

PD-ARH-383

85879

COST RECOVERY PROGRAMS FOR HEALTH PROJECT FIRST PROJECT PAPER SUPPLEMENT

October 13, 1993

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SANITIZED VERSION

NO PROCUREMENT SENSITIVE INFORMATION INCLUDED

Handwritten notes:
1. [unclear]
2. [unclear]
3. [unclear]

**COST RECOVERY PROGRAMS FOR HEALTH PROJECT
FIRST PROJECT PAPER SUPPLEMENT**

October 13, 1993

PROJECT DATA SHEET

1. TRANSACTION CODE

A = Add
 C = Change
 D = Delete

Amendment Number

DOCUMENT CODE

3

2. COUNTRY/ENTITY
Egypt

3. PROJECT NUMBER
263-0170

4. BUREAU/OFFICE
Near East

5. PROJECT TITLE (maximum 60 characters)
Cost Recovery Program for Health

6. PROJECT ASSISTANCE COMPLETION DATE (PACD)

MM DD YY
09 30 97

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

A. Initial FY: 88

B. Quarter: 4

C. Final FY: 96

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

A. FUNDING SOURCE	FIRST FY			LIFE OF PROJECT		
	B. FX	C. L/C	D. Total	E. FX	F. L/C	G. Total
AID Appropriated Total	10,000	-	10,000	73,229	5,271	78,500
(Grant)	(10,000)	(-)	(10,000)	(73,229)	(5,271)	(78,500)
(Loan)	(-)	(-)	(-)	(-)	(-)	(-)
Other U.S.						
1.						
2.						
Host Country						
Other Donor(s)				-	35,240	35,240
TOTALS	10,000		10,000	73,229	40,513	113,742

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) ESF	583	530		30,000	-			78,500	-
(2)									
(3)									
(4)									
TOTALS				30,000	-			78,500	-

10. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)
920 910

11. SECONDARY PURPOSE CODE

12. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)
A. Code DEL
B. Amount

13. PROJECT PURPOSE (maximum 480 characters)

To enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people.

14. SCHEDULED EVALUATIONS

Interim MM YY MM YY Final MM YY
05 92 11 96

15. SOURCE/ORIGIN OF GOODS AND SERVICES

000 941 Local Other (Specify) Egypt

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

This amendment clarifies the overall rationale and strategic objective of the Project and defines a sub-purpose for each component; clarifies the specific objectives and scope of activities for Component One; and recosts the project inputs.

Concurrence: Douglas Franklin, AD/FM

17. APPROVED BY

Signature

Title Henry Bassford
Mission Director

Date Signed

MM DD YY
09 21 97

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

MM DD YY

a

AMENDMENT TO THE
PROJECT AUTHORIZATION

Name of Country: Arab Republic of Egypt Name of Project: Cost Recovery Programs for Health

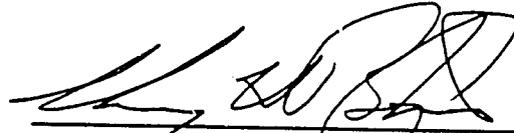
Number of Project: 263-0170

1. Pursuant to Section 531 of the Foreign Assistance Act of 1961, as amended, the Cost Recovery Programs for Health Project was authorized on October 20, 1988. The authorization is hereby amended as follows:

a. Paragraph 1 is amended by deleting "Ninety Five Million United States Dollars (\$95,000,000)" and replacing it with "Seventy-Eight Million Five Hundred Thousand United States Dollars (\$78,500,000)."

b. Paragraph 1 is further amended by: (1) deleting the phrase "six years" from the fifth sentence and replacing it with the phrase "eight years"; and (2) deleting the phrase "eight years" from the last sentence and replacing it with the phrase "nine years."

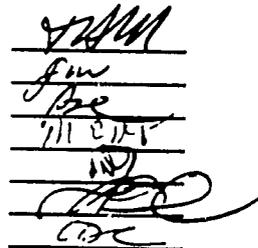
2. The authorization cited above remains in force except as hereby amended.


Henry H. Bassford
Director

8/21/93
Date

Clearances:

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(A)AD/PDS, JMalick
PDS/PS, BCypser
(A)OD/HRDC/H, MTanamly
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AD/LEG, TCarter
D/DIR, CCrowley



DRAFTED:LEG:TCarter:ss:(08/19/93):1PATH170

ACRONYMS

AED	Academy for Educational Development
BU	Boston University
CGC	Credit Guarantee Corporation
CCO	Curative Care Organization
CRHP	Cost Recovery Programs for Health Project
DDM	Data for Decision Making Project
FP	Family Planning
HBCU	Historically Black Colleges and Universities
HEALTHCOM	Health Communications Project
HFSP	Health Financing and Sustainability Project
HIO	Health Insurance Organization
HMO	Health Maintenance Organization
IDC	Integrated Development Consultants
IFB	Invitation for Bids
IKR	Internal Rate of Return
MCH	Maternal and Child Health
MOH	Ministry of Health
NPV	Net Present Value
PACD	Project Activity Completion Date
PHC	Primary Health Care
PPRGS	Policies, Procedures, Regulations, and Guidelines
PSA	Procurement Services Agent
PY	Person years
QA	Quality Assurance Project
SIO	Social Insurance Organization
WHO	World Health Organization

Bab Chapter of the GOE Budget

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I. EXECUTIVE SUMMARY

A. Overall Rationale and Strategic Objective for the Project

1. Background and Rationale

Although the Egyptian government has for years stated that the provision of health services to the public is a high priority, only 1.8 percent of the total government budget is spent on health care provided through Ministry of Health (MOH) supported facilities. The MOH operates an extensive health care system which provides almost free health care to all as mandated by the constitution. By attempting to provide health care to all Egyptians from tax-based sources, the needs of the lowest income and highest risk populations are not addressed. If the objective is to subsidize health care for those who cannot pay, then the mode of subsidy chosen is very inefficient. It has resulted in high costs, low quality of care and low utilization of services. Moreover, this policy has spread the resources of the MOH so thin that it is unable to fund the preventive services the population requires. Most of the government health finances are spent on curative care, leaving little for the areas where government money would have the biggest payoff: namely, public health programs, preventive care and medical services to the poor (especially the rural poor).

The sources and mechanisms used to fund health services, i.e., national budgets, beneficiary payments, insurance, and donor funds, are currently limited. As a consequence of the fiscal deficit and economic reforms, the GOE is under pressure to reduce the budget for social sector programs, including health. The combination of rapid population growth and contracting government budgetary resources has made it increasingly difficult for the GOE to sustain the present level of services.

On the positive side, preliminary data from household and inpatient surveys conducted by the Cost Recovery Programs for Health Project (CRHP) reveal Egyptians are willing to pay and do pay for services. In addition, some recent policy changes are promising to yield results in improving the efficiency of public spending in the health sector. A series of decrees were issued recently by the GOE, beginning in 1988, which relate to cost recovery. These include important steps in decentralizing management of hospitals and especially price setting. The GOE Five Year Plan for 1992-1997 enunciates some new policies and strategies that reveal a shift in MOH orientation away from free care to a social policy that seeks equity while recognizing the need for new sources of financing for health services. While GOE decrees for cost recovery indicate commitment to the concept of charging fees-for-service, much remains to be done in the policy area to assure that Project efforts would have a good chance of success.

2. Revised Project Goal, Purpose, and Component Sub-Purposes

The revised goal of the CRHP is to enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people. The revised purpose of the Project is to broaden and diversify approaches for financing personal health services in Egypt. A sub-purpose for each of the Components has been identified, which will feed into and support the attainment of the overall Project Purpose identified above: Component One will seek to develop and test cost recovery systems in MOH facilities as a model for country wide application; Component Two will seek to improve the efficiency, utilization, and management of existing cost recovery organizations; and Component Three will seek to expand private sector financing of individual, group and pre-paid care practices.

3. Project Strategy

In order to attain the Project goal and purpose set out above, the Project needs to demonstrate the effectiveness of selected mechanisms for establishing a more rational financial basis for the Egyptian health care system. Although interdependent and supportive of each other, each of the components adopts a strategy which can be viewed as focussing on a particular approach to financing personal health services in Egypt. Component One focuses on mechanisms that will support recovery of the greatest percentage of costs from MOH curative services as possible from those who can afford to pay by allowing public hospitals to function more autonomously and efficiently. As hospitals begin to pay for themselves, MOH resources can be reallocated from curative care for the general public to preventive programs, such as endemic disease control, expanded immunization programs, maternal and child health care, research, etc., and to target scarce MOH resources on the poorest segments of the population. Component Two focuses on mechanisms that will support management improvements of existing cost recovery organizations in order to control costs, provide incentives for preventing illness, and offering services affordable to the clients. As part of this effort, it will examine ways to expand membership and increase the efficiency of existing health insurance systems. Component Three focuses on mechanisms that will facilitate the expansion of private sector service delivery mechanisms and health insurance schemes in order to reduce MOH's burden for direct financing of care for the general public.

To increase the cohesion of the three components and to guide the process of achieving policy objectives, Component One of the Project will also seek to strengthen the MOH capacity to analyze health financing issues and policy options.

4. Planned Project Outputs

Component One

- ◆ Demonstration of successful cost recovery operations in a minimum of four MOH hospitals and one MOH polyclinic.
- ◆ Technical and management capability in place within the MOH to replicate cost recovery model to other health facilities.
- ◆ A system established in the MOH Planning Directorate to track public sector curative and preventive health expenditures.

Component Two

- ◆ MISs installed and being utilized at Health Insurance Organization (HIO) and Curative Care Organization (CCO) for improved management, administration, financial planning and control, and marketing.
- ◆ Expanded coverage by both HIO and CCO.

Component Three

- ◆ Ten commercial banks actively participating in an improved commercial banking system to provide financial services to health care providers.
- ◆ Five thousand loans to new or expanding private sector health care providers, particularly in rural areas and secondary cities.
- ◆ Viability of new or expanded practices indicated by a default rate of no more than 10%.
- ◆ Two new private managed health care systems (i.e., HMO-like schemes).

An extension of the PACD for the Project for an additional year of implementation is projected to provide adequate time to accomplish the revised outputs and sub-purposes of the Project.

B. Specific Objectives and Scope of Activities for Component One

Component One will include five Phase A and five Phase B pilot facilities. For the Phase A facilities, USAID will fund a complete package of technical assistance, training, renovations, and equipment. If the success criteria defined in this paper (see Section VI.C.2) are met on a timely basis, then the intention is to

expand the provision of Project funded technical assistance and training to five additional hospitals and polyclinics. For these five Phase B facilities, USAID will fund technical assistance and training, while alternate sources of funding will be used for the cost of any renovation and equipment improvement that might be required to upgrade these facilities to basic cost recovery standards. Sources of such funding would consist of revenue generated from the facilities own cost recovery, commercial loans, or possibly other donors. The eventual long range objective would be for the MOH to diffuse the approach nation-wide using the mechanism of the CRHP Directorate, whose capabilities and capacity to undertake cost recovery would have been strengthened under the Project. However, this nation-wide program is beyond the scope of this Project.

The five Phase A facilities selected are: Embaba Hospital in Giza; 15th of May Hospital in Helwan; Shark El Medina Hospital in Alexandria; El Kantara Gharb in Ismailia; and Kafr El-Dawar in Beheira. Component One has developed, or is in the process of developing, conversion plans (or commissioning plans in the case of new facilities), business plans, marketing strategies, and policies and procedures for each of the target facilities. The Component is also providing management training, practical hospital operations training, commodities, equipment, and limited renovations to meet basic safety and sanitation standards at each facility. A Quality Assurance program will be introduced to complement the other inputs and ensure improvements in the quality of care offered. The Component will assist the facilities with start-up expenses in order to ensure that adequate quality services can be offered to encourage people to use the facility and be willing to pay more for their care. The Component will also continue to conduct preliminary assessments of the five additional Phase B facilities for consideration by the Project. First preference will be given to facilities that are currently in good condition and could benefit immediately from better management and improved systems.

The Project will also strengthen the capability of the CRHP Directorate in planning, public relations, marketing, analysis, and monitoring. It will enhance health planning and policy options through analyses and improved data availability, as well as promote social financing and insurance plans through conferences, development of prototypes, and contracts with HIO.

C. Project Costs

The total A.I.D. contribution to the Project is estimated to be \$ million. This will be used to finance: technical assistance and training for both Phase A and Phase B facilities, commodities (including biomedical equipment) and renovations for Phase A facilities, facility start up costs, and local costs for the MOH under Component One; technical assistance, commodities, renovations, training, and local costs for both HIO and CCO under

Component Two; and technical assistance for promotion of the private sector medical market under Component Three; as well as audit and evaluation.

The total GOE contribution of the Project is estimated to be \$ million (£E equivalent), i.e., £E million including £E million from the USAID FT-800 Account. Planned GOE Project inputs include: staff salaries, premium pay, office space, utilities, furniture, research, and operating expenses for the CRHP Directorate; salaries, operating expenses, furniture, equipment, and pharmaceuticals for all CRHP facilities. In addition, the GOE is expected to finance any renovations and biomedical equipment for the Phase B facilities.

The estimated Project costs are indicated in the following table:

SUMMARY TABLE
Estimated Project Costs
(\$000)

	TOTAL
COMPONENT ONE	
COMPONENT TWO	
COMPONENT THREE	
AUDIT/EVALUATION	
CONTINGENCY	
TOTAL

D. PROJECT AMENDMENT NEGOTIATION STATUS

1. HIO/SIO Data Sharing - SIO has computerized files of all employers and employees who pay into SIO; SIO collects HIO premiums on a subset of these, and gives HIO the 4% of total collections set aside for HIO premiums. HIO has been trying unsuccessfully to obtain data files from SIO containing lists of employees eligible for HIO benefits. Currently, HIO constructs its registry of eligible beneficiaries from lists obtained individually from each company. HIO employees spend thousands of hours manually checking these lists and updating them through visits to employers. We cannot build an MIS with such an antiquated method of data collection. USAID and the GOE are devoting considerable resources to help make HIO a more efficient and better managed organization. It is USAID's position and the technical view of the contractor that there is no other alternative for HIO than to obtain from SIO the necessary data on eligible beneficiaries for whom SIO has collected premiums. These data files should be made available to HIO on magnetic tapes on a regular basis, as needed by HIO, at no cost to HIO. HIO already pays SIO for the collection of the

premiums and the USAID Prime Contractor and HIO MIS staff can prepare the software program for SIO. The need to resolve this data sharing issue was communicated to HIO with a PIL.

2. GOE Contribution - The GOE cash contribution to this project has been growing steadily each year. However, in the next few years the project costs to the components will be higher. For example, as HIO starts running its new automated information system, the operating expenses will increase. It is expected that the system will more than pay for itself in the future through more efficient management and cost containment, but for the next few years additional cash will be needed.

3. Project Funding Level - The revised overall project budget is significantly different from the 1987-1988 estimates. Because of the substantial under-budgeting of the MIS work for HIO, and to some extent CCO, Component Two will be allocated \$ million rather than \$ million. The number of MOH facilities to be assisted directly by the project has been reduced from 50 to 5-10. Although Component One has been enriched by addition of the proposed strengthening of the Planning Directorate and new dimensions of Quality Assurance and Marketing assistance for the pilot facilities, the total budgeted for this component has been reduced from \$ million to \$ million. Even though it has been decided to use LC for most of the Component Three funding, and some of the dollars have been reallocated to Component Two, the net result is a reduced dollar investment in the project, i.e. from \$ million to \$ million. The MIC and MOH need to both agree to the revisions in funding.

II. PURPOSE OF THE PROJECT PAPER SUPPLEMENT

The purpose of this Project Paper Supplement is threefold:

- ♦ To clarify the overall rationale and strategic objective for the Project, including the relationship among the components, and to define a sub-purpose for each component;
- ♦ To clarify the specific objectives and the scope of activities for Component One. This includes additional technical analyses, as well as refining and recosting the Component inputs; and
- ♦ To recost the inputs for Component Two and Component Three, based on experience to date.

III. PROJECT RATIONALE, GOAL, PURPOSE, AND STRATEGY

A. Project Background and Rationale

1. Description of the Health Care Sector

The health care system of Egypt is a vast network of public and private facilities that covers the entire country and extends access to care to nearly 100 percent of the population. Although the Egyptian government has for years stated that the provision of health services to the public is a high priority, only 1.8 percent of the total government budget is spent on health care provided through MOH supported facilities. An estimated 1.1% of GNP is spent on health care with private and public resources. (The US spends approximately 12% of GDP on health care.)

The number of hospitals has grown significantly over the past few decades. Today, there are 107,229 hospital beds available in both public and private facilities according to the Ministry of Health (MOH). Of these beds, 80% belong to the MOH, university and teaching organizations, providing almost free care to the majority of Egypt's 56 million people. The Health Insurance Organization (HIO) and the Curative Care Organization (CCO), both independent bodies in the public sector, receiving MOH subsidies, are responsible for 9%. Voluntary organizations are responsible for 1%; while the private sector claims a growing 10% of available beds. Eighty percent of the MOH budget currently goes to pay the costs of curative care in the public facilities. Most of the funds are used to pay salaries of personnel; very little is left for operating expenses and maintenance.

There are now more than 3,500 primary health care facilities: Rural Health Clinics, Urban Health Clinics, and Maternal and Child Health Clinics. These facilities provide most of the preventive health services and some curative care, especially in rural areas. In addition, there are indigenous health workers, especially dayas (who assist in 80% of births), still serving the population.

Unfortunately, the Egyptian public is dissatisfied with much of the quality of care in these facilities. Consequently, government facilities are underutilized. For example, while bed occupancy may range between 80 percent and 100 percent in some large city hospitals, MOH statistics for 1990 indicate a nationwide bed occupancy of only 48.5 percent in general and district hospitals. Very low occupancy in most regional and district hospitals is responsible for the low national average. Also, Egyptians made only 1.5 visits per person to MOH outpatient facilities in 1990. These utilization rates compare unfavorably with countries where the population has equal or more restricted access to health services. Low utilization rates, combined with the rising cost of

providing almost free health care to all Egyptians, has resulted in declining cost effectiveness.

2. Utilization of Resources

The physician dominance of the health sector combined with the almost exclusive curative nature of medical education has led to a predominance of high-technology, curative approaches to health care rather than the low-technology, more cost-effective measures recommended by the WHO and many donors. Most of the government health finances are spent on curative care, leaving little for the areas where government money would have the biggest payoff: namely, public health programs, preventive care and medical services to the poor (especially the rural poor). The MOH operates an extensive health care system which provides almost free health care to all as mandated by the constitution. By attempting to provide health care to all Egyptians from tax-based sources, the needs of the lowest income and highest risk populations are not addressed. If the objective is to subsidize health care for those who cannot pay, then the mode of subsidy chosen is very inefficient. It has resulted in high costs, low quality of care and low utilization of services. Moreover, this policy has spread the resources of the MOH so thin that it is unable to fund the preventive services the population requires. An additional factor is the GOE policy to employ all medical school graduates, nurses, etc., which contributes to over staffing in most urban facilities.

The combination of rapid population growth and contracting government budgetary resources has made it increasingly difficult for the GOE to sustain the present level of services. The health sector has struggled unsuccessfully to keep up with the rapidly expanding recurrent cost requirements of operating its facilities, resulting in shortages of essential supplies. In addition, there has also been a steady deterioration of the physical infrastructure due to a lack of funding for maintenance and repairs.

The government is not allocating its limited health resources in the most cost-effective manner. Public sector administrators and technical staff have not been trained to manage resources efficiently. There have been few incentives to efficiency improvements and decision making has been centralized. Since most indicators used in public health program monitoring and in planning are divorced from the financial information systems, there are few sources of management information that allow managers to evaluate efficiency of their activities. The HIO, for example, estimates that more than 50% of their total costs are for pharmaceuticals for which they do not have a good system for monitoring utilization.

The sources and mechanisms used to fund health services, i.e., national budgets, beneficiary payments, insurance, and donor funds, are currently limited. As a consequence of the fiscal deficit and economic reforms, the GOE is under pressure to reduce the budget

for social sector programs, including health. The MOH still has in place a policy to provide free or almost free care to all of its citizens which prevents generating significant revenues to finance recurrent costs. Private health care services are a relatively small proportion of the total health system, but the GOE now welcomes the expansion of the private sector in health. As in most countries, private health care practitioners are heavily concentrated in metropolitan areas. Currently there are no private health maintenance organizations, and only one newly established prepaid health care system.

A recent survey shows that Egyptians are willing to pay and do pay for services. Preliminary data from household and inpatient surveys conducted by the Cost Recovery Programs for Health Project (CRHP) reveal that residents in a lower income area of Cairo now pay between £E 54 and £E 640 per inpatient visit for services at the MOH Embaba Hospital. This includes even the "free patients". The facilities now identified as cost recovery sites need to establish fees in line with their overall costs, improve the quality of care to attract more clients who are willing to pay or whose employer is willing to pay for their care, contain their costs, and increase their revenue.

3. Policy Environment

Decrees - Some recent policy changes are promising to yield results in improving the efficiency of public spending in the health sector. A series of decrees were issued recently by the GOE, beginning in 1988, which relate to cost recovery. These include important steps in decentralizing management of hospitals and especially price setting. Cost recovery hospitals are now authorized to retain approximately 95% of the fees collected for use as incentive payments to medical staff and to pay recurrent costs. These are important first steps because experience in other countries has shown that where planning, budgeting, and monitoring are decentralized and authority to manage resources granted to local decision makers, quality of care can be improved and recurrent costs covered.

The decrees relating to cost recovery are as follows:

- ♦ Ministerial Decree No. 2 H/1988, regarding the Regulatory/Financial By-Law for local governmental hospitals and curative care units.
- ♦ Ministerial Decree No. 248/1991, delegated to governors the authority to set prices for curative care services in their governorates, and to modify, as necessary, previous price lists for economic (for fee) curative health services. This decree was significant in that it authorized hospitals to raise the number of fee-paying beds (referred to by the MOH as economic beds) from 10%

to a higher level to be justified in a plan submitted to the MOH.

- ◆ Ministerial Decree No. 248 also authorized the Hospital Board of Directors to be the governing body for local governmental hospitals and curative care units, and ensured the autonomy and institutional identity of hospitals as units granted enhanced management authority and freedom in policy-making decisions.
- ◆ All governorates are preparing plans to initiate fee-for-service for a percentage (which they will establish) of the beds. To date, some five governorates (Ismailia, Cairo, Giza, Sharkeya, and Alexandria) have finalized these plans, identifying the number of beds they will designate as fee-paying. In March 1992, these governorates began charging fees for a higher percentage of beds in all public hospitals. Two other governorates, Port-Said and Kafr El Sheikh, also have instituted fees.
- ◆ The MOH presently plans to reduce government support to hospitals within two years of institution of fee-for-service to 50% of the hospital patients.

Cost recovery hospitals are now authorized to retain about 95% of the fees: 40% is paid out to the medical staff as incentive pay; the remaining 45% can be reinvested in the hospital to continue to upgrade its services and to cover operating costs. What is not reinvested must be returned to the governorate.

While GOE decrees for cost recovery indicate commitment to the concept of charging fees-for-service, much remains to be done in the policy area to assure that Project efforts would have a good chance of success. Most important is GOE establishment of a legal and regulatory basis for cost recovery hospitals within the MOH, that clearly delegates personnel and budget management decisions to the hospital level.

Cost recovery hospitals must be able to reward and penalize staff for performance, transfer unsatisfactory staff to other hospitals, hire contract staff, and set terms and conditions for their employment. These hospitals must be able to set up their own management and administrative systems. They must have the authority and flexibility to use retained funds to defray operational costs, to set up building and equipment maintenance schedules, to obtain services and supplies needed for maintenance, and to market their services.

While an overall decree giving hospitals the authorities outlined above does not yet exist, considerable leeway has been accorded to governorates in this domain. For example, the progressive Ismailia governorate has accorded to its designated cost recovery hospital

the authority to choose its own physicians, and also to limit the number of doctors it will have on its staff. It will also have the authority to release or transfer staff that do not perform. The 1964 presidential decree (amended in 1967) which established CCO is potentially appropriate for cost recovery hospitals. This will be further studied as part of Project implementation.

The GOE must also think through its future plans on subsidies to cost recovery hospitals. Phasing out subsidies, if implemented too early, could jeopardize the success of cost recovery hospitals by removing a needed source of funding. It could actually serve as a disincentive. Total phasing out of subsidies to curative care may not be desirable, depending on the number of free beds facilities will need to have. Policies in these areas will need to be carefully determined in conjunction with findings of the Project.

Planning - The GOE Five Year Plan for 1992-1997 enunciates some new policies and strategies that reveal a shift in MOH orientation away from free care to a social policy that seeks equity while recognizing the need for new sources of financing for health services. The Plan lays out the following parameters for its activities:

- ♦ Social justice in the provision of primary health care within a social solidarity framework to all citizens with an emphasis on improved medical care appropriate to the individual's level of income.
- ♦ Increased community involvement in financing, administration and implementation of health services.
- ♦ Expand HIO beneficiaries and introduce other types of insurance schemes that are suitable for businesses and workers and their different economic and geographic situations, and decentralize the organization and affiliate agencies offering insurance services to better serve their beneficiaries.
- ♦ Utilize the health card system as a tool to strengthen the referral system for specialized health services and the horizontal integration of the different services offered by the system.
- ♦ Emphasize the priority importance of MCH, family planning and community health in all health development programs and the direct impact they have on health status.
- ♦ Make all Health Services Units, at all levels, potential resources for training, learning and medical research in coordination with other related ministries, centers and academic institutions.

- ♦ Increase the emphasis on studies related to health economics to assist in the development of the budgets of governmental health care systems.
- ♦ The selection criteria for new health projects and programs will be:
 - Primary health care, particularly MCH and FP.
 - Focus on underserved groups and areas.
 - Focus on preventive and emergency services.
 - Focus on the implementation of on-going investment projects.
- ♦ Emphasize the continual upgrading of the health information system and its use to develop health plans and policies as well in evaluating services.
- ♦ Continually review and modify health legislation to fit the social changes and to serve the citizens.

