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**Social Vulnerability
Analysis of the Health
Sector Reform
Program Assistance
in Egypt**

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Prepared by:

Denise DeRoeck, M.P.H.
Abt Associates Inc.

Heba Nassar, Ph.D.
American University

David Hotchkiss, Ph.D.
Tulane University School
of Public Health and
Tropical Medicine

James Knowles, Ph.D.
Abt Associates Inc.



**Partnerships
for Health
Reform**



Abt Associates Inc. # 4800 Montgomery Lane, Suite 600
Bethesda, Maryland 20814 # Tel: 301/913-0500 # Fax: 301/652-3916

In collaboration with:

Development Associates, Inc. # Harvard School of Public Health #
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USAID/Cairo

and: Robert Emrey, COTR
Health Policy and Sector Reform Division
Office of Health and Nutrition
Center for Population, Health and Nutrition
Bureau for Global Programs, Field Support and Research
United States Agency for International Development

Abstract

This report, written for the United States Agency for International Development-funded Partnerships for Health Reform Project, examines the likely impact on socially vulnerable groups of the various health policy reform strategies proposed for the government of Egypt's National Health Sector Policy Reform Agenda. The report also identifies steps to maximize the policy reform benefits and minimize disadvantages for the socially vulnerable that the report identifies as the poor, residents of disadvantaged rural areas, and female-headed households, with a specific focus on women and children. The analysis concentrates on four primary effects in the government of Egypt's draft policy reform agenda: (1) cost recovery in Ministry of Health and Population facilities, (2) redirecting ministry resources from hospital-based curative care to primary and preventive health, (3) reallocating ministry personnel and other resources from geographic areas of underutilization and excess supply to needy areas, and (4) improving and expanding national health insurance.

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Acronyms

ARI	Acute Respiratory Infection
CAPMAS	Central Agency for Public Mobilization and Statistics
CCO	Curative Care Organization
DDM	Data for Decision Making Project
DHS	Demographic and Health Survey
GIS	Geographic Information Survey
GOE	Government of Egypt
IMR	Infant Mortality Rate
HIO	Health Insurance Organization
LE	Egyptian pounds
MCH	Maternal and Child Health Care
MOHP	Ministry of Health and Population
ORT	Oral Rehydration Therapy
PM	Preventive Medicine
PHC	Primary Health Care
PHR	Partnerships for Health Reform Project
SHIP	Student's Health Insurance Program
USAID	United States Agency for International Development

Preface

This report is one in a series of six analyses conducted by the Partnerships for Health Reform Project for the Health Office of the United States Agency for International Development/Cairo between June and September 1996. The Partnerships for Health Reform was requested by the United States Agency for International Development/Cairo Mission to conduct these analyses to support and inform the design of its upcoming Health Sector Reform Program Assistance, which is intended to provide technical and financial assistance to the government of Egypt in planning and implementing health sector reform. The analyses examine the feasibility and/or impact of a set of health sector reform strategies that were proposed jointly by the Ministry of Health and Population and the United States Agency for International Development. These proposed strategies are shown in the following table.

Technical Report No. 5 contains all six analyses. The analyses and their corresponding volume numbers are as follows:

Volume I	Suggested National Health Sector Reform Strategies, Benchmarks, and Indicators for Egypt
Volume II	Economic Analysis of the Health Sector Policy Reform Program Assistance in Egypt
Volume III	Social Vulnerability Analysis of the Health Sector Policy Reform Program Assistance in Egypt
Volume IV	Legal Analysis of the Health Sector Policy Reform Program Assistance in Egypt
Volume V	Analysis of the Political Environment for Health Policy Reform in Egypt
Volume VI	Analysis of the Institutional Capacity for Health Policy Reform in Egypt
Volume VII	Summary of Analyses

Proposed Health Sector Policy Reforms	
Specific Strategy	Generic Strategy
1. ROLE OF THE MINISTRY OF HEALTH AND POPULATION (MOHP)	
1.1 Rationalize the role of the MOHP in financing curative care	
1.1.1 Stop the construction of unnecessary hospitals and set strict guidelines for the completion of facilities under construction	Improve the allocation of the MOHP investment budget
1.1.2 Transfer existing hospitals to other parastatal organizations	Allow hospital autonomy
1.1.3 Expand cost recovery in government facilities	Expand cost recovery
1.1.4 Allow private practitioners to use the MOHP facilities	Allow private practitioners to use government facilities
1.1.5 Allow hospital autonomy	Allow hospital autonomy
1.1.6 Support hospitals based on efficiency indicators such as on a per capita, per bed basis, etc.	Use alternative budget allocation formula for MOHP hospitals
1.1.7 Examine the cost recovery of curative services at the primary health care (PHC) level	Expand cost recovery
1.2 Strengthen the role of the MOHP in the provision and increased share of financing preventive medicine (PM) and primary health care	
1.2.1 Use cost-effectiveness analysis to identify a package of PM and PHC services to be supported by the MOHP to which every Egyptian is entitled	Increase the cost effectiveness of the MOHP's program
1.2.2 Increase emphasis on Maternal and Child Health Care (MCH) programs	Increase emphasis on MCH programs
1.2.3 Provide incentives for the health care providers to specialize in PM, PHC, and family medicine	Increase the cost effectiveness of the MOHP's program
1.2.4 Do not separate curative services at the PHC level	Continue to provide curative services in PHC facilities
1.2.5 Ensure adequate allocation of resources, e.g., personnel	Improve the allocation of the MOHP recurrent budget
1.3 Reform the MOHP personnel policy	
1.3.1 There should be no guaranteed employment	Reduce the overall number of the MOHP personnel
1.3.2 Develop guidelines for the MOHP personnel, and apply them to redistribute personnel based on needs assessment	Improve the allocation of the MOHP recurrent budget
1.3.3 Reduce the overall number of the MOHP personnel	Reduce the overall number of the MOHP personnel

