

AGENCY FOR INTERNATIONAL DEVELOPMENT

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add  
C = Change  
D = Delete

Amendment Number

1

DOCUMENT CODE

3

2. COUNTRY/ENTITY

S&T/Interregional

3. PROJECT NUMBER

936-5920

4. BUREAU/OFFICE

S&T/HEALTH

5. PROJECT TITLE (maximum 40 characters)

Primary Health Care-Operations Research

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY  
09 30 91

7. ESTIMATED DATE OF OBLIGATION  
(Under 'B.' below, enter 1, 2, 3, or 4)

A. Initial FY 81

B. Quarter

C. Final FY 89

8. COSTS (\$000 OR EQUIVALENT \$1 = )

A. FUNDING SOURCE	FIRST FY 81			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	500		500			19,553
(Grant)	( 500 )	( )	( 500 )	( 19,553 )	( )	( 19,553 )
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S.						
Host Country						
Other Donor(s)						
<b>TOTALS</b>	500		500	19,553		19,553

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	531	1000				10,500		19,553	
(2)									
(3)									
(4)									
<b>TOTALS</b>									

10. SECONDARY TECHNICAL CODES (maximum 5 codes of 3 positions each)

510 520 530

11. SECONDARY PURPOSE CODE

535

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code

B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To develop and support operational research aimed at closing knowledge gaps impeding host countries' efforts to design, implement, and sustain primary health care programs.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY  
0 7 8 7 0 8 9 0

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000  941  Local  Other (Specify) 935

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

The project will be extended by 5 years with the same project purpose with a modified research strategy that emphasizes specific steps to identify priority issues, enhances generalizability of findings, gives increased attention to problems in the implementation of PHC programs, promotes the application of results and is more directly linked to AID-assisted health projects. FY 1985 funding remains \$2 million. FY 86 funding will be \$2.5 million.

17. APPROVED BY

Signature

R. J. Van Der...

Title

Acting Director, S&T/H

Date Signed

MM DD YY  
09 30 91

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

PD AAR-144

PROJECT AUTHORIZATION

39525

Country: Worldwide  
Project Title: Primary Health Care-Operations Research  
Project No.: 936-5920

1. The Primary Health Care Operations Research Project was authorized on June 16, 1981. Pursuant to Section 104 of the Foreign Assistance Act, as amended, that authorization is hereby amended as follows:
  - a. The amount of centrally funded obligations planned for the Project is increased from \$9,053,000 to \$19,553,000 in grant funds over the period FY 1981-1991 subject to the availability of funds and in accordance with normal A.I.D. OYB/allotment procedures.
  - b. Each country where research, training, technical, or other assistance takes place under the Project shall be deemed to be a cooperating country for the purpose of permitting local cost financing of goods and services for the activity being conducted in such country.
  
2. The authorization cited above remains in effect except as modified herein.

  
\_\_\_\_\_  
James E. Sarn, M.D., M.P.H.  
Agency Director for Health  
and Population  
bureau for Science and Technology

2

Clearance:

S&T/H: AVanDusen: \_\_\_\_\_ Date: \_\_\_\_\_

S&T/PO: GEaton: \_\_\_\_\_ Date: \_\_\_\_\_

8 JUN 1985

ACTION MEMORANDUM FOR THE AGENCY DIRECTOR FOR HEALTH AND POPULATION

FROM: S&T/H, Ann Van Dusen *Ann Van Dusen*

SUBJECT: Approval of an Amended Project Authorization for the Primary Health Care Operations Research Project (936-5920)

Problem: Your approval is required to amend the Project Authorization of the subject project to extend the project assistance completion date from 8/31/86 to 9/30/91 and to raise the level of authorized grant funding from \$9,053,000 to \$19,553,000.

Discussion: This 5-year Project was approved on June 16, 1981, to "develop and support operational research aimed at closing knowledge gaps impeding efforts to successfully design, implement and sustain primary health care programs." Although the major projected output was 28 operations research studies, the PRICOR staff developed and funded nearly 50 studies. In August 1984, PRICOR received a mid-project evaluation by an external team led by Dr. Abraham Horwitz. A major conclusion of the team was that the Agency should continue its support of health operations research after the completion of the current project.

The analysis of the evaluation team, combined with ongoing project monitoring, indicates that future project activities could build on lessons learned from the PRICOR experience. Some completed studies demonstrate the potential of this kind of research. For example, a \$100,000 PRICOR study in Honduras has contributed to direct savings of \$1.5 million for the MOH during the first full year of implementation of study recommendations. Not all studies are completed, but all PRICOR research funds have been committed. Apart from the specific conclusions of individual studies, the general output of the overall research program can now be discerned on the basis of progress reports. It is clear that a large number of practical issues have not been addressed by PRICOR or other research programs. There is no advantage to postponing the start of a new operations research activity until PRICOR has produced a final report. On the contrary, the Agency's health program would benefit from a period of overlap of PRICOR and a new, competitively procured cooperative agreement for operations research, particularly with regard to the transfer of information.

The goal of the project remains unchanged. Several basic elements of the PRICOR research strategy will also be incorporated into the project extension, such as a systems approach to health programs and a focus on service delivery problems. There will also be changes in the strategy, reflecting the experience of PRICOR, intended to give increased emphasis to: (1) the identification of the most important research issues; (2) the ability to generalize research results; (3) examination of the implementation of health

services in addition to the design of programs; (4) the application of study results by program managers; and (5) offering practical assistance to A.I.D. health projects.

If necessary for the effective transfer of responsibilities, the current cooperative agreement will be extended for up to 6 months.

Conclusion: In a period of expanding health sector activities, operations research has proved to be a fundamental tool to improve the cost-effectiveness of health programs. Based on recent experience, a number of practical improvements in research strategy appear feasible. This fiscal year is the optimal time to begin such an effort.

Justification to the Congress: An Advice of Program Change has been drafted and is in the clearance process.

Recommendation: That you approve an amended project authorization with a project assistance completion date of September 30, 1991 and total authorized grant funding of \$19,553,000 by signing the attached amended project authorization.

Attachments:

1. Original Project Authorization
2. Amended Project Authorization
3. Project Paper Amendment

Clearance:

ASIA/TR:WGoldman:	WG	Date:	5/24/85
NE/TECH:CJohnson:	Phone	Date:	5/30/85
LAC/DR/HN:PFcney:	Phone	Date:	5/30/85
AFR/DR:JvanderVlugt:	JVV	Date:	5/31/85
S&T/H/HSD:ATinker	AT	Date:	5/29/85
S&T/H/HSD:K.P.K.	mm	Date:	6/3/85

8 JUN 1985

ACTION MEMORANDUM FOR THE AGENCY DIRECTOR FOR HEALTH AND POPULATION

FROM: S&T/H, Ann Van Duser *Ann Van Duser*

SUBJECT: Approval of an Amended Project Authorization for the Primary Health Care Operations Research Project (936-5920)

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Discussion: This 5-year Project was approved on June 16, 1981, to "develop and support operational research aimed at closing knowledge gaps impeding efforts to successfully design, implement and sustain primary health care programs." Although the major projected output was 28 operations research studies, the PRICOR staff developed and funded nearly 50 studies. In August 1984, PRICOR received a mid-project evaluation by an external team led by Dr. Abraham Horwitz. A major conclusion of the team was that the Agency should continue its support of health operations research after the completion of the current project.

The analysis of the evaluation team, combined with ongoing project monitoring, indicates that future project activities could build on lessons learned from the PRICOR experience. Some completed studies demonstrate the potential of this kind of research. For example, a \$100,000 PRICOR study in Honduras has contributed to direct savings of \$1.5 million for the MOH during the first full year of implementation of study recommendations. Not all studies are completed, but all PRICOR research funds have been committed. Apart from the specific conclusions of individual studies, the general output of the overall research program can now be discerned on the basis of progress reports. It is clear that a large number of practical issues have not been addressed by PRICOR or other research programs. There is no advantage to postponing the start of a new operations research activity until PRICOR has produced a final report. On the contrary, the Agency's health program would benefit from a period of overlap of PRICOR and a new, competitively procured cooperative agreement for operations research, particularly with regard to the transfer of information.

The goal of the project remains unchanged. Several basic elements of the PRICOR research strategy will also be incorporated into the project extension, such as a systems approach to health programs and a focus on service delivery problems. There will also be changes in the strategy, reflecting the experience of PRICOR, intended to give increased emphasis to: (1) the identification of the most important research issues; (2) the ability to generalize research results; (3) examination of the implementation of health

services in addition to the design of programs; (4) the application of study results by program managers; and (5) offering practical assistance to A.I.D. health projects.

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Conclusion: In a period of expanding health sector activities, operations research has proved to be a fundamental tool to improve the cost-effectiveness of health programs. Based on recent experience, a number of practical improvements in research strategy appear feasible. This fiscal year is the optimal time to begin such an effort.