B. Project Goal and Purpose

1. Original Project Goal, Purpose, and Components

The original Project design was undertaken between 1986 and 1988 and was documented in the original Project Paper, entitled, "Egypt: Cost Recovery Programs for Health Project" (CRHP). The original Project Paper stated that the Project goal was to improve the health of the Egyptian people by enhancing the quality, availability, sustainability, and accessibility of health services, while the Project purpose was to establish a sound financial basis for the health sector through cost recovery systems. It has three main components: (1) implementation of policy changes to convert selected hospitals and clinics to fee-for-service facilities; (2) promotion of improved management practices in two leading health care systems currently using cost recovery systems; and (3) expansion of the private health care sector by providing credit to private practitioners, the development of prepaid group practices, and improved practice management for private physicians.

However, it became clear during Project implementation that the original Project design did not adequately elaborate the individual objectives (or sub-purposes) for each component. In addition, the magnitude of Project inputs was not explicitly defined, particularly with respect to the renovations and equipment to be purchased under Component One. Therefore, the budget for Component One was not accurately estimated. The budget for Component Two was also seriously underestimated. As these aspects have become clearer during implementation of the Project, it was determined

that a better definition of a cost recovery facility was needed and the steps required to get there should be described in more detail.

Further, it has become clear during the early years of this Project that considerable policy dialogue with the GOE is required in order to agree upon the target definition of cost recovery and the many and complex systems changes that will be required to get there. The Mission has begun discussions with the MOH regarding the long range objective of the Project, i. e. to reduce the quantity of general government subsidies to personal care and free up resources for public health activities and care of the truly indigent. This discussion has been hampered by a shortage of information at the MOH on total costs of health care and a lack of capability of Planning Directorate staff to do appropriate analysis of funding trends and priorities, or participate in true planning and policy formulation.

Therefore, it was decided that a supplement to the Project Paper would be necessary to document changes in the budget and clarify the extent of change required for cost recovery both within the hospitals and polyclinics and within the institutional framework. An extension of the PACD for the Project for an additional year of implementation is projected to provide adequate time to accomplish the revised outputs and sub-purposes of the Project.

2. Revised Project Goal, Purpose, and Component Sub-Purposes

Project Goal - The revised goal of the CRHP is to enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people.

Project Purpose - The revised purpose of the Project is to broaden and diversify approaches for financing personal health services in Egypt.

Component Sub-purposes - A sub-purpose for each of the Components has been identified, which will feed into and support the attainment of the overall Project Purpose identified above:

<u>COMPONENT ONE</u>	<u>COMPONENT TWO</u>	<u>COMPONENT THREE</u>
To develop and test cost recovery systems in MOH facilities as a model for country wide application.	To improve the efficiency, utilization, and management of existing cost recovery organizations.	To expand private sector financing of individual, group and pre-paid care practices.

3. Project Strategy

In order to attain the Project goal and purpose set out above, the Project needs to demonstrate the effectiveness of selected mechanisms for establishing a more rational financial basis for the Egyptian health care system. From a broad perspective, the mechanisms have been selected on the basis of their potential ability to contribute in the longer term to the following:

- ◆ A shift of allocative priorities so that GOE funds are used (1) for the highest priority preventive health programs which cannot be financed privately and (2) for the poorest segment of the population who cannot afford to pay for their own medical care. The objective is to make the GOE the provider of "last resort", the regulator of quality and equity, and the protector of the poor.
- ◆ A new generation of resources and alternatives in the provision of health care created through the expansion of the role of private sector providers in the care of those who can afford to pay, and in the expansion of health insurance schemes, as well as fee-for-service payments for personal care at MOH facilities. The objective is to allow the maximum level of cost recovery feasible for MOH facilities in order to reduce the burden on the GOE budget and to allow for the reallocation of these funds to preventive health care over time.
- ◆ The design of a health system which subsidizes the poor population groups directly rather than subsidizing service providers. The objective is to reduce inefficiency and maximize opportunities for cost recovery.

Although interdependent and supportive of each other, each of the components adopts a strategy which can be viewed as focussing on a particular approach to financing personal health services in Egypt. Component One focuses on mechanisms that will support recovery of the greatest percentage of costs from MOH curative services as possible from those who can afford to pay by allowing public hospitals to function more autonomously and efficiently. As hospitals begin to pay for themselves, MOH resources can be reallocated from curative care for the general public to preventive programs, such as endemic disease control, expanded immunization programs, maternal and child health care, research, etc., and to target scarce MOH resources on the poorest segments of the population. Component Two focuses on mechanisms that will support management improvements of existing cost recovery organizations in order to control costs, provide incentives for preventing illness, and offering services affordable to the clients. As part of this effort, it will examine ways to expand membership and increase the efficiency of existing health insurance systems. Component Three

focuses on mechanisms that will facilitate the expansion of private sector service delivery mechanisms and health insurance schemes in order to reduce MOH's burden for direct financing of care for the general public.

To increase the cohesion of the three components and to guide the process of achieving policy objectives, Component One of the Project will also seek to strengthen the MOH capacity to analyze health financing issues and policy options. This will require an operations research approach to identify what is feasible in Egypt and how to proceed. A great deal of information needs to be collected and analyzed about health service utilization, the effects of pricing changes on the demand for care, how perception of quality affects demand, what kinds of health insurance systems work best, how to cross-subsidize across income groups, and whether there are hidden subsidies in the system. A pressing need is to assist the GOE in developing a mechanism to provide subsidized care targeted only to the truly indigent, rather than the current practice of providing a general subsidy to all public hospitals.

C. Component Approaches

1. Component One

To achieve its sub-purpose (i.e., to develop and test cost recovery systems in MOH facilities as a model for country wide application) and contribute to the overall goal and purpose, the Component includes a comprehensive approach. The Component will assist the Government of Egypt in implementing policy changes, and management and quality of care improvements in selected MOH hospitals and polyclinics to pilot test and demonstrate the use of a rational economic basis for the provision and financing of medical services based on cost recovery. In view of the lack of experience of the GOE and AID in implementing this type of experimental transformation, it was decided to focus on five facilities as pilot sites to test the approach and determine whether this approach can be successful in the Egyptian context. For these "Phase A" facilities, USAID will fund a complete package of technical assistance, training, renovations, and equipment. If the success criteria defined in this paper (see Section VI.C.2) are met on a timely basis, then the intention is to expand the provision of Project funded technical assistance and training to five additional hospitals and polyclinics. For these five "Phase B" facilities, USAID will fund technical assistance and training, while alternate sources of funding will be used for the cost of any renovation and equipment improvement that might be required to upgrade these facilities to basic cost recovery standards. Sources of such funding would consist of revenue generated from the facilities own cost recovery, commercial loans, or possibly other donors. If the approach outlined in the paper is not successful based on the experience with five pilots, then alternate strategies may be

considered to achieve the Project goal. Assuming that the approach is successful, the eventual long range objective would be for the MOH to diffuse the approach nation-wide using the mechanism of the CRHP Directorate, whose capabilities and capacity to undertake cost recovery would have been strengthened under the Project. However, this nation-wide program is beyond the scope of this Project.

Component One will include five Phase A and five Phase B pilot facilities. The five Phase A facilities selected are: Embaba Hospital in Giza; 15th of May Hospital in Helwan; Shark El Medina Hospital in Alexandria; El Kantara Gharb in Ismailia; and Kafr El-Dawwar in Beheira. Component One has developed, or is in the process of developing, conversion plans (or commissioning plans in the case of new facilities), business plans, marketing strategies, and policies and procedures for each of the target facilities. The Component is also providing management training, practical hospital operations training, commodities, equipment, and limited renovations to meet basic safety and sanitation standards at each facility. A Quality Assurance program will be introduced to complement the other inputs and ensure improvements in the quality of care offered. The Component will assist the facilities with start-up expenses in order to ensure that adequate quality services can be offered to encourage people to use the facility and be willing to pay more for their care. As part of the GOE contribution to the Project, the MOH will capitalize a revolving fund for essential drugs. The Component will also continue to conduct preliminary assessments of the five additional Phase B facilities for consideration by the Project. First preference will be given to facilities that are currently in good condition and could benefit immediately from better management and improved systems.

A Technical Advisory Group (TAG) for Component One will be formed, to provide the Project with an easily accessible source of Egyptian expert technical advice and program review on a regular basis. This innovative mechanism provides an independent, objective source of advice and information about technical issues, strategies, and the "state of the art" in relation to health care financing issues. It will meet at least quarterly and will consist of resident health economists, health planners, hospital administrators, and other technical experts as required. Each of the Phase A pilot facilities will be individually assessed by TAG members according to a defined set of success criteria, which are outlined in Section VI.C.2. The individual assessment approach is necessary due to the staggered schedule for renovation, equipment purchase, and system conversion to cost recovery proposed for each of the five Phase A pilot facilities.

Information derived from the TAG assessments will be channeled into a formal mid-term evaluation conducted by an independent external group. This evaluation will be conducted when sufficient implementation experience in cost recovery has been obtained, and

will take place no later than the fourth quarter of FY 1995 at which time all five pilot facilities will have been in operation as cost recovery facilities for at least eighteen months.

The decision whether to proceed with intensive involvement of Phase B hospitals will be based on documented progress of Phase A facilities towards meeting all benchmarks. However, from time to time, management or technical staff of Phase B candidates may be invited to participate in courses, conferences, or other training opportunities.

Dialogue has been initiated with the World Bank concerning possible collaboration in the Health Care Financing area. (Similar efforts are ongoing with the World Bank and AID, as well as other donors, in several other countries. These include useful ways to combine limited resources and effect policy changes through both project and non-project assistance.)

Principles of Cost Recovery - The principles used to develop a rational basis for the provision and financing of hospital services are:

- ◆ Achieve greater efficiency through:
 - Public money allocated to pay for programs which affect the health and well-being of the public, and private funds to personal curative services.
 - MOH facilities would market their services and recover costs, allowing the MOH to reallocate funds to support the costs of child survival and preventive health care programs.
 - Improve interpersonal equity by targeting a limited amount of government funds for curative services for the truly medically indigent.
- ◆ Relieve macroeconomic strains by reducing the burden on government spending by substitutional private payment for hospital services by those able to pay.
- ◆ Improve quality both to improve clinical outcomes and as a necessary condition to generate user payment.
- ◆ Increase efficiency through improved management/incentives and reduce unit costs, given a menu of primary and secondary hospital services of accepted quality.

A cost recovery hospital offers general, community services for inpatients, outpatients and emergency/casualty care to the local community on a fee-for-service basis. Its costs are recovered from

a variety of sources, including patients, social insurance, business contracts, and the Government. The primary markets of a Cost recovery hospital are the middle and low income segments of the population. The funds collected are utilized to operate a quality hospital and provide for regular replacement and maintenance of equipment and facilities. Specialized services are offered only when they are medically necessary and can be supported from the revenues collected. The physical facilities and environment are appropriate and pleasant to patients and visitors, the equipment serves the needs of the community and the medical staff, and the management philosophy is one of service and commitment to patients. Patient satisfaction and a team-oriented working environment for physicians and staff are key commitments. A cost recovery hospital, after an initial transition, is largely self-sufficient and serves as a valuable and responsible health care provider within the local medical care community.

2. Component Two

There are two health care systems currently operating in Egypt on a fee-for-service basis and recovering most of their costs. They are the Health Insurance Organization (HIO) and the Curative Care Organization (CCO). The HIO and CCO clearly demonstrate that health care systems can operate on a cost recovery basis in Egypt. They provide a paradigm for the level of service, organization, and operation of financially viable health care facilities.

HIO has been providing health care to insured public and private sector workers throughout Egypt since 1964. Services are provided to covered workers through clinics and hospitals located throughout the country. Organizationally, the HIO is divided into six branches, containing various numbers of hospitals, clinics and polyclinics. Approximately million beneficiaries are currently registered through their employers, including public sector agencies and firms. Funding for the program is provided by the GOE plus worker and employer contributions. Under Law 79, health insurance premiums are collected by the Insurance and Pensions National Organizations and the Social Insurance Organization (SAO) and transferred to HIO. Under Law 32, HIO collects health insurance premiums directly from the government agency employers.

In 1992 the People's Assembly passed a law called the School Children's Medical Program transferring the care of all of the nation's school children, kindergarten through technical schools, to HIO. It is estimated the 14.5 million students will be eligible for coverage by 1995 when the program is completely phased in. This means that by 1995 HIO will be the insurer of 40% of the Egyptian population.

HIO has begun contracting for provision of services in some areas where their own facilities are limited, especially for the school children's program. This is viewed as a very positive step as it

has been shown throughout the world that it is more cost effective for government agencies to contract for services than to provide them. HIO has contracts with CCO hospitals, MOH hospitals, and private sector facilities. The success of this new policy will be dependent on adequate financial management both within HIO and its contractual partners.

CCO was established by Presidential decree in 1964 and currently operates in 4 Governorates. Each CCO has its headquarters in the capital city of that Governorate. Component Two of CRHP is working with CCO in Cairo. The Cairo CCO consists of 12 hospitals, 3 of which are very new, modern facilities. The number of hospital days in 1990 were 670,000 of which 8.3% were "free patients" and 862,000 outpatient visits were recorded. The GOE gives CCO an annual allocation for the 10% of its beds reserved for "free care". CCO Headquarters is responsible for policy setting, quality monitoring and insuring compliance with CCO regulations.

Although the HIO and CCO are currently operating on a sound financial basis, they can be significantly improved. The HIO and CCO have both outgrown their rudimentary management procedures as they expanded from single care institutions to larger systems of facilities. Both organizations use outdated management practices, and could expand their utilization rates by using modern management systems to improve their efficiency and contain their costs. Component Two will provide effective programs to modernize the HIO and CCO management systems; investigate and apply other management ideas through operations research; and introduce these innovative systems to other health care programs. This component will also provide limited assistance to both HIO and CCO in the form of marketing advice and feasibility studies in order to improve the marketing of their organizations and to expand the utilization of their services.

HIO - The HIO already has a computerized MIS for beneficiary registration and drug usage at its Alexandria branch, developed under an earlier USAID project. Under the current project to date, design studies have been completed for the development of an organization-wide MIS to encompass cost accounting, patient records, and quality assessment modules, in addition to registration and drug usage. The Project will provide the necessary technical assistance, training, and computer equipment initially for the development and implementation of the MIS for the HIO headquarters and branches in three branches. If the mid-term evaluation confirms that this program has been successfully implemented, the expansion of the MIS to an additional two branches will be considered. The procurement process for the MIS TA and software and hardware was completed early in FY 93 and mobilization of the contractor team is targeted for May 1993.

CCO - The CCO has had relatively little experience in MIS design and installation. Design studies have been completed for the

development of an MIS, and a US technical assistance contractor will be contracted to develop and provide support for implementation of the system. Initial activities will focus on developing a comprehensive system to encompass the current CCO manual practices for financial and accounting systems and inventory control. Once the manual procedures have been developed and integrated into a system, computerization of financial and patient care systems will be undertaken.

Spread Effects - The original Project Paper suggested that support also be provided to somewhat smaller initiatives for improvement of management practices in university health care facilities and professional health organizations. This was to have been in the form of two manual or computerized MISs for university health care providers, and the development of a model computerized MIS for group and individual health practices. However, given the refinement and refocusing of Project inputs resulting from this current exercise, this activity will be considerably reduced under Component Two and will be limited to promoting the systems developed under HIO and CCO as models for other health care providers. Any work with the university system will be undertaken under Component 3 as part of management improvement of existing managed health care.

3. Component Three

Expansion of the private health sector must be part of any comprehensive strategy for improving Egyptian health services. This component takes a three pronged approach to encouraging this expansion: credit, management improvement, and development of new health care systems. The major activities proposed under this component are: augmenting the institutional capacity and financial motivation of private sector commercial lending institutions to provide loans to private health care practitioners, while improving the technical capability of commercial banks for financial analysis and services; and improving the capacity of private health care providers to develop cost effective private, group, and prepaid health care practices.

Credit - Private health care practitioners comprise a small proportion of the total in Egypt, and are highly concentrated in metropolitan areas. The original PP identified inadequate access to commercial credit for start up and expansion of private practices as a critical constraint to the expansion of private sector health care outside the major metropolitan centers. In particular, it was found that many doctors who worked at MOH facilities and moonlighted after hours would have preferred to leave government service and set up full time private practice if they could have secured credit for the considerable investment required. Thus credit availability would not only stimulate expansion of the private sector in underserved areas and thereby diminish the burden of the MOH system, but would also absorb

surplus skilled labor which may be displaced by the conversion of MOH facilities to cost recovery operation.

The major emphasis of this component is the expansion of credit accessibility for individual and group practitioners by capitalizing a credit guarantee fund for loans to private health practitioners, with high priority given to new or expanded practices in non-metropolitan or other underserved areas. Loans by participating banks have repayment of principal guaranteed up to 80 percent by the program initially. This percentage depends on the size of the loan, with the smaller loans receiving a higher percentage of guarantee. It is also expected that CGC will leverage the funds provided for the guarantee facility to exceed the ratio of one to one. Twenty-nine of Egypt's thirty-six banks are participating in the credit guarantee program of the CGC, although the health window is still considered to be in its pilot stage. To date, the Project has engaged in some promotional activities; however, it has contracted all the banks and explained the program to them and encouraged the bank managers to explain the program to their local health providers. CGC has met with private and public health providers in almost all governorates to explain the program and generate participation.

Local technical assistance has assisted the CGC in establishing an accreditation and rating system for participating banks. Ceilings for loans under the guarantee program have been established for each bank, and criteria for loans have been specified. Any loan within the guarantee ceiling and meeting CGC criteria is virtually automatic. The criteria for selection under the CGC guarantee program are as follows:

- ◆ The medical practitioner should be registered by the Medical Syndicate, the MOH, be a practitioner for a period of at least three years, and the CGC sees that he/she is competent to generate an income that would meet his/her commitments towards the lending bank and CGC.
- ◆ The medical practitioner could be a solo or a group practitioner.
- ◆ Priority is given to medical practitioners and small medical establishments which operate in underserved regions, towns, urban areas of Egypt, and provide their medical services to low and middle income groups.
- ◆ Encouragement is given to female practitioners, social medical centers, and basic health services to apply for these loans.
- ◆ The medical practitioner should enjoy a good professional and ethical reputation.

Good practical experience is extremely necessary in case of obtaining a bank loan for the purchase of any necessary medical equipment. The CGC and the lending bank possess their full rights to inquire and collect credit information about the client from different sources as necessary.

Technical assistance and training are also being provided to develop a support capability within the CGC to assist participating banks in improving their efficiency for servicing loans to private practitioners. This will include financial analysis, loan evaluation, access to and exchange of credit information, insurance claims settlement and guarantee recovery, and marketing of credit to the health community. These techniques will decrease loan origination and processing costs and increase collections, making loan activity to the private health sector more attractive. To date, loans have been guaranteed by CGC in 23 governorates.

Management Improvement - Another basic constraint to development of the private medical market is a relative lack of modern management capabilities. Individual, group and prepaid health care practices use rudimentary systems for monitoring and controlling personnel and physical resources, and for managing costs and billing clients. This component will provide technical assistance and training to enhance the managerial capabilities of these private practices, improving the quality of health care and facilitating greater efficiency and profitability. This should encourage expansion of private health care practices and diminish the burden of government facilities.

No training of private health care providers has yet been held, although it is recognized that the credit for doctors must be accompanied by training in the concepts of private health provision and financial management. The creditors should receive orientation in the concepts of health insurance, social marketing, and other prepayment methods, so that they share the perceptions and overall understandings and vision of the Project in various methods of spreading the risks for health coverage through sharing costs with industry, prepayment schemes, social insurance, etc.

One early opportunity for supporting a model Health Maintenance Organization (HMO) in Egypt, is presented by the Suez Canal Medical School, located in Ismailia. This school, started with AID assistance to build a program with emphasis on community and family medicine, has a thriving group practice, a network of rural primary care centers and a new tertiary care hospital. The leadership of the faculty is desirous of melding the elements of the system into an HMO, and has asked USAID to assist. USAID resources will finance a feasibility study for the HMO and, assuming a favorable analysis, a detailed business plan. A grant to the University is contemplated to allow the leadership to secure its own technical assistance and arrange for training its staff. This will be the first HMO in Egypt

and can serve as a model, not only for the private sector, but also for other University medical schools.

New Health Care Systems - Expansion of the private health sector can also be fostered by supporting the development of group practices, which are inherently more efficient in the utilization of skilled manpower. Prepaid systems are also an attractive alternative to fee-for service private health care, because they focus on preventive health measures and motivate physicians to control health care costs. Private health care practitioners in Egypt have had limited experience with designing and implementing prepaid health care systems. Component Three will devote a major portion of its technical assistance to developing new prepaid health systems, such as Health Management Organizations (HMOs). The prime technical assistance contractor will develop a model encompassing the complex empirical variables and estimates which must be considered in the design of a prepaid system. It will also develop a model management information system for monitoring and control of the resource inputs, financial operations, and service outputs characteristic of prepaid health care systems. These models will be adapted to the particular objectives and circumstances of each prepaid group health care system to facilitate the design process. The component will also encourage credit accessibility for developing group and prepaid health care systems under the CGC credit guarantee program. This approach will stimulate an expansion of the private health sector and diminish the burden on government facilities.

D. Planned Project Outputs

1. Component One

- ◆ Demonstration of successful cost recovery operations in a minimum of four MOH hospitals and one MOH polyclinic.
- ◆ Technical and management capability in place within the MOH to replicate cost recovery model to other health facilities.
- ◆ A system established in the MOH Planning Directorate to track public sector curative and preventive health expenditures.

2. Component Two

- ◆ MISs installed and being utilized at HIO and CCO for improved management, administration, financial planning and control, and marketing.
- ◆ Expanded coverage by both HIO and CCO.

3. Component Three

- ◆ Ten commercial banks actively participating in an improved commercial banking system to provide financial services to health care providers.
- ◆ Five thousand loans to new or expanding private sector health care providers, particularly in rural areas and secondary cities.
- ◆ Viability of new or expanded practices indicated by a default rate of no more than 10%.
- ◆ Two new private managed health care systems (i.e., HMO-like schemes).

E. Planned Project Inputs

Planned USAID Project inputs include: technical assistance and training for both Phase A and Phase B facilities, commodities (including biomedical equipment) and renovations for Phase A facilities, facility start up costs, and local costs for the MOH under Component One; technical assistance, commodities, renovations, training, and local costs for both HIO and CCO under Component Two; and technical assistance for CGC and the private sector medical market under Component Three; as well as audit and evaluation.

Planned GOE Project inputs include: staff salaries, premium pay, office space, utilities, furniture, research, and operating expenses for the CRHP Directorate; salaries, operating expenses, furniture, equipment, and pharmaceuticals for all CRHP facilities; as well as renovations and biomedical equipment for any Phase B facilities that may require them. GOE FT-800 funds will be used to finance Project participant trainee travel and the Credit Guarantee Fund.

IV. DESCRIPTION OF PROJECT ACTIVITIES UNDER COMPONENT ONE

This section focuses on Component One in order to clarify and redefine Project activities to be undertaken under that component. It will first describe the activities undertaken to date and will then describe the plan of action for the remainder of the Project. For the most part, detailed activity descriptions are not provided for the other two components, as the scope of activities to be undertaken under the other two components has not been substantially modified from that detailed in the original Project Paper. The exception to this is with respect to the technical assistance to be provided under Component Three, which will be contracted for as part of the overall Project prime contract. This

section therefore also amplifies the description of this technical assistance in light of the evolution of the Project during implementation.

A. Current Implementation Status

1. Background

Since the Project Agreement was signed in September, 1988, a CRHP Directorate has been authorized by the MOH, and has been delegated authority to manage and implement the Project, and to let and manage host country contracts for technical assistance, facility renovation, commodity procurement and training. (An assessment of the CRHP Directorate is in process to determine whether its host country contracting procedures are up to standard and whether the CRHP Directorate should receive host country contracting certification.) The assistance over the past two years has prepared the CRHP Directorate for the full-scale implementation of renovation and revitalization. The CRHP Directorate has basic systems and staff in place to carry out its functions to guide and oversee implementation: an organizational structure has been established, job descriptions have been developed, operational and management policies and procedures have been created, a financial and accounting system has been established, and the CRHP staff's capacity and proficiency in the selection and assessment process for candidate facilities for cost recovery has been developed.

The planning action is now complete. The CRHP Directorate has developed conversion plans, or commissioning plans in the case of new facilities, business plans, marketing strategies, and policies and procedures for each of the facilities. It is now time to begin implementation.

The MOH initially saw Component One primarily as renovation rather than the economic and management system defined by AID. During the past three and a half years, both USAID and the short-term technical assistance through a buy-in to HFSP (an AID/W project) have spent considerable time doing work that could be characterized as a more in-depth design effort which accomplished not only the task of providing necessary background information and think pieces on the many complex issues involved in transforming public hospitals into cost recovery facilities, but also served to expand MOH understanding of the concept of cost recovery and what was necessary to accomplish it.

In July-August, 1991, there was an exchange of letters between USAID/Cairo and the MOH regarding Ministry commitment to an understanding of the CRHP. The letter sent from the Minister of Health detailed his commitment to cost recovery as a system which includes, not only equipment and renovation, but also organizational and policy changes. This letter was significant in that it established written MOH commitment to the full cost

recovery concept and was intended to settle the question of a lack of shared understandings of the purpose and objectives of the Project.