Proposed Health Sector Policy Reforms	
Specific Strategy	Generic Strategy
1.3.4 Provide incentives for the MOHP personnel to serve in underserved and remote areas	Improve the allocation of the MOHP recurrent budget
1.4 Develop the MOHP capacity for national health needs assessment, sectoral strategic planning, and policy development	
1.4.1 Adapt the national health information systems, including Geographic Information Survey (GIS) for planning and policy decision making	Improve the allocation of the MOHP investment budget Improve the allocation of the MOHP recurrent budget
1.4.2 Prioritize the allocation of the MOHP resources based on needs using health status indicators	Improve the allocation of the MOHP investment budget Improve the allocation of the MOHP recurrent budget
1.4.3 Create incentives for other health care providers to function in underserved areas	Provide incentives to private health providers to function in underserved areas
1.4.4 Target government of Egypt (GOE) subsidy to poor and indigent populations	Improve the equity of the MOHP subsidies
1.4.5 Use cost-effectiveness analyses in determining the essential health services	Increase the cost effectiveness of the MOHP's program
1.5 Develop the MOHP role in regulation, accreditation, and quality assurance of health services	
1.5.1 Develop and adopt National Health Standards of Practice and health facility accreditation	Develop and adopt national health standards and accreditation
1.5.2 Establish a policy of continued physician licensing and continuing medical education (CME)	Establish CME and physician licensing
2. NATIONAL SOCIAL HEALTH INSURANCE PROGRAM	
2.1 Ensure the viability of the Health Insurance Organization (HIO)	
2.1.1 Do not add any new groups of beneficiaries to the HIO	Eliminate the HIO's deficit
2.1.2 Eliminate the current HIO deficit	Eliminate the HIO's deficit
2.1.3 Reduce the proportion of the pharmaceutical costs	Redefine HIO's benefits
2.1.4 Unify the existing health insurance laws into one law	Unify existing health insurance laws
2.1.5 Change the HIO's legal and legislative framework to ensure its autonomy	Ensure the HIO's autonomy

Proposed Health Sector Policy Reforms	
Specific Strategy	Generic Strategy
2.1.6 Develop premium based on actual costs using co-payments and deductibles	Redefine the HIO's benefits
2.1.7 Identify and adopt an affordable health benefit package(s)	Redefine the HIO's benefits
2.2 Transform the HIO into a financing organization	
2.2.1 Stop constructing new HIO hospitals	Transform the HIO into a financing organization
2.2.2 Develop a plan to sell or transfer to other private or parastatal organizations, in phases, the existing HIO hospitals, polyclinics, and general practitioner (GP) clinics	Transform the HIO into a financing organization
2.2.3 Develop different mechanisms to subcontract all health service providers, including private and MOHP hospitals	Develop alternative reimbursement mechanisms for the HIO's contracted services
2.2.4 Allow beneficiaries to choose service providers	Transform the HIO into a financing organization
2.3 Expand social health insurance coverage coupled with adequate administrative and financing mechanisms	
2.3.1 Design and develop a single national health insurance fund for universal coverage	Expand social insurance coverage
2.3.2 Develop a well-defined standard package of benefits that every citizen is entitled to receive	Redefine the HIO's benefits
2.3.3 Separate financing from provision of services	Transform the HIO into a financing organization
2.3.4 Ensure legal and financial autonomy of fund	Ensure the HIO's autonomy

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Executive Summary

The purpose of the social vulnerability analysis is to examine the likely impact on socially vulnerable groups of the various health policy reform strategies proposed for the National Health Sector Policy Reform Agenda. Socially vulnerable groups include the poor, residents of disadvantaged rural areas, and female-headed households. Within these groups, the analysis focuses on women and children. Another objective of the analysis is to identify the steps that should be taken to maximize the positive and minimize the negative effects of policy reform on the socially vulnerable.

The analysis focuses on four primary effects of the 38 individual reform strategies contained in the draft policy reform matrix, *Suggested National Health Sector Reform Strategies*. These are (1) cost recovery in Ministry of Health and Population (MOHP) facilities, (2) redirecting MOHP resources from hospital-based curative care to primary and preventive health, (3) reallocating MOHP personnel and other resources from geographic areas of underutilization and excess supply to areas of need (e.g., rural Upper Egypt), and (4) improving and expanding national health insurance.

The conclusion of the social vulnerability analysis is that most aspects of the policy reform would have unambiguously positive effects on the socially vulnerable. In the case of cost recovery, however, the effect on the socially vulnerable would depend on how it was implemented, as discussed below.

The analysis indicates that MOHP health facilities and services are used more heavily by the socially vulnerable than by other population groups. Under these circumstances, charging user fees for MOHP services would have a disproportionately negative effect on the socially vulnerable, either by disproportionately increasing the cost of their health care or disproportionately lowering their utilization of health services (or some combination thereof). However, if suitable mechanisms for identifying and exempting the poor from paying user fees (e.g., means testing, geographic targeting) are developed, implemented, and carefully evaluated, the potentially adverse effects of user fees can be minimized.

In addition, if the revenue from user fees is used to improve the quality of care in facilities used by the socially vulnerable (being careful, in the case of hospitals, to ensure that the quality improvements are focused on actual *services* used by the socially vulnerable and not those used by physicians' private patients) and to increase the share of MOHP resources used for primary and preventive care, both the economic and health status effects of cost recovery can be strongly positive for the socially vulnerable. Obtaining such positive effects from cost recovery would require that the MOHP gradually reduce its budget allocations to hospitals (at least relatively, if not absolutely) as user-fee revenue expands.

An additional finding of the social vulnerability analysis relative to cost recovery is that the socially vulnerable tend to use MOHP ambulatory facilities rather than hospitals for outpatient services, suggesting that fees could be raised for hospital outpatient services without having significant adverse effects on the socially vulnerable (even in the absence of means testing). When effective MOHP means-testing procedures have been implemented and/or as social insurance is improved and expanded, user fees for inpatient care can be raised to a level where they recover a substantial share of, if not total, cost. Last, with

respect to cost recovery, the analysis emphasizes the need for a strong research and evaluation component to measure the effect of cost recovery on health care utilization and spending of the socially vulnerable, as well as to monitor the effectiveness of MOHP's means testing and targeting efforts.