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Attachments:

1. Original Project Authorization
2. Amended Project Authorization
3. Project Paper Amendment

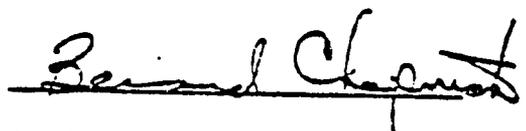
Clearance:

ASIA/TR:WGoldman:	WG	Date:	5/24/85
NE/TECH:CJohnson:	Phone	Date:	5/30/85
LAC/DR/HN:PFeeney:	Phone	Date:	5/30/85
AFR/DR:JvanderVlugt:	JVV	Date:	5/31/85
S&T/H/P.SD:ATinker	AT	Date:	5/29/85

PROJECT AUTHORIZATION

Name of Country/Entity: Interregional  
Name of Project: Primary Health Care - Operations Research  
Number of Project: 936-5920

Pursuant to Section 104 of the Foreign Assistance Act of 1961, as amended, I hereby authorize grant funding of not to exceed nine million and fifty-three thousand dollars (\$9,053,000) for the period FY 81 through FY 85 to finance the project described in the attached Project Paper, subject to the availability of funds and in accordance with AID allotment procedures.

  
Acting Assistant Administrator  
for Development Support

6/16/81  
Date

PROJECT AUTHORIZATION

Country: Worldwide  
Project Title: Primary Health Care-Operations Research  
Project No.: 936-5920

1. The Primary Health Care Operations Research Project was authorized on June 16, 1981. Pursuant to Section 104 of the Foreign Assistance Act, as amended, that authorization is hereby amended as follows:
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  - b. Each country where research, training, technical, or other assistance takes place under the Project shall be deemed to be a cooperating country for the purpose of permitting local cost financing of goods and services for the activity being conducted in such country.
  
2. The authorization cited above remains in effect except as modified herein.



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James E. Sarn, M.D., M.P.H.  
Agency Director for Health  
and Population  
Bureau for Science and Technology

Clearance :

S&T/H:AVanDusen: \_\_\_\_\_ Date: \_\_\_\_\_

S&T/PO:GEaton: \_\_\_\_\_ Date: \_\_\_\_\_

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4. BUREAU/OFFICE  
 S&T/HEALTH

3. PROJECT NUMBER  
936-5920

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Primary Health Care-Operations Research

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY  
09 30 91

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 (Under "B:" below, enter 1, 2, 3, or 4)

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8. COSTS (\$000 OR EQUIVALENT \$1 = )

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	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
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(Grant)	( 500 )	( )	( 500 )	( 19,553 )	( )	( 19,553 )
(Loan)	( )	( )	( )	( )	( )	( )
Other U.S.						
Host Country						
Other Donor(s)						
<b>TOTALS</b>	500		500	19,553		19,553

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	531	1000				10,500		19,553	
(2)									
(3)									
(4)									
<b>TOTALS</b>									

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)

510 520 530

11. SECONDARY PURPOSE CODE  
 535

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)

A. Code  
 B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To develop and support operational research aimed at closing knowledge gaps impeding host countries' efforts to design, implement, and sustain primary health care programs.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY  
07 87 08 90

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000  941  Local  Other (Specify) 935

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

The project will be extended by 5 years with the same project purpose with a modified research strategy that emphasizes specific steps to identify priority issues, enhances generalizability of findings, gives increased attention to problems in the implementation of PHC programs, promotes the application of results and is more directly linked to AID-assisted health projects. FY 1985 funding remains \$2 million. FY 86 funding will be \$2.5 million.

17. APPROVED BY

Signature RA Van Dusen  
 Title Acting Director, S&T/H

Date Signed MM DD YY  
05 30 85

18. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MM DD YY

Primary Health Care Operations Research  
Project Paper Amendment  
Executive Summary

I. The Office of Health proposes to amend the Primary Health Care Operations Research Project Paper to extend the project for five years at an estimated cost of \$10.5 million for a total cost of \$19.6 million. The purpose of the project remains unchanged, with some modifications in research strategy based on the experience of the project to date.

Operations research (OR) seeks to provide the information necessary to improve the cost-effectiveness of health programs. In the period since the approval of the PHC-OR project paper, the Agency's investment in basic health services has increased substantially. This includes a major new commitment to programs that focus on interventions to increase the survival of children, the Child Survival Action Program. Bilateral and central support for oral rehydration therapy and childhood immunizations reflect the effectiveness, safety, and affordability of these technologies. AID-supported research on a malaria vaccine, vitamin A supplementation, and other basic interventions promise to expand the range of services that can be delivered through low cost delivery systems within the means of AID-assisted countries. It is highly unlikely however, based on recent experience, that these technologies can be made widely available by simply providing additional resources to existing programs. Similarly, the design and implementation of AID bilateral health programs continues to be hampered by a lack of information on the process of delivering these services. The results available from the PRICOR project demonstrate that OR can produce the kind of information that programs can use. For example, a \$100,000 PRICOR study has contributed to direct savings to the Honduran MOH of \$1.5 million during the first full year of implementation of study recommendations. However, all funds available for studies have been committed. Even the most successful outcome from ongoing studies will leave important areas of service delivery unexamined. A detailed external evaluation of the PRICOR project recommended a continuation of Agency support for health operations research.

The project extension will not only continue a fundamental component of the Agency's Health Sector strategy, but it will also develop new approaches to OR based on lessons learned from the current project. The research strategy of the extension will be designed to give increased emphasis to: 1) Identification of the most important research issues; 2) the ability to generalize research results from one program to other programs; 3) examination of the implementation of health services in addition to the design of programs; 4) the application of OR results by program managers; and 5) offering practical assistance to AID bilateral and regional health projects.

The project will use systems analysis techniques to examine the various discrete components that comprise a health delivery system. On the basis of the resulting detailed description of how services are actually delivered, the project will identify a number of concrete service delivery problems in a given program.

To address these discrete problems, the project will develop a series of small scale, rapid-turnover OR studies within a given country program. These studies will have a low average cost. Because a given study will focus on a relatively small part of the delivery system, pertinent variables will be thoroughly documented. This will facilitate the application of findings in other programs.

The project will concentrate studies in a relatively small number of health programs (about twelve). In order to carry out a large number of small-scale studies in fewer countries, the project will make use of medium and long-term technical assistance in addition to the short-term consultants used to date.

Implementation will take place through a competitively-procured cooperative agreement which will begin approximately six months after PRICOR'S last group of studies was funded. This starting date will result in approximately one year overlap between the two cooperative agreements. During this period the respective staffs will exchange information and arrange for the orderly transfer of responsibility for any PRICOR-affiliated programs that will participate under the new cooperative agreement.

The overall costs of the extension are approximately equal to the first five years of the project.

Primary Health Care Operations  
Research Project Paper Amendment

II Project Description

A. Background: The AID Health Sector Strategy Paper outlines an agency focus on Primary Health Care (PHC). This comparatively new approach to providing basic health services is not intrinsically simple. There is a broad consensus among public health authorities that at their present level of cost-effectiveness, few PHC programs offer a realistic prospect of universal care. Although there are a number of child survival technologies and other basic health services that are recognized as effective and broadly affordable, the actual delivery of these services remains problematic. Further, the rate of demonstrable improvement in PHC delivery systems has been less than encouraging. Neither are expected increases in available resources likely to alter this basic assessment in most AID-assisted countries. The Primary Health Care Operations Research (PHC-OR) project seeks to provide the information necessary for these programs to make a more effective use of available resources.

1. The PHC-OR Project Paper: The current project was authorized June 16, 1981 for five years with total grant funding up to \$9,053,000. The project purpose is summarized as "develop and support operational research aimed at closing knowledge gaps impeding host countries efforts to design, implement, and sustain primary health care programs." The additional activities outlined in this amendment fall entirely within this description, with certain adjustments in project strategy based on Agency experience in operations research, particularly under the current project.

The project paper notes that both the design and the implementation of PHC programs are often carried out in the virtual absence of empirical information. The paper views operations research in broad terms, encompassing a variety of information-gathering approaches. The chief unifying element is that the research attempts to resolve actual problems in health programs. The Project Description does specifically distinguish operations research (OR) from routine project evaluations, a distinction maintained in this amendment, albeit in a modified form. The original project objective of providing information not available from other sources, including routine project evaluations, continues to be appropriate.

The Implementation section describes the functions of a competitively-selected contractor and arrangements for AID staff guidance. The major tasks for the small contract staff are "to assist field personnel in the design of country-specific studies, the selection of researchers, the monitoring of studies in progress and the dissemination of finding". The staff will also be responsible for interpreting the wider implications of the studies.

The strategy section outlines the development of an explicit research agenda, subject to changes as the priorities of program managers change. This section anticipates an active and ongoing role for AID missions in determining the nature of the studies to be supported and the researchers who will carry them out.

The paper also offers several criteria for supporting a particular study: The issue should be an important one, affecting other PHC programs. The information produced by the study should have practical utility. The study methodology should offer the realistic probability of actually resolving the issue at hand in a timely manner.

