractor. This contractor will be responsible for providing long- and short-term technical assistance funded by the project, coordinating overseas and in-country training, subcontracting with a local accounting firm to provide financial management services to the MOH, administering the activities of AID centrally-funded projects related to primary health care in Swaziland, procuring most AID funded commodities (except vehicles), and conducting research, surveys and other studies called for by the project. (See Annex 9 for further detail on the contractor's responsibilities.) The contract will be awarded through a fully competitive process, which will begin immediately upon project obligation with the publication of a notice in the Commerce Business Daily. Proposals will be received from firms, non-profit organizations, universities, or combinations of them. The schedule for the contracting process is included in Annex 8A. It is expected that the contract will be signed by the end of January, 1986, and that the first members of the contract team can arrive in March, 1986.

As indicated above, assistance to the GOS Population Committee will be provided separately from the major technical assistance contract. It is envisioned that this support will be in the form of a professional and a support person for the Committee secretariat who will be hired locally. These individuals will be contracted by the GOS, most likely the Department of Economic Planning and Statistics in its capacity of Chairman of the Committee, and USAID will make payment to the Government to reimburse them for the salaries and other expenses related to the employment of these people.

#### C. Procurement Plans and Responsibilities

All commodity procurement operations, including purchasing, receipt, utilization, supervision of purchasing, and coordination with the technical assistance contractor will be the ultimate responsibility of the Principal Secretary of the MOH.

The authorized source and origin for commodities and commodity-related services is the United States (AID Geographic Code 000) and Swaziland. Project vehicles of AID Geographic Code 935

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source/origin will be purchased under AID/W's blanket vehicle waiver for Southern Africa. Individual transaction source/origin waivers may be required for items not available in the authorized countries; however, no such waivers are anticipated at this time.

All commodities purchased with AID funds except motor vehicles will be procured by the technical assistance contractor. Motor vehicles will be purchased by the CTA. USAID has favorable experience under previous projects of vehicle purchase through CTA.

Annex 7F lists the purchases that are anticipated under the project. The total commodity procurement budget for the project has been set at \$509,000, including inflation. The amounts budgeted appear reasonable based on the identified needs in these areas, but may be adjusted based on experience. More specific requirements and specifications for laboratory equipment and communications equipment, together with provisions for the maintenance of this equipment, will be made by studies undertaken in the initial months of the project. Annex 7G contains an illustrative list of needed equipment and supplies for clinics, health centers and hospitals. It should be noted that AID funding for equipment and supplies for health facilities will be used only as a last resort, when the absence of these commodities seriously affects achievement of project objectives and when alternative sources of funding have been exhausted. Normally, it is expected that the MOH will budget adequate amounts for these commodities, or that they will be available from other donors.

Because of the well-developed commercial market in Swaziland, the contractor will purchase some of the required commodity inputs locally. The restrictions contained in Handbook 1B, Chapter 18, will apply to such purchases. Specifically, items of U.S., Swaziland, or AID Geographic Code 941 origin readily available in the commercial market in Swaziland may be purchased without regard to the unit price of such items up to the total local cost financing available in the project. Items similarly available made in developed Free World countries (AID Geographic Code 935 exclusive of Swaziland and countries included in AID Geographic Code 941) may be purchased so long as the per unit price of the item does not exceed the local currency equivalent of \$5,000, and the total value of all such purchases does not exceed \$116,000 (10% of local cost financing available under the project).

All commodities, equipment, and supplies purchased with AID funds under the project will be titled to the Government of Swaziland. All such inputs will be acknowledged to USAID and entered into the property records of the MOH. Property to be used by hospitals and clinics will be receipted on standard government forms to the accountable property officers of the ultimate end user institution. Records of commodity inputs and utilization will be maintained for a minimum of three years after the PACD or any extension thereof.

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#### IV. Monitoring and Evaluation

##### A. USAID Monitoring Responsibilities

The USAID Health, Population and Nutrition Office will have responsibility for project management and monitoring. The Regional Health/Population Development Officer will be the Project Officer for the project. He will be assisted by a Regional Population Officer and a health/population IDI. This project and related activities under the CCCD project represent the principal thrust of the USAID/Swaziland health program, and thus will absorb the major portion of the time of these officers.

Examples of USAID/Swaziland responsibilities are as follows:

1. Provide a Project Officer who will coordinate assistance from other USAID officers and AID/W resources required for the implementation of the project.
2. Select and contract for technical assistance to be provided under the project.
3. Assist in the selection of participant trainees, in the review of scopes of work for operations research and other studies, and in the development of in-country training courses and materials funded under the project.
4. Provide support to the contractor's long-term technical assistance team, in accordance with the terms of the contract and AID policies and regulations. The USAID Project Officer will serve as the primary contact point for the Chief of Party and will be responsible for obtaining decisions on contract and project matters. The Project Officer will work closely with the Contractor on the development and implementation of annual work plans and the monitoring of the Contractor's responsibilities under the project.
5. Participate in regular meetings of the Project Implementation Committee, through which project progress will be reviewed and AID, GOS, and other donor efforts to improve primary health care will be coordinated.
6. Monitor compliance with conditions and covenants of the Project Agreement, including the level of funding provided by the MOH for primary health care, and to process any approvals required by AID regulations.
7. Participate in other managerial, implementation and monitoring activities of the project as necessary to achieve project objectives.

## B. Evaluation Plan

The project will be evaluated to measure progress toward the achievement of the specific service delivery targets and the impact of changes in management support systems on those targets. Evaluation of this project will have two dimensions. At the level of individual targets, evaluation will be regular and on-going, as part of annual surveys. The research and studies built into the project are intended in large part to serve this purpose. For example, annual immunization surveys and annual reviews of infant and maternal mortality will be used to measure performance against the end-of-project objectives in these areas. In addition, the MOH Statistics Unit compiles service delivery statistics and morbidity/mortality data and publishes annual reports based on this information.

In addition, in order to evaluate overall progress toward the project purpose, two external evaluations are scheduled during the course of the project. The first will be conducted in the project's second year, July-August 1987. This evaluation will make a critical review of progress as of that date; of the validity of assumptions made during project design about improvements in the productivity of primary health care providers, the numbers of new positions required to achieve the project's service targets, and the levels of funding available for primary health care from the GOS budget; and the adequacy of AID-funded inputs, particularly technical assistance. Based on this review, recommendations will be made to guide the future implementation of the project.

The final evaluation is scheduled for the first three months of 1990, prior to the end of the project. The final evaluation is scheduled before the completion of the project to assist in developing plans for any needed follow-on activities or assistance. This evaluation will determine the effectiveness of the project activities in attaining the targets and the extent to which the MOH institutional capacity has developed to sustain delivery of preventive MCH/CS activities.

Both external evaluations will examine the progress and impact of the project activities toward achieving the eight service delivery targets. These evaluations will assess such areas as:

1. National comprehensive MCH/CS plan,
2. Annual financial review,
3. Operations research and baseline studies,
4. Effectiveness and scheduling of USAID and GOS meeting of commitments,
5. The appropriateness of the service delivery system,
6. The appropriate shift in service levels to preventive activities,
7. The appropriateness and adequacy of training, especially for RHMs and Nurse Assistants,
8. The adequacy of both the management support systems and personnel systems in supporting the expanded health service delivery system,

9. The appropriateness of mission monitoring and oversight functions, and

10. The adequacy of the amount of technical assistance and other inputs provided.

## . Summary Project Analyses

### A. Technical

Analyses of the Swaziland MCH/CS program and its present level of services, undertaken in December, 1984 and June-July, 1985, concluded that achievement of the project's service targets are possible and technically feasible by 1990.

This conclusion is based on an extensive review of clinic studies, population, nutrition and homestead surveys and evaluations conducted by USAID, the Ministry of Health, independent consultants, the World Bank, WHO, UNICEF, and the Centers for Disease Control (CDC). Interviews and discussions were held with key personnel in the MOH, clinic workers, an influential traditional healer, the MCH committee, and personnel at FLAS. On-site visits were made to urban and rural district clinics and maternities to assess the type and level of work of the clinic staff (RNs, nursing assistants, health assistants, etc.) and rural health motivators.

Swaziland has developed a good basic program in MCH/CS which is appropriate for meeting the health needs of its population. Health care services are widely available to almost all major populations through a network of government- and mission-run clinics and hospitals staffed with RNs, nursing assistants, health assistants and rural health motivators. Doctors are available for referrals or emergencies and make regular visits to clinics. The policy and broad outlines of Swaziland's MCH/CS program include preventive programs for widely accessible clinics, comprehensive MCH/CS content in the Clinic Community Health Manual, and a five year plan which focuses on the improvement of child and mother health via priority development of public health nursing, immunization of children under the year, providing ORS, reducing malnutrition, and the wider use of rural health motivators. However, the health care system is beset with a number of problems which will prevent successful implementation of this good MCH/CS program.

The project is intended to strengthen those areas of the primary health care program which were identified by the technical analyses to be essential to the achievement of MOH program goals. The activities developed for each of the eight target areas reflect the findings of the analyses. Annexes 6A1 and 6A2 provide for each service target detailed information on the technical considerations for achieving the target, monitoring, the service chain, the impact on service capacity, where relevant, and the possible constraints. Annex 5B summarizes the project activities by detailing by EOPS target service level information on the definition of achievement, project outputs, activities to achieve the target and all the required inputs (provided by AID, MOH, and other donors).

## B. Administrative/Institutional

A favorable economic and institutional setting in Swaziland makes major improvements in the MCH/CS system in the eight project target areas institutionally and administratively feasible within the next five years. The administrative/institutional analysis concluded that the project was appropriately scaled given the management capacity in the Ministry of Health. A full description of the analysis and findings can be found in Annex 6B.

### 1. Institutional Setting

The GOS views health care as an important priority and thus affords it substantial resources. Health care services are available to the majority of the population, rural and urban, through a network of government and mission clinics. Also, a small percentage of primary care services are available from industrial health clinics servicing company employees and their families, and from a handful of nurses in private practice. Well-established mission and public institutions provide training in primary health care and maternal-child health and there is a substantial cadre of well-trained and committed Swazi primary health care providers. Health supplies and technical assistance are widely accessible to the health system due to Swaziland's location and convertible currency. Clinic fees are charged but are not an important source of revenue, and are not retained by the MOH.

The clinics, staffed professionally by staff nurses (RNs), nursing assistants, and health aides, handle from 35 to 50 patients per day per clinic nurse, and 15 to 30 patients per clinic day when nurse assistants and nurses aides are included in the calculations as professional health providers. Clinic nurses supervise Rural Health Motivators (RHMs) who are charged with stimulating appropriate use of government health facilities and who occasionally perform emergency deliveries in the homesteads. Clinic nurses and nurse assistants are well trained but have little exposure or preparation in public health and require in-service training to up-grade their basic MCH and public health skills.

A district nursing supervisor is responsible for the operations and management of each clinic and makes an on-site visit once or twice per month. Each clinic is affiliated with a referral hospital where the more complicated cases are sent. Physicians from these hospitals visit the clinics about twice monthly.

Each clinic patient pays one lilangeni (about \$.50) per clinic visit. Some communities add a small surcharge to clinic visit fees to pay for community health projects. Clinic fees are not perceived to be a constraint to clinic utilization although fee abolishment has been advocated for MCH and other preventive services.

## 2. Institutional Constraints

Although the institutional and economic environment of the primary health care system is favorable, three institutional constraints which impact on the capacity of the system to improve have been identified:

### a. Inadequate Support for Key Health Providers:

Unfavorable terms of service of the clinic nurses threaten the assumption that this provider can be made considerably more productive with more training and better program resources. Despite their more difficult technical responsibilities and the isolation of their work setting, rural clinic nurses are compensated no better than their counterparts. As a result, clinic nurses are largely looking beyond rural service to an urban setting where the possibilities for promotion and training are better. Since the achievement of better service delivery will depend upon a well trained, well supported and highly motivated clinic work force, additional compensation and recognition should be provided to rural health providers in order to balance the hardships of rural service against the conveniences of urban work.

### b. Weak Management Support for the Clinics: The quality of management support at the clinic level directly impacts productivity and is germane to establishing performance standards necessary to improve and expand primary health care service delivery. Management support for the clinics in Swaziland is poorest in the areas of transportation, communications, equipment supply, replenishment of expendable supplies, pharmaceuticals and vaccines, clinic supervision, and in-service training for clinic nurses.

These support areas can be strengthened by 1) a workable transport and communications strategy for the rural clinics, 2) better organization, management and financial accounting systems and increased logistics capacity of the Central Medical Stores; 3) the establishment of a supervisory program for setting clinic work performance standards, position descriptions and work plans; and 4) management support to plan and implement an MCH and public health in-service training program for primary health care providers, especially clinic nurses.

The MOH is making progress in some of these areas. The activities and resources targeted under this project will provide additional assistance in improving MOH management support to the clinics.

### c. Shortages of Trained Swazis for PHC Leadership Positions: Two areas requiring continued USAID assistance are health management and health planning. Currently, Swazi leadership for the primary health care program rests on two or three very capable individuals who are spread thinly among a variety of curative, preventive, educational and executive duties. Despite donor and MOH efforts it has been difficult to hire and retain Swazis for key technical positions that provide both the improved

management support for the PHC/MCH system and the next generation of program leadership. Well-trained Swazis with managerial skills are in short supply and, when available, have more lucrative alternatives in the private sector. Recent college graduates returning to ministry positions require substantial on-the-job training before they can take over managerial responsibilities. In spite of the able assistance provided by expatriates in key senior positions, only Swazis can provide the continuity, vigorous program leadership and sense of cultural values necessary to build a Swazi institution.

### 3. Decentralization

The MOH believes that the effective decentralization of the management of health services from MOH headquarters to the four regions will result in a major break-through in increasing the productivity of regional health services. In its earliest stages of implementation, the health decentralization plan includes a focus on the regional health management team as the organizational unit responsible for the delivery of health services and the formulation of four regional health advisory councils and four community advisory committees.

At a macro level, the health team, composed of the principal health officer, the chief matron, the chief of public health, the health inspectors and the regional health administrator, is responsible for assessing the region's health problems and resources and formulating plans, budgets and workplans to best meet the region's health needs. At a practical level, the proximity of these key health providers to daily operational problems in a limited geographic area places them in a unique position to react and, where possible, resolve local issues.

The four regional health advisory councils and community advisory committees are composed of the heads of the government's agricultural and education and local government services and outstanding leaders. The advisory council, headed by the government's regional administrator, provides the critical linkage to the tinkhundla traditional government system. The purpose of the regional health advisory structure is to address health issues and resolve health problems that cut across sectors and to assure that the health programs are planned and implemented to reflect local priorities, participation and capture local support.

The MOH decision to decentralize the first line responsibilities for the planning and field operations of the health system is conceptually sound and merits donor support. Decentralization facilitates an integration of government and mission health services at the operational level, has service delivery payoffs, and is an important second step to the equalization of patient fees in establishing a national health system. However, decentralization will be a lengthy and possibly acrimonious process, involving additional training of district and headquarters staffs and greater interministerial cooperation and coordination.

The success of the program will depend on the quality of staff assigned to the districts and the MOH headquarters to manage the process, the sustained interest and commitment of the MOH, and the willingness of the central ministries to divest themselves of authority in key areas essential to effective regional health service management. Indications of success will not become clear for at least another year. If it succeeds, decentralization can make a major contribution to the efficiency and productivity of the health system, have a profound impact on clinic performance and, in turn, help to improve the provision of health care services. The MOH does not have the capacity to pursue a decentralization policy without outside technical assistance, which can improve the chance for success but will not guarantee it.

#### 4. Feasibility of Achieving Project Targets

The performance objectives of this project represent major increases, quantitatively and qualitatively, from the present levels of service and productivity. Present staffing levels at the clinics are limited. The MOH believes that additional staff will be required to achieve these target levels, and has prepared its submissions to the Department of Establishments and Training and its budget projections for the next few years accordingly. However, it is not possible at this time to ascertain the precise magnitude of the increases that the MOH will actually receive, and the analyses of administrative feasibility assumed minimal staff increases as a point of departure. The following assumptions regarding staffing were made: 1) that the provider staff is not now working at full productivity, 2) that with improved terms of service the motivation and productivity of the providers can be increased, 3) that improved supervision, training and readily available supplies will enable the motivated provider to deliver a larger amount of the targeted services, and 4) that delivery of the targeted services will impact on infant mortality and child health.

At this time, it is not possible to know precisely how much more productivity can result from a well-motivated and supported staff. Therefore, the project targets need to be reassessed after a year of project operation, i.e. during the first external evaluation in mid-1987. Initial project activities will include a number of low-tech, inexpensive clinic studies to obtain a more empirical measure of efficiency gains against which to judge performance targets and future staffing needs.

#### 5. Conclusion

The health services institutions and their administration are capable of managing the increased inputs necessary to improve primary health care services in Swaziland. Decentralization, if successful, should help to strengthen health care services and management. The institutional constraints identified through careful analysis will be addressed through project activities.

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### C. Economic

The level of per capita spending on health care in Swaziland by both individuals and government is higher than in most other countries in sub-Saharan Africa. However, while more is being spent, the magnitude of the major measures of health care do not show much being achieved for that level of spending. Comparing Swaziland only to other countries on the continent and controlling for income per capita and the level of primary school enrollment, we would expect that life expectancy would be nearly 10% higher, the child death rate to be 30% lower, and the population growth rate to be closer to 2.5% and not the 3.4%, or higher, currently estimated. The project is designed to improve the knowledge of preventive health practices and the ability of the government and private sector health providers to meet the demand. This leads to benefits that cannot be easily measured in monetary units. Traditional economic analysis is thus not very well-suited for this type of project.

#### 1. Benefits

There are a number of different types of benefits from this project. First, general studies have indicated that there is a relationship between better education, nutrition and access to preventive care with changes in health status. A second benefit derived from this project is the redistribution of income. Income is transferred from the relatively wealthy, usually urban dwellers, responsible for importing items and thus contributing to receipts from the Customs Union, to relatively poorer rural dwellers who will be the principal beneficiaries of primary health care. A third benefit arises from the contribution which community involvement approaches make to the effectiveness of development efforts other than the one most immediately benefited by the activity. The last type of benefit relates to the presumed reduction in the required expenditure on curative care because increased spending on preventive should reduce the requirement for curative spending, as well as the increase in operational efficiency resulting from project activities.

This last benefit is the only one that is subject to easy quantification. During the project, indicators of the change in general health status will be collected, and these may permit the mid-project and/or end of project evaluation to more accurately assess the magnitude of the economic benefits. With only minor increases in the efficiency of delivery services, the total expenditure on the project ought to be justifiable, that is have a real internal rate of return in excess of 5%. However, the primary benefits of the project are not in the improved efficiency of delivery systems, but rather in the increased benefits which people receive through improved pre- and ante-natal care, immunizations, and the results of improvements in nutrition and health practices. The results of the analysis are such that the project makes economic sense even without these benefits.

## 2. Cost-Effectiveness

The second part of the economic analysis deals with the cost-effectiveness of the project. The primary point here is that by concentrating on preventive rather than curative services, the project is emphasizing the form of health care which is the most cost-effective. Studies in other countries have shown that curative care is approximately six times as expensive as the preventive care which would have been required to prevent the illness. (An ounce of prevention is worth six ounces of cure.) Results of program analyses in other countries indicate that the most cost-effective health projects are those which are highly targeted, which have complementary programs which get people involved and talking among themselves, where resources are delivered at a local level, where the messages are reinforced using a number of different media, where there is community involvement, and where the programs are kept simple with a simple organizational structure.

This project builds on the experiences in other countries and while it is a complex project, it does emphasize educational programs, different media, community involvement, and complementarity of activities. To some extent, the problems of complexity are handled by not permitting the project to set up a new system within the Ministry, but rather to work within the existing structures, only improving their operation. (There is one change which is proposed, that of assisting the Ministry in its decentralization activities.)

## 3. Affordability

The last point concerns the willingness and ability of Swazis to pay for improved health care, or to participate in greater primary health care. There have been many studies over the past year into this question, and there has been no resolution. The median Swazi rural homestead is not impoverished (neither is it rich). They are spending at least E7 per month on health care; and they are willing to spend considerably larger amounts for traditional health care. Swazis have also shown a willingness to pay for, or at least participate in, schemes where it is shown that prevention can control the disease. Examples of this from non-human health areas are in cattle dipping and the use of chemicals to limit crop damage. The project proposes to study the possibilities of extra-budgetary financing which will explore these topics further. If the educational program is as successful at teaching people that human preventive health care is as valid as animal or crop health care, then it does not appear unlikely that people would be willing to make the necessary expenditures.

### D. Social

#### 1. Sociocultural Feasibility

The various service delivery objectives of this project relate primarily to two persistent and interrelated problems: infant mortality and population growth rates that remain higher than those

of other countries with comparable per capita incomes. An analysis of the sociocultural environment concluded that the interventions proposed to achieve project objectives are all socially sound and minimally obtrusive and disruptive. Annex 6D provides detailed information on the conclusions of the analysis, including constraints and obstacles affecting MCH/CS practices and service delivery.

## 2. Sociocultural Context

Homestead organization, the role of women, and the importance of indigenous health and childbearing beliefs and practices play prominently in the sociocultural context of a primary health care project in Swaziland.

Children are highly valued in traditional Swazi society, supplying more hands to work at the homestead, incoming bride payments in the case of girls, cash remittances when they grow up and find jobs, and providing the possibility of greater land allocation by the local chief. Due to long absences of men from the homestead, mothers bear most of the responsibility for childrearing and agricultural tasks. However, a young wife living with or very near her parents-in-law has very low status, little independent decision-making authority and thus often must defer to her husband and parents-in-law concerning health and childcare.

Little quantitative data is available on contraceptive use in Swaziland. In the past, traditional methods were employed, which kept population growth relatively stable. The erosion of these controls led to substantially increased fertility rates. Interest in modern contraception is growing among women, especially the educated; however, there is still considerable resistance from men and this is another area in which the subordinate position of the wife/mother during this stage of her life adversely affects the achievement of improved health status. Anecdotal information on family planning attitudes, beliefs and behavior is available, but a Knowledge, Attitudes and Practices (KAP) survey utilizing quantitative techniques and careful sampling procedures is needed.

Women rely heavily upon traditional methods and traditional health providers for ante-, peri- and postnatal care and for preventive and curative treatment for their infants, even if they do consult nurses or doctors. Often, traditional methods, such as enema, used in the treatment of serious childhood diarrheas are known to contribute to the dehydration of the child. However, mothers, RHMs and traditional healers now are beginning to use and to teach others to use home-mixed sugar and salt solutions in the treatment of dehydration due to diarrhea. The reliance upon traditional practitioners by Swazi mothers has been attributed in part to the shared belief system of the mothers and the practitioners. Greater knowledge of the role of the traditional sector in health care is required.

Women, especially younger ones who are pregnant or have small children, tend to be the most frequent visitors to clinics and

usually bring only their smallest children. Older children often receive less health care and nutrition after the arrival of a new baby. These behaviors have important implications for MCH/CS and therefore, medical-anthropological research in this area is needed.

Little is known about the beliefs and attitudes concerning immunizations against childhood disease. Qualitative research is needed to identify the factors --institutional, cultural, logistical-- influencing childhood immunization practices.

### 3. Sociocultural Constraints

The major sociocultural constraint to the achievement of project objectives is the strength and tenacity of traditional health beliefs, attitudes and practices. If the MOH fosters a policy of cooperation rather than competition, the traditional community can assist in the achievement of project objectives and become supporters and promoters of primary health care. There is evidence from USAID experience with family planning workshops for chiefs that traditional leaders can be influenced positively.

A general constraint involves the need for clear-cut policies, plans and decisions which are necessary to improve the administration, management, and service delivery capacity of the MOH. Since the death of King Sobhuza II, however, decision-making and the assumption of responsibility have been inhibited by unclear lines of authority and locus of power. Decision-making is especially problematic for programs which are innovative and potentially controversial in nature, as in the area of family planning.

### 4. Beneficiaries and Social Consequences

The intended beneficiaries of the project are the mothers and children of Swaziland. Since this group constitutes the majority of the rural and indeed the national population, health and child-spacing improvements will have positive effects on rural productivity and educational performance. The MOH and private sector individuals trained under the project will also be direct project beneficiaries.

The motivation to participate in project activities will depend on the particular group of participants or beneficiaries. Swazi women's motivation to make attitudinal and behavioral changes relating to MCH/CS depend on educating and eliciting the support of the traditional community. Primary health care workers can be motivated to take on additional responsibilities through incentives appropriate to the work environment. In the case of traditional healers, motivation to attend MOH workshops seems related to the rewards of acquiring useful and marketable skills, enhanced respectability, and public recognition by a ministry previously perceived by healers as disdainful and even condemnatory of traditional healers.

The motivation of RHMs to assume additional responsibilities is affected by possible competition and discord caused by undertaking

services already provided by TBAs and the lack of increased remuneration for new responsibilities which are potentially dangerous. Improved supervision, creative incentives, and/or community financing or rewarding of RHM services could resolve the remuneration problem.

#### 5. Impact on Poverty

Poverty is nowadays largely a consequence of unemployment, since virtually all homesteads are dependent to varying degrees on cash. Women are the most vulnerable group, working predominately in the subsistence sector, having less employment opportunities in the formal sector, and being dependent on men for cash. Women with no male kinsman remitting part of his wages tend to be among the poorest and neediest of Swazis. Poverty and ill health are mutually reinforcing, and both are exacerbated by rapid population growth and rapid-succession births. By targeting rural women of childbearing age for improved health and child-spacing services under the project, benefits will accrue to the most disadvantaged large group in Swaziland.

#### VI. Conditions and Covenants

In addition to the standard conditions precedent to disbursement, the following are proposed for inclusion in the project agreement:

##### 1. Condition Precedent to initial disbursement:

That the position of Health Training Officer has been established in the Ministry of Health and that the position has been filled with a qualified individual.

2. Condition Precedent to vehicle procurement - A plan for maintaining and repairing project-funded vehicles, and evidence that a program for any driver education necessary for the effective use of these vehicles is in place, including funding for this training. AID will require that this plan include a written agreement from GOS that project vehicles may be maintained outside CTA and that no CTA maintenance levy will be added to petrol purchased for these vehicles.

3. Condition Precedent to radio procurement - Presentation of an implementation plan that identifies facilities in which radios will be placed and maintenance/repair program for radios to be procured under project and other radios used by rural clinics and other health facilities, including adequate budgetary provision for maintenance and repair.

In addition to the standard covenant regarding project evaluations, the following are proposed for inclusion in the project agreement:

1. A covenant regarding increase in percentage of MOH recurrent budget for primary health care of 5 percentage points by 1990/91.
2. A covenant regarding GOS approval of improved conditions of service (i.e. incentives package) for rural health providers.
3. A covenant regarding GOS commitment to investigate and experiment with various forms of financing of health services outside normal GOS budgetary resources, with a view to increasing by E1,000,000 by the end of the project the amount of extra-budgetary funds spent by the MOH on health services.
4. A covenant regarding assurance that each long- and short-term advisor funded by the project will have a Swazi counterpart during the entire length of his or her assignment.
5. A covenant regarding the establishment of a high-level GOS committee to review population issues and make recommendations leading to the adoption of a policy supportive of voluntary child spacing during the early years of the project.
6. A covenant that persons receiving training in the United States under this or the Swaziland Manpower Development Project will return to Swaziland to work in the MOH in areas for which they have been trained for a minimum of twice the length of time of their overseas training.

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STATE 086140

Annex 1A

Page 1 of 5

*Action: PPD  
Info RHPDO  
DD*

ACTION: AID INFO: CHARGE' CHRON

VZJZCMB284  
PP RUEHRB  
DE RUEHC #6140 0810116  
ZNR UUUUU ZZH  
P 220110Z MAR 85  
FM SECSTATE WASHDC  
TO AMEMBASSY MBABANE PRIORITY 5069  
BT  
UNCLAS STATE 086140

LOC: 022 128  
22 MAR 85 0721  
CN: 06273  
CHRG: AID  
DIST: AID

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E.O. 12356: N/A

TAGS:

SUBJECT: SWAZILAND PRIMARY HEALTH CARE (645-0220) PID

1. ECPR FOR SUBJECT PID, CHAIRED BY DAA/AFR, L. SAJERS, WAS HELD ON MARCH 15, 1984. ECPR RECOMMENDED THAT THE MISSION PROCEED TO PP DESIGN. PRIOR TO FIELD APPROVAL UNDER CURRENT DOA 140, ECPR DECIDED THAT A CABLE SUMMARY OF THE FOLLOWING ITEMS OF PP SUBSTANCE MUST BE FORWARDED TO AID/W FOR REVIEW:

(A) A DESCRIPTION OF SPECIFIC PROJECT OUTPUTS RELATED TO THE SERVICE TARGET AREAS AS WELL AS A DISCUSSION OF THE FEASIBILITY OF ACHIEVING THOSE OUTPUTS WITHIN THE LIFE OF PROJECT, IN ORDER TO MEET 611 (A) REQUIREMENTS;

(B) THE SERVICE TARGETS SHOULD BE PRESENTED IN ORDER OF IMPORTANCE TO INDICATE WHICH ACTIVITIES WOULD RECEIVE PRIORITY FOR FUNDING;

(C) A FULL DESCRIPTION OF THE PROPOSED FAMILY PLANNING ACTIVITIES; AND

(D) A DISCUSSION OF THE RECURRENT COST IMPLICATIONS OF THE PROJECT AND HOW THESE COSTS WILL BE ABSORBED BY THE GOS.

2. BECAUSE OF THE IMPORTANCE OF HEALTH SECTOR ACTIVITIES IN THE SWAZILAND STRATEGY, THE CONCERNS OF BOTH PPC/HN AND AFR/TR/POP ABOUT THE CAPACITY OF THE MOH TO CARRY OUT THIS AMBITIOUS PROJECT, AND THE ONGOING CONCERN STEMMING FROM THE CDSS REVIEW OF WHETHER SUFFICIENT ATTENTION IS BEING GIVEN TO POPULATION ISSUES, CHAIRMAN DECIDED THAT PPC/HN (JUDY MCGUIRE) AND AID/W POP SPECIALIST, TO BE IDENTIFIED, SHOULD VISIT SWAZILAND. THEY COULD PARTICIPATE IN DEVELOPMENT OF RESPONSES REQUIRED PARAS 1 (A) TO (D) AND/OR ASSIST IN PP PREPARATION. THE PURPOSE OF THE VISIT IS TO BUILD A BETTER UNDERSTANDING IN AID/W TECHNICAL OFFICES OF THE SWAZILAND HEALTH AND POPULATION SECTOR AND THE PROSPECTS FOR SIGNIFICANT PROGRESS.

3. CABLE WITH REPORT ON THE ECPR MEETING AND PP GUIDANCE WILL BE FORWARDED WITHIN THE NEXT FEW DAYS.

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	Action	Info
DIE		
DC		✓
PPD	✓	
AFO		
CCW		
RLA		
RHPDO		✓
ACC		
R/ECON		
IDI		
TRM		
JAO		
CHRON		✓
RF		✓
Reply Due		
Action		
Taken		
Date		
File		

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STATE 134536/01

ACTION P&D  
INFO: P&D

ACTION: AID INFO: CHARGE' CHRON

VZCZCMBAS09  
PP RUEHRB  
DE RUEHC #4536/01 0960642  
ZNR UUUUU ZZH  
P 060641Z APR 85  
FM SECSTATE WASHDC  
TO AMEMPASSY MBABANE PRIORITY 5169  
BT  
UNCLAS STATE 104536

LOC: 305 419  
06 APR 85 1240  
CN: 27577  
CHRG: AID  
DIST: AID

AIDAC

E.O. 12356: N/A

TAGS:

SUBJECT: SWAZILAND RURAL HEALTH DEVELOPMENT PID  
(645-0220)

REF: (A) STATE 086140; (B) MBABANE 01084; (C) TELCON  
HAUSMAN/SMITH, 4/3/85

1. SUMMARY: THE FOLLOWING SUMMARIZES THE ISSUES,  
COMMENTS, AND ECPR GUIDANCE FOR PP PREPARATION OF  
SUBJECT PROJECT.

2. SCOPE OF ACTIVITIES: ALTHOUGH THE INTERVENTIONS TO  
BE FUNDED BY THE PROJECT WERE NOT DEFINED, THE ECPR  
EXPRESSED CONCERN ABOUT THE APPARENT AMBITIOUSNESS OF  
THE SCOPE OF THE ACTIVITIES AS INDICATED BY THE EIGHT  
SERVICE TARGETS. WE ASSUME THE MISSION WILL EXAMINE THE  
SCOPE OF THE ACTIVITIES TO BE UNDERTAKEN DURING THE PP  
DESIGN AND GIVEN INSTITUTIONAL CAPACITY, RANK ACTIVITIES  
BY ORDER OF PRIORITY.

3. THE PURPOSE OF THE PROJECT IS TO QUOTE IMPROVE  
PREVENTIVE HEALTH SERVICES IN SWAZILAND UNQUOTE. THE

MISSION'S REPRESENTATIVE EXPLAINED THAT THE PURPOSE  
COULD NOT BE ACHIEVED BY THIS PROJECT ALONE, BUT DEPENDS  
ON A COORDINATED EFFORT WITH OTHER DONORS. IT WAS  
UNCLEAR FROM THE PID, HOWEVER, WHAT ADDITIONAL RESOURCES  
WOULD BE PROVIDED BY OTHER DONORS AND THE GOS TO ACHIEVE  
THE PURPOSE.

THE ECPR CONCLUDED THAT THE PP MUST EITHER DETAIL THE  
OTHER RESOURCES NECESSARY AND AVAILABLE TO ACHIEVE THE  
PROAT SECTOR PURPOSE AS STATED OR MORE NARROWLY DEFINE  
THE PURPOSE STATEMENT TO RELATE DIRECTLY TO RESOURCES  
AND ACTIVITIES TO BE PROVIDED BY THIS PROJECT. UNDER HP  
3, CHPT. 2D, 2E, THE PROJECT PURPOSE QUOTE IS EXPECTED  
TO BE ACHIEVEABLE DURING THE LIFE-OF-PROJECT AS A RESULT  
OF PROJECT OUTPUTS UNQUOTE.

4. PROJECT APPROACH AND OTHER CONSIDERATIONS:

(A) AS STATED IN THE PID, THE PROPOSED APPROACH WOULD  
INVOLVE TWO PHASES. IN PHASE I, INTERVENTIONS WILL BE

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DESIGNED OR REFINED THROUGH STUDIES AND ASSESSMENT AND IN PHASE II THESE INTERVENTIONS ARE TO BE IMPLEMENTED. THE PID STATES, HOWEVER, THAT THE GOS MAY NOT ACCEPT THE APPROACH RESULTING FROM THE PHASE I STUDIES FOR IMPLEMENTATION DURING PHASE II. THE ECPR QUESTIONED TO WHAT EXTENT THESE STUDIES WOULD IMPACT ON THE DESIGN OF THE PROJECT, RESOURCES REQUIRED, TIMEFRAME, AND CONTRACTING NEEDS.

(B) THE PID DOES NOT ADEQUATELY DESCRIBE OUTPUTS OR INTERVENTIONS PROPOSED TO MEET THE OBJECTIVES OF THE PROJECT, AND THEREFORE, RAISES QUESTIONS OF FEASIBILITY. FURTHERMORE, THE LACK OF DISCUSSION ON SPECIFIC INTERVENTIONS TO MEET PROPOSED SERVICE TARGETS AND THE PROPOSED APPROACH FOR PHASE I, OUTLINED IN THE PID, RAISE CONCERNS ABOUT 611 (A) REQUIREMENTS. THE PP SHOULD SPECIFICALLY ADDRESS THESE POINTS AND SHOULD PROVIDE A DETAILED DESCRIPTION OF OUTPUTS AND IMPLEMENTATION PLAN TO ACHIEVE THOSE OUTPUTS.

IN THE EVENT THAT THE PP TEAM WILL NOT BE ABLE TO DESCRIBE OUTPUTS IN DETAIL AND PLANS FOR ACHIEVING THEM, SUBSTANTIATE COST ESTIMATES, AND

DEMONSTRATE THAT ADEQUATE PLANNING HAS BEEN UNDERTAKEN PRIOR TO OBLIGATION FOR THE PORTION OF THE PROJECT BEYOND THE STUDIES, ONLY THE AMOUNT REQUIRED FOR THE STUDIES SHOULD BE AUTHORIZED. PLEASE KEEP US ADVISED HOW MISSION INTENDS TO PROCEED PRIOR TO FINALIZING PP.

5. RECURRENT COSTS: ALTHOUGH THE PID DISCUSSES THE MISSION'S CONCERN TO KEEP RECURRENT COSTS TO A MINIMUM BY CONCENTRATING ON INCREASING EFFICIENCIES, EXPANSION OF THE COVERAGE OF RURAL HEALTH SERVICES IS THE ESSENTIAL FEATURE IN ADDRESSING MANY OF THE SERVICE TARGETS PROPOSED IN THE PID. GIVEN THE SEVERE BUDGET CONSTRAINTS FACING THE GOS, THE ECPR WAS CONCERNED ABOUT HOW THE COSTS OF EXPANDED COVERAGE WOULD BE FINANCED AND CONSIDERED IT ESSENTIAL THAT THE PP DESCRIBE THE RECURRENT COST IMPLICATIONS OF THIS PROJECT.

6. NEXT STEPS: AS DISCUSSED REFS, ECPR REQUESTED THAT SEVERAL ITEMS OF PP SUBSTANCE BE SUBMITTED TO AID/W AS AN INTERIM REPORT PRIOR TO AUTHORIZATION OF THE PP. AFTER REVIEW OF THIS REPORT, WE WILL DETERMINE APPROPRIATE VENUE FOR AUTHORIZATION OF THE PROJECT. WE WOULD WELCOME TDY OF SCOTT SMITH, DISCUSSED REFTELCON, TO PARTICIPATE IN THIS INFORMAL REVIEW.

IN RESPONSE TO PARA 2, REFTEL (B), JUDY MCGUIRE WOULD NOT BE AVAILABLE FOR TDY TO SWAZILAND IN LATE APRIL, BUT POSSIBLY IN EARLY MAY. SHE WOULD BE AVAILABLE TO

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PARTICIPATE ON PP TEAM BEGINNING IN MID-JUNE. BILL TRAYCORS, AFR/TR, WOULD BE AVAILABLE FOR ONE WEEK TO 10 DAYS TDY IN LATE APRIL. WE AGREE THAT THEIR PARTICIPATION WOULD BE MORE VALUABLE EARLIER, PRIOR TO SUBMISSION OF THE INTERIM REPORT, TO ENSURE THAT ISSUES RAISED AT PID REVIEW ARE ADDRESSED. WILL ADVISE REGARDING MCGUIRE'S TDY.

## 7. POINTS OF CLARIFICATION

(A) AFR/TR QUESTIONED THE AVAILABILITY OF DATA AND WHAT BASELINE WOULD BE USED TO MEASURE PROGRESS TOWARD ACHIEVING THE SERVICE TARGETS. THE PID DISCUSSES SOME OF THE HEALTH INDICATORS AVAILABLE FROM DIFFERENT SOURCES BUT DOES NOT INDICATE WHICH SOURCE WILL BE USED AS BASELINE. THE PP SHOULD CLARIFY THIS QUESTION.

(B) THE PID JUSTIFICATION REGARDING CONSIDERATION/ NON-CONSIDERATION OF SA AND GRAY AMENDMENT FIRMS DOES NOT SUBSTANTIATE A DECISION AT THIS TIME. AID/W CAN PROVIDE THE MISSION WITH ASSISTANCE IN DETERMINING THE AVAILABILITY OF FIRMS AND THEIR RESPECTIVE QUALIFICATIONS.

ALSO, THE MISSION IS URGED TO CONSIDER INVOLVEMENT OF PVCs IN THE PROJECT, PARTICULARLY IN LIGHT OF LEGISLATIVE MANDATE CONCERNING THEIR USE. CONTRACTING WITH A PVC MAY BE ONE POSSIBILITY. ALTERNATIVELY, IF THE PROJECT DESIGN IS SUCH THAT AN ASSISTANCE INSTRUMENT (GRANT OR COOPERATIVE AGREEMENT) IS APPROPRIATE, IT MAY BE POSSIBLE TO LIMIT COMPETITION FOR A GRANT TO PVOS, OR TO JUSTIFY A GRANT TO A SINGLE PVO. EARLY CONSULTATION WITH THE HLA WOULD BE HELPFUL HERE.

(C) RE THE ECONOMIC AND SOCIAL ANALYSES, THE PP SHOULD STRENGTHEN THE DISCUSSION ON COST EFFECTIVENESS AND REEXAMINE ANY ADDITIONAL ECONOMIC RATIONALE WHICH MAY BE APPLICABLE. AID/W CAN ASSIST BY PROVIDING GUIDANCE REGARDING THE METHODOLOGY FOR ECONOMIC ANALYSIS IN THE HEALTH SECTOR.

IN THE SOCIAL ANALYSIS, BENEFICIARIES ARE DESCRIBED AS THE MOB HEADQUARTERS MANAGERS AND PERSONNEL WHO WILL BENEFIT FROM THE TECHNICAL ASSISTANCE AND TRAINING PROVIDED TO THEM. THE PURPOSE OF THE PROJECT IS TO BENEFIT WOMEN AND CHILDREN THROUGH IMPROVED PREVENTIVE HEALTH SERVICES AND THE ANALYSIS SHOULD FOCUS ON THIS GROUP.

(D) TO THE EXTENT THAT ACTIVITIES WILL BE SUPPORTED THROUGH CENTRAL CONTRACTORS/GRANTEES (INTRAH, JHPIEGO), THE PP SHOULD DETAIL THE RESOURCES EXPECTED FROM THESE SOURCES.

(E) AN EVALUATION PLAN SHOULD BE DESCRIBED IN THE PP, NOTING TIMING OF EVALUATIONS AND CRITERIA TO BE USED IN MEASURING PROJECT PROGRESS. PROJECT FUNDS SHOULD BE

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ALLOCATED TO SUPPORT ANY EXTERNAL EVALUATIONS PLANNED.

8. THE BUREAU ENVIRONMENTAL OFFICER APPROVED THE IEE  
AND GC/AFR HAS CONCURRED. DAM

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MBABANE 1553

645-0220

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PP RUEHC  
EA RUEHQB #1553/01 127 \*\*  
ZNR UUUUU ZZE  
P 071234Z MAY 85  
FM AMEMBASSY MBABANE  
TO SECSTATE WASHDC PRIORITY 2391  
BT  
UNCLAS MBABANE 01553

CLASS: UNCLASSIFIED  
CHRG: AID 05/06/85  
APPRV: DIR:RHUESMANN  
DRFTD: PPD:SESMITH:LA  
CLEAR: RHPDO:CDEBOSE  
PPC/PDPR:JMGU  
AFTR/TR:WTRAYF  
DD:HRJOHNSON  
DISTR: AID-3 CDA CHRO

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E.O. 12356: N/A  
SUBJECT: INTERIM REPORT - SWAZILAND PRIMARY HEALTH CARE  
PROJECT (645-0220)

REFS: (A) STATE 86140; (B) STATE 104536

1. SUMMARY. THIS CABLE RESPONDS TO ISSUES RAISED IN ECFR OF SUBJECT PID, AS EXPRESSED IN REFTELS. IT PROVIDES AN UPDATE ON THE DESIGN PROCESS AND PROVIDES ADDITIONAL INFORMATION ON TWO KEY ASPECTS OF THE PROJECT--PROPOSED PROJECT ACTIVITIES AND RECURRENT COSTS. J. MCGUIRE, PPC/PDPR, AND W. TRAYFORS, AFR/TR, HAVE REVIEWED AND CLEARED THIS CABLE AND BELIEVE THAT THE PID-LEVEL ISSUES RAISED BY AID/W ON THE PROJECT HAVE BEEN ANSWERED TO THEIR SATISFACTION. MISSION REQUESTS THAT AID/W DELEGATE FULL AUTHORITY TO NEGOTIATE AND AUTHORIZ THE PROJECT TO USAID/SWAZILAND, BASED ON THE ADDITIONAL INFORMATION PROVIDED HEREIN AND MCGUIRE/TRAYFORS REVIEW OF THE PROJECT DURING THEIR TRIP. END SUMMARY.

2. PROJECT APPROACH AND DESIGN STRATEGY. PROJECT AUTHORIZATION WILL BE BASED ON A THOROUGH ANALYSIS OF THE FEASIBILITY OF ACHIEVING THE EIGHT SERVICE LEVELS DESCRIBED IN THE PID AND THE IDENTIFICATION OF PROPOSED INTERVENTIONS TO A DEGREE SUFFICIENT TO MAKE REASONABLE ESTIMATES OF THE RESOURCES REQUIRED TO ACHIEVE THESE OBJECTIVES. MANY OF THE ACTIVITIES NECESSARY TO ACHIEVE THE TARGETS WERE IDENTIFIED BY THE PID CONSULTANTS (ALIEN, THORNE, DLAMINI) AND WILL BE REFINED AS PART OF THE DESIGN. PARA 3 OF THIS CABLE PROVIDES ADDITIONAL DETAIL ON THE NATURE OF THESE INTERVENTIONS. WHILE SOME OF THESE ACTIVITIES WILL BEGIN IMMEDIATELY, THE MINISTRY OF HEALTH (MOH) AND USAID BELIEVE THAT AN OPERATIONAL PLAN IS REQUIRED TO TRANSLATE THIS SET OF ACTIVITIES INTO A WORKABLE PROGRAM THAT WILL BE THE FOUNDATION OF MOH MOH/CS ACTIONS THROUGH 1990. THE DEVELOPMENT OF THIS PLAN WOULD BE AN EARLY PRIORITY OF THE PROJECT. THIS PROCESS WILL NOT INVOLVE ADDITIONAL STUDIES TO DETERMINE THE FEASIBILITY OF ACHIEVING PROJECT OBJECTIVES, NOR WILL IT BE AN EFFORT TO IDENTIFY THE PRINCIPAL INTERVENTIONS REQUIRED TO REACH THESE TARGETS. RATHER, IT WILL FOCUS ON IMPLEMENTATION DETAILS. SINCE IT IS UNLIKELY THAT ALL OF THE

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ACTIVITIES NEEDED TO ACHIEVE THE SERVICE TARGETS BY 1990 CAN BE UNDERTAKEN AT ONCE, SOME PHASING WILL NEED TO BE PLANNED. THE MCH/CS PLAN WILL ARTICULATE THIS PHASING BASED ON TWO MAIN CRITERIA: (1) THE IMPACT A PARTICULAR ACTIVITY WILL HAVE ON ACHIEVEMENT OF ONE OR MORE OF THE TARGETS AND (2) OUR JUDGMENT REGARDING THE RELATIVE PROBABILITY OF SUCCESS IN CARRYING OUT THE ACTIVITY, CONSIDERING FACTORS SUCH AS ABSORPTIVE CAPACITY, COUNTERPART STAFF, AND POLICY ENVIRONMENT. THE MCH/CS PLAN WILL BECOME THE BASIS FOR FURTHER PROJECT IMPLEMENTATION OVER THE FIVE-YEAR LOP.

3. PROPOSED INTERVENTIONS TO ACHIEVE SERVICE TARGETS. IT IS IMPORTANT TO UNDERSTAND CLEARLY THE ROLE WE SEE FOR ALL FUNDING IN THIS PROJECT. THE PROJECT TAKES A SECTORAL VIEW, AND IS DESIGNED TO COMPLEMENT RATHER THAN REPLACE OTHER DONOR AND GOS INPUTS. THE APPROACH WE HAVE TAKEN IS TO WORK WITH THE MOH TO ESTABLISH REALISTIC SERVICE TARGETS FOR 1990, THEN WORK BACKWARDS TO DEFINE WHAT IS NEEDED TO GET FROM HERE TO THERE. ONCE THESE REQUIREMENTS (THE PROPOSED INTERVENTIONS) ARE SET FORTH, AID FUNDING WOULD SUPPLEMENT RESOURCES AVAILABLE FROM OTHER DONORS AND THE GOS TO MEET THEM. THE PID SET FORTH WHAT IS OUR PRESENT BEST ESTIMATE OF THE AMOUNT AND KIND OF AID RESOURCES REQUIRED. THE PP WILL, OF COURSE, REFINE THESE ESTIMATES.

THE PROJECT WILL INTEGRATE AT THE REGIONAL LEVEL EXISTING ON-GOING HEALTH AND FAMILY PLANNING ACTIVITIES UNDER ONE ADMINISTRATIVE MANAGEMENT ORGANIZATION. THE PROJECT SUPPORTS A COMMITTED SWAZI EFFORT TO REDUCE INFANT AND CHILD MORTALITY AND MORBIDITY BY EXPANDING THE GOVERNMENT'S PHC SYSTEM, WITH EMPHASIS ON STRENGTHENING REGIONAL CAPABILITIES TO PROVIDE PREVENTIVE HEALTH SERVICES. BECAUSE OF THE MCH/CS SECTOR FOCUS OF THE PROJECT, IT IS DESIGNED TO ADDRESS ALL OF THE MAJOR CONSTRAINTS DESCRIBED IN THE TECHNICAL AND INSTITUTIONAL CONSIDERATIONS SECTIONS (III.C. AND E.) OF THE PID. THE PRINCIPAL ACTIVITIES TO MEET THESE CONSTRAINTS ARE DESCRIBED IN THE PID CONSULTANTS' REPORTS, PARTICULARLY THORNE'S, WHICH ARE AVAILABLE IN AID/W. THESE ACTIVITIES WILL BE FURTHER REFINED WITH THE ASSISTANCE OF PRITCH ADVISORS (HOPEFULLY A RETURN VISIT BY ALDEN

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AND THORNE) BEGINNING MID-JUNE, AND WILL BE THE BASIS FOR FINAL PROJECT DESIGN. RATHER THAN REPEAT IN THIS CASE THE CONTENT OF THESE REPORTS, THE MISSION HAS RE-GROUPED THE PROPOSED ACTIVITIES INTO PROJECT OUTPUTS, MANY OF WHICH CUT ACROSS THE VARIOUS TARGETS. THESE ARE LISTED BELOW:

A. IMPROVEMENT OF A NATIONWIDE MCH/CS PROGRAM THROUGH THE TRAINING OF SERVICE DELIVERY PERSONNEL AND REGIONAL MANAGEMENT TEAMS, AND ESTABLISHMENT OF AN EFFECTIVE OUTREACH AND REFERRAL NETWORK AND DRUG AND CONTRACEPTIVE DISTRIBUTION SYSTEM.

B. A DECENTRALIZED SYSTEM OF PLANNING, BUDGETING, SUPERVISION, AND MANAGEMENT IN PLACE AND OPERATING EFFECTIVELY.

C. JOB DESCRIPTIONS OF HEALTH PERSONNEL AT ALL LEVELS REVISED TO TAKE INTO ACCOUNT SERVICE WORKLOAD AND INCREASED PRIORITY ON PRIMARY HEALTH CARE; PERSONNEL TRAINED AS APPROPRIATE TO PERFORM EFFECTIVELY IN REVISED ROLES.

D. HEALTH FACILITIES (INCLUDING CLINICS, HEALTH CENTERS, HOSPITALS, REGIONAL LABORATORIES) SUPPLIED WITH NECESSARY MCH/CS EQUIPMENT, ORS, SUPPLIES, VACCINES, DRUGS, AND CONTRACEPTIVES ON A STEADY, RELIABLE BASIS.

E. INCREASED PROPORTION OF RECURRENT HEALTH EXPENDITURES DEVOTED TO PRIMARY HEALTH CARE.

F. OPERATIONS RESEARCH CONDUCTED TO INVESTIGATE ALTERNATIVE SERVICE DELIVERY, COST-RECOVERY, AND INCENTIVE SCHEMES; SUCCESSFUL APPROACHES REPLICATED.

G. PUBLIC HEALTH NURSING CURRICULUM, INCLUDING EMPHASIS ON SUPERVISION/MANAGEMENT AND PREVENTIVE HEALTH CARE, DEVELOPED AND IN-PLACE AT INSTITUTE OF HEALTH SCIENCES.

4. RECURRENT COSTS. ESTIMATES OF ADDITIONAL RECURRENT COSTS REQUIRED TO IMPLEMENT AND SUSTAIN THE SERVICE TARGETS SET FOR THE PROJECT WILL BE MADE AS PART OF FINAL PROJECT DESIGN AND WILL BE INCLUDED IN FINANCIAL ANALYSIS SECTION OF PP. THE MAJOR CATEGORIES OF COSTS ARE SALARIES OF HEALTH PERSONNEL, DRUGS AND OTHER SUPPLIES, TRANSPORTATION, AND SUPERVISION. IN MOST OF THESE AREAS, MUCH CAN BE GAINED BY MORE EFFICIENT DEPLOYMENT OF PERSONNEL AND MANAGEMENT OF EXISTING RESOURCES. THERE WILL, HOWEVER, BE A NEED FOR ADDITIONAL RECURRENT EXPENDITURES.