The analysis clearly shows that, between the socially vulnerable and other groups in Egypt, substantial differentials remain in health status, as well as in access to and utilization of primary and preventive health care. There is no question but that the socially vulnerable's health status would be much enhanced by policy reform that succeeds in shifting MOHP budget priorities from the current emphasis on urban, hospital-based, technology-intensive curative care to primary and preventive health care (particularly maternal and child health services in rural areas). The only qualification to this strong conclusion is that female physicians may be disadvantaged relatively by policies that gradually reduce MOHP employment of physicians in urban areas and that provide financial incentives to physicians who move to underserved rural areas.

The analysis establishes that the current social insurance program Health Insurance Organization (HIO) disproportionately benefits population groups other than the socially vulnerable (i.e., predominantly the urban middle classes). Eliminating the HIO deficit, particularly if the savings accruing to the government of Egypt (GOE) is used to expand primary and preventive health services, would unambiguously help the socially vulnerable, few of whom are currently HIO members. The expansion of a suitably redesigned and restructured social insurance program oriented to the financing of catastrophic illness (i.e., with greatly reduced benefits for hospital outpatient care and drugs) would also unambiguously help the socially vulnerable, who now must either do without needed inpatient care or incur expenditures that result in severe financial hardship.

The social vulnerability analysis concludes by identifying a need for continued support of research with newly available data sets (e.g., the 1996 Central Agency for Public Mobilization and Statistics [CAPMAS] budget survey, the 1995 Demographic and Health Survey, the 1995 Poverty Study) to sharpen our understanding of the likely effect of health policy reform on the socially vulnerable. It also calls for continued support of research on the demand for health services, particularly on the factors that affect the choice of public versus private providers and on the trade-offs between price and quality in patient demand. Continued research on the cost effectiveness of alternative health interventions in Egypt is also needed to guide MOHP supply and pricing of health services and use in developing a suitable minimum benefits package for a redesigned social insurance program. The analysis concludes by recommending a study of the net health benefits (subsidies less taxes) currently received by different income groups from the GOE budget. A better understanding of the system's current redistributive effects would be useful in focusing policy reforms to produce the greatest net gains for the socially vulnerable.

A summary of the conclusions reached by the analysis concerning the likely effect on socially vulnerable groups of the proposed reform strategies is shown in Table 10.

1.0 Purpose

The purpose of this analysis is to examine the impact on socially vulnerable groups of the various health policy reform strategies proposed for the National Health Sector Policy Reform Agenda. For the purposes of this analysis, socially vulnerable groups consist of the poor, rural residents—especially those of Upper Egypt—and female-headed households. Within all these groups, the analysis focuses on women and children.

2.0 Methodology and Data Sources

This social vulnerability analysis involves both secondary and primary analysis. Secondary data sources include reports prepared by the Data for Decision Making (DDM) Project and the Cost Recovery for Health project, the 1992 Demographic and Health Survey (DHS), various Ministry of Health and Population (MOHP) documents, and a number of specific studies on the conditions (including health) of women, the poor, and children in Egypt. The primary analysis is based on the 1994 Health Expenditure Survey conducted jointly by the MOHP, the DDM, and the Cairo Demographic Center.¹ These data were used to compare utilization of health services, household expenditures, health status, and other variables among income groups, men and women, and urban and rural residents, to make inferences about the likely effect of these reforms on the socially vulnerable.

Households were divided into three income groups, based on reported monthly household expenditures (used as a proxy for the household's long-run income): the lowest 35 percent of households, the middle 55 percent, and the top 10 percent. These divisions were used in the analysis because they more accurately reflect the socioeconomic classes in Egypt than do other income groupings, such as quintiles. The lowest 35 percent was selected to represent the poor since this is close to the estimated proportion of the population that is below the poverty line. Since there is a considerable gap between the upper and middle classes in Egypt, and only a small proportion of the population can be considered upper class, it was decided to use only the top 10 percent of households to represent the rich. The remaining 55 percent of households represents the middle class.

Since many of the 38 reform strategies listed in the draft policy reform matrix, *Suggested National Health Sector Reform Strategies*, have similar or related effects, it was decided to analyze the impact on the socially vulnerable of these common effects instead of analyzing the effect of each reform strategy separately.

The common effects analyzed are: (1) cost recovery, (2) redirecting MOHP resources from curative care to primary health care (PHC) (including maternal and child health care [MCH] and preventive care), (3) reallocating MOHP resources according to where they are most needed (e.g., to rural areas and Upper Egypt), and (4) improving and expanding national health insurance. Table 10 (see pp. 36–38) shows the relationship between each of these common effects and the individual strategies listed in the matrix and summarizes the conclusions reached by the analysis about measures needed to ensure that the reform has a positive impact on the socially vulnerable.

¹This survey is the first round of the Egyptian Household Health Care Utilization and Expenditure Survey and was funded by the United States Agency for International Development (Berman et al., 1995). It involves a stratified random sample of households selected from 546 segments in 21 governorates. Two types of questionnaires were used in data collection: a household questionnaire and an individual questionnaire. The survey was conducted in two rounds to adjust for seasonal variations in utilization. The first round was conducted from November 1994 to early February 1995, and included 5,299 households, 4,973 of which were successfully interviewed (i.e., a response rate of 96.7 percent). Of the 27,242 individuals in the surveyed households, 25,513 were interviewed (i.e., a response rate of 93.7 percent).

3.0 Background on Socially Vulnerable Groups in Egypt

3.1 Who Are the Socially Vulnerable?

We define the socially vulnerable as those who have very limited choices and limited decision-making ability in their lives as a result of poverty, low social status, and/or a lack of political power. In Egypt, as in most other countries, the socially vulnerable tend to be the poor and women, in particular, poor women living in areas where the traditions concerning the role of women remain very strong.

3.1.1 The Poor in Egypt

According to one study (Nassar, 1995), 38 percent of the Egyptian population in 1990/91 was living below the poverty line (defined as a monthly per capita expenditure level of Egyptian pounds (LE) 61 or less in 1991). According to this study, an estimated 21 to 25 percent of the population lives in “absolute poverty,” including street children, landless agriculture workers, many disabled and chronically unemployed people, as well as a substantial proportion of female-headed households. Poverty is most common in rural areas. Among regions, Upper Egypt has the highest poverty rate, followed by the Delta Region (UNDP, 1995).