The contract staff is to begin with an issue identified by field personnel and, where possible, translate requests for assistance into explicit, testable hypotheses. The staff are then to assist host country researchers in developing a formal proposal through short-term assistance. The staff will review these and other proposals, select studies for funding and contract for the studies to be carried out. Monitoring and evaluation of studies is to be conducted primarily through written correspondence and reports, with only limited field visits where "necessary to assure successful completion of a study." Each study will include a final report. The staff has the further responsibility for organizing and archiving the data produced by the studies.

The project paper also notes the importance of examining patterns and trends among studies, recognizing that "PHC programs throughout the developing world have similar objectives, services, and delivery structures since they are aimed at similar socio-economic target groups experiencing similar classes of health problems." These analyses must also allow for the unique features of the local program setting. The project budget includes funds specifically for these more broadly-based analyses.

In discussing the implementation of studies, the strategy section anticipates a variety of arrangements, including integration with bilateral projects, either at the design stage or after the project is underway. Studies independent of any bilateral project are also contemplated. A series of annual reviews and two external reviews are included to assure that project outputs correspond to the stated objectives and to recommend modifications as appropriate. The external review that took place in 1984 provides the basis for many of the activities outlined in this amendment.

2. Status of the Current Primary Health Care Operations Research Project (PRICOR): A detailed analysis of the PRICOR project is contained in the report of the midterm evaluation team led by Dr. Abraham Horwitz, which is available from S&T/H. Virtually all project studies have been carried out through a single cooperative agreement with the Center for Human Services, Chevy Chase, Md.

The PRICOR staff developed a standard approach to research in PHC based on the formal discipline of operations research, but substantially modified. The methodology begins with a previously-identified problem, then specifies 14 steps to analyze the problem, develop possible solutions, and finally to select one or more of these solutions for field testing. This methodology is outlined in the PRICOR brochure that solicits proposals and its use served as a major criteria for selecting proposals for funding. The mid-term evaluation comments at length on the details of this approach and stresses the importance of examining this new methodology itself as well as the results of the studies.

In response to the project paper's requirement that PRICOR address the issues identified as most important by field personnel, the project focused on four topical areas. These areas reflected the responses of USAIDs to a pre-project cable which requested suggestions. The PRICOR brochure specifies that proposals should address: (1) community health workers, (2) local financing of PHC services, (3) community organization to support PHC, or (4) community-based distribution of PHC commodities. The project reviewed over 400 proposals and selected approximately 50 studies for funding. By April, 1985, virtually all available funds had been committed. Approximately one-fourth of the approved studies received priority based on the formal sponsorship of the corresponding AID mission.

Most of the approved studies in sub-Saharan Africa resulted from a workshop organized by the project staff to develop what were originally technically unacceptable proposals. All funded studies of course received the concurrence of the corresponding mission or embassy.

The PRICOR staff have provided extensive written comments and suggestions in response to the reports submitted by principal investigators. The vast majority of on-site technical assistance has been provided by consultants engaged directly by the principal investigators. The PRICOR senior staff and their consultants have contributed only limited on-site assistance.

Since not all of the studies have been completed, the staff's approach to the "comparative analyses" that are to examine common trends and patterns is not yet clearly defined. The PRICOR director has pointed out the difficulty of comparing studies that, apart from the general PRICOR approach, do not follow a standard protocol. Among the most likely areas for comparison, only two issues are directly addressed by more than three studies: setting the objectives of community financing (9 studies), and revenue mobilization methods (12 studies). For example, only two studies focus on the supervision of community health workers (CHWs) and only one on their motivation. The evaluation team emphasized the potential value of systematically describing the delivery systems under study, including elements not included in the research itself. This recommendation, which has not yet been implemented, could greatly expand the basis for comparisons among a number of PHC delivery systems. This would provide an initial basis for identifying the most prevalent problems in PHC programs, an objective listed in the project paper that was not fully addressed by the proposal solicitation and approval process.

Some of the specific results of PRICOR studies are clearly impressive. In Honduras, a \$100,000 study contributed to a \$1.5 million savings to the Ministry of Health in the first year alone. In the Philippines, a study established a successful local financing mechanism for drugs. A study in Thailand led to a major financial program. For the most part, the studies that are not yet completed are at or near the field test stage. Apart from the specific conclusions of individual studies, the general output of the research program can now be discerned on the basis of progress reports. Ongoing analysis by S&T/H, combined with the observations of the evaluation team, indicates five areas in which the project research strategy can be improved. These are discussed in the next section.

The activities to be carried out under this amendment build on insights generated by the PRICOR project and will be coordinated with PRICOR during a period of overlap. A new, competitively-procured cooperative agreement will take effect approximately 6 months before the last PRICOR country studies are scheduled to submit their final reports. S&T/Health will arrange for in depth, study-by-study briefings by the PRICOR staff for the staff of the selected cooperator. Selective transfer of files and reference materials acquired with Agency funds will also be arranged during this period.

Where the portfolio review demonstrates opportunities consistent with the project's revised research strategy (described below), the PRICOR staff will facilitate the continued research, through correspondence and joint site visits. To the extent that adequate resources are available, the PRICOR staff will be asked to emphasize data collection and analysis activities that support the revised research strategy, provided that this is compatible with fulfilling the objectives of the existing cooperative agreement. For example, the PRICOR staff will be asked to conduct systems analyses (see below) in conjunction with ongoing or completed studies where a suitable opportunity exists. If necessary, the PRICOR cooperative agreement may be extended, within the limits of AID policy, to take advantage of such opportunities.

The staff of the selected cooperator will also review PRICOR methodological papers and, where indicated, interview PRICOR staff to clarify the details of the PRICOR methodology and its field application. The activities of this amendment do not depend on specific results from any PRICOR studies currently underway. Familiarity with the PRICOR research program will allow the cooperator to avoid inadvertent duplication of PRICOR studies.

A number of features of the PRICOR project will be retained under this amendment, including a systems approach to health programs, an explicit focus on service delivery problems and the overall scope of the project. The project's research strategy will however be modified, as outlined below.

B. Types of Activities to be Supported under this Amendment: In the period since the approval of the PHC-OR project paper, the Agency's investment in basic health services has increased substantially. This includes a major new commitment to programs that focus on interventions to increase the survival of children, the Child Survival Action Program. Bilateral and central support for oral rehydration therapy and childhood immunizations reflect the effectiveness, safety, and affordability of these technologies. AID-supported research on a malaria vaccine, vitamin A supplementation, and other basic interventions promise to expand the range of services that can be delivered through low cost delivery systems within the means of AID-assisted countries. It is highly unlikely however, based on recent experience, that these technologies can be made widely available by simply providing additional resources to existing programs. Similarly, the design and implementation of AID bilateral health programs continues to be hampered by a lack of information on the process of delivering these services.

Even if the PRICOR studies currently underway prove unusually successful, the empirical basis for developing sufficiently cost-effective programs will remain grossly inadequate to the task.

As illustrated below, many obviously important service delivery functions remain totally unaddressed by any research effort.

The most basic premise of the PHC-OR project is that health programs, like other complex activities, can be systematically studied and refined. On balance, the influence of practical, well-documented research has been encouraging in PRICOR and similar programs. Review of these efforts suggests how the project can be modified to further enhance its impact.

1. Importance of research issues: The PRICOR staff have largely relied on LDC researchers to identify priority research issues. The four general topics suggested by USAID responses did not in themselves identify specific studies. Thus, while the project applied a systematic approach to problems once they were identified, there was no such systematic approach to identifying the most important problems in the first place. Although the project paper anticipated that bilateral project evaluations would lead to OR studies, this did not take place.

The evaluation team identifies a number of current studies that deal with issues of questionable priority for the country involved such as study of the use of school children as health promoters in Liberia and an effort to develop and test audiovisual aids in the Dominican Republic. At the same time, topics that appear to be central to the effectiveness of PHC programs receive inadequate attention or none at all. Supervision is a conspicuous example.

In their review of 52 AID-assisted PHC projects, Parlato and Favin noted, "Infrequent and poor quality supervision appears to be a common problem in the PHC programs that were studied, and is particularly detrimental to their long-term effectiveness." Similarly, Bloom's analysis of the Sine Saloum Rural Health Project [AID Evaluation Special Study No. 20, 1984] indicated that "lack of supervision was probably the single most important weakness in the overall program." One must doubt that the two supervision studies presently supported by the project are adequate to address such an important issue. Moreover, both studies limit themselves to comparing existing approaches to supervision, all of which may prove ineffective. There is reason to doubt that LDC researchers, even in close consultation with program managers, necessarily have a good understanding of the most important problems in their own programs. It is even less plausible that scattered researchers will spontaneously identify the service delivery problems that are most important worldwide.

The activities of this amendment will therefore include a systematic effort to identify specific, highly prevalent shortcomings in PHC programs. It is on these issues that subsequent studies will focus.