WE HAVE FOCUSED MORE ON THE POLICY LEVEL ISSUE OF BUDGET ALLOCATIONS FOR PREVENTIVE SERVICES THAN THE AMOUNTS REQUIRED TO IMPLEMENT A CERTAIN SET OF ACTIVITIES. WE ARE DISCUSSING WITH THE COH THE CONCEPT OF ANNUAL INCREASES (OF 1.5 PERCENT) IN THE PERCENTAGE OF THE BUDGET THAT IS DEVOTED TO THESE SERVICES. AND OF BUILDING THIS LEVEL OF INCREASE INTO THE PROJECT SO AS TO PROVIDE ADDITIONAL LEVERAGE TO BRING ABOUT THESE

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INCREASES. OBVIOUSLY, AN ANALYSIS NEEDS TO BE CONDUCTED TO DETERMINE WHETHER THE AMOUNTS OF MONEY THE ANNUAL INCREASES WOULD GENERATE ARE SUFFICIENT TO IMPLEMENT THE SET OF ACTIVITIES REQUIRED TO ACHIEVE THE SERVICE TARGETS. THE MOR IS PRESENTLY PERFORMING SUCH AN ANALYSIS AND THIS WILL BE REFINED FOR INCLUSION IN THE PP. IN THIS CONNECTION, WE HAVE ALSO WORKED WITH THE MOR TO DEFINE MORE PRECISELY THOSE ELEMENTS THAT SHOULD BE INCLUDED IN A CALCULATION OF PREVENTIVE HEALTH EXPENDITURES WHICH CAN BE A BASIS FOR TRACKING FUTURE PERFORMANCE IN THIS AREA. IF IT IS DISCOVERED AS PART OF THE PP ANALYSIS THAT THE INCREASES THAT WOULD RESULT FROM ANNUAL INCREMENTS OF THE LEVEL DISCUSSED IN THE PID ARE INSUFFICIENT TO CARRY OUT THE FULL RANGE OF ACTIVITIES REQUIRED TO ACHIEVE THE SERVICE TARGETS, THE TARGETS WILL BE RE-EXAMINED AND REVISED TO THE EXTENT APPROPRIATE.

5. USAID BELIEVES THAT THE ABOVE INFORMATION, TOGETHER WITH THE MORE DETAILED DISCUSSIONS HELD WITH MCGUIRE AND TRAYFORS, RESPONDS TO THE SUBSTANCE OF THE QUESTIONS RAISED IN RETTELS. MCGUIRE AND TRAYFORS SHARE THIS BELIEF AND SEE NO NEED FOR ANOTHER FORMAL WASHINGTON REVIEW. MISSION THEREFORE REQUESTS A DELEGATION OF FULL AUTHORITY TO AUTHORIZE THE PROJECT.

6. WE ARE AWAITING CONFIRMATION OF THE TIMING OF PRITECH CONSULTANTS TO ASSIST IN FINAL DESIGN OF THE

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PROJECT, BUT ASSUMING THEIR AVAILABILITY O/A JUNE 15 BELIEVE WE WILL BE ABLE TO OBLIGATE INITIAL PROJECT FUNDING BY JULY 31 IF NO FURTHER REVIEW BY AID/W IS NECESSARY. PLEASE ADVISE. LAHIGUERA

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STATE 174333

Annex 1c

Page 1 of 1

*ACTION PPD  
INFO RHPDO  
RLA  
CONT*

ACTION: AID INFO: CHARGE' CHRON

VZCZCMB0557  
OO RUEHMP  
EE RUEHC #4333 1581506  
ZNR UUUUU ZZH  
O 071508Z JUN 85  
FM SECSTATE WASHDC  
TO RUEHMB/AMEMBASSY MBABANE IMMEDIATE 5527  
INFO RUEHNR/AMEMBASSY NAIROBI IMMEDIATE 5050  
BT  
UNCLAS STATE 174333

LOC: 058 005  
07 JUN 85 1512  
CN: 01481  
CHRG: AID  
DIST: AID

AICAC NAIROBI FOR REDSO

E.O. 12356: N/A

TAGS:

SUBJECT: SWAZILAND PRIMARY HEALTH CARE PROJECT  
(645-0220)- AD HOC DELEGATION OF AUTHORITY

REFS: (A) MBABANE 01553; (B) STATE 104536

1. AID/W HAS REVIEWED INTERIM REPORT REF A, AND AA/AFR  
HEREBY DELEGATES AUTHORITY TO USAID/SWAZILAND TO  
AUTHORIZE PROJECT. AUTHORITY SHALL BE EXERCISED IN  
ACCORDANCE WITH (A) GUIDANCE CONTAINED IN PARAS 2 AND 3  
BELOW AND (B) ALL THE PROVISIONS OF DOA 140 EXCEPT THE  
REQUIREMENT FOR REDSO CONCURRENCE.

2. DECUSION TO DELEGATE FULL AUTHORITY IS BASED ON THE  
UNDERSTANDING THAT THE PP WILL CONTAIN AN ADEQUATE,  
WORKABLE PLAN AS TO HOW THE PROJECT WILL BE IMPLEMENTED,  
RATHER THAN LEAVING DEVELOPMENT OF A QUOTE WORKABLE  
PROGRAM UNQUOTE UNTIL AFTER OBLIGATION. PLAN SHOULD  
DETAIL RESPONSIBILITIES OF VARIOUS PARTIES, TIMETABLES,  
PROCUREMENT ARRANGEMENTS AND OTHER DETAILS THAT  
DEMONSTRATE FEASIBILITY OF PROJECT IMPLEMENTATION.  
PLEASE CONSULT RLA AT AN EARLY POINT ON THIS MATTER.

3. BASED ON INFORMATION AVAILABLE TO AID/W, WE ARE  
CONCERNED THAT IT MAY NOT BE APPROPRIATE TO DESCRIBE  
THIS PROJECT AS A SECTOR PROJECT. TO DO THIS, THE PP  
WOULD HAVE TO BE PRECEDED BY OR CONTAIN A THOROUGH  
ANALYSIS OF THE SECTOR IDENTIFYING CONSTRAINTS, ASSURING  
AVAILABLE RESOURCES FROM ALL SOURCES (HOST COUNTRY, AID,  
AND OTHER DONORS) REQUIRED TO ACHIEVE PROJECT  
OBJECTIVES, AND EXPLAINING HOW THESE RESOURCES WILL  
ADDRESS THE TARGETED CONSTRAINTS. UNLESS SECTOR CAN  
CLEARLY BE DEFINED AND ADEQUATE ANALYSIS IS UNDERTAKEN,  
WE SUGGEST THAT A TRADITIONAL PROJECT APPROACH BE  
FOLLOWED WITH THE PROJECT PURPOSE AND OUTPUTS DESCRIBED  
IN TERMS OF WHAT IS ACHIEVABLE BY AID'S INPUTS. DAM  
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DIR	
DD	
PPD	✓
AFG	
COM	✓
RLA	✓
RHPDO	
ADD	
R/ECOM	
IDI	
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JAC	
CHRON	
RF	
Ready Date	
Approved	
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Date	
File	

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## 5C(1) - COUNTRY CHECKLIST

Listed below are statutory criteria applicable generally to FAA funds, and criteria applicable to individual fund sources: Development Assistance and Economic Support Fund.

A. GENERAL CRITERIA FOR COUNTRY ELIGIBILITY

1. FAA Sec. 481; FY 1985 Continuing Resolution Sec. 528. Has it been determined or certified to the Congress by the President that the government of the recipient country has failed to take adequate measures or steps to prevent narcotic and psychotropic drugs or other controlled substances (as listed in the schedules in section 202 of the Comprehensive Drug Abuse and Prevention Control Act of 1971) which are cultivated, produced or processed illicitly, in whole or in part, in such country or transported through such country, from being sold illegally within the jurisdiction of such country to United States Government personnel or their dependents or from entering the United States unlawfully?

No such determination has been made.

2. FAA Sec. 620(c). If assistance is to a government, is the government liable as debtor or unconditional guarantor on any debt to a U.S. citizen for goods or services furnished or ordered where (a) such citizen has exhausted available legal remedies and (b) the debt is not denied or contested by such government?

(a) No.

(b) No.

3. FAA Sec. 620(e)(1). If assistance is to a government, has it (including government agencies or subdivisions) taken any action which has the effect of nationalizing, expropriating, or otherwise seizing ownership or control of property of U.S. citizens or entities beneficially owned by them without taking steps to discharge its obligations toward such citizens or entities?

No.

4. FAA Sec. 620(a), 620(f), 620(D); FY 1985 Continuing Resolution Sec. 512 and 513. Is recipient country a Communist country? Will assistance be provided to Angola, Cambodia, Cuba, Laos, Syria, Vietnam, Libya, or South Yemen? Will assistance be provided to Afghanistan or Mozambique without a waiver?

No in all instances.

5. FAA Sec. 620(j). Has the country permitted, or failed to take adequate measures to prevent, the damage or destruction by mob action of U.S. property?

No.

6. FAA Sec. 620(l). Has the country failed to enter into an agreement with OPIC?

Yes, but assistance has not been denied to Swaziland for this reason.

7. FAA Sec. 620(o); Fishermen's Protective Act of 1967, as amended, Sec. 5. (a) Has the country seized, or imposed any penalty or sanction against, any U.S. fishing activities in international waters?

No such actions have taken place.

(b) If so, has any deduction required by the Fishermen's Protective Act been made?

8. FAA Sec. 620(q); FY 1985 Continuing Resolution Sec. 518. (a) Has the government of the recipient country been in default for more than six months on interest or principal of any AID loan to the country? (b) Has the country been in default for more than one year on interest or principal on any U.S. loan under a program for which the appropriation bill (or continuing resolution) appropriates funds?

(a) No.

(b) No.

9. FAA SEC. 620(s). If contemplated assistance is development loan or from Economic Support Fund, has the Administrator taken into account the amount of foreign exchange or other resources which the country has spent on military equipment? (Reference may be made to the annual "Taking Into Consideration" memo: "Yes, taken into account by the Administrator at time of approval of Agency OYB." This approval by the Administrator of the Operational Year Budget can be the basis for an affirmative answer during the fiscal year unless significant changes in circumstances occur.)

Assistance is neither a development loan nor from the Economic Support Fund.

10. FAA Sec. 620(t). Has the country severed diplomatic relations with the United States? If so, have they been resumed and have new bilateral assistance agreements been negotiated and entered into since such resumption?

No.

11. FAA Sec. 620(u) What is the payment status of the country's U.N. obligations? If the country is in arrears were such arrearages taken into account by the AID Administrator in determining the current AID Operational Year Budget? (Reference may be made to the Taking into Consideration memo.)

As of June 30, 1984, Swaziland's current year contribution only (\$64,969) was outstanding.

12. FAA Sec. 620A; FY 1985 Continuing Resolution Sec. 521. Has the country aided or abetted, by granting sanctuary from prosecution to, any individual group which has committed an act of international terrorism? Has the country aided or abetted, by granting sanctuary from prosecution to, any individual or group which has committed a war crime?

Not known to have.

Not known to have.

13. FAA Sec. 666. Does the country object, on the basis of race, religion, national origin or sex, to the presence of any officer or employee of the U.S. who is present in such country to carry out economic development programs under the FAA?

No.

14. FAA Sec. 669, 670. Has the country, after August 3, 1977, delivered or received nuclear enrichment or reprocessing equipment, materials, or technology, without specified arrangements or safeguards? Has it transferred a nuclear explosive device to a non-nuclear weapon state, or if such a state, either received or detonated a nuclear explosive device? (FAA Sec. 620E permits a special waiver of Sec. 669 for Pakistan.)

No.

No.

15. ISDCA of 1981 Sec. 720. Was the country represented at the Meeting of Ministers of Foreign Affairs and Heads of Delegations of the Non-Aligned Countries to the 36th General Assembly of the U.N. of Sept. 25 and 28, 1981, and failed to disassociate itself from the communique issued? If so, has the President taken it into account? (Reference may be made to the Taking into Consideration memo.)

Yes, Swaziland was represented at this meeting. It has since entered written reservations on the communique.

15. FY 1985 Continuing Resolution. If assistance is from the population functional account, does the country (or organization) include as part of its population planning programs involuntary abortion?

Assistance is in part from the Population Account. Swaziland does not include involuntary abortion as part of its population planning program.

16. FY 1985 Continuing Resolution Sec. 530. Has the recipient country been determined by the President to have engaged in a consistent pattern of opposition to the foreign policy of the United States?

B. FUNDING SOURCE CRITERIA FOR COUNTRY ELIGIBILITY

1. Development Assistance Country Criteria

FAA Sec. 116. Has the Department of State determined that this government has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, can it be demonstrated that contemplated assistance will directly benefit the needy?

No such determination has been made.

2. Economic Support fund  
Country Criteria

FAA Sec. 502B. Has it been determined that the country has engaged in a consistent pattern of gross violations of internationally recognized human rights? If so, has the country made such significant improvements in its human rights record that furnishing such assistance is in the national interest?

Swaziland is not an ESF-recipient country.

Not applicable.

5C(2) PROJECT CHECKLIST

Listed below are statutory criteria applicable to projects. This section is divided into two parts. Part A. includes criteria applicable to all projects. Part B. applies to projects funded from specific sources only:  
B.1. applies to all projects funded with Development Assistance loans, and  
B.3. applies to projects funded from ESF.

CROSS REFERENCES: IS COUNTRY CHECKLIST UP TO DATE? HAS STANDARD ITEM CHECKLIST BEEN REVIEWED FOR THIS PROJECT?

Yes, attached.

Yes, attached.

A. GENERAL CRITERIA FOR PROJECT

1. FY 1985 Continuing Resolution Sec. 525; FAA Sec. 634A; Sec. 653(b).

(a) Describe how authorizing and appropriations committees of Senate and House have been or will be notified concerning the project; (b) is assistance within (Operational Year Budget) country or international organization allocation reported to Congress (or not more than \$1 million over that amount)?

(a) The project was included in a planned Program Summary Sheet in the FY1985 Congressional Presentation. An Advice of Program Change was also submitted to Congress and the Congressional waiting period has now expired, without objection.

(b) Yes.

2. FAA Sec. 611(a)(1). Prior to obligation in excess of \$100,000, will there be (a) engineering, financial or other plans necessary to carry out the assistance and (b) a reasonably firm estimate of the cost to the U.S. of the assistance?

(a) Yes.

(b) Yes.

3. FAA Sec. 611(a)(2). If further legislative action is required within recipient country, what is basis for reasonable expectation that such action will be completed in time to permit orderly accomplishment of purpose of the assistance?

No specific legislative action is required.

4. FAA Sec. 611(b); FY 1985 Continuing Resolution Sec. 501. If for water or water-related land resource construction, has project met the standards and criteria as set forth in the Principles and Standards for Planning Water and Related Land Resources, dated October 25, 1973, or the Water Resources Planning Act (42 U.S.C. 1962, et seq.)? (See AID Handbook 3 for new guidelines.)

Not a water-related project.

5. FAA Sec. 611(e). If project is capital assistance (e.g., construction), and all U.S. assistance for it will exceed \$1 million, has Mission Director certified and Regional Assistant Administrator taken into consideration the country's capability effectively to maintain and utilize the project?

The project is not for capital assistance.

6. FAA Sec. 209. Is project susceptible to execution as part of regional or multilateral project? If so, why is project not so executed? Information and conclusion whether assistance will encourage regional development programs.

No.

7. FAA Sec. 601(a). Information and conclusions whether projects will encourage efforts of the country to:  
(a) increase the flow of international trade; (b) foster private initiative and competition; and (c) encourage development and use of cooperatives, and credit unions, and savings and loan associations; (d) discourage monopolistic practices; (e) improve technical efficiency of industry, agriculture and commerce; and (f) strengthen free labor unions.
8. FAA Sec. 601(b). Information and conclusions on how project will encourage U.S. private trade and investment abroad and encourage private U.S. participation in foreign assistance programs (including use of private trade channels and the services of U.S. private enterprise).
9. FAA Sec. 612(b), 636(h); FY 1985 Continuing Resolution Sec. 507. Describe steps taken to assure that, to the maximum extent possible, the country is contributing local currencies to meet the cost of contractual and other services, and foreign currencies owned by the U.S. are utilized in lieu of dollars.
10. FAA Sec. 612(d). Does the U.S. own excess foreign currency of the country and, if so, what arrangements have been made for its release?

Section 601(a) has little applicability to a primary health care project. However, improvement of health status of women and children should allow for increased agricultural production.

U.S. firms will be invited to compete for the technical assistance and commodities financed under the project.

Swaziland will contribute approximately 28% of the total costs of the project, including local costs and in-kind support. The U.S. does not own excess Swazi currency.

No excess Swazi currency is owned by the U.S.

11. FAA Sec. 601(e). Will the project utilize competitive selection procedures for the awarding of contracts, except where applicable procurement rules allow otherwise? **Yes.**
12. FY 1985 Continuing Resolution Sec. 522. If assistance is for the production of any commodity for export, is the commodity likely to be in surplus on world markets at the time the resulting productive capacity becomes operative, and is such assistance likely to cause substantial injury to U.S. producers of the same, similar or competing commodity? **Not applicable.**
13. FAA 118(c) and (d). Does the project comply with the environmental procedures set forth in AID Regulation 16. Does the project or program taken into consideration the problem of the destruction of tropical forests? **Yes.**  
**Not applicable.**
14. FAA 121(d). If a Sahel project, has a determination been made that the host government has an adequate system for accounting for and controlling receipt and expenditure of project funds (dollars or local currency generated therefrom)? **Not applicable.**

15. FY 1985 Continuing Resolution Sec. 536. Is disbursement of the assistance conditioned solely on the basis of the policies of any multilateral institution?

B. FUNDING CRITERIA FOR PROJECT

1. Development Assistance Project Criteria

- a. FAA Sec. 102(b), 111, 113, 281(a). Extent to which activity will (a) effectively involve the poor in development, by extending access to economy at local level, increasing labor-intensive production and the use of appropriate technology, spreading investment out from cities to small towns and rural areas, and insuring wide participation of the poor in the benefits of development on a sustained basis, using the appropriate U.S. institutions; (b) help develop cooperatives, especially by technical assistance, to assist rural and urban poor to help themselves toward better life, and otherwise encourage democratic private and local governmental institutions; (c) support the self-help efforts of developing countries; (d) promote

(a), (b), (c), and (d):  
the direct beneficiaries of this project are Swazi children under 5 and women of child-bearing age most of whom will be located in rural areas. Special efforts will be made to improve their health status through mass media communication. The rural and urban poor should equally benefit from enlightened health leadership and sound health policy development emanating from the Swazis and Swazi institutions strengthened through project activities.

100x

the participation of women in the national economies of developing countries and the improvement of women's status, (e) utilize and encourage regional cooperation by developing countries?

(e) Not applicable.

b. FAA Sec. 103, 103A, 104, 105, 106. Does the project fit the criteria for the type of funds (functional account) being used?

This project meets fully the criteria for functional accounts under FAA sections 104(b) and (c)

c. FAA Sec. 107. Is emphasis on use of appropriate technology (relatively smaller, cost-saving, labor-using technologies that are generally most appropriate for the small farms, small businesses, and small incomes of the poor)?

Yes, in the primary health care field.

d. FAA Sec. 110(a). Will the recipient country provide at least 25% of the costs of the program, project, or activity with respect to which the assistance is to be furnished (or is the latter cost-sharing requirement being waived for a "relatively least developed country)?

Yes, the contribution of Swaziland is estimated at approximately 28% of the total cost of the project.

e. FAA Sec. 110(b). Will grant capital assistance be disbursed for project for more than 3 years? If so, has justification satisfactory to Congress been made, and efforts for other financing, or is the recipient country

No. This is nor a capital assistance project.

"relatively least developed"? (M.O. 1232.1 defined a capital project as "the construction, expansion, equipping or alteration of a physical facility or facilities financed by AID dollar assistance of not less than \$100,000, including related advisory, managerial and training services, and not undertaken as part of a project of a predominantly technical assistance character."

- f. FAA Sec. 122(b). Does the activity give reasonable promise of contributing to the development of economic resources, or to the increase of productive capacities and self-sustaining economic growth?

Yes. Improvement of the health status of Swazi children and women of child-bearing age promises to enhance the human resource potential of Swaziland and thus to strengthen its economic and productive base.

- g. FAA Sec. 281(b). Describe extent to which program recognizes the particular needs, desires, and capacities of the people of the country; utilizes the country's intellectual resources to encourage institutional development; and supports civil education and training in skills required for effective participation in governmental processes essential to self-government.

The project will improve on existing efforts of the Government of Swaziland to integrate all of its population into the economic life of the country by increasing the access of a significant group of Swazis to primary health services.

2. Development Assistance Project  
Criteria (Loans Only)

Not a Development Loan  
activity.

a. FAA Sec. 122(b).  
Information on conclusion on  
capacity of the country to  
repay the loan, at a  
reasonable rate of interest.

Not applicable.

b. FAA Sec. 620(d). If  
assistance is for any  
productive enterprise which  
will compete with U.S.  
enterprises, is there an  
agreement by the recipient  
country to prevent export to  
the U.S. of more than 20% of  
the enterprise's annual  
production during the life  
of the loan?

Not applicable.

3. Economic Support Fund Project  
Criteria

Not an ESF-funded activity.

a. FAA Sec. 531(a). Will this  
assistance promote economic  
and political stability? To  
the extent possible, does it  
reflect the policy  
directions of FAA Section  
102?

Not Applicable.

b. FAA Sec. 531(c). Will  
assistance under this  
chapter be used for  
military, or paramilitary  
activities?

Not applicable.

c. FAA Sec. 534. Will ESF  
funds be used to finance the  
construction of, or the  
operation or maintenance of,  
or the supplying of fuel  
for, a nuclear facility? If  
so, has the President  
certified that such use of  
funds is indispensable to  
nonproliferation objectives?

d. FAA Sec. 609. If commodities are to be granted so that sale proceeds will accrue to the recipient country, have Special Account (counterpart) arrangements been made?

Not applicable

5C(3) - STANDARD ITEM CHECKLIST

Listed below are the statutory items which normally will be covered routinely in those provisions of an assistance agreement dealing with its implementation, or covered in the agreement by imposing limits on certain uses of funds.

These items are arranged under the general headings of (A) Procurement, (B) Construction, and (C) Other Restrictions.

A. Procurement

1. FAA Sec. 602. Are there arrangements to permit U.S. small business to participate equitably in the furnishing of commodities and services financed?
2. FAA Sec. 604(a). Will all procurement be from the U.S. except as otherwise determined by the President or under delegation from him??
3. FAA Sec. 604(d). If the cooperating country discriminates against marine insurance companies authorized to do business in the U.S., will commodities be insured in the United States against marine risk with such a company?

Yes.

Yes.

Swaziland does not discriminate against U.S. marine insurance companies.

4. FAA Sec. 604(e); ISDCA of 1980 Sec. 705(a). If offshore procurement of agricultural commodity or product is to be financed, is there provision against such procurement when the domestic price of such commodity is less than parity? (Exception where commodity financed could not reasonably be procured in U.S.) **Not applicable**
5. FAA Sec. 604(g). Will construction or engineering services be procured from firms of countries which are direct aid recipients and which are otherwise eligible under Code 941, but which have attained a competitive capability in international markets in one of these areas? Do these countries permit United States firms to compete for construction or engineering services financed from assistance programs of these countries? **Not applicable.**
6. FAA Sec. 603. Is the shipping excluded from compliance with requirement in section 901(b) of the Merchant Marine Act of 1936, as amended, that at least 50 per centum of the gross tonnage of commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) financed shall be transported on privately owned U.S. flag commercial vessels to the extent such vessels are available at fair and reasonable rates? **The project will comply with this provision.**

7. FAA Sec. 621. If technical assistance is financed, will such assistance be furnished by private enterprise on a contract basis to the fullest extent practicable? If the facilities of other Federal agencies will be utilized, are they particularly suitable, not competitive with private enterprise, and made available without undue interference with domestic programs?

Yes.

Yes.

8. International Air Transportation Fair Competitive Practices Act, 1974. If air transportation of persons or property is financed on grant basis, will U.S. carriers be used to the extent such service is available?

Yes.

9. FY 1985 Continuing Resolution Sec. 504. If the U.S. Government is a party to a contract for procurement, does the contract contain a provision authorizing termination of such contract for the convenience of the United States?

Any direct AID contract under the project will contain such a provision.

B. Construction

1. FAA Sec. 601(d). If capital (e.g., construction) project, will U.S. engineering and professional services be used?

This is nor a capital assistance project.

2. FAA Sec. 611(c). If contracts for construction are to be financed, will they be let on a competitive basis to maximum extent practicable?

Not applicable. No construction will be financed under the project.

3. FAA Sec. 620(k). If for construction of productive enterprise, will aggregate value of assistance to be furnished by the U.S. not exceed \$100 million (except for productive enterprises in Egypt that were described in the CP)?

Not applicable. No construction will be financed under the project.

C. Other Restrictions

1. FAA Sec. 122(b). If development loan, is interest rate at least 2% per annum during grace period and at least 3% per annum thereafter?
2. FAA Sec. 301(d). If fund is established solely by U.S. contributions and administered by an international organization, does Comptroller General have audit rights?
3. FAA Sec. 620(h). Do arrangements exist to insure that United States foreign aid is not used in a manner which, contrary to the best interests of the United States, promotes or assists the foreign aid projects or activities of the Communist-bloc countries?
4. Will arrangements preclude use of financing:
  - a. FAA Sec. 104(f); FY 1985 Continuing Resolution Sec. 527. (1) To pay for performance of abortions as a method of family planning or to motivate or coerce persons to practice

This is not a loan-financed project.

Not applicable.

Yes.

(1) Yes.

- abortions; (2) to pay for performance of involuntary sterilization as method of family planning, or to coerce or provide financial incentive to any person to undergo sterilization; (3) to pay for any biomedical research which relates, in whole or part, to methods or the performance of abortions or involuntary sterilizations as a means of family planning; (4) to lobby for abortion?
- (2) Yes.
- (3) Yes.
- (4) Yes.
- b. FAA Sec. 620(g). To compensate owners for expropriated nationalized property?
- Yes.
- c. FAA Sec. 660. To provide training or advice or provide any financial support for police, prisons, or other law enforcement forces, except for narcotics programs?
- Yes.
- d. FAA Sec. 662. For CIA activities?
- Yes.
- e. FAA Sec. 636(i). For purchase, sale, long-term lease, exchange or guaranty of the sale of motor vehicles manufactured outside U.S., unless a waiver is obtained?
- Yes. The CY1985 Southern Africa Light Weight Vehicle Waiver will apply to this project.
- f. FY 1985 Continuing Resolution, Sec. 503. To pay pensions, annuities, retirement pay, or adjusted service compensation for military personnel?
- Yes.

- g. FY 1985 Continuing Resolution, Sec. 505.  
To pay U.N. assessments, arrearages or dues? **Yes.**
- h. FY 1985 Continuing Resolution, Sec. 506.  
To carry out provisions of FAA section 209(d) (Transfer of FAA funds to multilateral organizations for lending)? **Yes.**
- i. FY 1985 Continuing Resolution, Sec. 510.  
To finance the export of nuclear equipment, fuel, or technology or to train foreign nationals in nuclear fields? **Yes.**
- j. FY 1985 Continuing Resolution, Sec. 511.  
Will assistance be provided for the purpose of aiding the efforts of the government of such country to repress the legitimate rights of the population of such country contrary to the Universal Declaration of Human Rights? **No.**
- k. FY 1985 Continuing Resolution, Sec. 516.  
To be used for publicity or propaganda purposes within U.S. not authorized by Congress? **Yes.**

**SWAZILAND**



ANNEX 3

**GOVERNMENT**

Department of Economic Planning  
and Statistics  
P.O. Box 602  
MBABANE

21st August, 1985

Ref:

The Director  
USAID/Swaziland  
P.O. Box 750  
MBABANE

Dear Sir,

**SWAZILAND PRIMARY HEALTH CARE PROJECT PROPOSAL**  
**- 645-0220**

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I refer to recent discussions between representatives of the Government of the Kingdom of Swaziland and the USAID staff regarding the subject proposal as described in a draft project paper.

The Government of the Kingdom of Swaziland requests assistance of the Government of the United States of America to improve the health status of Swazi children under five years of age and of women of child-bearing age to be measured by decreases in childhood mortality and by increases in life expectancy. The Project will improve maternal and health/child spacing (MCH/CS) services focusing on eight specific MCH/CS areas. The proposed five-six year project will finance long and short-term technical assistance; participant training to be conducted within and outside of Swaziland; commodities in support of all target areas; research, monitoring and evaluation services; and other related costs.

The Requested A.I.D. contribution is US\$5,700,000. The contribution of the Government of Swaziland to the project would be not less than the Emalangi equivalent of US\$2,245,000.

We trust that this request will meet with USAID's favourable consideration.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'A. G. M. M.', written over a horizontal line.

FOR:

PRINCIPAL SECRETARY

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Swaziland Primary Health Care Project  
Annex 4A  
Primary Health Care in Swaziland

I. Health Problems

Despite substantial investments in the health sector since independence, Swaziland still has severe health problems which decrease the quality of life of the majority of its people. Table 4A1 demonstrates the extent to which Swaziland lags behind its neighbors in addressing basic primary health care needs. Life expectancy is low, principally due to Swaziland's high level of infant and child mortality. Although the infant and child mortality rate has declined from 168/1000 in 1966 to an estimated 105/1000 in 1984, the rates are extremely high compared to other similar income countries. Under-five mortality is at a level where nearly a quarter of Swazi children die before reaching their fifth birthday. Many of these deaths can be easily prevented through simple and inexpensive means.

The primary causes of death among young children in Swaziland are the complex group of childhood diarrheas, infectious diseases, pneumonia, and malnutrition. In terms of hospital deaths for 1983, malnutrition accounted for 23% of under five mortality. Diarrheal diseases were reportedly the second leading cause of child death, accounting for 19% of the total, and respiratory infections and tetanus combined accounted for a further 15% of the total. Together, these four groups accounted for more than 50% of all hospital deaths in the 0-5 age group and nearly 25% of all hospital deaths for all ages. In the total population these causes likely account for much higher rates since poor living conditions on the homesteads, inadequate utilization of health care facilities, and poor prenatal and child care practices contribute to high levels of childhood mortality.

The prevalence of preventable infectious diseases among children in Swaziland is disturbingly high. Nationally reported data show that 7199 cases of tuberculosis, pertussis, polio, measles, and tetanus were discharged from all health facilities in 1983. Measles accounted for 50% of these cases, tuberculosis 27%, pertussis 18%, and polio and tetanus the remaining 5%. Although children could be easily immunized against all these diseases, the 1984 Homestead Survey found that only 24% of Swazi children were fully immunized before 12 months of age.

Parasitic and respiratory diseases are also major contributors to mortality and morbidity in women and children in Swaziland. Ministry of Health mortality data for hospital admissions indicate that acute lower respiratory infections are the third leading cause of child death after diarrhea and malnutrition. Syphilis during pregnancy is believed to be responsible for up to 50% of stillbirths. Ascariasis is a major parasitic disease of both mothers and children. A national survey conducted in 1982 reported that nearly one-third of the population is infected with ascaris

umbricoides which greatly undermines the nutritional status of children and leads to other complications. Although malaria was a relatively small-scale problem through most of the 1970's, the number of cases reported has increased significantly in the last few years - from 152 in 1981/2 to 744 in 1982/3 and 3379 in 1983/4. Malaria is particularly serious in pregnancy where it contributes to maternal anemia, nutritional deficiency, and leads to the birth of low birth weight babies with consequent high rates of morbidity and mortality.

Malnutrition and inappropriate weaning practices contribute to the high rate of infant mortality, both directly and through the interaction with diseases. The National Nutrition Survey (1983) found that 30.6% of under fives are chronically under-nourished (nutritionally stunted), although average food availability has increased from 1,672 in 1961 to 2,179 kilocalories/person/day in 1978. Much of this undernutrition is believed to be associated with a high incidence of diarrhea and infectious diseases, inappropriate infant feeding practices, especially the early introduction of breastmilk substitutes, and poor sanitary conditions.

The fertility rate in Swaziland is estimated at around seven children per woman (World Bank, 1984), contributing to a population growth rate estimated at 3.4%. This rate is very high relative to the developing world in general, although it is comparable to other east and southern African countries. The high level of fertility is the product of a fairly early start in childbearing (with nearly half of all Swazi women having borne their first child by the age of 20), almost universal marriage for women, no abnormally high incidence of pathological fertility impairment, and only very limited use of either traditional or modern methods of birth control. Although levels of education and standards of living have been rising, the proportion of women with secondary education and relatively high incomes has not yet increased enough to have made a significant impact on overall fertility levels. The national contraceptive prevalence in Swaziland is estimated at 4-5%. High levels of discontinuation may account for the low prevalence.

## II. Health Care Delivery and Support System

In Swaziland, the health care system has not evolved in an orderly fashion whereby needs-based decisions are taken on the types of services, facilities, and programs required to address health problems and health care demands. Rather, it has developed piecemeal related first to former colonial influence and later to often uncoordinated international organization and donor agency assistance. Curative services have dominated the system and only recently has there been a shift toward preventive and primary health care (National Health Policy, July 1983).

The health system has grown rapidly in recent years and has outstripped the ability of the MOH management and administrative systems to support it. Transportation and logistic bottlenecks, shortages of nurses and allied health care professionals, and

inadequate equipment in clinics and hospitals are major constraints to delivering effective and efficient health services. In addition, the MOH at both the headquarters and field levels suffer from major management weaknesses in such areas as financial control, accounting, personnel, and supervision. In-service training for health staff in the field and Rural Health Motivators (RHM) has been identified as an urgent need to maintain quality levels of care.

Health services are provided by many organizations and individuals: government, religious missions, private physicians and nurse practitioners, private voluntary organizations, and traditional healers and midwives. Swaziland has a total of 9 hospitals, 9 health centers, 118 clinics, and 6 Public Health Units (PHU). Of these, government operates 6 hospitals, 5 PHUs, 36 clinics, and only 2 health centers. In terms of service delivery, in 1982 government provided 50% of hospital admissions and first outpatient visits while missions provided 40% of hospital admissions and 16% of first outpatient visits. Industry reported 8% of all hospital admissions and 38% of first outpatient visits. Rural health care is based on health centers and clinics backed by services provided through PHUs and RHMs at community levels. At the present time, approximately 70% of the population is believed to live within 8 kilometers of a health facility. However, this means 30% have little or no sustained access to the formal health care system, and those that do have theoretical access are served by a system which is plagued by multiple problems including inadequate staffing, insufficient drugs and supplies, poor maintenance and sparse transportation.

Access to family planning services has improved since the late seventies. MOH statistics indicate that the number of attendances increased from 16,676 in 1978 to 19,743 in 1981. However, these statistics must be treated with caution because of the small number of clinics reported and because the history of acceptors, i.e. whether they re-attend and how often, is not known. Until a wide-ranging population policy is formulated, the influence of family planning services will remain limited.

Recently the MOH began the process of decentralizing into four regions many management and technical responsibilities. The purpose of decentralization is to strengthen the delivery of health services for the rural areas, giving priority to preventive services and primary health care. Regional health management teams have been established and they have commenced defining responsibilities, procedures for planning and management, and processes for involving the community. Health advisory councils at the national, regional, and community levels collaborate with the regional health management teams to secure appropriate community involvement.

While utilization of health services, particularly MCH clinics, has increased over time, most clients do not return for follow-up care. In industrially advanced countries, one finds an average of 3 return visits for each initial visit for the same health problem. In Swaziland, this ratio is reversed - only one reattendance per

three initial visits. Although one visit may effectively treat most problems, the client may not return for follow-up if s/he did not perceive the care as beneficially impacting on the health problem. Possible additional explanations for the low reattendance rate include transport problems, fees charged, and long waiting time which may discourage use of the system.

### III. Donor Contributions to Primary Health Care

AID, by far the largest single donor in the health sector in Swaziland, supports the MOH at three levels: central administration, training, and the provision of health services. USAID has funded the Health Manpower Training Project which created the Swaziland Institute of Health Sciences, a nurse and auxiliary health personnel training center. The project also expanded the Health Statistics Unit into a functioning component of the MOH planning and analysis section. USAID support of the Health Planning and Management OPG has been instrumental in bringing about the major change in the MOH orientation toward preventive services. This project also provided assistance in the development and implementation of the MOH decentralization effort, a major manpower assessment activity, and supported improvements in the Ministry's personnel system. The Rural Water Borne Disease Control Project has assisted the GOS in combatting water borne diseases and providing safe and accessible water supplies to rural populations. Combatting Communicable Childhood Diseases (CCCD), working in conjunction with the Mass Media for Health Practices Project (MMHP) focuses on decreasing childhood mortality caused by immunizable diseases, diarrheal disease, and malaria. Project HOPE, through an AID matching grant, is providing technical assistance to the Nazarene Nursing College to upgrade the nursing curriculum and to Central Medical Stores to improve the drug supply system. Finally, the Mission has directly supported child spacing efforts by training MOH and NGO personnel in child spacing methods and through providing technical support to FLAS.

There are numerous other bilateral and multilateral donors working with the MOH. (See also Annex 10 for a more detailed description of present other donor activities in primary health care.) The Federal Republic of Germany is providing support for completion of rural clinic construction. The British Overseas Development Association provides technical assistance to MOH headquarters (a financial controller and a health planner) and Mbabane Government Hospital (physicians and specialists). The Mennonite Central Committee has placed one volunteer in the Health Statistics Units at MOH headquarters.

In MCH/CS, UNICEF provides all national vaccine requirements for measles, tetanus, DPT, and BCG, while Save the Children Fund contributes polio vaccines. UNICEF has taken the lead in promoting growth monitoring in Swaziland by equipping all health facilities with scales and training health professionals in growth monitoring techniques. UNICEF also supports training of Rural Health Motivators.

UNFPA/IPPF assists with in-service training of clinic nurses and provide contraceptive supplies. FPIA supports the Family Life Association of Swaziland (FLAS) activities in family health. The World Food Programme supplies food commodities to MCH clinics and to a school feeding program. WHO provides a technical advisor to the Health Education Unit (HEU), and UNDP provides a graphic artist volunteer to HEU.

The Canadian Government has sponsored water and sanitation activities in Swaziland since 1977 with technical assistance in to the Rural Water Supply Board. They have funded overseas training for technicians and engineers as well as assisting in the construction of rural water supplies. Although Canadian assistance is slowly phasing out, their assistance to the GOS in water supply is expected to continue through 1988 with technical assistance to SCOT's (Swaziland College of Technology) training program for water technicians.

The United Kingdom, EEC, and UNDP have also provided assistance in water and sanitation through supporting design and construction of rural water supplies, training of engineers and technicians, and in-country training of community development officers in water-related activities. Although EEC assistance will terminate in 1985, UNDP and U.K. involvement is expected to continue over the next several years.

USAID assistance to water and sanitation, begun in 1978 through the Rural Water Borne Disease Control Project and continuing through September 1986, has focused on the provision of clean, accessible water supplies and appropriate disposal of waste. Through these efforts, latrine construction, water supply protection, health education, and health worker training the health problems related to environmental sanitation have been institutionalized within the Rural Water Supply Board.

Table 4A1  
Health Indicators for BLS Countries

<u>Indicator</u>	<u>COUNTRY</u>		
	<u>Swaziland</u> <sup>1</sup>	<u>Botswana</u> <sup>2</sup>	<u>Lesotho</u> <sup>3</sup>
Life Expectancy	52	60	55
Infant Mortality	105	70	94
0-2 Mortality	192	136	130
0-5 Mortality	231	N/A	N/A
Fertility Rate	7%	6%	5%

Source: <sup>1</sup>World Bank, Swaziland Population and Health Sector Review. 1984.

<sup>2</sup>World Bank/Government of Botswana Family Health Project, 1983

<sup>3</sup>World Bank, World Development Report 1984

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Swaziland Primary Health Care Project  
Annex 4B  
Bibliography

- Adu-Boahene, Yew "Health Services Fee Structure Rationalization and Government Financial Relationship with Mission Sector Health Services", Ministry of Health, Health Planning and Management Project, Feb. 1984.
- African Experience in Sickness Insurance and Health Protection Under Social Security "Introductory Report" General Secretariate of International Social Security Association, Geneva, September 1984.
- Allagher J., "Swaziland Health Manpower Training Project: Assessment and Evaluation of Institute of Health Sciences Nursing Program", May 1981.
- Alt, D., E. Petrick, F. White, "Review of Personnel Management, Policies, Procedures and Practices", MOH/GOS, April 1984.
- Blaine, Dianne, "Southern Africa Manpower Development - Swaziland Evaluation", Dec 1983.
- Bracewell, H. - "Report of Mazarene Nursing College", Aug 1984.
- Centers for Disease Control, Swaziland National Nutrition Survey, 1983.
- Chavez, C. - Institute Feeding in the Health Sector, , July 1984.
- Christensen, Anne and John Heldrup, - Community Health Manual Vol II - Preventive Health Care, Ed., 1978.
- Christensen, Anne and John Heldrup, - Community Health Manual Vol II - Organization and Administration of Health Services.
- "Combatting Childhood Communicable Disease Project: Swaziland Assessment", June 1983.
- DeNarais, Catherine - "Final Report - Swaziland Health Manpower Training", July 1984.
- deVletter, Pion (ed), The Swazi Rural Homestead Survey, Social Science Research Unit, University of Swaziland, Kwaluseni, 1983.
- Dougher, P. and C. Konrad, - "Drug and Medical Supply System Report", December 1983.

BEST AVAILABLE DOCUMENT

51187

- Douglas, G.A., Occupational Health Practice in Swaziland, May 1978.
- FLAS - Fourth Annual Report - April 1983-March 1984, March 1984.
- "Fourth National Development Plan" - Government of Swaziland, 1983/84-1987/88, (draft), Mbabane, 1984.
- FPIA - 1984-1986 A Strategic Plan, March 1984.
- Gelfard, Harry - "Consultation of Epidemiological Aspects of Diarrheal Diseases", September 1984.
- Green, Edward - "U.S. Population Policy Development and Rural Poor of Africa".
- Green, E. - "Swazi Beliefs and Practices Relating to Diarrheal Diseases of Childhood". USAID/Swaziland and Academy for Educational Development, Washington, D.C. 1983. (Social Science and Medicine, Vol. 19, 1984. Forthcoming).
- Green, E. - "Traditional Leadership, Community Participation, and Development Education in Swaziland". USAID, Mbabane, Swaziland, 1984.
- Green, E. - "A Knowledge, Attitudes, and Practices Survey of Water and Sanitation in Swaziland", Ministry of Health, Mbabane, Swaziland, and Academy for Educational Development, Washington, D.C. 1982.
- Green, E. and L. Makhubu - "Traditional Healers in Swaziland: Toward Improved Cooperation Between the Traditional and Modern Health Sectors". Social Science and Medicine, Vol. 18, Section B, 1984.
- Government of Swaziland, Annual Statistical Bulletin 1982, 1981, 1980, 1979.
- Government of Swaziland/Ministry of Health, National Health Policy. Mbabane, Swaziland. GOS: 1983.
- Government of Swaziland/Ministry of Health, Health Statistics Units - Statistical Records. Mbabane, Swaziland. GOS: 1983.
- Hottle, A.K. - "Decentralization of the Management of Health Services", Ministry of Health, Government of Swaziland, June/July 1983.
- Hottle, A.K. - Notes on Future Health Project Planning in Swaziland, November 1984.
- Hottle, A.K. - "Decentralization and the Management of Health Service", July 1983.

**BEST AVAILABLE DOCUMENT**

- HNAP - Health Planning and Management: Project Evaluation, July 1983.
- INTRAM - Report 232 - FLAS Training Program Evaluation and Future Planning with FLAS and MOH, March 1984.
- Journal of Modern African Studies, 20, (1982), pp. 45-67.
- Kingdom of Swaziland - Loan Proposal for the Financing of the Health Services Development Project, November 1983.
- Magagula, G. - "Population Issues and Strategies in Employment Generation in the Rural Areas of Swaziland". Workshop on population, Employment, and Rural Development. PBFL, FAO, Mbabane, 1981.
- McGuire, J., H. Blase, L. Godiksen, and P. Zukin. Swaziland: Health Manpower Training Project. June 1984.
- Mosley, W. Henry - "Will primary health care reduce infant and child mortality. A critique of some current strategies with special reference to Africa and Asia." Ford Foundation, Jakarta, Indonesia, for the IUSSP Seminar on Social Policy, Health Policy and Mortality Prospects, Paris, Feb/March 1983.
- Oyebode, Ajayi UNFPA Program Officer - Report of Mission to Swaziland, UNFPA, December 1983.
- Petersen, Karunki - African Experience in Sickness Insurance and Health Protection Under Social Security "A National Hospital Insurance Fund of Kenya 1966-1984, September 1984.
- Phillips H., and E. Salber, - "Strengthening the Management of the Public Health Inspectorate", October 24, 1983.
- "Population Distribution and Internal Migration in Swaziland", Lecture Report, C. Under Post, July 1984.
- Project Agreement between GOS and UNFPA, January 1984.
- "Report on Proceedings and Recommendations for Action: Shiselveni District - Health Management Workshop", Decentralization Task Force, MOH, August 1984.
- Rural Water Borne Disease Control: Project Evaluation, November 1983.
- Ryder, Robert - "Control of Diarrheal Disease in the Kingdom of Swaziland", December 1984
- Save the Children - Preparation for Maintenance Phase of the LPI Program, February 1982

BEST AVAILABLE DOCUMENT

- Shapiro, G. - Rural Health Motivator Manual, September 1983.
- Solveig and Jensen, Bjarne - "The Community Health Project" An Evaluation of Clinic Nurses, Job Performance and Assessment of the Community Health Project", January 1984.
- Stevens, Carol - "Alternatives for Financing Health Services in Swaziland", 11/84.
- Tantan, Maralyn - "Evaluation of Health Education - RWBDC Project, 1985.
- Thompson, Daniel, "Supervisory Skills Workshop Curriculum for Clinic Nurses", November 1983.
- Tshabalala, Ruth - Community Participation on Water and Sanitation and Clinic Construction in Swaziland, September 1984
- "1976 Swaziland Population Census" - Central Statistical Office, Government of Swaziland, Mbabane 1980.
- "UN/FAO World Food Programme Interim Evaluation, Cumappraisal", April 1984.
- UNICEF, "Five Year Plan for Strengthening the Rural Health Motivator Program MOH/GOS", November 1982.
- UNICEF/Government of Swaziland, "Survey on Breastfeeding and Weaning Practices in Swaziland". 1983.
- USAID/Swaziland, Country Development Strategy Statement, FY 1987. Washington, DC. AID: November 1983.
- UNICEF - Swaziland Plan of Operation 1984-1986, September 1983.
- World Bank, Swaziland Population and Health Sector Review. Washington, DC. World Bank: 1984.
- World Bank, Economic Memorandum on Swaziland - (draft), Washington, D.C. January 1984.
- World Bank, World Development Report 1984. Washington, DC. World Bank: 1985.

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Swaziland Primary Health Care Project  
Annex 5A  
Logical Framework

Goal: To improve the health status of Swazi children aged 0-5 years and women of child-bearing age.

Measures of Goal Achievement:

- 1) 15% decrease in under-five mortality
- 2) Increase in life expectancy by three years by 1990.
- 3) 10% decrease in maternal mortality
- 4) Declines in incidence of diseases and health disorders targeted by AOH

Means of Verification:

National health statistics  
Results of 1986 census  
Project studies and surveys  
Hospital and clinic records

Assumptions:

No major outbreaks of diseases or natural disasters  
Investment in other health infrastructure does not decline significantly  
MOH will allocate adequate financial and human resources to primary health care

Purpose: To improve and expand the primary health care system in Swaziland

End of Project Status Indicators:

- 1) Better, earlier and more frequent pre-natal care to 90% of pregnant women, as demonstrated by earlier pre-natal visits, 80% of high-risk deliveries in maternities and 90% of pregnancies with at least one pre-natal visit.
- 2) 70% of all deliveries attended by health personnel or trained attendant.
- 3) Post-partum education provided to 90% of women who deliver in a maternity.
- 4) Immunize fully 70% of children under 1.
- 5) ORT available to 90% of children under 5 and used in 50% of under-5 diarrhea cases.
- 6) Perform growth monitoring routinely for 90% of all children under 5 that identifies children with problems and leads to improved diagnostics, treatment, and nutritional repair, plus effective education of mothers
- 7) 12% of women of reproductive age are continuing users of child spacing techniques
- 8) Appropriate and timely treatment provided to children and pregnant and lactating women against major parasitic, infectious, and respiratory diseases, as evidenced by 90% of clinic personnel trained in proper diagnosis; de-worming, antibiotics and other essential drugs routinely available in 90% of clinics; and effective health education program reaching 90% of mothers.

Means of Verification:

Health statistics  
Project reports and evaluations  
Surveys and other studies

Assumptions:

Improvements can be implemented within cultural, economic and bureaucratic environment.  
MOH maintains emphasis on preventive services.  
Improved technical and managerial training of health workers will lead to increased productivity and improved program performance  
Increased availability of information, incentives and improved services will create additional demand for health services  
Cooperation and coordination between MOH and NGOs and among donors in primary health care is excellent

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Outputs:

- 1) Improved outreach and service delivery approaches, cost recovery mechanisms, and incentive schemes to increase demand for health services developed and implemented
- 2) More productive health workers
- 3) Health facilities supplied with necessary MCH/CS equipment, ORS, supplies, vaccines, drugs, and contraceptives on a steady, reliable basis.
- 4) Decentralized system of planning, budgeting, financial management, supervision, and management operating effectively.
- 5) Increased proportion of GUS recurrent expenditures for health devoted to primary health care.
- 6) GUS population policy supportive of voluntary family planning.

Objectively Verifiable Indicators:

- 1a) Increased demand for primary health services
  - b) E1,000,000 in extra-budgetary funds provided for health services during project period
- 2a) Improved in-service training
  - b) All PHC service providers trained
  - c) Reassignment of work responsibilities to nursing assistants and RNMs
  - d) Improved conditions of service for primary health care providers
  - e) Improved transportation and communications
  - f) Improved supervision and management support
- 3) 95% of clinics, health centers, and hospitals adequately supplied
- 4a) 4 regional health management teams and regional health advisory teams in place and functioning.
  - b) Annual plans and budgets developed by regional health management teams
  - c) Improved financial management systems operating
- 5) MCH recurrent expenditures for primary health care increase from 14.3% in 1984/85 to 20.3% in 1990/91.
- 6) Policy is developed and implemented.

Means of Verification:

Project reports and evaluations  
Field visits and interviews

Assumptions:

High quality technical advisors available to work in Swaziland.  
MCH assigns sufficient and qualified personnel to preventive services  
Other donor and AID-funded inputs are available as currently projected

Inputs:

- 1) AID:
  - Long-term technical assistance 197 person-months, \$2,146,500
  - Short-term technical assistance 87 person-months, \$1,200,000
  - Financial management assistance \$111,000
  - Training:
    - Long Term U.S. 3 BS degrees, \$247,000
    - Long Term third country 12 degrees, \$286,000
    - Short Term overseas 49 person-months, \$239,000
    - In-country \$467,000
  - Commodities: vehicles, lab and clinic equipment, audio-visual equipment, radios, health education materials \$414,000
  - Research, monitoring, evaluations and studies \$552,000
  - Population policy assistance \$37,500
- 2) GUS:
  - Increase in % of health budget for preventive services from 14.3% in 1984/85 to 20.3% in 1990/91. \$1,745,000
  - Extra-budgetary funds for health care \$500,000
  - Housing and office space (in-kind)

Level of Inputs:

197 person-months, \$2,146,500  
87 person-months, \$1,200,000  
\$111,000  
3 BS degrees, \$247,000  
12 degrees, \$286,000  
49 person-months, \$239,000  
\$467,000  
\$414,000

Means of Verification:

AID financial reports and records.  
GUS budget records

Assumptions:

AID obligations made in timely fashion  
GUS budget increases at real rate of 2% per year  
Successful alternative financing schemes are developed and implemented

Swaziland Primary Health Care Project  
Annex 5B  
Detailed Analysis of Outputs, Activities, and Inputs  
for Each Service Target

EOPS Indicator: Target Service Level

1. Provide better, earlier, and more frequent pre-natal care to 90% of pregnant women.

Further details on target/indicators or definition of achievement:

1. Better identification and care of at-risk pregnancies
2. 90% of pregnant women have at least one pre-natal visit to a health facility
3. Determine and reduce incidence of neonatal tetanus

Baseline information:

91-95% of pregnant women receive some form of antenatal care (WHO Population and Health Sector Assessment, 1984; MOH Annual Report, 1982), but most women report that they come for this care only once, and usually quite late in their pregnancy.