Table 1 provides a percentage breakdown by place of residence for each income group (and within each income group by gender) of respondents from the 1994 Health Expenditure Survey, a sample that is representative of the Egyptian population as a whole. Those in the low-income group (the lowest 35 percent of the sample in terms of income level) are more concentrated in the rural areas and in Upper Egypt than those from the middle- and high-income groups. This table also shows that low-income families spend only an average of LE 68 per person per month, compared with LE 125 for the middle-income group and more than six times as much for the high-income group (LE 428). Since most household income among the poor is used to purchase food—55 to 70 percent according to some estimates (Nassar, 1995)—little is available for such “extras” as health care, schooling, and transportation. Many rural poor are landless agricultural workers and subsistence farmers, while the urban poor tend to be casual laborers, peddlers, and workers in small manufacturing enterprises.

Given the dire situation of poor families in Egypt, many children from these families are forced to drop out of school and enter the labor force to help make ends meet. An estimated 27 percent of children ages 6 to 14 in rural areas in 1992 were working and not attending school, compared with only 11 percent of urban children (DHS 1992 cited in Nassar, 1995). These child laborers take jobs as agricultural workers, street traders, garbage collectors, servants, and other menial laborers and contribute up to 30 percent of the total household income of poor families.

Table 1
Demographic Characteristics of Respondents from the 1994 Health Expenditure Survey by Income Group and by Gender

Characteristic	Income Group									Total
	Lowest 35%			Middle 55%			Highest 10%			
	Male	Female	Total	Male	Female	Total	Male	Female	Total	
Place of Residence (percent):										
Urban Areas	33.9	35.0	34.5	46.3	46.0	46.2	49.8	51.1	50.4	43.4
Rural Areas	66.1	65.0	65.5	53.7	54.0	53.8	50.2	48.9	49.6	56.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Region of Residence (percent)										
Urban Governorates	12.6	13.0	12.8	20.9	21.4	21.2	27.3	28.3	27.8	19.6
Lower Egypt	36.8	36.5	36.7	43.8	45.1	44.4	43.6	43.7	43.6	42.2
Upper Egypt	50.6	50.4	50.5	35.3	33.5	34.4	29.0	28.0	28.6	38.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Monthly Expenditures per Capita (from household data) (LE)	68.3			125.4			428.7			135.8
Education:										
No Education	45.7	61.8	54.1	30.5	44.9	37.7	25.5	36.9	31.2	41.5
Completed Primary School and Some Secondary School	16.4	11.2	13.7	25.1	20.0	22.6	25.4	21.5	23.4	20.2
Completed Secondary School	11.6	6.4	8.9	18.1	11.7	14.9	25.7	20.2	23.0	14.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1994 Health Expenditure Survey

Female-headed households are also disproportionately poor and increasingly common, accounting for 18 to 22 percent of all households in Egypt. These households are the product of widowhood (in 60 percent of the cases), divorce, or the husband's absence due to emigration or military service (Moghadam, 1995). Many female household heads are illiterate and unskilled and work mainly in the informal sector as servants, peddlers, or in other menial jobs, or in the rural areas as subsistence farmers. The mean income of female-headed households is 37 percent lower than that of male-headed households (Moghadam, 1995). Working children are especially common in female-headed households. A study of working children in Alexandria found that 60 percent of working children were living in female-headed households (UNICEF, 1994, cited in Nassar, 1995). In addition, it is estimated that 40,000 children are living in the streets in Egypt.

3.1.2 Women in Egypt

Despite gains in the status of women over the past few decades in Egypt, women still suffer disproportionately from poverty (particularly if they head households), illiteracy, job insecurity, and poor working conditions. According to one set of estimates prepared for 1991 (Nassar, 1996), 62 percent of women over the age of 15 in Egypt are illiterate compared with 37 percent of men, while only 41 percent of girls have completed primary school compared with 75 percent of boys. At the same time, however, school enrollment among girls continues to increase and a woman's right to an education is becoming more and more accepted, even among lower socioeconomic groups (Kader, undated).

Women also suffer disproportionately in the work place, facing job insecurity, harsh working conditions, and job discrimination. Poor women, who tend to work more often than middle-income women out of need, work mainly in agriculture and in the informal sector (i.e., micro- and small enterprises). In these jobs they face poor working conditions, including long hours (50 or more per week), no social insurance, and poor sanitary and safety conditions. Most of these jobs pay very poorly, and job security is totally lacking. Even in the formal sector, including the government sector where women fare better, many positions are gender-defined, with women working mainly in low-level jobs as unskilled, production workers, secretaries, and clerks. When layoffs occur, women are the first to lose their jobs, given their low job positions generally and the prevailing view that a woman's principal role is that of wife and mother and that men are more deserving of the remaining jobs.

3.1.3 Health Status and Use of Health Services by the Socially Vulnerable

As in most countries, the poor in Egypt suffer from worse health compared with the rest of the population. Infectious diseases still predominate among poor children; infant and child mortality rates in the poor rural areas of the country remain substantially higher than in the urban wealthier parts of the country. For example, the infant mortality rate (IMR) among rural inhabitants of Upper Egypt is 72 per 1,000 live births, more than double the rate in the urban governorates (33) and 60 percent higher than the overall rate in Egypt (45). Similarly, malnutrition is relatively common among children less than five years of age in the poorer rural areas of the country.

The health of poor rural women is affected both by their poverty and by their low status within society. When food is scarce in a family, it is the mother who is most likely to

receive an insufficient intake of calories rather than her husband or children (Nassar, 1996). Rates of anemia among pregnant women have been reported to be around 22 percent (Nassar, 1996). Cultural norms still dictate against women seeking health care outside of the home in many places, and women must obtain permission from their husbands or mothers-in-law to go to a clinic or doctor. Consequently, most childbirths still take place at home, and only around one-quarter of them occur in a health facility (the rate is only 12 percent in rural Upper Egypt). Maternal mortality rates are quite high, reaching 240 per 100,000 live births in Upper Egypt as a whole.