2. Development of Policies, Procedures, Regulations, Guidelines and Standards (PPRGS)

When the Project was designed, an assumption was made that models for instituting cost recovery practices existed at the CCO and the HIO, and that these could be easily applied to the Project. The CRHP Directorate was expected to produce conversion plans for a group of health facilities that included:

- ◆ Assessments of baseline institutional, physical and financial conditions;
- ◆ Specifications of scope and quality of planned services and anticipated patient load;
- ◆ Detailed plans, cost estimates and schedules for cost effective rehabilitation and conversion of facilities to support improved services;
- ◆ Specifications, cost estimates and rationale for new equipment;
- ◆ Plans for staff training and development;
- ◆ Plans for design and installation of management systems, including information systems, maintenance and inventory controls, and financial management systems;
- ◆ Integrated system plan and schedule for completing conversion of the facility;
- ◆ Specifications of fee structure and projection of revenue and expenses, demonstrating financial feasibility of conversion to cost recovery.

The first of these plans was to be completed by Month 8 of year two (around April, 1990). However, when implementation began, Project personnel found that no systems for these two institutions existed on paper, and that the Project would need to develop these itself. Although the CCO system was not fully documented in written policies, rules, operating procedures, or guidelines, there was still considerable information available about CCO management and organization. It therefore continued to be used as a model, to the extent possible, while progressively introducing appropriate advancements to the existing MOH service delivery and management systems. To facilitate the interchange of information and capabilities, the CCO system has agreed to serve as a training site and provide CCO personnel, as appropriate, to assist in the

conversion of MOH facilities and the training of MOH staff in cost recovery facilities.

The CRHP Directorate (working with the HFSP) has now developed the following instruments:

- ◆ The Criteria for Selection of Facilities developed by the HFSP stress the ability of catchment area to pay; general perceived commitment of hospital staff to the idea of cost recovery; location of hospitals in governorates with commitment to cost recovery; and, low estimates costs and time needed to make technical and management changes needed at the facility.
- ◆ A Facility Assessment Instrument to use in undertaking a rapid assessment of the equipment, technical assistance and physical needs of hospitals being considered for the Project.
- ◆ Facility Standards
- ◆ A Socio-Economic Study which consists of inpatient surveys, household surveys, a costing survey, and alternative provider surveys to describe catchment areas for the Embaba Hospital. The CRHP Directorate has conducted the inpatient survey and has completed preliminary analysis of these data. The Household and Alternative Provider survey has recently started and data should be available for analysis by the end of April. The Costing Survey was initiated in early October, 1991.
- ◆ Business Plans for all five Phase A facilities which identify their technical strengths, assess other hospitals in their catchment areas and discuss competitiveness under cost recovery plans, and suggest user fees that could be charged in the pilot phase.
- ◆ A time-phased Conversion Plan of Embaba Hospital, Shark El Medina Hospital, 15th May Hospital, and Kafr El Dawar Polyclinic; a time-phased commissioning plan for El Kantara Gharb Hospital. The model Conversion Plan, which was applied to the Phase A facilities, contains generic guidelines and provides details in the form of a Business Plan, an Architectural and Engineering Plan Equipment Plan, Training Plan, and a Technical Assistance Plan
- ◆ Hospital Financial Systems including formats and accounting records which comply to the GOE system, presented in a Uniform Financial Accounting Practices Handbook; this is now being implemented in Embaba Hospital.

- ◆ HFSP papers on Economic Analysis, Standards and Assessment, and Quality Assurance, and Business Planning. Each paper discusses CRHP activities, products, and lessons learned.
- ◆ Project Operations and Management Handbook for the CRHP Directorate
- ◆ Management Training Modules on the following subjects: Principles of Management, Decision Making, Personnel Management, Hospital Organization, Basic Accounting and Budgeting, Business Planning, Conducting Management Meetings, Leadership and Team Building, and Productivity and Performance.

The CRHP Directorate initially tested this package of instruments at Embaba Hospital. The Facility assessment has now been carried out at all facilities. The screening and quality assessment instruments allowed Directorate personnel to evaluate a facility's needed improvements to meet the CRHP quality standards. The CRHP Directorate then prepared a business plan that integrated cost, pricing, and marketing information on each facility. The business plan provides information that will permit facility managers to manage the facility and ensure financial success under cost recovery. Systems are in place for planning facility conversions and needs assessment in architecture and engineering, equipment, technical assistance, and training. These are being utilized by facility staff with guidance from the CRHP Directorate personnel. Model accounting systems, administrative procedures, and business plans have been developed to assist in the implementation of management systems as cost recovery begins.

3. CRHP Directorate Institutional Strengthening

The CRHP Directorate has started work on designing administrative and management systems, as well as on cost recovery hospital information systems. Training needs assessments of Embaba, El Kantara Gharb and 15th of May hospitals have been undertaken, and a training plan was submitted to USAID for implementation in FY 92. The Project intends to work with the training facility at Nasr Institute. Modules for Management training are being developed, while those for clinical training are complete and clinical training for nurses from Embaba, El Kantara Gharb and 15th of May hospitals is now underway at CCO.

The CRHP Directorate, in collaboration with a central project called HEALTHCOM, has established a marketing unit and hired a consultant to develop marketing plans for each of the cost recovery facilities. The marketing plans will include information on pricing of services, strategies for informing the public about available services, and the development of prepaid, managed health care packages suitable for marketing to large firms and businesses.

4. Health Facilities

Relative to the original Project Paper, there are two basic concerns about the renovation component: there might not be enough money to do all 50 hospitals; how could the amounts for renovation be better limited or defined?

The Project Paper called for renovation of up to 50 hospitals or other health facilities. After Project implementation began, an initial estimate for renovation of Embaba Hospital for \$ million, led to question on whether the \$ million programmed for this activity would be sufficient to renovate all these facilities. Within the first two years, it also became clear that assistance and commodities for other parts of the Project were undercosted in the original design.

The HFSP team provided several short-term consultants to assist the CRHP Directorate to refine the parameters to be used in determining the amount of renovation to be undertaken. While the criteria is still necessarily somewhat subjective, HFSP members recommended that hospitals chosen for participation in the Project should have relatively modest needs for renovation and equipment; that it be possible for renovation to be done in phases; that the overall time needed would not be excessive; and that physical renovation be limited to changes needed to assure sanitation, and physical safety and stop physical deterioration. In other words, the improvements made to the facilities will focus on the minimum amount of renovation necessary to transform the facilities into functioning cost recovery facilities.

Although the Project Paper and original plans called for a maximum of 50 health facilities to be renovated, there appears to be general agreement between the CRHP Directorate and USAID that, at this point, a much smaller number should be selected to be used as models and to generate some lessons.

Five facilities have been selected for the initial Phase A of the Project: the CRHP Directorate has selected a hospital in four of the governorates that have now finalized plans for cost recovery (Embaba Hospital in Giza, 15th of May in Helwan, Shark El-Madina in Alexandria, and El Kantara Gharb in Ismailia); plus one polyclinic (Kafr EL-Dawwar in Beheira Governorate), as candidates for initial renovation. Equipment lists have been prepared for these five facilities. These have been reviewed by USAID and the HFSP and finalized by CCC, the interim technical assistance contractor on board since early FY93. The CRHP Directorate engineer has drawn up plans for all facilities and bids and have been solicited from local A&E firms to finalize plans and prepare cost estimates for Embaba Hospital, 15th of May Hospital, and Kafr El-Dawwar polyclinic. An A&E firm was selected in July, 1991, for Embaba Hospital, but this component has been delayed because of a

grievance filed by another firm which did not receive the award (as discussed above). A&E firms have been selected for 15th of May Hospital in Helwan and Kafr El Dawar Polyclinic, and contracts have been submitted to AID for approval.

B. Detailed Description of Modified Activities to Be Undertaken Under Component One

The TA contractors (both interim and prime) will develop policies, procedures, systems, and programs that will provide the CRHP Directorate economic methods to manage the CRHP Facilities. By LOP, the cost recovery facilities will have the management skills and necessary information for decision making. The following activities will be undertaken by the CRHP Directorate and the technical assistance contractors during the time remaining under the Project.

1. Appropriate Policies, Procedures, Rules, Regulations, Guidelines and Standards (PPRGS)

- ♦ Revision of Existing PPRGSs - General administrative procedures for managing the Project and functional procedures for operating each facility will continue to be developed to assist the CRHP Directorate. These PPRGS are being outlined in Handbooks which will be kept current by the TA contractors, under the supervision of the CRHP Directorate, to guide planning, administration, implementation, monitoring and evaluation of the Project. They will be used to ensure achievement of acceptable cost recovery standards, both at the CRHP Directorate and at the selected participating facilities. For those manuals that have been completed to date, the technical assistance contractors will utilize the initial versions in order to develop further editions with modifications incorporating the guidance and approval of USAID and the CRHP Directorate.

Development of Additional PPRGSs - Additional manuals to be completed include:

A facility personnel management and procedures manual will be developed. The system will include an organization structure, staffing levels/patterns, job descriptions, and a performance review system. The performance review system will incorporate the policies and procedures developed for the Directorate.

A health care facility operations management policy and procedures manual will be developed for health care facility operations management. This will include physical plant maintenance, logistics, procurement and

materials inventory management, hotelry services, and infection control. The development of draft sample contracts for food service, housekeeping, laundry, and physical plant maintenance will facilitate the possible contracting of these services with the private sector.

Bio-medical equipment maintenance and repair policies and procedures will be developed for use in the facilities.

2. Cost Recovery Facilities

- ◆ Plan Development - For each of the five Phase A cost recovery facilities, plans and detailed work scopes will be developed in accordance with procedures outlined in the PPRGS by the CRHP Directorate staff in collaboration with the facility staff, and with support from the technical assistance contractors. The TA contractors will complete and/or review and update the Conversion Plan for each Phase A facility developed by the CRHP Directorate and HFSP with the CRHP Directorate and facility management and update as needed.

A similar process will be undertaken on a phased in basis for the five facilities identified for Phase B, pending the decision to proceed with Phase B cost recovery conversions.

- ◆ Facility Training, Staff Development and Improvement - A training needs assessment was performed by the CRHP Directorate and H¹ P for the purpose of determining the training to be provided over the LOP. This assessment has been reviewed and updated to finalize the details of training for the Phase A facilities. It will later be updated to also include the training needs of the Phase B facilities.

On-the-job training will be provided in the areas of health care facility management, administration, and operation. The training will re-enforce the policies and procedures which are implemented.

Specialized training will be provided in the form of observational tours abroad and/or internship programs. Such training will directly enhance the participants' skills in the areas of hospital and nursing management administration. This training is dependent on the outcome of the needs assessment, and its timing would be scheduled in consideration of other tasks and availability of personnel.

The interim technical assistance contractor (and later the Prime Contractor) will be responsible, under the direction of the CRHP Directorate, for providing appropriate conferences, workshops, classroom, observational, and on-the-job training of facility staff to achieve cost recovery operational systems in the selected facilities. In line with the needs of each individual facility, the contractor will provide a concentrated, coordinated and timely training program which, at a minimum, will include: administrative and financial management; patient satisfaction/hotelry; maintenance and logistics/ and improved cost-effective diagnostic and therapeutics for nursing and medical cars. Maximum utilization of the CCO facilities should be made in the provision of training and observational travel and in-country technical assistance expertise.

- ◆ Quality Assurance and Marketing - Technical assistant consultants will assist the facilities in developing and supporting quality services through specific activities that focus on developing the capacity of the facility staff to improve the overall quality of services, individual patient satisfaction, facility utilization, and the marketing of facility services to the general population, industry, government, private sector, and health professionals. These will include recommendations for improvements in the areas of: client/patient reception, registration, and check-out; provision of quality hotel services, (e.g. dietetic and food services; functional rooms, treatment areas and visitor waiting areas; housekeeping services; bedside/room service for all practical personal and diagnostic/therapeutic services; bedside/room communication services and transport services); provision of quality care services (e.g., enhanced patient care services and patient care records; patient surveys and comment systems; staff development; staffing patterns and clinical privileges; problem identification and correction; patient care monitoring, appropriate financial charges, and utilization review systems; patient privacy and rights; patient discharge plans and family notification.

The technical assistance consultants will advise the facilities on means to maximize utilization of hospital services and thereby increase revenues through: examination of catchment area population demand; insurance organizations, prepaid systems or other third party payers; local industry, including private companies and public sector parastatals; local commercial activities and shop owners; public sector employees; clients of local health professionals and others.

- ◆ Systems Implementation - Implementation Plans will be developed for each of the PPRGSs. Training programs will be implemented to introduce operational management, administrative and personnel systems for each facility by adapting and applying the general procedures systems outlined in the PPRGS Handbooks, the facility plans, and CCO.
- ◆ Management Information Systems - Drawing from the experience of CCO, design and implement an appropriate MIS capability for each cost recovery facility to facilitate the management of appropriate cost recovery activities. Application areas include financial, management, administration, and patient care. Develop a plan identifying the application areas which are the best candidates for computer automation. Implementation of basic MIS training programs to develop skills in areas identified by each individual facility. The implementation strategy will be to install the applications in one pilot facility and test the performance (both functional and technical) before expanding the installation in other pilot facilities.

3. CRHP Directorate Institutional Strengthening

- ◆ Planning Capability - The TA contractors will develop an analytic and planning capability within the CRHP Directorate to identify, study, analyze and evaluate appropriate goals, strategies and activities for introducing cost recovery systems and technologies into the GOE health system. Planning for Phase A and Phase B facilities will be undertaken with assistance from the TA contractors. Planning for Phase C is outside of the scope of this Project and will be undertaken solo by the CRHP Directorate. By LOP, the CRHP Directorate should be capable of undertaking the following types of planning activities for each facility: assessment of baseline institutional, physical and financial conditions to include client utilization of services and financial/economic indicators; assessment of baseline community, industry and agricultural economic capacity to support cost recovery; specification of scop and quality of planned services and specific activities to improve patient satisfaction, facility utilization, and marketing of hospital services; detailed plans, cost estimates and schedules of cost effective rehabilitation and conversion of facilities to support improved services; detailed plans for staff training development; detailed plans for design and installation of management systems, including management information systems, maintenance and inventory controls and financial management systems; detailed computerization and integrated systems plans, schedules

and timelines for completing conversion of the facility; specification of the fee structures, projection of revenues and expenses, to include GOE budgetary component for non-paying patients, in order to demonstrate financial feasibility of conversion models for cost recovery; documentation of written procedures for facility conversion, planning and publication of those procedures in Project PPRGS handbooks.

- ◆ CRHP Directorate Management Training and Staff Development - The CRHP Directorate training plan will identify specific training to be provided to the CRHP Directorate personnel that will assist them in the implementation process. Training will be targeted to management personnel in support of project objectives in the areas of hospital operations, financial management, and nursing administration.

The Long Term TA Prime Contractor will be responsible for the training of CRHP Directorate and appropriate MOH management staff at central and regional levels in order to enable them to manage cost recovery activities, to implement cost recovery programs within the MOH and to carry on the conversion and training of all Phase C cost recovery facilities after the completion of the technical assistance resources of the Project funded technical assistance.

The CRHP Directorate will be assisted in developing a human resource planning/appraisal system to assist the Directorate in planning manpower schedules and measuring personnel performance. The system will provide personal work plans (tied to the objectives of the Directorate), measure actual performance against the work plan, and plan for the career growth of each staff member. To promote a sense of unity, a team building workshop for Directorate personnel will be conducted.

- ◆ Project monitoring and Management Information Systems (M&MIS) - A project monitoring system for the CRHP Directorate will be developed to facilitate the tracking and reporting of Project activities to the MOH and USAID. Project monitoring criteria will be determine and develop, resulting in a Project reporting system and an appropriate modern computerized MIS for the CRHP Directorate. This should include: report for program monitoring and management; implementation plans; financial plans, budgets; training plans, training participants, purchase/commodity plans; Project status. The applications will be PC-based and utilize standard software packages (i.e., spreadsheets, database management, graphics, etc.). It is expected that

additional software will be procured to complement those already installed at the CRHP Directorate.

- ◆ Public Relations and Marketing Capability - A public relation and marketing function in the CRHP Directorate will be developed to market the quality, accessibility and availability of services.

The CRHP Directorate will undertake the production of a newsletter for the CRHP Directorate which will outline Project progress, new cost recovery technologies, new private sector management principles, key personnel changes and other Project notices. The audience of this low cost quarterly newsletter in English and Arabic will be the staffs of the pilot facilities, Directorate and other MOH personnel, HIO, CCO, governorate, and community leaders.

To facilitate the development and dissemination of information, appropriate seminars will be developed and conducted by the CRHP Directorate. The Project will conduct at least two seminars/workshops per year to review the development and implementation of Project activities.

The Project will also examine the feasibility of producing low cost but appropriate and electronic media-based information materials to assist in marketing the cost recovery services of the public health system.

- ◆ Analysis Capability - Provide TA in the Analysis of the Egyptian Health Sector review CCC documentation and continue to assist CRHP pilot hospitals in collecting various data, analyzing macroeconomic data, performing rapid assessment, and providing research and economic analysis activities.

4. Social Financing

- ◆ Baseline Data Collection - The following social insurance baseline data from cost recovery pilot facilities will be collected: patients covered fully or partly by employer contracts, HIO insurance or other social insurance, and information on socio-economic status (family size, educational attainment, employment history, etc.)
- ◆ Conference on Social Financing - A conference on social financing of health care will be organized and coordinated as a forum for CRHP Directorate personnel and other key GOE officials to present findings and the experiences of other countries in social financing of

health care, and to discuss options for social financing in Egypt.

- ◆ Review of Social Financing and Insurance Plans in Egypt - An understanding of the current state of social financing of health care in Egypt will be ascertained. A review of social financing mechanisms and obtaining material on health insurance plans offered and operating in Egypt will be undertaken. Objectives will be to determine organization structure for social insurance, designing products to be offered and estimating price of products, developing promotional material for organizations, insurance groups, and facilities, develop training material for CRHP Directorate and facility personnel, and develop monitoring system and success criteria.
- ◆ Prototype Insurance Plan - A prototype prepaid insurance plan for the CRHP pilot facilities will be designed by the interim technical assistance contractor for use in negotiating packages with employers in the catchment area. The Prime Contractor will be charged with the design and implementation of a social insurance mechanism appropriate for Egypt that will target resources to the poor and provide an alternative to out-of-pocket payments for middle and working class patients.
- ◆ Contracts with HIO - The CRHP Directorate will assist the pilot facilities to negotiate contracts with HIO to provide services to beneficiaries, particularly in areas served by CRHP facilities where HIO has no facilities.

5. Health Planning and Policy Options

- ◆ National Health Accounts - The Project will enhance the ability of the MOH Directorate of Planning to develop recent estimates for national health accounts and parallel estimates at the governorate level. This will be undertaken through gathering and analyzing existing data, and will result in a study that provides an informational baseline for future evaluation efforts.
- ◆ Budget Tracking System - The Project will support the on-going analyses of trends in the composition and role of public health care finance through the development of a computer-based budget tracking system. In addition to the provision of essential equipment, Directorate of Planning personnel will be trained to operate the system, gather and input new data, analyze data, and present the results of their findings. This will result in the permanent establishment of a database system.

- ◆ National Household Health and Provider Surveys - Little data is available in Egypt today that reflects changing patterns in morbidity and mortality in different sub-groups of the population, the use by different groups of public and private health care services, and the financial impact of changing fees and other health care related costs on families. The Project will support a national survey in this area, by first developing protocols, gathering data, and then developing a data base. Technical assistance, in collaboration with Egyptian researchers, carry out the analysis.
- ◆ Mapping of the Decision Making Process - Mapping out the decision making process in connection with one or more recent, important policy issues will serve to identify other institutional counterparts who may play a significant role, or serve as collaborators, or be in a position to use data developed under the Project.
- ◆ Cost-Effectiveness Analysis for Priority Setting -The Project will use the technique of analyzing actual costs and outcomes of preventive and curative programs in order to compare the cost effectiveness of various interventions and to thereby assist in developing health system priorities. This training activity will be applied at the sub-national, i.e. service, level of the health system.

C. Amplified Description of Technical Assistance to be Provided Under Component Three

- ◆ Private Sector Administrative and Management Guidelines - The Project will develop general guidelines for the improvement of the management, administration and quality care systems for private practices, group practices, and prepaid health care systems within Egypt. These Principles should be revised on a regular basis to maintain state-of-the-art administrative, management and quality care techniques which are appropriate to Egypt. Key areas for initial concentration will be financial management, including insurance billing.
- ◆ Workshops and Seminars - Appropriate workshops and seminars (e.g. in financial management, MIS for private practices, etc.), and conferences (on topics such as HMOs, private sector cost containment, prepaid practices, advantages of group practice, etc.) will be implemented to upgrade private sector management, administrative and quality care skills to operate successful private sector health practices. The private sector, group practices, and prepaid system professionals will be identified by

the contractor with assistance from the CGC, the Medical Syndicate, and other organizations.

- ♦ Models - Development of one Health Maintenance Organization (HMO) model will be supported. Technical assistance and training, as well as MIS support, will be provided to the Suez Canal Medical School to assist them in organizing their Primary health Care Units, Referral Hospital, and Group Practice into a cohesive HMO serving the population of Ismailia Governorate.

The Project will assist the Medical Syndicate to expand their existing not-for-profit health insurance plan to other syndicates in Egypt. An assessment of this plan carried out in early 1993 documents the high quality of the plan and lays out several feasible options for expansion. The Project will provide technical assistance and training, as well as MIS support, to assist in expansion of health insurance in several other professional syndicates.

These two activities will serve as models of innovative financing and delivery schemes for the private profit and nonprofit sector.

V. SUMMARY ILLUSTRATIVE FINANCIAL PLAN

The financial plan presented in the body of the Project Paper Supplement represents the funding required for the entire Project, as revised. The detailed assumptions supporting the planned funding for the revised Component One can be found in the Cost Analysis, Annex C. The funding levels for Component Two are based on either actual contracted amounts or projected amounts developed for inclusion in procurement solicitation documents.

A. USAID Contribution

The total A.I.D. contribution to the Project is estimated to be \$ million. This will be used to finance: technical assistance and training for both Phase A and Phase B facilities, commodities (including biomedical equipment) and renovations for Phase A facilities, facility start up costs, and local costs for the MOH under Component One; technical assistance, commodities, renovations, training, and local costs for both HIO and CCO under Component Two; and technical assistance for promotion of the private sector medical market under Component Three; as well as audit and evaluation.

SOURCE SELECTION INFORMATION REMOVED

B. Host Country Contribution

The total GOE contribution of the Project is estimated to be \$ million (£E equivalent), i.e., £E million including £E million from the USAID FT-800 Account. Planned GOE Project inputs include: staff salaries, premium pay, office space, utilities, furniture, research, and operating expenses for the CRHP Directorate; salaries, operating expenses, furniture, equipment, and pharmaceuticals for all CRHP facilities. In addition, the GOE is expected to finance any renovations and biomedical equipment for the Phase B facilities.

The GOE contribution will be both cash and in-kind, and represents approximately 31.0% of the total Project cost. Table III, below, shows the expected contribution by GOE fiscal year. The method of verifying the GOE in-kind contribution will be by observation. The USAID Project Officer will be working closely with staff of the CRHP Directorate in order to establish a system for monitoring, verifying, and reporting on the GOE in-kind counterpart contribution. The GOE cash contribution will be monitored through review of GOE budgetary documentation, when applicable.

C. Project Costs

The estimated Project costs by fiscal year over the life of the Project are shown in Table I. The estimated allocation of Project costs by Foreign Exchange and Local Currency is shown in Table II. Additional detail on the make up of the costs to be incurred under Component One over each year of the Project is presented in the Cost Analysis, Annex C.

D. Methods of Implementation and Financing

Table IV, below, illustrates the methods of implementation and financing of Project elements. The methods of implementation and financing are all in accordance with the Agency's payment and verification guidelines. The implementation methods proposed for this Project are PIO/Ts, direct contracts, PIO/Cs, and Host Country Contracts. Each is standard, and has been used successfully in the Egyptian context under the Project.

SOURCE SELECTION INFORMATION REMOVED

TABLE I
Cost Estimates by Fiscal Year
 (\$000)

	THRU FY92	FY93	FY94	FY95	FY96	FY97	TOTAL
COMPONENT ONE							
Technical Assistance							
Commodities							
Renovations							
Training							
Local Facility Start Up							
Local Operating Costs							
COMPONENT SUBTOTAL							
COMPONENT TWO - HIO							
Interim TA Contract *							
MIS TA Contract *							
Local Costs							
COMPONENT TWO - HIO SUBTOTAL							
COMPONENT TWO - CCO							
Interim TA Contract							
Prime TA (Marketing)							
MIS TA Contract *							
Local Costs							
COMPONENT TWO - CCO SUBTOTAL							
COMPONENT THREE							
Interim TA & Grants							
Prime TA							
Training/Workshops							
Local Costs							
COMPONENT THREE SUBTOTAL							
AUDIT/EVALUATION							
CONTINGENCY							
A.I.D. CONTRIBUTION							
USAID FT-800							
OTHER GOE CONTRIBUTION							
PROJECT TOTAL							

* These technical assistance contracts also include training and the purchase of commodities.

SOURCE SELECTION INFORMATION REMOVED

TABLE II
Cost Estimate and Financial Plan
 (\$000)

	FX	LC	TOTAL
COMPONENT ONE			
COMPONENT TWO			
COMPONENT THREE			
AUDIT/EVALUATION			
CONTINGENCY			
TOTAL			

Table III
GOE Contribution Summary Table
 (EE 000)

	THRU FY91/92	FY92/93	FY93/94	FY94/95	FY95/96	FY96/97	First Q FY97/98	TOTAL
GOE CONTRIBUTION SUMMARY (EE 000)								
	THRU FY91/92	FY92/93	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98	TOTAL
In-Kind Contribution	.....	.....	.....	.....	.....	.....	.....	.....
Cash Contribution								
GOE CONTRIBUTION (EE000)								
GOE CONTRIBUTION (\$000 Eq.)								
USAID FT-800 Account (EE000)								
USAID FT-800 Account (\$000 Eq.)								
TOTAL GOE (\$000 Eq.)								