2. Generalizability: The diverse approaches taken by different studies in the current project will limit the opportunity to compare one study with others. The project paper's objective of identifying common trends and patterns in PHC programs requires a different approach. The information-gathering strategy of this project amendment will be explicitly designed to facilitate such comparisons.

3. Analyzing Implementation: Although the project goal includes generating useful information on the implementation of PHC programs, in practice the current portfolio focuses exclusively on the design of programs. For example, many studies address issues such as which of several hypothetical approaches to educating mothers in ORT is best. There are no studies, however, that address questions such as how well does the existing ORT education program really work, which components are carried out as planned and which are not, what practical steps are feasible to correct these shortcomings. A research strategy with practical objectives cannot afford to focus on minor differences in the impact of different designs while ignoring gross shortcomings in implementation. A program with CHWs who are not technically competent is probably a poor candidate for a local financing study.

In many PHC programs, managers and even field supervisors have little systematic knowledge of the extent to which service delivery activities are carried out as designed. Service statistics, management information systems, and program evaluations rarely provide a detailed description of what service personnel actually do. The concrete activities of supervisors and managers at different levels are even less well documented. For the purposes of this amendment, describing and analyzing the actual activities of PHC program personnel qualifies as an operations research activity. This also reflects an explicit priority of the Administrator.

4. Application of Results: All OR is ostensibly oriented toward bringing about real changes in the way services are delivered. The project paper notes the importance of sound methodology and timeliness if one expects managers to take action based on study results.

The current project requires investigators to discuss utilization in their proposals. However, among the limited number of studies where actual utilization can be assessed, there have been several instances where there was no action taken based on the study. It is not possible to assure that even clearcut evidence will always lead to changes in service delivery, but there are a number of additional steps that will be taken under this amendment:

1. Expert assistance: The project staff should be prepared to follow a research effort with technical assistance in implementing the indicated changes. The staff should develop expertise in applying research results on a large scale, an area that has been neglected by researchers in the past.

2. More manageable research issues: To a large degree, the current portfolio concentrates on rather global program design issues such as developing a local financing scheme. Certainly, where a study can bring about broad, fundamental changes in a program, the results are impressive. But the project should not neglect small scale, more specific changes in how services are delivered. As the evaluation report points out, PRICOR studies have not examined specific but important activities such as how CHWs go about promoting immunization or what supervisors do to assure proper management of diarrheal disease cases. Refinements at this level do not require high level policy decisions or even budgetary changes. Further, these circumscribed, concrete issues can be addressed through small scale, simple studies. The research results could therefore be rapidly available to service delivery personnel, often within weeks. Studies that clearly show how a specific task can be carried out more effectively are comprehensible to even unsophisticated workers in many cases.

Such an approach is also more likely to prove feasible for routine use by regular program personnel. The current approach appears to require fairly sophisticated investigators.

5. Bilateral Programs: The project paper outlines a direct relationship between OR studies and ongoing or planned bilateral health programs. In practice, only a minority of studies were submitted with Mission sponsorship. Even among these, the relationship of the study to the bilateral program was often unclear. The activities to be developed under this amendment will give first priority to requests related to bilateral projects when study sites are selected. Further, these activities will explicitly be structured to assist in improving project performance, using approaches that are not available from other sources. One element of this orientation will be active assistance in defining issues, developing the research, and assistance in applying the results. Another element will be flexibility in a number of areas: the ability to respond promptly to a request; the ability to provide a wide range of expertise for whatever period of time is necessary; the capacity to fund local research costs and, where indicated, the costs of new service interventions. Non-bilateral AID-assisted health projects will receive similar priority.

C. Research Strategy: Agency experience in OR programs suggests that the interests and methodologies of researchers do not necessarily lead to practical results. Active monitoring by the involved AID health professionals should continually focus on improving actual program performance. In addition, the project will adopt an explicit research strategy oriented toward the objectives described in section B, as outlined below, to assure a project focus on practical service delivery issues.

For purposes of analysis, the process of service delivery can be viewed as the net result of a large number of individual, observable activities: A CHW explains to a mother how to administer an ORT solution or gives a Vitamin A capsule to a child at risk. From this perspective, the design of a program consists of the different activities to be carried out by various personnel. In principle, any single activity of a given health worker is a manageable unit: It should not be difficult to describe how the activity is in fact carried out, to evaluate performance by some standard, and to make modifications to improve performance. This is in fact the purpose of examining service delivery in terms of activities. By this criteria, "ORT promotion," for example, is too broad and ill-defined to be considered an activity. There are, of course, also practical limits on how far service delivery should be subdivided. In most cases there is probably little to be gained from dividing a process like mixing an ORT solution into its component steps.

Clearly, the process of dividing service delivery into manageable units involves subjective judgements. Previous analyses of this type have found that CHWs in ostensibly simple PHC programs are theoretically responsible for on the order of 200 distinct activities. The precise number for a given program is not the issue. For the purposes of the project, however, it is critical that discrete service delivery activities be defined in terms that allow some objective measurement of performance.

Many programs managers fail to see the importance of what this amendment will refer to as an "operational definition" of each activity service personnel are expected to carry out. Conveying this concept is a central element of the project's research strategy.

In many programs, the concrete activities desired of health workers are formally described only in vague terms, such as "give health talks in the community." In other cases, the actual service delivery activities are not recorded at all and can only be inferred from the training curricula. At the same time, the impact of a health program depends entirely on the performance of these individual activities. And there is little prospect for improving the performance of an activity when performance itself cannot be measured.

Thus, one of the first steps in developing an OR study will be to establish operational definitions for the involved service delivery activities. It is highly likely that there will be substantial overlap among different programs regarding acceptable definitions. As a result, this basic analytical step will probably become easier with each iteration. The definitions of common PHC activities may prove susceptible to a standardized manual with applications beyond the project itself, for example, the knowledge related to immunizations that is to be conveyed to mothers of young children.

As the term delivery system implies, service delivery activities are often interrelated. In addition to immediate service delivery activities, every PHC program includes distinct groups of supportive activities. These "subsystems" include functions such as selection of workers, training, supervision, logistics, information collection, management, evaluation, financing, and community relations. Each of these subsystems has some bearing on the performance of the program. This is illustrated graphically in Appendix 1. An OR project that seeks to address the most important problems in a delivery system cannot prudently ignore any of these areas. For subsystems such as training and logistics, there are well-developed approaches to defining activities and assessing performance. For financing and community relations, there has been substantial research directed toward what must be considered a limited range of program options. Worker selection is a fairly circumscribed area that is poorly researched. Management, supervision, information collection, and evaluation are closely related and almost without exception, their relationship to concrete service delivery activities is poorly understood.

Where it is feasible then, the project approach to OR will include a systematic examination of all the major components of the program under study. This "systems analysis" (SA) will generally precede development of field trials. A complete description of the service delivery process may also require information on factors outside the delivery system itself. Where this is the case, anthropological studies, epidemiological surveys, and other scientific and management techniques will be considered an integral part of OR.

By describing previously undocumented details of how services are actually delivered, the SA allows the project to focus research efforts on very specific, concrete service delivery problems. It is neither feasible nor necessary to carry out large scale field trials to address each such problem.

21

Rather, the project will emphasize small, rapid-turnover studies dealing with a number of different issues in a given program. In order to emphasize a large number of small, rapid-turnover studies, the project will limit most of its activities to a relatively small number of health programs. Approximately 12 programs could be included, with an average of 30 studies each.

A focus on more circumscribed, concrete service delivery problems will facilitate the wider application of project findings to other programs. Many OR studies have not found broad applications in large part because the studies examined an extremely complex segment of the involved program. Pilot studies represent an extreme example, in which every element of the delivery system contributes to the outcome, including literally hundreds of undocumented variables. Even a carefully designed comparison of two CHW training programs is measuring the impact of scores of variables. Rarely if ever are the details of such a training program fully documented. Any attempt to apply the findings of research of this kind is therefore limited to duplication of its general outlines. Applying OR results from another setting always involves cultural, economic, and political differences. But an attempt to duplicate a complex and incompletely documented training program is further hampered by unknown, potentially critical variables.

OR studies focused on smaller more specific components of the delivery system also take advantage of the considerable similarities that clearly exist among PHC programs, even in widely differing settings. One ORT program, for example, may be quite different from a second program on the whole. Yet these two programs could easily employ comparable approaches to a number of specific activities, such as the methods by which supervisors monitor the quality of ORT solutions. Specific, focused OR in this area in one program could be directly applicable to the other program. Similar findings in 10 or 15 programs would be even more persuasive. The application of OR results in this way clearly increases the cost-effectiveness of the project as well.

The results of the SA will also allow the project to develop OR studies that address important but previously unrecognized problems in implementation. Immediate, concrete problems of this kind are conducive to studies designed to produce results that will be practically applied. An emphasis on practical steps that can be taken by regular service delivery personnel to improve performance also addresses AID bilateral concerns in many countries.