Given the poor health status and low utilization of health services of poor women and children, especially those in disadvantaged rural areas, it is critical that the proposed health sector reforms be examined for their potential effect on these groups. This analysis is provided in the following section.

4.0 Analysis of the Impact of the Suggested Health Reform Strategies on the Socially Vulnerable

4.1 Expanding Cost Recovery and Rationalizing the MOHP's Role in Financing Curative Care

One common effect of a number of the suggested health sector reform strategies (under 1.1) is cost recovery in MOHP facilities or shifting part of the burden of financing both inpatient and outpatient services from the government sector to private households. To analyze the potential impact of cost recovery on the socially vulnerable, the following questions are addressed:

- ▲ To what extent do the socially vulnerable use MOHP inpatient and outpatient services as compared to services from other types of providers?
- ▲ How much do the socially vulnerable currently pay for health care?
- ▲ What is the likely impact of cost recovery on both health care utilization and health status of the socially vulnerable? and
- ▲ How can cost recovery be implemented in such a way as to enhance its positive impact on the socially vulnerable?

4.1.1 Current Utilization of MOHP Care by Socially Vulnerable Groups

In this section, we describe patterns of health care utilization among the socially vulnerable. Because our interest is on modern health care's accessibility to both the poor and female populations, the focus is on which sources of health care are used most often rather than on how much care is used.

4.1.1.1 Inpatient Care Utilization

Table 2 presents a percentage breakdown—by income group and according to whether or not they received inpatient services—for respondents 16 years of age and older who claimed they needed hospitalization within the last 12 months. The data source is the 1994 Health Expenditure Survey. These data indicate that the poor are less likely when ill to be hospitalized compared with those in either middle- or higher-income groups (28 percent versus 34 percent). These data also suggest that access to inpatient services may be less for

the poor population. Indeed, the percent of individuals who cited “cost” as the reason for not entering a hospital was higher among the poor (62 percent) than for either the middle-income group (52 percent) or the upper-income group (40 percent). However, these data should be viewed cautiously for at least two reasons. First, the 1994 Health Expenditure Survey did not collect information on why respondents believed hospitalization was needed (e.g., information on symptoms), so there is no way to evaluate how severe the illnesses were in each group. Second, the percent of individuals who claimed they needed inpatient care appears to be quite large (about 15 percent).

<i>Table 2</i>				
Percent Receiving Inpatient Care among Respondents 16 Years of Age and Older Who Reported a Need for Hospitalization during the Past Year, by Income Group				
	Income Level			
	Low	Middle	High	Total
Inpatient (percent)	28	34	34	32
Not inpatient, but claimed need of hospitalization (percent)	72	66	66	68
Total	100	100	100	100
Sample Size (N)	1,132	2,236	452	3,820
<i>Source: 1994 Health Expenditure Survey</i>				

Nandakumar and Yip point out that for inpatient care, all income groups rely heavily on MOHP facilities despite their poor reputation for quality of care (Nandakumar and Yip, 1995). The low level of fees in the MOHP was the most frequently cited reason for choosing an MOHP facility by those who used them (67 percent). However, the absence of other providers in many parts of Egypt may also be a contributing factor, as government and public facilities account for more than 90 percent of hospital beds in Egypt.

The 1994 Health Expenditure Survey data indicate that for those who use inpatient care, the government sector is by far the most important source of inpatient care for all expenditure groups. However, poor individuals rely more on the government sector than do those who are better off. Table 3 presents a percentage breakdown of persons who used inpatient care in the last 12 months by the type of facility where hospitalized, by income group, and by gender. According to these data, more than 63 percent of the poor received care in MOHP facilities, compared with 50 percent of the middle-income group and 41 percent of the higher-income group. Moreover, within all income groups,

Table 3

Distribution of Respondents Hospitalized by Source of Most Recent Inpatient Care, by Income Group, and by Gender (Percent)

Type of Hospital	Income Group									Female-Headed Households	Total
	Lowest 35%			Middle 55%			Highest 10%				
	Male	Female	Total	Male	Female	Total	Male	Female	Total		
MOHP	57.1	68.7	63.1	42.9	55.4	49.5	39.9	43.1	41.3	57.5	52.0
Health Insurance Organization	17.5	6.6	11.9	18.3	9.5	13.7	16.9	4.2	11.0	8.2	12.9
Curative Care Organizations	1.3	0.6	0.9	1.4	0.8	1.1	1.2	1.4	1.3	0.8	1.1
Other Ministries ¹	13.6	15.7	14.7	22.4	19.5	20.9	13.3	16.7	14.8	18.2	18.5
Company	0.6	0.00	0.3	1.9	1.0	1.4	3.6	1.4	2.6	0.8	1.3
Private	5.8	5.4	5.6	10.2	10.8	10.5	21.7	26.4	23.9	11.1	10.9
Community	1.3	1.8	1.6	1.4	1.3	1.3	0.00	2.8	1.3	1.6	1.4
Syndicates	0.6	0.00	0.3	0.6	0.5	0.5	0.00	0.00	0.00	0.3	0.4
Other	1.9	1.2	1.6	0.8	1.3	1.1	3.6	4.2	3.9	1.6	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1994 Health Expenditure Survey

¹*Includes University Hospitals operated by the Ministry of Education*

women used the MOHP facilities more frequently than men. For example, among the poor, 69 percent of women received care at MOHP facilities compared with 57 percent of men.

The data on inpatient care utilization patterns in Table 3 suggest that the incidence of fees charged for MOHP inpatient services would be greatest on the poor and women (including members of female-headed households) because these groups tend to use MOHP inpatient services more than other population groups. This means that if fees are charged, and utilization patterns remain as they are, the poor and women would pay a disproportionately large share of the fees collected. In economic terms, one might in this case characterize user fees for inpatient services as a regressive tax. Alternately, as a number of econometric studies in other countries suggest is likely (see, for example, the review in Gertler and van der Gaag, 1990), if the price elasticity of demand is higher among the poor (i.e., if the effect of a price increase on their utilization of services is larger), an additional effect of introducing user fees for inpatient services in the MOHP facilities would be to reduce disproportionately the use of these services by vulnerable groups. Reduced access to MOHP inpatient services would in this case be manifested in the form of poorer health status (i.e., increased morbidity and mortality) among the socially vulnerable.