SOURCE SELECTION INFORMATION REMOVED

SOURCE SELECTION INFORMATION REMOVED

TABLE IV
Methods of Implementation and Financing
 (\$000)

Element	Method of Implementation	Method of Financing	Amount
COMPONENT ONE			
Technical Assistance	Direct Contract	Direct Payment	
Commodities	HC Contract	Bank L/COM	
Renovations	HC Contract	Direct Payment	
Participant Training	Direct Contract	Direct Payment	
Local Training	PIL	Reimbursement	
Local Start Up Costs	PIL	Reimbursement	
Local Operating Costs	PIL	Reimbursement	
COMPONENT TWO			
Technical Assistance	Direct Contract	Direct Payment	
Technical Assistance	HC Contract	Direct Payment	
Local Operating Costs	PIL	Reimbursement	
COMPONENT THREE			
Technical Assistance	Direct Contract	Direct Payment	
Training	Direct Contract	Direct Payment	
TA & Training	Grant	Advance/Reimb	
Local Operating Costs	PIL	Reimbursement	
AUDIT/EVALUATION	Direct Contract	Direct Payment	
CONTINGENCY			

E. Audit Concerns

During the life of this Project, non-federal/recipient audits will be performed to determine whether the recipients have properly accounted for and used A.I.D. funds for the purposes intended in accordance with applicable laws and regulations. USAID will ensure that all commitments over \$25,000 under this Project are in the Mission's audit universe. The Mission will schedule audits for those commitments over \$25,000 and ensure funds are available for audits (see budget line item in Table II) in accordance with AID/W guidance dated 3/31/92 on Audit Management and Resolution Program. Not all of the planned commitments over \$25,000 under this Project will require non-federal/recipient audits because of the nature of the activity (i.e., PSCs, NFAs).

The Regional Inspector General for Audit will perform quality and compliance reviews of non-federal/recipient audits under this Project and provide or arrange for additional audit coverage requested by USAID, if deemed necessary.

SOURCE SELECTION INFORMATION REMOVED

VI. IMPLEMENTATION PLAN

The MOH is the lead GOE implementing agency for Component One of this Project. The HIO and the CCO are the lead agencies for the implementation of Component Two. The Ministry of International Cooperation (MIC) is the lead GOE implementing agency for Component Three, although actual implementation is being undertaken by CGC. In line with the focus of the rest of this Project Paper Supplement, this Section will focus on Component One, with references to the other two components where applicable.

A. Project Management

The Cost Recovery for Health CRHP Directorate was established as a semi-autonomous unit within the MOH to assist in the implementation and coordination of Project activities. The key organizational elements are the Project Steering Committee and the CRHP Directorate. These are outlined below, with more detail provided in the Administrative Analysis, Annex F.

1. Project Steering Committee

The Steering Committee is the Project's main policy-making body with responsibility for reviewing and revising the policies, procedures, and guidelines to ensure that the activities address the Project's goal, strategies and purposes. The Steering Committee was established by Ministerial Decree and is chaired by the Minister of Health.

2. CRHP Directorate

The CRHP Directorate is staffed with MOH personnel, local employed personnel, local contract professionals, and USAID/Cairo personal services contractors. From June 1990 through October 1992 the CRHP Directorate was assisted by the Health Financing and Sustainability Project (HFSP). During this period procedures and systems for planning and overseeing renovation and revitalization activities were developed. Directorate and HFSP developed Directorate personnel job descriptions, reporting and control systems for management of individual facility conversions, and management information systems requirements.

In support of the Component One activities described in Section IV.B, above, both the interim short term and the prime technical assistance contractors will develop detailed Action Plans on an annual basis. The action plans will detail the work to be performed and will correspond with the CRHP Directorate's implementation plan. The CRHP Directorate, with assistance from the interim short term technical assistance contractor, will use a computer application to track actual performance against the

Implementation Plan which will serve as the baseline for project monitoring.

In addition to annual implementation plans, both the short term technical assistance contractor and the prime contractor will provide management assistance to the CRHP Directorate when it comes to the development of procurement plans, TA plans, training plans, financial plans; compliance with GOE and USAID regulations; and preparation of documentation pertaining to contracting actions.

3. USAID Project Management and Monitoring

The USAID Office of Health is responsible for coordinating and monitoring the Project activities, including the management of the Direct AID contracts. Assuming requested staffing reclassifications and allocations are implemented, the Office will be staffed with a direct hire Office Director, three direct hire Project Officers, three FSN Project Management Specialists, one US PSC, one FSN secretary, and one AID Development Clerk. The PSC's role will be as Project Implementation Coordinator, and is expected to be in place in the third quarter of FY93.

The USAID Project Officer maintains contact with the CRHP Directorate's staff, has access to all Project-associated documentation, and serves as an *ex officio* member of the Steering Committee. The Project Officer makes on-site inspections and reviews Project progress.

The Cost Recovery Programs for Health Project Committee will continue to also monitor the implementation of the Project. In addition to members of HRDC/H staff, the Committee is composed of representatives from the Program Office, the Office of Project Support, the Legal Office, the Financial Management Office, the Contracts Office, the Commodities Management Office, and the Economic Affairs Staff.

The Office Director of the USAID Office of Health and the Associate Director of the Human Resources Development and Cooperation Directorate also represent USAID in key policy dialogue issues. Further involvement of USAID senior officers will be required on occasion to place health issues more prominently on the "development agenda."

An important function of the short term interim technical assistance contractor is to design and develop a Management Information System to track activities by the CRHP Directorate. (See Section VI.C.1.) The contractor will implement the systems in order to gather, analyze, and evaluate data regarding the activities and impact of the program, as well as ensure the timely submission and analysis of necessary reports (e.g., revenue reports; quarterly service performance statistics; vehicle and

commodity reports; participant training follow-up). Information generated by this system will be readily available to USAID.

B. Procurement Plan

1. Technical Assistance

The original Project Paper called for one long-term technical assistance team to manage all three Project components, with interim short-term technical assistance to assist the Project in implementation while the long term technical assistance team was recruited. The original Project Paper also calls for two contracts to provide management information systems assistance to the HIO and the CCO.

The original implementation plan envisioned that an interim technical assistance contractor would provide assistance until long-term technical assistance arrived in month twelve (about September 1990) of the second year of implementation. This has not been the case. To date, intermittent short-term technical assistance has been provided under a buy-in to the centrally funded Health Financing and Sustainability Project (HFSP), rather than the interim technical assistance anticipated by the original Project Paper. This assistance, provided by a consortium headed by Abt Associates, has made periodic visits to Cairo since July, 1990. During this time, they have assisted the Project to help set up the CRHP Directorate, initiated the development of standards and systems, developed skills within the CRHP Directorate staff, and assisted in selection of facilities for conversion to cost recovery.

On November 1, 1992, Cambridge Consulting Corporation (CCC) began a fifteen month technical assistance project to the CRHP Directorate and the five pilot facilities. This contract will provide on-site assistance to strengthen the CRHP Directorate and to assist in the initial implementation of the five pilot facilities. The CCC will provide management training, practical hospital operations training, commodities and equipment procurement, and develop financial management systems for the pilot facilities.

The arrival of the long-term technical assistance Prime Contractor team is critical to successful implementation of the Project, as it is expected to provide a wide range of complex and specialized expertise as well as the necessary coordination for all Project activities. The RFP for the long term TA is expected to be issued shortly after this Project Paper Supplement is approved. The Prime Contractor will be responsible for assisting the CRHP Directorate to plan, program, and provide: (1) appropriate technical assistance, training, and commodity purchase; (2) detailed A&E design and administration/supervision of the actual major renovation

of the five pilot hospitals by general construction contractors; (3) monitoring requirements; and (4) other services to assist in the implementation of the individual facility plans.

The Prime Contractor will be contracted during the first quarter of fiscal year 1994. As many of the prime contractor tasks are to be a continuation of the CCC technical assistance tasks, CCC will undertake the coordination of the efforts to bring on the prime contractor and will fully brief the new technical assistance team concerning Project activities and accomplishments.

For both HIO and CCO, interim short-term technical assistance has been provided in order to define MIS needs, undertake strategic planning exercises, both in terms of the organizational goals, as well as the managements uses of the MIS, its potential for added efficiency, costs containment, etc. For HIO, a contract has been recently negotiated for long term MIS technical assistance for procurement of computer equipment, training, and the installation of a new management information system to upgrade and substantially expand what it now has. The bidding process has not yet started for the CCO system, although a draft RFP has been prepared and is being refined. In addition to the technical assistance outline above, the long-term technical assistance Prime Contract will include limited support to Component Two organizations, particularly in the area of marketing and product promotion.

Since Component Three began, technical assistance has been provided to CGC by a local banking consultant. The contractor has prepared a manual for application forms, a guarantee policy, and follow-up forms to be used by the banks to follow-up on the use of the loans by the doctors receiving credit. It is not anticipated that additional technical assistance of this kind will be required in the future under Component Three. The long-term technical assistance Prime Contractor will include technical assistance to support other Component Three activities, i.e. management improvement for private sector health care practices and the development of new health care systems.

The table below outlines the anticipated Level of Effort to be provided under the Prime Contract, along with the expected categories of skills. In addition to the categories listed below, it is also anticipated that the contract will include short term Egyptian consultants in the same general skill areas identified for the long term Egyptian consultants.

Buy-ins to AID/W Research and Development/Office of Health (R&D/H) projects will be used primarily to obtain specialized technical assistance requirements which go beyond the scope of the prime contract. If a determination is made that the required expertise is not available through a buy-in, competitive selection will be used to enter into either a Cooperative Agreement or Contract, as

SOURCE SELECTION INFORMATION REMOVED

appropriate. In addition to specific policy and research needs, these will include external consultants to provide both mid-term

Type of Technical Assistance Under Prime Contractor	Illustrative Person Months
COMPONENT ONE	
US Long Term TA (PM) Hospital Administration Advisor (COP) Hospital Financial Management Advisor Health Insurance Specialist Training Advisor Marketing Advisor Nursing Advisor	
US Short Term TA (PM) Health Economist Hospital Maintenance Advisor Inventory Control Advisor Management Information System Advisor	
US Home Office (PM) Project Manager Program Assistant	
Egyptian Long Term TA (PM) Planning Consultant Hospital Management Consultant Infection Control Consultant Hospital Finance Consultant Hospital Costing Consultant Health Economist System Analyst Medical Records Consultant Training Consultant Maintenance Consultant Hospital Engineering Standards Consultant / A&E Consultant for Renovation Program	
COMPONENT TWO	
US Short Term TA (PM) Marketing Advisor	
COMPONENT THREE	
US Long Term TA (PM) Business Development Advisor Group & Prepaid Practice Mgmt Advisor	
US Short Term TA (PM) Insurance Advisor Marketing Advisor Private Practice MIS Advisor	

and final evaluations. At this point, the following have been identified:

- ◆ Quality Assurance Project, implemented by University Research Corporation/ Center for Human Services, will introduce a program that will complement other technical assistance activities and ensure improvements in the quality of care offered at the pilot facilities. The QA Project will be working with Quality Councils in each

SOURCE SELECTION INFORMATION REMOVED

pilot facility to assess quality of care problems and develop solutions. It is expected that by improving quality of services available to the public, clients will be more willing to pay for their care.

- ◆ Data for Decision Making Project, implemented by Harvard School of Public Health, will undertake a series of activities to strengthen the institutional capacity of the MOH Directorate of Planning through the creation of an Information Unit. The Information Unit will serve as the base for a series of data gathering and analysis activities which Harvard will undertake on behalf of the MOH. Those activities will enhance current MOH efforts to strengthen the health sector reform process currently underway via the CRHP by providing essential information to key policy makers for the allocation of scarce resources. With assistance from the Directorate of Planning, the Harvard Consortium will, over a three year period, create: data bases for national health accounts for the public and private sectors; design, equip and make operational through training, a budget tracking system for public sector expenditures; design and implement national household health care use and health care provider surveys and provide detailed analysis of findings; examine and analyze decision making processes in the health sector; and provide or arrange for training, both in-country and external, in analytic techniques such as cost-effectiveness analysis for priority setting and other areas critical to informed decision making.

- ◆ HealthComm, implemented by AED and Porter Novelli, is assisting the CRHP Directorate to train marketing staff of the pilot facilities as well as to upgrade its own marketing expertise. After initial training in marketing basics, technical assistance will be provided to the marketing staffs to develop communications strategies, conduct limited market research, and implement marketing plans.

A Project funded Personal Services Contractor (PSC) will be identified through competitive procedures to help USAID fulfill its responsibilities in terms of implementing and monitoring Project implementation. The PSC will be housed in HRDC/H and serve as a liaison between the Prime Contractor, the CRHP Directorate, and HRDC/H. A Project funded Foreign Service National (FSN PSC) with MIS experience and expertise will also be contracted to help USAID implement and monitor all aspects of computerization and MIS under the Project.

2. Training

The training strategy of the Project emphasizes in-country training, supported as required by opportunities for observational trips and/or international seminars/conferences. This recognizes the following: participant training is relatively costly and therefore can support only limited numbers of individuals; participant training is likely to be constrained by English language capability of trainees, despite pre-departure language training; and technical assistance under the Project will be of limited duration, thereby making it imperative that a sound training capability be institutionalized within the CRHP Directorate to address their long term needs.

HFSP has developed a methodology to assess the training needs of each staff section within the CRHP Directorate and the facilities to determine the type, quality and quantity of Project training to be programmed. CCC, and subsequently the Prime Contractor, will use this methodology to design and manage a training program for CRHP Directorate personnel which primarily utilized in-country and on-the-job training activities. Based upon the technical capabilities of the CRHP Directorate staff and the staff of each cost recovery facility, the contractor will adapt the standard training programs to the needs of the MOH/GOE personnel and facilities to achieve an acceptable level of operation and training for personnel of cost recovery facilities. By the PACD, the staff of the CRHP Directorate should be capable of implementing all Project activities and operating the in-country training program designed by the contractors for cost recovery facility conversion with minimal follow-on assistance from the contractor. A draft training assessment was completed in April 1993. When finalized, this will be used to develop a Training Plan for USAID approval, in line with Handbook 10 and USAID Mission Order 10-1.

Local Training - Local training will be provided under the Project through the mechanism of the technical assistance contract, which will include both long and short-term advisors to carry out the required training. The planned Level of Effort for these advisors is summarized in the preceding section. Updating of the training plans, appropriate selection methods, backstopping, and coordination will also be included in the scope of work under the Prime Contractor technical assistance contract. The local costs of implementing these workshops and training seminars (e.g., per diem, transportation, etc.) will be the responsibility of the CRHP Directorate and included in the Local Training Costs PIL. The system for monitoring local training is the responsibility of the Training and Human Resource Development Department of the Project Directorate. Technical assistance provided by the Prime Contractor will be used to strengthen the capability of the staff in this department.

Based on the preliminary results of the Training Needs Assessment recently conducted for Component One, training in management and financial management will continue to be given high priority.

Recognizing the important role nurses play in the health care system, particularly for quality improvements, nurses training will be given a high priority. The content of the training will be primarily based on the new cost recovery systems (and their policies, procedures, guidelines, and standards) and will focus on practical applications. Adult learning principles and participatory training methods will be utilized for all training programs.

Participant Training - The Prime Contractor will be responsible for augmenting this in-country and on-the-job training with appropriate observational travel and overseas short-term training for selected CRHP Directorate and facility personnel in the US and other countries with relevant cost recovery systems. This training is expected to focus on management, nursing, quality assurance, marketing, financial management, and equipment/ building maintenance, as well as the training to be provided through the Data for Decision Making program. The Prime Contractor will be responsible for arranging and monitoring the relevant participant training program and contracting with appropriate institutions. Consideration should be given to use Historically Black Colleges and Universities (HBCUs) where such training may be relevant and feasible.

It is expected that the contract will fund at least 40 person months of short-term training and at least 40 person months of intense observational travel and technical work experiences.

3. Commodities

The procurement of commodities, consisting primarily of biomedical equipment, has been included under the relevant technical assistance contracts. Each contractor will be responsible for the timely off-shore procurement of the relevant commodities using their own staff or through a USAID approved sub-contracted PSA. The contractor will also assist the facilities to establish systems to monitor the installation, use, and disposition of the equipment.

In preparation for the launching of cost recovery at the various Phase A facilities, CCC will procure and provide assistance in installing biomedical equipment. Equipment and estimated cost lists were developed by the CRHP Directorate and HFSP for the five Phase A pilot facilities. These equipment specifications were then carefully reviewed by CCC, and are summarized in the technical analysis to this document (Annex B). Appropriate procurement-related actions to be undertaken by the CCC will include advertising, issuing invitations for bids, evaluating bids, preparing contracts, shipping, clearing equipment from customs, accepting shipments, and overseeing the delivery and installation. All work performed will conform with A.I.D. procurement regulations (i.e., Handbook 14) and the FAR. Equipment vendors will be paid

through a bank letter of commitment issued by USAID/Cairo Controller's Office.

For the purchase of equipment under Local Start Up Costs of Component One, the Prime Contractor will be responsible for providing specifications and draft IFBs, with procurement undertaken by the CRHP Directorate.

4. Construction/Renovation

Assuming a positive finding results from the assessment of the CRHP Directorate's host country contracting capability, the CRHP Directorate will be responsible for entering into local contracts to implement construction activities and other support activities for cost recovery facilities. The interim technical assistance contractor will assist the CRHP Directorate in the preparation of work scopes, budgets, and workplans in order to facilitate contract preparation, bidding, and evaluation. The interim technical assistance contractor (and later the Prime Contractor) will advise the CRHP Directorate in contract management for renovations and provide the advisory services of a full-time, senior level Egyptian engineer with USAID construction administration and management experience for the full duration of the renovation program.

5. Local Costs

Local Costs are expected to be comprised of operating costs (e.g., non-GOE project personnel, consultants, office renovations, office supplies, office equipment, furniture, maintenance, CRHP Directorate training, travel, per diem, and telecommunications); facility training costs (e.g., furniture/equipment for facility training centers, honoraria, travel, per diem, training materials, conference space rental); and facility start up costs (e.g., medical supplies).

6. Buy America Considerations

As the Project funds were originally authorized in 1988, they are not subject to the current Buy America requirements which came into effect in December of 1990. However, the procurements, as outlined above, are in compliance with the requirements.

All of the technical assistance contracts, which include commodities and training, will be undertaken with U.S. firms. Although it is anticipated that a portion of the funds financing the US TA contracts will be spent locally by the contractors on residential rent, utilities, temporary lodging allowance, education allowance, local per diem, and salaries of local staff, as these are composed of commodities and services that are available only locally, local procurement of these items is eligible in accordance with A.I.D. Handbook 1B, Chapter 18A1c(6).

Local professional services contracts for CRHP Directorate personnel and consultants are not expected to exceed \$250,000, therefore local procurement is eligible in accordance with HB 1B Chapter 18A1c(4). Local construction services contracts are not expected to exceed \$5,000,000, therefore local procurement is eligible in accordance with HB 1B Chapter 18A1c(5). Certain Local Costs, funded under PILs, consist of commodities and services that are available only locally (e.g., office renovations, maintenance, CRHP Directorate training, telecommunications, honoraria, travel, per diem, training materials, and conference space rental), therefore local procurement of these items is eligible in accordance with HB 1B Chapter 18A1c(6). Other Local Operating Costs (e.g., office supplies, office equipment, furniture) Local Training Costs e.g., furniture/equipment for facility training centers) and Facility Start-up Costs (e.g., medical supplies) are available from the U.S., however since no single transaction is expected to exceed \$5,000, local procurement of these items is eligible in accordance with HB 1B Chapter 18A1c(3).

Audit services will be obtained locally, but as these will be professional services contracts estimated not to exceed \$250,000, they are exceptions in line with HB 1B Chapter 18A1c(4).

C. Project Evaluation

Project monitoring will provide basic indicators of Project implementation and become the basis for in-depth evaluation. Summative evaluations will assess Project impact. Formative evaluations will provide guidance for modifications and amendments to Project structure, staffing, and financing. Individualized studies from various components will be tailored to address specific management concerns or research issues.

1. Monitoring and Information Plan

The CRHP Directorate, with assistance from CCC, will be responsible for the development and implementation of a monitoring system which will provide timely information on the cost recovery progress and status of each Project facility to achieve operational cost recovery systems. It will provide a computerized data base at the central CRHP Directorate level, which relies on input from manual systems in the pilot facilities. This information system should cover progress of planning, training, A&E activities, commodity purchases, equipment, operational status, budgetary expenditures/balances, and host country contribution, as well as track the multiple indicators in the logical framework. It will also be used to prepare monthly status reports, Project annual workplans, and as needed, timely public relations information. Thus, the monitoring system will provide systematic information for Project management as well as important references for the Project's interim and final evaluation.

2. Assessments and Criteria for Success of a Cost Recovery Hospital or Clinic

The TAG will be requested by the CRHP Directorate to undertake assessments of each cost recovery facility 12 months after the conversion process has been formally initiated in order to measure progress. The following outlines the criteria that will be used to determine whether or not a given cost recovery facility has successfully attained cost recovery status.

- ◆ Facility revenues will increase annually compared to a baseline level of 1990-1991 total revenue (revenues earned from fees plus GOE allocations). Percentage levels will be used to compare this baseline to future periods at the ends of Years 1, 2, and 3.
- ◆ Within three years, the facility will recover a set percentage of Operating costs, equipment depreciation, and building depreciation from user-fees. Operating costs are defined as GOE Bab 2 allotments. Annual benchmarks will be the following:
 - Operating expenses recovered: First year (50%), Second year (60%), and Third year (100%);
 - Equipment depreciation recovered: First year (40%), Second year (60%), and Third year (80%).
 - Building depreciation recovered: First year (10%), Second year (20%), and Third year (30%).
- ◆ The proportion of patients whose care is paid for through social financing mechanisms [e.g., HIO, private insurance, alternative insurance (i.e. managed care, etc.), and others (i.e. companies, social groups, etc.)], will be higher than the level existing currently.
- ◆ Quality of care will be improved. This will be indicated by the following:
 - Increased utilization rates of in-patient and out-patient services.
 - Three months or more of basic medical supplies in stock.
 - One month or more of essential drugs listed in the hospital formulary in stock.
 - Top management personnel will have completed the nine (9) Cost Recovery for Health Management Training Modules,

and others will have completed training in selected modules. Top management and CRHP will designate training modules for other personnel. These programs will be completed by mid-1994.

- One-hundred percent of nursing personnel will have completed the Cost Recovery for Health Nursing & Skills Training Program.

- A Quality Assurance program will be in place as indicated by the following: The hospital has a QA plan, which is being implemented; there are hospital (or departmental) standards which specify the services, staffing and equipment that should be present at the facility; indicators have been developed for monitoring quality; there is an effective process in place to identify and solve quality problems; and there have been five significant improvements in patient care or support services in the last year as the result of the QA activities.

- There is a process for determining client satisfaction on a regular basis.

- A management structure will be implemented which defines authority and responsibility, and delegates authority to appropriate personnel and positions.

- ◆ Facility and equipment maintenance programs will be instituted and funding provided for these programs. The facility will have a contract with a maintenance company or an internally funded program within documented staff and budgetary allocations.
- ◆ Financial and management information systems will be established which provide data for decision-making and fee setting (based on operational and market changes).
- ◆ A Board of Directors, composed of mixed public and private representation, will be created with written responsibilities, authorities and legal status and will be approved within the Governorate.
- ◆ Creation of a database to monitor the free-patient target in the facility with respect to numbers served, types of services utilized, and total costs incurred to ensure adequate GOE reimbursement for free care.

3. Evaluation Plan

Baseline data is being developed by the Project Directorate and the technical assistance team as part of the intensive effort that goes into preparing each facility conversion or commissioning plan. Information derived from the TAG assessments will be channeled into a formal mid-term evaluation conducted by an independent external group. This evaluation will be conducted when sufficient implementation experience in cost recovery has been obtained, and will take place no later than the fourth quarter of FY 1995 at which time all five pilot facilities will have been in operation as cost recovery facilities for at least eighteen months. Assuming the mid-term evaluation indicates the pilots have been successful, the decision will be made as to initiate the cost recovery process for the additional five hospitals and polyclinics identified for assistance under the Phase B program.

The final evaluation will focus on the critical points of: quality of care, cost effectiveness, institutionalization, and sustainability and replicability. It will focus on documenting lessons learned over the life of Project and establish priorities for any follow-on program for funding by the GOE or other donors.

D. Project Implementation Schedule

The Implementation Schedule, which follows, has been developed as an illustrative guide to the sequencing of activities with an understanding that, while the Project purpose must be clearly stated and adhered to, there needs to be sufficient flexibility to allow the Project to adapt to changing needs.