Locally-defined priorities and limitations of project resources may lead to variations in both the scope of a given SA and the series of OR studies that follow. Where circumstances prevent a comprehensive approach, the project will be prepared to address a single subsystem such as training or financing. The project's research strategy will, however, follow the approach outlined above. This approach is illustrated for the supervisory subsystem Appendix 2. Supervision is used as detailed example because: 1) It is conceptually one of the least-well defined PHC subsystems. Applying the same strategy to well-developed subsystems such as logistics or training is straightforward. 2) Issues in supervision overlap with related and equally difficult issues in evaluation, management, and information collection. 3) The intrinsic importance of supervisory problems is widely recognized. 4) The supervisory subsystem is sufficiently complex to illustrate how the project's research strategy will maintain a focus on concrete, practical issues.

#### D. Implementation

The project extension will take place over a five year period. The major technical resource will consist of a cooperating organization which will be the recipient of a cooperative agreement awarded competitively. The cooperator's responsibilities will include actively identifying research opportunities, developing the studies, providing technical assistance and training as appropriate for program interventions, local data collection and analysis, and maintenance of a central data base.

The implementation of PRICOR under a cooperative agreement has proved highly satisfactory with the project staff taking considerable initiative in establishing highly effective management procedures, in developing an innovative OR methodology and in monitoring a complex research program. Responsiveness to AID/W and USAID requests has been thorough and consistent. A similar arrangement is appropriate for implementing amendment activities.

On the basis of Agency experience in operations research since the PRICOR cooperative agreement was awarded, S&T/Health plans to invite qualified institutions to submit applications. All U.S. institutions with demonstrated expertise will be invited to apply, but the technical standards required to carry out the project can be met by only a relatively small number of institutions. The Request for Applications will permit consortia to submit joint applications. The current cooperator, the Center for Human Services, will be invited to apply. S&T/Health does not anticipate any serious obstacles to timely implementation of new activities that are unique to the incumbent. However, all applicants will be asked to discuss coordination with PRICOR activities in their proposals. An A.I.D. review panel will rate all proposals received. All of the project's budget will be allocated to the cooperative agreement with the selected applicant.

The cooperative agreement will outline an active and ongoing role for the A.I.D. project officer and corresponding Regional Bureaus and A.I.D. Missions. This will include the development of the systems analysis format and the detailed studies to be developed under a given country study. To the extent that identified country study opportunities exceed the project's capacity, the Office of Health will consult with the Regional bureaus to establish priorities among the available programs. S&T/Health and the appropriate Regional Bureau and Mission must concur in the selection of a given program. The anticipated distribution of country studies is as follows: Africa: 5; Asia: 4; Latin America: 2; Near East: 1.

The cooperator will identify study opportunities with a series of exploratory meetings with AID/W, USAIDs, host country program managers, representatives of other donors, and private voluntary organizations. Approximately four study sites will be selected in the first year, subject to S&T/H and corresponding mission approval. AID bilaterally-supported health programs will receive priority selection.

23

With occasional exceptions, each study will begin with a formal agreement to carry out a systems analysis describing the entire delivery system and development of a comprehensive set of operational (i.e. measurable) definitions of all service delivery activities pertinent to child survival and other basic health services. The cooperator will carry out these tasks and the subsequent development of a first year country-specific workplan using core staff, consultants, local hire personnel and staff of the cooperating program. It is anticipated that some systems analyses will not lead to a substantial OR commitment.

Each country workplan will be developed in cooperation with the appropriate program and USAID officials, and have their explicit approval. Each workplan will include a number of small scale observational studies, prospective interventions in service delivery, and longitudinal studies with multiple observations of the same variable over time. This focus on a large number of small, rapid-turnover studies follows from the project's research strategy, which views service delivery as consisting of a large number of activities which are largely undocumented. Because the research will be divided into a number of relatively small units, the productivity of a given country study will be subject to frequent review. Workplans will be limited to one year or less and the cooperator, with A.I.D. concurrence, will develop a new workplan only if the outcome of the previous plan was satisfactory. It is anticipated that the cooperator will develop 12 country studies averaging 3 years each over the life of the project.

For each country study, the cooperator will provide A.I.D. with an analytical report of findings biannually, in addition to trip reports for each international trip taken with project funding.

The cooperator will also submit for AID clearance an overall project workplan on an annual basis. In the second year of the project, the cooperator will submit an analytical report reviewing project experience in systems analysis, including a discussion of the most highly prevalent service delivery problems. Also in the second year, the cooperator will provide a comprehensive report on efforts to define service delivery activities in operational terms. In the third year of the project, the cooperator will submit an analysis of findings from all country studies, identifying trends and outlining research priorities for the remainder of the project. In the project's final year, the cooperator will submit a report analyzing the project's entire data base, considering related findings in the public health literature.

In order to take advantage of specialized expertise in certain regions or countries that may be found in various organizations, the cooperator will be authorized to enter into subagreements for entire country-specific studies. All such subagreements funded under this project will include provision for a research strategy comparable to that outlined for the main cooperative

agreement. These agreements will also specify that study findings be entered into the central data archive of the cooperator. All subagreements will be subject to AID concurrence.

These subagreements will be in the form of non-competitive grants awarded to a single institution. S&T/Health anticipates that the grantee in most cases will be a U.S. institution with a subordinate agreement with one or more host country institutions. Either AID or the cooperator may propose agreements with particular institutions and institutions may themselves submit unsolicited proposals to the cooperator. All such proposals submitted by the cooperator will be reviewed by a panel of experts selected by AID on a case-by-case basis. Reviewers will be chosen to represent knowledge of the country and program involved as well as technical expertise. The panel's recommendations will be advisory.

The implementation of country studies will require a range of highly specialized expertise that may not be available from U.S. sources. This expertise includes knowledge of the involved program and cultural setting, systems analysis techniques, operations research methodologies, management science, epidemiology, survey research, medicine, and language skills. This expertise must also be combined with the ability to carry out extensive field work. Thus, subagreements will be open to institutions from Code 935 countries. The same provision will apply to consultants and the staff of the cooperating agency.

Approximately four country studies will be implemented through subagreements. The cooperating agency will retain overall responsibility for monitoring and supervising these studies. AID will participate in the same way as in country studies developed by the cooperating agency, including concurrence in individual studies.

Based on the substantial amount of technical assistance that will be required for country studies, the project will support medium - and long-term resident advisors where this is more cost-effective than reliance solely on short-term advisors. It is anticipated that the project will support the equivalent of up to two full time resident advisors, a departure from the PRICOR implementation strategy which was recommended by the evaluation team.

Project Evaluations: The project will receive an annual review by S&T/H and regional bureau representatives. There will be an external review, including site visits to country studies in years three and five. These reviews and evaluations will evaluate project productivity based on the parameters outlined in section B, considering the quantity of variables examined and the quality of studies and service interventions: 1) Importance of the research issues studied in terms of their estimated impact on program performance in basic health services, as revealed by the systems analysis; 2) Potential generalizability of study findings to other programs; 3) Generation of specific insights into improving the implementation of services; 4) Evidence of successful application of study findings to service delivery; 5) The degree to which findings contributed to one or more AID-supported health projects.

Dissemination: In addition to providing AID with comprehensive analytical reports, the cooperators will be expected to publish findings, along with their program counterparts, in the professional literature, or as monographs. The project will also support travel to appropriate professional meetings for presentations of project finding. Cooperating Agency staff will also be encouraged to provide technical assistance to health programs for the purpose of applying research and service delivery methodologies developed under the project.

Budget Summary-Extension

Year (000's)

	1	2	3	4	5
A. Core Staff (1) (2)	300	420	440	460	483
B. Consultants	200	210	220	231	243
C. Travel	100	105	110	116	122
D. Other Direct Costs	125	158	166	174	183
E. Local Costs and Subagreements (3)	225	507	914	1839	1734
F. Archive and Analysis	50	50	50	60	80
G. Dissemination	0	50	50	120	80
H. Evaluation (4)	-	-	50		75
Total	\$1000	\$1500	\$2000	\$3000	\$3000

5 year total: \$10,500

27

Notes on the Budget

1. Includes Director, Deputy Director, two Senior Scientists, one Administrator, two Junior Scientists and two secretaries
2. Includes resident advisors
3. Includes data collection, training of program personnel, local transportation, supplies, and commodities
4. Does not include AID reviews and monitoring visits.