Major constraints to achieving target:

1. Absence of high-risk criteria for referral and follow-up.
2. Need for tetanus and syphilis screening and treatment.
3. No public information campaign to convey messages aimed at preventing low birth weight.
4. Inadequate availability of service providers to provide increased number of high quality pre-natal care visits to serve rural women.
5. Inadequate systems to recruit hard-to-reach women into pre-natal care early in pregnancy.
6. Absence of an incentive system for health providers who accept posts in rural areas and/or who are more productive in delivering health care.
7. No protocol or operational plan for pre-natal care.

Project outputs:

1. Manuals reflecting pre-natal (including TT and STD) protocols produced and distributed to all relevant health personnel and facilities
2. Nursing supervisors, clinic nurses, nursing assistants and RHMs trained in all elements of pre-natal protocol
3. Adequate drugs/vaccines supplied to health facilities
4. Adequate record-keeping, monitoring and information (statistics) feedback system in place for high risk pregnancies
5. Health education messages produced, disseminated, evaluated
6. Improved knowledge of incidence of neonatal tetanus and effects of STD on pregnancy/birth incorporated in pre-natal care protocol
7. Better motivated staff

Activities to achieve target:

1. Devise system for designating risk in pregnancy; operations research to establish procedures and practical criteria for identifying each pregnant woman by risk (high-risk, at-risk, no risk)
2. Develop protocol and manuals on pre-natal care, including identification, care, and referral of high risk pregnancies
3. Revise and test patient-retained antenatal card; produce and distribute card; train health personnel on use of card
4. Train health personnel on elements of pre-natal protocol
5. Increase number of days/week on which pre-natal clinics held
6. Improve record keeping in clinics for high-risk pregnancy surveillance
7. Develop health education messages re pre-natal and neonatal care
8. Research incidence of neo-natal tetanus; if incidence is high, establish policy of providing routine TT injections as part of pre-natal visits and develop appropriate protocol
9. Improve coordination between/supervision of RHIs and clinics for motivating all pregnant women to visit clinic and identification/follow-up of high risk pregnancies
10. Develop protocol for syphilis testing, diagnosis, and treatment for pregnant women; consider requiring twice/pregnancy in urban and other highly affected areas
11. Research effects of STD on low birth weight and other birth effects
12. Work with traditional healers to encourage them to identify high risk pregnancies and refer all pregnant women to clinics
13. Stock clinics with appropriate supplies and equipment
14. Conduct annual review of maternal and neonatal deaths to determine if risk factors are being identified and handled effectively; modify definition of factors and protocol as necessary

Inputs required:

1. Increased clinic staff and reassignment of work assignments among staff
2. In-country training courses for health personnel and traditional healers
3. Technical assistance
4. Development and production costs for health education materials and manuals
5. Costs of dissemination of health education messages
6. Research costs
7. Improved supervision
8. Improved logistics and drugs management
9. Improved transport, especially for specimens and lab results
10. Clinic supplies and equipment
11. Laboratory services for VDRL

BOPE Indicator: Target Service Level

2. Increase to 70% the number of births attended by health personnel or trained attendants.

Further details on target/indicators or definition of achievement:

1. At least 80% of at-risk deliveries occur in health facilities (hospitals, clinics)
2. At least 10% of all pregnancies (low-risk) delivered at home with assistance of trained attendant
3. Maternity deliveries in 1990 = approximately 22,500 (from 14,500 in 1984)
4. Impact on goal is by improving the safety of deliveries, decreasing infections which result in neonatal and maternal deaths, and decreasing deaths due to complications of delivery

Baseline information:

1. In 1982, 45% of hospital deliveries were assisted by health personnel or trained attendants (HON, 1982). 1984 estimates of both clinic and maternity deliveries show that approximately 53% of total births were conducted by health or clinic personnel.
2. WHO found 58% of all births were conducted in health facilities by trained health workers (WHO, August 1984).
3. The National Nutrition Survey found attended deliveries accounted for 52% of rural and 81% of peri-urban births (CDC, 1983).

Major constraints to achieving target:

1. Inadequate communication with referral units.
2. Lack of necessary equipment and supplies in clinics for deliveries.
3. Lack of food or waiting huts at maternity centers for expectant mothers.
4. High demand on nurses to perform other activities.
5. GOB policy which restricts RHMs to emergency deliveries only.
6. Absence of an incentive system for health providers who accept posts in rural areas and/or who are more productive in doing deliveries.
7. No protocol or operational plan for deliveries at the clinic level.

Project outputs:

1. Improved and more efficiently utilized maternities
2. Better trained health personnel
3. Safer conditions of delivery

Activities to achieve target:

1. Implementation of pre-natal protocol to identify at-risk pregnancies and refer to maternities
2. Liberalize policy re deliveries by RHMs; train RHMs and equip for more home deliveries for low-risk mothers following screening by clinic nurse
3. Conduct operations research to address identified constraints on expanding utilization of clinic maternity facilities; follow-up/expand as appropriate
4. Improve clinic staff motivation to perform more deliveries; conditions of service, e.g. incentives, stand-by allowance for rural service
5. Provide adequate equipment and supplies to maternities
6. Improve clinical experience of nursing students in midwifery

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7. Improve supervision of clinic nurse, including identification of problems experienced with referrals/deliveries, consistency of referral
8. Improve referral capabilities (communications, emergency transport) for complications during delivery
9. Improve RHM reporting system for purposes of monitoring number of deliveries they perform

Inputs required:

1. Increased maternity bed capacity at Mbabane and RHM hospitals; increased personnel to staff
2. In-service training for RHMs and nurses
3. Costs of operations research, including commodities, incentives, physical facilities
4. Payment of incentives
5. Technical assistance related to operations research, incentives development, replication of successful research experience
6. Equipment and supplies for clinics and hospitals
7. Costs of investigating constraints to improved clinical experience for nursing students and of implementing measures to address these problems
8. Communications equipment, transportation, and other costs of emergency technical back-up for clinic deliveries

EOPS Indicator: Target Service Level

3. Provide post-partum education for 90% of mothers delivering in a maternity.

Further details on target/indicators or definition of achievement:

1. Emphasis on family planning, but include neonatal care, immunizations, ORT, nutrition monitoring and breastfeeding, etc.
2. Measure effectiveness and progress toward target by spot-checking, supervision, KAP surveys of mothers, by delivery of package of materials to mothers
3. Start with large hospital maternities, then expand to smaller facilities and clinics as appropriate

Baseline information:

No data is currently available on the level of post-partum education delivered in hospitals, clinics, or at the homestead.

Major constraints to achieving target:

1. Lack of trained personnel in maternity centers to deliver post-partum health education.
2. Insufficient number of service providers to deliver post-partum education at the level needed.
3. High demand on nurses to perform other duties.
4. Lack of MCH/CS messages education materials.
5. Absence of an incentive system for health providers who accept posts in rural areas and/or who are more productive in delivering post-partum education.
6. No protocol or operational plan for post-partum education.

Project outputs:

1. Better trained and motivated nurses and post-partum maternity staff
2. Effective educational materials produced and routinely distributed to new mothers
3. Increased number of women attending health facilities for neonatal and family planning services

Activities to achieve target:

1. Explore nature of responsibilities and motivation among health providers in maternity wards to identify who is best and most logical person to provide post-partum education, and constraints to their providing it.
2. Develop content of post-partum education messages with MCH committee
3. Involve nurses (including matrons, nurses in charge of maternity wards) in seminars to discuss what should be provided and how
4. Involve health Education unit in preparation of materials and training of nurses
5. Train nurses in post-partum topics (especially FP), counselling, educational techniques
6. Produce booklet and/or other materials to provide to mothers
7. Reinforce through supervision and positive feedback importance of nurses providing post-partum education and greater assistance to post-partum mothers
8. Explore involving nursing students in education effort
9. Address issue of nursing assignments so as to develop a more permanent maternity nursing staff at Mbabane and other hospitals

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10. Assure contraceptive accessibility to acceptors: information, referrals, provision of contraception

Inputs required:

1. Materials development and production costs
2. Costs of improved supervision and incentives
3. Audio visual equipment and materials
4. Technical assistance to help set up and organize education program, including initial research on staffing responsibilities, constraints, identification of appropriate providers
5. Resources for monitoring, KAP surveys, etc.

EOPS Indicator: Target Service Level

4. Fully immunize 70% of all children under 1 year of age.

Further details on target/indicators or definition of achievement:

1. 90% of children under 1 have child health cards

Baseline information:

1. The 1984 Homestead Survey found that 75% of children 13-24 months of age had immunization cards, but only half of those, or 32%, were fully immunized.
2. The National Nutrition Survey found 60% of children ages 3-24 months had cards, but definite completion of all immunizations was only 30% (CDC, 1983).
3. The 1984 EPI survey found that only 24% of children ages 0 to 12 months of age were fully immunized.

Major constraints to achieving target:

1. Immunization clinics held only once/week.
2. High demand on nurses to perform other duties.
3. Lack of adequate training in EPI for all health professionals.
4. Inadequate transport for community outreach.
5. Absence of an incentive system for health providers who accept posts in rural areas and/or who are more productive in delivering immunizations.
6. No protocol or operational plan for immunization services.

Project outputs:

1. Improved vaccine supply/cold chain in place and operating effectively
2. Better trained health providers, especially nurses, nursing assistants
3. Tested incentives to encourage completion of immunizations implemented
4. Expanded EPI to hospitals and possibly to private industry clinics
5. Improved and expanded public education messages

Activities to achieve target (CCCD):

1. Training of clinic and hospital nursing personnel in EPI essentials
2. Increase number of immunization clinics; integrate immunizations with curative services provided to children under 2
3. Assign responsibility for giving and managing immunizations to nursing assistants, under supervision of clinic nurses
4. Work with other donors to improve ordering, procurement, storage, distribution, cold chain and handling of vaccines
5. Operations research on incentives to mothers/children and communities to complete immunizations, e.g. sticker on immunizations card
6. Improve and expand public education on the value of immunizations
7. Include hospitals in EPI; organize appropriate immunization program in each
8. Explore possibility of expanding populations served by private industry clinics for immunizations
9. Use malaria workers to assist annual EPI surveys to evaluate program performance and impact during malaria off-season

Inputs required:

1. Training and vaccines (including thermal tapes for monitoring vaccines) provided by CCCD/UNICEF/SCF
2. Costs of operations research on incentives

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3. Management assistance, particularly to decentralization
4. Transport of vaccines (CCCD)
5. Additional staff, especially nursing assistants
6. Short term technical assistance to plan, organize evaluation surveys
7. Costs of developing/producing health education messages
8. Costs of incentives, e.g. stickers
9. Training of malaria workers for surveys; costs of annual surveys
10. Assistance in reorganizing working routines in clinics
11. Long term technical assistance to EPI from CCCD

OPS Indicator: Target Service Level

5. Make ORT available to 90% of children under 5 years of age, and have ORT effectively used in 50% of the incidents of diarrhea in this age group.

Further details on target/indicators or definition of achievement:

Diarrhea-associated mortality will be measured in planned child mortality study

Baseline information:

1. The 1984 Homestead Survey found that 68% of mothers reported using ORT for their children with diarrhea. 95% of these women said they took their children with diarrhea to the RHM or health facility.
2. The National Nutrition Survey found that 27% of rural and 13% of peri-urban children who had experienced an episode of diarrhea in the preceding two weeks were treated with ORS, and 13% in both areas had received home mixed sugar-salt solutions (CDC, 1983).  
(Note: Discrepancies in the results of the two surveys are possibly due to differences in methodology or the increase in ORT usage in the interim year.)

Major constraints to achieving target:

1. Need for ORT demonstration site to teach mothers preparation of ORS and home-mix solutions.
2. Need for sustained community health education on ORT and diarrheal disease control.
3. Absence of an incentive system for health providers who accept posts in rural areas and/or who are more productive in the appropriate treatment of diarrhea and community education.
4. No protocol or operational plan for ORT services.

Project outputs:

1. Expand levels of health education and supplies of ORT throughout health system
2. Expand knowledge of target group on use of ORT
3. Provide back-up services for severely dehydrated children
4. Established programs of education on ORT in non-health agencies

Activities to achieve target:

1. Supply nasogastric tubes and/or intravenous sets and solutions to all clinics; provide appropriate training
2. Explore private sales of ORS packets in rural stores
3. Institute regular cup and spoon rehydration clinics, involving primarily RHMs and nursing assistants
4. Monitor and assure availability of ORS at all clinics and explore community distribution of ORS packets
5. Conduct seminars with traditional healers on ORT and other primary health care interventions
6. Maintain information/communications/motivation program (from MMHP)
7. Monitor effective use and impact of ORT
8. Diffuse ORT techniques to non-health groups, e.g. schools, women's groups

Inputs required:

1. Most inputs for health education and supplies provided by CCCD/MNH/UNICEF
2. Nasogastric tubes and IV sets/solutions and training in their use
3. Costs of use/impact surveys
4. Costs of traditional healer seminars
5. Training for non-health groups
6. Short term technical assistance: progress assessment, back-up services, diffusion to non-health agencies

LOPS Indicator: Target Service Level

6. Growth monitoring of 90% of all children under 5 years of age that identifies children with problems and leads to improved diagnostics, treatment, and nutritional repair, plus effective education of mothers.

Baseline information:

The National Nutrition Survey measured chronic undernutrition (nutritional stunting) in 30% of rural and 23% of peri-urban children less than 5 years of age. This chronic malnutrition may begin very early either during the fetal or early infant stages; the survey found that 13% of infants less than 6 months of age exhibited nutritional stunting.

Major constraints to achieving target:

1. Need for training health professionals in growth monitoring techniques, and the use of growth charts as an intervention tool.
2. Need for community health education on the importance of growth monitoring as means of health promotion and identification of needed interventions.
3. Inappropriate weaning and infant feeding practices.
4. Absence of intermediate health centers for nutritionally rehabilitation.
5. Absence of an incentive system for health providers who accept posts in rural areas and/or who are more productive in promoting growth monitoring and sound nutrition.
6. No protocol or operational plan for growth monitoring and promotion of sound nutrition.

Project outputs:

1. Development of improved interventions using local resources and foods
2. Better trained health personnel
3. Improved nutrition education
4. Earlier detection and treatment of malnutrition and infection

Activities to achieve target:

1. Simplify approach to nutrition education at clinic level; develop protocol and manuals reflecting a package of a small number of interventions
2. Develop improved interventions using local resources and food
3. Expand targeted food aid to focus on malnourished children and/or reinforce other project targets, e.g. immunizations
4. Train health personnel on mechanics of growth charts, identification and treatment of malnutrition and infections, importance of educating mothers concerning feeding during diarrhea and catch-up afterwards
5. Assign responsibility for weighing and growth screening to nursing assistants and RHAs (if appropriate given results of PRICOR operations research presently underway)
6. Use health centers with cooking facilities as nutrition rehabilitation sites
7. Conduct research on weaning practices
8. Conduct operations research on ways to increase outreach for growth monitoring and other interventions
9. Treatable illnesses detected by growth failure properly diagnosed

Inputs required:

1. Growth monitoring cards supplied by UNICEF
2. Food aid provided by WFP
3. In-service training costs
4. Development and production of educational and training materials
5. Research costs, including operations research
6. Local supplemental food supplies for education and nutrition rehabilitation and cooking equipment
7. Development of protocol and production/distribution of manuals
8. Technical assistance: help set up mothercraft (nutrition rehabilitation) centers, research, materials development, impact evaluation
9. Travel to visit other countries with successful programs (mothercraft centers)
10. Local costs to develop improved nutrition interventions

LOS Indicator: Target Service Level

7. Increase to 12% the number of women ages 15 to 45 who are continuous users of child spacing techniques.

Further details on target/indicators or definition of achievement:

1. Promote collaborative activity between FLAS and MOH
2. Promote population policy development

Baseline information:

No contraceptive prevalence survey has been conducted for Swaziland, but estimates by the World Bank show approximately 4-5% of women in Swaziland are continuing users of child spacing methods.

Major constraints to achieving target:

1. Lack of adequate data regarding contraceptive prevalence.
2. Lack of a national population policy.
3. Male attitudes toward child spacing.
4. No provision of family life education in schools.
5. Provision of contraceptive services to women, especially teenagers, is resisted.
6. High rates of contraceptive discontinuation.
7. Absence of an incentive system for health providers who accept posts in rural areas and/or who are more productive in providing child spacing services.
8. No protocol or operational plan for the provision of child spacing methods.

Project outputs:

1. COS population policy issued which is conducive to voluntary FP
2. Expanded knowledge about contraception
3. Expanded availability of contraceptives
4. Integration of CS with MCH services
5. Improved management capability of FLAS

Activities to achieve target:

1. Conduct contraceptive prevalence survey
2. Assist COS population committee
3. Repeat RAPID presentation, involving local institution (e.g. UNISWA)
4. Training sessions on child spacing for traditional leaders and other men
5. Expanded training for health care providers on counseling for contraception and IUD insertions, including problems associated with the use of various contraceptives
6. Improve logistics system to simplify contraceptives routinely stocked and improve distribution
7. Expand FP IEC activities
8. Expand availability and use of contraceptive methods other than pill; improve contraceptive re-supply
9. Improve evaluation/analysis of CS services, including continuation and complication rates with various types of contraceptives
10. Management assistance to FLAS

Inputs required:

1. Technical assistance to population committee
2. Local costs for work of population committee; secretariat support
3. Contraceptives (AID centrally-funded, UNFPA)
4. Costs of training health providers
5. Technical assistance to HOH/FLAS, long term and short term
6. Costs of evaluations, data analysis, surveys
7. RAPID presentation costs
8. Costs of training traditional leaders
9. Development, production, and distribution costs (including media) for educational materials and messages
10. Logistics and transportation
11. Technical/management assistance to FLAS

LOPS Indicator: Target Service Level

3. Provide to children and pregnant and lactating women appropriate and timely treatment against major parasitic, infectious, and lower respiratory diseases.

Further details on target/indicators or definition of achievement:

1. 90% of clinic personnel trained in proper diagnosis
2. De-worming, antibiotics, and other essential drugs routinely available in 90% of clinics
3. Effective health education programs reaching 90% of mothers
4. Priority focus on worms, ARI, malaria, syphilis, and TB

Baseline information:

A 1982 national MCH survey found that approximately 1/3 of the population (mostly women and children) were infested with *Ascaris umbicoides*. Other parasites of major importance include *schistosoma mansoni*, *schistosoma haematobium*, and malaria.

Major constraints to achieving target:

1. Improvement of laboratory services for appropriate diagnosis of infectious and parasitic diseases.
2. Need for adequate stocks of antibiotics at clinic level.
3. Need for training health providers in appropriate treatment regimes.
4. Absence of an incentive system for health providers who accept posts in rural areas and/or who are more productive in the appropriate treatment of parasitic and infectious diseases.
5. No protocol or operational plan for the treatment of major infectious and parasitic diseases and ARI.

Project outputs:

1. Protocols and manuals on identification and treatment of priority diseases developed
2. Drug supplies system improved
3. Laboratory services expanded and improved
4. Better trained health providers

Activities to achieve target:

1. Develop protocols for treatment of priority diseases where they do not exist, e.g. ARI
2. Expand involvement of KMS and traditional healers in ARI identification and motivation to clinics
3. Improve drug supplies and assure clinics are adequately stocked with antibiotics
4. Create/expand laboratory services in 6 key health centers and backstopping capacity of central laboratory
5. Improve transportation of tests to labs and results back to health facilities
6. Institute program to monitor drug resistance
7. In-service training for health providers
8. Preparation and distribution of manuals
9. Periodic de-worming of children with follow-up nutrition interventions
10. Improved health education messages on identification of priority diseases
11. Home visiting by KMS to recover defaulters

12. Training of lab technicians and lab assistants, in-service and pre-service
13. Training for dispensers

Inputs required:

1. Lab supplies (including reagents) and equipment
2. Vehicles for transportation
3. Drugs
4. Development and distribution costs for manuals
5. In-service training costs
6. Development, production, and distribution costs of health education messages
7. Short-term technical assistance
8. Pre-service lab technician and dispenser training (Lesotho, other third country)

Swaziland Primary Health Care Project  
Annex 5C  
Comparison of Pre- and Post-Project Service Levels

1. System Development/Improvement Indicators:

<u>Conditions at start of Project</u>	<u>Conditions at end of Project</u>
1. Few Nurse Assistants have received specific training in Midwifery.	Approximately 120 Nurse Assistants trained in Midwifery.
2. No Nurse Assistants with refresher training in MCH/FP.	160 Nurse Assistants received refresher training in MCH/FP.
3. Approximately 30 Nurse Assistants trained and deployed in non-hospital facilities.	Approximately 110 Nurse Assistants trained and deployed in non-hospital facilities.
4. Approximately 68 Matrons, Nursing Sisters and Staff Nurses with refresher training in MCH/FP.	Approximately 443 Matrons, Nurse Sister and Staff Nurses with refresher training in MCH/FP.
5. About 400 RHMs working in rural areas without adequate supervision or working arrangement with clinics.	About 800 RHMs adequately supervised and/or collaborating with clinic staff.  (This output will be achieved mainly by UNICEF).
6. 28 clinics with adequate communication (telephone, radio, transport) to refer patients or received technical assistance.	74 clinics with adequate communication (telephone, radio, transport).
7. 58 clinics with transport problems, either with no vehicles or vehicles in service in poor condition.	74 clinics with improved transport, either with vehicles at the clinic, or on-call emergency vehicles at Public Health Unit or hospital.
8. Approximately 50% of health clinics have basic equipment needed to provide quality MCH/FP services.	100% of health clinics will have basis equipment needed to provide quality MCH/FP services.

Conditions at start  
of Project

Conditions at end  
of Project

9. Approximately 22 or 21% of clinics nursing staff adequately trained in management of clinic services.      Approximately 94 or 100% of clinics nursing staff trained in management of clinic services.
10. Approximately 14 or 25% of clinics regularly involve communities in clinic operations and activities.      About 59 or 80% of clinics regularly involve communities in clinic operations and activities.
11. Approximately 10 chiefs educated about family planning services.      Approximately 50 or 80% of chiefs educated about family planning services.
12. Virtually no males trained in family planning.      Pilot activities instituted to educate males in family planning.
13. A drug and contraceptive logistics system is functioning inadequately.      A new and expanded drug and contraceptive logistics system is functioning adequately.  
  
(This output will be achieved by Project HOPE).
14. No comprehensive operational MCH/FP Plan available for use.      Comprehensive operational MCH/FP Plan completed accepted and used.
15. No MCH/FP Monitoring and evaluation system available for use.      Monitoring and evaluation system in place and used.

II. Service Delivery/Effectiveness Indicators:

1. 31,089 first visits for pre-natal care without standardized risk assessment, designation handling.      40,500 (45,000 x 90%) first visits for pre-natal care with standardized risk assessment, designation and handling.
2. 106, 687 total visits or ratio of revisits to first visits of 2.4 for pre-natal care.      202,500 (45,000 x 90% x 5) total visits or ratio of revisits to first visit of 5.0 for pre-natal care.

Conditions at start  
of Project

Conditions at end  
of Project

3. About 14,500 or 42% of approximately 34,18 deliveries occur in maternities and another 3,400 or 10% attended by trained attendants.

Approximately 27,398 (39,140 x 70%) deliveries attended by trained attendants; of which approximately 22,000 will be maternity deliveries.

4. Unknown percentage of "high risk" and "risk" pregnancies identified and delivered in maternities.

100% of high risk "and 90% of "risk" pregnancies to be delivered in maternities.

5. No organized post-partum education program for mothers delivering in maternities.

Organized program of Post-Partum education for 23,400 (2/3 of 39,140 births = 26,000) (26,000 x 90%) mothers delivered in maternities.

6. Currently maternity nurses provide very little systematic education to newly delivered mothers in maternities.

Maternity nurses providing approximately 24 minutes on post-partum education per mother.

7. Approximately 29% coverage of fully immunized population of 27,993 children 0-1 year old in 1982 of:

Approximately 70% coverage of fully immunized population of 36,466 children 0-1 year old in 1990.

	<u>First</u>	<u>Second</u>	<u>Third</u>	<u>Total</u>
BCG	29,051			29,051
Polio	24,182	20,502	19,625	64,309
DPT	23,082	20,696	18,425	62,803
Measles	17,222			17,222

	<u>First</u>	<u>Second</u>	<u>Third</u>	<u>Total</u>
BCG	101,679			101,679
Polio	84,637	71,757	68,688	225,082
DPT	82,887	72,436	64,488	219,811
Measles	60,277			60,277

8. Reported cases of immunizable diseases from out-patient sheets from all facilities for 1983 are disturbingly high:

Decrease morbidity and mortality among children under 5 years of age as follows:

Tuberculosis 1,955 cases  
Pertussis 1,294 cases  
Acute Poliomyelitis 39 cases  
Measles 3,018 cases  
Tetanus 293 cases

	<u>Morbidity</u>	<u>Mortality</u>
	-	-
	60%	30%
	60%	-
	40%	30%
	40%	30%

Conditions at start  
of Project

Conditions at end  
of Project

- | 9.   | Approximately 65-75% of health workers using vaccines and immunization schedule appropriately.   | Approximately 90% of health workers using vaccines and immunization schedule appropriately.  |      |          |      |      |      |      |      |      |      |       |      |     |
|------|--|--|------|----------|------|------|------|------|------|------|------|-------|------|-----|
| 10.  | Approximately 60-70% of health workers using ORT appropriately   | Approximately 95% of health workers using ORT appropriately.   |      |          |      |      |      |      |      |      |      |       |      |     |
| 11.  | About 65-70% of families aware of ORT.   | About 95% of families aware of ORT.  |      |          |      |      |      |      |      |      |      |       |      |     |
| 12.  | About 60-70% of families with access to ORS.   | About 95-100% of families with access to ORT.  |      |          |      |      |      |      |      |      |      |       |      |     |
| 13.  | ORT utilization reported in several surveys around 40-43%.   | ORT utilization increase to 80-90% in future surveys.  |      |          |      |      |      |      |      |      |      |       |      |     |
| 14.  | Approximately 25% of children treated with ORT in most recent diarrhea episode.  | About 50% of children treated with ORT in most recent diarrhea episode.  |      |          |      |      |      |      |      |      |      |       |      |     |
| 15.  | Approximately 59,474 cases of diarrheal diseases, in under five year olds in all facilities.   | Reduction in the mortality rate for diarrheal diseases in under five year olds by 50%.   |      |          |      |      |      |      |      |      |      |       |      |     |
| 16.  | About 47% of children 0-5 years of age were weighed in 1981/82 (157,855 weighings), but not appropriately monitored for growth.  | Increase in monthly weighings for children 1-3 years and quarterly weighings for children 4-5 years (1,238,221 weighings) appropriately monitored for growth.  |      |          |      |      |      |      |      |      |      |       |      |     |
| 17.  | In 1984, contraceptive prevalence of about 9,000 or 5.5% continued users of women of reproductive age (MRA).   | By 1990, to increase contraceptive prevalence from 9,000 to 19,300 continued users of MRA as follows:  |      |          |      |      |      |      |      |      |      |       |      |     |
|      |  | <table border="0"> <thead> <tr> <th style="text-align: left; padding-right: 20px;">Year</th> <th style="text-align: left;">% of MRA</th> </tr> </thead> <tbody> <tr> <td>1986</td> <td>6.4%</td> </tr> <tr> <td>1987</td> <td>7.8%</td> </tr> <tr> <td>1988</td> <td>9.2%</td> </tr> <tr> <td>1989</td> <td>10.6%</td> </tr> <tr> <td>1990</td> <td>12%</td> </tr> </tbody> </table> | Year | % of MRA | 1986 | 6.4% | 1987 | 7.8% | 1988 | 9.2% | 1989 | 10.6% | 1990 | 12% |
| Year | % of MRA   |  |      |          |      |      |      |      |      |      |      |       |      |     |
| 1986 | 6.4%   |  |      |          |      |      |      |      |      |      |      |       |      |     |
| 1987 | 7.8%   |  |      |          |      |      |      |      |      |      |      |       |      |     |
| 1988 | 9.2%   |  |      |          |      |      |      |      |      |      |      |       |      |     |
| 1989 | 10.6%  |  |      |          |      |      |      |      |      |      |      |       |      |     |
| 1990 | 12%  |  |      |          |      |      |      |      |      |      |      |       |      |     |
| 18.  | Nutritional status of mothers and children is not good as should be reflected by:<br>-% of babies born with low birth weights.<br>-High mortality from measles<br>-High incidence of diarrhea in children.<br>-Low % of mothers using improved food preparation methods. | By 1990, improved nutritional status<br><br>-Lower % of low birth weight babies.<br>-Reduction in mortality from measles.<br>-Reduction in incidence of diarrhea in children.<br>-Better food preparation methods used   |      |          |      |      |      |      |      |      |      |       |      |     |

Conditions at start  
of Project

Conditions at end  
of Project

19. Morbidity and mortality from mortality parasitic and infectious diseases too high in children and women.

Reduction in morbidity and from pneumonia, diarrhea, measles, malaria, tuberculosis, syphilis and ascariasis.

(These effectiveness indicators for EPI, CDD and Malaria will be primarily achieved through the CCCD Project).

111. Impact Indicators:

General and cause specific morbidity of mothers, infants, and children under five years of age is extremely high compared to other countries in the region and other developing countries with similar GNP per capita.

Reductions of general and cause specific morbidity and mortality such as the follows:  
-Infant mortality rate by 40%, from 135/1,000 to 81/1,000.  
-Child mortality rate by 50% from 192/1,000 to 115/1,000.  
-50% in mortality among children under five years of age from diarrhea diseases.  
-maternal mortality rate by 33% from 12/1,000\* to 4/10,000.  
-25-35% in the incidence of nutrition-related diseases.  
-40% in the incidence of measles.  
-40% in the incidence of pertussis.  
-Neonatal mortality rate by 35% from 71/1,000\*\* to 25/1,000.

Based on 9,059 births in Hospital in 1982.

Based on 3-month study of 3,000 births in hospitals in 1984.

Swaziland Primary Health Care Project  
Annex 6A1  
Technical Analysis\*

1. CONCEPT OF MCH/CH PROGRAM APPROPRIATE FOR SWAZILAND

Swaziland has already identified an appropriate MCH/CS program.

The policy and broad outlines of Swaziland's MCH/CS program are excellent:

- o preventive programs developed for widely accessible clinics (70% of pop. living within 8 km. of a health facility)
- o comprehensive content of MCH/FP (including nutrition and health education services) specified in the Clinic Community Health Manual (1978)
- o objectives of the 1983/84-1987/88 plan focus on improvement of child and mother health via priority development of public health nursing, immunization of under one's, providing ORS, reducing malnutrition, and wider use of Rural Health Motivators

National responsibility for MCH/CS is with the Deputy Director of Health Services who has a particular appreciation for the importance of actively involving communities, including their health committees, traditional practitioners, and traditional birth attendants. A lively MCH Committee meets to explore problems and suggest solutions. Several donors are already assisting the MCH/FP program in well chosen priority areas.

Implementation of this good basic program however, is beset with a number of problems. These include organizational, logistical and technological problems. Most of them can and should be resolved. For illustration, they include:

Organizational Problems

- o The main problem is lack of an executive structure to take the good advice of the MCH Committee and the MCH/CS policy decisions of the Deputy of Medical Services, and to translate them into workable procedures, guidelines and follow-up at district and clinic levels.
- o Lack of an active supervisory or in-service working relationship between Rural Health Motivators and Clinic Nurses, Nursing Assistants or orderlies, i.e., between the in-the-community motivators and the service providers.

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\*Prepared by Melvyn Thorne, M.D., M.P.H., Johns Hopkins University, December 1984.

- o Supervisory lines from district clinic supervisors and from Public Health Nurses to clinic personnel are unclear.
- o Provision of immunization and antenatal services only one day per week in most of the clinics.
- o Insufficient nursing or nursing assistant staff in many clinics. Thus, unavoidable curative work crowds out the time for more impactful preventive work.
- o So many different tasks are set out for clinic nurses to do that the "essential core" of a minimum number of life-saving tasks gets lost in a sea of routine activities.
- o The supervisory and reporting/information systems do not reinforce for clinic staff the importance of identifying high-risk children and mothers, then giving effective follow-up.

#### Logistical Problems

- o Some clinics are out of ORS packets, injectable contraceptives, intravenous rehydrating solutions, and antibiotics. Various of the several oral contraceptives are out of stock from time to time. This is due to various problems in the ordering and supply systems, i.e., troubled supply relationship of clinics with Health Centers, Public Health Units, and Central Medical Stores. Clinics do not have nasogastric tubes. In consequence, severely dehydrated children referred to clinics cannot be adequately rehydrated, contraceptive continuation is lowered unnecessarily, and children with lower respiratory tract infections are not given early, life-saving antibiotic treatment.
- o Some clinics are over-stocked while others are understocked. There is no local discipline in ordering because clinics do not work against a budget allocated to them. They should have such a budget based on population and clinic utilization. This could be allocated by the District Health Management Team.
- o Clinics complain that they receive some items that they didn't order, but also do not receive other items (without explanation) that they did order.
- o Transport of specimens, e.g., bloods for VDRL (syphilis) tests is often lacking or unreliable.

#### Technological Problems

- o In few clinics, if any, are growth (weight for age) charts being plotted and used to identify at-risk children who should get specialized attention to

infection and nutrition. No alternative means of identifying the nutritionally at-risk child has been described and systematically applied.

- o No standard program has been developed for rehydration in the clinic of the dehydrated child who can not take oral fluids.
- o A number of physicians and nurses in the program are afraid to use injectable contraceptives, which yield higher continuation rates than orals, due to their perception of frequent complications, i.e., persistent amenorrhea, hypermenorrhea, or infertility.

The only major conceptual element missing from the current MCH/FP program within Swaziland's basic health services, is the notion of population catchments. No clinic nurse has a very clear idea of what size population uses her clinic, of how many polio immunizations, for example, she would have to give to cover, say, 70% of "her kids". Few, if any, have a notion of the current number of couples protected through her efforts, or what percentage of eligibles in her area this represents.

The major operational problems of MCH/FP services are:

- o The limited number of essential actions needed to ensure impact on lowering morbidity and mortality get diluted and swamped in a large number of routine activities done by limited staff whose supervision does not reinforce these essential actions.
- o A large proportion of the most vulnerable and needy mothers and children do not use clinics regularly, or at all.

2. a. CAPABILITY OF THE HEALTH SECTOR TO CARRY OUT AN EXPANDED AND EFFECTIVE MCH/CS PROGRAM

The Ministry of Health has already developed an excellent basic framework for delivery of MCH/CS services and has identified additional steps needed to make the service system more effective and efficient. These steps include:

- o Develop MCH/CS within the framework of on-going basic health services, as a Primary Health Care program, so that the resources of focused campaigns and donors can be effectively absorbed without sacrificing continuity of care after they are phased out.
- o Further, train nurses in concepts and skills of public health and community medicine; develop this into a new course at the Institute of Health Sciences.
- o Improve the supervisory system, with focus on effective coverage of catchment populations for key interventions.

- o Improve the supply system for key commodities, especially ORS, contraceptives, antibiotics.
- o Use the new data system to monitor and manage clinic-by-clinic and district achievement of coverage of key interventions.
- o Train more Rural Health Motivators for motivation of mothers, and develop training for traditional healers, chiefs and sub-chiefs, adult literacy trainers, organizers of women's organizations. Study the feasibility of training traditional birth attendants.
- o Expand the use of radio as an educational and motivational medium for mothers.

Mission hospitals and health services are changing from their former strategy of developing and maintaining separately identifiable facilities to one of combining resources and collaborating with the GOS in building up a system in which all clinic units pursue a common policy and set of procedures. This will require retraining of staff and considerable workshop-type discussion between personnel of the Missions and the Ministry of Health. The District Health Teams of the Decentralization effort should provide a good forum for this.

This PID advisory team did not have time to visit industrial health services to see to what extent they are providing MCH/CS services, and whether they are willing to expand them at low-cost to cover contiguous populations who are not their direct beneficiaries.

2. b. SUGGESTIONS

The Ministry of Health should consider the following suggestions for increasing its capability to carry out an expanded and effective MCH/CS program.

o Policy

- Include key MCH staff of the Missions on the MCH committee
- Identify catchment target populations for each of the health facilities and mobile clinics, including number of infants under one-year, children under five-years, couples of reproductive age, and women likely to deliver in one year.
- Include in the 1986 census questions on when and where each householder went for care for his last treated illness.
- Equip RHMs with ORS and oral contraceptives. Give them a protocol for treatment of sicker children with diarrhea and for contraceptive resupply.

- Explore and carefully test means to develop local and/or community partial financing of peripheral health services.
  - Require all clinics to schedule immunizations two times per week, monitor results for, a) increase in immunization, b) strain on personnel.
  - Conduct feasibility study on TBAs.
  - Delete post-natal reporting from system.
  - Conduct study on incidence of neonatal tetanus in homesteads.
  - Hold workshop/consultation on statistical experience in use of injectable contraceptives in Swaziland and elsewhere.
  - Designate four to six selected health centers to provide public health supervision of nearby clinics and enhanced laboratory services for stools, sputa and urinalysis.
  - Study incidence, causes and possible preventable aspects of accidents in children, possibly hospital, then in-community study.
- o Organization and Management
- In Central MOH, assign a Swazi Medical Officer to act as Executive Director of the MCH/FP program to assist the Deputy Director of Medical Services. This person might coordinate the activities of the Rural Clinics, Nutrition Surveillance, CDD, EPI, etc. programs. This person should sit on the MCH committee in order to translate its feasible recommendations into programmatic action.
  - Develop drug and supply budgets per clinic, through the District Management Team.
  - Develop, field test, print and distribute to all clinics, supervisors and paramedical trainers a simplified OPERATIONS manual, focus on MCH.
  - Use Health Management teams to monitor progress of MCH/CS program components every six months or more often.
  - Straighten out Supervision of Clinic Nurses, Nurse's Assistants, RHMs. Develop simple checklists to guide supervision.

- Develop an annual calendar for "concentration months" that supervisors can use with RHMs, chiefs, clinics for emphasis on e.g., Diarrheal Disease in December-March, early treatment of ARI in June-August, etc., immunizing babies every third month, etc.
- Ensure that all clinics maintain unbroken stocks of ORS, vaccines, contraceptives and antibiotics.
- Reduce number of oral contraceptives to a standard two kinds in clinics. Stock additional oral contraceptives, as judged necessary, in Health Centers. Report pill reattendances as number of cycles distributed.

#### Overall Staffing and Reallocation of Personnel

- Assign preventive clinic tasks to Nurse Assistants -- viz. growth charting, immunizations, coordination with RHMs.
- Increase rate of RHM training within limits of budgetary and supervisory expansion.
- Assign executive personnel to follow-up on, implement recommendations of MCH committee.

#### o Improved Procedures and Treatment Modalities

- Supply clinics with nasogastric tubes and train nurses to use them.
- Modify growth charts for focus on deflections of curves. Make more durable. Consider plastic folders to conserve them. Mount a special supervised program to see whether Nurse Assistants can be taught and guided to plot and use growth charts to identify deflection points. Evaluate; if not feasible, develop thorough MCH committee an alternative means of nutritional surveillance.
- Record and report critical interventions at clinic level, e.g., high risk mothers identified, with what disposition; nutritional at-risk children identified.
- Give tetanus toxoid during first antenatal visit.
- Compile reports of deliveries performed by RHMs, to monitor total coverage of deliveries by trained personnel.
- As an operations research, build maternity huts through community effort at several clinic maternities, and monitor for resultant increase in deliveries

- Use first baby visit for BCG or check-up as "entry point" time for family health education.
- Simplify clinic nutrition counselling, if possible, through in-the-homesteads research on what mothers of malnourished can, and actually, do. This might emphasize increased frequency of feeding, and additional food for the diarrheic or otherwise sick child to catch up.
- Develop protocol through MCH committee for ages, frequency and dosage for routine administration of piperazine to deworm children.

o Training

- Train a cadre of nurses in Public Health Nursing and Community Health
- Train nurse assistants in growth charting, giving and recording immunizations, and supervision of RHMs.
- Motivate and train the Key Traditional Healer Trainees ("gobela") for support of ORT and immunization programs.
- Train Clinic Staff and Supervisors to use the simplified operations manual and supervisory checklists for better focus on the higher priority MCH/CS activities.

3. PLAN TO STRENGTHEN MCH/CS SERVICES

a. PRE-NATAL CARE

The targetted provision of pre-natal care to 90% of pregnant women by 1990 is achievable, despite the fact that most clinics hold ANC clinics only one day per week (e.g., 12 of the 15 clinics studied by Jensen & Jensen). In 1982, the MOH Annual Report noted 29,620 first antenatal visits, or approximately 95% of the 31,198 births projected from the 1976 census. In the WHO sponsored population survey of August 1984, 91% of mothers said they had been examined by a trained health worker during pregnancy.

The target of providing post-natal care to 40% of delivered women, however, is probably unattainable. Very few Swazi women come for post-partum check-ups. Dr. Wardlaw estimates post-natal visits at RFM to be less than 1% of deliveries. Very few post-natal visits are reported from clinics. These reports have not been compiled and are so low that they are no longer collected. Neither Dr. F. Guinness, Chief of OB/GYN, nor Dr. Wardlaw feel that post-natal check-ups are required for asymptomatic women. Post-partum education of women for breast feeding, child-care and family planning is advisable, however, for those who deliver in maternities, and the initiation of such a program, should be

considered. Therefore, it is recommended that the target post-natal visits be deleted from the project, but introduce appropriate post-partum education of women delivered in maternities.

While the quantitative goal of some pre-natal care for most women in Swaziland is easily attained, the quality of such care should be more closely examined. It is not clear that women at higher risk are being identified and appropriately referred. Current manuals for clinic guidance are complicated with regard to such risk identification. The current reporting system does not capture the number and disposition of at-risk pregnant women. Laudably, iron and folate are given routinely during antenatal visits, and urines are checked with Dipstix for albumen and sugar.

Unfortunately, tetanus toxoid (TT) injections are given to only a low fraction of women who come to antenatal clinics. In 1982, only 9,418 first TTs were given, about 32% of the 29,620 first ANC visits. Only 3,889 second TT's were given, or 13% of the number of women first presenting for pregnancy. While the incidence of tetanus neonatorum has not been determined in Swaziland, it is likely to be appreciable. In 1982, tetanus was the leading cause of bacterial death (after tuberculosis) reported in hospitals, and 8 of the 10 cases admitted were in 0-4 year olds. RFM reports, anecdotally, tetanus neonatorum that developed in a child delivered in their maternity, but due to "muthi" put on the umbilical stump after discharge. Dr. S. Foster has identified neonatal tetanus as "a silent killer in the developing world". Since most cases and deaths occur outside health facilities, they are not brought to the attention of physicians except through population -- based sample surveys. Such surveys have revealed neonatal tetanus to account for a sizeable proportion of neonatal deaths in many countries. Since Swaziland is a cattle raising country and has an anomalously high infant mortality rate, it would be prudent to conduct such a population-based retrospective survey to determine by "verbal autopsy" causes of neonatal and post-neonatal death. Of more immediate potential benefit, it is recommended that the MCH committee consider the possibility of directing clinic staff to give a tetanus toxoid injection to all women on their first antenatal visit, since many do not return for subsequent visits.

#### To Strengthen Pre-natal Care

- o Have the MCH committee simplify criteria for identifying which pregnant women are at higher risk
- o Incorporate these criteria, plus indication of appropriate referral on handling, into a checklist in a revised operations manual for clinics
- o Have clinics keep a record of the at-risk identifications made

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b. DELIVERIES

It should be possible to raise delivery by health personnel or trained attendants from approximately 50% new to 75% of women by 1990. Dr. Guinness has documented the rapid rise in the proportion of institutional births, from approximately 18% in 1958, to 24% in 1966, to 43% in 1982. The 13,250 deliveries reported in 1982 from maternities (excluding clinics) would have been about 45% of the births projected from the 1976 census. Deliveries are few in the clinics, whose existing facilities are underutilized, except for some mission clinics. In Hho-hho and Lubumbo districts, for example, total deliveries reported to date in 1984 were 202, from 8 of the 37 non-hospital facilities that were doing any deliveries. Only one of these facilities was doing more than 10 deliveries per month. At Siphofaneni, a well-equipped clinic, 27 deliveries were reported for eight months during which 347 antenatal visits were recorded. Hence, less than 10% of women coming for some antenatal care get delivered there (see Appendix 1). Clinic deliveries were not added to the information system until 1984, but totalled about 330 for the first eight months, hence will probably amount to about 500 per year. Rural Health Motivators have been trained to do hygienic deliveries in emergencies, but RHM monthly reports on delivery have not been compiled. However, sister E. Mndzebele kindly tallied these reports for three areas to find that 77 RHMs in three areas did 14 deliveries in October and 17 in November, 1984. If all 515 RHMs did "emergency deliveries" at the same rate throughout the year, it would yield about 1,200 deliveries per year. Together with the total of about 14,500 maternity deliveries reported to Dr. Guinness in 1984, the clinic and RHM additions would yield about 53% of total births.

Two population-based surveys yielded similar results. The CDC Nutrition survey found that birth "associated by doctor, nurse or mid-wife" accounted for 52% of rural and 81% of peri-urban births. The Aug 84 WHO sponsored survey showed 58% "conducted in health facility and by trained health worker".

Dr. Guinness feels that the capacity of the larger maternities may be approaching saturation. Clinics equipped with maternities, however, are underutilized. Both Sipofaneni and Sithobela, with three and four maternity beds, respectively, perform fewer than one delivery per week.

Reasons given for such underutilization are:

- o clinic nurses are overloaded,
- o delivery plus usual clinics is too much work for a single nurse,
- o fear of complications with no doctor available,
- o lack of food service for mothers,
- o no waiting huts for mothers,
- o no incentives for delivery, and poor morale because past clinic incentives were eliminated.

Some RHMs, who are mostly female and preferentially chosen among women who have had prior experience assisting childbirth, would like to perform more deliveries. However, MOH policy restrains them to "emergency delivery" only.

More important than increasing the in-facility proportion of total births, in terms of impact on maternal and newborn morbidity and mortality, is the consideration that the pregnant women with identifiable high risk factors be identified and referred for delivery to facilities with adequate resources.

#### To Strengthen Safer Deliveries

- o Reformulate the target: to raise deliveries by trained personnel to 75% and to raise the proportion of high-risk pregnancies delivered in maternities from (to be estimated, presumably about 50%) now to 80% by 1990.
- o Record, report, monitor and supervise the high risk pregnancies identified at clinics.
- o Do a limited operations research on several selected clinic maternities to see whether relieving some of the identified constraints through a community-collaborating effort (e.g., build waiting huts, arrange for food, allow for community payment of a small fee, etc.) raises deliveries cost-effectively.
- o Evaluate the quality of performance of deliveries by trained RHMs. If good, consider liberalizing the policy on when they may conduct deliveries (but this should always be after risk screening by clinic nurses).
- o Conduct a careful study of the nature, kinds, numbers and practices of "Traditional Birth Attendants" before undertaking a systematic training of them beyond what is already being accomplished through inclusion of some of them in the RHM program.
- o Speed up the training of RHM to the extent that training budget supervisors, and other support, for them would not be decreased.
- o Review the history and causes of all maternal deaths in the MCH committee, and all neonatal deaths in the District Health Teams at least annually to determine whether identifiable risk factors are being handled adequately.

c. IMMUNIZATION COVERAGE

If the stated long-term objective of the CCCD program is achieved -- "by 1988, increase the comprehensive immunization coverage of children from birth to 12-months to 65% from the 1984 level of 24%" -- then the targetted goal of 70% coverage in 1990 would be attainable. However, this would be more likely for children under two-years than for thos under five-years.

The homestead survey of August 1984 found that 75% of children aged 13-24 months had vaccination cards, ranging from 56% in Manzini district to 93% in Hho-hho district. 72% had had BCG, 24% had been fully immunized before one-year, but 32% were fully immunized at time of survey. This ranged from 19% in Manzini to 44% in Hho-hho, with 27% in Lubombo and 38% in Shiselweni. These figures were in good agreement with the results of national immunization service statistics reported to the Statistics Section and compiled by D. Herman (see Appendix 2). These showed 49% completion of DPTs and polio 3, and 41% for measles. These findings were in general agreement with those found in the CDC nutrition survey of 1983 for children 3-24 months, where 55-63% of children's vaccination cards could be produced, and definite completion was 30% for all basic immunizations, 56% for BCG, 40% for polio and measles, and 39% for DPTs. An important geographic differential was observed between the 54% complete coverage in company and SNL/RDAs versus 23% in the SNL non-RDAs.

By the monitoring methods used by CCCD, according to J. Nelson, coverage has fallen off from 29% by survey of kids before the SCF-sponsored mobile teams were discontinued in October 1983 to about 24% currently. Those expensive teams had achieved about 12% of total immunizations. Hence, there has been some retrogression rather than achievement of the planned increase of about 10% more coverage per year. Accepting the CCCD analysis concerning the strategy for increasing immunization coverage in Swaziland, let us focus on means to strengthen the MOH's basic health services system, which is the delivery vehicle for immunization.

Constraints identified include:

- o lack of a Swazi staff nurse to be the EPI Assistant, to take charge of the EPI program
- o nurses too busy, dislike the stress of crowded immunization clinics, "too busy to deal with Immunization Registers"
- o one day per week for immunizations too inconvenient for some mothers
- o radio announcements lacking
- o intermittent shortage of vaccines, e.g., DT and polio now
- o lack of transport and administrative staff for CCCD unit

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- o central medical stores restrict vaccine and ORS supply to clinics with same "shortages mentality" developed in distribution of short-supply drugs; in reaction, clinics over-order.
- o clinic supervisors need retraining in public health and importance of integrating EPI into MCH activities

To Strengthen Immunization Coverage of Children

- o Assign nursing assistants to take charge of immunization clinics. Reschedule them so that there are two or three immunization clinics per week. Adjust the number of clinics (perhaps via the District Health Teams, where they are operational) so that the average number of immunizations falls within a reasonable range for each of the sessions. Fully staff peripheral vacancies for NAs.
- o Develop a yearly calendar to focus on particular "catch-up" months, perhaps three or four times per year, during which an all-out effort via radio, RHMs via their supervisors, traditional healers via their Association, school teachers in a child-to-child program via older siblings, all mobilizable extension agents such as Health Assistants, etc. can get the word to as many homesteads as possible to chase in mothers with their infants and children who are not immunized, or tardy in their series. Develop appropriate materials, schedules, training and budgets for this motivational effort.
- o Negotiate with private industry health facilities for them to provide free or low-cost immunization coverage to contiguous populations who are neither their direct beneficiaries nor covered by other facilities.
- o Appoint a staff nurse as EPI Assistant.
- o Monitor requests to Central Medical Stores for vaccines and ORS, and subsequent deliveries. Discuss discrepancies with the Chief of CMS.
- o Fill vacant posts which diminish efforts in the MCH-CS/Immunization program.
- o Conduct an operations research project to see whether food awards on completion of an immunization card would increase completion rates cost-effectively.

d. ORAL REHYDRATION THERAPY

The stated target of oral rehydration therapy available to 90% of children under five-years by 1990 is achievable.

Excellent efforts to distribute ORS packets and to motivate and educate mothers for use of both sugar-salt home mix and for packet ORT are underway with assistance of AED, CCCD and UNICEF. The Health Education Unit has undertaken education of Traditional Healers in knowledge of diarrheal dehydration and ORT, with ready acceptance and some evidence of their making ORT for their patients. The August 1984 Homestead Survey showed 68% of mothers saying that they used home solutions when their children had diarrhea, and 56% saying that they used oral rehydration salts. 95% said that they took their children with diarrhea to the RHM or to a health facility. The 1983 CDC Nutrition Survey found that 27% of rural and 13% of peri-urban children with diarrhea in the preceding two weeks were treated with oral rehydration salts, and 13% in both areas had received salt/sugar solutions. Thus, about 40% of rural and 26% of peri-urban diarrheic children had presumably gotten some ORT.

It is not clear why the August survey showed such high results for ORT, nor why it showed greater use of home solutions over ORS, while the CDC survey showed the opposite. One reason could be the difference in methodology, e.g., in the questions, general usage versus specific use for a recent illness. Another reason could be increase in ORT usage in the year between surveys.

Constraints identified to further expansion of ORT coverage are:

- o Too few ORS packets being ordered, e.g., 50,000 packets for three months, whereas full coverage would require twice that amount.
- o Central Medical Stores does not supply all the ORS packets requested.
- o Clinics run out of packets, e.g., Siphofaneni had no packets, no sugar, no nasogastric tube, no IV solutions, hence, all it could offer the mother with a dehydrated child was advice. This would be hard on the mother and the RHM who referred her to the clinic.
- In most clinics, nurses merely tell mothers how to mix and give ORT. They do not show mothers how to make it, nor encourage a mother to sit in the clinic to rehydrate her child for several hours.