The preceding analysis underlines the importance of minimizing the effect of fees on health services utilization by the poor. One possibility is to refine means testing in order to identify and exempt the poor from paying fees.

4.1.1.2 Outpatient Care Utilization

Table 4 shows that the poor rely substantially more on the MOHP and public sector facilities for outpatient care than do better-off Egyptians. For example, more than 30 percent of persons from low-income households used the MOHP facilities compared with 20 percent of persons from middle-income households and 15 percent of persons from high-income households. Although the poor choose government facilities more frequently than other individuals, private alternatives are still the most frequently utilized source of outpatient care (i.e., for both the poor and nonpoor). For example, Table 4 shows that 41 percent of the poor obtained outpatient care from either private doctors or private health facilities. In addition, an additional 4 percent of the poor treated themselves by purchasing drugs from (predominantly private) pharmacies.

Women more than men rely on the government health sector and on private providers for outpatient care. For example, 32 percent of poor women used MOHP facilities and 54 percent used private providers compared with 29 percent and 49 percent, respectively, of poor men. This pattern of relying more on MOHP facilities and private providers also holds true for female-headed households. One reason for this is that more men are covered by social insurance, which provides them access to Health Insurance Organization (HIO) facilities.

In urban areas, most persons seeking outpatient care use MOHP hospitals rather than lower levels of the referral system. Among the poor, for example, 15 percent utilized urban MOHP hospitals and only 2.4 percent utilized urban MOHP health units. In rural areas, MOHP clinics are the dominant source of outpatient care. While 11 percent of the poor utilized rural MOHP clinics, only 1.5 percent utilized rural MOHP hospitals.

The data in Table 4 suggest that the effects of cost recovery for MOHP outpatient services would again impact disproportionately on poor women.

4.1.2 Health Care Expenditures by the Socially Vulnerable

Table 5 presents household-level data from the 1994 Health Expenditure Survey on the percent of per capita income spent on health care (both outpatient and inpatient) by income quintile. These data indicate that the percent of income spent on health care declines as income increases. The poor spend 14 percent of their total income on health care expenditures, compared with 8.7 percent for the highest income quintile and 11 percent for the total sample. This pattern would be even more striking if the poor were to consume as much health care as the rich, which is not the case (refer, for example, to Table 2). Since cost recovery in MOHP facilities would be likely to impact disproportionately on the poor, it is possible that the pattern of health spending presented in Table 5 would become even more inequitable.²

² If the price elasticity of demand among the poor were greater than one, their total level of spending would decline if prices were raised. Although reduced spending by the poor might appear to make spending patterns more equitable, the effect would almost certainly be to worsen the health status of the poor relative to the nonpoor (since the reduction in spending would reflect a reduced quantity of health care consumed rather than lower prices paid).

Table 4

**Distribution of Respondents Seeking Outpatient Care by Source of Care,
Income Group, and Gender (percent)**

Source of Outpatient Care	Income Group									Female-Headed Households	Total
	Lowest 35%			Middle 55%			Highest 10%				
	Male	Female	Total	Male	Female	Total	Male	Female	Total		
MOHP Facilities:											
Urban Hospitals	14.7	15.6	15.2	8.7	10.8	9.8	6.2	10.7	8.6	12.0	11.0
Urban Clinics/Units	1.7	2.9	2.4	1.9	2.7	2.3	1.3	0.9	1.1	2.5	2.2
Rural Hospitals	1.9	1.1	1.5	0.9	1.4	1.2	0.7	0.3	0.5	1.2	1.1
Rural Clinics/Units	9.9	11.6	10.8	7.0	4.8	5.8	2.9	5.4	4.2	6.5	6.8
MHC Centers (mostly in urban areas)	0.6	0.8	0.7	0.3	0.7	0.5	0.3	0.3	0.3	0.7	0.5
Total MOHP Facilities	28.8	32.0	30.6	18.8	20.4	19.6	11.4	17.6	14.7	22.9	21.6
Teaching Hospitals/Other Govt. Facilities	11.6	8.9	10.2	13.5	9.4	11.3	13.7	7.2	10.3	9.0	10.9
Health Insurance Providers (including HIO)	10.9	5.5	8.0	11.6	5.5	8.3	9.4	4.8	7.0	5.4	8.1
Total Other Government and Public Facilities	22.5	14.4	18.2	25.1	14.9	19.6	23.1	12.0	17.3	14.4	19.0
Private Doctors/Clinics/Hospitals	38.4	43.4	41.1	45.2	53.8	49.8	58.9	59.1	59.1	51.9	48.9
Pharmacies	4.6	3.5	4.0	3.3	2.1	2.7	2.3	3.0	2.6	2.6	3.0
Other private providers, including NGOs, traditional healers, etc.	5.6	6.6	6.1	7.6	8.9	8.3	4.2	8.4	6.5	8.2	7.3
Total Private Providers	48.6	53.5	51.2	56.1	64.8	60.8	65.4	70.5	68.2	62.7	59.2
Total	100	100	100	100	100.0	100	100	100	100	100	100

Source: 1994 Health Expenditure Survey

4.1.2.1 Inpatient Care Expenditures

Table 6 shows for each income group the mean total out-of-pocket expenditure for an inpatient stay among persons who were hospitalized during the past 12 months. The mean charge for the poor in MOHP hospitals (LE 66) is equal to about one month's minimum wage (LE 60). It is slightly below what a poor person pays at a Curative Care Organization (CCO) hospital (LE 70) and substantially above the amount paid at an HIO hospital (LE 22). It is interesting to note that expenditure on drugs accounts for most of the total charges incurred in connection with an inpatient stay at MOHP hospitals, whereas the physician's bill accounts for most of the total charge in connection with a private hospital stay.