ACTIVITY	RESPONSIBILITY	FY93	FY94	FY95	FY96	FY97
		---- Q U A R T E R ----				
		1234	1234	1234	1234	1234
<u>GENERAL</u>						
Project Paper Supplement Signed	USAID	..*				
Amended Budget Approved	USAID/MIC	..*				
Long-term TA						
- RFP issued	USAID	..*				
- Proposals evaluated	USAID*				
- Contract negotiated and signed	USAID, PC*	..*			
Develop Annual Implementation Plans	PD, CCC/PC*****
Develop Computerized Project Monitoring System	CCC*				
Interim Evaluation						
- Buy-in executed	USAID**			
- Evaluation completed	Contractor***		
Final Evaluation						
- Buy-in executed	USAID*****
- Evaluation completed	Contractor*****
PACD	USAID*****

ACTIVITY	RESPONSIBILITY	FY93	FY94	FY95	FY96	FY97
		---- Q U A R T E R ----				
1234 1234 1234 1234 1234						
<u>POLICIES, PROCEDURES, RULES, REGULATIONS, GUIDELINES, STANDARDS</u>						
Implement PPRGs for the facilities manual financial management system	Facilities, CCC/PC	..	..	..	..	..
Develop and implement PPRGs for facilities personnel	Facilities, CCC	..				
Develop and implement PPRGs for facilities operations	Facilities, CCC/PC	..				
Develop and implement PPRGs for facilities maintenance and repair	Facilities, CCC/PC	..				
Update PD Policies and Procedures Handbook	CCC	..				
<u>COST RECOVERY FACILITIES</u>						
Review and update facility conversion plans	CCC	..	..	
Develop Information Systems Plan	PD, CCC	..				
Implement Computer Applications	CCC/PC	..	..	..	..	..
Revise Information Systems Plan	PD, PC	..	..	..	..	..
Facility Renovations for Embaba Hospital						
- A&E Drawings Approved	USAID, PD	..				
- Sign Contract for Construction	PD	..				
- Renovations Begin	Constr. Contractor	..				
- Renovations End	Constr. Contractor	..				
- Medical Equipment Delivered and Installed	CCC	..				
Facility Renovations for Shark El Medina Hospital						
- A&E Drawings Approved	USAID, PD	..				
- Sign Contract for Construction	PD	..				
- Renovations Begin	Constr. Contractor	..				
- Renovations End	Constr. Contractor	..				
- Medical Equipment Delivered and Installed	CCC	..				
El Kantara Gharb Hospital						
- Renovations End	Constr. Contractor	..				
- Medical Equipment Delivered and Installed	CCC	..				
Facility Renovations for 15th of May Hospital						
- A&E Drawings Approved	USAID, PD	..				
- Sign Contract for Construction	PD	..				
- Renovations Begin	Constr. Contractor	..				
- Renovations End	Constr. Contractor	..				
- Medical Equipment Delivered and Installed	CCC	..				
Facility Renovations for Kafr El Dawar Polyclinic						
- A&E Drawings Approved	USAID, PD	..				
- Sign Contract for Construction	PD	..				
- Renovations Begin	Constr. Contractor	..				
- Renovations End	Constr. Contractor	..				
- Medical Equipment Delivered and Installed	CCC	..				
Conduct Training Activities:						
- Conduct Needs Assessment	PD, CCC	..				
- Develop Project Training Plan	PD, CCC	..				
- On-the-Job Training in Hospital Management, Administration and Operation	CCC/PC	..	..	..	..	..
- Observational Tours and/or Internship Programs	CCC/PC	..	..	..	..	..
Provide Equipment Support:						
- Review/Revise Equipment Lists	AID, Facilities, CCC	..	..	..	..	..
- Review/Revise Equipment Specifications	CCC	..	..	..	..	..
- Approve Equipment Eligibility	AID	..	..	..	..	..
- Prepare PIO/Cs	AID	..	..	..	..	..
- Advertising/Issuing IFB	CCC	..	..	..	..	..
- Evaluate Bids/Contract for Equipment	CCC	..	..	..	..	..
Initiate Marketing Strategy						
- Marketing training for staff and hospital management	AED, PD, Facilities	..	..	..	..	..
- Marketing strategy designed for each facility	AED, PD, Facilities	..	..	..	..	..
- Communications plan for each facilities	AED, PD, Facilities	..	..	..	..	..
- Client centered training	AED, PD, Facilities	..	..	..	..	..

ACTIVITY	RESPONSIBILITY	FY93	FY94	FY95	FY96	FY97
		---- Q U A R T E R ----				
		1234	1234	1234	1234	1234
Cost Recovery launch planned and executed						
- Embaba Hospital	AED,PD, Facility	....	..*	
- Shark El Medina Hospital	AED,PD, Facility	....	..*	
- El Kantara Gharb Hospital	AED,PD, Facility	..*				
- 15th of May Hospital	AED,PD, Facility	....	..*	
- Kafr El Dawar Polyclinic	AED,PD, Facility	....	..*	
Systems introduced						
- Embaba Hospital	CCC/PC, PD	..**	..**	****	****	****
- Shark El Medina Hospital	CCC/PC, PD	..**	..**	****	****	****
- El Kantara Gharb Hospital	CCC/PC, PD	..**	..**	****	****	****
- 15th of May Hospital	CCC/PC, PD	..**	..**	****	****	****
- Kafr El Dawar Polyclinic	CCC/PC, PD	..**	..**	****	****	****
Quality Assurance activities initiated						
- Facility QA coordinator appointed	PD, QA	..**	****			
- Facility QA plans prepared	PD, QA	..**	****			
Quality Assurance seminars						
- Embaba Hospital	PD, QA	....	..*	
- Shark El Medina Hospital	PD, QA	....	..*	
- El Kantara Gharb Hospital	PD, QA	....	..*	
- 15th of May Hospital	PD, QA	..*				
- Kafr El Dawar Polyclinic	PD, QA	....	..*	
- National awareness seminar for MOH and other components	PD, QA	....	..*	
QA program instituted						
- Embaba Hospital	PD, QA	....	..*	
- Shark El Medina Hospital	PD, QA	....	..*	
- El Kantara Gharb Hospital	PD, QA	....	..*	
- 15th of May Hospital	PD, QA	..*				
- Kafr El Dawar Polyclinic	PD, QA	....	..*	
Identify Phase B cost recovery facilities	USAID, PD, PC	....	..**	
CRHP Directorate INSTITUTIONAL STRENGTHENING						
Assist in Developing Human Resource System	CCC, PC	..**	****			
Develop Project Monitoring System	CCC	..*				
Develop Information Systems Plan	PD, CCC	..*				
Implementation of Computer Applications	CCC/PC	..**	****	****	****	****
Revise Information System Plans	PD, PC	..**	..**	..**	..**	..**
SOCIAL FINANCING						
Review social financing and insurance plans in Egypt	CCC	..*				
Conduct conference on social financing of health care	CCC	..**				
Design prototype insurance plan	CCC	..**				
Collect baseline data from cost recovery facilities	CCC	..*				
Refine/design insurance plans	PC	....	..**	..**	..**	..**
HEALTH PLANNING AND POLICY OPTIONS						
Analysis of Egyptian health sector	CCC	....	****	****	****	****
Mapping the decision making process	DDM, MOH Plan.Dir.	....			
Analysis of national health accounts	DDM, MOH Plan.Dir.	....	..**	
Budget tracking database	DDM, MOH Plan.Dir.	....	..**	
Cost effectiveness analysis	DDM, MOH Plan.Dir.	....	****		
Health household survey	DDM, MOH Plan.Dir.	....	****	..**	
Analysis of health services demand	DDM, MOH Plan.Dir.	....	****	..**	
Provider analysis	DDM, MOH Plan.Dir.	....	****	..**	
Project Workshops	DDM, MOH Plan.Dir.	....	****	..**	..**
Harvard/BU/MPH training	DDM, MOH Plan.Dir.	..**	****	..**		

VII. SUMMARY ANALYSES

A. Summary of Technical Analysis

This summarizes the Technical Analysis of Component One, which is presented fully in Annex B to this paper. The CRHP intends to impact four hospitals and one polyclinic in three basic areas: institutional development, including management systems, information systems, maintenance systems and management and technical training; financial systems development, including accounting, budgeting, and financial planning; and the improvement of facilities and technology, including renovations and equipment purchases. The resulting institutions will thus be able to provide services at a higher level of quality as a result of the additional revenues which will be obtained from the charging of appropriate fees for the services being rendered.

The budgets of these hospital are presently at the point where the funding is so inadequate that facilities have not been able to provide a reasonable standard of care, and the reputation of these facilities has become extremely poor. As the list of alternative providers is long, the CRHP hospitals and polyclinics must define and work toward a particular niche, or market orientation, within the range of options and possibilities. This analysis assumes that the appropriate market orientation (or placement) for the CRHP facility is with the middle and lower income segments of the Egyptian population. In addition, as noted above, we believe the service approach should be direct and community-oriented, with few specialty or high technology services. The CRHP pilot facilities must focus on offering the basic services of a general, community hospital and not try to provide specialized or high technology services.

The analysis concludes the following:

- ◆ As part of the partnership between the CRHP facility and its community, the facility should utilize a Board of Directors or Trustees.
- ◆ The facilities and their directors/managers should adopt a restructuring which will allow patient service to be a key goal and priority.
- ◆ The facilities and their directors/managers should develop a "management team" structure.
- ◆ The Board of Directors should grant to the Hospital/Polyclinic Director is the responsibility for the financial management of the operations and capital of the facility.

- ◆ Other key management team roles should be acknowledged and promoted by the Hospital/Polyclinic Director.
- ◆ The need for a new and equitable incentive program for employee pay should be recognized.
- ◆ Freedom or special exemptions from the personnel regulations of the Ministries of Health and Manpower should be sought, as has been achieved by the Health Insurance Organization (HIO) and the Curative Care Organization (CCO).
- ◆ The use of the management team, the practice of delegation, the upgraded role for the financial manager, the oversight of an active Board of Directors, and increased flexibility and responsibility toward personnel management should be promoted.
- ◆ Key personnel issues for the cost recovery facilities should be dealt with, including: hospital/polyclinic control over the selection and assignment of personnel; hospital/polyclinic control over discipline and firing; evaluating and rewarding good performance; clarity regarding job responsibilities; overall pay levels for employees and physicians; the "physical" working environment; pay for hours worked; hospital/polyclinic control of staffing levels; management training for middle and upper level managers; personnel management
- ◆ A new set of standards for their operations and financial management should be implemented, a set of standards which ensures a quality environment and provides clarity regarding expectations for performance.
- ◆ Internal policies for patient care should be developed, including: the appropriate allocation of 1st, 2nd, 3rd, and free class beds; the reasonable minimum standard for free care in the inpatient, outpatient, and casualty areas; the methodology for determining ability-to-pay levels and the selection of free care patients; the fair and equitable delivery of medical care to all patients; and procedures for the admission and discharge of patients which ensure proper financial and records management.

Finally, emphasis needs to be placed on the development of social financing mechanisms, whether through insurance, government, or business. Second, research needs to determine what Egyptians expect from their local facilities and what they will pay to obtain these results. Finally, each CRHP facility should implement a practical approach for determining a patient's ability to pay for

services and should be consistent and fair in the use of this system.

B. Summary of Cost Analysis

This summarizes the Cost Analysis of Component One, which is presented fully in Annex C to this paper. The Cost Analysis provides a detailed illustrative budget for Component One, including standard unit costs.

C. Summary of Financial and Economic Analysis

This summarizes the Financial and Economic Analysis of Component One, which is presented fully in Annex D to this paper. This analysis consists of three parts: (1) an analysis of the cost recovery and self-sufficiency considerations from the perspective of the individual Phase A facilities under Component One; (2) an analysis of the overall financial feasibility of the activities proposed under Component One; and (3) an analysis of the Component One activities from an economic perspective.

The aim of the cost recovery and self-sufficiency section of this analysis is to show that the proposed project is "financially viable" from the perspective of a cost recovery facility, i.e., the expected stream of revenues to the facilities exceeds the costs when suitably discounted and totaled. This analysis attempts to identify and describe the anticipated value of a CRHP pilot facility before and after renovation and revitalization and examines patient revenue and related expenses based on inpatient beds; inpatient, outpatient, and casualty productive services; and outpatient and casualty visits. This section concludes that the stream of income generated by the pilot facilities points to a potentially viable investment in the CRHP pilot facilities, from the facilities' perspective, through fiscal year 1995/96.

The aim of the financial analysis section of this analysis is to examine the direct financial benefits to be obtained as a result of the Project. The five pilot facilities identified for conversion to cost recovery operations are intended to serve as a demonstration of the effectiveness of the cost recovery system. Given the low rate of return projected for the Phase A demonstration units, this section concludes that conversion of a minimum of 21 additional Phase B and C facilities by the GOE will be required to achieve an internal rate of return (IRR) over 10%. This minimum number of additional conversions is based on a very favorable set of assumptions. Changes in critical assumptions could have a dramatic effect on the results of the analysis. However given the large population of hospitals, there is the potential for conversion of a substantially larger number of facilities. The larger number of conversions would generate a

higher rate of return, or off set the expected lower return if key assumptions do not hold. The large population also presents the opportunity to select facilities for conversion carefully, which increases the possibility of favorable results.

This section concludes that although this is a high risk endeavor from a financial standpoint, there is a reasonable chance of success. Even if a favorable financial rate of return is not achieved, significant improvements in Egypt's health care delivery system could be achieved.

Building on the financial analysis section, the economic analysis section analyzes the impact of the Project on government expenditures. Hospitals consume the major share of the government budget for health. Consequently, the hospital sector is the most likely source for finding additional funding for primary health care and public health measures. It is the expectation of this Project that significant cost recovery by government hospitals will facilitate the diversion of some public funding that otherwise would have gone to the hospital sector to the primary health care sector, especially to public health services. An assumption of the Project is that the conversion to cost recovery facilities will reduce the needs of these hospitals for budget allocations under *Babs* 1,2 and 3. These budget reductions or savings also are a benefit of the Project and should be added to the other benefits, i.e. net patient revenues, in order to complete the analysis. To the extent that these savings are used for primary health care (public health measures) as the Project assumes, the benefits will be larger than the budget savings.

There may also be certain indirect benefits that can occur due to the Project. At the macro level, the Project is expected to enhance efficiency in the Egyptian health system by extracting resources from the more expensive but less cost-effective curative health settings, or limiting their growth, and using these resources to fund less-expensive, more cost-effective, and wider-impact interventions in public health. At the micro level, the Project may lead to greater operational efficiency in each of the individual cost recovery hospitals. Aside from its beneficial supply-side effects, the cost recovery program in hospitals may help rationalize demand for and utilization of hospital services. Cost recovery programs in MOH hospitals can play a complementary role in the development of third-party payment systems. At the same time, health insurance schemes can increase the probability of hospitals being paid for their services.

This section concludes that the savings from *Babs* 1,2 and 3, when combined with the benefit-cost analysis of the operations of cost recovery facilities, qualify the Project as one that can be justified marginally on economic grounds.

D. Summary of Beneficiary Analysis

This summarizes the Beneficiary Analysis of Component One, which is presented fully in Annex E to this paper. This analysis provides a profile of each of the communities in the catchment areas of the five facilities (15 May Hospital/ Cairo Governorate, El Kantara Gharb Hospital/Ismailia Governorate, Kafr El Dawar Polyclinic/El Bahira Governorate, and Shark El Medina Hospital/Alexandria Governorate, and Embaba Hospital/Giza Governorate), that are to be included as CRHP pilots. In addition, information is provided about the services offered by each facility and about other facilities in the area of each which may compete for patients.

The analysis concludes by recommending the following:

- ◆ The management of the facilities should be given autonomy in pharmaceutical and supplies procurement since availability of supplies and medicines is a determining factor in attracting patients.
- ◆ The level of user charges should be competitive with other health providers.
- ◆ The user charges should be implemented only after the facility establishes itself as a "quality" health care facility.
- ◆ Approximately 40-65 percent of the population in catchment areas if each CRHP facility may require some form of subsidy to be able to meet the charges of treatment in the CRHP facilities.
- ◆ The groups that should be targeted for subsidy are households headed by unskilled workers, farm workers, small traders, and low-level clerical and administrative staff.
- ◆ The system of exemption from payment for treatment should be clearly outlined and should not be left solely to the discretion of the social workers.
- ◆ More efforts should be made to attract insured patients, particularly workers.
- ◆ The system of health insurance offered by employers should be expanded to include employees dependents.

E. Summary of Administrative Analysis

This summarizes the Administrative Analysis of Component One, which is presented fully in Annex F to this paper. The Ministry of

Health (MOH) is the lead GOE agency for implementing this Project. The Ministry of International Cooperation (MIC) is the signatory on behalf of the Government of Egypt to the Project Agreement and any subsequent amendments to that Agreement. In 1987, the Minister of Health, in collaboration with the Minister of International Cooperation, issued a Decree establishing the Cost Recovery for Health Project Executive Steering Committee and the Component One Cost Recovery for Health Project Directorate (CRHP Directorate) as semi-autonomous units under the Ministry of Health. The Executive Steering Committee of the Cost Recovery Programs for Health is expected to provide policy, advisory, and coordinating assistance for overall Project Implementation. Informal Project Coordination Madonnas will also be head to coordinate activities of the three components, share experiences and resources, and discuss current topics of mutual interest. The technical advisory Group (TAG) for Component One will advise the Project Directorate, USAID, and the Steering Committee on progress towards full cost recovery of the pilot facilities and be available for other technical support.

The Project Directorate is the lead agency for planning, implementing, and evaluating the activities of this Component. The MOH is responsible for delegating authority to the Directorate, the individual facilities and their respective Governorate for project implementation for implementation of the CRHP activities, host country contracts for technical assistance, facility renovation, commodity procurement, and training.

The Project Directorate is managed by a Project Director reporting to the MOH Undersecretary overseeing the project activities. The Project Directorate is organized in the following functional departments: Hospital Operations and Management, Training & Human Resource Development, Architecture & Engineering, Biomedical Equipment, Directorate Administration and Supportive Services, and Market and Public Relations.

A. LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>PROJECT GOAL</u></p> <p>To enhance the quality, sustainability, accessibility, and affordability of health services for the Egyptian people.</p>	<p><u>MEASURES OF ACHIEVEMENT</u></p> <ul style="list-style-type: none"> ◆ Progressive increase in life expectancy. ◆ Decrease in infant and under-five mortality. ◆ Increase in percentage of GOE Health Sector budget allocated for preventive public health care activities. 	<ul style="list-style-type: none"> ◆ GOE statistics. 	<ul style="list-style-type: none"> ◆ Disease specific technologies remain effective. ◆ Cost recovery remains a top GOE strategy. ◆ MOH will shift priorities to preventive public health activities. ◆ Current economic growth and income distribution maintained. ◆ Role of the private sector in the Egyptian economy will continue to expand. ◆ Population programs will receive top level support. ◆ National political and health sector stability maintained.
<p><u>PROJECT PURPOSE</u></p> <p>To broaden and diversify approaches for financing personal health services in Egypt.</p> <p>COMPONENT ONE SUB-PURPOSE: To develop and test cost recovery systems in MOH facilities as a model for country wide application.</p> <p>COMPONENT TWO SUB-PURPOSE: To improve the management, efficiency, and utilization of existing cost recovery organizations.</p> <p>COMPONENT THREE SUB-PURPOSE: To expand private sector financing of individual, group, and pre-paid care practices.</p>	<p><u>END OF PROJECT STATUS</u></p> <ul style="list-style-type: none"> ◆ Increased proportion of total health care expenditures financed by private sector payments. ◆ Facilities will be covering 100% of non-personnel operating costs, 80% of equipment depreciation, and 30% of building depreciation from private sector payments. ◆ Improved, cost-effective services being provided to 20 million people through HIO and CCO facilities. ◆ 100,000 additional people using private sector prepaid health care services. 	<ul style="list-style-type: none"> ◆ Project reports. ◆ GOE statistics. ◆ GOE financial records. ◆ Cost Recovery facility reports. ◆ HIO and CCO financial records ◆ HIO and CCO MIS reports. ◆ CGC reports. ◆ Project reports. ◆ Project evaluation. 	<ul style="list-style-type: none"> ◆ Egyptians will continue to utilize cost recovery GOE facilities for quality curative/health care. ◆ Private sector health care providers can not fully meet health care needs. ◆ Egyptians will progressively use private health sector as source of quality care. ◆ Reasonable profit possibilities, including managed health care schemes, exist for private health care providers within the economy.

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ANNEX A
LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>OUTPUTS</u></p> <p>COMPONENT ONE:</p> <ul style="list-style-type: none"> ◆ Demonstration of successful cost recovery operations. ◆ Technical and management capability in place within the MOH to replicate cost recovery model to other health facilities. ◆ A system established in the MOH Planning Directorate to track public sector curative and preventive health expenditures. <p>COMPONENT TWO:</p> <ul style="list-style-type: none"> ◆ MISs installed and being utilized at HIO and CCO for improved management, administrative, financial, and marketing. ◆ Cost containment and system efficiency leading to expanded coverage by both HIO and CCO. <p>COMPONENT THREE:</p> <ul style="list-style-type: none"> ◆ An improved commercial banking system to provide financial services to health care providers. ◆ Increased number of new or expanding private sector health care providers, particularly in rural areas and secondary cities. ◆ Viability of new or expanded practices. ◆ New private managed health care systems (i.e., HMO-like schemes). 	<p><u>MAGNITUDE OF OUTPUTS</u></p> <ul style="list-style-type: none"> ◆ A minimum of 4 MOH hospitals and 1 MOH polyclinic converted to cost recovery operations. ◆ CRHP Directorate staffed with MOH personnel experienced in cost recovery. ◆ Information available to MOH decision makers. ◆ MISs installed, reports being generated and utilized for decision making ◆ 25 % increase in utilization of HIO and CCO facilities. ◆ 10 commercial banks actively participating. ◆ 5,000 loans to new or expanding private sector health care providers ◆ Indicated by a default rate of no more than 10%. ◆ 2 new systems. 	<ul style="list-style-type: none"> ◆ GOE records. ◆ Site visit reports. ◆ Project evaluation. ◆ HIO & CCO records. ◆ Site visit reports. ◆ Project evaluation. ◆ CGC records. ◆ Site visit reports. ◆ Project evaluation. ◆ Organization records. 	<ul style="list-style-type: none"> ◆ GOE issues necessary decrees to support cost recovery. ◆ CRHP Directorate records. ◆ Project evaluation. ◆ HIO and CCO can retain trained personnel. ◆ Commercial banking sector continues to serve health care providers. ◆ Private physicians continue to be good credit risks. ◆ GOE continues support of private sector.

ANNEX A
LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>INPUT</u></p> <p>COMPONENT ONE Technical Assistance Commodities Renovations Training Local Costs</p> <p>COMPONENT TWO Technical Assistance (w/commodities & training) Local Costs</p> <p>COMPONENT THREE Technical Assistance & Training Local Costs</p> <p>AUDIT/EVALUATION CONTINGENCY</p> <p>TOTAL</p>	<p style="text-align: right;">(\$000)</p>	<p>♦Financial disbursement records.</p>	<p>♦GOE continues to support public and private health sector development. ♦Technical assistance, training, equipment, and resource levels can improve effectiveness of the health sector. ♦Inputs will be provided on a timely basis.</p>

Component Two; and technical assistance for promotion of the private sector medical market under Component Three; as well as audit and evaluation.

The total GOE contribution of the Project is estimated to be \$ million (£E equivalent), i.e., £E126.1 million including £E69.2 million from the USAID FT-800 Account. Planned GOE Project inputs include: staff salaries, premium pay, office space, utilities, furniture, research, and operating expenses for the CRHP Directorate; salaries, operating expenses, furniture, equipment, and pharmaceuticals for all CRHP facilities. In addition, the GOE is expected to finance any renovations and biomedical equipment for the Phase B facilities.

The estimated Project costs are indicated in the following table:

SUMMARY TABLE
Estimated Project Costs
(\$000)

	TOTAL
COMPONENT ONE	
COMPONENT TWO	
COMPONENT THREE	
AUDIT/EVALUATION	
CONTINGENCY	
TOTAL

D. PROJECT AMENDMENT NEGOTIATION STATUS

1. HIO/SIO Data Sharing - SIO has computerized files of all employers and employees who pay into SIO; SIO collects HIO premiums on a subset of these, and gives HIO the 4% of total collections set aside for HIO premiums. HIO has been trying unsuccessfully to obtain data files from SIO containing lists of employees eligible for HIO benefits. Currently, HIO constructs its registry of eligible beneficiaries from lists obtained individually from each company. HIO employees spend thousands of hours manually checking these lists and updating them through visits to employers. We cannot build an MIS with such an antiquated method of data collection. USAID and the GOE are devoting considerable resources to help make HIO a more efficient and better managed organization. It is USAID's position and the technical view of the contractor that there is no other alternative for HIO than to obtain from SIO the necessary data on eligible beneficiaries for whom SIO has collected premiums. These data files should be made available to HIO on magnetic tapes on a regular basis, as needed by HIO, at no cost to HIO. HIO already pays SIO for the collection of the

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4. Health Facilities

Relative to the original Project Paper, there are two basic concerns about the renovation component: there might not be enough money to do all 50 hospitals; how could the amounts for renovation be better limited or defined?

The Project Paper called for renovation of up to 50 hospitals or other health facilities. After Project implementation began, an initial estimate for renovation of Embaba Hospital for \$2 million, led to question on whether the \$21 million programmed for this activity would be sufficient to renovate all these facilities. Within the first two years, it also became clear that assistance and commodities for other parts of the Project were undercosted in the original design.

The HFSP team provided several short-term consultants to assist the CRHP Directorate to refine the parameters to be used in determining the amount of renovation to be undertaken. While the criteria is still necessarily somewhat subjective, HFSP members recommended that hospitals chosen for participation in the Project should have relatively modest needs for renovation and equipment; that it be possible for renovation to be done in phases; that the overall time needed would not be excessive; and that physical renovation be limited to changes needed to assure sanitation, and physical safety and stop physical deterioration. In other words, the improvements made to the facilities will focus on the minimum amount of renovation necessary to transform the facilities into functioning cost recovery facilities.

Although the Project Paper and original plans called for a maximum of 50 health facilities to be renovated, there appears to be general agreement between the CRHP Directorate and USAID that, at this point, a much smaller number should be selected to be used as models and to generate some lessons.

Five facilities have been selected for the initial Phase A of the Project: the CRHP Directorate has selected a hospital in four of the governorates that have now finalized plans for cost recovery (Embaba Hospital in Giza, 15th of May in Helwan, Shark El-Madina in Alexandria, and El Kantara Gharb in Ismailia); plus one polyclinic (Kafr EL-Dawwar in Beheira Governorate), as candidates for initial renovation. Equipment lists have been prepared for these five facilities. These have been reviewed by USAID and the HFSP and finalized by CCC, the interim technical assistance contractor on board since early FY93. The CRHP Directorate engineer has drawn up plans for all facilities and bids and have been solicited from local A&E firms to finalize plans and prepare cost estimates for Embaba Hospital, 15th of May Hospital, and Kafr El-Dawwar polyclinic. An A&E firm was selected in July, 1991, for Embaba Hospital, but this component has been delayed because of a

SOURCE SELECTION INFORMATION REMOVED

B. Host Country Contribution

The total GOE contribution of the Project is estimated to be \$ million (£E equivalent), i.e., £E126.1 million including £E69.2 million from the USAID FT-800 Account. Planned GOE Project inputs include: staff salaries, premium pay, office space, utilities, furniture, research, and operating expenses for the CRHP Directorate; salaries, operating expenses, furniture, equipment, and pharmaceuticals for all CRHP facilities. In addition, the GOE is expected to finance any renovations and biomedical equipment for the Phase B facilities.