To Strengthen ORT Coverage and Usage

- o Monitor and assure availability of ORS packets at all clinics and with RHMs. Consider distributing ORS through adult literacy programs (in conjunction with appropriate reading materials) and school teachers through a child-to-child program.
- o Equip all clinics with nasogastric tubes and train all nurses and nurse assistants to place and use them correctly, in order to provide a clinic-level backup for use of ORT in the child too weak to drink.
- o Set up in clinic, cup and spoon oral rehydration clinics (at least to operate in peak diarrhea months), starting with the geographically well-situated Health Centers.
- o Encourage training of mothers by in-clinic demonstration of mixing of ORS. Presumably, this task could be done by the female orderly.

e. NUTRITION SURVEILLANCE

The target of covering 90% of children under five-years with nutrition surveillance by 1990 is confounded by our observation that the growth chart method of identifying at-risk children is not working.

In few, if any, clinics are correct growth curves drawn and then used to detect slackening growth in those children who need special diagnostic and nutritional services. It is said that the Public Health nurses did do this earlier when they worked in the Public Health Units. Nutrition education given in clinics is thought by some (see Medical and Dental Symposium on Nutrition) to be too complex and not realistic about whether poor mothers can understand and follow the advice to provide more of the three groups of food. Would it be better simply to emphasize more frequent feedings in order to get more of whatever bulky food is available into the small stomach of the child whose illness has made him fall behind in food? Most nutrition education and supplementary foodstuffs appear to be distributed generally, rather than being targetted on the most vulnerable children and mothers, or those that have been identified as "failing" or "falling off the curve".

Such reservations about the programmatic implementability and effectiveness of the instruments for nutritional surveillance being used throughout Swaziland is particularly troublesome since malnutrition is known to be prevalent periodically, and to underlie much of the high infant and child mortality rates. Actually, paramedicals have difficulty using growth-charts correctly in many developing countries, despite the ostensible simplicity of the method. If it could be made to work as a diagnostic instrument for growth and failure of individual children, it would be a powerful tool. It would be especially useful for dealing with infections such as tuberculosis in small children, an important and widespread

problem in Swaziland that this project does not address. It would also be an excellent tool for monitoring the success of clinical initiatives such as nutritional counselling, anti-tuberculosis therapy, periodic deworming, etc. whose impact would be worth evaluating.

Another problem with nutritional surveillance is the social and political question of whether clinic personnel can acceptably give food supplements for certain children who are not obviously unwell, while withholding them from others, i.e., is it feasible to target food supplement to vulnerable children identified by deflections of their growth charts?

The 1983 CDC Nutrition survey showed extensive chronic malnutrition in Swaziland: 30% of children stunted in rural areas, and 23% in peri-urban areas. This widespread stunting may have confounded the measure used for acute malnutrition which only showed wasting in 0.9% of rural and 0.6% of peri-urban children. The survey was conducted in Oct-Dec 1983, a time of upswing in the annual oscillation of undernutrition from the winter lows in July-August. This low estimate of acute malnutrition is further belied by the known shortages of foodstuffs in the third year of a drought period and by health service statistics. In 1982 malnutrition accounted for 1.1% of in-patient facility discharges, and 4.8% of deaths; this included 198 cases of Kwashiorkor. In the same year, of 20,940 children under two years first weighed in clinics, 8.8% were under 80% of expected weight for age. Such underweight rose to 14% in Chiselwini district. Actually, out-patient visits for Kwashiorkor and Marasmus in Chilelwini district, as reported from 19 facilities to date for 1984, total 1,236. In 13 rural clinics in 1983, malnutrition accounted for 1-3 % of outpatient visits (Jensens).

Other constraints identified in the current nutrition surveillance program are:

- o mother-retained growth charts are too flimsy and get torn
- o few growth charts have adequate curves drawn on them
- o most of the nurses were not adequately trained for plotting and drawing such graphs
- o current growth charts are not clear as to where to plot the points
- o clinic nurses complain that they can not take the time to weigh and plot graphs.

#### To Strengthen Nutrition Surveillance

- o Revise the growth chart, perhaps adopt or adapt the model demonstrated by Dr. R. Mwaikambo that calls attention to the proper reading of changes in slope (deflection points).

- o Conduct an intensive operations research on the practical feasibility of using the growth chart as a diagnostic tool for growth monitoring. Retrain nurse assistants from selected clinics and their supervisor in how to plot proper curves, and how to detect significant changes in slope. When these occur, the nurse assistants will call the deflection to the attention of the clinic nurse, who will thus be relieved of nutrition surveillance routine tasks except for interpretation of problem cases. Supervision should be regular, intensive, with practical review of the plottings and the identification of deflections. If, after one to two years, careful evaluation of the results shows that growth charts have not become a reliable diagnostic tool, then they should be abandoned as the basic instrument for nutritional surveillance, and the MCH committee should identify a simpler, practical screening tool for deteriorating nutritional status that could be used at clinic level.
- o Strengthen selected health centers to become intermediate sites for rehabilitation of severe cases of malnutrition that are difficult to handle at clinic level.
- o Continue to use food supplements for general clinic distribution, but allot larger amounts to those who are obviously ill or who are "underweight". Standards for this should be established with the advice of the MCH committee.
- o Emphasize with all clinic personnel the importance of educating mothers to continue feeding their infants and children during diarrhea, with increased "catch-up" feedings afterwards.
- o Through observation and discussion in selected homesteads, develop a list of prioritized educational messages to increase poor mother's knowledge of what they can do, practically, to increase the nutritional status of their malnourished children. Only teach and communicate as many of the messages as can be demonstrated that the mothers can absorb.

**f. DOUBLE THE CLINICS PROVIDING FERTILITY MANAGEMENT AND INCREASE USERS TO 20% OF WOMEN 15-45**

The service objective of providing appropriate counselling on fertility management in clinics should be readily achievable. By 1990, assuming no reversals in the GOS policy of making such services available as an integral part of MCH/CS, virtually all, say 95% of clinics in Swaziland should be providing such services. Current estimate is that \_\_\_\_\_ facilities report provision of family planning services, or \_\_\_\_\_% of the 142 health facilities in Swaziland. In 1981, there were 58 facilities presenting such services, up from 27 in 1978. FLAS has opened a third clinic and plans a fourth, hence, there has been a steady growth in the number

of facilities providing child spacing services. However, there is no organized post-partum FP program; one should be developed. Contraceptive supplies are often lacking or interrupted and many services providers have misgivings about contraceptives.

The status target of increasing contraceptive prevalence to 20% of women of reproductive age by 1990 is unlikely to be achieved. If sterilization, IUDs or injectables can be brought into more prominent use in the nationwide services, 12% of use could be achieved. Otherwise, it will be unlikely to achieve higher than 8% prevalence by 1990. Motivation for fertility control is low among leaders and homesteads, and the main method of the program, oral contraceptives yields very low, and as yet, unqualified, continuation rates.

In the absence of a population KAP study, the current prevalence of protection is unknown. The only estimate of contraceptive prevalence available is the 1984 "Evaluation of Clinic Nurse's Job Performance and Assessment of the Community Health Project" by the Jensens. From patient family planning records in 13 rural clinics, they estimated current use of all forms of contraception to be an average 2.6% during October/November 1983 (see Appendix 3). Defaulters averaged 60% of total family planning attendance during January-October 1983. Contraceptive prevalence ranged from 0.2% at Edwaleni to 9.6% at Siphopaneni. Any sterilizations that might have been done on the estimated 14,251 women 15-40 years in the total catchments were not analyzed. Methods in current use by 374 women were estimated to be: Contraceptive pills, 87%; loops, 9%; and injections, 4%.

Condom use was insignificant: 62 men had come to collect 10-30 condoms each during January/November 1983, but only one man had come more than once.

Contraceptive prevalence can be determined in two different ways, by population survey or by estimation of current users from cumulative contraceptive acceptor service statistics decremented by appropriate schedules of continuation rates for each method. Whether Swaziland is ready (as I doubt) for a national KAP survey would need to be decided by the GOS. Available records in government, mission and especially FLAS clinics could and should be analyzed to determine continuation rates for acceptors of pills, IUDs, injectables, condoms, foams and diaphragms.

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The Family Life Association of Swaziland (FLAS) has developed rapidly since its inception in 1979. It recently opened a third clinic (Malkerns) to complement its clinics in Manzini and Mbabane. It reports that FLAS in 1983 accounted for 28% of all new FP acceptors in Swaziland, and 15% of all reattendances. Its efforts may have proportionally greater impact on fertility control than those of government since it serves a largely urban and presumably better-educated clientele, and uses a higher proportion of the higher continuation, more effective methods, i.e., injectables plus IUDs (FLAS 26% versus MOH, 16%).

Venereal disease figures importantly in family health consultations. An appalling 50% of still births seen in maternities are macerated fetuses due to congenital syphilis. FLAS reports that 25% of discharges in its clinics are for gonorrheal infection, of which 64% is probably resistant to penicillin.

Unwed pregnancies and pregnancies in school girls is a prevalent growing cause of public alarm. 2% of FLAS clients are under 16 years and 36% are under 21 years.

The estimate of one analyst that contraceptive prevalence in Manzini might have reached 12% on the basis of acceptances in 1983, is, in my opinion, considerably too high. I assume that the Manzini Family Life Clinic, being the first large FP facility in Swaziland, and located at the geographic hub of the county on good roads well serviced by buses, draws its clients from a broad area. Hence, I presume the catchment of reproductive age women to be at least 30% larger than the 12,900 in Manzini town, i.e., 16,770 or greater. Continuation rates used "for illustration" I judge to have been too optimistic. My alternative guess would be the following:

pill, not 60%, but 40% at one year  
IUD, not 80%, but 70% at one year  
Injection, 70%, okay at one year  
Condom, not 50%, but 30% at one year  
Other, 50%, okay at one year

This would yield cumulative one-year users of 1,179, for a prevalence of 7%, not 12%.

Assuming then, that there might be a contraceptive prevalence of 7% in the 20% peri-urban population, and of 2.8% in the rural population yields 4.6%. Hence, I agree with the earlier analysis that national contraceptive prevalence, following seven years of gradually enlarging family planning service availability, is probably between 4% and 5%.

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Constraints to expansion of availability and use of contraception observed by the team were:

- o There is no organized post-partum FP education program.
- o Injectables are not being supplied to some clinics requesting them, and many service personnel may have exaggerated fear of complications from use of injectables.
- o Sterilizations appear to be a sensitive, and little promoted service, though there is some evidence of widespread demand for it (i.e., referrals from the 13 rural clinics analyzed by Jensens).
- o Multiple (four) kinds of oral contraceptives confuse both clinic personnel and the supply system such that interruptions of stock occur, promoting discontinuation.
- o Oral contraceptive resupply to clients is reported as visits, not as cycles given. Thus, woman-months of protection by orals can not be calculated since different clinics give out different numbers of packets on reattendance (Jensens).
- o The interaction of IUD use with the high incidence of venereal disease is not being monitored.
- o No mechanism has been put into place to provide clinic nurses, maternity midwives, and their supervisors with systematic, recurrent guidance on the uses and resolution of problems in the use of the several contraceptives, and on education for the more effective methods.
- o Distribution to rural areas of diaphragms, foams and jellies probably results in little use, and may create more complexity and dilution of effort from its worth.
- o Clients' problems with contraception, as perceived by clinic nurses, were collected in the Jenson report (Appendix 4).
- o No skilled educator versed in family planning education/counselling visits clinics to demonstrate how to counsel mothers about family planning, although many nurses appear not to be skillful or well-trained for this.
- o Continuation rates for the several methods have not been calculated.

Suggestions to Strengthen Contraceptive Availability and Use

- o Develop post-partum programs in maternities through the MCH committee, midwives in charge of maternities, FLAS and the HEU.
- o Put emphasis on family planning method availability and acceptability as a part of family health services rather than as a demographic regulator. To this end, encourage FLAS to arrange for immunization coverage and nutrition surveillance of the children at the Malkerns clinic.
- o Explore with the Central PHU and the MCH committee the feasibility of RHMs doing at-homestead post-partum education including FP for the 1-2 mothers who deliver each month in their area.
- o Assure that all clinics receive and are adequately supported in their use of injectable contraceptives. This would require educating personnel at all supply and supervision points.
- o To promote access to sterilization services: consider including access information on educational handouts designed for clinics; monitor the number and geographic dispersion of referrals for sterilization.
- o Reduce clinic oral contraceptive supplies to two kinds, but assure that these are kept uninterruptedly in stock; make the four types available at Health Centers, if this is judged advisable by the MCH committee. Project the demand of each clinic on the basis of reported FP services and assure centrally, that no clinic falls below a six-month stock level.
- o Change the reporting system to include the number of pill cycles given out each month as well as the number of continuing users seen.
- o Evaluate continuation rates on orals, injectables, IUDs, condoms, foams and jellies, by analysis of yellow and green client cards in FLAS, government and mission clinics. This might be done by University students under its demographer. Use these continuation rates to calculate current prevalence of contraception by applying them to all reported acceptors to present.
- o Study a cohort of women on the IUD, most easily perhaps in the Manzini FLAS clinic, to determine morbidity rates.
- o Develop a visiting tutor program, or some other demonstration and practicum -- type training for clinic nurses in how to counsel women for contraception.

- o Evaluate the use of "other" contraceptives (i.e., diaphragm, jelly) in clinics. If found to be not cost-effective, discontinue them.
  - o Use FLAS as a training area for IUD insertions.
  - o Allow RHMs to resupply and contraceptives to homesteaders who want them and have no problems.
- g. APPROPRIATE EARLY TREATMENT AGAINST PARASITIC AND INFECTIOUS DISEASES

The major parasitic disease of both mothers and children is *Ascaris umbricoides*. On a national survey in 1982 (MOH Report), about 1/3 of the population had it. It decreases the nutritional status of children, provokes chronic cough, and skin eruptions. These sometimes get infected with dangerous streptococci, resulting in rheumatic heart disease or glomerulonephritis (kidney disease). The other major known parasitic infestations are *Schistosoma mansoni*, which has been identified in 17% of inhabitants of the low-veld where about 15% of children 5-9 years have it; *Schistosoma haematobium*, found in 31% of middle-veld and 22% of low-veld dwellers; and malaria in the low-veld. In 1981/82, there were 158 deaths from malaria, of which 21 or 13% were under five years. *Entamoeba histolytica* is frequent, about 20% of intestinal infestations in children in Mbabane hospital, according to Dr. McGrath.

The most important infectious disease for mothers and children, other than those addressed by EPI, is Tuberculosis.

Constraints are the lack of laboratory diagnostic facilities for clinics.

Suggestions to Improve Early Treatment

- o Have MCH committee consider recommendations of routine periodic deworming of children with piperazine, perhaps every six months, in the child welfare clinics.
- o Create simple laboratory services at the six key health centers. These should be able to do stools and urine for ova and parasites, sputa for TB, hematoerits, and VDRLs.
- o Request the MCH committee to devise specific recommendations for practical implementation at clinic level in support of this general objective.

#### h. DECREASE IN ARI

The incidence of acute respiratory infections identified in clinics could be estimated by compiling their monthly reports. The age specific mortality rates from ARI have not been determined in Swaziland. It is probably the second most important killer of infants and children, after gastroenteritis and diarrheal dehydration. In 13 rural clinics in 1983, respiratory infections accounted for 15 - 25% of outpatients, while diarrhea accounted for 13 - 17% (Jensens).

Except for decreased ARI from immunizable diseases (i.e., pertussis, measles, diphtheria, TB), NO effect on INCIDENCE of ARI is likely to result from activities of this MCH/FP program. Good use of a good MCH program -- in particular, with strengthened child nutrition and early treatment of lower respiratory tract infections with appropriate antibiotics -- can lower mortality from, and shorten duration of, ARI. But it will not produce reliably measurable changes in the incidence of ARI.

#### Constraints Observed

- o Some clinics (e.g., Siphophaneni) were out of oral antibiotics. There is some reluctance to let nurses use them. But, oral antibiotics must be given early to lower ARI mortality.

#### Suggestions to Lower ARI Mortality

- o Train RHMs and educate communities (radio, chiefs, women's groups, etc.) to get infants and children into the clinics early when there is infection plus difficulty breathing.
- o Assure that clinics are stocked with antibiotics and that nurses know to treat lower respiratory infection early and adequately.

#### i. DECREASE IN THE INCIDENCE AND SEVERITY OF ACCIDENTS

The problem:

- o (McGrath) Burns most frequent disabling accident in children brought to hospital. Due to scalds from pots, and from wood fires. Few kerosene burns.
- o (1982 MOH Report) In 0-4 year olds, burns were the 8th leading cause of hospitalization morbidity, for 1.7% of discharge diagnosis. For 5-14 year olds, fractures (6.0%), plus wounds (3.9%), plus other injuries (2.6%), plus burns (2.5%), together constituted the leading hospital discharge cause of morbidity at 15.0%. The leading single category, gastroententis, accounted for 13.2%.

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Suggestions

- o Analyze child injury records at Mbabane hospital for types, frequencies, and contributing circumstances to identify possible means of prevention.
- o Get Public Health Nurse trainees to compile a community study on circumstances and causes of childhood burns as part of their training for Community Diagnosis.
- o Emphasize application of a lot of cold water immediately to burns, to reduce the "cooking" of skin after exposure. Do this via RHMs, Traditional Healers, and clinic staffs. This would also be a good subject for in-school child-to-child programs.

Swaziland Primary Health Care Project  
Annex 6A2  
Technical Analysis\*

**TARGET A:        BETTER, EARLIER, MORE FREQUENT PRE-NATAL CARE TO 90%  
PREGNANT SWAZIS**

**Background:**

- 70% to 90% of pregnant Swazis currently report for at least one ante-natal check.
- Most come late in second or third trimester; many only once.
- Little information exists on how risk identification and referral are performed during ante-natal care services; clear protocols for this are lacking.

**Technical Considerations:**

1. Protocols need to be developed for:

- Maternity midwives;
- Ante-natal care personnel - nurses, nurse assistants in clinics and health centers and primary health units;
- RHMs (in siSwati);
- TBAs;
- Traditional healers - first to know of pregnancies;

that specify:

- detection;
- recording;
- handling;
- referral:

of risk and high risk factors, and pregnancies. Each pregnancy to be designated, recorded, record to be communicated to potential deliverer.

2. All personnel indicated must receive training in the use of these protocols; then supervision.
3. The mother-retained record card for ante-natal screening should be revised, simplified, field-tested, re-revised, printed, distributed and taught to ante-natal care personnel.

4. In-clinic monitoring for ante-natal care program should be developed for:
  - timing of first ante-natal care visit;
  - risk, high risk, or no apparent risk categorization of each mother at each ante-natal care visit;
  - appropriate referrals made.
5. Periodic (baseline and yearly) audit should be made of in-clinic records to monitor progress of target.
6. Ante-natal care clinics should be stocked with appropriate materials, viz:

vaginal speculum	shygmomanometers
stethoscopes	fetoscopes
uristix	ergometrine
iron/folate	i.v. kits and solutions
tape measure	procaine penicillin
benzathine penicillin, injectable	phenobarbitone
valium	oxygen
ventolin (solbutamol)	litmus paper
blood specimen tubes:	sulfonamide tablets
transport of specimens	phenergan
transport of results	
gonorrhoea: probenecid and procaine penicillin	
erythromycin	
trichomonias: flagyl	
monilia: nystatin pessaries	
7. Communications and transport should be available for "high risk" mothers, i.e, those with urgent, evolving problems.
8. Serologic testing for syphilis should be done on first ante-natal check, and before delivery, especially in urban areas.

Server Chain:

- Community Workers (RHMs, TBAs, THs, ?chiefs?) should be taught:
  - not to undertake home delivery of women categorized as "at risk"
  - to refer early laboring women who develop complications or delay of labor (more than 8 hours)
- Clinic nurse supervisors should check ante-natal screening procedures, decision-making, recording and referral by nurses WRT.
- MCH office should check adequacy of receiving facility to handle particular risk conditions referred to it.

Programmation/Coverage/Volume of Services/Service Capacity:

- Such services/facilities should be available at all 130/133 service points in Swaziland. Increase ante-natal clinics from one time per week to two to six times per week, according to staff capacity.
- In Tanzania, 18% of pregnancies had 1+ risk factors. OB/GYN chief here guesstimates perhaps as high as 50%. The percentage determined at risk depends on the choice and numeric level of criteria used. Hence, annual range of at risk pregnancies:

By 1990: (39,140 live births) (1.15 fetal wastage) - 45,011 pregnancies x (20% - 50% at risk) yields 9,002 - 22,500 at risk pregnancies.

If average of 6 visits/pregnancy is achieved, by 1990, then (45,000 pregnancies) x (90% coverage) x (6) = 243,000 visits. This would be an increase of x 2.33 from the 104,288 ante-natal visits in 1982.

Constraints:

- Complexity of forms and instructions needs to be simplified, important points clarified, and illustrated.
- Communications and transport may not be available to all facilities.

Policy Issues:

- None

Monitoring:

- Program Decision: whether to monitor program's risk screening by
  - a) new reporting system, or
  - b) periodic audit.
- Monitor the number of ante-natal care clinics per week per facility; number and % of risk pregnancies identified.
- How many visits/pregnancy would be ideal has not yet been devised for Swaziland;

13 times may be too many. In Tanzania, 81% of risk factors were present throughout pregnancy. Therefore, one visit would have been o.k. for detection. The criteria and levels for risk categorization are now under consideration.

**TARGET B: 75% BIRTHS ATTENDED BY TRAINED PERSONNEL**

(No. of births in 1985: 33,697) (75%) = 25,272 to be attended  
No. of births in 1990: 16% increase to 39,140  
If 75% attended, then 29,355 deliveries by trained attendants  
vs. about 14,500 maternity deliveries in 1984, an increase of 102%.

In 1983, the two largest maternities delivered 20% of all births, the next 9 maternities delivered another 20%, and the smallest 28 maternity units delivered only another 5-10%. Beds of the smallest units were usually empty.

Dr. Guinness estimates yearly maternal deaths at about 10-15 in hospitals (12 in 1982), with perhaps an equal number out of hospitals, hence an approximate maternal mortality of 65-125 deaths per 100,000 births.

**Technical Considerations:**

- Get 90% pregnancies categorized as "risk", or "no apparent risk".
- By 1990, target 100% of "high risk" and 90% "risk" pregnancies to be delivered in maternities, about 9,000 to 22,000 deliveries depending on whether criteria used categorize as "at risk" 20% to 50% of all pregnancies.
- Get 25% to 55% of the "no apparent risk" pregnancies delivered by trained personnel: MOH, RHMs, TBAs: 11,000 to 24,000 deliveries by trained personnel, leaving 10,000 deliveries by others.
- Get minimum equipment/supplies to all maternities.
- Doubtful that limited training capacity of Ministry of Health would make it cost-effective to train identified TBAs beyond current RHMs.
- Activate service capacity of small maternity units by
  - working communications (telephone/radio)
  - pre-arranged transport of emergency cases
  - "stand-by allowance" for 'night delivery services'
  - adequate staffing for delivery and clinics
  - waiting huts
  - food preparation facilities
  - water
  - supervision/feedback to encourage deliveries

**Server Chain:**

- Regional admin/clinic nurse supervisor to check each maternity facility for adequacy for delivery.

- Nurse midwives in health centers/clinic maternities "stimulated" to do deliveries (?award for best utilization of maternity bed capacity?), "stand-by allowance", etc.
- Teach all RHMs, ?TBAs, THs - to use maternal ante-natal card; to refer "risk" and "high risk" pregnancies to MOH facility.

Programmation/Coverage/Volume of Services/Service Capacity:

- By 1990, since "risk" deliveries may be 9,000-22,5000, and another 10,000 "no apparent risk" women may elect to be delivered in maternities, will need to raise MOH maternity delivery capacity to about 25,000 deliveries per year.

Policy:

- Whether to train N. Assts in midwifery (but already a bottlenecked cadre)?
- Whether to identify and train TBAs for safe home delivery in the 26/40 = 65% (1985) to 14/40 = 35% (1990) of Swaziland not covered by RHMs? ?Number of TBAs. Probably difficult and not cost-effective.
- Committee on Incentives for Service in Rural Areas - check recommendations.
- Whether to expand large maternity capacity beyond currently projected expansions?

Constraints:

- Nursing council opposes authorization of RHMs to do home deliveries other than "emergency".
- Small maternities in Swaziland, as elsewhere, operate way below capacity; full set of constraints, and minimum inputs needed to reach particular levels of productivity, are unknown.

Monitoring:

- RHM reporting system needs technical assistance to achieve compilation capacity; no routine reports are available.
- Means of reporting by TBAs, if trained, needs to be devised.

**TARGET C: POST-PARTUM EDUCATION FOR 90% MOTHERS DELIVERED IN MATERNITIES**

**Background:**

There is now no organized program of education of mothers delivered in maternities. The post-partum period has been used to advantage in numerous countries for educating mothers about breastfeeding, essentials of child feeding and care\*, and the advantages and methods of child spacing and their availability. The MCH committee endorses the need for this. Currently maternity nurses provide very little systematic education to newly delivered mothers. Public health nurses do not enter maternities for this purpose, and some attempts to bring them in have not been successful. It is the Ministry of Health's policy that all health workers should be educators, but this has been difficult to implement.

**Technical Considerations and Service Interventions:**

- Specific content of post-partum education needs to be established by MCH committee. This might include essentials of child spacing, including where, when and how to get contraception services; indications for maternal revisit to clinic; immunization rationale and schedule for newborn; breastfeeding, complementary feeding, weaning and child health card; oral rehydration for diarrhea; early use of clinics for respiratory infections. Time of presentation for average educating session, including maternal questions and educator's answers, needs to be adjusted to some realistic minimum, perhaps twenty minutes.
- Specific manner of presentation, language accessible to mothers, good concrete examples to illustrate points, etc., need to be worked out by competent health educators to provide nurses with suggestions of how to present post-partum education.
- A brief illustrated booklet that summarized the main points should be developed and given to all mothers delivering in maternities. It might also be given to mothers delivering at home, by RHMs, and perhaps in clinics at time of first immunizations of newborn.
- All midwives, nurses apt to do deliveries, and RHMs should have active training in how to educate mothers, preferably through role-played post-partum educating, then in-service observed and assisted educating of new mothers.
- Pro's and con's of revising maternity records to include a box on post-partum education, to make it a normal part of discharge procedures, should be considered by MCH committee.

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\* International Post-Partum Programs, G. Zatuchini

- Technical assistance from someone experienced in setting up and monitoring PPE programs, e.g. Dr. Satuchini should be considered.
- Self cycling filmed programs on frosted screen projectors or VTRs could be tried experimentally in 1-2 maternities although probability of sustained function is low.

Server Chain:

- Asst. Deputy Medical Officer in charge of MCH/CS
- Post-partum education supervisor (might be combined with supervisor for services for premature babies)
- Clinic nurse supervisors
- Maternity sisters-in-charge
- Maternity nurse/midwives
- ??(Maternity female orderlies)
- RHMs

Constraints:

- Most Swazi nurses are not trained nor oriented, according to MOH committee, toward dialogue with more education of their patients. Rather, they are "production oriented" to performing the mechanical tasks necessary to handling of patients. Hence, considerable active practice educating patients would be needed to develop the skills and attitudes required for the task of post-partum education.
- Many nurses may be busy and tired therefore little willing to give the time needed for adequate dialogue with and education of mothers. There are currently no rewards nor incentives for doing this kind of educational work. At least, recognition and praise of educational work well done would be needed if nurses are to keep making the necessary educational effort.
- There is no way to monitor the adequacy of education effort such as this except by a) direct observation of the educating process, and b) knowledge/attitude/practice follow-up survey of mothers educated.

Policy Issues:

- MOH should articulate a specific policy on the requirement of all maternities to assure adequate education of every new Swazi mother in the content areas to be designated.

Monitoring/Incentives:

- Monitoring will be difficult, as for any educational activity, but needs to be devised. It could, for example, take the form of visit by PPE supervisor to maternities for direct survey

questionnaire of selected mothers. This could (or could not) be followed by awards or prizes to maternity staff when mothers answer 80% of the chosen questions correctly.

- Reporting of "mothers educated" can be tried and evaluated but is probably not likely to mean much.

Programmation/Coverage/Volume of Services/Service Capacity:

	<u>Approximate Deliveries per annum</u>		<u>Average Births/Day</u>	<u>Needed Hours of PP Educator Time (hours/day)</u>
	<u>1983</u>	<u>1990</u>		
Manzini Hospital (RFM)	3,259	4,074	14	5.8
Mbabane Hospital	3,108	4,500	15	6.3
Hlatikhulu Hospital*	1,641	2,051	7	2.9
Siteki Hospital*	1,272	1,590	5	2.1
Piggs Peak Hospital*	934	1,168	4	1.7
Emkhuzweni Hospital*	642	803	3	1.3
Mankayane Hospital*	641	801	3	1.3
Bulembu Hospital*	306	383	1	0.4
Ubombo Hospital*	239	299	1	0.4
Simunye Hospital*	280	350	1	0.4
Mhlume Hospital*	394	480	2	0.8

(\*: plus 25%, 1983 to 1990)

Total	12,706	16,499
is % of	40%	42%
Estimated National Total Births	31,709	39,140

- RHMs av. no. homesteads 40-50 - about 500 pop. - about 25 births/year
- 1 delivery per months if 40% births delivered, or
  - 2 deliveries per months if 80% births delivered

**TARGET D: 70% OF ALL CHILDREN LESS THAN 12 MONTHS OLD FULLY IMMUNIZED**

Background:

The EPI in Swaziland has done relatively poorly, is losing ground, and needs sustained, intensified technical assistance to improve its management and to overcome social constraints. The WHO cluster sample survey in 1984 in all four districts documented retrogression

(26% in 1983 down to 24% in 1984) in immunization coverage in Swaziland. It also revealed large differences in coverage between districts. Manzini was shown to have lowest coverage. Part of the reason was infrequent (none or once monthly) immunization clinic scheduling in some of the mission clinics. The report of this analysis has reportedly galvanized the District Health Team and its Administration into focused concern for raising immunization coverage levels in Manzini, which illustrates the value of feedback.

Nationally reported cases of the immunizable diseases from out-patient discharge sheets from all facilities for 1983 are disturbingly high:

Tuberculosis	1,955 cases
Pertussis	1,294 cases
Acute Poliomyelitis	39 cases
Measles	3,618 cases
Tetanus	293 cases

There are probably many more unreported cases.

The CCCD program has had difficulty getting into gear, largely due to fiscal management and administrative problems, hence the project target for 1990 has been reduced from 70% to 60% fully immunized children under age one year by 1990.

Another survey has revealed that many clinic nurses don't know important essentials about immunization. Perhaps 20% of failure of mothers to return is due to nurse not telling mother when to come. There is wide-spread mismanagement of vaccine distribution and handling. Integrity of cold chain for measles has been questioned. Nurses limit availability of immunization to scheduled, infrequent clinics and to non-ill children. Influential Traditional Healers see immunizations as competing against their own "preventive" measures against the same diseases, and as an intervention that (unlike ORT) excludes their "interested" participation. Opposition of community leaders is also reported.

#### Technical Considerations and Service Interventions:

- Although cold chain management is reported good by both UNICEF and CCCD personnel, a Havelock Mines doctor reports repeatedly observed ineffectiveness of measles vaccine. This should be carefully checked out and cold chain monitored periodically because spoiled vaccine is so devastating to credibility and morale of EPI, and leads to avoidable illnesses and deaths.
- Increase health worker competence in immunizations by retraining of all clinic and hospital nursing personnel in EPI essentials.

- Increase immunization availability by MOH clarifying its policy to immunize ill children, children in clinics for whatever reason, and unimmunized older children. Convey, through nurse retraining, the programmatic and practical implications of these policies. Increase number of immunization "clinics" available per week in each clinic with eventual goal of complete "integration" of immunizations with curative services for under two year olds. Provide technical assistance to clinics to re-appraise staffing needs accordingly, and to assist the reorganization of in-clinic patient and paperwork. For example, clinics near large referral centers (e.g. Mbabane Clinic) may have to cope with lower proportions of seriously ill patients. Work with each clinic staff to identify the person in that clinic who will give and manage immunizations, preferentially the Nurse Assistant. All of these changes in work-practice in clinics to increase immunizations would best be accomplished as a focused effort of the District Health Management Teams, together with periodic assistance from the CCCD staff. In some clinics, extra staff would be needed. In the MCH committee, a nurse cited one clinic that integrated ante-natal care and a doctor cited another that integrated immunization; in both the numbers of patients increased so much that additional staff was needed.
- The level of external technical assistance to EPI should be increased to 75-100% full-time in Swaziland, given the multiple problems and constraints. One objective of this technical assistance should be to raise the effective MOH priority for implementation of the EPI. Another should be to work together with UNICEF to improve the ordering, procurement, storage, distribution, and handling of vaccines.
- Develop the "protected child" concept, with appropriate handsome sticker (e.g. of King Sobhuza II in gold and red) to identify the fully protected child, who has had all eight immunizations completed (and eventually, perhaps, at least five weighings plotted and interpreted within the first 10 months).
- Operations research should be done on this stickered child health card to see whether 1) it will capture the imagination of chiefs (and perhaps Traditional Healers) as something they should try to achieve fully in the children in their area (perhaps with community prizes for the top 20 areas each year) and/or 2) it would be ultimately cost-effective to use the protected child chart as a ticket for 1/2 cost child care to age 5 years and then as a requirement for entrance into primary school, and/or 3) it could serve as basis for prizes or awards to clinics identified by high levels of completion in child "clusters," in their catchments, that are randomly chosen during immunization follow-up surveys.

- Wider public education of the protected child concept should be attempted
  - (1) through radio education, profiting from lessons learned in the MMHP ORT program;
  - (2) in primary and secondary schools via the child-to-child approach;
  - (3) through continuing educational/dialogue-and-exchange-of-views seminars with Traditional Healers;
  - (4) teaching materials on the "protected child" specially prepared and preferentially in comic-book form, for adult literacy programs (Sebenta); and the Women's Organization (Zenzele); and community leaders/chiefs.
  
- The hospitals are neglected, important resources for the EPI that should be strengthened through the project. The MOH policy to forward the immunization of children by using visits for illness should operate in the hospitals as well as in the clinics, especially since it there demonstrates medical care norms, and can imprint on the just-forming professional conscience of nurse-trainees the importance of immunization (and the same will hold for ORT and growth monitoring/nutrition education). Practically, a large volume of pediatric out-patients pass through the hospitals. Many referred to the PHU for their "shots" will not make it. Immunizations, except for BCG, are little performed in the hospitals, largely due to shortages and poor management of staff, and because this part of the program has not been organized. An appropriate immunization program should be organized in each of the hospitals, perhaps by consultation/programmation between the senior medical officers/matrons/administrators/MCH committee/CCCD/Project Technical Assistance. Part of the program should include the actual giving of immunizations by nurses-in-training in order that they learn to do this simple, essential act by actually doing it, and to ease the workload in the hospitals.
  
- The feasibility of private industry assuming responsibility for immunizing populations contiguous to their own beneficiaries has not been demonstrated. As a lower priority activity, it should be explored further during the project. Possibilities may differ considerably in the several different settings. Traditional healers' desires to have common TH/MOH "key" regional (6) clinics for TH-referred immunizations, and other services, and to administer vaccines themselves, should be discussed and examined carefully.
  
- Since tetanus neonatorum is presumably prevalent, given the approximately 300 cases of tetanus reported annually, together

with high infant mortality, its incidence should be assessed by special survey during the project. Specialized technical assistance in this task should be sought, e.g. from CDC (Dr. S. Foster).

- Additionally, 10 excellent recommendations to boost EPI achievements are included in the "1984 Immunization Survey" report by D. Herman. The amount of technical assistance and programmatic work required to advance this program is considerable.

Server Chain:

Injections/Immunizations

- CCCD staff
- HOPE T.A.
- Rural Health Motivators
- Nurse Assistants:
  - Check child health card of all children
  - Check TT status of all ante-natal care visitors
  - Give immunizations
  - Give T<sub>1</sub> T<sub>2</sub> boosters
  - Up-date child health cards
  - up-date ante-natal cards
- Nurses
  - Plan immunization program in clinic
- District Clinic Nurse Supervisors
  - Supervise immunization program
- Maternity Ward Sisters
  - see that all newborns get child health cards
  - see that all newborns get BCG
- Pediatric Ward Sisters
  - check child health cards
  - refer or give needed immunizations
  - up-date child health cards
- Pediatric OPD Sisters
  - check child health cards
  - refer or give needed immunizations
  - up-date child health cards

Constraints:

- There is a significant cultural constraint in that "traditional" means to strengthen children and to prevent febrile childhood

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diseases are both confused, and in competition, with modern vaccines against the six EPI diseases.

- There is a programmatic constraint in that both organizational outputs and inputs have decreased since cessation of the Mobile EPI and the end of SCF direct support. CCCD resources have not entered the program significantly due to personnel and fiscal management problems. More on-site technical assistance is needed to deal with the many problems in the EPI.
- There is an infrastructural constraint in that nurses are not well informed about the correct immunization schedule and allowable flexibilities in using it. The workability of adding additional immunization sessions to existing workloads without changing staffing, or filling vacant positions, will need to be reviewed facility by facility. This is exactly the kind of problem which might best be determined by the District Health Management Team together with technical assistance during the first years of the project. Morale of rural clinic personnel is a major problem that affects capacity for such additional work. There are currently no incentives for good performance in rural areas, except for interested supervision.
- There have been significant logistic constraints in supply and distribution of vaccines, of child immunization cards, and in transport of supervisors and of outreach teams.

Policy Issues:

- Delegation of immunization program at clinic level to nursing assistants. Sixteen of 37 government clinics have been without nurse assistants, 11 of them in Shiselwini District, but this is scheduled for improvement by assignments from the 36 additional nurse assistant posts recently sanctioned.

Programmation/Coverage/Volume of Services/Service Capacity:

- In 1982, when the 0-1 year old population was projected to be 27,993, the following volume of immunizations led in 1983 to a "fully immunized" 0-1 year old coverage of about 29%:

	<u>First</u>	<u>Second</u>	<u>Third</u>	<u>Total</u>
BCG	29,051			29,051
Polio	24,182	20,502	19,625	64,309
DPT	23,682	20,696	18,425	62,803
Measles	17,222			17,222

Assuming that the same proportion of these immunizations given to 0-1 year olds and to older children continues to hold until 1990, and similarly that there is consistency in the proportions of children who have completed one series but not another, a rough idea

of the total immunizations needed in 1990 to achieve "completed immunizations" of 60% of the 36,466 0-1 year olds projected may be obtained by

$$\text{No. of Immunizations given in 1982} \left( \frac{60\%}{26\%} \right) \left( \frac{36,466}{27,993} \right) = \text{No. of Immunizations that must be given in 1989/1990}$$

70% -----3.5x

$$[ \quad ] (2.30) (1.30) = [ \quad ] (3.0) =$$

Hence, to reach the 60% coverage of 0-1 year olds in 1990, 3.0 times as many immunizations of each kind as were given in 1982 would be required. This would require a large and concerted effort of the MOH for EPI.

Programming/Coverage/Volume of Services/Service Capacity:

	1982	1983	1985	1990		
0-1 year old	27,993	28,855	31,788	36,466	60%	21,880
1-2 year old	25,127	25,992	28,754	32,866	x 3.2	

**TARGET E:      ORT AVAILABLE TO 90% OF UNDER 5 YEAR OLDS, AND USED IN 50% OF THEIR DIARRHEAS**

Background:

The success in Swaziland of efforts to disseminate oral rehydration therapy and its reported use in child diarrhea are both phenomenal. Excellent educational efforts have been undertaken by a wide range of groups including MMHP, via radio and group motivation, HEU via seminars for traditional healers, Peace Corps via school curricula, etc. A culturally exceptional happenstance in Swaziland has been the prior use by Traditional Practitioners of aqueous mixtures for treatment of diarrhea, then their ready embracing of the sugar-salt formulation when exposed to it in seminars, and subsequently their effective propagation of this technique among their fellow THs in workshops that they held in each of their six regions. Given their widely respected influence in the rural population, the fact that they have so quickly taken up ORT augers well for its continuing use in Swaziland even without further promotional effort. At this point ORT should become a standard component of routine health education, school education, training of all health workers and home economics workers, and continuing seminars with Traditional Healers. Although it should continue to be promoted in this way, and its use monitored periodically by population survey, the time and energy of technical assistance in the project would more fruitfully be focused on improving the management of the EPI where progress will be up-hill.

ORT utilizations reported in several surveys were:

	<u>ORS</u>	<u>SSS</u>	<u>ORT</u>
Rural 1983 CDC Nutr Survey	27%	13%	40%
MMHP Aug/Sept 1984 Pre-test Survey	4.6%	38.7%	43.3%

Technical Considerations:

From the MCH committee meeting:

- A national ORT training clinic should be created at Mbabane Hospital.
- RHMs should not have ORS packets but should teach SSS; the MOH has decided that when donors stop supplying ORS it will be better for communities to know SSS.
- Clinics should all be equipped with intravenous sets and fluids for back-up, but not nasogastric tubes which, although cheap, require training of staff in their insertion and may cause legal problems due to passage of the tube into the lung and death. Also, the idea was scorned by the Global Committee on CDD.
- Demonstration slides should be made showing the progressive recovery of a dehydrated child via ORT.
- Otherwise, the several interventions described in the questionnaire were all approved by the MCH committee as they had been by respondents.
- Demonstration oral rehydration centers should be developed in the teaching hospitals and the several "key" clinics." In these centers, nurses, nurse trainees, n.assistants and female orderlies would teach and then supervise mothers who would mix and administer ORS solution by cup and spoon to their own dehydrated children. The main purpose is to teach nurses to focus on teaching mothers how to rehydrate their own children.
- The feasibility of locally prepared starch-salt-water solutions should be explored as an operations research effort.

Server Chain:

- SMOs
- Clinic Nurse Supervisor
- all teachers, educators, media
- nurses
- nurse assistants
- orderlies

- Traditional Healers
- RHMs
- ?Chiefs

Constraints:

- None - distribution of ORS is reportedly good now.

Policy Issues:

- None

Monitoring/Incentives:

- No incentives are needed since ORT is a self-help intervention. The flags, however, were apparently very effective at mobilizing public attention and provider interest.
- Monitoring should be by periodic population survey for reported use of ORT, in combination with other parameters that need estimation, e.g. immunization coverage.

Programmation/Coverage/Volume of Services/Service Capacity:

- Treatment of diarrhea in-clinic by instruction of mother to mix ORS is longer than simply giving medicines to take, but may be done in groups and may be delegated to the nurse assistant or orderly who can explain satisfactorily. The implications for overall workload need to be judged on a clinic-by-clinic basis.

**TARGET F: GROWTH MONITORING OF 90% OF LESS THAN 5 YEAR OLDS, THAT IDENTIFIES CHILDREN WITH PROBLEMS AND LEADS TO IMPROVED DIAGNOSTICS, TREATMENT AND NUTRITIONAL REPAIR, PLUS EFFECTIVE EDUCATION OF MOTHERS**

Background:

It should be emphasized that this is a programmically complicated activity whose target has at least three parts:

- |                        |  |
|------------------------|--|
| <u>Monitor</u>         | (1) Can usable growth charts be kept in Swazi clinics routinely?   |
| <u>Fatten</u>          | (2) Can it be ensured that all kids found too thin get more food?  |
| and                    |  |
| <u>Treat Infection</u> | (3) Can appropriate diagnostics and treatment be provided to children infected/infested with: diarrhea, tuberculosis, worms, etc.? |

At present, given the problems of staffing, management, and lack of incentives for rural service in the Swazi health services, there is little evidence that routine growth monitoring will, in fact, be do-able. It would require a very focused and concentrated supportive supervisory effort to bring it about. Excellent first steps have been taken recently: a clear, sturdy child health card has been designed (but could benefit from a plastic cover) and distributed. A Guide for Health Workers in Swaziland: How to Use the Child Health Card has been developed and printed. The 30-page Guide, although strong on points (1) and (2) above, ignores (3) concerning diagnostics/treatment for infection/infestation.

Actually, there are two more components to the growth monitoring activity that are, in fact, explained in this Guide:

Nutrition  
Education

- (4) Will nurses make the time to use the growth chart as a vehicle to educate mothers on how to improve the nutrition of their children?

and

Community  
Diagnosis

- (5) Will nurses make the time and effort to keep a Monthly Tally Sheet to monitor malnutrition and health status of children in the clinic's "community"?

If nurses do not see that improvement of health status of children results from growth monitoring, they are not likely to do it usably.

The Nutrition Workshop held in the third week of June 1985 reviewed the 1983/84 CDC Nutrition Survey results, discussed high chronic malnutrition, and identified a variety of approaches that might be helpful. Hopefully, this will lead to a revision of the present nutrition education. An important reality that must be faced is that clinic nurses get busy tending sick patients and they have limited time to do nutrition education, which must, therefore, be kept brief. Whatever is devised, at least three important messages must be understood by mothers:

- (1) Small bellies and bulky food: give more frequent feeding and/or addition of high energy foods.
- (2) Continue breast and other feedings through illness.
- (3) Give extra food to "catch-up" after every illness.

General diffusion of these messages does not depend on growth monitoring.

The Nutrition Workshop allowed me to review my "MCH/CS Consultation Report" of December 1984 with Dr. John McKigney and Dr. Mary Serdula. That report remains valid, but should include the following:

- The Nutrition survey, done in September 1983 through January 1984 was during the traditional hunger period, but also the low diarrhea period.
- "Underweight" reporting in routine Health Statistics is probably not accurate enough to correctly identify which geographic areas of Swaziland have more or less malnutrition (M.Serdula).
- Continued feeding during illness, and catch-up feeding after illness should emphasize breastfeeding.
- Present use of food supplements wastes expensive, high quality protein as calories.
- "Food supplement programs need mechanisms to graduate children from them" ... "I'm not aware of any place where growth charts have been evaluated for effectiveness" (J.McKigney).

Technical Considerations and Service Interventions:

- Replies to the questionnaires and discussion in the MCH committee both agreed with all the activities specified in the questionnaire, but focussed highest priority on (a) "Train health professionals..." Beyond in-service re-training, intensive supportive supervision will be the key to achieving meaningful growth monitoring in Swaziland. Such concentrated supervision is most likely to be mobilizeable if each clinical nurse supervisor and District Health Management Team concentrates, in the first stages, on the "model clinic" and only one or two other clinics in their region.
- National education will clear consensus on the minimal nutrition education messages for each target group.
- Nutrition rehabilitation centers should be established in hospitals and the "model clinics" for demonstration and teaching services.

Server Chain:

- Ast MCH chief
- District Clinic Nurse Supervisor
- Clinic doctors - diagnostics, treatment, trouble-shooting
- Clinic nurses - diagnostics, treatment, trouble-shooting
- Nursing assistants - weighing, charting, trouble-spotting
- RHMs - motivation for growth monitoring

Constraints:

Complexity of growth monitoring with follow-up. It is time consuming. Will growth monitoring make a difference in clinics' impact on child health and nutritional status?

Regarding the nutritional messages, there are many different agencies and points of view that must be reconciled through coordination. ?Role of National Nutrition Council?

No study is available on what foods poor Swazi mothers prepare and feed to their children, and how this might cheaply and easily be improved.

Monitoring/Incentives:

Clinic well-child weighings, and those under-weight, are already being reported routinely to Health Statistics. There is no monitoring of growth curve maintenance or interpretation. This might best be done by periodic sample audit of clinic attendees, or of Child Health cards in the catchments of clinics.

A plotted growth curve, e.g. including at least 5 weighings, might eventually become part of criteria for the "protected child."

Programmation/Coverage/Volume of Services/Service Capacity:

<u>Annual Number Weighed</u>	<u>1981/82</u>		<u>1990</u>	
	<u>0-2 y.o.</u>	<u>3-5 y.o.</u>	<u>0-3 y.o.</u>	<u>4-5 y.o.</u>
First Attendance	20,940	5,729		
Reattendances	85,279	45,907		
1982 Est. Population	53,330	67,928	100,246	57,613
% First Attend/'82 Pop.	39%	8%		
Total Weighings	106,219	51,636		
	157,855			
Reattendances/ First Attendances	4.1	8.0		

If 90% of children were weighed once each month in years 1-3, and then once every four months in years 4 and 5, then:

(w/yr = weighings per year)

0-3 y.o.	100,246	90%	90,222	x 12 w/yr	1,082,666 w/yr
4-5 y.o.	57,613	90%	51,852	x 3 w/y	155,555 w/yr
					<u>1,238,221 w/yr</u>

Increase in number of weighings 1981/82 to 1990 is  
1,238,221/157,855 = 7.8 x

If weighings (plus categorization, and recording and reporting) took one minute each in 1981/82 and weighings (plus charting, educating, reporting) would take two minutes each in 1990, then the personnel hours required will be 16 times greater. Hence,

1981/82

157,855 minutes/year - 2,630 hours/year equals about 1.4 person year equivalents

1990

(1,238,221 weighings) (2 minutes/weighing) = 2,476,442 minutes/year = 41,274 hours weighings, charting and education/year = 21.5 person year equivalents.

If done properly, weighing, growth charting, and educating mothers might take closer to 3-4 minutes on average, including diagnosis of problem cases. It would be useful to have someone clock the actual times consumed during growth monitoring in clinics. On the other hand, 90% of children will never come regularly for weighing; probably, given a well-run program, this might come closer to 60% in the first two years and 20% in years 3-5.

**TARGET G: 12% WOMEN 15-45 YEARS OLD USING CHILD SPACING**

**Background:**

The four page section on fertility management in my December 1984 MCH/CS consultation report contains detailed "suggestions to strengthen contraceptive availability and use" that remain valid. During the present consultation, it was possible to:

- Review national MOH family planning statistics reported for January/February 1985.
- Gather 1983/84 family planning statistics for Lubombo District.
- Gather responses to suggested activities via the questionnaire.
- Discuss this part of the program with the MCH committee.
- Learn more about the attitudes towards contraceptives of Traditional Healers, through a lengthy interview with the President of the Swazi Traditional Healers' Society.

These several additional sources of information served to confirm the assessment made in December that family planning is likely to remain a very sensitive subject in Swaziland for several years, and that it should be pursued by proving good quality child-spacing

services, quiet education that emphasizes family health, and little fanfare about reducing high population growth rates.

The clinic nurse supervisor in Lubombo said that pelvic examinations are not done in most of the clinics she visits, which do have specula. Nurses were never trained in insertion of IUDs. The Good Shepherd hospital used to be very liberal about contraception, but has become more conservative because of the present Pope. Mobile clinics offer pills, condoms, foams, depo-provera injections. Depo-provera is liked, but they don't give so much because of reported bleeding and amenorrhea, mostly to women over 35 years old and with 6-8 children. When bleeding occurs on depo-provera, staffing gives reassurances but not estrogen or oral contraceptives. Nurse said she sees many families who need family planning where women want it but the men don't like it; sometimes the women have to hide it. Prior policy was that contraception could be given only with consent form from husband. Though this regulation was cancelled in 1976, some nurses are still concerned to give contraception without husband's approval. The Tinkhundla are likely to be against it. From the 1983/84 Annual Report for 20 facilities in Lubombo District (part of region is now administered from Shiselwini):

Ante-natal fist visits:	826	Reattendances:	2,955
Oral contraceptives:	142 new	271 reattendances,	3 cycles given per visit
Depo-provera:	20 new	18 reattendances	
Jelly:	1 new	2 reattendances	
Condoms:	5 new	5 reattendances	
All methods:	168 new		

Approximately,  
826 I<sup>o</sup> anc 10% fetal wastage 743 births 51.5 lb/1000 CBR  
14,435 pop 21% women 15-45 y.o. 3,031 women 15-45 y.o.

168 FP accept./3,031 women 15-45 y.o. = 5.5% annual accept. rate  
Protection rate about (162 + 271 + 20) (3 mos) + 9 =  
1,368 maximum of mos. protection

3,031 women 15-45 y.o. - 826 pregnant - 220 infertile =  
1,985 women 15-45 y.o. at risk, 13 mos./yr 25,799 mos. at risk

1,368 max protected mos/25,799 mos. at risk = 5.3% protection/use

Hence, approximately 5% of both annual acceptance and current protection was achieved in 1983/84 in Lubombo District, a figure similar to earlier estimates of contraceptive use.

The top two priorities expressed via questionnaire returns were (a) post-partum education in maternities and homes, and (b) train clinic nurses on counseling for contraception and IUD insertions.

Write-ins highlighted child spacing education of males, Tinkhundla leaders, policy makers, opinion leaders, traditional healers, and chiefs.

In MCH committee meeting one comment was that FLAS has a bad reputation nationally. Also, that injectables had been used in Zimbabwe, before independence, without motivation or education, hence politically. It was noted that injectables are not authorized as contraceptives by the FDA in the U.S.A. There was general agreement with activities in the questionnaire.

During a lengthy interview with Mr. N. Maseko at his Swazi Herbal Clinic in the Simunye Shopping Plaza, he stated that traditional healers don't like the activities of FLAS, or support condoms or "wires inside women that tempt little girls to become prostitutes, or take lovers." Traditional healers have their own ways to prevent pregnancies: teas, imbita (mixtures), strings around the abdomen...