**PROJECT DESIGN SUMMARY  
LOGICAL FRAMEWORK**

Project Title & Number: PRIMARY HEALTH CARE-OPERATIONS RESEARCH, 936-5920 (Amendment)

Life of Project:  
From FY \_\_\_\_\_ to FY \_\_\_\_\_  
Total U.S. Funding \_\_\_\_\_  
Date Prepared: \_\_\_\_\_

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	5. IMPORTANT ASSUMPTIONS												
<p><b>Program or Sector Goal:</b> The broader objective to which this project contributes:</p> <p>To provide quality Primary Health Care services to LDC poor; improve the effectiveness and efficiency of Primary Health Care services which are to meet the health needs of LDC poor in a manner which is appropriate recognizing LDCs personnel and financial constraints.</p>	<p><b>Measures of Goal Achievement:</b></p> <ol style="list-style-type: none"> <li>1. Improved host country and AID staff health programming and resource allocation.</li> <li>2. Extension of PHC services to areas not presently served.</li> <li>3. Appropriate sustainable PHC services provided.</li> </ol>	<ol style="list-style-type: none"> <li>1. National planning and program documents.</li> <li>2. Country CDSS</li> <li>3. PHC services' records.</li> </ol>	<p><b>Assumptions for achieving goal targets:</b></p> <ol style="list-style-type: none"> <li>1. Findings/recommendations continue to be within LDC capacity to implement.</li> <li>2. Government commitment to PHC remains.</li> <li>3. Adequate local and national resources can be identified and mobilized.</li> </ol>												
<p><b>Project Purpose:</b></p> <p>To resolve issues, program policy and design questions which impede the successful implementation, sustainability or extension of PHC programs.</p>	<p><b>Conditions that will indicate purpose has been achieved: End of project status.</b></p> <ol style="list-style-type: none"> <li>1. Utilization of operations research finding by host country officials in the design or modification of PHC programs.</li> <li>2. Continued use of operations research as a tool to resolve projects policy and design questions.</li> </ol>	<ol style="list-style-type: none"> <li>1. National planning and program documents.</li> <li>2. On-site evaluations and Mission reports.</li> </ol>	<p><b>Assumptions for achieving purpose:</b></p> <ol style="list-style-type: none"> <li>1. Information was the barrier to resolution of project issues question.</li> <li>2. Host country officials accept valid operations research findings.</li> <li>3. Operations research provide timely and appropriate information</li> </ol>												
<p><b>Outputs:</b></p> <p>Operational research findings focused on policy design and implementation issues.</p> <p>Dissemination of project information addressing gaps in knowledge which impede the development and extension of health care.</p>	<p><b>Magnitude of Outputs:</b></p> <ul style="list-style-type: none"> <li>-Fifteen Systems Analyses</li> <li>-One manual of operational definitions of PHC activities</li> <li>-Twelve program - specific studies addressing an average of 30 service delivery issues each</li> <li>-Two comparative analyses of service delivery issues studied in more than one program.</li> </ul>	<ul style="list-style-type: none"> <li>-AID and outside review of analytical reports</li> <li>-AID documentation</li> <li>-AID/W annual reviews</li> <li>-USAID evaluation of technical assistance and cooperator/host country relationship</li> <li>-published reports and presentations of professional meetings.</li> </ul>	<p><b>Assumptions for achieving outputs:</b></p> <ol style="list-style-type: none"> <li>1. Host country program managers accept results of systems analyses</li> <li>2. Similarities exist among diverse PHC programs with regard to service delivery problems</li> <li>3. Project results are applied in non-participating programs as well as the involved program.</li> <li>4. Implementation of changes indicated by studies is feasible.</li> </ol>												
<p><b>Inputs:</b></p> <ol style="list-style-type: none"> <li>1. Technical assistance in the identification, design, review implementation and utilization of operational research.</li> <li>2. Funding of operational research and methodological studies.</li> <li>3. Conduct of systems analyses.</li> </ol>	<p><b>Implementation Target (Type and Quantity)</b></p> <table border="1"> <tr> <td>FY</td> <td>85</td> <td>86</td> <td>87</td> <td>88</td> <td>89</td> </tr> <tr> <td>\$</td> <td>500</td> <td>2000</td> <td>2000</td> <td>3000</td> <td>3000</td> </tr> </table>	FY	85	86	87	88	89	\$	500	2000	2000	3000	3000	<ol style="list-style-type: none"> <li>1. AID documents.</li> <li>2. Cooperator records and reports.</li> </ol>	<p><b>Assumptions for providing inputs:</b></p> <ol style="list-style-type: none"> <li>1. Satisfactory contractor performance.</li> <li>2. Collaborative working relationship--host country, USAIDs, AID/W and contractor.</li> <li>3. Appropriate resources identified for subcontracts.</li> </ol>
FY	85	86	87	88	89										
\$	500	2000	2000	3000	3000										

1. The original project log frame is attached for comparison.
2. Magnitude of outputs: PRICOR substantially exceeded the projected output of 28 country studies, funding approximately 50 studies. The outputs of the extension are not additive since a) the original log frame did not include systems analyses and b) the average scope of individual studies is substantially smaller, though greater in number and clustered in 12 country programs.
3. Project goals and purpose remain unchanged.

LOGICAL FRAMEWORK

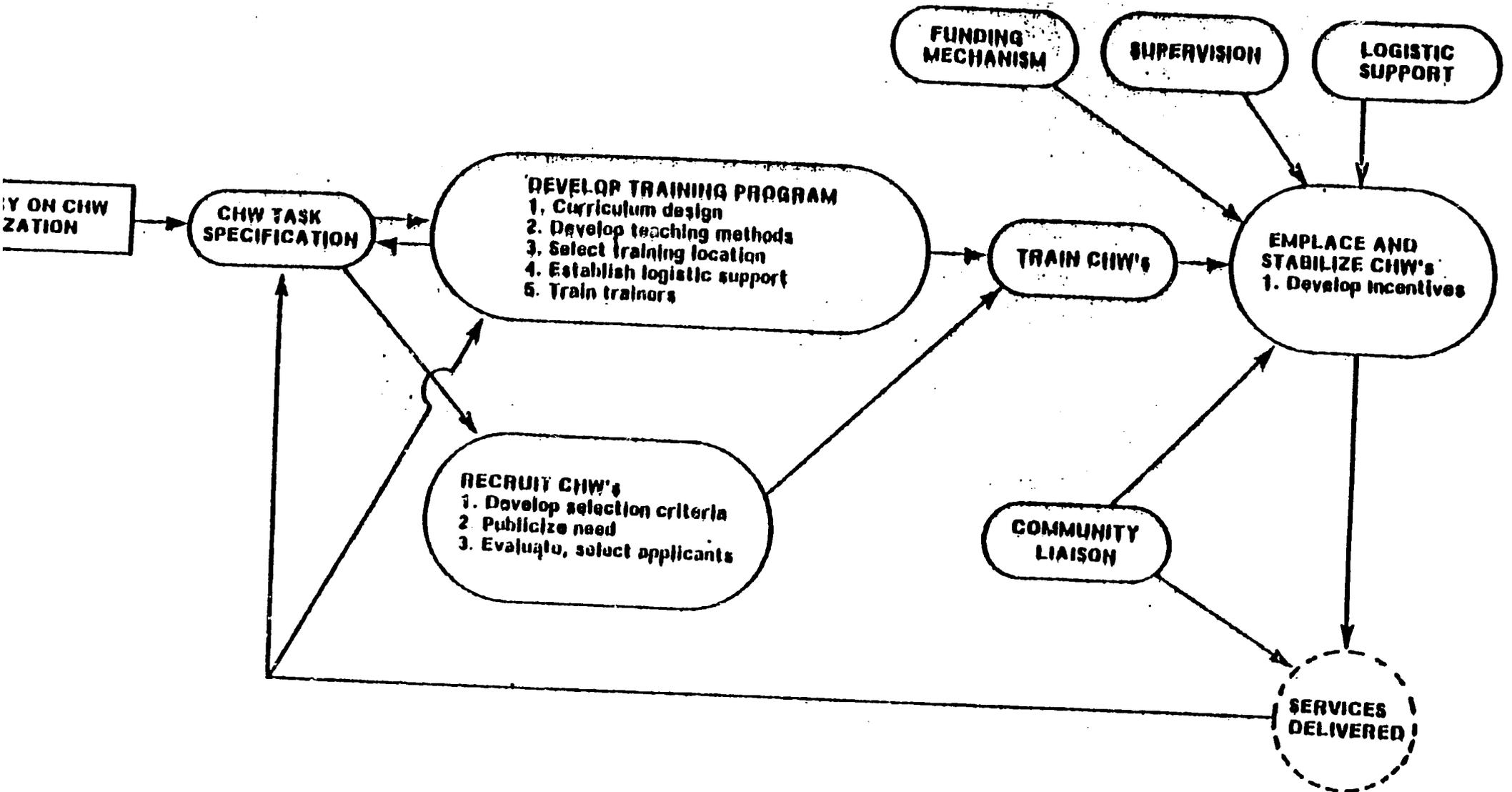
Project Title & Number: Primary Health Care-Operations Research, 936-5920

Year of Project: \_\_\_\_\_  
 From FY 01 \_\_\_\_\_ to FY 04 \_\_\_\_\_  
 Total U.S. Funding: \$2,900,000  
 Date Prepared: 4/15/01