4.1.2.2 Outpatient Care Expenditures

Table 5 shows that poor households spend substantially more on outpatient care as a percent of their income than do other households. If drugs purchased from sources other than health facilities are included as a cost of outpatient care, households in the lowest quintile spend 13.8 percent of their income on outpatient care, compared with 8.1 percent of income spent by households in the highest income quintile and 10.3 percent of income spent by the entire sample. The data in Table 5 also show that out-of-pocket expenditures on outpatient care are substantially higher than expenditures on inpatient care for all income groups. For households in the lowest income quintile, for example, only 1 percent of household income was spent on inpatient care compared with 7.8 percent spent on outpatient care (excluding drugs). For the total sample, the percent spent on inpatient care was only 0.5 percent compared with 6.6 percent of income spent on outpatient care.

It is possible that cost recovery in MOHP facilities, particularly if the revenue is used to improve the quality of services, may encourage significant numbers of the socially vulnerable to switch from private providers to the MOHP. Since it is likely that MOHP services are less expensive than private services, cost recovery may serve to lower the total expenditures of the socially vulnerable for outpatient care (even though the cost per visit to an MOHP facility may be higher).

4.1.3 The Potential Impact of Cost Recovery Mechanisms on the Socially Vulnerable

Implementing cost recovery as a way to improve the financial viability and the efficiency of public health care provision has sparked heated discussions among government officials and policymakers, and for good reason. Potentially, increases in user fees can decrease health care accessibility and, as a result, decrease both modern health care utilization and the health outcomes of the poor and other socially vulnerable populations. However, these discussions often neglect the fact that current financing policies in Egypt may have an adverse equity effect, as these policies are most often to the advantage of the rich, the urban, and the old at the expense of the poor, the rural, and the young. Evidence of such adverse equity effects in Egypt includes the following:

- ▲ The number of beds per 1,000 population in urban areas, 2.3, is almost 8 times the number in rural areas, 0.3. This is an important reason why the number of inpatient

Table 5

**Percentage of Per Capita Income Spent on Health Care,
by Income Quintiles**

Income Quintiles	Outpatient Care (%)	Inpatient Care (%)	Self-Purchased Drugs (%)	Total (%)	Mean Income (LE)
Lowest	7.8	1.0	5.0	14.0	362
Second	7.1	0.5	3.9	11.5	629
Third	7.4	0.3	3.3	11.0	906
Fourth	5.5	0.2	3.3	9.0	1,308
Highest	5.2	0.5	2.9	8.7	3,456
Total	6.6	0.5	3.7	10.8	1,332

Source: Berman et al., 1995

Table 6

**Total Mean Hospital Expenditure Per Inpatient Stay
by Type of Facility and by Income Group**

Type of Hospital	Income Group		
	Lowest 35%	Middle 55%	Highest 10%
Ministry of Health	66	99	324
Health Insurance Organization	22	26	24
Curative Care	70	257	1,705
Private	496	567	1,553
Community	481	115	1,600

Source: Berman et al., 1995

visits among urban residents, who tend to be wealthier and more educated than their rural counterparts, is more than three times that of residents of Upper Egypt.

- ▲ MOHP hospitals are the preferred provider not only among the poor, but also among those in the middle and upper classes in Egypt. Moreover, the middle and upper classes also rely substantially on government facilities for outpatient care. The consumption of heavily subsidized curative health services by middle- and upper-income groups lessens the equity of Egypt's health system.
- ▲ Household out-of-pocket expenditures in Egypt already account for most (55 percent) of the financing sources for the entire health care system (Department of Planning, MOHP, 1995). In addition, poor Egyptians incur large out-of-pocket expenditures for outpatient care despite the fact that government care is nominally priced. This is a result of higher private care utilization and high private drug purchases.

Given the current utilization and expenditure patterns, we believe that implementing cost recovery has the potential to improve health care accessibility for the socially vulnerable. This improvement in the equity of health care delivery can result through a number of mechanisms. First, if higher user fees are successful in collecting funds from those who are both willing and able to pay for curative services, the MOHP can use funds that are freed up to further subsidize the poor's utilization of primary health care (including MHC services). Second, if funds collected through user fees can be used to improve the quality of MOHP services, modern health care utilization by socially vulnerable groups may actually increase, outweighing any negative effects on demand caused by higher user fees. And third, cost recovery strategies based on price increases and quality improvements may actually decrease total household health expenditures of the socially vulnerable if the reliance on drugs purchased outside the facility declines, if they switch from more expensive private to less expensive MOHP providers, and/or if the impact of health care services on health status improves.

Not surprisingly, international experience and recent research studies demonstrate that increasing user fees alone can have a greater negative effect on the poor than the non-poor (Gertler and van der Gaag, 1990). However, an increasing amount of research based on econometric modeling techniques indicates that the responsiveness of the poor to changes in the price of health care is not very large (i.e., demand is inelastic, so that a given percentage change in price is accompanied by a smaller percentage change in the quantity of health care consumed). Moreover, cost recovery implementation can actually increase health care utilization by the poor and other socially vulnerable groups if MOHP officials package the "right" mix of quality improvements and price increases. Such a positive net effect on utilization from simultaneous price increases and quality improvements is evident from experiments carried out in Cameroon and Niger (see the next sections for more information on the Niger experience), as well as from an increasing amount of empirical research on health care demand in developing countries. Similar preliminary findings have also been obtained by the DDM project (discussed below in section 6).

4.1.4 Conditions Necessary to Help Ensure the Success of Cost Recovery Efforts

In addition to improvements in the quality of services delivered at MOHP facilities (which is discussed in the next section of this report), there are a number of steps that we believe are necessary to ensure the success of cost recovery efforts.