Technical Considerations:

Train all health workers in child spacing, assure supplies, supervise field work, establish good statistics on use and complications. Strengthen MCH and ensure that CS is always and everywhere an integral part of it.

Volume of Services:

If 12% of couples are contracepting in 1990, then  
 women 15-45 y.o. 162,594 12% 19,344 women 15-45 y.o. using  
 child spacing.

If contraceptive mix is similar to what seen by Jensens, or in Lubombo:

	<u>Jensens</u>	<u>Lubombo</u>	<u>Assumption for 1990</u>	<u>Users in 1990</u>
Pills	87 %	84 %	85 %	16,442
IUDs	9 %	0	0.5 %	97
Injectibles	4 %	12 %	14 %	2,708
Condoms	-	0.5 %	0.25 %	48
Jellies	-	3 %	0.25%	48

If users rose steadily each year from 1985 to 1990, they might progress as follows:

5% (1985) -- 6.4 -- 7.8 -- 9.2 -- 10.6 -- 12% (1990)

The stocks of supplied needed can be calculated from these assumptions.

**TARGET H: TREAT CHILDREN AND PREGNANT AND LACTATING WOMEN FOR MAJOR PARASITIC AND INFECTIOUS DISEASES**

Background:

The major diseases, due to high incidence and severity, are:

1. Acute lower respiratory infections (ARI) - 2nd child killer after diarrhea.
2. Syphilis - responsible for perhaps 1/2 of stillbirths.
3. Tuberculosis (TB) - most important and disabling infectious disease seen on pediatric wards.
4. Ascariasis - children have it, depleting nutrition.
5. Malaria - rising incidence in certain areas of lowveld, where it may cause low birth weight or stillbirths and significant mortality in children.
6. Schistosomiasis (bilharzia) -

The principal things that this project should do in each of these disease areas are:

- |                 |  |
|-----------------|--|
| <u>ARI</u>      | 1. Provide short-term technical assistance by an expert in the setting up of ARI programs, to help MOH develop an implementable strategy within the laboratory limitations of Swaziland, and to include a technical reference manual on how clinic nurses should and should not use antibiotics. |
| <u>Syphilis</u> | 2. Assure adequacy of laboratory services and transport of blood specimens and reports, as well as standardized treatment regimens, and adequacy of penicillin.  |
| <u>TB</u>       | 3. Adequate diagnosis and treatment of tuberculosis should be secured by training laboratory technician assistants in sputum examination and providing microscopes and equipment needed for about 6 sites. Top up the chronically inadequate supply of antituberculous drugs.                    |
| <u>Worms</u>    | 4. Provide additional drugs needed to periodically de-worm under 5 year old children in clinics under protocol to be developed by the MCH committee.   |
| <u>Malaria</u>  | 5. Assure adequacy of chloroquine and second line drugs in clinics in high incidence areas. Consider provision of a vehicle to the malaria service.  |

- Bilharzia 6. Support the School Health Teams and Clinics in highly endemic areas in testing urine and providing treatment of *S.haemotobium* with metrifonate.

Further analysis of each of these diseases follows.

1. Acute Respiratory Tract Infection.

Acute respiratory tract infections (ARI), including the "common cold," are the commonest ailments of children. They cause 35-80% of all illnesses identified in community surveys. They occur about twice as frequently as episodes of diarrhea. Most upper respiratory infections (URI) are self-limiting except for streptococcal throat infection and the bacterial middle ear infections that occur as a complication of upper respiratory infections. In 1983, 130,966 upper respiratory tract infections and 36,553 lower respiratory tract infections (LRI) were reported on out-patient discharge sheets for all the health facilities of Swaziland. These constituted 16% and 5%, respectively, of total new cases reported. In 1982, ARI accounted for 1,098, or 16%, of all reported in-patient discharge diagnoses in Swaziland.

Lower respiratory infections are less common, but have a high case fatality ratio. Where careful studies have been done on causes of infant and young child mortality, lower respiratory infections are usually the second leading cause of death (after dehydration from diarrhea) or the leading cause of death (usually in cold upland areas, e.g. Nepal). In 1982, respiratory disease (including pulmonary tuberculosis) accounted for 19% of all reported hospital deaths in Swaziland (all ages).

Unfortunately, Central Statistics feels that inadequate distinction is now made between upper and lower respiratory tract infections in a number of clinics and is considering merging them for reporting simply as "respiratory infection." For example, in 1983 the reported ratio of URI:LRI was 8:2, 3:5, 4:9, 2:2, respectively for Hhohho, Lubombo, Manzini and Shiselwini Districts. This large range in the proportion of upper to lower respiratory infections was most probably due to differences in diagnosis and categorization rather than to biologic variation. Some clinics even reported more LRI than URI. This current confusion is of considerable importance to the programming required to decrease avoidable deaths due to acute respiratory tract infections.

An effective ARI program must enable clinic personnel to accurately distinguish serious lower respiratory infection from common respiratory infections. Then, to initiate adequate antibiotic therapy and/or refer, as needed, the child to facilities that have oxygen, second order antibiotics and other more advanced services available.

An effective ARI program would require an organizational effort of similar complexity to the EPI program. At the community level, it would require understanding of and belief in the importance of reducing smoke pollution in dwellings, of early completion of immunizations, and of early referral to allopathic facilities of children with serious respiratory infections. Hence the role of community health workers, like Rural Health Motivators, to educate and help mothers to recognize and handle ARI. There is active debate over whether such community health workers should be allowed to use a precocious first-line treatment for LRI, such as oral co-trimozasole, reserving injectable penicillin (probably still the drug of choice) to use by clinic staff. Professor R. Parker argues strongly that such a course would save many lives currently lost (see "Primary Health Care Interventions for Acute Respiratory Illnesses in Children," mimeo. paper presented at Seminar on Acute Respiratory Illness, FKMUI, Jakarta, 11 February, 1985).

Others are concerned about the emergence of resistance, as has occurred in pneumococci, but only partially, to penicillin in the Papua, New Guinea ARI program. Unfortunately, South Africa has reported pneumococci highly resistant to penicillin (perhaps because of its wide and indiscriminate use there, a problem in clinics in Swaziland as well, that worries Dr. E. McGrath). If much of the lethal childhood pneumonia occurring in Swaziland is due to the usually rarer bacterium Hemophilus influenzae, then alternative treatments with chloramphenicol and/or expensive ampicillin would also need to be considered. Yet another concern is the emergence recently in Tanzania of a very pathogenic strain of cholera that requires antibiotic treatment as well as rapid rehydration; there is fear that it might acquire multiple antibiotic resistance through genetic transfer from intestinal Escherichia coli if a drug like co-trimozasole were widely used in the hands of community workers.

Thus, unlike the Expanded Program of Immunization, the particular technologies to be used in creation of an effective Acute Respiratory Infection program are not yet standardized. Development of the ARI program will require working out in Swaziland what infections can be diagnosed and treated at clinic level, with what antibiotics and in what protocolled manner, and with what indications for referral to a higher level facility. The program, to work, would need operations manuals, and adequate training and supervision. One or several pilot stations should be created to monitor progress and problems. Thus, expert and specialized technical assistance is required for develop the uncodified activities needed for an adequate, manageable, affordable program for the complex problems of ARI. Because of these special challenges, I would recommend that technical assistance be sought from top experts in the field, e.g. Dr. Arnfried Kielman (U. Nairobi & GTZ), Dr. S. Foster (CDC), Dr. Pio (WHO/Geneva), etc.

## 2. Syphilis.

Syphilis is one of the most important diseases that can be successfully treated during the pre-natal period. Chief Obstetrician, Dr. Guinness, says that about half of the macerated fetuses seen in the hospital are due to syphilis. Pediatrician Dr. E. McGrath said that perhaps 30% of neonatal deaths are due to syphilis. There is concern that the incidence of syphilis may be rising. Dr. Guinness notes that about 10% of blood tests sent for serologic testing used to come back positive, but this has recently risen to 16%.

Such impressions based on laboratory results in hospital patients, however, are not reliable indications of what may be happening in the population. No recent population-based survey of syphilis seropositivity has been done in Swaziland. One is needed in order to devise a sensible strategy for dealing with a disease that probably has very high incidence in some areas (thought to be the case for the major urban areas and in some of the industrial estates) but low incidences in others.

It would probably be too costly and perhaps logistically impossible to attempt to perform syphilis serology on every pregnant Swazi woman. On the other hand, the point was made at the MCH Committee meeting that it might be advisable to do two serologies during the course of subsequent ante-natal visits for some women living in areas with a high incidence of syphilis; some women might be seronegative early in pregnancy, but become seropositive later in pregnancy at a time when the infant could still be saved by adequate treatment. The volume of serologic testing that could be accommodated in Swaziland at the inadequately manned and supplied Central Laboratory in Manzini is problematic.

Some of the current problems in dealing with syphilis in Swaziland include:

- Serology test results frequently do not get annotated on the patient's record at Mbabane hospital by the time the patient is seen; sometimes hospital personnel do not take appropriate action, even when the test result has been annotated. Re-training of personnel is required to redress both problems.
- Reagents for serologic tests, and/or transportation of specimens to laboratory, frequently are unavailable. This requires drawn bloods to wait in the refrigerator until reagents can be obtained. Some of the blood hemolyzes, producing false positive results. Adequate stocking of the Central Laboratory with reagents is needed (see below). A system of transport of laboratory specimens from clinics and hospitals to laboratory(ies), and of results back, needs to be devised. It was suggested that this might be done in conjunction with supervisory visits from the District Nurse Supervisors.

- Health personnel confusion over the treatments of gonorrhoea and syphilis cause many with the latter to receive only partial treatment, according to Dr. E. McGrath. This had been true, for example, in the last three cases of syphilis he had seen. Protection of the fetus, and prevention of congenital syphilis, requires giving the infected pregnant mother 2.4 million units of intramuscular penicillin not just once, but for three weeks in sequence. A decision will need to be made as to whether gonorrhoea should be treated with a drug other than penicillin, e.g. thiamphenicol, to discipline the wide usage of it, to minimize the encouragement of resistant bacteria, and to spare penicillin for life-saving use in acute lower respiratory tract and syphilis infections.

Dr. Matoka, Head of the Central Laboratory, Manzini, made the following observations:

- There is no good data on the distribution of syphilis in Swaziland, only an impressionistic assessment done in 1979.
- Budget is inadequate to maintain sufficient stocks of the reagents needed for syphilis screening testing, which include:
  - VDRL (Venereal Disease Research Laboratory);
  - RPR (rapid plasma reagin);

and specific, confirmatory tests, which include:

- TPHA (treponema pallidum hemagglutination assay).

These are needed for screening of blood donors, as well as for screening and testing of patients suspected of having syphilis.

- Current volume of testing is "about 20,000;" the MOH 1982 Annual Report noted screening of 10,643 blood samples for syphilis.
- Adequate laboratory services are compromised by inadequate budgets, staffing, training, reagents, and by over-centralization. The Central Laboratory is inoperable 1/4 to 1/2 the year because only about 1/2 of the budget requested from the MOH is accorded. There is an "acute staff shortage... but no funds...", while requests for laboratory services continue to increase. A five-year development plan for laboratory services was drawn up and submitted one year ago. It recommended increase in the cadres of Laboratory Assistants, refresher courses for them, and decentralization of selected tests to Mbabane and other facilities (with quality control from the Central Public Health Laboratory). Equipment shortages will need to be rectified to increase volume of tests performed (e.g. there is no mechanical shaker for serologic testing at Mbabane Hospital).

- Mbabane Hospital laboratory should have a darkfield attachment for its microscope for direct examination of treponemes in syphilitic lesions, but has "hardly any working microscopy".

For purposes of programming, one might consider the volume of serologic tests needed in 1990: If syphilis serologies were done on blood specimens of the approximately 45,000 pregnancies in that year, with two serologies performed on 1/9 of them, then the volume of tests required out of the ante-natal service alone would be about 20,000 tests. This would be twice the volume reported for all services (including screening of blood donors) in 1982.

### 3. Tuberculosis.

Dr. Mbambo, Head of T.B. Service, Matsapa, made the following observations:

- The only survey of the prevalence of tuberculosis was done in 1956/57 by WHO when the TB service was initiated in Matsapa. Then it was found that 2% of persons over thirteen years of age were actively shedding mycobacteria.
- The TB control program is trying to decentralize diagnosis, but remains the only facility that is examining sputa for acid-fast bacilli. Microscopes and training of personnel are needed in outlying facilities. A number of facilities have microscopes that are not in working order. There is no culture of mycobacteria in Swaziland; cultures must be sent to South Africa, which is expensive. Cultures were done in Matsapa earlier, but ceased when WHO phased out of the tuberculosis program in 1968.
- Treatment, however, is decentralized except for a limited number of "open" cases in adults that are treated at the TB Hospital. Because of problems of resistance in mycobacteria, a four-drug regimen is used initially (streptomycin + rifampicin + pyrazinamide + isoniazid). This is expensive, budgets are limited, and drugs are often in short supply. The TB Service provides anti-tuberculosis drugs to hospitals and clinics where patients are treated by their local personnel, but the drugs are in chronic short-supply. These drugs are usually purchased in South Africa. Currently, the program is short of rifampicin (also used in the Leprosy program), pyrazinamide, and INH.
- Diagnosis of tuberculosis is difficult in children under five years of age. It is often manifested as malnutrition, and may be picked up early through growth monitoring.
- There are not statistics available on the prevalence of tuberculosis in pregnant women.

- Dr. Mbambo thinks that the Traditional Practitioners are a powerful influence over sick people in the population, and they should be persuaded to bring tuberculosis patients in for treatment with modern drugs. He has not worked with them directly, but is interested in doing so.
- Community workers, such as RHMs, have a important role to play in defaulter tracing, which is a serious challenge in Swaziland.
- Dr. Mbambo feels that the public is generally quite aware of the danger of chronic cough and weight loss, thanks to health education propogated by the radio. The TB service provides educational material to the Health Education Unit, through the Health Education Officer, Mrs. Patricia Simelane, which makes the necessary arrangements with the radio station.
- Prophylaxis against tuberculosis in pregnant women is under consideration by Dr. R. Tshabalala and the MCH Committee.
- There is a paradox in Swaziland in that bovine tuberculosis is reported by the veterinarians to be rampant in cattle, but appears to be rare in humans. Most of the cervical adenitis (swollen and infected lymph glands in the neck) commonly seen is thought to be due to the human strain of TB.

Programming Considerations:

If adequate screening for and detection of tuberculosis were to be accomplished through the growth monitoring and ante-natal care programs to be mounted under the project, how much additional expenditure would this require?

Growth monitoring, developed successfully by 1988, might detect 75% of the 80% of tuberculosis now missed in children under five years of age. This would yield about 1,728 additional kids for treatment: i.e. by 1988, 144,000 children less than 5 years old (from Census projections). At 2% TB prevalence, 2,880 children with TB. The 60% of these (60% = 75% x 80%) newly found would be 1,728 tuberculous children in need of treatment. At an average cost of E40 per case, anti-tuberculosis drug treatment would come to about E69,120. In addition to the 2% prevalence of TB, there would likely be an annual incidence of perhaps 0.85%. If a similar 60% of this, previously missed, were detected, it would require drug treatment costing about E29,376 per year. Over three years, this would amount to about E88,128. Thus, drug treatment of TB in these additional children in 1988, 1989, and 1990 would cost about E157,428. If approximately 1% of the approximately 40,000 pregnant women were detected as tuberculous each year through the ante-natal care program, then about 2,000 additional women would require treatment over the five years of the project, for an additional drug expenditure of about E80,000. Hence, total additional expenditures for treatment of TB would approximate E240,000.

The additional costs of Laboratory Assistant training, microscopes, reagents, etc. need to be worked out.

4. Ascariasis.

5. Malaria.

Malaria symptoms are particularly serious in pregnant women because pregnancy suppresses a woman's acquired immunity. Malaria contributes to maternal anemia and nutritional deficiency. Prevalent falciparum malaria can cause death. Malaria of the placenta increases the risk of spontaneous abortion and leads to the birth of many low birth-weight babies with very high rates of morbidity and mortality.

The total number of cases of malaria reported annually since 1971 to 1982 varied widely from 61 to 1,473, averaging about 460. In 1983/84, it rose sharply to 3,379 cases reported due to running out of chloroquine tablets, delayed spraying due to late arrival of DDT, and the cyclone of 28 January 1984.

Malaria morbidity and mortality in pregnant and lactating women unfortunately is not available. Mr. Clifford Mamba of the Malaria Control program kindly gathered statistics on positive cases reported for under 5 year olds:

July-June 1984	160 cases
July-May 1985	193 cases

Most malaria deaths, Mr. Mamba said, occur at home without being reported. The population considered to be at risk, largely in the lowveld, is considered to be 280,000, of which 31,155 adults and children in 36,983 huts are under surveillance by a team of 19 malaria workers, down from 30 earlier. This team lacks transportation as there is a shortage of automobiles and most of their bicycles are broken.

Peak transmission is usually March through May, although in 1984 it was very high in early January, before the cyclone. Malaria workers usually take their leave in low transmission months, June through September. Mr. Mamba concurs with Dr. J. Nelson's idea that this group could be used for special field surveys then, but cautions that they have little education.

Mr. Mamba said that the MCH committee is considering issuing a circular on the giving of chloroquine prophylaxis (2 tablets, or 150 milligrams per week) to women throughout pregnancy. Pediatric dosages to treat malaria are:

for under age 1 year - 2 tablets over three days  
for 1-5 year olds - 2 1/2 tablets

CCCD intends to assist the Malaria Control program, and has chloroquine on order. The MCH/CS project should see that the malaria control work continues to function, and that all clinics in malarious areas treat cases in mothers and children as they occur, i.e. that they are stocked with anti-malarials, have trained staff, and access to laboratory facilities for reading of thick blood smears.

Attached are "Swaziland National Antimalarial Plans" (Appendix \_\_\_\_), "Annual Malaria Report - Swaziland 1984" (Appendix \_\_\_\_), and "Malaria Cases Reported 1946-1982" (Appendix \_\_\_\_).

6. Schistosomiasis.

ADDENDUM TO THORNE CONSULTANCY REPORT  
OF JULY 1985 ON MCH/CS IN SWAZILAND

INTERVIEWS WITH KEY PERSONS

Mr. Nhlanvana Maseko, President of the "Swaziland Traditional Healers Society" (STHS), made the following observations when I interviewed him in his "Swazi Herb Clinic" in Simunye Shopping Plaza on 5 July 1985:

- Traditional drugs from Swaziland and other SADCC countries were sent to Germany in February 1985 for "screening" and chemical analysis at the University of Berlin by Dr. Arthur Bohme under a German-financed project to test and commercialize traditional medicines.
- Collaboration between allopathic and traditional sectors is most developed in Zimbabwe, where traditional healers and doctors treat patients together under one roof.
- Swaziland's traditional healers (THs) would like the Ministry of Health to come to them, sit around the table, and mutually discuss projects, as it now does with other non-governmental organizations like FLAS and Red Cross.
- The STHS would like Swazi government help in construction of a small clinic (TH/MD model clinics) in each of the five districts they recognize (Shiselwini #1, Shiselwini #2, Piggs Peak, Lubombo, Manzini, Mbabane). These clinics might measure about 10 x 10 meters. They would be "half-way" houses where traditional healers could meet with doctors and nurses to discuss patients. THs would refer their patients there. Immunizations

could be given there. Government contribution might be around E5,000-E6,000, and the clinics would be erected by the THs. They would need gardens for planting of herbs, financial management with proper books for registering activities, a secretary, and a research facility in at least one center. (It may be worth noting that Mr. Maseko's clean, neatly organized large shop in Simunye Plaza has a reproducing machine, electric cash register, and typewriter.)

- ORAL REHYDRATION THERAPY: USAID-sponsored seminars that involved THs were very successful. Most THs picked up the idea of Oral Rehydration Solution, and are now using it. Also, many THs who earlier held onto their patients, or referred them only to other THs, now refer them to clinics or hospitals. When THs go to the hospitals, they only tend to ask to talk to the MOH personnel whom they had met earlier in seminars. Health personnel also liked them and learned quite a bit from the THs. Although two seminars had been held, one for training of trainers and one for key traditional healers in Mbabane, five more had been planned and were awaited but delayed because CCCD's money was blocked. The CCCD one-day seminars on ORS had gone very well. Pitnera and Manauta of the Health Education Unit, and Dr. R. Tshabalala, had all been very understanding and helpful to work with.
- ANTI-DIARRHEAL DRUGS: Traditional healers are adept at treating what they recognize as 6 different kinds of diarrhea. They have an herbal mixture (imbita) that will stop loose stools in about one hour's time. This imbita, plus ORS, has given THs excellent results in treatment of diarrheas.
- The THs have acquired, with German help, a large lecture hall in Mbabane. There they can have seminars and train throughout the year. In terms of continuing USAID-sponsored seminars of THs, however, it would be more productive to hold them in the several districts. There, Min. Agriculture and Min. Local Development might also be involved.
- The STHS is doing well, finally beginning to get the support of churches, and to have some visits from schools.
- A large conference should be held once a year for all the Traditional healers together with doctors, in order to involve them better.
- The STHS is asking the MOH for a separate budget for the THs.
- IMMUNIZATION: Regarding immunizations, Mr. Maseko expressed some skepticism. THs have their own traditional ways of protecting against the six communicable diseases, all of which are modern diseases brought to Africa by Europeans, he said.

There is no actual injection of materials in traditional medicine in Swaziland. However, Maseko would like to give immunizations himself in his clinic, if the government would pay half the cost. Or, alternatively, the MOH services could come to his clinic and give the immunizations there. There are only 100-200 educated THs like himself in Swaziland who might be able to give immunizations. Maseko believes that part of the reason for the spread of these six diseases is that Swazis are now jammed into towns, rather than living in communities as they used to do. THs might be willing to refer children for immunizations to the TH/MD model clinics that STHS has proposed. But THs may be unwilling to refer for immunizations since they would prefer to use their own ways of protecting against disease.

- ANTIBIOTICS: Maseko said that THs in Swaziland do not use penicillin or other antibiotics.
- RHMS: Regarding Rural Health Motivators, Maseko said that the government had trained the wrong people: they do no good, are not nurses or healers, are not recognized by the rural population, and they get only three months of training whereas the traditional healers have had ten years of training. The government should have trained and paid the THs instead of the RHMs.
- FAMILY PLANNING: There are many effective traditional methods for contraception, according to Maseko, including herbal teas and mixtures (imbita), withdrawal and strings around the abdomen. The THs do not like FLAS, he said, or support condoms or family planning which tempts little girls to become prostitutes or "lovers." He had had a very small discussion with FLAS, and they had wanted him to visit the USA, but nothing came of it.
- SCHISTOSOMIASIS: Maseko said that there are many traditional medicines against bilharzia, but that therapy for it needs more research.
- NUTRITION: Maseko said that THs traditionally identify malnutrition, give medicines and nutritional advise, and may even feed the patient. But they do not recommend cabbages, onions, and other vegetables on which chemicals have been sprayed. A traditional maxim is "food for the sick"; a TH will help an ill patient to eat, even waking to feed him at night, if necessary. But, in cases of high blood pressure, the patient is not allowed to take food for 14 days, until the "poisons" are out.
- TUBERCULOSIS: Although many THs are able to cure tuberculosis, it is not 100% sure, and Maseko excludes it from the list of ailments for which he feels that there are effective traditional remedies that should be investigated chemically. He expressed awareness that TB is increasing, and that it was caused by food

poisoning or by having sex with a widow. He said that THs do not recognize the transmission of tuberculosis by drinking raw cow's milk.

- **WORMS:** There is effective herbal medicine against roundworm. Many THs are able to treat for roundworms.
- **MANUAL ON TRADITIONAL HEALING PRACTICES:** Maseko said that he had just completed a 100-page manual on how to use traditional medicines. This was lectures for traditional healers, and anyone else interested in the subject, as an up-to-date manual on e.g. how to diagnose illnesses, how to treat diarrhea with guava leaves, etc. He has written it in both English and siSwati. He wants to get it typed and printed in nice booklet form, such as the booklets that UNICEF produced. Judging from the large number of people writing to him for copies of the Constitution of the STHS, he guesses that there may be considerable demand for the manual. It would also be a resource for "training among ourselves". He reckons that about 8,000 copies should be printed. Hence, initial capital of about E40,000 needs to be found, either as grant or loan. He would appreciate assistance in seeing whether any donor might be willing to underwrite the production of this manual. I did not see a copy of it.
- **TRAINERS' EXPENSES:** Maseko said that he had incurred expenses in helping to set up the earlier training sessions for THs, but had never been reimbursed for them. He said that he had drafted materials, used his secretaries in typing, and had telephoned and driven all over Swaziland in helping to set up the training sessions. I suggested that he propose what he felt were reasonable expenses for reimbursement and get prior agreement on what expenses and amounts might be reimbursed, and that he then keep careful accounts and submit them.
- **MISCELLANEOUS:** Maseko said that he would like to see a film made on traditional healing practices in Swaziland. He said that referral of patients from TH to government facilities, and also from doctors and nurses to THs, was very important. He noted that THs do good business: "75-80% of patients come to see us." In one day, he said, he usually sees 10-20 patients and takes in E500-E1,000.

#### THORNE IMPRESSIONS:

From this interview, which Mr. Maseko was kind enough to give on a Saturday evening just before his departure to Soweto to provide assistance there in how THs could organize themselves, and from earlier reports of E. Green and W. Hoff, I drew the following impressions:

1. AID-assisted efforts to mobilize traditional healers for oral rehydration therapy of their clients has been very successful. It has also been quite cost-effective, since expenditures were small and there has been considerable autocatalytic diffusion of ORT within the enormous TH community.
2. While an excellent liaison was established initially with the THs, the momentum and credibility of this effort has been jeopardized by failure to hold the further training as planned, presumably due to difficulties in financial management in the CCCD project.
3. While ORT was readily accepted by THs, since they already had a tradition of treating diarrhea with aqueous herbal solutions, and since the action and control of the patient (and his fees) was left in their hands, it will likely be more difficult to reach a common accord on immunizations and on preventive measures in general. Unlike the case for ORT, THs are being asked, in effect, to send off their patients to clinics for injections. To do this they thus lose control of the patient and his fee, and also must tacitly admit some inadequacy in their traditional measures to strengthen a child to ward off disease. There is likely to be some active opposition to family planning by THs, at least by some of the male traditional practitioners.
4. A manual in English and siSwati prepared by a relatively well-educated and reputable traditional practitioner would be a valuable aid to understanding traditional approaches and practices, and thus for helping develop strategies for constructive collaboration between them and the government health services system.
5. Seminars should be continued, perhaps four per year, to educate traditional practitioners in modern concepts of MCH/CS, and to promote continuing dialogue between them and MOH health workers.

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Swaziland Primary Health Care Project  
Annex 6B  
Administrative and Institutional Analysis\*

1. Overview of Primary Health Care/MCH System.

Primary health care/MCH services for the eighty percent of the population living outside the three urban centers is delivered through a network of rural clinics. About sixty percent of these clinics are staffed, managed and financed by the Ministry of Health (MOH). Forty percent of the clinics are staffed and managed by church missions. In the past, the mission clinics were financed from private contributions, but in recent years, the government has been obliged to provide most of the funding required to keep them operational. A major effort is underway to integrate the mission and government health systems. In addition to the government and the missions, a small percentage of primary care services is provided by the private sector; mostly at industrial health clinics that serve company employees and their families. There are also a few nurses in individual practice providing PHC services.

The national clinic network - both mission and government - has been built to serve areas where population is concentrated. For the most part this approach has been successful. While some additional clinics are needed to meet the government's objectives to provide service as no greater distance than 8 km from the homestead, there are no important concentrations of population that are without any health services or are unreachable through the existing health network.

The Swaziland PHC network is conceptually as well as geographically a network of fixed facilities. While public health and outreach concepts are gaining support and some missions sponsor mobile clinics at fixed village locations, the prevailing "mind set" of the providers and the system is to deliver services - mostly curative - to individuals who present at the clinics. The concept of a national clinic network with particular curative, preventive and outreach responsibilities in a discreet catchment area is accepted at the center but these plans remain to be elaborated and implemented.

The government and mission clinics are staffed professionally by clinic staff nurses (RNs), nurse assistants, and health aides. Almost all of the clinics - both mission and government - are led by a staff nurse. About 60 percent of the government rural health facilities are also staffed with a nurse assistant.

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\*Prepared by John Alden, PRITECH, July, 1985

Both the clinic nurse and the nurse assistant are well trained. The clinic nurse has particularly strong academic training; the nurse assistant has strong clinical preparation. Most of the clinic nurses are qualified as midwives (as a result of an additional year of training), but few deliveries are made at clinic sites. In all cases, the training concentration is on hospital-based curative services and neither the nurse or nurse assistant has any significant exposure or preparation in public health. Many of the clinic nurses need in-service training to up-grade their basic MCH and public health skills.

Nurses are assigned to rural clinics on two year rotations. Although there are some notable exceptions, rural service is not popular, and as a group, the clinic nurses would prefer to work in an urban setting. At the same time, the nursing service is an established career path for Swazi women that is growing in prestige, stature and professionalism, and it is unlikely that many dissatisfied nurses would in fact move out of the profession.

The operations and management of each clinic is the responsibility of a district nursing supervisor who makes an on-site visit once or twice a month. Each clinic is also affiliated with a referral hospital where the more complicated cases are sent. Physicians from the referral hospitals visit the clinics about twice monthly according to a pre-arranged schedule but emergencies and transport problems sometimes disrupt these plans. In most cases, the physicians spend one or two hours at each clinic diagnosing and treating from 10 to 25 patients, and checking the treatment patterns of the clinic nurses.

In 20% of the country, there is also a network of community-selected rural health motivators (RHMs). These workers receive an excellent three month pre-service training course. As their name implies, the RHMs provide almost no direct health care services, but are charged with stimulating an expanded and appropriate use of government health facilities, along with promotion of environmental sanitation. The RHMs do, however, perform occasional emergency deliveries in the homesteads, and have been intermittently provided with some simple medicines. Supervision of the work of the RHMs has recently be reassigned from the district public health to the local clinic nurse in order to integrate the RHMs' work more closely into the clinic program. It is not clear how well this will work since the clinic nurses have little time to supervise the work in the villages. Supervision may be limited to technical monitoring and teaching carried out at the clinic setting. The clinic nurses have not yet been taught what is expected of them in this new role.

Clinic utilization - both in the missions and the government clinics - varies widely but the reasons for this are multiple and interacting. One important factor is the density of population around the clinic. Others are the perceived technical skills of the

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clinic staff, the availability of medicines at the clinic, the hours of operation, the proximity of the clinic to a referral center, the availability and timing of local transport to the clinic facility, and the personal relations between the health staff and their clients. Individual daily clinic utilization per clinic nurse ranges from a high of over 100 visits to a low of 10 visits per clinic day. However, the bulk of the clinics seem to see from 35 to 50 patients per day per clinic nurse, and from 15 to 30 patients per clinic day when nurse assistants and nurses aides are included in the calculations as professional providers.

Each clinic patient pays 1 Emalangeni per clinic visit. This fee was recently equalized between government and mission clinics, effectively reducing the cost of mission provided clinic health services to consumers through an augmentation of the subvention the government pays to the missions. Some communities add a small surcharge to clinic visit fees to pay for community health projects. Clinic fees are not believed to present an important constraint to utilization although some people advocate their complete elimination for MCH and other preventive services. Clinic fees total about \$70,000 per year and are not an important source of revenue for the health system. These fees are not now retained by the Ministry of Health.

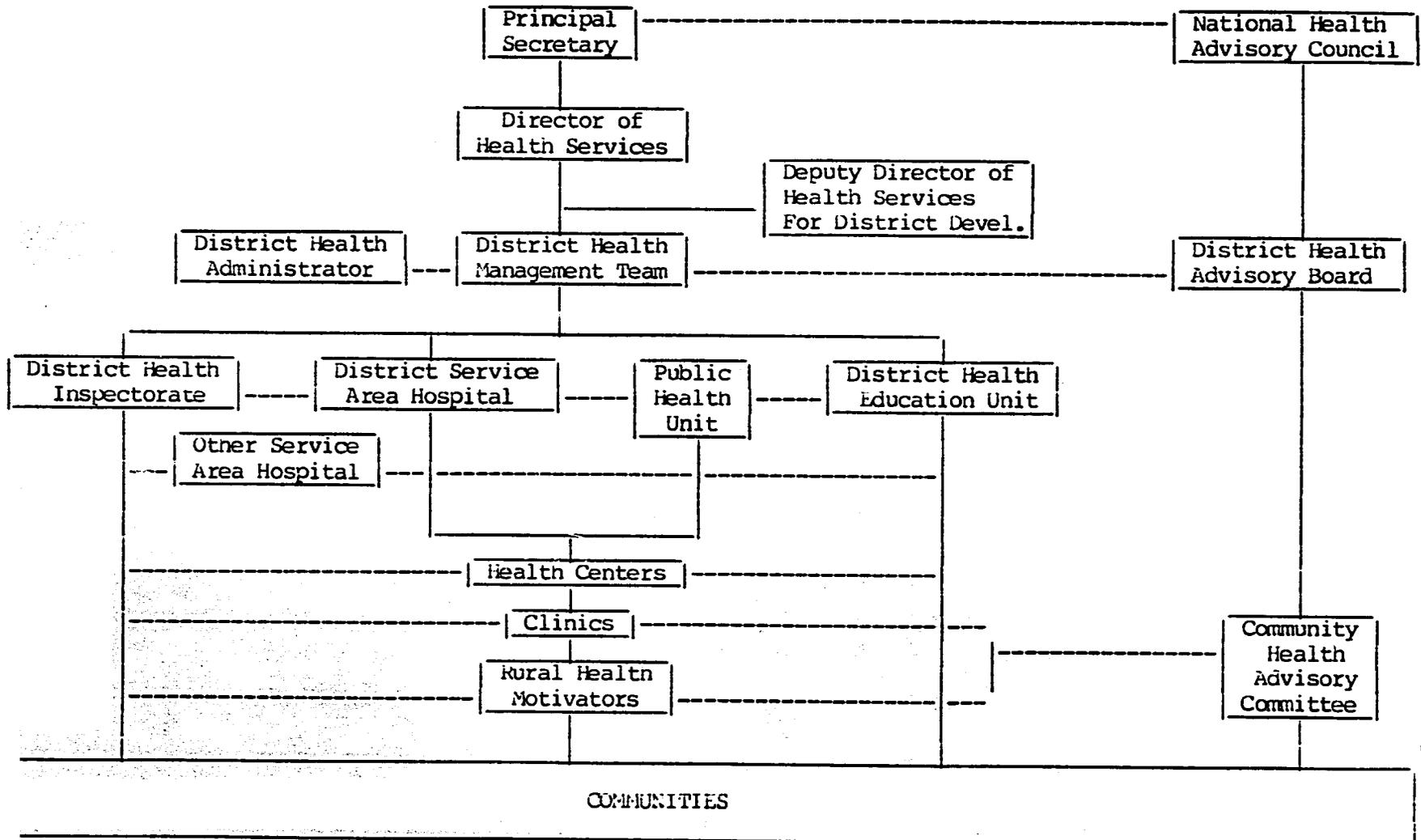
Overall Swazi government expenditure on health is \$9.50 per capita, ranking it far ahead of most countries on the continent. This represents 9% of the government budget. Total per capita expenditures for health are estimated at \$25.00 per capita. Much of this amount is spent outside the modern formal health system to purchase medicines and the services of traditional practitioners.

Overall, the quality of care provided by the mission sector is perceived to be better than at government facilities in part because of the more ready availability of medicines at mission clinics. However, Swazis are quite discriminating in choosing health providers and will often by-pass nearby facilities to select a provider in which they have confidence.

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TABLE I

DISTRICT HEALTH SERVICE ORGANIZATION  
(May 1984)



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## HEALTH FACILITIES BY OWNERSHIP AND LOCATION

Ownership	Location	Type of Facility			
		Hospital No. (%)	Health Center No. (%)	Clinic No. (%)	Public Health Unit No. (%)
Government	Urban	3	1	1	2
	Rural	3	1	35	3
	(Total)	(6) (67%)	(2) (22%)	(36) (31%)	(5) (83%)
Mission	Urban	1	-	4	-
	Rural	1	1	28	1
	(Total)	(2) (22%)	(1) (11%)	(32) (27%)	(1) (17%)
Industry	Urban	1	2	14	-
	Rural	-	2	-	-
	(Total)	(1) (11%)	(4) (44%)	(14) (12%)	(-) (-)
Private	Urban	-	1	20	-
	Rural	-	1	16	-
	(Total)	(-) (-)	(2) (22%)	(36) (31%)	(-) (-)
Sub-Total	Urban	5	4	39	2
	Rural	4	5	79	4
TOTAL		9 (100%)	9 (100%)	118 (100%)	6 (100%)

Source: Ministry of Health, Annual Report, 1982.

## 2. Important Institutional Constraints Within the PHC/MCH System.

Compared to most other African countries, the Swaziland primary health care/MCH system has much to be thankful for and a lot going for it. The climate in Swaziland is hospitable to good health. The size of the country and internal ease of communication makes it possible to reach any clinic within a day. The country does not face major epidemics or food shortages. Swaziland's location and convertible currency provide the country with almost unlimited access to supplies and technical expertise. The national program is supported by a network of mission clinics which provide almost half the health services. There are several well established PHC/MCH training institutions, both in the public and mission sector. There are a substantial number of committed Swazi PHC/MCH providers. Swaziland enjoys enthusiastic donor support. Above all, the government believes health is an important issue and affords the health sector enough priority to make the raw availability of resources a secondary rather than the primary issue.

In composite, the generally favorable economic and institutional setting in Swaziland and the absence of some overriding obstacles that dominate the choice of alternatives elsewhere in Africa makes it possible to seriously consider major improvements in PHC service delivery within the next five years.

That being said, there are nevertheless some important institutional constraints that impact on the capacity of the primary care/MCH system to do better. These constraints fall into three main areas:

### Inadequate Support for Key Health Providers:

It is well to remember that the productivity of the PHC/MCH system - both qualitatively and quantitatively - depends upon the successful interaction between the PHC/MCH health providers and the consumers. In a dispersed system of clinics where supervision is, and always will be, intermittent, a positive service delivery result depends upon a well trained, well supported and highly motivated clinic work force. With such a work force it is possible to establish standards of performance and efficiency and expect results without hour-by-hour supervision. Without such a work force, the work product will fall far short of achievable results.

It is clear that there are important problems with the terms of service of the clinic nurses that threaten the assumption that this provider can be made considerably more productive with more training and better program resources. Essentially, the rural clinic nurse problem is this: Despite their technical responsibilities and the isolation of their work setting, rural clinic nurses are compensated no better than their counterparts in a structured hospital job, with less responsibilities, in town. In fact, with the recent decision to charge nurses rent for their clinic quarters, the final

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perquisite of rural service has been eliminated. The result of the government's personnel policies to create a clinic nurse work force that is largely looking beyond rural service serving out its time awaiting an opportunity to move to an urban setting where the work is more structured, the life is more comfortable and secure, and the possibilities for promotion and training are better.

It will probably never be possible to make rural service attractive for everyone, but a means must be found to balance the hardships of rural service against the conveniences of urban work. This might be done through additional compensation to rural providers, recognizing that these providers are on emergency call, providing free housing, improving access to supplies and equipment, providing special training opportunities, and making successful rural service a priority consideration for transfers and promotions.

Consideration can also be given to regional needs where candidates are selected for pre-service training, since it is more likely that candidates with a rural and regional background will find a clinic post acceptable.

Non-monetary factors in job performance are also important. Ways need to be found to commend exemplary individual and group performance through awards and other recognition.

#### Weak Management Support for the Clinics

As in the case of staff morale, the quality of management support at the clinic level directly reflects on productivity and is central to establishing performance standards. Each clinic must be supplied with the basic equipment needed to carry out their assigned tasks. There must also be adequate means of maintaining this equipment and expendable supplies must be regularly replenished. In 1984, the MOH conducted a detailed clinic equipment survey to determine whether existing clinic equipment met MOH requirements for delivering the PHC/MCH services. The survey concluded that in many clinics there were serious equipment shortages. To the extent these equipment shortfalls are associated with the successful implementation of priority MCH tasks, the delivery of services is threatened.

Transport and communications are equally important issues. Most of the clinics have no transport and it is unlikely that the Swazi government would be able to afford the operation and replacement costs of a clinic vehicle fleet even if they were initially supplied by donors. Some clinics have telephones; some have phones that are out of order; others have two-way radios in working and non-working condition. All clinic managers need to have access to their referral unit as support in medical emergencies and to conduct regular clinic business. One factor that is cited again and again as a constraint to performing more deliveries in the clinics is the absence of access to technical back-up should complications occur.

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The issue of transport and communications has not been thought-through in relation to the clinic support requirements. This is an area where donors can help but effective action requires a workable transport and communications strategy for rural clinics developed in relation to execution of their assigned tasks and sustainable with Swazi resources.

Much has been written about the unsatisfactory state of the Central Medical Stores and work is well underway to correct this situation. It is obvious that from the clinic perspective, the erratic availability of pharmaceuticals and vaccines threatens the viability of the entire clinic PHC system. At this stage the constraint is not financial; it is organizational and managerial. Vaccines present a particular problem and there is some evidence that cold chain problems are threatening the measles program. The transport capacity of the medical stores is also at issue and will become a greater problem if the mission clinics are ever integrated into the MOH supply system. In addition to gains in managerial efficiency, significant cost savings can be achieved through improved procurement practices and better inventory control. There are at present no accurate up-to-date records of the drug and pharmaceuticals consumption of individual clinics at the Central Medical Stores. Without this information, it is difficult to monitor how clinics are using supplies and whether their periodic requests for replenishment are appropriate.

Financial management constraints are discussed elsewhere in this report. However, it is important to point out that the failure of the financial accounting system to clear its books from the previous fiscal year by three months into the present fiscal year has caused a Ministry of Finance procurement freeze that is threatening to paralyze the entire health system. Currently no new supplies or equipment are being provided except on an emergency basis pending the resolution of this accounting problem. Medical stores are still drawing down from existing stocks but disabled vehicles cannot be sent for repair and other new procurement is being deferred. The impact of the weaknesses of the financial accounting system on clinic operations is obvious.

Adequate organizational arrangements for supervising PHC/MCH clinic services are presently evolving. At present clinic supervisors visit the clinics once or twice a month to monitor clinic operations and RHM activities and to pay the RHM staff. Since most clinic supervisors come out of the hospital-based curative setting, they lack substantial training in public health and are therefore in a poor position to guide the clinic nursing staff on these issues. The clinic nurses are charged with supervising the RHMs but they too lack the training and skills to do so. A plan is being considered that would establish a public health trained matron to supervise clinic services, but it is not yet clear how the clinic nurses are going to be able to effectively supervise the RHMs. Transport for clinic supervisors is not a problem since this is being provided

under the CCCD project. The establishment of an effective supervisory program is central to setting clinic work performance standards, position descriptions, and developing and overseeing work plans and other time tables.

There is an important and continuous in-service training requirement for the clinic nursing staff. There is evidence that some clinic nurses lack some of the basic public health skills. To date, the MOH clinic-oriented training programs have been disorganized and in some cases duplicative. There is no up-to-date training inventory that would detail ministry-wide who has been trained to do what. This inventory is now in preparation. Adequate financial resources appear to be available to support in-service training, but there is a major management support requirement to plan and implement the priority elements of MCH and public health training for the primary health care providers.

#### Shortages of Trained Swazis for PHC Leadership Positions

Almost all of the direct PHC providers and their supervisors, except the physicians, are Swazi. But at the headquarters level, the trained Swazi leadership for the PHC program is centered on two or three very capable individuals who are spread very thinly among a variety of curative, preventive, educational and executive duties. Despite obvious efforts on the part of the MOH and the donors, it has proved difficult to both hire and retain Swazis for the key technical posts that provide the improved management support that the PHC/MCH system requires and the next generation of program leadership.

As a result, there are a number of expatriates in key senior operating positions - in some cases functioning without Swazi counterparts. While these expatriates can and do carry out capably the technical aspects of the job, in the absence of counterparts their skills as trainers are not being adequately exploited. The Swazi counterparts who have returned from training are largely talented people, but most lack the substantial on-the-job experience necessary to move directly into senior executive posts. To complicate the problem, well-trained Swazis with managerial skills are in short supply and their range of opportunities are vast; including better paying alternatives in the private sector. Getting the job done with expatriates is fine up to a point, but expatriates are not Swazis and cannot provide either continuity, vigorous program leadership or the sense of cultural values necessary to building a Swazi institution. Both Swazis and donors are working intently to solve this problem, but the process is proving far lengthier than anticipated. Substantial on-the-job training is proving necessary for most new graduates before they take over managerial responsibilities.

Two program areas where AID already has a program investment where continued transitional help is needed is in health management and health planning.

### 3. Decentralization - Status and Prospects.

The MOH believes that an effective decentralization of the management and management support of health services from the MOH headquarters to the four districts will result in a major breakthrough in increasing the productivity of the district health services. As in many countries, the concept of decentralization of health services in Swaziland has emerged from a frustration with the ineffectiveness of the centralized health ministries in providing management support to their field programs. Donors have also been captivated by decentralization as a means of by-passing the center and targetting assistance to those most directly concerned with the delivery of the services. Health services decentralization in Swaziland is in the earliest stages of implementations. The MOH is taking the lead in implementing a national policy approved by cabinet that devolves operational responsibility for all ministry service programs to the districts.

The focus of the health decentralization plan in Swaziland is the health management team composed of the principal health officer (a physician), the chief matron (a nurse), the chief of public health, the health inspectors (environmental sanitation) and the regional health administrator. At a macro level, the health team is charged with assessing the district's health problems and resources and formulating plans, budgets and workplans to best meet the district's health needs. The purpose of this coordinated approach is to develop the concepts of a district as a health services catchment area with plans, budgets and workplans directed to meeting the area's priority health problems, and to identify the health management team as the organizational unit responsible for delivery of health services. At a practical level, the proximity of these key health providers to day-by-day operational problems in a limited geographic area places them in a unique position to react and, where possible, resolve local issues. This practical coordination is of particular importance as the mission and government health providers work together more closely as part of a national health system.

Beyond the health management team, the decentralization plan includes the formulation of four regional health advisory councils and four community advisory committees. These two groups are composed of the heads of the government's agricultural and education and local government services as well as outstanding local leaders. The advisory council is headed by the government's regional administrator which provides the critical linkage to the tinkhundla traditional system. The purpose of the district health advisory structure is two-fold: (1) to address health issues and resolve health problems that cut across more than one sector (such as health

education in schools), and (2) to assure that the health programs are planned and implemented to reflect local priorities, participation and capture local support. This dialogue with the district is envisioned as a two-way process in which the district leadership outside the MOH staff is educated to the rationale of the central health priorities and the resource levels available to support them, and the local leadership is able to reflect their ideas and apply their resources in support of district health plans that are being proposed to the center.

As of now the four decentralization orientation seminars involving the district leadership have been completed and the district health management teams are taking the first steps to formulate their plans. A practical and well prepared district budget manual has been recently completed and a round of training sessions is underway to prepare the district health teams in its use. The first practical test of the system will be in connection with the preparation of the 1986/87 district health budgets.

All of the district teams are short of health administrative staff, but the Swazi government has recently approved strengthening the administrative cadre at the district level by authorizing four new administrative posts. Candidates for these posts have been selected and are presently in health administration training at IDM in Botswana.

Much of the leadership for the MOH's decentralization efforts to date has been provided by a capable AID funded consultant working without a Swazi counterpart. Two long-term AID funded consultants are contemplated as part of the new MCH project.

The MOH decision to decentralize the first line responsibilities for the planning and field operations of the health system to the districts is conceptually sound and merits donor support. Decentralization also facilitates an integration of government and mission health services at the operational level and is an important second step to the equalization of patient fees in establishing a national health system. There are already some tangible service delivery payoffs as the concept of an integrated health services system in a catchment area catches on. A new priority is being given to immunization in Manzini by the health team where service statistics identified the district as the poorest performer in the nation. The Shiselwini district team is considering closing either the government or the mission clinic that serves a single catchment area. Both are relatively underutilized.

At the same time, no one should underestimate the complexity of the decentralization task either from a managerial or political perspective and the likely time period required to effect and institutionalize meaningful decentralization of district health planning and operations. Ideally, if all goes well, the center will progressively delegate operational decisions and budgetary

responsibilities to the districts as they gain experience and expertise. In practice, this process is likely to be uneven and at times acrimonious as issues emerge that involve the devolution of responsibilities from other ministries to the district health team. There is also a major training and confidence-building component to decentralization. District health committees are not accustomed to exercising these new planning and decision-making functions and need help in taking charge and working together effectively in these roles.

As matters now stand, the districts are not in a good position to assume more delegated powers from the center until they have a strengthened administrative staff and some additional training. This is particularly true in the financial area where the district accounts reconciliation process is so far in arrears that all new health procurement by the MOH has been stopped. This current financial quandary points up the complexities of interministerial coordination issues. Because all of the health accountants are supplied to the MOH by the accountant general and are his employees, health has very little leverage in accelerating the speed with which the current accounts arrears is resolved. Transport and personnel have been cited as two other contentious areas in district-headquarters relationships. The districts will be justifiably pressing hard for an exception to the national policy on vehicle maintenance that requires use of the government's centralized repair facilities in Mbabane. The central facility cannot approach meeting the demand for repair services resulting in long delays during which program operations are curtailed or halted. The districts will also be pressing for greater authority in the deployment and reassignment of district health personnel and in disciplining employees working under their supervision. In both cases, the districts will be confronting long established procedures that vest these powers in central ministries and it appears a major bureaucratic struggle will ensue before these procedures are changed.

It is too early to say with any certainty how far decentralization will go in Swaziland. Much depends on the quality of the staff assigned in both the districts and the center to manage the process, the sustained interest and commitment of the MOH to the policy, and the willingness of the central ministries to divest themselves of authority in key areas that are central to effective district health services management. This will probably not be clear for at least another year. If decentralization can be made to work in Swaziland, it will likely make a major contribution to efficiency and productivity of the health system that will profoundly impact on clinic performance. The MOH does not have the capacity to pursue a decentralization policy without outside technical help; the provision of outside help will improve the chance for but not guarantee success.

It is important that the MOH stay in the lead in the decentralization process and that decentralization not be perceived - as it is

now in some quarters - as a donor issue. This will require a continued effort to press the government for appropriate counterparts, trained Swazis, and periodic visible policy support.

In implementing the decentralization program, the Swazis should be cautioned to concentrate first efforts on issues that can be resolved within the health system. District interministerial cooperation should be directed around specific program initiatives. In other settings, broad intersectoral collaboration in the absence of a very specific project intervention-focus quickly devolves into a "talk-a-thon" in which productive people quickly lose interest. The MOH should be careful that the decentralization process does not become discredited by trying to pursue abstract goals.

4. The Feasibility of Achieving the Project Targets in Relation to the Capacity of the Clinics to provide services.

The performance objectives of the MCH project are ambitious and represent major increases from the present levels of productivity. In order to reach the immunization target, for example, almost three times more children will have to be fully immunized than the system is now delivering. Child spacing is another good example. Achieving the project targets will involve recruiting and retaining 19,300 continuing acceptors, an increase of 17,000 from present levels. Not all goals are quantitative. Effective growth monitoring goes beyond a mechanical task of completing a specified number of growth charts but includes a significant time investment in maternal education.

Present staffing levels at the clinics are limited and if the GOS sticks to its 2% MOH budget growth targets it seems unlikely that the MOH will have the money to fund major augmentations in clinic staff. In 1985, Health received approval for more than 100 new positions - mostly for the preventive service. In 1986 and beyond, the pressures for assignment of new staff will be the hospital sector which is badly understaffed and for new curative facilities that are coming "on line." Rural health motivators are the one cadre of providers that can be substantially expanded and there are plans to add 500 new RHMs during the course of the project.

There is also an important motivational problem with clinic staff providers which calls into question their willingness to work harder and undertake new responsibilities unless their terms of service are improved.

The support systems for clinic operations in training, supervision, transport and communication and drug supply are also seriously flawed and it is unlikely that much more productivity can be mined from the system unless these services are improved.

There is surprisingly little information about the specifics of clinic operations; particularly the whys behind the differential performance of clinics in delivery preventive services. Thus there appears at present no rational basis for establishing clinic provider productivity standards.

The feasibility of the project rests on the following assumptions: 1) that the provider staff is not now working is full productivity; 2) that with improved terms of service the motivation and productivity of the providers can be increased; 3) that improved supervision training and readily available supplies will enable the motivated provider to deliver a larger amount of the targetted services; and, 4) that delivery of the targetted services will impact on infant mortality and child health.

These assumptions are reasonable. But it is not now possible to estimate in any precise way the rate at which motivation and improved support will translate into productivity. It is also not possible to determine in advance whether the individually feasible target will in aggregate have to be modified. The MCH project interventions have been selected because they combine what is important to improving MCH health status with what is technically achievable in Swaziland. The target levels of performance represent a combination of the best informed professional judgment where possible backed by relevant local data and the experiences in some other African countries. But they are necessarily still estimates that will need to be reassessed after a year of project operation.