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS										
<p><b>Program or Sector Goal:</b> The broader objective to which this project contributes:</p> <p>To provide quality primary health care services to LDC poor; improve the effectiveness and efficiency of primary health care services which are to meet the health needs of LDC poor in a manner which is appropriate recognizing LDCs personnel and financial constraints.</p>	<p><b>Measures of Goal Achievement:</b></p> <ol style="list-style-type: none"> <li>1. Improved host country and AID staff health programming and resource allocation.</li> <li>2. Extension of PHC services to areas not presently served.</li> <li>3. Appropriate sustainable PHC services provided.</li> </ol>	<p><b>MEANS OF VERIFICATION</b></p> <ol style="list-style-type: none"> <li>1. National planning and program documents.</li> <li>2. Country CDSS.</li> <li>3. PHC services' records.</li> </ol>	<p><b>IMPORTANT ASSUMPTIONS</b></p> <p>Assumptions for achieving goal:</p> <ol style="list-style-type: none"> <li>1. Findings/ recommendations continue to be within LDC capacity to implement.</li> <li>2. Government commitment to PHC remains.</li> <li>3. Adequate local and national resources can be identified and mobilized.</li> </ol>										
<p><b>Project Purpose:</b></p> <p>To resolve issues, program policy and design questions which impede the successful implementation, sustainability or extension of PHC programs.</p>	<p><b>Conditions that will indicate purpose has been achieved: End of project status.</b></p> <ol style="list-style-type: none"> <li>1. Utilization of operations research findings by host country officials in the design or modification of PHC programs;</li> <li>2. Continued use of operations research as a tool to resolve projects policy and design questions.</li> </ol>	<ol style="list-style-type: none"> <li>1. National planning and program documents.</li> <li>2. On-site evaluations and Mission reports.</li> </ol>	<p>Assumptions for achieving purpose:</p> <ol style="list-style-type: none"> <li>1. Information was the barrier to resolution of project issues/question.</li> <li>2. Host country officials accept valid operations research findings.</li> <li>3. Operations research provides timely and appropriate information.</li> </ol>										
<p><b>Outputs:</b></p> <p>Operational research findings focused on policy and design issues.</p> <p>Dissemination of project information which impede the development and extension of quality health care.</p>	<p><b>Magnitude of Output:</b></p> <ul style="list-style-type: none"> <li>-Twenty-eight country OR studies</li> <li>-Nine background/methodological studies.</li> <li>-Three comparative studies.</li> <li>-Four workshops.</li> <li>-Two conferences.</li> </ul>	<ol style="list-style-type: none"> <li>1. Study and conference reports.</li> <li>2. Contractor records and reports.</li> <li>3. USAID evaluation of technical assistance and researcher/host country relationship.</li> <li>4. AID documentation.</li> </ol>	<p>Assumptions for achieving outputs:</p> <ol style="list-style-type: none"> <li>1. MOH has identified policy/design issues for which it needs answers before making PHC consultations.</li> <li>2. OR is tool needed to provide those answers.</li> <li>3. OR can be carried out at an acceptable level of quality.</li> <li>4. Comparative studies contribute to general program development.</li> </ol>										
<p><b>Inputs:</b></p> <ol style="list-style-type: none"> <li>1. Technical assistance in the identification, design, review implementation and utilization of operational research.</li> <li>2. Funding of operational research and methodological studies.</li> </ol>	<p><b>Implementation Target (Type and Quantity)</b></p> <table border="1"> <thead> <tr> <th>FY 01</th> <th>02</th> <th>03</th> <th>04</th> <th>05</th> </tr> </thead> <tbody> <tr> <td>\$ 500</td> <td>1,000</td> <td>2,000</td> <td>3,000</td> <td>3,500</td> </tr> </tbody> </table>	FY 01	02	03	04	05	\$ 500	1,000	2,000	3,000	3,500	<ol style="list-style-type: none"> <li>1. AID documents.</li> <li>2. Contractor records and reports.</li> </ol>	<p>Assumptions for providing inputs:</p> <ol style="list-style-type: none"> <li>1. Satisfactory contractor performance.</li> <li>2. Collaborative working relationship--host country, USAID, AID/W and contractor.</li> <li>3. Appropriate resources identified for subcontracts.</li> </ol>
FY 01	02	03	04	05									
\$ 500	1,000	2,000	3,000	3,500									

Best Available Document

Appendix 1 ; Community Health Workers Subsystem



15

Total Estimated project Budget  
(000's)

	<u>PRICOR</u>			
	<u>FY 82-84</u>	<u>85</u>	<u>86</u>	<u>87</u>
A. Core Staff	903	489	515	235
B. Consultants	167	29	27	50
C. Travel	309	90	119	145
D. Other Direct Costs	912	464	496	462
E. Local Costs and	1,690	1,586	183	180
TOTAL	3,981	2,658	1,340	1,072

FIVE YEAR TOTAL: \$9,050

	<u>PHC-OR Extension</u>				
	<u>FY 86</u>	<u>87</u>	<u>88</u>	<u>89</u>	<u>90</u>
A. Core Staff	300	420	440	460	483
B. Consultants	200	210	220	231	243
C. Travel	100	105	110	116	122
D. Other Direct Costs	125	158	166	174	183
E. Local Costs and Subagreements	225	507	914	1,839	1,734
F. Archive and Analysis	50	50	50	60	80
G. Dissemination	0	50	50	120	80
H. Evaluation	0	0	50	0	75
TOTAL	1,000	1,500	2,000	3,000	3,000

FIVE YEAR TOTAL: \$10,500

33

Appendix 2: The Project Research Strategy As Applied To the supervisory subsystem: The role of the supervisory system parallels the function of OR. Supervisors are theoretically responsible for identifying and resolving individual shortcomings in service delivery. Anecdotally, this process appears to be highly effective in certain programs, such as the BRAC program in Bangladesh and the Child Spacing and Family Planning Association program in Zimbabwe. But, as noted previously, PHC program evaluations frequently cite supervision as an area of outstanding weakness. A.I.D. has probably given more explicit attention to the role of supervision than any other donor in the health sector. However, this complex system remains the least-well understood component of PHC programs, including those supported by the Agency.

In a program where the supervisory system performed effectively, a logical role of OR would be to address service delivery problems that the supervisory system could not resolve. But in programs where supervisors fail to make the most rudimentary assessments of performance or to take the most obvious steps to correct problems, a different approach is indicated. Here, the project will first focus attention on analyzing the supervisory system and developing the ability of the system to identify and resolve service delivery problems. Because of resource limitations, such an intervention may not be complete, addressing only some services or limited to a selected geographic area. Efforts to develop and then document a program's capacity to identify and resolve service delivery problems will be considered an integral part of OR. Similarly, for most studies, the largest component of the initial systems analysis will be a description of what supervisors do or fail to do.

31

1. A Generic model for the Supervisory System: Supervision, as defined above, will be a high priority research area for the extended project. This is based on the assessment that: (1) effective supervision is possible, as some programs show; (2) ineffective supervision is a highly prevalent problem among PHC programs that substantially reduces their performance; (3) efforts to analyze and improve supervision have been infrequent and the resulting body of knowledge is patently inadequate for practical applications. In addition, an effective supervisory system is an important source for identifying concrete service delivery problems that cannot be resolved through routine mechanisms and therefore require OR.. Researchers will be expected to work closely with the supervisory system and in a number of ways, duplicate its efforts. In order to facilitate comparisons among projects, the project will use a single generic model to describe and analyze supervisory activities. This model begins with the operational definitions of service delivery activities discussed above, but is independent of the actual technologies being delivered and the cultural setting. For many programs, a straightforward description of what supervisors do would probably provide few insights beyond documenting its general inadequacy. A standardized model permits investigators to systematically examine each of the functions that are logically necessary for effective supervision, including functions that are entirely neglected, as illustrated below.

For any given service delivery activity that has been defined in operational terms, the role of the supervisor can be summarized in two basic functions: (1) Since the definition of the activity specifies what is desired of the worker in measurable terms, lesser performance can be identified.

35

This situation will be termed a "problem" and one role of the supervisor is to identify these problems. (2) It is pointless to identify problems without taking steps to resolve them, the second major role of the supervisor. For the program as a whole, however, the organization of a supervisory system is complicated by at least three factors:

a. The number of service delivery activities: An ostensibly simple child survival program that asks 1000 CHWs to carry out 200 distinct activities must supervise 200,000 more-or-less simultaneous activities. In practice, many programs simply ignore most activities. A major strategy of this project will be to develop practical applications of sampling methodologies, which are well-suited to describing a situation of this kind, but have been neglected in PHC programs.

b. The number of potential supervisory techniques: As discussed below, the supervisor has a range of options for both identifying and resolving problems in a given activity. These techniques require different amounts of time and probably have different levels of effectiveness. In a real program, supervisors will be forced to be selective. At present there is literally no information to guide such choices.

c. The levels of the supervisory hierarchy: Most programs differentiate the supervisory system into two or more levels. The general pattern, at least in theory, provides for the supervision of the work of field supervisors. These higher level supervisors are generally the most highly trained service delivery staff in the program, inevitably a scarce resource. The organization of the supervisory system should attempt to make the most effective use of this rare technical talent. Information on this element of PHC programs is virtually nonexistent.