The GOE contribution will be both cash and in-kind, and represents approximately 31.0% of the total Project cost. Table III, below, shows the expected contribution by GOE fiscal year. The method of verifying the GOE in-kind contribution will be by observation. The USAID Project Officer will be working closely with staff of the CRHP Directorate in order to establish a system for monitoring, verifying, and reporting on the GOE in-kind counterpart contribution. The GOE cash contribution will be monitored through review of GOE budgetary documentation, when applicable.

C. Project Costs

The estimated Project costs by fiscal year over the life of the Project are shown in Table I. The estimated allocation of Project costs by Foreign Exchange and Local Currency is shown in Table II. Additional detail on the make up of the costs to be incurred under Component One over each year of the Project is presented in the Cost Analysis, Annex C.

D. Methods of Implementation and Financing

Table IV, below, illustrates the methods of implementation and financing of Project elements. The methods of implementation and financing are all in accordance with the Agency's payment and verification guidelines. The implementation methods proposed for this Project are PIO/Ts, direct contracts, PIO/Cs, and Host Country Contracts. Each is standard, and has been used successfully in the Egyptian context under the Project.

ANNEX A
LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>INPUT</u></p> <p>COMPONENT ONE Technical Assistance Commodities Renovations Training Local Costs</p> <p>COMPONENT TWO Technical Assistance (w/commodities & training) Local Costs</p> <p>COMPONENT THREE Technical Assistance & Training Local Costs</p> <p>AUDIT/EVALUATION CONTINGENCY</p> <p>TOTAL</p>	<p style="text-align: right;">(\$000)</p>	<p>• Financial disbursement records.</p>	<p>• GOE continues to support public and private health sector development. • Technical assistance, training, equipment, and resource levels can improve effectiveness of the health sector. • Inputs will be provided on a timely basis.</p>

**COST RECOVERY PROGRAMS FOR HEALTH PROJECT
(263-0170)**

**FIRST PROJECT PAPER SUPPLEMENT
FINANCIAL AND ECONOMIC ANALYSIS**

August 21, 1993

PDS/PS, B. Cypser *BC*
DIR/CS, B. Enroth *BE*
HRDC/H, M. Tanamly *MT*

SANITIZED VERSION

NO PROCUREMENT SENSITIVE INFORMATION INCLUDED

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D. FINANCIAL AND ECONOMIC ANALYSIS

This financial and economic analysis consists of three parts:

- ♦ An analysis of the cost recovery and self-sufficiency considerations from the perspective of the individual Phase A facilities under Component One.
- ♦ An analysis of the overall financial feasibility of the activities proposed under Component One; and
- ♦ An analysis of the Component One activities from an economic perspective.

1. Cost Recovery and Self-Sufficiency Considerations for the Cost Recovery Facilities under Component One

a. Summary

The Component One sub-purpose is to develop and test cost recovery systems in MOH facilities as a model for country wide application. The objective is to increase the resources available for the GOE/MOH health care system by implementing policy changes to convert selected hospitals and polyclinics to fee for service facilities. It focuses on mechanisms that will support recovery of the greatest percent of costs for curative services from those who can afford to pay. This will be accomplished by allowing MOH public hospitals and polyclinics to function more autonomously and efficiently. Component One utilizes a fee for service model to expand the revenue generating capabilities of the CRHP pilot facilities. As CRHP pilot facilities begin to support themselves financially, MOH resources can be reallocated from curative care for the general public to preventive programs, such as endemic disease control, expanded immunization programs, maternal and child health care, research, and others.

The aim of this section of the analysis is to show that the proposed project is "financially viable" from the perspective of a cost recovery facility, i.e., the expected stream of revenues to the facilities exceeds the costs when suitably discounted and totaled. This analysis attempts to identify and describe the anticipated value of a CRHP pilot facility before and after renovation and revitalization. Achieving a reduced cost to the GOE/MOH after CRHP renovation and revitalization will determine whether or not to pursue the Project past the pilot phase.

b. Methodology and Assumptions

Exhibits 1 through 5 provide a ProForma Statement of Operations for each Pilot Facility for a period of five years. The ProForma Statements of Operations provide estimates of patient revenue and related expenses based on inpatient beds; inpatient, outpatient, and casualty productive services; and outpatient and casualty visits. The projected revenue and expense assumptions for each pilot facility are shown in current Egyptian Pounds and are not annually adjusted for inflation. Changes in annual projected revenues and expenses are due to changes in utilization of services and occupancy of inpatient beds.

Estimates for Inpatient Revenue are produced for three categories of general service beds (First Class, Second Class, and Third Class), obstetric delivery beds, and intensive/coronary Care(ICU/CCU)/neonatal beds. These revenues are assumed to be generated solely through user fees on the pay beds. The number of free beds varies at each pilot facility and is determined by the respective governorates. The Productive Services Revenue is projected from patient medical services (laboratory, radiology, physiotherapy, pharmacy, supplies, and surgery). The Outpatient Revenue is projected from outpatient clinics and casualty visits.

Operating Expenses are the expenditures of the facility related to the support of patient services. Besides salaries, these include utilities, telephone, food, laundry and clothes, supplies (medical, laboratory, radiology, pharmacy, cleaning, and administrative), marketing, transport, and maintenance. Another expense included in this ProForma Statement of Operations which normally is not considered by government operations is that of the cost of physical capital, referred to as depreciation of buildings and equipment.

Conversion of the five pilot facilities will require improvements in physical plant, operations, and management capability. These will include institutional improvements in administration, finance, maintenance, health services, and information systems, and improvements in the service delivery environment through new and repaired equipment, facility renovations, and service quality standards.

In each Exhibit it is assumed that the government allotment is the same as the Bab 1 funds for fiscal year 1992/93. In each scenario the overall occupancy rate increases as service quality is improved. The occupancy rate varies among facilities, from a low of 50 percent for Shark El Medina Hospital in 1993/94 to a high of 80.2 percent for El Kantara Gharb Hospital in 1996/97.

ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

**Exhibit 1-A
EMBABA HOSPITAL
ProForma Statement of Operations (£E)**

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
INCOME					
Inpatient					
First Class	230,000	256,000	281,000	307,000	307,000
Second Class	465,000	512,000	558,000	605,000	605,000
Third class	253,000	276,000	322,000	345,000	345,000
General - Free	0	0	0	0	0
ICU/CCU/Neonatal	73,000	73,000	73,000	73,000	73,000
Inpatient Income	1,021,000	1,117,000	1,234,000	1,330,000	1,330,000
Delivery	511,000	562,000	624,000	675,000	675,000
Productive Services					
Laboratory	247,000	275,000	326,000	354,000	354,000
Radiology	104,000	116,000	137,000	149,000	149,000
Pharmacy	1,859,000	2,068,000	2,450,000	2,659,000	2,659,000
Supplies	559,000	622,000	737,000	800,000	800,000
Surgery	419,000	461,000	516,000	558,000	558,000
Renal Dialysis	82,000	82,000	82,000	82,000	82,000
Other	12,000	14,000	16,000	18,000	18,000
Productive Services Income	3,282,000	3,638,000	4,264,000	4,620,000	4,620,000
Outpatient Income	650,000	650,000	650,000	650,000	650,000
Allowance for Free Service	(325,000)	(325,000)	(325,000)	(325,000)	(325,000)
PATIENT INCOME	5,139,000	5,642,000	6,447,000	6,950,000	6,950,000
GOVERNMENT ALLOTMENT	1,600,000	1,600,000	1,600,000	1,600,000	1,600,000
TOTAL INCOME	6,739,000	7,242,000	8,047,000	8,550,000	8,550,000
OPERATING EXPENSES					
Salaries and Benefits	2,159,000	2,159,000	2,159,000	2,159,000	2,159,000
Utilities	240,000	254,000	278,000	292,000	292,000
Telephone	19,000	20,000	22,000	23,000	23,000
Food	501,000	530,000	581,000	609,000	609,000
Laundry and Clothes	215,000	227,000	249,000	261,000	261,000
Supplies					
Medical	554,000	585,000	642,000	673,000	673,000
Laboratory	82,000	87,000	96,000	77,000	77,000
Radiology	104,000	110,000	121,000	127,000	127,000
Pharmacy	2,179,000	2,302,000	2,526,000	2,648,000	2,648,000
Cleaning	57,000	61,000	66,000	70,000	70,000
Administrative	18,000	19,000	21,000	22,000	22,000
Total Supplies	2,994,000	3,164,000	3,472,000	3,617,000	3,617,000
Marketing	15,000	15,000	15,000	15,000	15,000
Transport	25,000	25,000	25,000	25,000	25,000
Maintenance	145,000	145,000	145,000	145,000	145,000
TOTAL OPERATING EXPENSES	6,313,000	6,539,000	6,946,000	7,146,000	7,146,000
OPERATING INCOME	426,000	703,000	1,101,000	1,404,000	1,404,000
NON OPERATING EXPENSE					
Building Depreciation	345,000	345,000	345,000	345,000	345,000
Equipment Depreciation	1,100,000	1,100,000	1,100,000	1,100,000	1,100,000
NET INCOME	(1,019,000)	(742,000)	(344,000)	(41,000)	(41,000)

ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

**Exhibit 1-B
EMBABA HOSPITAL
Success Criteria**

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
TARGET					
OPERATING - Bab 2	50.00%	60.00%	100.00%	100.00%	100.00%
BUILDING DEPRECIATION	10.00%	20.00%	30.00%	100.00%	100.00%
EQUIPMENT DEPRECIATION	40.00%	60.00%	80.00%	100.00%	100.00%
CALCULATION					
OPERATING	2,077,000	2,628,000	4,787,000	4,987,000	4,987,000
PERCENT	247.42%	214.69%	134.68%	139.36%	139.36%
DEPRECIATION	474,500	729,000	983,500	1,445,000	1,445,000
PERCENT	89.78%	96.43%	111.95%	97.16%	97.16%
INPATIENT COST (75% TOTAL)					
TOTAL BEDS	334	334	334	334	334
OCCUPANCY	61.5%	65.0%	71.3%	74.8%	74.8%
INPATIENT DAYS	71,631	75,665	83,019	87,053	87,053
COST EXCLUDING DEPRECIATION					
COST PER BED	14,176	14,683	15,597	16,046	16,046
COST PER INPATIENT DAY	66	65	63	62	62
COST INCLUDING DEPRECIATION					
COST PER BED	17,421	17,928	18,842	19,291	19,291
COST PER INPATIENT DAY	81	79	76	74	74

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ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

Exhibit 2-A
SHARK EL MEDINA HOSPITAL
ProForma Statement of Operations (£E)

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
INCOME					
Inpatient					
First Class	88,000	131,000	161,000	190,000	190,000
Second Class	256,000	319,000	415,000	415,000	415,000
Third class	205,000	246,000	287,000	308,000	308,000
General - Free	0	0	0	0	0
ICU/CCU/Neonatal	27,000	32,000	46,000	50,000	50,000
	-----	-----	-----	-----	-----
Inpatient Income	576,000	728,000	909,000	963,000	963,000
Delivery	409,000	522,000	653,000	686,000	686,000
Productive Services					
Laboratory	293,000	431,000	552,000	583,000	583,000
Radiology	76,000	111,000	143,000	151,000	151,000
Pharmacy	1,464,000	2,150,000	2,756,000	2,909,000	2,909,000
Supplies	629,000	924,000	1,184,000	1,250,000	1,250,000
Surgery	331,000	431,000	530,000	574,000	574,000
Renal Dialysis	0	0	0	0	0
Other	10,000	14,000	19,000	20,000	20,000
	-----	-----	-----	-----	-----
Productive Services Income	2,803,000	4,061,000	5,184,000	5,487,000	5,487,000
Outpatient Income	1,250,000	1,250,000	1,250,000	1,250,000	1,250,000
Allowance for Free Service	(750,000)	(750,000)	(750,000)	(750,000)	(750,000)
	-----	-----	-----	-----	-----
PATIENT INCOME	4,288,000	5,811,000	7,246,000	7,636,000	7,636,000
	-----	-----	-----	-----	-----
GOVERNMENT ALLOTMENT	1,686,000	1,686,000	1,686,000	1,686,000	1,686,000
	-----	-----	-----	-----	-----
TOTAL INCOME	5,974,000	7,497,000	8,932,000	9,322,000	9,322,000
	=====	=====	=====	=====	=====
OPERATING EXPENSES					
Salaries and Benefits	2,133,000	2,133,000	2,133,000	2,133,000	2,133,000
Utilities	135,000	166,000	194,000	201,000	201,000
Telephone	11,000	13,000	16,000	16,000	16,000
Food	281,000	347,000	405,000	420,000	420,000
Laundry and Clothes	120,000	149,000	174,000	180,000	180,000
Supplies					
Medical	296,000	365,000	426,000	442,000	442,000
Laboratory	76,000	94,000	110,000	76,000	76,000
Radiology	138,000	170,000	199,000	206,000	206,000
Pharmacy	992,000	1,225,000	1,430,000	1,482,000	1,482,000
Cleaning	32,000	40,000	46,000	48,000	48,000
Administrative	10,000	12,000	14,000	15,000	15,000
	-----	-----	-----	-----	-----
Total Supplies	1,544,000	1,906,000	2,225,000	2,269,000	2,269,000
Marketing	15,000	15,000	15,000	15,000	15,000
Transport	25,000	25,000	25,000	25,000	25,000
Maintenance	195,000	195,000	195,000	195,000	195,000
	-----	-----	-----	-----	-----
TOTAL OPERATING EXPENSES	4,459,000	4,949,000	5,382,000	5,454,000	5,454,000
	=====	=====	=====	=====	=====
OPERATING INCOME	1,515,000	2,548,000	3,550,000	3,868,000	3,868,000
NON OPERATING EXPENSE					
Building Depreciation	753,000	753,000	753,000	753,000	753,000
Equipment Depreciation	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000
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NET INCOME	(438,000)	595,000	1,597,000	1,915,000	1,915,000

ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

**Exhibit 2-B
SHARK EL MEDINA HOSPITAL
Success Criteria**

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
TARGET					
OPERATING - Bab 2	50.00%	60.00%	100.00%	100.00%	100.00%
BUILDING DEPRECIATION	10.00%	20.00%	30.00%	100.00%	100.00%
EQUIPMENT DEPRECIATION	40.00%	60.00%	80.00%	100.00%	100.00%
CALCULATION					
OPERATING	1,163,000	1,689,600	3,249,000	3,321,000	3,321,000
PERCENT	368.70%	343.93%	223.02%	229.93%	229.93%
DEPRECIATION	555,300	870,600	1,185,900	1,953,000	1,953,000
PERCENT	272.83%	292.67%	299.35%	198.05%	198.05%
INPATIENT COST (75% TOTAL)					
TOTAL BEDS	230	230	230	230	230
OCCUPANCY	50.0%	61.7%	72.0%	74.7%	74.7%
INPATIENT DAYS	40,150	49,549	57,853	59,951	59,951
COST EXCLUDING DEPRECIATION					
COST PER BED	14,540	16,138	17,550	17,785	17,785
COST PER INPATIENT DAY	83	75	70	68	68
COST INCLUDING DEPRECIATION					
COST PER BED	20,909	22,507	23,918	24,153	24,153
COST PER INPATIENT DAY	120	104	95	93	93

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ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

Exhibit 3-A
EL KANTARA GHARB HOSPITAL
ProForma Statement of Operations (£E)

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
INCOME					
Inpatient					
First Class	51,000	66,000	80,000	95,000	95,000
Second Class	183,000	228,000	297,000	342,000	342,000
Third class	192,000	230,000	268,000	287,000	287,000
General - Free	0	0	0	0	0
ICU/CCU/Neonatal	22,000	26,000	37,000	40,000	40,000
Inpatient Income	448,000	550,000	682,000	764,000	764,000
Delivery	420,000	522,000	653,000	745,000	745,000
Productive Services					
Laboratory	36,000	62,000	83,000	93,000	93,000
Radiology	32,000	55,000	72,000	81,000	81,000
Pharmacy	310,000	535,000	710,000	796,000	796,000
Supplies	93,000	161,000	214,000	240,000	240,000
Surgery	347,000	431,000	530,000	603,000	603,000
Renal Dialysis	0	0	0	0	0
Other	1,000	2,000	3,000	3,000	3,000
Productive Services Income	819,000	1,246,000	1,612,000	1,816,000	1,816,000
Outpatient Income	100,000	100,000	100,000	100,000	100,000
Allowance for Free Service	(60,000)	(60,000)	(60,000)	(60,000)	(60,000)
PATIENT INCOME	1,727,000	2,358,000	2,987,000	3,365,000	3,365,000
GOVERNMENT ALLOTMENT	1,300,000	1,300,000	1,300,000	1,300,000	1,300,000
TOTAL INCOME	3,027,000	3,658,000	4,287,000	4,665,000	4,665,000
OPERATING EXPENSES					
Salaries and Benefits	1,409,000	1,409,000	1,409,000	1,409,000	1,409,000
Utilities	263,000	320,000	365,000	386,000	386,000
Telephone	21,000	26,000	29,000	31,000	31,000
Food	293,000	356,000	406,000	431,000	431,000
Laundry and Clothes	125,000	153,000	174,000	185,000	185,000
Supplies					
Medical	368,000	448,000	511,000	541,000	541,000
Laboratory	91,000	111,000	127,000	104,000	104,000
Radiology	95,000	115,000	131,000	139,000	139,000
Pharmacy	441,000	538,000	613,000	649,000	649,000
Cleaning	33,000	41,000	46,000	49,000	49,000
Administrative	10,000	13,000	15,000	15,000	15,000
Total Supplies	1,038,000	1,266,000	1,443,000	1,497,000	1,497,000
Marketing	15,000	15,000	15,000	15,000	15,000
Transport	25,000	25,000	25,000	25,000	25,000
Maintenance	61,000	61,000	61,000	61,000	61,000
TOTAL OPERATING EXPENSES	3,250,000	3,631,000	3,927,000	4,040,000	4,040,000
OPERATING INCOME	(223,000)	27,000	360,000	625,000	625,000
NON OPERATING EXPENSE					
Building Depreciation	278,000	278,000	278,000	278,000	278,000
Equipment Depreciation	330,000	330,000	330,000	330,000	330,000
NET INCOME	(831,000)	(581,000)	(248,000)	17,000	17,000

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ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

**Exhibit 3-B
EL KANTARA GHARB HOSPITAL
Success Criteria**

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
TARGET					
OPERATING - Bab 2	50.00%	60.00%	100.00%	100.00%	100.00%
BUILDING DEPRECIATION	10.00%	20.00%	30.00%	100.00%	100.00%
EQUIPMENT DEPRECIATION	40.00%	60.00%	80.00%	100.00%	100.00%
CALCULATION					
OPERATING	920,500	1,333,200	2,518,000	2,631,000	2,631,000
PERCENT	187.62%	176.87%	118.63%	127.90%	127.90%
DEPRECIATION	159,800	253,600	347,400	608,000	608,000
PERCENT	-139.55%	10.65%	103.63%	102.80%	102.80%
INPATIENT COST (75% TOTAL)					
TOTAL BEDS	218	218	218	218	218
OCCUPANCY	54.5%	66.4%	75.7%	80.2%	80.2%
INPATIENT DAYS	41,793	50,918	58,035	61,503	61,503
COST EXCLUDING DEPRECIATION					
COST PER BED	11,181	12,492	13,510	13,899	13,899
COST PER INPATIENT DAY	58	53	51	49	49
COST INCLUDING DEPRECIATION					
COST PER BED	13,273	14,584	15,602	15,991	15,991
COST PER INPATIENT DAY	69	62	59	57	57

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ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

Exhibit 4-A
15th OF MAY HOSPITAL
ProForma Statement of Operations (£E)

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
INCOME					
Inpatient					
First Class	36,000	41,000	56,000	61,000	61,000
Second Class	161,000	181,000	241,000	261,000	261,000
Third class	93,000	102,000	130,000	140,000	140,000
General - Free	0	0	0	0	0
ICU/CCU/Neonatal	22,000	26,000	37,000	40,000	40,000
Inpatient Income	312,000	350,000	464,000	502,000	502,000
Delivery	159,000	177,000	230,000	248,000	248,000
Productive Services					
Laboratory	23,000	26,000	37,000	40,000	40,000
Radiology	9,000	11,000	15,000	16,000	16,000
Pharmacy	173,000	196,000	273,000	296,000	296,000
Supplies	53,000	60,000	83,000	90,000	90,000
Surgery	347,000	389,000	516,000	558,000	558,000
Renal Dialysis	0	0	0	0	0
Other	2,000	2,000	2,000	3,000	3,000
Productive Services Income	607,000	684,000	926,000	1,003,000	1,003,000
Outpatient Income	150,000	150,000	150,000	150,000	150,000
Allowance for Free Service	(75,000)	(75,000)	(75,000)	(75,000)	(75,000)
PATIENT INCOME	1,153,000	1,286,000	1,695,000	1,828,000	1,828,000
GOVERNMENT ALLOTMENT	859,000	859,000	859,000	859,000	859,000
TOTAL INCOME	2,012,000	2,145,000	2,554,000	2,687,000	2,687,000
OPERATING EXPENSES					
Salaries and Benefits	814,000	814,000	814,000	814,000	814,000
Utilities	80,000	85,000	103,000	108,000	108,000
Telephone	6,000	7,000	8,000	9,000	9,000
Food	166,000	177,000	214,000	225,000	225,000
Laundry and Clothes	71,000	76,000	92,000	96,000	96,000
Supplies					
Medical	184,000	196,000	236,000	248,000	248,000
Laboratory	27,000	29,000	35,000	28,000	28,000
Radiology	35,000	37,000	44,000	47,000	47,000
Pharmacy	273,000	291,000	351,000	369,000	369,000
Cleaning	19,000	20,000	24,000	26,000	26,000
Administrative	6,000	6,000	8,000	8,000	8,000
Total Supplies	544,000	579,000	698,000	726,000	726,000
Marketing	15,000	15,000	15,000	15,000	15,000
Transport	25,000	25,000	25,000	25,000	25,000
Maintenance	38,000	38,000	38,000	38,000	38,000
TOTAL OPERATING EXPENSES	1,759,000	1,816,000	2,007,000	2,056,000	2,056,000
OPERATING INCOME	253,000	329,000	547,000	631,000	631,000
NON OPERATING EXPENSE					
Building Depreciation	268,000	268,000	268,000	268,000	268,000
Equipment Depreciation	110,000	110,000	110,000	110,000	110,000
NET INCOME	(125,000)	(49,000)	169,000	253,000	253,000

ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

**Exhibit 4-B
15th OF MAY HOSPITAL
Success Criteria**

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
TARGET					
OPERATING - Bab 2	50.00%	60.00%	100.00%	100.00%	100.00%
BUILDING DEPRECIATION	10.00%	20.00%	30.00%	100.00%	100.00%
EQUIPMENT DEPRECIATION	40.00%	60.00%	80.00%	100.00%	100.00%
CALCULATION					
OPERATING	472,500	601,200	1,193,000	1,242,000	1,242,000
PERCENT	244.02%	213.91%	142.08%	147.18%	147.18%
DEPRECIATION	70,800	119,600	168,400	378,000	378,000
PERCENT	357.34%	275.08%	324.82%	166.93%	166.93%
INPATIENT COST (75% TOTAL)					
TOTAL BEDS	1,319,250	1,362,000	1,505,250	1,542,000	1,542,000
OCCUPANCY	126	126	126	126	126
INPATIENT DAYS	55.2%	58.8%	71.0%	74.6%	74.6%
	23,762	25,313	30,569	32,120	32,120
COST EXCLUDING DEPRECIATION					
COST PER BED	10,470	10,810	11,946	12,238	12,238
COST PER INPATIENT DAY	56	54	49	48	48
COST INCLUDING DEPRECIATION					
COST PER BED	12,720	13,060	14,196	14,488	14,488
COST PER INPATIENT DAY	67	65	59	57	57

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ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

Exhibit 5-A
KAFR EL DAWAR POLYCLINIC
ProForma Statement of Operations (£E)

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
INCOME	0	0	0	0	0
Inpatient	0	0	0	0	0
First Class	0	0	0	0	0
Second Class	0	0	0	0	0
Third class	0	0	0	0	0
General - Free	0	0	0	0	0
ICU/CCU/Neonatal	0	0	0	0	0
Inpatient Income	0	0	0	0	0
Delivery	0	0	0	0	0
Productive Services					
Laboratory	97,000	101,000	112,000	123,000	123,000
Radiology	76,000	79,000	88,000	97,000	97,000
Pharmacy	490,000	511,000	564,000	623,000	623,000
Supplies	233,000	243,000	268,000	296,000	296,000
Surgery	0	0	0	0	0
Renal Dialysis	0	0	0	0	0
Other	0	0	0	0	0
Productive Services Income	896,000	934,000	1,032,000	1,139,000	1,139,000
Outpatient Income	180,000	180,000	180,000	180,000	180,000
Allowance for Free Service	(90,000)	(90,000)	(90,000)	(90,000)	(90,000)
PATIENT INCOME	986,000	1,024,000	1,122,000	1,229,000	1,229,000
GOVERNMENT ALLOTMENT	764,000	764,000	764,000	764,000	764,000
TOTAL INCOME	1,750,000	1,788,000	1,886,000	1,993,000	1,993,000
OPERATING EXPENSES					
Salaries and Benefits	168,000	168,000	168,000	168,000	168,000
Utilities	87,000	90,000	105,000	105,000	105,000
Telephone	7,000	7,000	8,000	9,000	9,000
Food	0	0	0	0	0
Laundry and Clothes	0	0	0	0	0
Supplies					
Medical	150,000	156,000	172,000	189,000	189,000
Laboratory	100,000	104,000	114,000	126,000	126,000
Radiology	70,000	73,000	80,000	88,000	88,000
Pharmacy	300,000	312,000	343,000	378,000	378,000
Cleaning	21,000	21,000	25,000	26,000	26,000
Administrative	6,000	7,000	8,000	8,000	8,000
Total Supplies	647,000	673,000	742,000	815,000	815,000
Marketing	10,000	10,000	10,000	10,000	10,000
Transport	5,000	5,000	5,000	5,000	5,000
Maintenance	20,000	20,000	20,000	20,000	20,000
TOTAL OPERATING EXPENSES	944,000	973,000	1,058,000	1,132,000	1,132,000
OPERATING INCOME	806,000	815,000	828,000	861,000	861,000
NON OPERATING EXPENSE					
Building Depreciation	48,000	48,000	48,000	48,000	48,000
Equipment Depreciation	150,000	150,000	150,000	150,000	150,000
NET INCOME	608,000	617,000	630,000	663,000	663,000