In order to reach closure on realistic targets as quickly as possible the project needs to engage in a number of low tech, inexpensive clinic studies to gain a better insight into the constraints in clinic work performance. Such studies might expose, for example, the factors behind the clinic staffs' reluctance to handle deliveries at the clinic, the clinic nurse attitudes and anxieties about promoting child spacing, the degree to which the erratic availability of supplies impacts on services and a realistic role for clinic nurse as supervisor of the RHMs. Concurrently, the project might establish a representative clinic in each district quickly provide each with all of the support contemplated by the project completion and measure the impact on productivity.

Flexible project resources should be made available for these tests. These settings would also provide good sites to try out new approaches to delivery of services. These field tests should not be structured as operations research projects but should be targetted to delivering quick answers to the feasibility of program operations alternatives. Each project program change must meet the institutionalization test; that is, if successful it can financially, administratively and culturally be incorporated into the Swazi system.

Finally there is the question of incentives. Provider, consumer and community incentives all have a potential place in the MCH project. But it is important that they not be applied until the MOH has management systems in place and it is clear that incentive's purpose is to expand the market for a fully available service. Thus we should not be pressing for immunization promotions until we are confident the providers are adequately trained and the supplies are on site ready to cope with the increased demand. This is not now the case. The MCH project should make available flexible funding to test incentive programs.

To summarize, the project targets represent the best judgment of informed people as to the levels of productivity that might be achieved by a well motivated and supported staff assuming no major increases in clinic staffing beyond the 500 RHMs, or major new facilities. Project interventions include measures to upgrade both provider motivation and clinic management support. However, it is not clear at what rate these improvements will translate into more and better clinic services. Thus the project targets should be considered as reasonable working estimates rather than fixed deliverables. They should be reassessed about a year after the project gets underway.

Measuring the productivity at the four district clinics where management improvements have been accelerated should give an early insight into the likely gains in clinic performance.

##### 5. The Role of Industry in achieving MCH targets.

The PP team only had time to visit limited sample of industry health providers. Because of this it was not possible to reach a firm judgment as to the role industry might play in reaching the MCH targets, but it was the impression of the team that the private sector did not represent a major untapped resource to expand MCH services delivery. At the Havelock Mine Hospital industry already provides a high quality comprehensive MCH service to the dependents of the mine workers at no cost and supplies MCH services to the small surrounding community on a fee-for-service basis. Some marginal increases in coverage from this location might be negotiated but the availability of cheaper MCH services at Piggs Peak Hospital will limit demand at Havelock's services. The clinics at Swazi plantations and Mondi Timbers which we did not visit are said to provide a limited range of free curative health services to employees and dependents. Because of their proximity to the government clinics at Piggs Peak neither offer preventive services or deliveries.

At some point the MCH project should conduct a nationwide industrial clinic by clinic survey to determine the range of MCH services provided at each clinic, the sites where employees and dependents and the surrounding population secure services and the

potential for reaching additional populations not now covered easily through the MOH clinic network. This, however, is not a high project priority in year one of operations.

6. MCH Project Institutional Development Technical Assistance Needs.

The principal MCH project institutional development technical assistance needs are in planning and management principally directed to decentralization. The MCH project needs a health management specialist who will:

- Guide and operationalize the decentralization process by working with district health management teams.
- Train the Swazi health administrative cadre both in the field and in headquarters.
- Institutionalize the decentralization process by preparing a series of field operation manuals analagous to the district budget preparation guide and train the field and headquarters staff in its use.
- Assist the MOH leadership to resolve headquarters level management issues associated with more effective management of district programs.

A health planner is needed who will have three main responsibilities:

- To guide the districts in the formulation of their health plans as part of the decentralization process. This will include helping the districts conduct health needs assessments, select health priorities, link their planning to budgets, and work with the MOH headquarters to resolve differences in priorities.
- To guide and train the Planning Unit staff in macro-level operational planning.
- To assist the MCH component of the PH Unit and the MCH Committee to develop the national MCH plan.

Both of these specialists are critical to the decentralization process. A third consultant required for the financial aspects of the decentralization initiative is discussed as part of the financial feasibility section. The planning advisor is additionally responsible for providing overall guidance to a strategically placed central planning unit that is staffed with trained by inexperienced Swazis during a transition to Swazi leadership.

In addition to the long-term assistance described above, the MCH project requires short-term help to establish the MOH's training inventory and organize their in-service training programs. This specialist will also help districts plan and budget for their training activities carried out of part of the decentralization initiative.

#### 7. Institutional and Administrative Feasibility Findings.

The MCH project contains technically consequential interventions that, if successful, will impact favorably on mother and child health status. The coverage targets are ambitious and constitute a substantial leap forward from present levels of performance. The targets represent the best informed judgment as to what the health community considers to be achievable under favorably circumstances with essentially the present staff and resources, along with augmentations possible within the projected 2% annual MOH overall budget expansion.

These performance estimated are supported by data when available. Three important institutional constraints have been identified. The motivation of the health providers, the weak support systems at the clinic level, and the time required to prepare trained Swazis for executive positions in MOH. Strategies are in place to improve the teams of service of providers and to overhaul the support system. The project provides technical assistance in management and planning to prepare trained Swazis to fill policy level posts. The principal strategy to improve the management support systems for the clinics is the MOH's district decentralization program to which the project is supplying significant technical assistance.

It is not possible to measure the pace at which a reduction in project constraints will be translated into improved clinic productivity. The project implementation strategy will work quickly to identify the clinic performance levels that can be achieved under optimal circumstances and, if appropriate, adjust the performance targets in light of this experience. The project implementation strategy will include a consideration of provider, consumer, and community incentives.

The project's performance targets are a reasonable approximation of anticipated results. Other administrative and institutional factors constraining the successful implementation of this project have been considered in the project design. The MCH project is institutionally and administratively feasible.

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# Swaziland Primary Health Care Project

## Annex 6C

### Economic Analysis

#### Summary

Health care in Swaziland can be characterized as having high levels of spending but low results. The economic analysis comprises three major areas:

- a summary of the types of benefits expected to be associated with this project;
- a discussion of the cost effectiveness of the project and
- an analysis of the financial ability of the government and the homestead to participate.

#### ***High Spending - Low Results***

One of the major anomalies concerning health care in Swaziland is that the country is spending more per capita than most other countries on the continent but health status is lower. Spending as a percent of the government's budget and spending per capita are higher than in most other developing countries. However, comparing the levels of education and income in Swaziland with the rest of sub-Saharan Africa we would expect life expectancy to be at least three years more; child mortality and the birth rate ought to be considerably lower.

#### ***Project Benefits***

For the most part project benefits are not easily quantifiable. The major forms of benefits include (1) improved health status, (2) a redistribution of income in favor of the poor, (3) a greater level of community involvement leading to enhanced prospects for development activities, (4) improved managerial efficiencies leading to reduced levels of spending and (5) increases in preventive spending resulting in reduced needs for curative care.

Only the last two items lend themselves to easy quantification. The analysis, through the use of internal rate of return analysis determines what is the minimum level of savings which would justify the project were these the only achievable benefits. The conclusion is that the Swaziland Primary Health Care Project makes economic sense even with very modest

increases in efficiency or reductions in the future curative budget. It is expected that benefits considerably greater ought to be achievable. Putting a positive value on the other non-quantifiable benefits would result in an even more economically justifiable project.

### ***Cost-Effectiveness***

The second section to the analysis looks at the experiences in other health projects from the standpoint of what contributes to cost-effective solutions to health care problems. The lessons from these projects can give this project clues as to what helps create cost-effective solutions to primary health care. The most effective programs are those which are highly targeted, have complementary elements, are directed at the local level, where the messages are reinforced at many different levels, where there is community involvement and where the organizational structure to the activities is kept as simple as possible.

For the most part this project builds positively on the experiences elsewhere and its selection of primary as opposed to curative care is generally cost-effective. However, the lack of highly targeted resources and a simple organizational structure may result in less effective use of resources than would otherwise be the case. The project does provide resources to assist in decentralizing and in looking at effective organizational structures.

### ***Affordability***

The last part of the economic analysis deals with the two aspects of whether the project is affordable. The first, and one which has considerably influenced the activities of the design team, is the ability of the Government of Swaziland to meet the recurrent budget implications of the project. These problems are severe and could force the project to reevaluate the likelihood of achieving the Ministry of Health's, AID's and the U.N.'s primary health care targets. The project has attempted to reduce the recurrent costs as much as possible, and by emphasizing methods to improve operational efficiency may be able to further reduce the future cost burden. However, it is not realistic to assume that improvements in management and efficiency of delivery systems will be able to constrain the demands being placed on the health care system by a 3.4%+ growth in population given a 2% real growth in Ministry spending. Greater details on the recurrent cost problems are discussed in the Financial Analysis Annex, 6E. The economic analysis will not present any other information on these issues.

To meet some of the problems of the government's lack of resources the project proposes to assist in searching for extra-budgetary support,

possibly having the people pay a greater share of health care costs. By the end of the project approximately E500,000 will need to be collected each year to fill the gap between anticipated receipts from the government and projected primary health care expenditure needs. The economic analysis looks briefly at the ability of rural Swazis to afford increased health care costs. The rural population has been hurt by the lack of economic expansion over the past few years, and the lack of substantial improvements in agricultural output. However, the levels of income and current expenditures are such, that it ought to be possible to generate E500,000 in extra revenue per year by 1990 (the amount projected to be collected by extra-budgetary methods). This ought not cause any insurmountable financial burden. This analysis is not meant to disprove earlier research which indicates that many rural Swazis do not value preventive western-type health care sufficiently to pay the extra funds. Rather the point of this analysis is that rural Swazis could pay the extra amount. It is hoped that the project's activities will convince the rural population that any charges for health care (be they for primary or curative services) are worthwhile.

### Detail

#### *High Spending - Low Results*

At present, Swaziland is paying a higher proportion of its recurrent budget for health care than most other countries in sub-Saharan Africa.<sup>1</sup> However, while the country is spending substantial sums on health, the magnitude of the major measures of health care do not show much being achieved for that level of spending. Comparing Swaziland only to other sub-Saharan countries and controlling for income per capita and the level of primary school enrollment in the country, we would expect that life expectancy would be at least four years higher, nearly 10% higher than it is<sup>2</sup>. The child death rate<sup>3</sup> ought to be 30% lower. The population growth rate in the country is also higher than we would expect (it ought to be closer to 2.5% and not the 3.4%, or higher, currently estimated).<sup>4</sup>

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<sup>1</sup> In the World Bank's Accelerated Development in Sub-Saharan Africa: An Agenda for Action the Bank showed that the average country in sub-Saharan Africa spent 5.8% of its government budget on health. Currently Swaziland is spending nearly 10% of its budget on health care. Unless other countries have increased their percentage share for health, this would make Swaziland's percentage share for health the second highest in sub-Saharan Africa.

<sup>2</sup> This was done using a double log, constant elasticity model with data from the World Bank's annual review of World Development.

<sup>3</sup> Death rate of children aged 1-4.

<sup>4</sup> The approach followed is similar to methods summarized in the World Bank Staff Working Paper No. 405, The Effects of Education on Health. Had we included all developing and developed countries as the World Bank did, the extent of Swaziland's shortfall in health status would be even more dramatic, for instance, life expectancy ought to be ten year higher than it is.

### *The Benefits*

The project is designed to improve the knowledge of preventive care techniques and delivery systems as well as the ability of the government to meet the demand. Health benefits are seldom easily measured in monetary units and thus a cost-effectiveness analysis is usually used.

It is difficult to attribute the potential benefits of preventive care to the preventive care alone. A whole host of factors influence health status. The World Bank has concluded "the theoretical and empirical problems involved in quantifying incremental health benefits are so great as to make serious attempts at benefit measurement inappropriate as part of project appraisals."<sup>5</sup>

The first major benefit of the project is improved health status. General studies have indicated that there is a relationship between better education, nutrition and access to preventive care and changes in health status. These changes are necessary to achieve higher levels of economic activity. The causality can run in many different directions. These studies suggest that the degree of improvement in health to be expected in any given population depends on the initial level of health, the economic status of the community, cultural habits, educational levels, and the general physical environment. Using these results the low level of health in Swaziland combined with the relatively high economic and educational status and a generally healthy environment lead to a sense that the conditions for an improvement in health status is achievable: the project's goals ought to be achievable. The constraining factor revolves around existing habits and having the resources necessary to achieve project goals.

A second intangible benefit derived from this project concerns a redistribution of income. Curative care is heavily urban biased given the need for centralized location of hospitals. Preventive care must take place where people live, which in the case of Swaziland tends to be primarily in rural areas. Thus, the main beneficiaries of the project will be rural Swazis who have lower incomes than their urban compatriots. Financing of the government's expenditures will come from the general government coffers. Government revenue comes mainly from the Southern African Customs Union where Swaziland's share is based on the level of Swaziland's imports. These imports are made primarily by the richer people in urban areas. With funds coming mainly from richer urban dwellers and expenditures biased towards rural dwellers this project has a positive redistributive effect.

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<sup>5</sup> World Bank, *Health Sector, Planning Paper*, 1980, page 5.

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A third type of benefit arises from the self-help, self-financing approaches to fostering better community organization and motivation to undertake developmental activities. In the project, and in most government activities in country, the local community assists the local clinics. Enhancing the effectiveness of the service received at the clinics ought to improve the effectiveness of other developmental efforts. An improved sense of community ought to result in other activities having a greater chance of success.

A fourth level of benefits derived from the project are improved managerial, budgeting and planning efficiencies which ought to reduce spending compared to that which would otherwise be necessary. Related to this is a fifth type of benefit: more effective spending on preventive care ought to reduce the demand for curative health services. To prevent an illness reduces the requirement for curative services. However, initially the greater awareness of health issues could result in greater demands being placed on curative services. Because of the fixed nature of the majority of curative costs, such as running a hospital, the initial effect may not be in reduced curative spending, but rather more time can be devoted to each case (fewer visits). In the long term, there will be reduced pressure to increase the number or expenditures on hospitals. It is possible that the savings in the curative budget in the long run will outweigh the current costs associated with greater preventive spending.

These last benefits are quantifiable. The analysis briefly tried to determine what would be the **minimum** levels of improved efficiencies which would result in positive real rates of return. Under the assumptions that

- improved efficiencies in preventive spending permit expenditures on preventive care to be 4% less than they otherwise would have been, and
- expanded preventive spending combined with improved efficiencies permit a reduction in curative spending of 2% per year,

then the internal rate of return is positive. It is expected that the improvements in efficiencies or reductions in the need for curative services will be considerably greater than the minimums given above. Other benefits, which are not quantifiable, would increase the internal real rate of return at least into the 5-7% range necessary to economically justify a project.

The fact that the other benefits are difficult to quantify is not meant to imply that they ought not be explored. There is a need for continuing

research as to the effect of project activities on the health of the recipients and the resulting changes in potential economic output. This research could identify which forms of preventive care are most likely to favorably impact on economic development of the country. Macro-economic difficulties in the country will not be alleviated by improved health status, but poor health status can present a barrier to economic development. These health changes can be measured through changes in wastage, stunting and child mortality. In Swaziland there is the income but not the knowledge of what constitutes a balanced diet, so the problem is less severe than when income is lacking. Studies in Haiti demonstrated that it was  $\frac{1}{6}$  as expensive to prevent malnutrition than treat it. Other studies support this conclusion for other forms of health care.

### *Cost-Effectiveness*

This section will initially present what are some of the characteristics of cost-effective projects. It then will look at how well the Swaziland Primary Health Care Project fulfills the requirements of a cost-effective project. Experiences elsewhere can give clues as to what programs have been cost-effective methods of influencing the health status of the country.

- The most cost-effective health programs are those that are heavily targeted; programs that are designed to assist the entire population are less likely to be as cost-effective as health programs which are designed to assist a small sub-sector. Nutrition education appears to be most effective when designed to modify specific behavior rather than when designed to convey general nutrition messages.
- Weight monitoring and nutrition services can reduce the population growth rate and result in higher levels of health care because they are complementary and get people together to discuss their problems, share their experiences and get involved in health care.
- Resources that are delivered at a village level are more likely to offer an efficient and equitable use of resources than comparable services offered higher up in the health system.
- All messages need reinforcement using a number of different media, that is, health messages from nurses need reinforcement on radio, leaflets, at school. Radio has been found to be an especially cost-effective tool.

- There is a need for community participation, not only to reduce costs, but this participation generates enthusiasm, raises awareness and leads to a sense that health care is a community responsibility.
- Very complex programs require a high level of organization skills in countries where communication and coordination abilities are low. Programs that are diffused across a number of different government ministries are less likely to be successful. However, this lack of coordination is usually greater at headquarters than in the field where there are fewer people and it is possible for the people to know each other's actions. Less ambitious, more narrowly focused projects with only a few interventions are more likely to be successfully implemented.

This project emphasizes weight monitoring, nutrition services, work at the local level and involvement of communities in health care and reinforcing messages using a number of different media. The project is not heavily targeted. The only targeting which takes place is a heavy emphasis on assistance for maternal and child care. This very general target, as well as having a large number of different interventions can lead to unfocused, excessively complex projects which are difficult to manage. However, this is not a typical project, it is closer to a sectoral project which attempts to fit the missing tiles in the Ministry's preventive health care program. These ought to result in meeting the targets in a cost effective way; limited GOS resources will have a greater impact on health care if directed towards primary health care in the manner outlined in the project.

The education component of the project influences health in two ways, indirectly through its impact on income and directly on practices, that is, it changes people's *taste* for improved health practices. The World Bank found that one of the best predictors of child mortality was the level of education/literacy of the parents. The project's work on improving health education as an inexpensive method to improve the quality of education is supported by these studies. More will need to be done to determine whether the relationship noted elsewhere is valid in Swaziland.

This project builds on previous water and sanitation, nursing education, and health planning projects. Building on these projects ought to result in not making as many of the same mistakes and in using the body of experiences which have already been developed.

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### *Affordability*

There are two aspects to this question. The first deals with the ability of the government to afford the recurrent costs associated with the project. These issues are discussed in detail in the Financial Analysis Annex, 6E.

There has been considerable controversy over the past year as to whether Swazis would be able and willing to pay more for health care. Guma estimated<sup>6</sup> expenditures on medical and dental care at E7 per homestead per month; those that reported making medical or dental expenditures spend E26 per month on average, or an average expenditure per homestead per year of E312.

From the standpoint of whether there is sufficient income to pay for health care the estimated per capita GDP (factor cost) for 1984 was E941. On average there are eight people per homestead making a total homestead GDP of E7,500. This is a measure of the per homestead value of total production, it is not the same as the income of people resident in the country.

There have been many different estimates of rural income. A summary of the estimates is:<sup>7</sup>

#### SUMMARY OF ESTIMATES FOR 1984 RURAL INCOMES

study	per homestead	per resident <sup>8</sup>	qualifications
RURAL HOMESTEAD SURVEY	E3,429	E429	total income, all sources
RUSSELL & NTSHINGILA	4,437	499	total income, all sources (central Swd)
FREUND & MAPHALALA	2,550	319	total income, all sources
RUSSELL	6,048	432	cash income only
HUNTING REPORT	643	80	subsistence, crops+livestock
	964	121	semi-commercial, crops+livestock
MONITORING & EVALUATION UNIT			
plus JOHN PALI-SHIKHULU	774	97	all crops
BLACK-MICHAUD & SIMELANE	612	77	all crops, not a general sample
JOHN PALI-SHIKHULU	642	80	value of maize only

<sup>6</sup> X. Guma, *Cash Income and Expenditure in Rural Homestead Survey*, (ed. Fion de Vletter), Kwaluseni, Swaziland page 145. I adjusted his estimate to reflect inflation.

<sup>7</sup> This is summarized from *EcoNews* Vol. 2 no. 2, October 1984, Neal P. Cohen, Mbabane, Swaziland.

<sup>8</sup> Assumes an eight person homestead as per the analysis in the Rural Homestead Survey, unless the study used a different number.

The per capita rural homestead income is probably in the range of E425 to E475. This implies that the average rural homestead income of E3,600. Health expenditures are around E312 or 9%. In order to collect a targeted E500,000 from extra budgetary sources would require that the estimated 50,000 rural homestead each pay E10 per year. This is just over 3% of current spending and under 0.3% of estimated rural homestead income. These cannot be viewed as being substantial burdens. With the average urban income close to twice that of rural residents the burden will be considerably less on urban families.

The charges for traditional medicine are considerably higher than for *western* medicine. For an initial visit, and for general care the charge is E10. Many of the curative services cost in the hundreds of emalangeni. One of the complaints about medical care in Swaziland is that people have been too willing to use traditional medicine. The argument cannot be on the grounds of which is cheaper; and thus the argument concerning whether Swazi rural residents can afford more is specious. Many Swazis are not convinced that *western* medicine is as effective as traditional medicine.

Swaziland Primary Health Care Project  
Annex 6D  
Social Soundness Analysis\*

A. Socio-cultural Feasibility

The various service delivery objectives of this project relate primarily to two persistent and interrelated problems: infant mortality and population growth rates that remain higher than those of other countries with comparable per capita incomes. It is recognized that reduced infant mortality is a necessary, though not in itself sufficient, precondition for lowered fertility rates. It is also recognized that infant mortality and fertility rates in countries like Swaziland relate to a wide variety of factors or conditions, suggesting among other things that there are no simple or single-approach solutions to these problems.

The "interventions" proposed to achieve project objectives -- technical assistance, training, research, mass education and incentive/pilot programs, are all minimally obtrusive or culturally disruptive. Thus, negative social impacts are not anticipated. On the positive side, healthy children are highly valued in Swazi society. Therefore, it can be anticipated that mothers and their families will be motivated to change or adopt behaviors promoted by the project. On the other hand, if service delivery objectives are to be met, certain prevailing behaviors, attitudes, and values have to be reckoned with. For several important areas of project focus, however, our knowledge base is inadequate, therefore the project provides for several operations research studies.

To understand the socio-cultural context of a health project in Swaziland, particularly one focused on maternal/child health and child spacing (MCH/CS), it is necessary to consider aspects of homestead organization, the role of women, and the importance of indigenous health and childbearing beliefs and practices. The November, 1984 USAID/Swaziland CDSS contains a good deal of this contextual information which need not be repeated here. However, certain areas need to be highlighted in order to guide the present project.

When a younger man takes his first wife, he usually remains in or very near his father's homestead and brings his wife to live there. A woman's ties to her own family and homestead become seriously attenuated after marriage. Once a certain ceremonial stage in the process of bride-payment is reached, she becomes permanently adopted by her husband's family. However, true acceptance and the achievement of respect and status within the new family is a gradual process, taking a number of years and requiring deferential behavior toward the new family, submission to the

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\*Prepared by Ted Green, USAID/Swaziland PSC Anthropologist, February, 1985.

authoritative guidance of the mother-in-law, diligent work, producing children, and raising them in the expected manner. A woman eventually becomes a respected and even authoritative figure by the time she becomes a mother-in-law, but in her early career she is a low-status person subordinate to other adults in the homestead. This low status during a woman's child-raising years constrains her decision-making in certain areas of health and child care. For example, a woman thinking of not having her infant treated with traditional medicines might have to answer to her mother-in-law. Or a woman wishing to try birth control pills might well face the combined opposition of her husband and her parents-in-law.

Since men are away from their homesteads much of the time, and since women perform most agricultural tasks and have virtually all responsibility for childbearing and domestic chores, life in the homestead is largely centered around women. The average woman will have nearly seven children during her childbearing years, so a good deal of her time and energies during this stage go toward bearing, nursing, feeding and otherwise taking care of children. Some of these responsibilities may continue even when she becomes a grandmother, since nowadays employed or job-seeking women (married or otherwise) often leave children with their mothers, including babies that require wet-nursing. Children are highly valued by Swazis, and having more children means more hands to work at the homestead, incoming bride-payments in the case of girls, cash remittances when the children grow up and find jobs, and the possibility of a greater land allocation by the chief.

Support from one or more sons upon reaching old age is especially important for women, since they often outlive their husbands and then become dependent upon others for support. And Swazis of either sex traditionally achieved full social recognition as an adult only through marriage and parenthood. The high value attributed to procreation and children is reflected in the considerable amount of business traditional healers conduct related to overcoming sterility and impotence.

On the other hand, it has become expensive to educate children and it is probable that women would prefer to have somewhat fewer children than they actually tend to have. Interest among women in contraception is growing, especially among the employed and urban-situated. However, men, including many of those who are away from their homesteads for long periods, may feel that female contraception encourages infidelity in their wives and this may contribute to their opposition. Both men and women may also be reluctant to practice birth control as long as infant mortality rates remain relatively high. It may also be noted that birth control programs in South Africa are believed by many Blacks to serve the same purpose as that country's "homelands" policy, i.e. to reduce the numbers of Blacks. This attitude can also be found among Swazis.

In spite of a tradition of pronatalism, traditional fertility controls helped keep the size of the Swazi population stable until fairly recent times. These controls included: (1) spaced births,

aided by long breast-feeding periods, sexual abstinence while nursing a new baby, and a degree of physical separation of husbands and wives; (2) the delay of marriage until a man's regiment had completed certain duties for the King, along with strong sanctions against premarital pregnancy; (3) the practices of coitus interruptus and intercourse-without-penetration, especially among the unmarried; and (4) relatively widespread polygyny, resulting in fewer children per married woman. With the changing conditions brought about by wage employment, male absenteeism, the decline of the regiment system, and the decline of breast-feeding, and even the effect of Christianity on polygyny, the above controls have become eroded and fertility rates in Swaziland have soared -- aided, of course, by reduced mortality rates. Swaziland now seems to be in the "lag" phase of demographic transition, when the effects of socio-economic development and somewhat decreased infant mortality have not yet led to the changes in attitudes and behavior that result in lower fertility rates. Significantly lowered infant mortality rates would establish an important precondition for demographic transition to lowered fertility rates, but experience in other developing countries suggests that Swaziland will still undergo a lag phase of low infant mortality and continued high fertility rates. Mitigating factors here would be a strong GOS policy commitment to family planning and the availability of contraceptives throughout Swaziland.

There is a need for both contraceptive prevalence and contraceptive KAP surveys. There is a certain amount of anecdotal information about attitudes, beliefs, and behavior related to family planning, and the Family Life Association of Swaziland (FLAS) has obtained information of this sort more systematically through group discussions at its workshops. However, this is no substitute for in-depth interviews in the homesteads with different family members, or for determinations of exactly who is using which types of contraception. The emphasis of the KAP survey should be on obtaining valid qualitative data. Quantitative techniques and careful sampling procedures would be more important for the contraceptive prevalence survey.

When Swazis or their children become ill, their first therapy recourse is self-treatment in the homestead, using local herbal medicines. This is certainly true for simple forms of childhood diarrhea, when herbal decoctions to harden the stool (timbita tekusonga) are typically used. Such domestic medical knowledge is handed down from elders to younger people within homesteads, and it may be shared among neighbors. If the illness persists, there is a choice of consulting a traditional or Zionist healer, or going to the nearest clinic or hospital. The first choice is often to consult one of the former, although much needed quantitative measures of such patterns are lacking (due largely to methodological problems of obtaining accurate measurement). There are several reasons for this choice, among them that: (1) indigenous (i.e., traditional or Zionist) healers share the same belief system and other cultural understandings as their patients, thus patients can be reassured in ways that make sense to them; (2) many or most

important diseases are believed to involve supernatural causation and only indigenous healers are thought by most Swazis to be effective in treating such diseases; and (3) while clinic coverage is comparatively good in Swaziland, indigenous healers are far more physically accessible. An indigenous healer may be no more than 15 minutes walk from the patient's homestead, whereas the nearest clinic may involve a bus ride or require a very long walk. If indigenous healing fails, a patient will resort to clinic or hospital treatment. Or a patient may consult a clinic nurse and a traditional healer simultaneously in order to heal the body and treat the ultimate cause of the disease -- the supernatural agent -- at the same time.

However, there seem to be differences related to sex and age in treatment-seeking behavior. Women, especially younger women who are pregnant or have smaller children, tend to be the most frequent visitors to clinics, while men often avoid clinics until their condition may be so far advanced that clinic treatment probably would not be of much help. Age-based differences in behavior are undoubtedly related to education: younger people are better educated in modern health and medical concepts and therefore tend to have more faith in the efficacy of clinic medicine. The reasons for sex-based differences are less clear, but the predominance of women of childbearing age as well as younger children at clinics suggest that the responsibility of women for their children, the high value of children, and perhaps the greater receptivity of women to health education messages are all relevant factors.

It has been observed by the GOS pediatrician that rural mothers tend to bring only their youngest children to clinics for treatment, and perhaps for vaccinations as well. In other words, small children may be displaced, at least in terms of clinic care, by the arrival of a new baby. There may also be displacement in terms of nutrition as well as general care and attention in the homestead. Since behavior of this sort has important implications for MCH/CS, and since there seems to be no research on this topic in Swaziland, the project should support medical-anthropological research on child-displacement related to health and health care. Resulting data would not only suggest appropriate primary health care interventions, it might also strengthen the argument for proper spacing of births. A study of this sort could also illuminate the factors relating to choice of therapies, especially in connection with MCH.

It should also be noted that many women -- no doubt a majority -- place themselves in the hands of indigenous practitioners for ante-natal care, for home deliveries of babies, and for the preventive and curative treatment of their infants and children -- even if they also consult nurses and doctors. This may be taken as evidence of the strength and tenacity of tradition in Swazi culture, but it also suggests that indigenous practitioners are providing something lacking in the modern/allopathic health sector.

Indigenous ante-natal care includes treatments for ensuring easy childbirth, strengthening the baby in the womb, speeding up childbirth, and avoiding various mystical illnesses believed to affect unborn babies (Green, 1983). Treatments include herbal teas (timbita), medicinal enemas (kucatseka), and subcutaneous incisions (kugata) with a razor accompanied by rubbing the ashes of burnt medicines (insiti) into the incisions.

Such ante-natal care is provided by traditional healers (generic term: tinyanga). Traditional birth attendants (TBAs, babelegisi) seem to limit their practice to childbirth itself and perhaps to very limited post-partum care, mostly of the baby. TBAs are women who have undergone informal apprenticeship with their mother or mother-in-law, or sometimes a neighbor. They assist in a limited number of deliveries in their own communities, and compensation for their services seems to be in the form of food, prestige, and inclusion in ceremonies marking the baby's presentation to society. TBAs appear to work cooperatively with (especially) female traditional healers who provide ante- and post-natal care.

It should be emphasized that our knowledge base about traditional sector deliveries and peri-natal care is inadequate, and that research in this area is much needed.

A general survey of the TBAs role, function, training, practices, and willingness to undergo skill-upgrading is needed, especially if the project target of 70% of all deliveries being assisted by trained attendants is to be achieved. Furthermore, more needs to be learned about traditional ante-natal care, since the project target relating to clinic ante-natal care will become more achievable once "the competition" from the traditional sector is better understood. Medical-anthropological research focusing on both traditional healers and their ante-natal patients is needed.

More is known about traditional management of childhood diarrheal diseases. Simple diarrhea (umsheko) is often treated at home with herbal decoctions reputed to stop the diarrhea. If this fails, mothers may bring their child either to a traditional healer or to a clinic/hospital, or to both during the same period. Umsheko is thought to be natural, of brief duration, and caused by diet, teething, or mild fevers. Two other traditionally-recognized illnesses with diarrheal symptoms, kuhabula and umphezulu, are regarded as supernaturally-caused, life-threatening to the child, and requiring the services of a traditional healer to treat properly. Enema may be used preventively or curatively to treat these latter diseases, thereby contributing to a child's dehydration. However, due to recent health education campaigns, mothers, Rural Health Motivators (RHMs) and even traditional healers have begun to use -- and to teach others to use -- home-mixed sugar and salt solutions in the treatment of dehydration due to diarrhea.

Finally, little is known about beliefs and attitudes surrounding immunizations against childhood diseases. An August 1984, MOH survey showed that the percentage of fully immunized declined

somewhat, from 26.2% in 1983 to 24.3% in 1984, but the survey did not attempt to ask why. Qualitative research, using in-depth and key-informant interviewing, needs to explore such questions as: Do mothers believe certain immunizations will make their child sick, or will have some other negative effect? Is transportation to clinics, or some other logistical problem, a major constraint? Are many mothers simply unconvinced of the value of immunizations? What are traditional perceptions of diseases such as polio, diphtheria, and measles? Are the traditional vaccinations routinely given to Swazi babies viewed in any way as substitutes for EPI vaccinations?

Some of this information would be quickly and easily obtained from interviews with fieldworkers in the EPI program, but this should be regarded as a complement to, rather than a substitute for, interviews with mothers of young children.

There are plans underway for the MOH's EPI Task Force, with CCCD support, to collect some information of this sort in the near future. Any such findings should be checked and evaluated before AID plans any EPI research.

## B. Constraints and Obstacles

When a health system is not working as well as it should, it is easy to postulate a variety of probable causal factors. It is far less easy to assess their relative importance. Constraints that seem important can nevertheless be identified, as can possible strategies for overcoming them. For convenience, constraints are grouped by category. Constraints discussed elsewhere are not covered here.

### 1. Policy

Policies and decisions originating outside the MOH -- especially in the Department of Establishments and Training and in the Treasury -- may be seen as constraints to achieving project objectives. This is particularly true if achievement depends upon increased funding levels or the establishment of new civil service positions.

A general constraint to achieving project objectives relates to the current political climate in Swaziland. Since the death of the late King, lines of authority and indeed the locus of political power have become unclear. Officials throughout the GOS, including the MOH, often feel insecure about their positions and uncertain about the policies they should support. This inhibits decision-making and the assumption of responsibility in general, especially if the responsibilities relate to things that are innovative or potentially controversial. Yet to improve the administration, management, and service delivery capacity of the MOH -- all fundamental to achieving project objectives -- there need to be clear-cut policies, plans, and decisions. Policy is

particularly opaque in the area of family planning, but in fact there are no overall, government-approved activities in this sub-sector.

Another potential project constraint is the curative emphasis in MOH activities, at least as reflected in MOH spending in recent years. In spite of an official MOH policy which emphasizes the importance of preventive and promotive health services, the proportion of MOH budget allocated to curative services has increased slightly over the past four years. This is an example of failing to implement an existing policy.

## 2. Management

Management problems that could constrain the attainment of project objectives include unclear supervisory structures for Rural Health Motivators, Health Assistants, and others; inadequate training in certain areas (e.g., family planning) for certain cadres of health workers; weaknesses in planning (e.g., in personnel projections over the longer term); absence of career ladders and job performance incentives; and lack of supervisory/disciplinary authority at most (and to some extent, all) levels of the Ministry. On the positive side, MOH officials recognize these problems and the project will commit major resources to remedying administrative and managerial problems through technical assistance.

## 3. Service Delivery

In this constraint category are problems related to adequate staffing, staff morale, appropriate training, clear job descriptions, medical supplies, ordering procedures, deliveries, transportation, communication, and community outreach. It is hoped that improvement in policy and management will ameliorate some of the problems, as well the effects of several other health-related projects supported by AID or other donors. A recently-initiated MOH program to train traditional healers in aspects of preventive health care related to common diseases of childhood has great potential for overcoming problems of community outreach for positively impacting health status. However, the program is not yet on sure footing. Needed here are clear GOS and MOH policies and guidelines; these, in turn, are partially dependent upon the availability of operations and evaluative research information -- the majority of which has thus far been supported by AID.

The service delivery objective of 70% of births attended by trained personnel seems attainable only if Traditional Birth Attendants, and perhaps RHMs, are trained in modern midwifery. Indeed, such training of the TBAs has been recommended by the MCH/CS committee of the MOH. However, basic research on the role and function of TBAs is needed before launching such a program.

The achievement of other objectives pertaining to child spacing, EPI, and pre-natal care also depend on developing and utilizing local resources such as chiefs and other traditional

leaders, health and women's committees and organizations, traditional healers, and perhaps local business enterprises. The current ORT campaign has gone farthest so far in developing local resources, but even here there is room for expansion and extension. It would appear that Swaziland's ubiquitous "bush shops" could provide rural people with ORT packets on a commercially-viable basis. This seems especially important in light of the problems clinics have encountered keeping ORT packets in supply. Encouraging entrepreneurship in rural shops would also be consistent with the CDSS strategy of supporting and developing small business enterprise.

#### 4. Culture and Tradition

The major socio-cultural constraint to achieving project objectives is the strength and tenacity of traditional health beliefs, attitudes and practices. The value Swazis place on having many children and the resulting pronatalist attitudes has already been mentioned. The role of traditional healers has also been briefly described. As long as Swazi women feel the need to prevent complications of childbirth and common diseases of childhood through mystical means, the services of traditional healers will be in demand. Factors other than cultural relevance are also involved, e.g., healers are more physically accessible than modern sector health personnel. In any case, from the project viewpoint, the popularity of traditional healers and TBAs can be seen as a constraint to achieving objectives such as 90% of pregnant women receiving ante-natal care in a clinic or hospital.

However, if the MOH chooses to pursue a policy of cooperation rather than competition with indigenous practitioners -- and there have been moves in this direction -- practitioners can actually assist in the achievement of project objectives by making appropriate patient referrals, delivering babies with upgraded midwifery skills, using and promoting ORT, and advising mothers to have their children fully immunized. Preliminary evaluations of very limited workshop training for traditional healers in ORT indicate that trainees as well as others to whom the technique has been diffused are beginning to incorporate oral rehydration into their practice of home management of diarrhea.

Other traditional opinion leaders such as chiefs, chief's deputies, local council members, and members of Zenzele women's organizations can also be developed as MCH/CS supporters and promoters. There is already some evidence that the attitude of chiefs towards a subject as sensitive as family planning can be influenced by workshops (Green, 1984:46). The new Swaziland Manpower Development Project will support workshops and provide additional training opportunities for chiefs and other local leaders. One of the aims of this project is to involve local leaders more in development matters, including health. The project can take advantage of these training opportunities by providing MCH/CS inputs and participating directly in training, once both projects are in the implementation stage.

Whatever the means employed, project objectives are only realizable if support and participation of influential people in rural areas can be generated.

### C. Beneficiaries and Social Consequences

MOH and private sector individuals trained under the project will be the direct project beneficiaries, but the ultimate and much larger group of beneficiaries will be the mothers and children of Swaziland. Since this group constitutes the majority of the rural and indeed the national population, health and child spacing improvements will have positive effects on rural productivity and educational performance.

Motivation to participate in project activities should be considered by participant or beneficiary category, since variation in this can be expected.

First to consider are the motivation levels of MOH personnel chosen for in-service training in various aspects of management, public health, and family planning. A general observation is that the MOH needs to do more to create incentives to motivate its personnel to take additional responsibilities, whether in MCH/CS or in general management. For example, what would motivate a hospital nurse involved in OB/GYN to learn about family planning and then to take on the responsibility of post-partum counseling in this subject? Whether the answer is a salary increase, greater authority, public recognition for accomplishment, pre-existing interest or altruism, this is a policy and administrative challenge -- one that can be better met with the managerial/administrative technical support provided by the project.

To the extent that training is envisioned for community-based people such as RHMs, traditional healers, traditional political leaders, and TBAs, there is recent positive experience in the training of all these cadres except the last. In the case of traditional healers, motivation to attend MOH workshops seems related to the rewards of acquiring useful and marketable skills, enhanced respectability, and public recognition by a Ministry previously perceived by healers as disdainful and even condemnatory of traditional healing. There is no reason to expect that TBAs will not be motivated in the same way; in fact, preliminary assessments suggest that TBAs perceive themselves as needing skill upgrading more than traditional healers perceive this, thus TBAs may prove to be even more motivated to learn from the modern sector than healers have shown themselves to be.

Regarding the possibility of training RHMs to attend deliveries on a routine as opposed to an emergency basis, morale problems in this cadre have already been noted relating to salary, supervision, and lack of support from the local communities (UNICEF, 1981). Training RHMs in a service already being provided by TBAs may create competition and discord in local communities, and RHMs may not be eager to take on new and potentially dangerous responsibilities

without increased remuneration and/or better supervision by nurses. If both TBAs and RHMs were trained by the MOH in modern midwifery, the first problem might be pre-empted. The second, a potential constraint, could possibly be overcome by improved supervision and by creative incentives and/or community financing or rewarding of RHM services. The latter possibilities are currently being explored by AID-funded operations research.

As ultimate beneficiaries, Swazi women of childbearing age will be primary targets for attitude and behavior change in a variety of MCH/CS programs and campaigns. As has already been discussed, mothers and pregnant women are particularly receptive to modern sector preventive and curative health services, and they are particularly motivated to ensure the health and safety of their children. Motivation among such women may conflict with established community values and norms of behavior, as in the case of adopting family planning technology to achieve better child spacing. Once again, the value is evident of trying to educate and elicit the support of local opinion leaders such as traditional healers and chiefs.

#### D. Impact on Poverty

Poverty is nowadays largely a consequence of unemployment, since virtually all homesteads are dependent to varying degrees on cash. There are fewer women than men in the formal employment sector; most women work in subsistence agriculture and depend on men from their homesteads for cash. The poorest homesteads are the ones with no employed members, either resident or absentee. Women with no husbands, sons or other employed male kinsmen remitting part of their wages, tend to be among the poorest and neediest of Swazis. Women of this sort were high on the government's eligibility list for disaster relief in the wake of Cyclone Domoina. Another disadvantaged group consists of the growing number of unmarried mothers who must fend for themselves. They may be unemployed, marginally employed, or under-paid. And those for whom employment is especially difficult to find -- the physically or mentally handicapped, the uneducated, the elderly, the unskilled -- tend to be among the poorest.

Poverty also varies with region. Surveys suggest a general decline in wealth and education as one progresses eastward toward Shiselwini and Lubombo districts (deVletter, 1983; Green, 1982), with the possible exception of the commercial estates of the lowveld.

Class differences in Swaziland have traditionally been based on birth. This remains true, but nowadays in addition to the aristocracy there is a new, emerging class of Swazis consisting of mostly urban-based, higher-salaried civil servants, businessmen, and managers of industry and commerce. They or their children tend to be better educated, leading to attitudes and outlooks quite different from most rural Swazis; and those who were born in town or on a commercial estate may never have fully absorbed many of the beliefs and values characteristic of most Swazis.

Poverty and ill health are mutually reinforcing, and both are exacerbated by rapid population growth and rapid succession births. By targeting rural women of childbearing age for improved health and child spacing services under the project, benefits will accrue to the most disadvantaged group in Swaziland.

E. Spread Effects

The spread or diffusion effects of the project can be considered at several different levels:

1. Institutional. Since the project has opted for an institution-building rather than a campaign approach; since key administrative, planning, and financial areas of MOH capability are being targeted for assistance; and since preventive rather than curative services are being promoted; the longer-term project effects should be maximally sustainable and should therefore have maximum and widespread impact.
2. Training in Traditional Sector. If the proposed operations research recommends training for certain traditional sector cadres, there is evidence from on-going traditional healer workshops that new ideas and approaches can diffuse rapidly through traditional and informal channels, both to others in the cadre and to the public at large.
3. Public Health. The project directly attacks two major and mutually reinforcing public health problems, high infant/child mortality and morbidity, and rapid population growth. Amelioration of these problems will pay other public health dividends. Improved child spacing, for example, will mean better nutrition and general care for children, as well as better health for mothers, especially among the poor.
4. Economic and Quality of Life: As the health of the public improves, people will be able to put more effort into subsistence and other economic activity, which will further improve the quality of life for Swazis. Although the effects may not be felt for another generation, improved child spacing and reduced fertility rates will mean a better chance of employment expansion in Swaziland keeping up with population growth. Put another way, unemployment and all its consequences would become more avoidable. Reduced fertility would also mean stemming burgeoning infrastructural costs for the GOS, allowing a greater proportion of government spending to go into programs of growth and improvement -- rather than merely "keeping up."

Swaziland Primary Health Care Project  
Annex 6E  
Analysis of Financial Issues for the Proposed  
Swaziland Primary Health Care Project\*

I. Introduction

In the past, health services in Swaziland were concentrated in urban areas and emphasized curative (secondary) health care. Recent national health policies issued by the Ministry of Health (MOH) have, however, emphasized reorientation of the health care system away from its urban and curative bias toward preventive services and toward strengthening primary care services in rural areas. The Ministry's Fourth Development Plan (1983/84 - 1988/89) has two major objectives: to reduce infant and child mortality and morbidity with special emphasis on diarrheal diseases and malnutrition; and, to provide services which contribute to an increase in child spacing and a moderation in the rate of population growth. The most recent MOH budget, 1985/86, reflects this commitment to rural primary health care by devoting a larger share to prevention and taking steps to control costs in the hospital sector, primarily through improvements in drug procurement and supply.

There are at least two principal justifications for the current emphasis in Swaziland on strengthening preventive and primary care services in rural areas. First, Swaziland's population growth rate is among the highest in the world. Although the absolute size of the population, 750,000 in 1985, is not excessively large in relation to current and potential land use, at present population growth rates, population will double in twenty-one years and triple in thirty-two years. Over the past 20 years, Swaziland's economy expanded at a rate that significantly exceeded the rate of population growth. In the 1960's, the economy grew at about five times the rate of population growth; during the 1970's, economic growth at 5-6 percent was double the 2.5 percent rate of population growth. In the 1980's, population growth has far exceeded economic growth. Projections for the future reverse this favorable relationship. If unconstrained, the population is expected to grow by 3.4-3.6 percent each year, while the GOS projects real economic growth at 0.8 percent per year for the balance of the 1980's. Real income per capita is thus expected to decline by 2.6 percent annually, with a concomitant decline in living standards for most of the population.

\*Prepared by Charlotte Leighton, PRITECH, and Neal P. Cohen, USAID/Swaziland Regional Economist, July, 1985

The second principal justification for reorientation toward emphasis on maternal and child health is the high rate of infant mortality in Swaziland, compared with other countries of similar per capita income (\$940 in 1982). For example, the infant mortality rate in Swaziland reported in the 1976 census was twice the rate in Botswana. Other major health status indicators, such as life expectancy at birth, are also lower in Swaziland than in neighboring countries.

The proposed project is designed to strengthen recent efforts in rural primary care and targeting of services on the most serious health problems in Swaziland, with special emphasis on improving the health status of children under five years of age and of women of childbearing age. These efforts, with additional provision of child spacing information and family planning services, are also intended to result in a declining fertility rate. The Ministry of Health and USAID have established service delivery targets in eight specific areas that address maternal and child health to meet the project's overall purpose. The principal strategy of the project is to build on the broad base of the existing rural prevention and primary care service delivery system and to strengthen the institutional capability of the MOH to support expanded and higher quality service delivery.

In light of the low rates of economic growth projected during the period of the proposed project, as well as government's reluctance to increase its debt beyond that required to reconstruct infrastructure damaged by Cyclone Domoina, any health sector investments cannot place an excessive burden on the national budget. The proposed project, by focusing on marginal improvements in the existing health system, and by emphasizing relatively lower cost primary care services, is more cost-effective than curative services. Nevertheless, project plans raise several issues related to the financial viability.

First, projected constraints on the Ministry of Health's budget make it necessary to assess carefully the ability of the MOH to support even modest additional recurrent costs during the life of the proposed project and to sustain the service levels that are planned after the end of the project. Second, the Ministry's policy commitment to increasing the share of its budget devoted to preventive services and to basic maternal and child health services requires analysis in light of competing pressures on the MOH budget and likely recurrent costs of the proposed project. Third, longer term prospects for financing the health sector in Swaziland are likely to require some adjustment of the current financing structure. Finally, continuing problems in financial management of the MOH program need to be addressed if available sources are to be used most efficiently.

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## II. Ministry of Health Budget: Recent History and Projections

### History

Over the period 1973/74 to 1984/85, the recurrent budget approved for the MOH has represented, on average, two percent of Swaziland's GNP and 9.5 percent of total GOS recurrent expenditures. In the past five years, 1979/80 to 1984/85, the MOH recurrent budget has almost doubled in nominal terms. The real rate of increase, 24 percent, in that period has, however, been only about one fourth as large. In real per capita terms, the MOH budget rose by even less, seven percent, between 1979/80 and 1983/84.

That the Ministry's recurrent budget has generally shown real rates of increase in total and in per capita levels over the past ten years reflects the policy emphasis that the GOS places on improving the availability of health services in the country. The health budget consumes the second largest share, following education, of the GOS total recurrent budget. Real increases for health also reflect the ability of the GOS to support increases in health services during a period in which rates of economic growth have exceeded rates of population growth.

Nevertheless, rates of increase in the MOH budget have been somewhat erratic, ranging from a high of 31 percent in nominal terms to a low of six percent. Further, the budget declined in real terms in each of the three years from 1982/83 to 1983/85. In 1984/85 compared with the previous year, the Ministry's recurrent budget declined by almost 10 percent and was lower in both constant total and per capita terms than the level for 1980/81. In the current fiscal year, 1985/86, the MOH budget increased substantially at 27 percent over 1984/85. This increase represents ten percent growth in real terms and a five percent real increase in per capita funding over the prior year. Nevertheless, real per capita funding is still lower than in most of the past five years.

Table 1 summarizes these trends in the MOH budget.

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Table 1. Approved Ministry of Health Budget, 1973/74-1985/86

	<u>In Current Prices (E'000)</u>	<u>As % of National Recurrent Budget</u>	<u>In Constant 1985 Prices (E'000)</u>	<u>In Constant 1985 Prices Per Capita<sup>1</sup> (E'000)</u>
1973/74	1,780	-	5,760	11.84
1974/75	2,275	-	6,962	13.84
1975/76	2,527	-	6,855	13.25
1976/77	2,884	9.6	7,400	13.84
1977/78	3,774	9.6	8,952	16.14
1978/79	4,401	9.2	9,631	16.74
1979/80	5,670	9.8	11,086	18.56
1980/81	6,964	9.7	12,184	19.71
1981/82	8,400	10.1	14,025	21.86
1982/83	9,755	8.8	13,787	20.71
1983/84	10,362	9.9	13,698	19.82
1984/85 <sup>2</sup>	11,759	9.2	13,643	18.04
1985/86 <sup>3</sup>	14,975	8.7	14,975	18.93

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<sup>1</sup> Budget deflated using health and education retail price index "A" for Mbabane.

<sup>2</sup> estimates

<sup>3</sup> budget

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Sources: World Bank, "Swaziland Population and Health Sector Review," November 1984. Report No. 5338-SW, and GOS budgets.

With respect to preventive services, which are the focus of the proposed project, the MOH has devoted an average of 13 percent of its total budget over the period 1976/77 to 1984/85. As Table 2 shows, the pattern of funding for the recurrent costs of preventive services generally reflects both nominal and real annual increases over this period. The rate of increases in nominal funding for the recurrent budget for prevention has averaged about 23 percent per year from 1976/77 to 1984/85, while the increase in real terms has averaged about 10 percent. Over the past five years (1979/80 to

1984/85), the budget approved for recurrent costs of preventive services has almost doubles in nominals, but it has only increased seven percent in real terms.

Table 2. Approved MOH Budget for Prevention and for Curative Services, 1976/77 - 1985/86

(Amounts in thousands of Emalangeni)

	Prevention			Curative Services		
	Current Prices	Constant Prices*	Constant Price Per Capita (E)	Current Prices	Constant Prices*	Constant Price Per Capita (E)
1976/77	394	1,009	1.89	1,733	4,445	8.32
1977/78	465	1,102	1.99	2,488	5,900	10.64
1978/79	574	1,254	2.18	2,815	6,159	10.70
1979/80	941	1,840	3.08	3,308	6,467	10.83
1980/81	1,238	2,166	3.50	3,990	6,980	11.29
1981/82	1,161	1,936	3.02	4,785	7,985	12.45
1982/83	1,440	2,032	3.05	5,714	8,074	12.13
1983/84	1,537	2,032	2.94	5,300	7,005	10.14
1984/85	1,419	1,647	2.18	8,185	9,495	12.55
1985/86	2,166	2,166	2.74	10,883	10,883	13.76

\* 1985 prices

The year-to-year pattern of funding approved for preventive services has, however, been erratic. Percentage increases in current prices have ranged from a low of seven percent to a high of 64 percent, while decreases have ranged between six and eight percent. The two most recent fiscal years well reflect this pattern. The amount approved for 1984/85 was lower in real terms than that for 1980/81 and the percent of the total MOH budget allocated to prevention, 12.1, was lower than average. In the current fiscal year, funding for prevention was increased by 53 percent, restoring real spending to the 1980/81 level.

Real per capita expenditures approved in the MOH budget for curative services have averaged about four times higher than for preventive services. The recurrent budget for prevention in real per capita terms has averaged E2.65 over the period 1976/77 to 1984/85, compared with E11.00 for curative services. In real per

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capita terms, the approved budget for preventive services has increased at a compound annual rate of 4.2 percent, compared with compound annual increases of 5.8 percent for curative services. The higher cost and demands of curative relative to preventive services are especially noticeable in the two most recent years. Real per capita spending approved for preventive services in 1984/85 declined by 25 percent over the previous year, while per capita spending for curative services increased by 24 percent. Of the aggregate increase in the 1985/86 MOH budget, prevention received 23 percent, compared with 84 percent for curative services.