For purposes of analysis, the range of problem-identification techniques available to the field supervisor will be classified along the following lines:

1. Skill and knowledge evaluation: If a CHW is incapable of preparing an acceptable ORT solution, there is little point in spending time in the community assessing this area. The skills needed to provide child survival and other basic health services are, for the most part, well defined. In practical terms, information on technical competence is among the most easily accessible information in a delivery system. It is remarkable how little is known about the skills of service personnel in most programs.

2. Problems identified by the health worker: Many programs encourage field supervisors to ask health workers about any "problems." Anecdotal evidence from a number of programs suggest that while this appears to be a simple, straightforward and useful technique, supervisors are generally ineffective in applying it. In one program with minimal use of ORT to treat childhood diarrhea, supervisors failed to elicit a single ORT-related problem after more than 12 visits.

Virtually nothing is known about how to train supervisors to use this potentially useful and cost-effective technique. Project studies will address topics of this level of specificity.

3. Assessing quality of care: Satisfactory knowledge and skills do not necessarily result in appropriate treatment. There are difficulties associated with every available approach, including (a) direct observation, (b) follow-up interviews of patients, and (c) role playing techniques. But too many programs make no systematic effort whatever to describe the quality of services provided. Project studies will develop and refine practical approaches to this issue that can be applied by ordinary supervisors. For many child survival interventions, technical standards are well defined. What remains to be developed is concrete guidance for how the supervisor can use these standards.

4. Estimating population coverage: Many programs actively attempt to provide selected health services to a fairly well-defined population. From the field supervisor's perspective, this means that, for example, if a child in the community develops severe diarrhea, yet never comes to the attention of the local health worker, then there is certainly a service delivery problem.

Surprisingly few supervisory systems systematically monitor coverage at the local level, even though this is the level at which efforts to increase coverage must take place. Project studies will examine techniques for monitoring local coverage, their time cost, and the utility of the information they produce.

5. Evaluating the effectiveness of educational efforts: Although communication specialists have extensive experience in evaluating different approaches to health education, only rarely do regular field supervisors apply these approaches. Many PHC programs invest heavily in training workers in health education in a variety of topics, but then fail to monitor performance in any way or take any systematic action to improve effectiveness. Project studies will focus on the role of non-specialist supervisors in selected educational interventions.

6. Follow up of old problems: Remarkably few supervisory systems have any mechanism for tracking problems once they have been identified. Identifying problems in the first place usually requires valuable time. Further it is rarely prudent to assume that a problem was resolved after a single supervisory visit. If programs are failing to monitor even the problems they identified in the past, long term improvement in performance is severely hampered. This basic process is virtually unexamined in PHC programs.

The management literature has addressed the options of the supervisor for resolving problems, but rarely with specific reference to PHC or child survival programs. Where the worker lacks basic skills despite formal training, specific retraining is the obvious response to a performance problem. Individualized training that begins with an immediate problem has a number of advantages over formal training courses in many situations. Simply explaining or demonstrating what is to be done may be sufficient in some cases, particularly where the health worker's role was not explained in detail at the beginning. In other cases, the supervisor's repeated attention to a persistent problem may have a cumulative impact.

These techniques appear simple and obvious in the abstract. But in dealing with an actual problem, such as the re-education of a segment of the community that has rejected ORT, the optimal course of action is far from obvious. Nevertheless, health projects have left the problem-solving process virtually undocumented and unanalyzed.

Even less is known regarding the motivation of volunteer or paid workers. Material or symbolic incentives based on performance have had apparent success in the rare programs where they have been used, but even these few examples have not been examined in detail. This lack of attention to such a basic management principle is disturbing but perhaps understandable in programs that are unable to monitor performance in the first place. Even simple verbal recognition of excellence is rarely approached in an organized manner. Supervisors are generally not trained in the use of such encouragement to reinforce a high level of performance or a notable improvement. The project will examine the use of these simple techniques in relation to a range of basic service delivery activities.

While available information on the activities of PHC field supervisors is inadequate, the situation with respect to the functions of higher level supervisors is far worse. Even though field supervisors in PHC programs tend to be lower level professionals, few programs provide them with any ongoing technical guidance. Even less is the supervision of field supervisors systematically described and analyzed. The most obvious role for a second level supervisor is to deal with service delivery problems the field supervisor could not resolve. This is one approach to making efficient use of a program's most sophisticated personnel.

Beyond this, if a field supervisor misses serious problems when she evaluates a CHW activity like nutrition education, it is the role of the second level supervisor to discover this inconsistency and take action to correct it. Available studies and evaluation reports are literally devoid of analysis of these basic processes, which will be examined under this project.

The second level supervisor should play an analagous role in assessing the field supervisor's performance in resolving known problems. In evaluating both problem identification and resolution, the second level supervisor may draw on any of the techniques available to the field supervisor. Since higher level supervisors must deal with much larger total number of CHW activities, the sampling fraction they use must be correspondingly smaller. It is nevertheless feasible for higher level supervisors to orient their visits around the discrete activities of individual CHWs, as the Zimbabwe program mentioned earlier has demonstrated. But even in programs where the effectiveness of field supervisors is monitored routinely, there has been virtually no documentation of this fundamental process that might be applied in other programs. This project will analyze different approaches to monitoring the effectiveness of supervision, relating these approaches directly to specific service delivery activities.

Clearly, the objectives of a second level supervisor's infrequent interventions should not be limited to resolving the problem at hand. A more general objective is to train the field supervisors to deal with similar situations in the future. With time, field supervisors should become increasingly skilled at dealing with routine problems.

In theory, the ongoing transfer of skills and knowledge, using real world problems, is one of the most basic elements of low-cost delivery systems. Similar considerations apply to local innovations and unusually successful approaches to service delivery. Few PHC and child survival programs have established systematic approach to developing of the skills supervisors in this way. Detailed analyses of these efforts are virtually nonexistent. The project will develop and apply a standardized framework for analyzing different approaches to the in-service training of supervisors. Using case studies as well as quantitative methodologies, the project will produce training materials suitable for use in a variety of PHC and child survival programs.

Few PHC programs have devised a realistic strategy for dealing with the fact that field supervisors are responsible for monitoring a very large number of distinct health worker activities, numbering literally in the thousands. A common approach is the equivalent of a stereotyped supervisory visit which examines the same small number of variables repeatedly, in effect ignoring the vast majority of health worker activities. This approach is usually structured around a standardized reporting form. Paradoxically, observations of such visits suggest that supervisors are almost at a loss for how to spend their time while most of the CHW's activities go unattended. While specific training for supervisors in this area is an important option, there is also a major role for the second level supervisor in monitoring and guiding the process of deciding which activities to examine on a given visit. It is difficult to imagine how such a complex task can be carried out efficiently without a more functional reporting system.

4/2

Much attention has been devoted to management information systems oriented toward a global description of program activities, such as the number of vaccinations given. However, there has been little effort to develop useful information systems to organize the work of the supervisory hierarchy. Supervisors clearly require a practical sampling frame that indicates when individual CHW activities were assessed and whether or not there is an unresolved problem. It would highly desirable, but certainly more difficult, to develop a format that also describes the nature of the problems that have been identified. Collecting reliable information of this kind would require substantially more training than is traditionally devoted to this area. Given the virtual absence of research in this field, it is uncertain whether or not common service delivery problem can be usefully reduced to a limited number of standard categories.

To the extent that the problem-identification and resolution process can be communicated through a reporting system, the need for costly field visits could be substantially reduced. The project will develop practical reporting systems for use by the supervisory hierarchy. Project research efforts will also attempt to characterize the most cost-effective supervisory approaches for specific common service delivery problems. Because these issues involve analyzing correlations and trends among a large number of variables, the project will make extensive use of microcomputer technology, including both routine management and research applications.

The potential role of third-and higher-level supervisors is a logical extension of the role of the second-level supervisor. Project efforts to characterize, develop, and refine higher-level supervisory activities will parallel those outlined for the second-level supervisor. In principle, the organization of the supervisory systems should facilitate the ongoing transfer of problem-identification and-resolution skills from a program's highest ranking technical experts to individual health workers. The project will comprehensively describe the existing approach to supervision, applying the model described above to organize observations not only of what is done, but also of basic functions that are neglected. To the extent feasible, the project will provide training and technical assistance to establish a supervisory system that performs these basic functions. The project will then monitor the effectiveness of individual components of the system, using OR studies to further document and refine supervisory activities. Project staff will integrate the findings of studies in a number of delivery systems on an ongoing basis, and periodically analyze these data for general trends and conclusions.

Project interventions require program cooperation at a policy level, but do not assume any particular level of resources for supervision or other components of the delivery system. Indeed, it will be to the advantage of the project if the programs that are studied include a range of available resources. The project will attempt to provide policymakers and managers with better information regarding the likely impact of investing in supervision and other subsystems. These decisions are too important to be left to guesswork.

49

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