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ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

**Exhibit 5-B
KAFR EL DAWAR POLYCLINIC
Success Criteria**

	FY93/94	FY94/95	FY95/96	FY96/97	FY97/98
TARGET					
OPERATING - Bab 2	50.00%	60.00%	100.00%	100.00%	100.00%
BUILDING DEPRECIATION	10.00%	20.00%	30.00%	100.00%	100.00%
EQUIPMENT DEPRECIATION	40.00%	60.00%	80.00%	100.00%	100.00%
CALCULATION					
OPERATING	388,000	483,000	890,000	964,000	964,000
PERCENT	254.12%	212.01%	126.07%	127.49%	127.49%
DEPRECIATION	64,800	99,600	134,400	198,000	198,000
PERCENT	1243.83%	818.27%	616.07%	434.85%	434.85%
TOTAL VISITS	60,000	62,400	68,640	75,504	83,054
COST EXCLUDING DEPRECIATION					
COST PER VISIT	16	16	15	15	14
COST INCLUDING DEPRECIATION					
COST PER VISIT	19	19	18	18	16

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ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

Exhibit 6
Assumptions for Estimating Facility Revenues and Costs
(EE)

	EMBABA	SHARK EL MEDINA	EL KANTARA GHARB	15th OF MAY	KAFR EL DAWAR
FIRST YEAR OF PROJECTION	1993/94	1993/94	1993/94	1993/94	1993/94
SECOND YEAR OF PROJECTION	1994/95	1994/95	1994/95	1994/95	1994/95
THIRD YEAR OF PROJECTION	1995/96	1995/96	1995/96	1995/96	1995/96
FOURTH YEAR OF PROJECTION	1996/97	1996/97	1996/97	1996/97	1996/97
FIFTH YEAR OF PROJECTION	1997/98	1997/98	1997/98	1997/98	1997/98
DEBT SERVICE INTEREST	0.00%	0.00%	0.00%	0.00%	0.00%
WORKING CAPITAL - 120 DAYS	30.00%	30.00%	30.00%	30.00%	30.00%
CAPITAL COSTS	10.00%	10.00%	10.00%	10.00%	10.00%
UTILITIES - PRIOR YEAR COST-ESTIMATE	250,000	250,000	250,000	250,000	250,000
TELEPHONE - PRIOR YEAR COST-ESTIMATE	20,000	20,000	20,000	20,000	20,000
CLEANING SUPPLIES - PRIOR YEAR COST-ESTIMATE	0.800	0.800	0.800	0.800	0.800
MARKETING -FIXED	15,000	15,000	15,000	15,000	15,000
TRANSPORT - PRIOR YEAR COST-ESTIMATE	25,000	25,000	25,000	25,000	25,000
BUILDING COST - REPLACEMENT VALUE	10,800,000	30,000,000	10,800,000	8,400,000	1,200,000
CONSTRUCTION COST - RENOVATION	3,000,000	100,000	300,000	2,300,000	700,000
DEPRECIATION BUILDING LIFE	40	40	40	40	40
DEPRECIATION - STRAIGHT LINE-ANNUAL	345,000	753,000	278,000	268,000	48,000
EQUIPMENT COST	11,000,000	12,000,000	3,300,000	1,100,000	1,500,000
DEPRECIATION EQUIPMENT LIFE	10	10	10	10	10
DEPRECIATION - STRAIGHT LINE-ANNUAL	1,100,000	1,200,000	330,000	110,000	150,000
GOVERNMENT SUBSIDY	1,600,000	1,680,000	1,300,000	859,000	764,000
GOVERNMENT SUBSIDY INCREASE-ESTIMATE	0.00%	0.00%	0.00%	0.00%	0.00%
INFLATION -- ESTIMATE ANNUALLY					
General	0.00%	0.00%	0.00%	0.00%	0.00%
Salary	0.00%	0.00%	0.00%	0.00%	0.00%
Bed Rates	0.00%	0.00%	0.00%	0.00%	0.00%
BED RATES (CHARGE)	0.00%	0.00%	0.00%	0.00%	0.00%
First Class	40.000	40.000	40.000	40.000	--
Second Class	25.000	25.000	25.000	25.000	--
Third Class	15.000	15.000	15.000	15.000	--
General - Free	0.000	0.000	0.000	0.000	--
ICU	50.000	50.000	50.000	50.000	--
Neonatal	50.000	50.000	50.000	50.000	--
Renal	25.000	25.000	25.000	25.000	--
DELIVERY CHARGE	200.000	200.000	200.000	200.000	--
First Class	100.00%	100.00%	100.00%	100.00%	--
Second Class	80.00%	80.00%	80.00%	80.00%	--
Third Class	60.00%	60.00%	60.00%	60.00%	--
General - Free	0.00%	0.00%	0.00%	0.00%	--
OUTPATIENT VISIT CHARGE	2.500	2.500	2.500	2.500	--
NUMBER OF BEDS	334	230	218	126	--
First Class	35	20	10	7	--
Second Class	102	70	50	44	--
Third Class	84	75	70	34	--
General - Free	98	55	80	33	--
CCU	8	5	4	4	--
ICU & Neonatal	7	5	4	4	--
Renal	9	0	0	0	--
DELIVERIES PER YEAR -- AVERAGE	6,073	4,182	3,964	2,291	--
DELIVERIES -- OCCUPANCY -- ESTIMATE					
General - Free 12/32 beds	40.00%	40.00%	40.00%	40.00%	--
PRIOR YEAR PATIENT DAYS - TOTAL	74,547	74,547	39,784	74,547	--
PRIOR YEAR ADMISSIONS - TOTAL	18,921	13,242	9,946	18,921	--
General - Free	17,419	17,419	17,419	17,419	--
AVERAGE LENGTH OF STAY -- YEARS 1 THROUGH 5					
First Class	4	4	4	4	--
Second Class	4	4	4	4	--
Third Class	4	4	4	4	--
General - Free	4	4	4	4	--
CCU/ICU/Neonatal	3	3	3	3	--
OB	2	2	2	2	--

ANNEX D
FINANCIAL & ECONOMIC ANALYSIS

	EMBABA	SHARK EL MEDINA	EL KANTARA GHARB	15th OF MAY	KAFR EL DAWAR
BED OCCUPANCY - YEAR 1					
First Class	45.00%	30.00%	35.00%	35.00%	--
Second Class	50.00%	40.00%	40.00%	40.00%	--
Third Class	55.00%	50.00%	50.00%	50.00%	--
General - Free	85.00%	70.00%	70.00%	85.00%	--
CCU/ICU/Neonatal	50.00%	30.00%	30.00%	30.00%	--
BED OCCUPANCY - YEAR 2					
First Class	50.00%	45.00%	45.00%	40.00%	--
Second Class	55.00%	50.00%	50.00%	45.00%	--
Third Class	60.00%	60.00%	60.00%	55.00%	--
General - Free	85.00%	85.00%	85.00%	85.00%	--
CCU/ICU/Neonatal	50.00%	35.00%	35.00%	35.00%	--
BED OCCUPANCY - YEAR 3					
First Class	55.00%	55.00%	55.00%	55.00%	--
Second Class	60.00%	65.00%	65.00%	60.00%	--
Third Class	70.00%	70.00%	70.00%	70.00%	--
General - Free	90.00%	90.00%	90.00%	90.00%	--
CCU/ICU/Neonatal	50.00%	50.00%	50.00%	50.00%	--
BED OCCUPANCY - YEAR 4&5					
First Class	60.00%	65.00%	65.00%	60.00%	--
Second Class	65.00%	65.00%	75.00%	65.00%	--
Third Class	75.00%	75.00%	75.00%	75.00%	--
General - Free	90.00%	90.00%	90.00%	90.00%	--
CCU/ICU/Neonatal	50.00%	55.00%	55.00%	55.00%	--
OUTPATIENT VISIT CHARGE					
PRIOR YEAR VISITS- TOTAL	--	--	--	--	3,000
General - Free	--	--	--	--	60,000
OUTPATIENT VISITS (NO EMERGENCY)	--	--	--	--	17,419
OUTPATIENT VISITS -- COST ESTIMATE	260,000	500,000	40,000	60,000	60,000
OUTPATIENT VISITS -- UTILIZATION ESTIMATE	1,000	1,000	1,000	1,000	1,000
Pay Class					
General - Free	50.00%	40.00%	40.00%	50.00%	50.00
OUTPATIENT UTILIZATION ESTIMATE					
Laboratory - percent of Inpatient	30.00%	50.00%	30.00%	30.00%	100.00
Radiology - percent of Inpatient	10.00%	50.00%	20.00%	10.00%	100.00
Pharmacy - percent of Inpatient	30.00%	60.00%	40.00%	30.00%	100.00
Medical Supply - percent of Inpatient	30.00%	60.00%	40.00%	30.00%	100.00
PRODUCTION SERVICE CENTRES -- TOTAL SERVICES					
Laboratory	87,000	129,000	19,000	25,000	12,000
Inpatient 80%/Admits	14,000	8,000	8,000	5,000	0
Outpatient 20%/Out&ER	73,000	121,000	11,000	20,000	12,000
Radiology	11,000	10,000	5,000	3,000	1,000
Inpatient 40%/Admits	7,000	4,000	4,000	2,000	0
Outpatient 1%/Outpt&ER	4,000	6,000	1,000	1,000	1,000
Pharmacy	218,000	322,000	49,000	62,000	30,000
Inpatient 2 Scripts/Admit	36,000	20,000	21,000	12,000	0
Outpatient 1 Script/every 2 Pts	182,000	302,000	28,000	50,000	30,000
Medical Supplies	236,000	332,000	59,000	68,000	30,000
Inpatient 3 Items/Admit	54,000	30,000	31,000	18,000	0
Outpatient 1 Item/every 2 Patients	182,000	302,000	28,000	50,000	30,000
EMERGENCY SERVICES					
Surgeries	104,000	104,000	15,000	39,709	0
PRODUCTION SERVICE CENTRES -- CHARGE PER SERVICE					
Laboratory	6,000	6,000	6,000	6,000	6,000
Radiology	20,000	20,000	20,000	20,000	20,000
Pharmacy	18,000	12,000	20,000	18,000	12,000
Medical Supplies	5,000	5,000	5,000	5,000	5,000
EMERGENCY SERVICES					
Surgery	0.250	0.250	0.250	0.250	0.250
Administration -- Per patient Day Cost	200.000	200.000	200.000	200.000	0.000
SUPPORT SERVICE CENTRES					
Kitchen -- Per Patient Day Cost	--	--	--	--	0.250
Prior year cost	7,000	7,000	7,000	7,000	--
Laundry -- Per Patient Day Cost	102,000	102,000	102,000	102,000	--
Prior year cost	3,000	3,000	3,000	3,000	--
Nursing / Medical School Cost	125,433	125,433	125,433	125,433	--
Administration -- Per patient Day Cost	38,290	0	0	0	--
SALARY & BENEFITS -- ANNUAL TOTALS					
Specialist	1,317,600	1,317,600	1,317,600	1,317,600	--
House Drs	687,600	687,600	687,600	687,600	--
Nurses	547,200	547,200	547,200	547,200	--
Technician	147,600	147,600	147,600	147,600	--
Pharmacists	28,800	28,800	28,800	28,800	--
Admin	118,800	118,800	118,800	118,800	--
Finance	43,200	43,200	43,200	43,200	--
Maintenance	14,400	14,400	14,400	14,400	--
TOTAL SALARY & BENEFITS	2,905,200	2,905,200	2,905,200	2,905,200	--

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The assumptions supporting these projections are described in the Illustrative Business Guide developed by the HFSP consultants and the CRHP Directorate. They are not discussed in detail in this analysis due to the volume of the Guide. A summary discussion can be found in the HFSP consultants' report entitled "Financial Analysis: Cost Recovery for Health Programs."

To develop the assumptions for the compilation of Financial Operations for each Phase A pilot hospital and polyclinic after cost recovery, historical information and data from prior years were obtained from each pilot facility, and estimated revenue, costs, and other operating data after renovation were developed. The baseline data for assumptions were developed from Embaba Hospital operating statistics for 1989 and 1990. Embaba Hospital operations have been reviewed and examined by HFSP consultants and CRHP Directorate staff since 1990. Numerous interviews with pilot facility management and staff have been conducted, as well as, a Cost and Pricing Study, Business Plan, Facility Conversion Plan, Economic Study, Catchment Area Surveys of Patients, Consumers, and Providers, A&E renovation estimates, and biomedical equipment cost estimates have been developed and implemented during this period. Information on Embaba Hospital is the most complete and to date the most accurate.

This information from Embaba Hospital along with estimated biomedical equipment costs, and estimated A&E renovation costs for each pilot facility provides the basis for the Proforma Statements in Exhibits 1 through 5. Each pilot facility Exhibit includes assumptions for estimating future utilization, staffing levels, the mix of patient services, the estimated cost of medical services and hospital support and other operations, the estimated utility and general service costs, and the estimated depreciation cost of buildings and equipment.

Only Embaba Hospital and 15th of May Hospital of the five pilot facilities have operating inpatient facilities. Kafr El Dawr has only outpatient facilities with no inpatient operations under construction. Shark El Medina has an active outpatient operation with inpatient facilities under construction, and El Kantara Gharb is expected to open both inpatient and outpatient operations in mid-1993, under the cost recovery program.

Another major expense element is the depreciation of capital (e.g., buildings, equipment). For this ProForma Statement of Operations, the depreciation formula which is appropriate for the Hospital is a straight-line estimated life for two types of capital, buildings and equipment. The estimated life of the buildings, after renovation, is 40 years. The life of equipment in a hospital is affected by proper maintenance, technological

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obsolescence, usage, and other factors, some which cannot be easily controlled. This makes estimation of a useful life more difficult. For this ProForma Statement of Operations, it is assumed that all equipment will have the same useful life, 10 years.

Two sets of projections were developed using Embaba and Shark El Medina Hospitals. Depreciation requirements for the facilities range from twenty to thirty-five percent of total revenues. In establishing the reasonableness of this assumption, these projections were discussed with Dr. Fayad, Director of the Curative Care Organization (CCO). CCO has a policy of annually depreciating equipment at five percent of the revenues generated by a hospital. This policy does not consider the purchase cost or replacement cost of the equipment. Dr. Fayad said the five percent depreciation policy practiced by the CCO was not adequate to replace the equipment. Although the five percent puts the CCO in a comparatively better position than the MOH (which does not accumulate a replacement fund for equipment), the amount set aside does not cover equipment replacement costs. The CCO obtains replacement equipment through loans from investment banks and grants from Arab and other foreign donors.

In order for the Pilot Facilities to deliver a level of quality of care that will attract paying patients, they will require operating funds equivalent to those they would be collecting under a full cost recovery scenario. Thus, a gap will occur based on full operations and limited user-charges collections, requiring operational support. There are two problems with this operational support covering so long a time period. The first of these is cost. The second, and perhaps more important consideration is that of motivation. If support funding is based on a five year period, the hospital will take five years to achieve self sufficiency. There is no motivation to become self sufficient at a more rapid pace. Therefore, the strategy recommended is to provide the Phase A pilot facilities with operational support on a decreasing basis over the remaining LOP, generally for two to three years depending on the differing situations to be found at the individual facilities. This will provide the needed funding to deliver the necessary quality of care at the facility's opening as a CRHP Pilot Facility, yet would not provide a disincentive to the facility's becoming self sufficient.

The operations support required for the each of the five Phase A pilot facilities can be considered to be equivalent to the negative figures found in the "Net Income" line item of the Pro Forma Exhibits 1-5. This figure should prove sufficient for the implementation of improved levels of care, and should also motivate the facility in its role of collecting patient fees. As with many of the assumptions made in this paper, an operational support

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strategy will depend on the implementation of a social financing mechanism. Without such a mechanism, achieving self sufficiency would be difficult if not impossible, even over a five year period.

c. Conclusion

In view of the above, and the stream of income generated by the pilot facilities, this analysis points to a potentially viable investment in the CRHP pilot facilities, from the facilities' perspective, through fiscal year 1995/96.

2. Financial Analysis of Component One

a. Summary of Financial Analysis

The aim of this section of the analysis is to examine the direct financial benefits to be obtained as a result of the Project. The five facilities identified for conversion to cost recovery operations are intended to serve as a demonstration of the effectiveness of the cost recovery system. Given the low rate of return projected for the Phase A demonstration units, conversion of a minimum of 21 additional Phase B and C facilities by the GOE will be required to achieve an internal rate of return (IRR) over 10%. This minimum number of additional conversions is based on a very favorable set of assumptions. Changes in critical assumptions could have a dramatic effect on the results of the analysis. However given the large population of hospitals, there is the potential for conversion of a substantially larger number of facilities. The larger number of conversions would generate a higher rate of return, or off set the expected lower return if key assumptions do not hold. The large population also presents the opportunity to select facilities for conversion carefully, which increases the possibility of favorable results.

b. Background

The Egyptian medical care system includes 225 hospital facilities run by the government. These hospitals are generally poorly run from a medical, managerial, and financial standpoint. As a result, the quality of care provided is poor. Although some hospitals have begun to collect limited fees for services, the provision of essentially free care at these hospitals, represents a tremendous drain on GOE resources allocated to health care. The premise of the Cost Recovery for Health Project is that these hospitals can be converted to cost recovery facilities where patients will pay for better quality care. Primary inputs required to effect this change are improvements in management and financial systems, training, and in some cases building renovation and upgrading biomedical equipment. The Project approach is to establish a Cost Recovery

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for Health Project Directorate (CRHP Directorate) within the Ministry of Health (MOH) that can assist facilities in implementing better management systems. The Project will test and demonstrate the relative advantages of key management interventions at five different facilities that were selected by the GOE. For these five "Phase A" demonstration facilities, AID will finance technical assistance, training, and local support costs for the CRHP Directorate in the amount of \$ million. AID will also finance renovations and equipment procurement for the five facilities totaling \$ million. The Project assumes that positive results in the demonstration facilities will enable the government to continue implementation in additional facilities. During the Life of Project, it is anticipated that the previously mentioned Project financed technical assistance and training will be used to assist the GOE in undertaking cost recovery conversions in five additional "Phase B" facilities. Following the PACD, it is further expected that the GOE will undertake additional cost recovery conversions at its own initiative ("Phase C" facilities).

c. Methodology

The analysis first computes the IRR for the five demonstration facilities, which is negative. Subsequent analysis focuses on how many additional hospitals will have to be converted to obtain an IRR over 10%. The analysis uses the financial projections developed by Abt Associates Inc. for the demonstration facilities. The analysis compares the net increase in revenues anticipated from cost recovery operations with the investment by both USAID and the GOE. Net increase in revenue is the increase in revenues over historic levels, less the increase in costs. Revenue and cost figures projected for the demonstration facilities are assumed to be representative of the results that can be achieved for similar facilities in the future. To determine the expected increase in revenues and costs, historic revenue and cost figures were provided by the MOH CRHP Directorate. These figures are not very accurate as the facilities do not currently maintain reliable financial information. In addition one facility, Kantara hospital, is not currently in operation. Projections of expected costs and revenues for Kantara without the cost recovery program were made based on historic information for other small to medium hospitals. By their nature, the accuracy of projected costs and revenues for cost recovery operations is open to question. Of particular concern are benefits associated with changes in hospital staff composition or salary rates. AID probably cannot expect to influence the GOE civil service procedures through this Project, therefore, the net benefit, if any, projected because of such changes may not be realized. Changes in estimates of the current costs and revenues, or those associated with projected cost recovery operations could have a significant impact on the analysis.

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Basic assumptions include adjustment to exclude inflation, the 10 year "life" for each facility converted, an overall timeframe not exceeding 28 years, 10 percent as an acceptable rate of return, and a 3.35 £E/\$ exchange rate. The exchange rate used for the analysis is the current one. The 10 percent rate was chosen based on Office of Management and Budget's directive in response to Executive Order 12291 (the 1981 Order for mandating the use of cost-benefit analysis before promulgating regulations). The 28 year length of analysis was chosen to allow for the projected long-term effects of Component One. Discounting reduces the impact on the analysis of costs and benefits after this time to a very low level.

For the purposes of this analysis, facilities have been broken down into three types. Large hospitals (over 300 beds), small to medium hospitals (100-300 beds), and polyclinics. The five initial demonstration facilities were chosen, in part, for their diversity - one is a large hospital, three are small to medium hospitals, and one is a polyclinic.

The Project involves two different types of investment - technical assistance and training to establish the CRHP Directorate, develop cost recovery systems, and install them in the facilities; and capital improvements in the form of building renovations and procurement of biomedical equipment. Some level of capital improvement is planned for each demonstration facility. With the data and projections available it is impossible to distinguish how much of the increase in net revenue projected for the demonstration facilities flows from the capital investment as opposed to the cost recovery systems. Therefore the analysis is unable to determine the possible effect of dropping one component of the investment. The Project's technical staff state that the two types of investment are synergistic. The increase in revenues with the combined investments is larger than the sum of the increases that would be obtained from each type of investment alone.

Although all the demonstration facilities require some capital improvements, Project technical staff state that not all hospitals will require this type of investment. This analysis assumes that net revenue increases similar to those projected for the demonstration facilities can be achieved in hospitals that do not require capital improvements. The analysis considers how many facilities of each type (large, medium, polyclinic, with or without capital improvements required) would have to be converted after the demonstration period to produce an IRR over 10%. It was assumed that three of the five demonstration facilities begin Cost Recovery operations in CY 95, the other two in CY 96. Thereafter, it is anticipated that three facilities will be converted each year. It is assumed the management interventions will generate an increased flow of net revenues to each "converted" facility for a period of

ten years, and that equipment and renovations will have a ten-year life.

d. Results

The analysis indicates that conversion of small to medium hospitals produce the best results. In addition, conversion of facilities that do not require capital improvements, such as renovation or procurement of biomedical equipment, will produce better financial results. Without capital improvements, 21 small to medium hospitals are required to produce a favorable IRR (see Table 1), as compared to 27 large hospitals (see Table 2). When it is assumed that all additional facilities would need capital improvements the IRR remains below 10%, even with the conversion of 45 additional facilities (see Tables 3 & 4). This is the case whatever the size of facility being converted. It is assumed that the conversion of 45 facilities would take 15 years. It is clear from our analysis that for the Project to produce a favorable IRR a significant number of hospitals not requiring renovation must be converted. Using small to medium hospitals, if 15 of 45 hospitals converted (one each year) need capital improvements, 36 additional hospitals result in an IRR slightly above 10% (see Table 5). The average capital improvement paid by AID for each type of facility was used for additional facility conversion computations. This average was 2.4 million dollars for small to medium hospitals. If facilities of this size could be found with lower capital improvement requirements financial performance would be better. For example 10 of 30 medium hospitals converted (one each year) could have capital improvement requirements up to 1.2 million dollars and the IRR would be above 10% with 27 additional hospitals (see Table 6).

It should be noted that there is considerable variability in the projected revenues and costs for the three medium sized hospitals, particularly in the area of productive services income and outpatient income. An average of the three hospitals was used for projections for future small to medium sized hospital conversions. If medium hospitals with the potential for significant outpatient and productive services income are chosen for conversion, fewer facilities would be required to produce the desired IRR. Conversely if the potential for outpatient and productive services income is low, more facilities would be required.

In the case of large hospitals and polyclinics, we only have projected data for one facility. Therefore, there is a higher probability that the projections will not prove to be representative of large hospitals in general. This uncertainty can

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TABLE 1
Internal Rate of Return for Cost Recovery Health Project
(\$ 000)

FYR	Investment Cost	Increase Operating Cost	Increase Revenues	Net Revenues	Net Cash Flow
92	2,130	0	0	0	(2,130)
93	11,544	0	0	0	(11,544)
94	12,112	0	0	0	(12,112)
95	5,849	977	1,694	717	(5,132)
96	5,533	2,640	3,754	1,114	(4,419)
97	4,584	4,077	6,126	2,049	(2,535)
98	690	5,687	8,990	3,303	2,613
99	654	7,406	12,146	4,740	4,086
0	654	9,122	15,382	6,260	5,606
1	654	10,838	18,618	7,780	7,126
2	654	12,554	21,854	9,300	8,646
3	654	14,270	25,090	10,820	10,166
4	0	14,894	26,779	11,885	11,885
5	0	13,673	24,521	10,848	10,848
6	0	12,012	22,652	10,640	10,640
7	0	10,296	19,416	9,120	9,120
8	0	8,580	16,180	7,600	7,600
9	0	6,864	12,944	6,080	6,080
10	0	5,148	9,708	4,560	4,560
11	0	3,432	6,472	3,040	3,040
12	0	1,716	3,236	1,520	1,520
13	0	0	0	0	0
14	0	0	0	0	0
TOT	45,712	144,186	255,562	111,376	65,664
IRR					10.48%

Assumptions
 •Add 3 medium hospitals a year, no capital investment required.
 •21 hospitals result in an IRR over 10%.