In spite of higher spending for curative than for preventive services, there is strong evidence of the Ministry of Health's commitment to increasing spending for prevention relative to curative services. The budget for prevention has been growing at an annual average rate nearly equal to the rate of growth in the curative budget (21 and 23 percent respectively). Further, in five of the past nine years, 1976/77 to 1984/85, expenditures approved for recurrent costs of preventive services increased at a faster annual rate than the budget approved for the recurrent costs of curative services. For example, in 1979/80, the rate of increase approved for prevention was four times higher than that for curative services. The 1985/86 budget increased funding for prevention at almost twice the rate for curative services.

The MOH capital budget also reflects a policy commitment to improving rural primary health care services. The majority of capital projects included in the MOH health development plan for 1983/84 to 1987/88 is for strengthening rural clinic services, maternal and child health and child spacing services, as well as related manpower development and training. National health development activities in recent years have resulted in making some kind of health service available to 70 percent of the population within 8 km. Further, the MOH allocated 75 percent of the additional positions authorized in the 1985/86 budget to nurses and nurse assistants, who are the principal providers of primary health care in Swaziland. All these efforts are explicitly intended to improve the availability and quality of the primary health care system in rural areas that serves as the institutional base of preventive and health promotive services.

In addition, comparison of budget line items for prevention and for curative services somewhat understates the relative share of the budget devoted to preventive services and to basic primary care that promotes the health of mothers and children. A significant amount of preventive services related to ante-natal care, immunization, growth monitoring, and other child welfare services are provided by the MOH clinics and health centers that are included in the official budget category for curative services. In addition, a portion of the MOH subsidy to mission clinics and health centers helps fund similar preventive services of those facilities. National utilization statistics indicate that about 25 percent of the visits to

these facilities are for preventive services. Estimates based on these utilization data show that almost 15 percent of 1984/85 budget was allocated to preventive services, instead of 12.1 percent, if the share of funding in the curative category that is actually devoted to preventive services were included. The aggregate funding amount in 1984/85 would be approximately 22 percent higher, E1,726,295 (\$863,000), compared with the published amounts of E1,419,000 (\$709,500).

When an additional amount is included for health promotive MCH services, the share of the 1984/85 MOH budget devoted to services emphasized in the proposed project rises to almost 16 percent. Estimates for 1985/86 bring the share of the MOH budget for prevention to 19 percent and to 20.5 percent for prevention and selected MCH services. Given the MOH's current method of budgeting the bulk of the additional funding to support activities of this project -- e.g., for additional nurses and nurse assistant; supervisory transport; communications; laboratory services; medicines to treat common infectious, parasitic or respiratory ailments -- would be likely to be "buried" in the curative category, because the project builds primarily on the institutional base of the rural clinic system. Monitoring of budget allocation in support of the project activities would thus have to take account of funding included in the curative, as well as preventive, budget line items. More accurate estimates of relevant amounts in the curative category than have been possible here would be possible, although difficult, to carry out on an on-going basis.

Table 3. Estimated Ministry of Health Funding for Primary Health Care

	Ministry of Health Approved Budget (in Emalangeni)	
	1984/85 Pre-Project Year	1985/86 First Year of Project
TOTAL	11,759,000	14,975,000
Budget line item for prevention	1,305,000	2,166,000
Funding for prevention in other budget line items:*	378,000	264,000
Total for Primary Health Care	1,683,000	2,430,000
Percent of MOH Total	14.3%	16.2%

\* This includes the following items:

1. 20.0% of RC4105 (Nhlangano Health Center).
2. 34.0% of RC4108 (Sithobela Health Center).
3. 24.0% of Government (responsibility Centers 411, 4112, 4113, 4114), Mission and Nazarene Clinics, and RFM subvention directed towards clinics.
4. 40.0% of Emkhuzweni Mission Health Center subvention.

*20/16*

### Projections

AID and the Ministry of Health have developed several projections of the MOH budget that apply to funding during the period of the proposed project. These projections produce substantially different levels of funding that are likely to be available to the MOH, compared with budget levels that would keep pace with the demand for health services produced by population growth. Estimates based on meeting the demand for health services in 1990, assuming that the MOH receives an average of 9.5 percent of total GOS recurrent funding, would require funding for the MOH at E21.1 million (\$10.6 million) in 1985 prices. In contrast, if the MOH budget were held at the 1985 level in real terms, funding for 1990/91 would amount to only E14.9 million (\$7.5 million). Discussions with the MOH and the Ministry of Finance (MOF) indicate that current policy is to increase the MOH budget by 2% in real terms each year during the life of the project. Overall, the GOS recurrent budget will probably not grow in real terms. They will be expecting additional amounts necessary to cover new initiatives to be absorbed within current real levels of spending by increased efficiency of operation.

With respect to the possibility of authorizing increases in positions available to the MOH, discussions indicate that the Ministry might expect an increase next year.

Projections of the MOH budget made in the PID assumed a stable real growth rate of two percent over the life of the project. This assumption produces a budget about E5 million lower than what would be necessary to meet the need for health services, based on projected population growth by 1990. Assuming an annual real growth rate of two percent is, however, likely to represent the highest amount that can realistically be expected to be available to the MOH over the next five to six years. Given current government policy and projected economic growth, any higher growth rate in the MOH budget is unlikely.

This modest rate of growth can be expected to place severe constraints on initiatives that require substantial increases in recurrent costs for the MOH. Although significant efforts have recently been made to improve the drug procurement system, and to purchase from lower cost suppliers, drug needs have been consistently under-estimated in the MOH budget. When the GOS budget was in surplus, supplemental appropriations during the fiscal year could be made available to cover these needs. However, with the current policy of limiting supplementals and the changed GOS budget situation, the pressure to absorb increased drug costs within the authorized budget will be increased. In addition, major initiatives directed toward improving availability of preventive services through the CCCD project and doubling the number of rural health motivators, as well as several major capital projects have been undertaken in recent years. These projects have substantial

recurrent cost implications during and after the life of the proposed project.

Projects underway that have the highest recurrent costs are construction of a new psychiatric hospital, a new maternity wing and surgical theater at the Mbabane Hospital, and construction of three rural health clinics and two health centers. A recent analysis by the World Bank indicated that the recurrent costs of these capital projects, approximately E1 million in 1983 and 1984 prices, would absorb 55-60 percent of the total additional amount of recurrent funding estimated to be available to the MOH from 1983/84 to 1987/88. When these costs are estimated for the years in which they are expected to be incurred, the implications are even greater. Up-dating the Bank's estimates to 1985 prices, the total recurrent costs of these capital projects are approximately E1,160,000 (\$580,000). The MOH expects approximately E150,000 to fall due in 1986/87, and the balance in 1987/88. The MOH has indicated that these increases are likely to be treated separately from the 2% real increase. Were this not true then under a two percent real growth assumption for the next two budget years, the recurrent costs of these capital projects would absorb 50 percent of the additional amount that will be available to MOH in 1986/87 and will be more than three times greater than the additional funding available in 1987/88. The year after incurring the recurrent costs of the capital projects, the CCCD and RHM expansion projects will have been completed. To maintain these efforts at their on-going levels, the MOH would require an estimated additional E244,000 in recurrent costs in 1988/89.<sup>(1)</sup> The projected increase in the budget is E251,000. These estimated additional recurrent costs represent 78 percent of the E313,000 additional amount of funding for the MOH under assumptions of a two percent real rate of growth over the prior year.

The MOH recurrent budget thus quite clearly faces severe pressures in the next three years of the project period. To meet the estimated recurrent costs of project already underway would require either much larger real increases in the MOH budget than are currently anticipated, or making significant cuts in the hospital

(1) Estimates of the additional recurrent costs of the CCCD project after the end of the project were not made in the project assessment paper developed in 1983. Estimates made here are based on the projected funding levels during the life of the project, 1984-1987, that would be on-going costs to the MOH if the services carried out under the project were to be continued at a steady state level, in 1985 prices and assuming an average population growth rate of 3.4 percent. Estimates made here do not include replacement costs for capital goods (e.g., vehicles, refrigerators) provided under the CCCD project.

and clinic base budgets. This situation suggests that the MOH give serious consideration to increasing management efficiencies and to developing alternative financing and cost recovery mechanisms.

### III. Proposed Financing Strategy for the Project

Projects for the MOH budget made during the development of PID assumed that the total budget would grow at an annual real rate of two percent. The PID also proposed that the MOH would meet its counterpart funding requirement by increasing the share of the total MOH budget devoted to prevention by 1.5 percent per year over the life of the project. The proposed strategy was not based on an estimate of amounts needed by the MOH to fund the additional recurrent costs generated by the project during or after the end of AID support. Instead, the financing strategy followed the sectoral approach that guided development of the service delivery goals proposed under the project.

Thus, the objective of the financing strategy was to create incentives for the MOH to place higher emphasis on preventive and health promotive services to meet the service delivery targets proposed under the project and in the MOH Fourth Plan. In addition, the financing strategy proposed in the PID was designed to create incentives for greater cost recovery and management efficiencies in delivery of hospital services that would reduce the increasing cost burden of this sector on the MOH budget. Finally, the strategy was designed to facilitate monitoring of MOH expenditures related to the proposed project, as well as to provide assurance that sufficient funds would be available, regardless of inflation and of unanticipated changes in the MOH total budget. In discussions with AID during development of the PID, the MOH supported the general policy of devoting an additional share of its budget to preventive services and agreed in principal with the proposed strategy.

Table 4 shows amounts of funding that would be available to the MOH for prevention under the financing strategy proposed in the PP.

Table 4. Ministry of Health Budget Plan as Included in the PID  
(funding amounts in 1985 Emalangeni) <sup>(1)</sup>

	<u>MOH Approved Recurrent Total Budget</u>	<u>MOH Recurrent Budget Total Assuming 2% Annual Real Growth After 1985/86</u>	<u>Preventive Services Funding</u>	<u>Annual Increase of 1.0% in Share of MOH MOH Recurrent Budget Total After 1984/85</u>
Pre-Project Base, 84/85	11,759,000			14.2
Project Period:				
1985/86	14,975,000		2,166,000	(16.2%)
1986/87		15,275,000	2,492,000	(16.3%)
1987/88		15,580,000	2,692,000	(17.3%)
1988/89		15,892,000	2,910,000	(18.3%)
1989/90		16,209,000	3,130,000	(19.3%)
1990/91		16,534,000	3,358,000	(20.3%)
Post-Project Year, 1991/92		16,864,000	3,423,000	(20.3%)

(1) 1984/85 is estimated spending; 1985/86 is budgeted; thereafter the figures reflect projected spending.

The strategy would produce an additional E5.0 million (\$2.5 million) beyond the amount that would have been available if the 12.1 percent share of the MOH total devoted to prevention in the pre-project year were maintained. In the year following the end of the proposed project, the financing strategy would make an additional E1.4 million (\$0.7 million) available to fund the on-going additional annual recurrent costs generated by the proposed project. The PP projects that extra budgetary support worth E1 million will occur during the life of the project.

The proposed financing strategy would make significant additional funding available for preventive and health promoting maternal and child services. By the end of the project, total funding for prevention would be double the level, in real terms, that existed in the pre-project year, 1984/85. Further, the proposed strategy would provide funding for prevention at a level

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that results in real rates of growth in per capita spending for prevention until the proportion of the MOH budget devoted to prevention stabilized at 20.3 percent. The strategy would thus compensate for assumed rates of growth in the total MOH budget but would not keep pace with projected population growth. Real spending per capita on health would fall (a 2% real increase in spending compared to a 3.4% increase in population), but real spending per capita on preventive care would increase.

In spite of the benefits for strengthening preventive services under the proposed strategy, it is not likely to be realistic or feasible to expect the MOH to implement it fully or consistently over the life of the project. The large funding increase in the first year of the project already underway in the 1985/86 MOH budget raised the share allocated to prevention by more than two percentage points, from 12.1 to 14.5 percent over the pre-project year, 1984/85. This increase goes beyond the annual target under the PID financing strategy and can be assumed to have been stimulated by a commitment to reaching service levels planned in the MOH Plan, as well as under the proposed project.

However, as Table 5 shows, the proposed financing strategy would absorb over 90 percent of all additional funding estimated to be available to the MOH in most of the remaining years of the project. It would absorb 70 percent of the total additional funding estimated to be available to the MOH over the life of the project. In light of the previous discussion of projected additional recurrent costs of other projects already underway, it is highly unlikely that the MOH could honor a commitment through 1990 to increase the share of its budget going to prevention by the amounts implied under the proposed financing strategy.

Further, although recent discussions with MOH budget staff indicate that the Ministry continues to support the overall objectives of the financing strategy proposed in the PID, there are several concerns with certain implications of the strategy. Principal among these concerns are the large, implied reductions in funding for curative services that could not realistically be achieved. The second principal concern, expressed by both MOH and MOF staff, is the relation between the strategy and amounts necessary to fund estimated additional recurrent costs generated by the project.

#### IV. Ability to Support Recurrent Costs of the Project

The current stage of planning for the project does not permit a detailed estimation of additional costs to the MOH that would be generated by the project. It is possible, however, to estimate a range of major anticipated costs under certain assumptions. In addition, it is possible to estimate amounts that could be expected to be available to fund any additional annual recurrent costs in the first year after the end of the project.

Table 5. Impact of Annual Increases for Prevention Under PID Assumptions on Projected Increases in MOH Total Recurrent Budget  
(funding amounts in thousands of Emalangeni)  
1985 Prices

Project Period	<u>MOH Total Recurrent Budget</u>		<u>Preventive Services Recurrent Budget</u>		Balance Remaining for Other MOH Activities	% of MOH Increase Absorbed by Preventive Increases
	Funding Level Assuming 2% Real Growth Each Year After 1985/86	Real Increase Over Prior Year	Funding Level Assuming Annual 1.0% Increases in Share of MOH Total, Stabilizing at 20.3%	Real Increase Over Prior Year		
1985/86 *	14,975	+394	2,430 (16.2%)	+343	51	87
1986/87	15,275	+300	2,492 (16.3%)	+62	238	21
1987/88	15,580	+305	2,697 (17.3%)	+206	100	67
1988/89	15,892	+312	2,910 (18.3%)	+213	99	68
1989/90	16,209	+318	3,130 (19.3%)	+220	98	69
1990/91	16,534	+324	3,358 (20.3%)	+228	96	70
Total		1,917		+1,271	684	65
Post-Project	16,864	+331	3,426 (20.3%)	+67	+264	20

\* budgeted

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Since the project is designed to build on the base of rural Preventive and primary care services that already exist through government and mission health services, as well as on the efforts of other on-going projects that are designed to strengthen this system, additional costs to the MOH generated by this project should, in principal, be relatively small. While the activities to be tested and implemented under the project are expected to make a major improvement in the productivity of personnel at all levels of the primary health care system -- and, in fact, the targets cannot be met without such an improvement -- it is clear that some additional staff will be required and the MOH spending on drugs, medical supplies, and training will have to be increased. The MOH has projected the number of people and funds necessary to meet the preventive health targets given the assumed increased efficiencies of current staff and has concluded that approximately E3,900,000 would be required during the project period. This amounts to more than E400,000 more that would be available through increased recurrent budgets for primary health care. This shortfall will be raised through various alternative means of health financing. It is estimated that approximately E1,000,000 from extra-budgetary resources for health services can be raised during the project period.

Once it is possible to estimate more accurately the recurrent costs of the project, it will be possible to develop a financing plan that directly addresses additional funding required by the MOH during and after the life of the project. The surpluses in the first two years give the project time to develop and test alternative sources of financing.

#### V. Alternative Financing Strategies

The MOH and AID have discussed a variety of alternative financing possibilities. These discussions have revealed several policy constraints that will have to be taken into account in the development of financing options during the project period. The following provides summaries of the principal options discussed, their constraints, and several recommendations for addressing these issues during the project period.

Insurance. One of the main proposals is based on a possible insurance-based approach, especially for hospital services, that would provide savings to the MOH both through improved efficiency of hospital operations and through higher fees for hospital services. It was expected that such a policy would allow the diversion of a portion of the MOH recurrent budget devoted to curative services to cover the costs of expanding preventive services. (See Stevens,

"Alternatives for Financing Health Services in Swaziland," November 1984.) The MOH and the MOF responded quite unfavorably to this proposal, however. Their principal objections were addressed to the administrative difficulties of an insurance system and the potential inability of people to pay the substantially higher costs under the scheme. Discussions with staff of these government agencies do suggest, though, that there is interest in developing more efficient hospital management.

Consumer Fees. A second major alternative discussed was raising the basic fees now charged for hospital and clinic visits. A recent change in the fee structure equalized the fees at government and mission facilities. In general, this change meant that fees increased at government facilities and declined at mission facilities. A report on the effect of higher fees at government facilities during the first six months (October 1984 - March 1985) of the new fee structure suggests that utilization has dropped at government facilities (Yoder, "Fees, Travel time and Patterns of Facility Utilization in Swaziland Health Services," May 1985). Conclusions in this report have further strengthened the reluctance of the MOH to consider raising fees.

Nevertheless, the analysis of the effect of the recent change in fee structure should be considered preliminary, since the data on which it is based do not clearly show a negative effect of higher fees as government facilities and the new system had not even been in effect a full year. In addition, other available data suggest that perceptions of quality of care, demand for particular types of service, and travel time affect utilization patterns in Swaziland at least as much as the level of fees currently charged. (See for example, World Bank, "Swaziland Population and Health Sector Review," pp. 43-47, and Connelly, Preliminary Report on PRICOR study.) Projected declines in real per capita income in the next several years do, however, suggest that only relatively modest increases in fees would be feasible without having a negative effect on utilization.

In addition to discussion of the possible changes in the level of fees, issues have been raised with respect to allocation of fees once they are collected -- that is, about the extent to which they might be used to reduce cost burdens of the MOH. First, fees currently charged at government and mission facilities are returned to the Treasury and reported as income to the GOS in the overall budget summary. Revenue from medical and hospital service fees are not also reflected in the MOH section of the GOS budget. Changing the official budget display for these fees could be expected to be difficult. At the very least, fee revenue could be used in the justification of the MOH budget request to the MOF as an offsetting

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item for MOH estimated expenditures. This procedure would become more important if fees were raised to a level that might provide a more substantial offset to the MOH budget than at present. In 1984/85, prior to the change in fee structure, these revenues were estimated at E156,000 (\$78,000), 1.3 percent of the MOH total budget. In 1985/86, which included only six months of the new fee structure, estimated revenues were about twice as high (E358,000; \$269,000), but still amounted to only 3.6 percent of the 1985/86 approved budget.

It has also been suggested that facilities keep all or a portion of their fees to be used as an incentive to greater fee collection efforts, as well as to expanding services. Several constraints have been raised about such a procedure, such as security problems at clinics. If this problem could be solved, such a procedure might be worth a trial effort. It should be noted that this procedure would benefit MOH budget only if the fees retained by facilities are used to reduce expenditures by the MOH.

Private Sector. The third major alternative considered has been a possible expansion of health services by the private sector. The missions, private industry, and health providers in private practice operate 82 (70 percent) of the 118 clinics in Swaziland, while the government has 36 clinics. In addition, there are an estimated 6,000 traditional practitioners in the country. A recent study by the World Bank estimates the following distribution of public and private expenditures on health care in Swaziland.

Distribution of Public and Private Expenditures  
on Health Care in Swaziland, 1983

<u>Service Providers</u>	<u>Percent of Total Health Expenditure</u>
Ministry of Health	30.0
Missions	2.3
Industry	5.7
Insurance Schemes	3.4
Private Payments/Consumer Fees	47.5
Foreign Assistance and Other	<u>11.1</u>
TOTAL	100.0

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Source: World Bank, "Swaziland Population and Health Sector Review," November 1984, Report No. 5338-SW.

Of the private payments made by consumers, by far the largest share goes to traditional practitioners. The Bank estimated that 78 percent of private payments was spent for the services of traditional practitioners in 1983. Only one percent of private payments in that year were for fees at government facilities and four percent for fees charged by the missions. Five percent of private payments were made to solo-practitioners in private practice.

The extent of private sector involvement in service delivery and financing of the health sector in Swaziland already relieves the public sector of a substantial cost burden. The potential for private providers to increase their service coverage, and to do so with non-governmental sources of funding, appears, however, to be limited by several factors.

Traditional practitioners clearly absorb the greatest share of private funding. With training in delivering some of the services to be provided under the project, they could be instrumental in reaching the service target levels and presumably continue to be self-financing service providers. The policy constraint to developing this option is the lack of official consensus about expanding or altering the role of traditional practitioners in delivery of non-traditional services.

The current share of funding and service coverage provided by private industry is relatively small. It has not been possible to analyze in depth the possibility of additional coverage of the population by this sector, but available information suggests that the potential is quite limited. Principal factors that limit this potential are the isolated location of some of these industries (e.g., Havelock Mines), that would prohibit utilization by significant numbers of people who are not employees or residents in company towns. Less isolated industries are in areas where government and/or mission facilities already exist.

The potential of the third large source of private providers, missions, to expand coverage appears to be limited primarily by the extent to which this sector is already financed by the government; the same financial considerations that limit government's ability to expand services through MOH facilities apply equally to the missions. Discussion with MOH and mission facility staff indicate that recent increases in subventions to the missions have resulted in government paying approximately 90 percent of the RFM hospital's budget and approximately 50 percent of Good Shepherd's, the other mission hospital's, budget. It is likely that a much lower percent of operating costs of mission clinic budgets is covered by the government subvention (E2,600; \$1,300, on average in 1985). Nevertheless, the process for developing budget estimates under the new decentralization policy encourages estimation of actual needs and costs. This policy applies to government as well as mission facilities. In the past two budget years, subventions to the

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missions have consumed 20 percent of the MOH budget total and 28-30 percent of the total for curative services. Increases in mission subventions since 1980/81, when they consumed only 7.8 percent of the MOH budget, are likely to have absorbed a significant share of increases in the budget ceiling authorized by the Ministry of Finance. These increases may also have been in part responsible for proportionate decline in the share of the MOH budget allocated to prevention from a high of 17.8 percent in 1980/81 to a low of 12.1 percent in 1984/85. Current budget policy and trends in negotiating agreements with missions thus suggest that pressures for the government to absorb costs of the mission sector are much stronger than for the missions to assume a larger cost burden.

Recommendations. Development of feasible financing options that will produce significant savings to the MOH will require in-depth analysis early in the project period. Only a few of the possible options have been explored to date and these, while useful efforts, have been preliminary. In addition, the MOH and MOF do not appear to have a sufficient understanding of the range or implications of alternatives.

Based on information it has been possible to gather for this report, action that is likely to produce the most viable options include:

- Providing information (e.g., through a several day long seminar with a team of outside health financing experts) to relevant GOS staff about the range of financing options that are possible, without initially advocating a particular approach. From discussions with MOH and MOF staff, it seems especially important to provide the means for them to consider (1) a package of alternatives (rather than one solution that represents a "grand scheme" with far-reaching changes) that they view as appropriate to conditions in Swaziland and that have the greatest potential for budget savings, and (2) options related to the fee structure that reduce the MOH cost burden, are equitable, and are within the ability of rural consumers to pay.
- Examining current procedures for government subsidies to the missions, with particular attention to procedures for up-dating the funding amounts.
- Conducting empirical analysis of current household expenditures in Swaziland on health care from all sources and identification of the effect of perceived quality, travel time, and fees on utilization to determine the maximum fees that could be charged without adverse effects on utilization and equity.

- Conducting research, and perhaps carrying out experiments, with respect to increased service coverage by easily accessible health providers who have the greatest potential to be self-financing (e.g., RHMs with supplemental support [in cash or in kind] provided by their communities, rather than increasing their government salaries; traditional practitioners; and solo private practitioners).
- Review of hospital management to identify potential efficiencies that would be administratively feasible under the current system and staffing pattern.

The purposes of exploring financing alternatives in Swaziland is presumably to achieve increased service coverage without significantly increasing costs to the MOH. Development of several, well-planned and focused efforts with this goal in mind can help assure that the proposed project is financially viable and that the MOH is able to sustain the service levels that will have been achieved during the project period.

#### VI. Financial Management and Budget Planning

Several problems in budget planning and financial management have compromised the ability of MOH facilities to provide basic services consistently and reliably. Review of the MOH budget shows that actual expenditures tend to differ significantly from the original approved budgets, indicating weaknesses in budget planning and financial management. For most of the 1970's, the Ministry consistently overspent its budget authorizations. In 1982/83, this problem was compounded by having to make a special additional grant to the largest mission hospital to save it from bankruptcy. In 1984/85, the budget allocation for drugs had to be increased from 18.3 percent of the MOH total to 23.4 percent, due to serious problems in drug management and procurement by hospitals and the Central Medical Stores. While actual expenditures for curative health services tend to be consistently over original estimates, expenditures for preventive services have consistently been less than the authorized funding levels. Over the six year period from 1978/79 to 1983/84, expenditures for preventive services averaged seven percent below authorized levels (derived from GOS budgets reported in World Bank, "Swaziland Population and Health Sector Review," November 1984, Annex tables 3.02 and 3.03, pp.80-81).

Discussions with Ministry of Health and Ministry of Finance staff suggest that two general problems underlie differences in planned and actual expenditures. The first has been an inability to make reasonably accurate budget estimates. The MOH has taken steps to improve the accuracy of budget estimates. The MOH has taken steps to improve the accuracy of budget estimates principally through recent implementation of a decentralized budget planning

process. The decentralized system calls for principal health providers in the government and mission system to develop budget estimates for their district, based on their analysis of past expenditures and future needs. A new Health Administrator cadre has been established to assist with this process. Regional Health Administrators, as well as assistant health administrators who are responsible for hospital administration, are, or will have been, trained and in place in each of the four districts within a few months.

Since this system has been in effect for only some of the districts and only for the most recent budget year, 1985/86, it is too early to evaluate how much improvement in budget estimates will be achieved. Manuals developed to guide district teams in budget planning and planned central office support for the process appear, however, to be well-designed to provide the necessary framework. Potential constraints to the ability of the decentralized budget system to function effectively are more likely to derive from problems of developing consensus among the different levels of institutional actors -- among different levels of health personnel, the health administrators, and private (mission) and government sector providers -- and from lack of adequate information and skills at the district level that would facilitate more accurate estimates.

The second general problem in the MOH budget process derives from serious weaknesses in budget execution and financial management. For example, hospitals have been able to order drugs and other supplies without regard to the funding they had been authorized. The district budget planning committees have not yet been given their official authorized budgets for the current fiscal year because of delays in the central Ministry accounting office and an inability of districts to balance last year's books. Neither headquarters or district level management staff seem to have ready access to up-to-date information about amounts they have spent in relation to funds remaining, or regular feedback from existing reporting systems that would assist in more efficient resource allocation. Cost accounting information at the facility level is also altogether absent.

The best available information suggests that the MOH accounting systems are more than adequate for purposes of financial control and that there are probably sufficient accounting staff in the central office and in most districts. The most serious problem in financial management that affects the basic ability of government health facilities to function appears to lie in making the existing accounting systems work and in reinforcing training for the accountants in the system's operation and procedures. In addition, it is possible that current lines of authority complicate MOH control over execution of its budget. The accounting staff is ultimately responsible to the Accountant General in the MOF, with the result that the MOH does not

have personnel authority over their accountants. This institutional constraint can be expected to remain in place, but can be overcome with strong leadership by the MOH Principal Secretary.

Action has been taken to address the most serious financial management problems by hiring a senior expatriate financial controller, funded by the British ODA, who will be seconded from the MOF to the Ministry of Health. The controller is expected to provide discipline and direction to MOH accountants, to oversee the financial management process at the Ministry, and to make existing accounting systems function more efficiently and effectively. However, the controller is not likely to be able to address the following needs:

- Training district teams to plan and to prepare their annual recurrent budgets and providing them with continued support, follow-up and feedback;
- Integrating program planning and budgeting at the district level and making the necessary links between headquarters and district level processes and assumptions;
- Developing a system for drawing together available information from accounting, budgeting, and health statistics and utilization information systems in a way that is useful for planning and implementing more efficient and effective resource allocation at the national, district and facility level; and,
- Developing a simple cost accounting system at the facility level that would assist in efficient use of resources.

Current project plans call for providing long-term technical assistance through an MCH planner, a health administrator with experience in decentralization, and a micro planner with experience in health program operation at the national and at the facility level. Depending on the final scopes of work developed for these personnel, they can be expected to address most of the additional needs for further assistance in budget planning and financial management at the central, district and facility levels. In addition to these plans for long-term expatriate technical assistance, the project should also plan to provide support for contracting with a local accounting and management firm to provide assistance with developing simple cost accounting systems, with the advice of the financial controller and the long-term technical assistance personnel provided under this project and relevant MOH staff. Provision should also be made for short-term technical assistance to back up the long-term personnel in specific budget planning and financial management issues that are outside their areas of expertise or time constraints.

## Swaziland Primary Health Care Project Annex 7B Detailed GOS Budget and Assumptions

Estimated Government of Swaziland Costs  
Swaziland Primary Health Care Project  
all costs in thousands of current year emalangen

Item	86/87	87/88	88/89	89/90	90/91	Total
<b>PERSONNEL</b>						
Rural Nursing Assistants		42	95	143	213	492
Rural Health Assistants		37	84	127	189	438
Stand-by Allowance	24	63	79	86	92	343
Upgrading Family Nurse Practitioners	28	38	59	76	104	305
Endzevane Clinic	39	45	51	51	57	244
Staff Nurses		25	50	71	80	226
Rural Health Motivators		28	63	63	71	226
Public Health Matrons	34	40	45	45	51	216
Health Education Officers	12	28	16	16	54	127
Central Vaccine Storage	19	23	26	26	29	122
Clinic Instructors (SIHS)	18	21	24	24	27	115
Nursing Sisters, Mbabane Health Unit	14	16	18	18	20	85
Assistant Health Administrators	12	14	16	16	18	77
Health Training Officer	10	11	13	13	14	60
Accountants		6	14	14	16	51
Nursing Assistants Upgrading		0	7	15	25	47
Central Medical Stores	7	8	10	10	11	45
Upgrade Matron	1	1	1	1	2	7
<b>TOTAL PERSONNEL</b>	<b>219</b>	<b>446</b>	<b>673</b>	<b>815</b>	<b>1,073</b>	<b>3,226</b>
<b>TRAINING</b>						
Training of Health Assistants		34	38	42	47	161
AID In-country training programs	25	28	31	35	39	159
Airfares, non-Swaziland training	31	28	26	27	31	144
Training of Rural Health Motivators						0
Midwifery Courses						0
Training of Accountants						0
<b>TOTAL TRAINING</b>	<b>56</b>	<b>90</b>	<b>95</b>	<b>105</b>	<b>117</b>	<b>463</b>
<b>COMMODITIES</b>						
Lab and Clinic Equipment		28	31	35	39	134
Vehicle Maintenance and Petrol	15	16	18	18	18	86
<b>TOTAL COMMODITIES</b>	<b>15</b>	<b>44</b>	<b>50</b>	<b>54</b>	<b>58</b>	<b>220</b>
<b>GRAND TOTAL</b>	<b>290</b>	<b>580</b>	<b>818</b>	<b>973</b>	<b>1,248</b>	<b>3,909</b>

This budget reduced the number of personnel which the Ministry of Health views as necessary to achieve the targets for preventive health care in the country by 1990/91.

# Government of Swaziland Budgetary Assumptions USAID Swaziland Primary Health Care Project

**General:** There is 12% inflation, government salaries will be adjusted every other year by  $\frac{2}{3}$  of the total two year inflation. The existing government salary rates, at notch 3 were used for all salaries. All prices quoted in this paper are in 1985 emalangeni; the estimated costs in the budget include the effect of inflation and increases in salary. All the costs in the budget are in addition to current spending necessary to support the increase in activity by the project.

The years which are given refer to the GOS fiscal year, thus 1986 refers to the GOS 1986/1987 budgetary year which begins 1 April 1986.

Some of the people must be hired by the government regardless of whether there is an AID project, but not hiring them would seriously impeded the chances for the success of the government's attempt to improve the quality of preventive health care in country. Many of the positions noted for implementation in 1986 are of this variety. Also some of the expenses are currently being handled by other donors and it is expected that many of these may be continued by another donor. If these costs are not picked up by other donors, the GOS will have to fund them. These items are indicated in the budget.

Finally, many of the additional personnel will need additional support funds from the government for supplies, etc. This has not been estimated.

Items are listed in order of their importance in the budget.

### **Personnel**

1. **Rural Nursing Assistants:** Ten at grade 11 in 1987 with an additional ten in each of the following years.
2. **Rural Health Assistance:** Ten at grade 10 in 1987 with ten additional in each of the following years.
3. **Stand-by Allowance:** All rural nurses and nursing assistance receive a stand-by allowance of 10%. This is implemented by mid-1986. (Assumes 60 nurses to begin with and 43 nursing assistance, the adjustments in the numbers are reflected elsewhere in the assumptions.)
4. **Upgrading Family Nurse Practitioners:** Forty practitioners are upgraded in 1986 and 25 additional are upgraded each year thereafter.
5. **Endzevane Clinic:** Four people at grade 17 and four people at grade 9 beginning in 1986.
6. **Staff Nurses:** Four in 1987 at grade 15 with three additional in 1988 and an additional 3 nurses in 1989.
7. **Rural Health Motivators:** One hundred additional in 1987, an additional hundred in 1988 and fifty more in 1989 at a monthly salary of E20.
8. **Public Health Matrons:** Four at grade 19 beginning in 1986.
9. **Health Education Officers:** There are two hired in 1986, these go on long term training later in the year, the government covers their salaries for one year only; two

additional people are hired in 1987 who go on long term training the following year with the government covering their salaries for one year only. A similar situation occurs with the last two people hired in 1988. This means that the total change in the cost to the government is two people in 1986, four in 1987, two in 1988 and 1989 and the full six additional in 1990.

10. **Central Vaccine Storage:** Two people at grade 17 and two people at grade 9 beginning in 1986.
11. **Clinic Instructors:** Three persons at grade 16 in 1986.
12. **Nursing Sisters at Mbabane Health Unit:** Two at grade 17 in 1986 (one in MCH and one in family planning).
13. **Assistant Health Administrators:** Two additional persons in 1986 at grade 16.
14. **Health Training Officer:** One additional officer at grade 20 beginning in 1986.
15. **Accountants:** one additional accountant in 1987 and 1988 at grade 15.
16. **Nursing Assistants up-grading:** Fourteen nursing assistants are upgraded in 1987, an additional 14 each year thereafter are upgraded because of additional training.
17. **Central Medical Stores:** one inventory control clerk and one typist in 1986 both at grade 11.
18. **Existing Matron** is upgraded from grade 20 to grade 21 in 1986.

## **Training**

1. **Training of Health Assistants:** Thirty people trained per year at a cost of E3,000 per person year.
2. **Support for the AID in-country training programs:** The GOS portion is estimated at E25,000 per year beginning in 1986.

3. **Government support for non-Swaziland USAID funded training:** GOS will cover airfares to U.S., Nigeria and transportation to third countries. Costs estimated at E1,500 per one-way ticket to the U.S., E1,000 for a ticket to Nigeria and E200 in travel elsewhere. The number of one-way tickets required each year to the U.S. are 19 in 1986/87, 13 in 1987/88, 12 the following year and then 13 in both 1989/90 and 1990/91. Travel to Nigeria is two tickets the first year, four the second and two the third. Other travel includes 4 in the first year then 8 then 4.
4. **RHM training:** This training is paid by another donor. *(Cost is \$32,000 per year).*
5. **Midwifery:** This training is paid by another donor. *(Cost is E3,000 per person year.)*
6. **Accountants:** This training is paid by another donor. *(Four accountants trained each year beginning in 1987 at a cost of E5,000 per year.)*

### **Commodities**

1. **Equipment for Labs and Clinics:** The government support for project activities is E25,000 per year for supplies beginning in 1987.
2. **Vehicle maintenance and petrol:** For the first two years after the purchase of vehicles AID pays maintenance, thereafter the government will pay. The government pays all the petrol bills estimated based on 8 vehicles travelling 15,000 km. per year and using 10lt/100km at a CTA cost of E1.40/lt.

## **Ability of the GOS to meet the Recurrent Cost Implications of the USAID Primary Health Care Project**

### **Assumptions**

Total MOH budget grows by 2% in real terms per year beginning in 1986/87. Inflation is 12% per year. Population grows at 3.4% per year. Increase the total Ministry of Health Budget by 2% per year in real terms, and increase the share of the budget going for preventive care by one percentage point per year. ( The preventive budget does not only include activity 3.2 of the budget, but those items in the curative budget which refer to the provision of preventive care - primarily clinic work). Further, the recurrent implications of capital projects will be met out of separate increases in the budget, not out of the increases projected below.

### **Ministry of Health Budget**

(actual spending in 1985/85, estimates for 1985/86 and forecasts thereafter)  
in thousands of emalangi

year	prevention				curative/other				total		percent prevent
	current exp.		constant exp.		current exp.		constant exp.		constant	current	
	total	p.c.	total	p.c.	total	p.c.	total	p.c.			
84/85	1,683	2.42	1,683	2.42	10,076	14.48	10,076	14.48	11,759	11,759	14.3%
85/86	2,430	3.38	1,961	2.73	12,545	17.43	10,125	14.07	12,086	14,975	16.2%
86/87	2,791	3.75	2,011	2.70	14,317	19.24	10,317	13.86	12,328	17,107	16.3%
87/88	3,383	4.40	2,177	2.83	16,160	21.00	10,398	13.51	12,575	19,544	17.3%
88/89	4,089	5.14	2,349	2.95	18,238	22.92	10,477	13.17	12,826	22,327	18.3%
89/90	4,926	5.99	2,527	3.07	20,580	25.02	10,556	12.83	13,083	25,506	19.3%
90/91	5,919	6.96	2,711	3.19	23,219	27.30	10,634	12.50	13,344	29,138	20.3%

## Conclusions

The following tables summarizes the results as they currently influence the project:

<b>BUDGET SUMMARIES</b>		
in thousands of current year emalangeni		
year	PROJECT BUDGET REQUIREMENTS GOS Budget	likely incre: under assumed growth model
1986/87	290	361
1987/88	580	592
1988/89	818	706
1989/90	973	837
1990/91	1,248	993
<b>TOTAL</b>	<b>3,909</b>	<b>3,489</b>

The government feels that there will be less than a 2% real growth in total revenue, and possibly no real growth at all. Thus, overall government spending is unlikely to grow in real terms. However, because of the increasing population, the Ministry of Finance expects that the Ministry of Health's budget will grow by 2% per year in real terms.

To achieve the government's goals in preventive health care will require more money than the government feels is likely to be available, or which can result from a rearrangement of the health budget towards increased emphasis on preventive spending. To achieve the government's primary health care targets within the likely amounts of money available will require that there be a substantial increase in managerial efficiency. It is unlikely that the Ministry of Health will be able to receive sufficient financial resources to permit the health targets to be reached without these managerial efficiencies.

The economic analysis shows that the resources are available in rural Swaziland to afford the extra-budgetary support. The project shall have to convince people that it is worthwhile to pay for western-type health care.

In summary, the GOS ought to have sufficient resources available to permit a real growth in the MOH budget of 2% per year. If the MOH does shift resources to primary health care, as defined, and if MOH and project

activities are able to convince people to pay higher amounts for western-type health care, then there will be sufficient financial resources available to afford the inputs required for this project.

## Swaziland Primary Health Care Project Annex 7A Detailed AID Project Budget and Assumptions

### Detailed USAID Budget

costs in thousands of current year U.S. dollars

item	cy85	cy86	cy87	cy88	cy89	cy90	total
<b>TECHNICAL ASSISTANCE</b>							
Long Term							
MCH Adv/coord	0	93	118	125	133	141	610
Nurse Practitioner	0	74	118	125	133	141	591
Health Admin/decent	0	74	118	125	44		361
Clinic/Health Sys. Mgmt	0	74	118	42			234
Micro plan/budget adv	0	74	118	42			234
Admin Asst	0	17	23	24	26	27	117
Pop.Committee (secy/prof)	0	7	11	12	5		35
<i>sub-total</i>	<i>0</i>	<i>413</i>	<i>624</i>	<i>495</i>	<i>341</i>	<i>309</i>	<i>2182</i>
Short Term							
Technical Assistance	48	254	283	243	182	96	1106
Local Fin Mgmt/Acct	0	12	21	23	26	29	111
<i>Technical Assistance sub-total</i>	<i>48</i>	<i>679</i>	<i>928</i>	<i>761</i>	<i>549</i>	<i>434</i>	<i>3399</i>
<b>TRAINING</b>							
Long Term US							
Health Statistics	0	21	22	24	0	0	67
Health Educator	0	42	90	48	0	0	180
<i>sub-total</i>	<i>0</i>	<i>63</i>	<i>112</i>	<i>72</i>	<i>0</i>	<i>0</i>	<i>247</i>
Long Term Thrd Country							
Health Administrators	0	42	45	0	0	0	87
Health Educators	0	42	100	56	0	0	198
<i>sub-total</i>	<i>0</i>	<i>84</i>	<i>145</i>	<i>56</i>	<i>0</i>	<i>0</i>	<i>285</i>
Short Term Overseas							
In-Country	48	35	36	39	40	44	242
<i>sub-total</i>	<i>48</i>	<i>240</i>	<i>400</i>	<i>257</i>	<i>167</i>	<i>128</i>	<i>1240</i>
<b>COMMODITIES</b>							
Vehicles	0	81	18	7	0	0	106
Audio-Visual Equip	3	8	4	0	0	0	15
Radios	0	68	98	3	4	4	177
Health Education Supplies	11	12	14	16	17	20	90
Hospital/Clinic/Lab supplies	15	17	19	21	23	26	121
<i>Commodities sub-total</i>	<i>29</i>	<i>186</i>	<i>153</i>	<i>47</i>	<i>44</i>	<i>50</i>	<i>509</i>
<b>RESEARCH, MONITORING AND EVALUATION</b>							
Operations Research	0	53	57	60	63	67	300
Studies/Surveys/Monitoring evaluations	0	32	34	36	38	40	180
<i>Res/Mon/Eval sub-total</i>	<i>0</i>	<i>85</i>	<i>124</i>	<i>96</i>	<i>101</i>	<i>146</i>	<i>552</i>
<b>GRAND TOTAL</b>	<b>125</b>	<b>1190</b>	<b>1605</b>	<b>1161</b>	<b>861</b>	<b>758</b>	<b>5700</b>

## Budgetary Assumptions Swaziland Primary Health Care Project

Many of the costs are quoted in terms of base prices. These refer to the current costs which need to be adjusted for the annual inflation. Inflation was assumed to be 6% for all U.S. based costs and 12% for Swazi and southern African based costs. Local costs were converted into dollars at the prevailing exchange rate of E2.00=\$1.00. Some figures may not appear to total properly in the budget because the data presented has been rounded. Calculations were not rounded.

Long Term Technical Assistance: Base cost per year is \$105,000, subjected to the U.S. inflation of 6% per year.

The MCH Advisor/Coordinator arrives March 1, 1986 and leaves December 31, 1990. The Nurse Practitioner arrives May 1, 1986 and leaves December 31, 1990.

The Health Administration/decentralization expert arrives May 1, 1986 and has a three year contract.

The Clinic/Health Systems management advisor and the micro planner-budget advisor each stay for two years beginning May 1, 1986.

A locally hired administrative assistant begins work May 1, 1986. This person's contract ends December 31, 1990. The base cost is \$20,500 per year, with an annual increment equal to the US inflation rate of 6%.

Three years of assistance is provided for the population committee through a professional person (E26,000 per year) and secretary (E10,000 per year) plus a fringe benefit package valued at 20% for a total cost of E43,200 per year. This assistance begins April 1, 1986.

Eighty months of Short Term Technical Assistance is provided with four person months in calendar year 1985, 20 months in 1986 and 23, 16, 11 and 6 months in each subsequent calendar year.

A long term contract will be signed with a local financial management and accounting company at an annual cost of E33,000, subject to annual increments equal to the local inflation rate. This ought to provide at least one person half time working with the Ministry of Health.

Training is divided into four types. Long and short term training, in the U.S. and outside the U.S..

inflation rate. This ought to provide at least one person half time working with the Ministry of Health.

**Training** is divided into four types. Long and short term training, in the U.S. and outside the U.S..

One person will be trained in Health Statistics and one person in health education at the bachelors level for three years each beginning in cy86. The cost is \$20,000 per year.

Eight health administrators will be trained in a third country for 1 year each. Four will leave in cy86 and 4 in cy87. The base cost is estimated at \$10,000 per year. In addition there are 4 health educators trained in Ibadan, Nigeria for 2 years each. Two will leave in cy86 and cy87. The base cost is \$20,000 per year.

There will be eight people going for three month courses in the U.S.; four in the first year of the project and one per year thereafter. In addition 5 people will go each year, beginning in cy86, for a one month course. The cost is \$4,000 per month.

The overall assumptions for the in-country training are that all local costs are subject to a 12% annual local inflation. Short Term training is costed at E40 per day and medium term training (over 4 weeks) at E55 per day. The type of course and when it will be offered are:

name of course	duration	number of sessions per calendar year				
		1986	1987	1988	1989	1990
MCH/FP Training	8 weeks	1	1	1	2	1
MCH/FP refresher	15 days	2	3	3	3	3
Clinic Management	3 days	1	2	2	2	1
RHMs Supervision	5 days	1	2	2	2	1
Supervisory	5 days	1	2	1	1	1
Public Health Refresher	15 days	3	4	3	3	3
Performance Evaluation Training	5 days	1	2	2	2	1
Management Training	15 days	1	1	1	1	0
Regional Health Planning & Fin. Mgmt	7 days	1	1	1	1	0
Regional Health Data Collection	5 days	1	1	1	1	0
Decentralization Mgmt. Workshop	5 days	1	1	1	1	0
Orientation to PHC & Decentralization	5 days	1	2	2	2	1
Regional Financial Management Systems	7 days	1	2	2	2	1
Regional Budget Development	3 days	1	2	2	2	1
Regional Management of fees	3 days	1	2	2	2	1

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There are seven vehicles purchased in cy86, five sedans, one five-ton truck and one 16 seat vehicle. The costs are E14,000, E32,000 and E23,000 respectively. Monthly maintenance is E300 per sedan, E450 for the truck and bus.

Eighteen sets of audio-visual equipment are purchased, four in the cy85, 9 the following year and 5 in cy87 at a base cost of \$800 per set.

Forty-five radios are purchased, twenty in cy86 and 25 the following year. The cost is \$3,000 per radio. A radio maintenance contract exists for each radio at a cost of \$50 per year

\$15,000 worth of supplies will be purchased each year for the hospitals, clinics and labs. an additional \$90,000 of health education materials will be purchased over the life of the project.

**Research, monitoring, evaluation:**

There will be two operation research activities each year beginning in cy86 costing \$25,000 each.

There will also be two studies, surveys and monitoring activities per year beginning in cy86 costing \$15,000 each.

There are two evaluations of the project, in cy87 and cy90 at a base price of \$30,000.

There is no contingency line item in the budget.

Swaziland Primary Health Care Project  
Annex 7C  
Illustrative Requirements for Short Term Technical Assistance

Person-months

A. In-Country Training:

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- Specify pre-service, formal courses and mobile training needs.
- Developing in-country training plan.
- Devise training objectives, learning experiences, varieties of training methods, lesson plans, testing methods.
- Improving skills of trainers for clinic nurses, nurse practitioners, nurse assistants refreshers courses on preventive and community health services and providing the training.
- Team building for RHMTs.
- Curriculum review for nurse training for nurse assistants, rural clinic staff nurses and nurse practitioners.

B. Health Education-Material Development/ Production/Dissimination:

- Inventory of existing MCH/FP materials
- MCH/FP material production schedules based on new materials needed, training needs assessment and community education programs.
- materials production plan/training
- mass media implementation plan /training.
- Evaluation of health education impact.

C. Protocol development:

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- Protocol development format and schedules.
- Protocol development specialist in infectious parasitic and respiratory diseases.

D. Evaluations, Surveys - Design:

- Develop evaluations, surveys, designs strategy and approaches and train appropriate staff (e.g. need for health services; users of health services; quality of health services; non-users of health services).
- Types of surveys and evaluations (community diagnosis, prevalence, demographic, KAP.

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- E. Operations Research: 9
- Protocol development/training.
  - Better definitions of operations research studies.
  - Identify external technical assistance requirements for operations research
- F. Incentives Development: 3
- Recognition by staff peers.
  - Advancement and promotion opportunities for staff.
  - Financial rewards for staff.
  - Community recognition by GOS.
  - Recognition for individuals and families.
- G. Alternative Financing: 6
- Develop pilot experiment.
  - Train local personnel.
  - Identify external technical assistance requirements.
- H. Procurement Planning: 1
- Drug management and inventory control systems for clinics and hospitals.
  - Medical equipment and supplies procurement systems
- I. Establishment of Mothercraft Centers: 2
- Conduct feasibility study.
- J. Family Planning IEC 4
- K. Personnel Management: 5
- Develop policies and procedures manuals for regional personnel management.
  - Develop improved performance evaluation system.
  - Personnel management systems development and follow-up (e.g. manpower inventory system, orientation and pre-service for new personnel, planning of training).
  - Development and revision of in-service training plans

- G. Financial Management: 5
- Develop financial systems manual for regional health services.
  - Develop decentralized recurrent budget structure and system.
  - Integrate Ministry of Health and Non-Government (e.g. Missions, FLAS, Red Cross, etc.) budget process.
  - Develop financial management reporting system for headquarters management.
  - Follow-up patient fee rationalization.
  - Evaluate linking of budgeting and planning systems.
- H. Development/Improvement of Laboratory Facilities: 1
- Identify major constraints to providing decentralized laboratory diagnostic services for clinics.
  - Set up simple laboratory services at the nine key health centers and more advanced backup services at the central public health laboratory in Manzini.
  - Specify the minimum tests for urine, faeces, blood and direct smears.
  - Develop specifications of microscopes, supplies and reagents consistent with existing equipment and supplies.
  - Identify long-term and in-service training requirements.
- I. Health Education in Schools: 4
- J. Health Information and Reporting Systems: 4
- Assess the feasibility of transferring statistical unit to the Health Planning Unit
  - Rationalization of regional hospitals and clinics records and reports systems.
  - Develop format for returning information to the field staff.
- K. Nutrition Interventions: 3
- Analysis of nutritional information needs, capabilities and constraints the design of approaches that will strengthen existing growth monitoring.
  - Develop objectives for treating children suffering from malnutrition, establish procedures setting out the stages of this process, and establish an evaluation index.
  - Identify personnel training needs in surveillance and in diets of children's nutritional status.

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## G. National Population Committee:

- Develop organizational structure for the population committee.
- Formulate overall policies, strategies and priorities and program planning.
- Procedures and guidelines for initiating ideas for specific activities and develop procedure to respond to activities initiated by operating/implementing public and private agencies.
- Procedure and guidelines for negotiating agreements with donors for specific projects.
- Procedures and guidelines to liaison with the Swaziland community leadership and other local groups, to obtain local level support and coordination of population activities.

## R. Transport Management:

- Use of integrated schemes to reduced duplicate travel by staff.
- Explore means to improve vehicle maintenance and repair performance.
- Explore the use of public transportation and procedures to reimburse these costs.
- Explore Ministry-wide program to obtain driving lessons for the MOH staff to reduce dependence on drivers which now limits mobility.
- Arrange maintenance training for drivers.

Swaziland Primary Health Care Project  
Annex 7D  
Detailed Estimates of In-Country Training Requirements

<u>Total Trainees</u>	<u>No. of Sessions</u>	<u>Trainees per Session</u>	<u>Training Category</u>	<u>Course Content</u>	<u>Course Duration</u>	<u>Frequency Per Trainee</u>	<u>Estimated Cost per Session</u>
70	7	10	Nurse Assistants	MCH/FP Training	8 Weeks	One time	\$15,400
70	7	10	Nurse Assistants	MCH/FP Refresher	15 days	Two times	\$ 3,000
80	4	20	Clinic Nurses	Clinic Management	3 days	Two times	\$ 1,200
40	4	10	Clinic Nurses	RHMs Supervision	5 days	Two times	\$ 600
16	2	8	Clinic Nurse Supervisors	Supervisory	5 days	Three times	\$ 800
50	8	12-13	Public Health Nurses	Public Hea. Refresher	15 days	Two times	\$ 3,900
80	4	20	Managers and Supervisors	Performance Evaluation Training	5 days	Two times	\$ 2,000
32	4	8	RHMTs	Management Training	15 days	One time	\$ 2,400
60	4	15	RHMTs & Dept. Heads	Regional Health Planning and Financial Management Workshop	7 days	One time	\$ 2,100

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<u>Total</u> <u>Trainees</u>	<u>No. of</u> <u>Sessions</u>	<u>Trainees</u> <u>per</u> <u>Session</u>	<u>Training</u> <u>Category</u>	<u>Course</u> <u>Content</u>	<u>Course</u> <u>Duration</u>	<u>Frequency</u> <u>Per Trainee</u>	<u>Estimated</u> <u>Cost per</u> <u>Session</u>
60	4	15	RHMTs & Dept. Heads	Regional Health Data Collection Workshop	5 days	One time	\$ 1,500
80	8	10	RHMTs and Dept. Heads	Regional Budget Development Workshop	3 days	One time	\$ 600
80	4	20	RHMTs and Dept. Heads	Regional Management of fees in workshop	3 days	Two times	\$ 1,200
60	4	15	Regional Health Advisory Councils	Decentral- ization Management Workshop	5 days	One Time	\$ 1,500
200	8	30-35	Community Health Committee members	Orientation to PHC and Decentral- ization Workshop	5 days	One time	\$ 3,500
80	8	10	Regional warrant holders, Accounts Officers and Administrators	Regional Financial Management Systems and Procedures Workshop	7 days	One time	\$ 1,400

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## Budget Detail In-Country Training Program

figures in thousands of current year U.S. dollars

type of training	number per session	cy86	cy87	cy88	cy89	cy90	total
MCH/FP Training-8 weeks	10	17.3	38.7	21.7	48.6	27.2	153.4
MCH/FP refresher-15 days	10	6.7	11.3	12.6	14.2	15.9	60.7
Clinic Management-3 days	20	1.3	3.0	2.2	3.8	2.1	12.5
RHMs Supervision-5 days	10	0.7	1.5	1.1	1.9	1.1	6.2
Supervisory-5 days	8	0.9	2.0	1.1	1.3	1.4	6.7
Public Health Refresher-15 days	13	13.1	19.6	16.4	18.4	20.6	88.1
Performance Evaluation Training-5 days	20	2.2	5.0	5.6	6.3	3.5	22.7
Management Training-15 days	8	2.7	3.0	3.4	3.8	0.0	12.8
Regional Health Planning & Fin.Mgmt-7 days	15	2.4	2.6	3.0	3.3	0.0	11.2
Regional Health Data Collection-5 days	15	1.7	1.9	2.1	2.4	0.0	8.0
Decentralization Mgmt Workshop-5 days	15	1.7	1.9	2.1	2.4	0.0	8.0
Orientation to PHC & Decentralization-5 days	35	3.9	8.8	9.8	11.0	6.2	39.7
Regional Financial Mgmt Systems-7 days	10	1.6	3.5	3.9	4.4	2.5	15.9
Regional Budget Development-3 days	10	0.7	1.5	1.7	1.9	1.1	6.8
Regional Mgmt of fees-3 days	20	1.3	3.0	3.4	3.8	2.1	13.6
<b>TOTAL</b>		<b>58.2</b>	<b>107.3</b>	<b>90.2</b>	<b>127.2</b>	<b>83.6</b>	<b>466.6</b>

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# Budgetary Assumptions for In-Country Training

The overall assumptions for the in-country training are that all local costs are subject to a 12% annual local inflation. Short Term training is costed at E40 per day and medium term training (over 4 weeks) at E55 per day. Costs are in 1985 U.S. dollars. The exchange rate used is \$1.00=E2.00

## Assumptions for In-Country Training

name of course	duration	cost per session	number of sessions per calendar year				
			1986	1987	1988	1989	1990
MCH/FP Training	8 weeks	15.4	1	1	1	2	1
MCH/FP refresher	15 days	3.0	2	3	3	3	3
Clinic Management	3 days	1.2	1	2	2	2	1
RHMs Supervision	5 days	0.6	1	2	2	2	1
Supervisory	5 days	0.8	1	2	1	1	1
Public Health Refresher	15 days	3.9	3	4	3	3	3
Performance Evaluation Training	5 days	2.0	1	2	2	2	1
Management Training	15 days	2.4	1	1	1	1	0
Regional Health Planning & Fin. Mgmt	7 days	2.1	1	1	1	1	0
Regional Health Data Collection	5 days	1.5	1	1	1	1	0
Decentralization Mgmt. Workshop	5 days	1.5	1	1	1	1	0
Orientation to PHC & Decentralization	5 days	3.5	1	2	2	2	1
Regional Financial Management Systems	7 days	1.4	1	2	2	2	1
Regional Budget Development	3 days	0.6	1	2	2	2	1
Regional Management of fees	3 days	1.2	1	2	2	2	1

Swaziland Primary Health Care Project  
Annex 7E  
Detailed Estimates of Overseas Training Requirements

<u>Category</u>	<u>Quantity</u>	<u>Cost per Course*</u>	<u>Total Cost</u>
A. Long Term U.S.			
1. Health Information - BS	1 @ 36 pm	\$20,000/year	\$60,000
2. Health Education - BS	2 @ 36 pm	\$20,000/year	\$120,000
B. Long Term Third Country			
1. Health Administration at IDM Botswana	8 @ 12 pm	\$10,000/year	\$80,000
2. Health Education - certificate course at Ibadan, Nigeria	4 @ 24 pm	\$20,000/year	\$160,000
C. Short Term Overseas			
1. Short courses averaging 3 months each	8 @ 3pm	\$4,000/month	\$96,000
2. Short courses, study tours, invitational travel averaging 1 month each	25 @ 1pm	\$4,000/month	\$100,000

\* Cost figures do not include inflation, calculated at 6% per year, which increases total costs to project depending on scheduling of overseas training.

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Swaziland Primary Health Care Project  
Annex 7F  
Detailed Estimates of Commodity Requirements

<u>Item</u>	<u>Quantity</u>	<u>Cost per Item</u>	<u>Total Cost</u>
<b>I. Vehicles</b>			
A. Passenger cars	5	\$ 8,000	\$40,000
B. 5-ton truck	1	\$21,000	\$21,000
C. Bus for SIHS	1	\$15,000	\$15,000
D. Maintenance			\$30,000
<b>II. Laboratory Equipment</b>			
A. Study of laboratory equipment needs	1	\$3,000	\$ 3,000
B. Microscopes and accessories	10	\$ 850	\$8,500
C. Centrifuges	10	\$ 400	\$4,000
D. Hemoglobinometer set balance	10	\$ 100	\$1,000
E. Other lab supplies (including reagents)			\$5,500
<b>III. Equipment and Supplies for Hospitals, Public Health Units, and Clinics (see Annex 7G)</b>			
			\$100,000
<b>IV. Audio-Visual Equipment</b>			
A. Closed circuit projectors	18	\$ 650	\$11,700
B. Accessories and supplies			\$4,300
<b>V. Communications Equipment</b>			
A. Study of communications needs	1	\$3,000	\$3,000
B. Radios	45	\$3,000	\$135,000
C. Spare parts and maintenance			\$30,000
<b>VI. Health Education Materials</b>			
A. Training materials in MCH/FP for in-country courses			\$40,000
B. Materials for patients, communities and mass media			\$50,000
<b>TOTAL</b>			<b>\$509,000</b>

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Swaziland Primary Health Care Project  
Annex 7G  
Illustrative List of Commodity Requirements for  
Clinics, Health Centers, and Hospitals

A. Drugs, Equipment and Supplies for RHMs:

Aspirin (300 mg. tin of 1,000 tbs.)  
Ophthalmic eye ointment (1% 5% tube)  
Tincture of iodine (2%, 30 ml.)  
Piperazine (500 mg. tin of 1,000)  
Ferrous Sulphate (300 mg. tine of 1,000)

Benzyl benzoate lotion  
Cough mixture for children  
Unipac midwifery kit type 2 with  
aluminium case.

B. Drugs, Equipment and Supplies for Health  
Clinics (80), Public Health Units (6), Health  
Centers (4), Maternity Wards (8), and TB Hospital (1)

Refampicin  
Streptomycin  
P2A  
Pyrazinamide  
Isonazid  
Thiazina

Antimalarials  
DDT (75%)  
DDT (supplement to WHO)  
Lavaricide (Tanone)

- CCCD  
- WHO  
- WHO

Iron Tablets  
Folic Acid Tablets  
I.V. Kits and Solutions  
Ergometrine  
Syntometrine  
Syntecinon  
Ventoling (salbutamol)  
Sulfonamide Tablets  
Benzathine Pencillin  
Erythromycin  
Probenecid  
Procaine Pencillin  
Flagyl  
Phenergan

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Nasogastric tube  
Otoscope  
Instrument tray with cover  
Infant salter scale  
Sterlizer  
Tape measure  
Kidney basin - large  
Kidney basin - medium  
Large solution basin  
Sponge bowl  
Solution cup  
Irrigator  
Dressing jar (with cover)  
Graduate measure  
Tourniquet  
Urinometer  
Syphgmanometer (aneroid)  
Fetal Stethoscope  
Auroscope  
Catheter - urethral female/metal  
Forceps - dressing  
Forceps - hemostat straight  
Forceps - sponge holding straight  
Forceps - sterilizer/utility  
Forceps - uterine vulsellum straight  
Midwifery kit (type 3)  
Container for midwifery kit

Pelvimeter  
Speculum, vaginal, weighted  
Forceps, uterus, type somer, ss  
Forceps, dissecting, spring type  
Retractor, vaginal, viennng, pattern small  
Forceps, obstetric, w/o traction  
Smpson, long  
Extractor, vaccum, hand operated

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Swaziland Primary Health Care Project

Annex 7H

Illustrative Topics for Project-Funded Research and Studies

A. Operations Research

- Constraints to expanded clinic deliveries
- Consumer incentives
- Alternative financing
- Increased outreach for growth monitoring and other interventions
- Establish procedures/criteria for determining risk in pregnancy

B. Other Studies/Research

- Incidence of neonatal tetanus (CCCD)
- Child mortality
- Birth effects of STD
- Constraints to improved clinical experience for nursing students
- Weaning practices
- Industrial health facilities/services

C. Surveys, Monitoring

- Annual review of maternal and neonatal deaths
- Effectiveness of post-partum education programs
- Annual immunization surveys (CCCD)
- Effective use and impact of ORT (CCCD)
- Contraceptive continuation/complication rates
- Drug resistance

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Swaziland Primary Health Care Project  
Annex BA  
Implementation Schedules for Major Activities  
During First Two Years of Project

- A. General
  - 1. Project Authorized 8/16/85
  - 2. Project Agreement Signed 8/21/85
  - 3. PIL No. 1 Issued 8/21/85
  - 4. Initial Conditions Precendent Met 9/30/85
  - 5. First Project Implementation Committee Meeting 11/15/85
  - 6. IHAP OPG FACD 2/15/86
  - 7. Project Implementation Committee Meeting 2/15/86
  - 8. Project Implementation Committee Meeting 5/15/86
  - 9. Project Implementation Committee Meeting 8/15/86
  - 10. Project Implementation Committee Meeting 11/15/86
  - 11. Project Implementation Committee Meeting 2/15/87
  - 12. Project Implementation Committee Meeting 5/15/87
  - 13. Project Implementation Committee Meeting 8/15/87
  
- B. Technical Assistance Contract
  - 1. Publish notice in CBD 8/19/85
  - 2. Issue RFP 9/03/85
  - 3. Closing date for proposals 11/18/85
  - 4. Initial evaluation of proposals completed 12/13/85
  - 5. Discussions with short-listed firms completed 1/17/86
  - 6. Signature of contract 1/31/86
  - 7. Arrival of chief of party 3/03/86
  - 8. Local support staff hired, office established 3/31/86
  - 9. NCH advisor arrives 3/31/86
  - 10. Arrival of remaining long-term technicians 5/05/86
  - 11. Completion of contractor's work plan 6/30/86
  
- C. Subcontract with Financial Management/Accounting Firm
  - 1. Develop short-list of firms 7/15/86
  - 2. Complete RFP 7/31/86
  - 3. Issue RFP to short-listed firms 8/10/86
  - 4. Closing date for proposals 9/15/86
  - 5. Evaluation of proposals completed 10/15/86
  - 6. Signature of contract 11/01/86
  
- D. Initial Implementation Actions (beginning dates:)
  - 1. Initiate vehicle procurement 10/04/85
  - 2. Study of clinic constraints to form basis for establishing/evaluating leadership clinics 10/14/85
  - 3. Assessment of clinic communications problems - recommendations for radio procurement and maintenance 10/14/85
  - 4. Initiate baseline child mortality survey 11/01/85
  - 5. workshop on alternative financing 11/18/85

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6. Study of constraints to improved clinical experiences for nursing students 11/18/85
  7. Research on neonatal tetanus 1/13/86
  8. Assistance in revision/testing of neonatal card 1/13/86
  9. Initiate assistance to GOS population committee 4/01/86
- E. Studies, Research, Surveys (beginning dates:)
1. Weaning practices 2/28/86
  2. Identify/train malaria workers for survey work 4/30/86
  3. Increased outreach for growth monitoring, etc. 4/30/86
  4. First annual review of maternal/neonatal deaths 4/30/86
  5. Set up pilot clinics program 6/30/86
  6. Contraceptive KAP, continuation/complications rates 6/30/86
  7. Consumer incentives operations research 7/31/86
  8. Birth effects of STD 8/31/86
  9. Establish procedures/criteria for determining risk in pregnancy 8/31/86
- F. Training
1. Fill MOH Training Coordinator position 9/30/85
  2. Identify candidates for U.S. training for 1986/87 academic year 9/30/85
  3. Identify candidates for IDM health administration training 2/01/86
  4. Develop training plan for first year of project 2/28/86
  5. First group of 4 health administrators depart for IDM training 4/01/86
  6. Identify candidates for Ibadan health education training 7/01/86
  7. Participants for long-term U.S. training depart 8/31/86
  8. First group of 2 health education participants depart for training at Ibadan 9/01/86
- G. Other Significant Early Implementation Activities
1. Approve improved conditions of service for primary health care providers 9/30/85
  2. Study of lab facilities/equipment needs 2/28/86
  3. Vehicle procurement completed 4/30/86
  4. Conduct RAPID 6/30/86
  5. Complete planning/budgeting process with Regional Health Management Teams for 87/88 budget year 7/31/86
  6. Develop protocol for pre-natal care 9/01/86
  7. Develop protocol for routine tetanus toxoid 9/01/86
  8. Develop protocol for syphilis testing etc on pregnant women 9/01/86
  9. Identify post-partum education providers 10/01/86
  10. Lab supplies/equipment procured 10/01/86
  1. Develop protocol for ARI, other diseases 11/01/86
  2. GOS publishes population policy 12/31/86
  3. Develop post-partum education materials 1/15/87
  4. Training courses on new protocols begin 1/15/87

15. Begin implementation of post-partum education program at Mbabane and RPH hospitals 3/01/87
16. Expand EPI, growth monitoring, ORT, nutrition rehabilitation to hospitals 3/31/87
17. NCH plan developed 3/31/87
18. Improved package of nutrition interventions developed 6/30/87
19. First external project evaluation completed 8/15/87

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Swaziland Primary Health Care Project  
Annex 8B  
Chronological Implementation Schedule

<u>Action</u>	<u>Date</u>	<u>Responsible Party</u>
A1. Project Authorized	8/16/85	USAID
B1. Publish notice in CBD re technical assistance contract	8/19/85	USAID, REDSO/RCO
A2. Project Agreement signed	8/21/85	USAID, MOH, DEPS
A3. PIL No. 1 issued	8/21/85	USAID
B2. Issue RFP for technical assistance contract	9/03/85	REDSO/RCO
A4. Initial conditions precedent met	9/30/85	MOH, DEPS
F1. Fill training coordinator position	9/30/85	MOH
F2. Identify candidates for U.S. training for 9/86 start	9/30/85	MOH, DET
G1. Approve improved conditions of service for primary health care providers	9/30/85	MOH, DET
D1. Initiate vehicle procurement	10/04/85	USAID, MOH, CTA
D2. Initiate study of clinic constraints	10/14/85	USAID, MOH
D3. Conduct assessment of clinic communications problems	10/14/85	USAID, MOH
D4. Initiate baseline child mortality survey	11/01/85	USAID, MOH
A5. First Project Implementation Committee meeting	11/15/85	
B3. Closing date for proposals for technical assistance contract	11/18/85	Contractors
D5. Workshop on alternative financing	11/18/85	USAID, MOH
D6. Initiate study of constraints to improved clinical experience for nursing students	11/18/85	USAID, MOH
B4. Initial evaluation of technical assistance proposals completed	12/13/85	USAID, MOH
D7. Begin research on neonatal tetanus	1/13/86	USAID, MOH
D8. Provide assistance in revision/testing of neonatal card	1/13/86	USAID
B5. Discussions with short-listed firms for technical assistance contract completed	1/17/86	USAID, MOH
B6. Signature of technical assistance contract	1/31/86	USAID, Contractor

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<u>Action</u>	<u>Date</u>	<u>Responsible Party</u>
F3. Identify candidates for IDM health administration training	2/01/86	MOH
A6. IHAP OPG PACD	2/15/86	
A7. Project Implementation Committee meeting	2/15/86	
F4. Develop training plan for first year of project	2/28/86	IHAP, MOH
G2. Initiate study of lab facilities/equipment needs	2/28/86	USAID, MOH
E1. Initiate study of weaning practices	2/28/86	USAID, MOH
B7. Arrival of chief of party of technical assistance contractor	3/03/86	Contractor
B8. Local support staff for contractor hired, office established	3/31/86	Contractor
B9. MCH advisor arrives	3/31/86	Contractor
F5. First group of 4 health administrators depart for IDM training	4/01/85	USAID, MOH
D9. Initiate assistance to GOS population committee	4/01/86	USAID, DEPS
E2. Identify/train malaria workers for survey work	4/30/86	MOH, Contractor
G3. Vehicle procurement completed	4/30/86	MOH, CTA, USAID
E3. Begin operations research on increased outreach for growth monitoring, other interventions	4/30/86	MOH, Contractor
E4. Conduct first annual review of maternal/neonatal deaths	4/30/86	MOH, Contractor
B10. Arrival of remaining long-term advisors	5/05/86	Contractor
A8. Project Implementation Committee meeting	5/15/86	
B11. Completion of technical assistance contractor's work plan	6/30/86	Contractor, MOH
E5. Set up pilot clinics program	6/30/86	Contractor, MOH
E6. Begin contraceptive KAP, continuation/complication rates study	6/30/86	Contractor, MOH
G4. Conduct RAPID	6/30/86	USAID, MOH, DEPS
F6. Identify candidates for Ibadan health education training	7/01/86	MOH, Contractor
C1. Develop short-list of local accounting firms for financial management contract	7/15/86	MOH, Contractor
C2. Complete RFP for financial management contract	7/31/86	Contractor

<u>Action</u>	<u>Date</u>	<u>Responsible Party</u>
E7. Begin consumer incentives operations research	7/31/86	MOH, Contractor
G5. Complete planning/budgeting process with RHMTs for 87/88 budget year	7/31/86	MOH, Contractor
C3. Issue RFP to short-listed accounting firms	8/10/86	Contractor
A9. Project Implementation Committee meeting	8/15/86	
E8. Begin study of birth effects of STD	8/31/86	MOH, Contractor
E9. Establish procedures/criteria for determining risk in pregnancy	8/31/86	MCH Committee, Contractor
F7. Participants for long-term U.S. training depart	8/31/86	MOH, Contractor
G6. Develop protocol for pre-natal care	9/01/86	MCH Committee, Contractor
G7. Develop protocol for routine tetanus toxoid	9/01/86	MCH Committee, Contractor, CDC
G8. Develop protocol for syphilis testing etc. on pregnant women	9/01/86	MCH Committee, Contractor
F8. First group of 2 health educators depart for training at Ibadan	9/01/86	MOH, Contractor
C4. Closing date for proposals for financial management contract	9/15/86	Contractors
G9. Identify post-partum education providers	10/01/86	MOH, Contractor
G10. Lab supplies/equipment procured	10/01/86	Contractor
C5. Evaluation of financial management proposals completed	10/15/86	USAID, MOH
G11. Develop protocol for ARI, other diseases	11/01/86	MCH Committee, Contractor
C6. Signature of financial management contract	11/01/86	Contractors
A10. Project Implementation Committee meeting	11/15/86	
G12. GOS publishes population policy	12/31/86	GOS
G13. Develop post-partum education materials	1/15/87	MOH, Contractor
G14. Training courses on new protocols begin	1/15/87	MOH, Contractor
A11. Project Implementation Committee meeting	2/15/87	

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<u>Action</u>	<u>Date</u>	<u>Responsible Party</u>
G15. Begin implementation of post-partum education program at Mbabane and RFM hospitals	3/01/87	MOH, Contractor
G16. Expand EPI, growth monitoring, ORT, nutrition rehabilitation to hospitals	3/31/87	MOH, Contractor
G17. MCH plan developed	3/31/87	MCH Committee, Contractor, MOH
A12. Project Implementation Committee meeting	5/15/87	
G18. Improved package of nutrition interventions developed	6/30/87	MOH, Contractor
A13. Project Implementation Committee meeting	8/15/87	
G19. First external project evaluation completed	8/15/87	USAID, MOH

Illustrative Implementation Schedule for  
Remainder of Project

<u>Action</u>	<u>Date</u>	<u>Responsible Party</u>
1. Traditional healers trained trained on ORT	08/01/86	MOH, Contractor
2. Lab. technicians and assistants trained	08/01/86	MOH, Contractor
3. RHMs trained on Decentralization	10/01/86	MOH, Contractor
4. Audio visual equipment supplied	11/01/86	MOH, Contractor
5. Workshops on reproductive health for chiefs	01/01/87	MOH, Contractor
6. Nursing assistants and RHMs trained in growth monitoring	01/01/87	MOH, Contractor
7. Workshops on reproductive health for chiefs	01/01/87	MOH, Contractor
8. Staff Nurses incentives study	01/15/87	MOH, Contractor
9. Health providers training for PHC	03/01/87	MOH, Contractor
10. Rural Health Motivators training for high-risk pregnancies referral	03/03/87	MOH, Contractor
11. Nurse training for post-partum education program	03/15/87	MOH, Contractor

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<u>Action</u>	<u>Date</u>	<u>Responsible Party</u>
12. Traditional healers training for high-risk pregnancies referral	03/15/87	MOH, Contractor
13. Health providers trained in Family Planning counseling	04/01/87	MOH, Contractor
14. Nurses trained on contraceptives methods, especially IUD insertions	04/01/87	MOH, Contractor
15. Set up pilot waiting huts and cooking areas	05/01/87	MOH, Contractor
16. Health providers trained on MCH Plan	06/01/87	MOH, Contractor
17. Health facilities communications system functioning	10/15/87	MOH, Contractor
18. Laboratories equipped	11/01/87	MOH, Contractor
19. Family Planning IEC activities conducted	12/01/87	MOH, Contractor
20. Nutrition IEC program conducted	12/01/87	MOH, Contractor
21. Management assistance to FLAS Completed	01/01/88	MOH, Contractor
22. RHMs trained for low-risk home deliveries	02/01/88	MOH, Contractor
23. Initiate evaluation of post-partum education	02/15/88	MOH, Contractor
24. EPI, growth monitoring ORT, Nutrition rehabilitation, in hospitals evaluated	03/03/88	MOH, Contractor
25. Guidelines and precedures for decentralization approved	04/05/88	MOH, Contractor
26. Initiate EPI Survey	05/20/88	MOH, Contractor
27. Post-partum education program evaluated	06/01/88	MOH, Contractor
28. Patient retained pre-natal care in use	06/01/88	MOH, Contractor
29. Impact of ORT	08/01/88	MOH, Contractor
30. First class of Public Helath Nurses graduated at S.I.H.S.	08/31/88	MOH, Contractor
31. Private Sales of ORS	09/01/88	MOH, Contractor
32. Evaluation of family planning services	01/15/89	MOH, Contractor
33. Drug Resistance study	02/15/89	MOH, Contractor
34. Immunizations given in hospitals increased	04/01/89	MOH, Contractor
35. Home deliveries by RHMs increased	05/05/89	MOH, Contractor
36. Decentralization structure	05/05/89	MOH, Contractor
37. Package of Nutrition interventions evaluated	06/30/89	MOH, Contractor

<u>Action</u>	<u>Date</u>	<u>Responsible Party</u>
38. Community education in school increased	07/01/89	MOH, Contractor
39. Deliveries in maternities increased	07/01/89	MOH, Contractor
40. Family Planning services	09/01/89	MOH, Contractor
41. Record-keeping, monitoring and statistical system for high-risk pregnancies in place	02/01/90	MOH, Contractor
42. Neonatal tetanus policy approved	03/01/90	MOH, Contractor
43. MCH Physician and nurse practitioner prepares project review and submits to MOH and USAID	03/15/90	Contractor
44. Number of neonatal and family planning visits increased	05/01/90	MOH, Contractor
45. End of project (contractor)	05/31/90	MOH, Contractor, USAID
46. Final External Evaluation	07/01/90	USAID
47. Project Completion Report	03/01/91	USAID

Swaziland Primary Health Care Project  
Annex 9  
Scopes of Work and Selection Criteria for  
Technical Assistance Contractor

I. General Responsibilities of Contractor

- A. Provide long-term technical advisors in the following
1. MCH physician/program coordinator (57 person-months)
  2. Family nurse practitioner with midwifery experience (56 person-months)
  3. Health administration advisor (36 person-months)\*
  4. Health planning and budgeting advisor (24 person-months)\*
  5. Clinic management advisor (24 person-months)\*
  6. Locally-hired administrative assistant (56 person-months)

The contractor will designate one of the long-term advisors as its Chief of Party. Particular attention will need to be given by the contractor to the coordination of administrative and management assistance, i.e., the work of the health administration, health planning, and clinic management advisors.

- B. Provide a total of 80 person-months\* of short-term technical assistance in the following areas:

1. Design of in-country training programs
2. Financial management
3. Health education materials development
4. Protocol development
5. Operations research and study design and execution
6. Development of consumer and provider incentives
7. Health financing
8. Procurement planning
9. Establishment of nutrition rehabilitation centers
10. Family planning information, education, and communications
11. Personnel management
12. Development/improvement of laboratory facilities
13. Health education in schools
14. Health information and reporting systems
15. Development of nutrition interventions
16. Population policy
17. Transport management

C. Manage the scheduling, planning, development, execution, and evaluation of in-country training, in cooperation with the Ministry of Health's Health Training Officer, the Institute of Health Sciences and the Health Education Unit.

D. Identify and place trainees in overseas training programs; provide all logistical and other support for participants in overseas training programs.

\* The required length of technical services in these areas will be reviewed as part of an external evaluation of the project to be conducted in mid-1987, and may be adjusted upwards as a result of recommendations of this evaluation.

E. Subcontract with a local accounting/financial management firm to provide assistance to the Ministry of Health in financial management of primary health services.

F. Procure all project-funded commodities, except vehicles, valued at approximately \$400,000, including microscopes and other laboratory equipment; audio-visual equipment; radios for rural clinics; equipment and supplies for clinics, health centers, and hospitals; and materials for the production and dissemination of health education messages.

G. Administer the primary health care activities of AID centrally-funded projects carried out in Swaziland, with the exception of Project HOPE and the CCCD project, to the extent that they relate to the accomplishment of project objectives and as requested by USAID/Swaziland.

H. Manage and fund operations research and other research, monitoring, and evaluation studies, estimated to be approximately four per year throughout the life of the contract.

I. Prepare and submit for USAID and MOH approval life-of-project and annual work plans which provide a detailed assessment of the priority activities which should be carried out during the following year to maximize the impact on project objectives and maternal and child health in Swaziland, and describe a time-phased plan for implementing these activities including a designation of responsibilities among the contract team and the means by which the contractor will carry out these responsibilities.

## II. Detailed Scopes of Work for Technical Services

### A. Maternal and Child Health Physician/Program Coordinator

#### Job Description

The MCH Physician assists the Ministry of Health officials responsible for primary health care to implement and coordinate maternal and child health/child spacing (MCH/CS) activities over the life of the contract. Under the direction of the Chief of Party, the incumbent is responsible for assuring that appropriate support and technical assistance is focused on the implementation and completion of the various clinical services required to achieve project objectives. This includes appropriate assistance to the further definition, clarification, communication, and implementation of each clinical service, either directly or in collaboration with other members of technical assistance team.

The MCH Physician is the senior technical advisor on the project. The scope of his/her responsibilities includes the planning, monitoring, and evaluation of the technical aspects of activities funded by the project. The MCH Physician directly advises and works with the Chief of the Mbabane Public Health Unit, the principal officer of the Ministry of Health responsible for managing maternal and child health/child spacing programs, and is a

Committee. The incumbent works closely with and transfers technical and managerial skills to his/her counterpart and other MCH/CS staff in the Ministry of Health.

### Specific Responsibilities

The specific responsibilities of the MCH Physician include, but are not limited to, the following:

1. Provides technical assistance, on-the-job training, and material support to the Ministry of Health and MCH committee in implementing the activities planned under the project. Illustrative tasks include the following:

(a) Provides advice and assists with the development and execution of detailed, integrated MCH/CS plan for Swaziland.

(b) Assists with the development and execution of preventive health interventions and curative treatment protocols, and in the production of manuals for use by health workers on the application of these protocols.

(c) Working together with counterpart officials, develops and carries out various training programs for matrons, nursing sisters, nurses, nursing assistants, nursing supervisors, laboratory technicians, Rural Health Motivators, traditional healers and other personnel as needed.

(d) Working with appropriate counterparts, develops appropriate practical experiences for trainees and assist with their supervision.

2. Assists his/her counterpart in monitoring the quality of MCH/CS services and determining the manpower, equipment and supply requirements for the overall MCH/CS program. In this regard, the incumbent identifies and designs research projects or other surveys to guide the implementation of project activities and to measure the impact of project interventions.

3. Working with counterpart officials, designs and oversees the implementation and evaluation of operations research to investigate the feasibility of making improvements in the provision of primary health care services in the areas emphasized in the project.

4. Identifies promising candidates for overseas training in technical and administrative areas related to Swaziland's primary health program, and coordinates the placement of these candidates in appropriate training programs.

5. Prepares regular program and project reports as required by the Chief of Party.

### Qualifications and Experience Requirements

1. M.D. degree with a Masters of Public Health (MPH) degree in maternal and child health.

2. A minimum of 6 years successful and increasingly responsible experience in a cross-cultural setting.

3. A demonstrated record of successful, practical experience in clinic operations, preferably in a developing country environment.

4. At least 3 years successful experience in training health professionals and in MCH/CS program management and implementation in a developing country are highly desirable.

#### B. Family Nurse Practitioner/Child Spacing Advisor

##### Job Description

Under the supervision of the Chief of Party and in collaboration with the MCH Physician and counterparts in the Ministry of Health and non-governmental organizations (NGOs) active in primary health care, the Family Nurse Practitioner provides assistance with the elaboration, implementation, and evaluation of project activities related to child spacing, pre-natal care, the birthing process, and post-partum education. The incumbent is the direct counterpart to the Family Planning Coordinator at Ministry of Health headquarters, and works actively with the Regional Health Management Teams and service providers at all levels of the health system (including those in non-governmental organizations such as the Family Life Association of Swaziland - FLAS) to expand the provision of child spacing services as part of an integrated maternal and child health program.

The Family Nurse Practitioner provides the main technical support to the components of the project related to child spacing and the reproductive process. These parts of the project are designed to increase substantially the availability of family planning services by increasing the number of health facilities offering family planning services, and improving the quality and widening the range of personnel trained to provide such services. In addition, they are directed at introducing a mechanism for designating risk in pregnancy, referring at-risk women to appropriate health facilities for delivery, increasing the number of deliveries attended by trained personnel, and designing and implementing a post-partum education program emphasizing family planning and infant care.

##### Specific Responsibilities

Specific responsibilities include, but are not limited to, the following:

1. Assists with the development and implementation of the detailed, integrated MCH/CS plan for Swaziland, with particular attention to aspects of this plan dealing with the reproductive process and child spacing practices and services.
2. Assists the MCH committee, the MOH Family Planning Coordinator and the Regional Health Management Teams to design, implement, and evaluate the performance of protocols related to child spacing, pre-natal care, and post-partum education; assists in

providing training to nurses, nursing assistants, nursing supervisors, regional management teams, and other primary health care workers in the implementation of these protocols.

3. Provides technical inputs in the design and execution of family planning in-service training for health facility personnel, including comprehensive, practical training for nurse midwives and rural health motivators.

4. Assists the MOH and NGOs providing health services in Swaziland expand the provision of regular and reliable child spacing services to an additional 30-40 health facilities; helps coordinate the provision of contraceptives and other child spacing supplies at these and other health facilities to assure their availability.

5. Working with counterpart officials, develops, tests, implements and evaluates a post-partum education program for newly-delivered mothers, emphasizing family planning, neonatal care, breastfeeding, and the importance of preventive health care. This program will initially begin at the principal hospital maternity wards, and subsequently be expanded to women delivering in other health facilities.

6. Assists the MOH and FLAS establish a new program of community-based health services including non-clinical resupply of contraceptives.

7. Provides direct technical inputs to information, education and communication (IEC) activities in MCH/CS to the Health Education Unit and the Swazi media.

8. Provides direct technical inputs to evaluation and research studies, including operations research, in child spacing, pre-natal care, ways to expand the number of deliveries attended by trained personnel, identification and referral of at-risk pregnancies, and post-partum education.

9. Identifies promising candidates for overseas training in areas related to his/her technical expertise, and identifies appropriate training programs for candidates selected.

10. Advises on means to improve the collection and dissemination of health statistics in areas related to his/her scope of services.

11. Prepares and submits regular reports to the Chief of Party as required.

#### Qualifications and Experience Requirements

1. Master's Degree in Nursing with emphasis on midwifery and/or maternal and child health, with completion of appropriate preparation as a family nurse practitioner.

2. At least 5 years of progressively responsible experience, which should include direct work in family planning services, pre-natal care, and labor and delivery at staff and supervisory level.
3. Experience in teaching and curriculum development.
4. Experience in health care in a developing country environment for at least 2 years preferred.

C. Health Administration Advisor

Job Description

Under the direction of the Chief of Party, the Health Administration Advisor provides support for the implementation of the Ministry of Health's program of administrative decentralization. The incumbent is the counterpart of the Senior Health Administrator of the MOH and provides on-the-job training to this official and other members of the health administration cadre, including regional Health Administrators. While located at MOH headquarters, he/she works closely with and advises the four Regional Health Management Teams. The advisor works closely with the clinic management and planning and budgeting advisors, as well as with short term technical advisors in areas related to health systems management. The incumbent also provides assistance to improve financial management in a decentralized health system, in conjunction with appropriate GOS officials, the planning advisor, and the local financial management firm to be subcontracted under the project.

Specific Responsibilities

Specific responsibilities include, but are not limited to, the following:

1. Provides advice to the Principal Secretary, Undersecretary, and Senior Health Administrator of the Ministry of Health on the implementation of the process of administrative decentralization of health services in Swaziland.
2. Provides technical, administrative, and other support to the implementation of the Ministry's decentralization program, including, but not limited to, the following:
  - a. Provides on-the-job training and advice to the Senior Health Administrator and the Regional Health Administrators and Assistant Health Administrators in each of the four regions.
  - b. Assists in the transfer of managerial, training, and supervision functions to the Regional Health Management Teams.
  - c. Working with members of the regional management teams, assists in conducting a health needs assessment in each region and in conducting a workshop in each region on the results of these assessments.

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d. Conducts supervisory/evaluation visits to various health facilities with members of regional management teams and the clinic management advisor to assess changes in performance resulting from project activities and to recommend further changes and training needed to achieve the project's target service levels.

e. Assists the four Regional Health Management Teams to form themselves into effective working organizations. The incumbent helps the teams to develop effective administrative and communications relationships among their members and with the respective Regional and Community Health Advisory Teams, and to devise systems for overseeing the coordination and implementation of health activities in their regions

f. Assists in the preparation of a series of field operations manuals regarding procedures to be followed by regional administrative personnel, and trains field and headquarters staff in their use.

g. Assists regional management teams to devise a strategy and specific guidelines and procedures for strengthening the functioning of the Regional Health Advisory Councils.

3. Identifies formal training needs, both in-country and overseas, to implement and effectively carry out the decentralization process; identifies promising candidates for this training; and coordinates the placement of these candidates in appropriate training programs.

4. Working with the MOH Training Coordinator, assists the regional management teams to design, conduct, and evaluate in-service training to primary health workers in their regions.

5. Assists the MOH and regional management teams to implement measures which will result in increased productivity of primary health care workers, including improved training, reassignment of work responsibilities, improving conditions of service for primary health care providers, providing incentives to consumers to increase their use of primary health services, and improving transportation and communications.

6. Liaises with the Ministry of Finance, the Accountant General, the Treasury, and the Department of Establishments and Training regarding decentralization of administrative functions within the purview of these central Government of Swaziland departments.

7. Identifies needs for, and coordinates the input of, specialized, short-term technical advisors to work on specific tasks related to the implementation and evaluation of the decentralization process and improved financial management of primary health services.

8. Works closely with the health planning and budgeting and clinic management advisors on areas related to decentralized administrative functions and improved financial management of primary health services.

9. Prepares and submits regular reports to the Chief of Party as required.

### Qualifications and Experience Requirements

1. Graduate degree in administration or management, preferably with course work and academic research in the administration of health services in a developing country setting.
2. At least 10 years of progressively responsible experience in the administration and management of health services, with a demonstrated track record of substantive accomplishments related to the improvement and expansion of health services.
3. At least 4 years of experience working in cross-cultural environments, preferably in Africa, and a demonstrated ability to function well and form productive professional relationships in such an environment.
4. Demonstrated successful academic or work experience in the following areas: decentralization of services to regional/district level; development of regional plans and budgets; and implementation of regional plans, including training, supervision, staff motivation, monitoring and evaluation.

#### D. Health Planning and Budgeting Advisor

##### Job Description

The Ministry of Health's capabilities in macro-level, sectoral planning are reasonably good. However, Swazi leadership in health planning is relatively junior and inexperienced, and the Ministry is only now turning its attention to micro-level planning and budgeting at the regional level and below. Under the direction of the Chief of Party, the Planning and Budgeting Advisor helps to improve the planning and budgeting process at the regional level and perhaps at several key regional health facilities, and to devise systems by which the financial management of primary health activities could be improved. The advisor is counterpart to the Chief of the MOH Health Planning Unit, and provides on-the-job training and support to this official and other members of the Planning Unit in order to provide an orderly transition from expatriate to Swazi leadership of this unit. The incumbent works closely with the Health Administration and Clinic Management advisors and the MCH Physician, as well as with specialize short term advisors and the local accounting/financial management firm subcontracted under the project.

##### Specific Responsibilities

Specific responsibilities include, but are not limited to, the following:

1. Advises the Principal Secretary and the Chief of the Health Planning Unit of the Ministry of Health on matters relating to improved planning and budgeting as part of the decentralization process.

2. Guides the four health regions in the formulation of their health plans. This includes helping the Regional Health Management Teams and the Regional Health Administrators conduct health needs assessments, select health priorities, link their planning to budgets, and work with MOH headquarters to resolve differences in priorities.
3. Advises and provides on-the-job training to the Chief and staff of the Health Planning Unit on operational planning and budgeting, such that the planning operations of the Ministry at headquarters level can be carried out effectively by the Ministry's staff upon completion of the advisor's tour of duty.
4. Assists with the improvement of the collection and distribution of health statistics and information by the MOH and with improving the use of this information to improve the management of primary health services. Illustrative assignments include:
  - a. Assists in developing a system for coordinating health planning, statistical information and financial data for use by Regional Health Management Teams and the Health Planning Unit.
  - b. Assists in improving the ability of the health information system to monitor and evaluate program activities and impact at the regional level.
  - c. Assists in establishing a simple epidemiological surveillance system, working with the MCH Committee, regional management teams, MOH officials, and other members of the contract team.
  - d. Assists the Health Statistics Unit and the Ministry's accounting staff to identify information that could be used to monitor better the use of resources devoted to primary health care and to improve financial management within the health system. In this connection, the advisor works with the local financial management/accounting firm and identifies the need for and coordinates the input of specialized, short-term technical assistance related to budgeting and financial management.
  - e. Assists in the development of fiscal management guidelines and procedures to be incorporated into the Family Nurse Practitioner and staff nurse training programs.
5. Working with the MCH Committee, the MCH Physician, other members of the contract team, and appropriate MOH officials, assists with the development of a national MCH/CS plan.
6. Assists the MCH Committee and the Ministry's Policy Committee to test and adopt low-cost staff, community, and family incentives intended to increase the demand for and quality of primary health care services.
7. Identifies promising candidates for overseas training in areas related to health planning, budgeting, and financial management, and coordinates the placement of these candidates in appropriate training programs.
8. Prepares and submits regular reports to the Chief of Party as required.

### Qualifications and Experience Requirements

1. Graduate degree in Health Planning, with emphasis on maternal and child health, public health, and operational level planning.
2. At least 7 years relevant experience in health systems planning in a developing country environment, preferably with at least 2 years experience in Africa, and a demonstrated ability to function well and form productive professional relationships in such an environment.
3. Demonstrated successful academic or work experience in the following areas: clinic/health center planning and budgeting; patient flow analysis; planning for personal health services, including methods based on decreasing morbidity and mortality, analysis of demand, and distribution of population and facilities; and system structure and performance.

#### E. Clinic Management Advisor

##### Job Description

Under the direction of the Chief of Party, the Clinic Management Advisor assists the Ministry of Health and non-governmental organizations (NGOs) providing primary health services in Swaziland to improve the management of clinic services. The principal interface between the primary health care system and Swazi mothers and children is the rural clinic. Expansion of services of the magnitude required to achieve the project's objectives will require significant improvements in the productivity of clinic staff. The advisor is responsible, together with the relevant Swazi counterparts, for the development, implementation and evaluation of activities aimed at improving the efficiency and productivity of clinics and clinic personnel. The advisor will have as direct counterparts the Regional Health Administrator in each region and the Health Planner in MOH headquarters.

##### Specific Responsibilities

Specific responsibilities include, but are not limited to, the following:

1. Analyzes in detail current problems of clinic operations in government and mission clinics in relation to the assigned clinic responsibilities, clinic staffing, and available resources. This includes assistance in conducting patient flow, time utilization, and resources utilization analyses; in documenting the positive and negative contributions by current procedures and operating patterns to the delivery of primary health care services at the clinic level; and in the design of corrective actions for the causes of inefficiency and poor performance.

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2. Helps the MOH to identify a minimum of four (one per region) clinics in which a full package of improvements will be implemented on an accelerated and experimental basis in an effort of judge the maximum productivity gains possible. The incumbent serves as the principal advisor for establishing the parameters for this experiment, implementing it, and evaluating the performance of these clinics to identify problems with any of the elements of the package. The advisor helps measure the impacts of these changes in relation to the project's productivity targets, and prepares recommendations for the application of these measures more broadly throughout the primary health care system.

3. Identifies constraints and proposes improvements in patient management, scheduling, management and use of drugs, record-keeping, requirements for supervision, drug and materials supplies systems, laboratory services, communication and transportation, vehicle and equipment maintenance, and other aspects of clinic operations that can be realized in the Swaziland administrative setting to improve productivity. The focus of these efforts would be on the achievement of the eight target service levels established by the project.

4. Examines the present arrangements for clinic outreach in relation to efficiency and coverage, makes recommendations for improvements, and helps oversee the implementation and institutionalization of these changes.

5. Provides advice to the MOH and other relevant Government of Swaziland agencies on the examination of, experimentation with, and replication of clinic-based incentives for providers, consumers, and communities.

6. Assists in a variety of assignments related to training, including the following:

a. Assists in developing a training program to improve the preparation of clinic nurses, Family Nurse Practitioners, and matrons in the management of health facility operations.

b. Assists in training clinic nurses in the management of health clinic operations.

c. Identifies candidates for overseas training or study tours in areas related to health facility management and identifies appropriate training experiences.

7. Assists in the preparation of a clinic operations manual.

8. Assists in the development of guidelines for the management and supervision of Rural Health Motivators.

9. Prepares and submits regular reports to the Chief of Party as required.

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### Qualifications and Experience Requirements

1. Graduate degree in health services management and administration, with emphasis on maternal and child health care and rural health service delivery.

2. At least 7 years of successful and increasingly responsible experience in clinic or health center management in a cross-cultural environment, preferably with at least 4 years in Africa, and a demonstrated ability to function well and form productive professional relationships in such an environment.

#### F. Chief of Party

### Job Description and Specific Responsibilities

The contractor will be asked to designate a Chief of Party from among the members of the contract team. The Chief of Party will have the following job duties in addition to those associated with his/her other assignments:

1. Provides technical and administrative supervision and technical coordination of the project staff, including short-term advisors.
2. Assumes major responsibility for the planning, management and evaluation of total project activities, including the preparation of an annual work plan to be submitted to USAID and the MOH for approval.
3. Meets regularly with the Principal Secretary and other high-level officials within the Ministry of Health and the USAID Project Officer to review project performance.
4. Assigns responsibilities for preparation of regular program and project reports as required by USAID and the MOH.
5. Hires and supervises the locally-recruited staff of the contractor, including the Administrative Assistant and necessary secretarial and support personnel.
6. Subcontracts with and supervises the work of a local accounting/financial management firm to provide services to the MOH under the contract.
7. Administers the activities of AID centrally-funded projects in Swaziland which related to the achievement of the project's service targets, with the exception of Project HOPE and the CCCD project.
8. Liaises between the contract party in Swaziland and the contractor's home office, and with USAID/Swaziland.

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9. Oversees the scheduling, development, planning, execution and evaluation of in-country training courses carried out under the project.

10. Assists with the identification of overseas training needs for MOH personnel, and coordinates the provision of overseas training funded by the project.

11. Working with other members of the contract team and short-term advisors, coordinates the design and implementation of research, surveys, and evaluations funded through the contract.

#### Qualifications and Experience Requirements

1. Prior experience managing the multiple inputs of a major assistance project, preferably in a developing country setting.

2. Proven abilities as a supervisor and problem solver.

#### G. Administrative Assistant

##### Job Description

The contractor will hire locally an Administrative Assistant to help administer its field operations under the project. This position is considered a professional, staff level post, and is additional to secretarial or other support staff required by the contractor to carry out its responsibilities under the project.

##### Specific Responsibilities

Specific responsibilities include, but are not limited to, the following:

1. Provides administrative support for the members of the technical assistance team.

2. Coordinates the request for, recruitment of, and work by short-term technical advisors required under the contract.

3. Coordinates the procurement of commodities for which the contractor is responsible.

4. Assists with the scheduling, development, planning, execution and evaluation of in-country training courses carried out under the project.

5. Assists with the processing of candidates for overseas training and handles the necessary arrangements for their travel and support under the contract.

6. Assists in the preparation of research and evaluation reports and of the contractor's periodic progress reports.

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### Qualifications and Experience Requirements

1. Bachelor's Degree, preferably in business studies, administration or management.
2. At least 3 years experience in an administrative capacity, preferably in a developing country environment.
3. Academic or work experience that demonstrates the following skills and abilities: making arrangements for housing and shipping of in-coming or out-going goods; liaison with officials on customs clearance and local purchase of commodities; maintenance of accounts; preparation of reports; establishing and maintaining project records and inventories; and handling logistical arrangements for conference participation, both locally and overseas

### III. Evaluation Criteria for Contract Award

#### 1. Technical Evaluation

Technical proposals will be evaluated in accordance with the following technical evaluation criteria:

##### A. Quality and Responsiveness of Proposal (25 percent)

In evaluating the quality and responsiveness of the proposal, the selection panel will consider the following:

1. Demonstrated understanding of the project and the context in which assistance is to be provided.
2. Presentation of an implementation plan showing proposed staffing and means of fulfilling contract obligations.
3. Procedures for recruitment and contracting of short-term technical assistants, arranging long-term and short-term overseas training and in-country training courses and workshops, carrying out project-funded research and surveys, and procuring commodities.

##### B. Qualifications and Experience of Proposed Personnel (40 percent)

In evaluating the qualifications and experience of the personnel proposed by the Offeror, the selection panel will consider the following:

1. Educational qualifications commensurate with the positions.
2. Appropriate experience and progressively greater levels of responsibility

3. Demonstrated ability to work cooperatively with host country counterparts in an institution-building context, i.e., experience in roles of support and on-the-job training for counterparts rather than achievements through direct implementation.

4. Availability of long-term advisors on schedule indicated in RFP.

NOTE: The Offeror is required to provide evidence that the personnel whose bio-data are included in the proposal will, in fact, be available to staff the project should the Offeror's institution be chosen. If AID has not made its selection within ninety (90) days of the closing date for proposals, approved substitutions of personnel by the proposing institution will be permitted.

C. Capabilities and Previous Experience of Contracting Institution (35 percent)

In evaluating the capabilities and experience of the Offeror, the selection panel will consider the following:

1. Administrative support capabilities and experience in carrying out similar projects.

2. Experience related to areas of the contract, including overseas training placement and support, in-country training, and procurement.

3. Technical assistance and support capabilities and experience in the relevant areas of the contract, including ability to recruit on short notice highly qualified short-term technical assistance personnel.

4. Successful experience in establishing institutional relationships with organizations and governments in developing countries, especially in Africa.

5. On board and in place competent management and administrative staff adequate to support the required field work.

6. Agreement/ability to commence work shortly after contract is finalized.

2. Price Evaluation

Price has not been assigned a numerical weighting. However, the Offeror is advised not to minimize the importance of the cost proposal, since it will be closely evaluated. Consequently, each offer should be submitted on the most favorable terms from both a technical and cost standpoint.

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## Swaziland Primary Health Care Project Annex 10 Other Donor Inputs

<u>DONOR</u>	<u>TYPE OF ASSISTANCE</u>	<u>ESTIMATED AMOUNT</u>
UNFPA	Support to national MCH/FP Program:  1. Technical assistance - UNV graphic artist; UNFPA Project Officer (This position is not included in budgeted figure). 2. Training: training of 30 Family nurse practitioners; Refresher training for 30 family nurse Practitioners; workshops for hospital matrons, clinic nurse supervisors and public health nurses; seminars for community leaders /teachers; study tour to review FP program in Zimbabwe. 3. Commodities - 40 MCH kits; 30 IUD insertion kits; 5 vehicles; contraceptive supplies. 4. Construction - Central MCH/FP stores. 5. Grants - Family Life Association of Swaziland. (Family Planning services) and Sebenta (production of FP materials).	\$455,5000
IPPF	Support to MCH/FP Program:  1. Technical assistance - M.D./Program advisor; IPPF program manager and program officer; short-term consultants. 2. Personnel - storeman at central MCH/FP stores. 3. Training - counterpart training in MCH/FP management for Swazi physician; FLAS staff. 4. Commodities - contraceptives supplies; equipment for clinic nurses; one vehicle. 5. Grant - Family Life Association of Swaziland.	\$847,270

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UNICEF Support to Basic MCH Program: \$232,000

1. Technical assistance - program officer (support not included in budgeted figures); short-term consultant.
2. Training - pre and in-service training of RHMS (50/yr. and 150/yr. respectively); supervision and management of clinic staff; community meeting (1 per district/yr.) to support community health councils.
3. Service delivery - RHMS to provide nutritional surveillance and ORT.
4. Commodities - basic MCH equipment; kits to trained RHMS; vaccines; baby scales for clinics; ORS packets; instructional materials and booklets; refrigerators, vaccine carriers.
5. Research, monitoring/evaluation of MCH activities.

WHO Support to MCH/FP Program: \$411,210

1. Technical assistance - health education advisor; short-term consultants.
2. Training - long-term for nurses, health educators; short-term for communicable disease control, malaria, health education.
3. Service delivery - malaria control; EPI; and Nutrition.
4. Commodities - essential drugs and vaccines.

OTHER HEALTH SECTOR ACTIVITIES: \$511,101

1. Community water and sanitation.
2. Research promotion and development.
3. MOH administration.
4. Leprosy control.

WFP Institutional Feeding in the Health Sector: \$6,700,000 (1985-87)

1. Beneficiaries:	
pre-school children	- 94,900;
Pregnant/Nursing Mothers	- 53,100;
In-patients	- 25,200.
2. Commodities::	
Dried skim milk	- 2,530 mt;
Corn soya milk	- 3,160 mt;
Pulses	- 185 mt;
Vegetable oil	- 1,630 mt;
Canned Cheese	- 185 mt;
Wheat flour	- 1,835 mt;
Total	= <u>9,525 mt.</u>

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ODA	<u>TECHNICAL ASSISTANCE:</u>	\$2,122,700
	Midwife nurse tutor	
	1 Medical Officer	
	1 Consultant Obstetrician	
	1 Specialist Pediatrician	
	1 Deputy Director of Health Services.	
Italian Government		23,000
	1 Lab. Specialist	
U.S. Peace Corps		\$100,310
	1 X-Ray technician	
	<u>CONSTRUCTION:</u>	
West Germany Government		\$3,960,000
	2 Health Centers	
	3 Health Clinics	
ADB		\$11,138,760
	Extension to Mbabane Hospital (maternity unit and operating theatre) and construction of new mental hospital and sub-units.	