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TABLE 2
Internal Rate of Return for Cost Recovery Health Project
(\$ 000)

FYR	Investment Cost	Increase Operating Cost	Increase Revenues	Net Revenues	Net Cash Flow
92	2,130	0	0	0	(2,130)
93	11,544	0	0	0	(11,544)
94	12,112	0	0	0	(12,112)
95	5,849	977	1,694	717	(5,132)
96	5,533	2,640	3,754	1,114	(4,419)
97	4,584	6,456	8,461	2,005	(2,579)
98	690	10,418	13,418	3,000	2,310
99	654	14,531	18,662	4,131	3,477
0	654	18,749	24,167	5,418	4,764
1	654	22,967	29,672	6,705	6,051
2	654	27,185	35,177	7,992	7,338
3	654	31,403	40,682	9,279	8,625
4	654	35,621	46,187	10,566	9,912
5	654	38,273	48,437	10,164	9,510
6	0	37,287	47,922	10,635	10,635
7	0	33,564	43,590	10,026	10,026
8	0	29,526	38,535	9,009	9,009
9	0	25,308	33,030	7,722	7,722
10	0	21,090	27,525	6,435	6,435
11	0	16,872	22,020	5,148	5,148
12	0	12,654	16,515	3,861	3,861
13	0	8,436	11,010	2,574	2,574
14	0	4,218	5,505	1,287	1,287
TOT	47,020	398,175	515,963	117,788	70,768
IRR					10.10%

Assumptions

- Add 3 large hospitals a year, without capital investment.
- 27 additional hospitals result in an IRR over 10%.

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TABLE 3
Internal Rate of Return for Cost Recovery Health Project
(\$ 000)

FYR	Investment Cost	Increase Operating Cost	Increase Revenues	Net Revenues	Net Cash Flow
92	2,130	0	0	0	(2,130)
93	11,544	0	0	0	(11,544)
94	12,112	0	0	0	(12,112)
95	5,849	977	1,694	717	(5,132)
96	5,533	2,640	3,754	1,114	(4,419)
97	11,784	4,077	6,126	2,049	(9,735)
98	7,890	5,687	8,990	3,303	(4,587)
99	7,854	7,406	12,146	4,740	(3,114)
0	7,854	9,122	15,382	6,260	(1,594)
1	7,854	10,838	18,618	7,780	(74)
2	7,854	12,554	21,854	9,300	1,446
3	7,854	14,270	25,090	10,820	2,966
4	7,854	15,986	28,326	12,340	4,486
5	7,854	16,136	28,307	12,171	4,317
6	7,854	16,119	29,405	13,286	5,432
7	7,854	16,119	29,405	13,286	5,432
8	7,854	16,119	29,405	13,286	5,432
9	7,854	16,119	29,405	13,286	5,432
10	7,854	16,119	29,405	13,286	5,432
11	7,854	16,119	29,405	13,286	5,432
12	0	15,027	27,858	12,831	12,831
13	0	13,656	25,619	11,963	11,963
14	0	12,012	22,652	10,640	10,640
15	0	10,296	19,416	9,120	9,120
16	0	8,580	16,180	7,600	7,600
17	0	6,864	12,944	6,080	6,080
18	0	5,148	9,708	4,560	4,560
19	0	3,432	6,472	3,040	3,040
20	0	1,716	3,236	1,520	1,520
TOT	158,944	273,138	490,802	217,664	58,720
IRR					4.68%

Assumptions

- Add 3 medium hospitals a year, with average capital improvements \$2.4 million.
- 45 additional hospitals result in an IRR less than 10%.

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TABLE 4
Internal Rate of Return for Cost Recovery Health Project
(\$ 000)

FYR	Investment Cost	Increase Operating Cost	Increase Revenues	Net Revenues	Net Cash Flow
92	2,130	0	0	0	(2,130)
93	11,544	0	0	0	(11,544)
94	12,112	0	0	0	(12,112)
95	5,849	977	1,694	717	(5,132)
96	5,533	2,640	3,754	1,114	(4,419)
97	16,584	6,456	8,461	2,005	(14,579)
98	12,690	10,418	13,418	3,000	(9,690)
99	12,654	14,531	18,662	4,131	(8,523)
0	12,654	18,749	24,167	5,418	(7,236)
1	12,654	22,967	29,672	6,705	(5,949)
2	12,654	27,185	35,177	7,992	(4,662)
3	12,654	31,403	40,682	9,279	(3,375)
4	12,654	35,621	46,187	10,566	(2,088)
5	12,654	38,273	48,437	10,164	(2,490)
6	12,654	40,758	51,804	11,046	(1,608)
7	12,654	40,758	51,804	11,046	(1,608)
8	12,654	40,758	51,804	11,046	(1,608)
9	12,654	40,758	51,804	11,046	(1,608)
10	12,654	40,758	51,804	11,046	(1,608)
11	12,654	40,758	51,804	11,046	(1,608)
12	0	37,287	47,922	10,635	10,635
13	0	33,564	43,590	10,026	10,026
14	0	29,526	38,535	9,009	9,009
15	0	25,308	33,030	7,722	7,722
16	0	21,090	27,525	6,435	6,435
17	0	16,872	22,020	5,148	5,148
18	0	12,654	16,515	3,861	3,861
19	0	8,436	11,010	2,574	2,574
20	0	4,218	5,505	1,287	1,287
TOT	230,944	638,505	821,282	182,777	(48,167)
IRR					-3.89%

Assumptions

- Add 3 large hospitals a year, with capital investment of \$4 million each required.
- 45 additional hospitals result in a negative IRR.

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TABLE 5
Internal Rate of Return for Cost Recovery Health Project
(\$ 000)

FYR	Investment Cost	Increase Operating Cost	Increase Revenues	Net Revenues	Net Cash Flow
92	2,130	0	0	0	(2,130)
93	11,544	0	0	0	(11,544)
94	12,112	0	0	0	(12,112)
95	5,849	977	1,694	717	(5,132)
96	5,533	2,640	3,754	1,114	(4,419)
97	6,984	4,077	6,126	2,049	(4,935)
98	3,090	5,687	8,990	3,303	213
99	3,054	7,406	12,146	4,740	1,686
0	3,054	9,122	15,382	6,260	3,206
1	3,054	10,838	18,618	7,780	4,726
2	3,054	12,554	21,854	9,300	6,246
3	3,054	14,270	25,090	10,820	7,766
4	3,054	15,986	28,326	12,340	9,286
5	3,054	16,136	28,307	12,171	9,117
6	3,054	16,119	29,405	13,286	10,232
7	3,054	16,119	29,405	13,286	10,232
8	3,054	16,119	29,405	13,286	10,232
9	0	15,027	27,858	12,831	12,831
10	0	13,656	25,619	11,963	11,963
11	0	12,012	22,652	10,640	10,640
12	0	10,296	19,416	9,120	9,120
13	0	8,580	16,180	7,600	7,600
14	0	6,864	12,944	6,080	6,080
15	0	5,148	9,708	4,560	4,560
16	0	3,432	6,472	3,040	3,040
17	0	1,716	3,236	1,520	1,520
TOT	77,782	224,781	402,587	177,806	100,024
IRR					10.15%

Assumptions

•Add 3 medium hospitals a year, 1 requires capital improvements of \$2.4 million remaining 2 do not require capital improvements.

•36 additional hospitals result in an IRR over 10%.

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TABLE 6
Internal Rate of Return for Cost Recovery Health Project
(\$ 000)

FYR	Investment Cost	Increase Operating Cost	Revenues	Net Revenues	Net Cash Flow
92	2,130	0	0	0	(2,130)
93	11,544	0	0	0	(11,544)
94	12,112	0	0	0	(12,112)
95	5,849	977	1,694	717	(5,132)
96	5,533	2,640	3,754	1,114	(4,419)
97	5,784	4,077	6,126	2,049	(3,735)
98	1,890	5,687	8,990	3,303	1,413
99	1,854	7,406	12,146	4,740	2,886
0	1,854	9,122	15,382	6,260	4,406
1	1,854	10,838	18,618	7,780	5,926
2	1,854	12,554	21,854	9,300	7,446
3	1,854	14,270	25,090	10,820	8,966
4	1,854	15,986	28,326	12,340	10,486
5	1,854	16,136	28,307	12,171	10,317
6	0	15,027	27,858	12,831	12,831
7	0	13,656	25,619	11,963	11,963
8	0	12,012	22,652	10,640	10,640
9	0	10,296	19,416	9,120	9,120
10	0	8,580	16,180	7,600	7,600
11	0	6,864	12,944	6,080	6,080
12	0	5,148	9,708	4,560	4,560
		3,432	6,472	3,040	3,040
		1,716	3,236	1,520	1,520
TOT	57,820	176,424	314,372	137,948	80,128
IRR					10.43%

Assumptions

- Add 3 medium hospitals a year, 1 requires \$1.2 million capital improvements remaining 2 do not require capital improvements.
- 27 hospitals result in an IRR over 10%.

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cut both ways. The large Embaba hospital projections are not as favorable as the average of the small to medium hospitals. If this is an anomaly and other large hospitals could perform better, the choice of large hospitals for conversion could be more easily justified from a financial standpoint. On the other hand other hospitals may not perform as well, which could make justification of conversion of large hospitals difficult.

e. Sensitivity of Key Assumptions

The projections for the demonstration facilities assume most of the financial benefit of conversion to a cost recovery facility will occur in the first year. Most of the projections show a 400-500 percent increase in revenues in the first year. For the next three years increases in revenues are more modest, ranging from 10 to 40 percent in any given year. After four years, the facilities are projected to be operating at a full cost recovery level. In addition operating costs are not projected to increase before the revenues. These assumptions probably are not realistic. If assumptions are changed and increased net revenues feed in more slowly, but full cost recovery operations and revenues are reached in the fourth year, the addition of 41 additional small to medium hospitals would result in an IRR slightly above 10% (see Table 7). This figure was computed assuming 50%, 65%, and 80% of the increased costs and revenues projected for the first, second and third years respectively are actually attained. Changing the assumption to have costs increases precede revenue increases would reduce the IRR.

The CRHP, and therefore this analysis, assumes that technical assistance efforts are successful. Furthermore it assumes that the CRHP Directorate will continue to function effectively after the end of the Project without additional external assistance. Of particular concern in this regard is the absence of the salary supplements paid by AID and the GOE during the Project, and training provided the staff. The analysis assumes that salary supplements will not be continued, but that the CRHP Directorate will retain its staff and that they will continue to work at the same or improved levels of effectiveness, converting three facilities a year for up to 15 years. This follow on period for replication of the demonstration models would not require development of new, original systems, but would rather involve training and institutionalization of the systems developed previously. If this does not prove to be the case, the Directorate's ability to implement additional facility conversions could be jeopardized. An alternative scenario envisions financial support for the CRHP Directorate coming from the cost recovery facility revenues, in a manner similar to the arrangements at CCO.

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TABLE 7
Internal Rate of Return for Cost Recovery Health Project
(\$ 000)

FYR	Investment Cost	Increase Operating Cost	Increase Revenues	Net Revenues	Net Cash Flow
92	2,130	0	0	0	(2,130)
93	11,544	0	0	0	(11,544)
94	12,112	0	0	0	(12,112)
95	5,849	489	847	287	(5,562)
96	5,533	1,507	2,231	579	(4,954)
97	4,584	2,710	4,199	1,191	(3,393)
98	690	4,330	7,043	2,171	1,481
99	654	6,051	9,995	3,155	2,501
0	654	7,767	13,231	4,371	3,717
1	654	9,483	16,467	5,587	4,933
2	654	11,199	19,703	6,803	6,149
3	654	12,915	22,939	8,019	7,365
4	654	14,631	26,175	9,235	8,581
5	654	14,781	26,156	9,100	8,446
6	654	14,764	27,254	9,992	9,338
7	654	14,764	27,254	9,992	9,338
8	654	14,764	27,254	9,992	9,338
9	654	14,764	27,254	9,992	9,338
10	654	14,764	27,254	9,992	9,338
11	0	14,218	26,481	9,810	9,810
12	0	13,327	25,026	9,359	9,359
13	0	12,012	22,652	8,512	8,512
14	0	10,296	19,416	7,296	7,296
15	0	8,580	16,180	6,080	6,080
16	0	6,864	12,944	4,864	4,864
17	0	5,148	9,708	3,648	3,648
18	0	3,432	6,472	2,432	2,432
19	0	1,716	3,236	1,216	1,216
TOT	50,290	235,279	427,376	153,677	103,387
IRR					10.24%

Assumptions

- Add 3 medium hospitals a year without additional capital improvements.
- 1st year increase cost and revenues is 50% of original projection, 2nd year 65%, 3rd year 80%, 4th year 100%.
- 41 additional hospitals results in an IRR less than 10%.

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The analysis assumes that, as stated by technical staff, although the demonstration hospitals require capital improvements to make cost recovery effective, other hospitals exist which can effectively implement cost recovery systems without such improvements. In the absence of other projections, the analysis was forced to assume that these facilities can achieve net increases in revenues equivalent to those projected for hospitals receiving significant capital improvements. If these facilities achieve a lower level of revenues, or the revenue stream does not last for 10 years as the equipment is older even if it has not been heavily utilized, then more hospitals than predicted would have to be converted. If net increased revenue is in reality 80% of that projected, conversion of a total of 30 small to medium hospitals without capital improvement requirements would be needed to achieve a IRR over 10% (see Table 8).

Finally the Project assumes that the Egyptian population is willing and able to pay for medical care in MOH facilities (they are presently paying in private facilities) if the quality is improved. This is a hypothesis the Project will have to prove.

f. Conclusions

The analysis indicates that if key assumptions hold, it may be possible to find a mix of hospitals for conversion that would result in a IRR over 10%. As the projections are highly speculative, the risk that several of the key assumptions will not hold is high. There are however, mitigating factors. The population of hospitals available for conversion is large, making it possible, based on a careful analysis of the results of the demonstration hospitals, to select the facilities with the highest probability for success for conversion. Such an approach would favorably impact the results. In addition the assumption of only three conversions a year may be conservative. If four to six facilities could be converted each year the impact on the IRR would be positive and significant.

This is a high risk endeavor from a financial standpoint, but there is a reasonable chance of success. Even if a favorable financial rate of return is not achieved, significant improvements in Egypt's health care delivery system could be achieved.

3. Economic Analysis for Component One

a. Introduction and Proposal

Egyptian national policy has stated for many years that the government has a duty to provide health services free of charge to all the people. In recent years, policy makers have realized that

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TABLE 8
Internal Rate of Return for Cost Recovery Health Project
(\$ 000)

FYR	Investment Cost	Increase Operating Cost	Increase Revenues	Net Revenues	Net Cash Flow
92	2,130	0	0	0	(2,130)
93	11,544	0	0	0	(11,544)
94	12,112	0	0	0	(12,112)
95	5,849	977	1,694	717	(5,132)
96	5,533	2,640	3,754	1,114	(4,419)
97	4,584	3,859	5,817	1,958	(2,626)
98	690	5,194	8,233	3,038	2,348
99	654	6,585	10,795	4,211	3,557
0	654	7,957	13,384	5,427	4,773
1	654	9,330	15,973	6,643	5,989
2	654	10,703	18,562	7,859	7,205
3	654	12,076	21,151	9,075	8,421
4	654	13,449	23,739	10,291	9,637
5	654	13,255	23,073	9,818	9,164
6	654	12,895	23,524	10,629	9,975
7	0	12,022	22,286	10,265	10,265
8	0	10,925	20,495	9,570	9,570
9	0	9,610	18,122	8,512	8,512
10	0	8,237	15,533	7,296	7,296
11	0	6,864	12,944	6,080	6,080
12	0	5,491	10,355	4,864	4,864
13	0	4,118	7,766	3,648	3,648
14	0	2,746	5,178	2,432	2,432
15	0	1,373	2,589	1,216	1,216
TOT	47,674	160,305	284,967	124,662	76,988
IRR					10.34%

Assumptions

- Add 3 medium hospitals a year without improvements, increased revenues and expenditures are 80% of medium hospitals with capital improvements.
- 30 additional hospitals result in an IRR over 10%.

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the government will not be able to accomplish this policy goal due to inadequate budget resources. Indeed, there is a growing conviction that unless those who can afford to pay for some health services do so, there will not be enough government funding available to provide an acceptable bundle of health services to those people at the lower end of the income distribution who have no alternative way to secure health services. A cost recovery strategy by government hospitals attempts to address this problem. To the extent that those who can pay for curative services provided by these facilities do so, there will be more government resources available to provide adequate health care to the medically indigent, particularly at the primary level.

Hospitals consume the major share of the government budget for health. Consequently, the hospital sector is the most likely source for finding additional funding for primary health care and public health measures. It is the expectation, and hope, of this Project that significant cost recovery by government hospitals will facilitate the diversion of some public funding that otherwise would have gone to the hospital sector to the primary health care sector, especially to public health services. This element of the Project purpose implies that there will be some reduction in government subsidies to these hospitals.

Component One of the Project will attempt to convert five Ministry of Health (MOH) facilities to cost recovery facilities such that by marketing services they will recover a substantial part of their costs. The Project proposes to accomplish this by making changes in the configuration of the prospective cost recovery facilities - notably, those changes necessary to promote more efficient production of higher quality services. More particularly, these changes include some refurbishing of physical plant and equipment, changes in organization formats (enhanced management incentives and authority), training for facility staff, and increased reliance on more extensive fees for patient hospital services.

The hospitals will improve their prospects for successful cost recovery by being responsive to consumer preferences and producing what consumers regard as a high quality product for which they are willing to pay. In this way, the consumers of services provided by these facilities will enjoy the benefit of suppliers who seek to respond to their preferences. In Egypt at the current time, government hospitals comprise about 80 percent of the capacity of the hospital sector. This Project will attempt to establish and enhance cost recovery in some of these hospitals, thereby increasing the relative share of private resources in bearing the cost burden for hospital services.

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There are three phases to the Project, two during the life of the USAID Project and a third after USAID participation terminates. The first five hospitals are the Phase A hospitals. Toward the end of the USAID Project, another five hospitals (Phase B hospitals) are expected to come on line as cost recovery facilities. The hope of this Project is that it will be so successful that Egypt decides to adapt many other government hospitals to cost recovery (Phase C). While Phase C is beyond the scope, resources and control of the USAID Project, it is essential for the ultimate success of the Project.

b. Methodology

Given the demonstration nature of the five Phase A facilities and given the low rate of return projected for the demonstration units, the analysis in the previous section concludes that conversion of a minimum of 21 additional Phase B and C facilities by the GOE will be required to achieve an internal rate of return (IRR) over 10%. Building on that analysis, this section analyzes the impact of the Project on government expenditures. An assumption of the Project is that the conversion to cost recovery facilities will reduce the needs of these hospitals for budget allocations under Babs 1, 2 and 3. These budget reductions or savings also are a benefit of the Project and should be added to the other benefits, i.e. net patient revenues, in order to complete the analysis. To the extent that these savings are used for primary health care (public health measures) as the Project assumes, the benefits will be larger than the budget savings.

c. Budget Savings

The Project is designed to result in a major benefit other than the stream of new net patient revenues. This benefit is the reduction in budget allocations for hospitals as they adopt cost recovery methods. The two problems with this approach are:

- ♦ Determining what the savings might be; and
- ♦ Being confident that they will occur.

The Babs 1 and 2 allotments for the five hospitals in Phase A were £E 6.5 million for FY 92/93. These allotments are expected to continue based on the Pro Forma statements. The most likely benefit is that the allotment in real terms will not increase. It is possible that hospitals which have positive net income, even

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after depreciation, will have their allotments reduced. The five Phase A facilities are projected to have net income of £E 2.8 million in 1997/98. Although these amounts are already included in the IRR analysis, diversion of these funds back to the MOH could create larger benefits if they are spent on public health measures. These activities generally have a very high rate of return, but estimating what the reduced allotments would be and assuming that these funds will be used for public health measures is too speculative to quantify. Nevertheless, it is a major justification for the project.

Savings on *Bab 3* also could occur because the Project design assumes that cost recovery facilities will finance their capital needs from revenues. The current five year plan calls for half of the hospitals to receive £E 146.4 million during the five year period or £E 1.171 million per hospital. This works out to £E .234 million per year per hospital receiving funds, or £E .117 million if every hospital received funds. Table 9 uses this figure to calculate the cost savings for all the hospitals covered by the Project. The NPV amounts to £E 17 million or about \$5.0 million. This figure is optimistic because some of the Phase B and C hospitals may receive *Bab 3* allocations during the transition period even though the assumption was made that no renovations, equipment etc. would be necessary during the conversion process.

d. Indirect Benefits

There may also be certain indirect benefits that can occur due to the Project. At the macro level, the Project is expected to enhance efficiency in the Egyptian health system by extracting resources from the more expensive but less cost-effective curative health settings, or limiting their growth, and using these resources to fund less-expensive, more cost-effective, and wider-impact interventions in public health. This of course depends on whether the GOE uses the extra resources for this purpose as opposed to building more hospitals, increasing salaries or the like. At the micro level, the Project may lead to greater operational efficiency in each of the individual cost recovery hospitals. A prudent application of user fees (undertaken in hospitals with well-defined autonomy in the generation, retention, and use of such fees) yields a number of supply-side benefits such as: savings from shifting expensive inpatient care to less expensive outpatient care; greater staff productivity engendered by better incentive structures in these hospitals; less wastage from bureaucratic bottlenecks and delays that characterize the current situation; better budgeting and financial planning; and greater flexibility in responding to local conditions such as epidemics, catastrophes, and emergencies.

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Aside from its beneficial supply-side effects, the cost recovery program in hospitals may help rationalize demand for and utilization of hospital services. User fees prevent the problems of overuse often caused by free health care. They are also effective instruments to prevent over-extended confinement. If all things remain constant, the Project may help reduce hospitalization rates and average lengths of stay in the selected facilities as the fees become an effective barrier to unnecessary inpatient care.

The health sector is especially vulnerable in times of economic crisis. User fees help insulate health services from contractions in government budgets during recessionary periods. A carefully designed cost recovery program can thus cushion the impact of economic downturns on the poor. Cost-sharing among those who can afford partial payment for services can improve equity in access through cross-subsidization of the poorest.

Cost recovery programs in MOH hospitals can play a complementary role in the development of third-party payment systems. For instance, health insurance cannot evolve until fee schedules, billing systems, and claims payment systems inherent in the development of user fees and other cost recovery schemes have been established and are functioning. At the same time, health insurance schemes can increase the probability of hospitals being paid for their services.

If Phase A cost recovery facilities are successful demonstrations, it is likely that the Project will attract funds from other donors willing to assist health sector reform.

e. Conclusions

The savings from Babs 1,2 and 3, when combined with the benefit-cost analysis of the operations of cost recovery facilities, qualify the Project as one that can be justified marginally on economic grounds. The Project feasibility would decrease significantly if revenues grow more slowly than projected after a hospital converts to a cost recovery basis or if increased operating costs exceed increased revenues in the early years. It is essential that the CRHP Directorate and hospital administrators concentrate on avoiding these possibilities. The potential for higher costs for Phases B and C also exists because it may be essential to carry out some renovations or purchase some equipment. Thus, additional revenues would be necessary to offset higher costs.

As laid out in the previous section of this analysis, the major barrier to improving the economics of the Project is the high

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investment cost that occurs in the early years of the Project. The annual benefits that build up slowly do not exceed the annual costs until after the PACD. Given the effect of discounting and the relatively small margin of revenues over costs after year 10, these net benefits cannot offset the large initial investment costs until a significant number of additional facilities have been converted by the GOE following the PACD.

Even though the Project is marginally attractive economically, there are clear risks. The costs of conversion for Phases B and C could be more significant than proposed. It is possible that budget allocations will not be reduced as forecast and the savings do not materialize. It is possible that the demand for higher quality hospital services on a fee-paying basis in MOH facilities may not be effective. That is, the population of Egypt may not be sufficiently affluent to support this many cost recovery hospitals. The economic analysis of the original Project Paper examined this issue and concluded that the Project's fees were payable, if and only if the fee-paying patients were covered by insurance schemes or other social financing mechanisms. Therefore, it is essential that hospital insurance coverage reach at least 20-25 percent of the population in order to provide the patient base for these hospitals as well as the others in Egypt which already charge and collect relatively high fees.

A favorable factor is that the Government might be forced by economic circumstances to reduce its support for hospital care. In that situation, the systems would be available to convert even more hospitals to cost recovery facilities and the pressure for revenues might accelerate the pattern of revenues. Hospitals might also be able to match their additional costs more closely with the payments they receive so that the initial outlays on O&E are smaller than the revenues. In fact, it probably will be necessary to do so because the hospitals will not be able to finance these large expenditures from the GOE budget, A.I.D. or their own cash flow. The possibility of matching O&E expenditures with revenues during Phases B and C is the main reason for going ahead with the Project.

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TABLE 9
SAVINGS Bab 3
(£E million)

REAL 92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
PHASE A HOSPITALS	0	0.585	0.585	0.585	0.585	0.585	0.58	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585
PHASE B HOSPITALS	0	0	0	0.585	0.585	0.585	0.58	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585	0.585
PHASE C 1st 3 HOS.	0	0	0	0	0.351	0.351	0.35	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 2nd 3 HOS.	0	0	0	0	0	0.351	0.35	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 3rd 3 HOS.	0	0	0	0	0	0	0.35	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 4th 3 HOS.	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 5th 3 HOS.	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 6th 3 HOS.	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 7th 3 HOS.	0	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 8th 3 HOS.	0	0	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 9th 3 HOS.	0	0	0	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 10th 3 HOS.	0	0	0	0	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 11th 3 HOS.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351	0.351
PHASE C 12th 3 HOS.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351	0.351
PHASE C 13th 3 HOS.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351	0.351
PHASE C 14th 3 HOS.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.351	0.351	0.351
TOTAL	0	0.585	0.585	1.17	1.521	1.521	1.52	1.872	2.223	2.574	2.925	3.276	3.627	3.978	4.329	4.68	5.031	5.382	5.382	5.382

DISCOUNT AT 10% = 16.97

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