4.1.4.1 Targeting

Protecting the poor population from the potentially deleterious effects of user fees should be an essential part of cost recovery implementation. The analysis reported in this section makes it clear that the incidence of user fees in MOHP facilities would fall disproportionately on the poor, particularly on poor women. With higher user fees, these groups will have to pay proportionately more than other groups (because they use MOHP services more than other groups) and/or, depending on their response to increased fees, they may reduce their consumption of services disproportionately more than those of other groups. The data presented on actual expenditures, as distinct from utilization, show that the poor are not exempted from paying fees, even in MOHP facilities. If fees are to be raised, it is important that more effective means be used to identify and exempt the poor and other socially vulnerable groups from the adverse effects of these fee increases. As fees are increased in MOHP hospitals (and possibly in other types of facilities as well), it will be important to develop effective procedures to "target" remaining subsidies to those who need them the most, i.e., the poor and other socially vulnerable groups.

In selecting targeting mechanisms to protect the poor, planners must weigh the tradeoff between the administrative costs of identifying those who are in need of subsidies and the magnitude of the “leakage” (i.e., providing subsidies to those who do not need them). To provide examples of this tradeoff, consider a geographic targeting plan that waives user fees for an entire community and another plan (means testing) that uses social workers to obtain information on the income status of patients who enter the health care facility. The former plan is characterized by low administrative costs and a high level of leakage, while the latter plan is characterized by high administrative costs and a low level of leakage. Although there are many options besides those mentioned that can be used to target subsidies, the “correct” targeting scheme will be selected keeping in mind this tradeoff as well as recognizing that the socially vulnerable are a heterogeneous population. Accordingly, the most effective scheme for targeting MOHP subsidies to the poor and other socially vulnerable groups may be to combine geographic targeting in rural areas of Upper Egypt with individual means testing in Cairo and other urban areas, where formal sector employment is more common and thus there is a greater ability to verify income levels.

4.1.4.2 Phasing-in Cost Recovery Implementation

In implementing cost recovery programs, health planners should carefully consider the fees charged for different types of health services. Cost recovery is most effective when applied to curative health services. These are the services for which the willingness to pay is highest on the part of consumers (i.e., the services with the lowest price elasticities of demand) and for which private and social benefits tend to be equal (in most cases). Planners should be extremely cautious about implementing user fees for preventative services, where willingness to pay is low, particularly among the socially vulnerable. These services should continue to receive substantial subsidies to encourage their continued utilization by the poor and other socially vulnerable groups. Given these considerations, it probably makes the most sense to introduce fees first in hospitals, particularly for outpatient services (which the analysis above showed are mainly consumed by the urban non-poor). As social insurance coverage increases, cost recovery should be extended to inpatient services, particularly in those categories of hospitals that are used predominantly by higher-income urban households (e.g., university hospitals). In so doing, MOHP officials will be in a position to concentrate their limited resources on PHC services, which the analysis shows are most often used by the rural poor.

4.1.4.3 Awareness of Institutional Factors That May Thwart Success

When designing reform strategies that involve cost recovery, planners should be aware of the economic interests of practitioners and administrators within the MOHP system, and the potential for these interests to thwart the goals of improved financial sustainability, efficiency, and equity in the government health care system. For example, if the economic objective of government practitioners is to maximize their net incomes (as described by the model of physician behavior included in the economic analysis), there is a danger that the resources provided by cost recovery (and by the Program Assistance itself) may be used to make inappropriate quality improvements. An example of this phenomenon can be seen from the experience of the Cost Recovery Programs for Health project, where project funds designated to improve the quality of services generally have been used instead to purchase diagnostic equipment appropriate only for the provision of very specialized services that will most likely be used by a small number of high-income clients. Although such specialized quality improvements may enhance the willingness of high-income patients to pay fees to physicians practicing in these facilities, the opportunity is lost to use cost recovery to improve the quality of services received by the poor and other socially vulnerable groups.

4.1.4.4 Monitoring and Evaluation of Cost Recovery Efforts

To monitor how well cost recovery is working and whether the poor and women are adversely affected, planners should implement monitoring and evaluating systems that can be used to inform program management, strategic planning, and program design. A careful cost recovery evaluation includes both program monitoring and impact assessment. Monitoring is used to determine how well the program is carried out at different levels and at what level of efficiency. Impact assessment measures the extent to which changes in health care utilization, health outcomes, and costs are attributable to the program or to other factors, such as changes in the macroeconomic environment.

In particular, it is very important that the targeting mechanisms used in Egypt be carefully evaluated for their effectiveness by using household surveys to collect data on income and actual health expenditures. Such surveys often find that there is little correspondence between the fees that the poor actually pay to receive government health services and those that they are officially expected to pay. If carefully designed, surveys can also be used to estimate the effect of fees on the utilization of health services by the poor and other socially vulnerable groups. Careful evaluation at the household level is an important element in cost recovery design and implementation.

4.1.5 Conclusions

The effect of cost recovery on the socially vulnerable can not be predicted *a priori*. To quantify the impact on health care utilization and health status, one needs estimates of the relationships between utilization and a number of factors that determine the demand for health care, including user fees, travel time, and quality of care. Such relationships are currently being estimated by the DDM project using data from the 1994 Health Expenditure Survey (discussed below in section 6). Cost recovery's impact on the poor also clearly depends on the effectiveness of targeting strategies (e.g., means testing) and on how the resources recovered are used to improve the quality and cost effectiveness of health services. Nevertheless, international experience suggests that cost recovery has the potential not only to increase the health care system's efficiency and financial viability, but also to improve the quality and accessibility of health care services, resulting in greater health care utilization and improved health outcomes among the poor and other socially vulnerable groups.

4.2 Strengthening the MOHP's Role in the Provision of PHC and Redirecting MOHP Resources from Curative Care to Primary Health Care

We will analyze the potential impact of these sets of reform strategies on the socially vulnerable by trying to answer the following questions:

- ▲ Are the current patterns of resource allocation and provision of health care services (e.g., between curative versus primary health care) not meeting the needs of the socially vulnerable as compared to other groups?

- ▲ If these reforms are enacted, would the socially vulnerable actually increase their utilization of primary health care/preventive services provided by the MOHP, leading to improvements in their health status?
- ▲ What conditions or interventions are required to ensure that these reforms will actually lead to an increase in the utilization of MHC and other cost-effective health services by the socially vulnerable?

4.2.1 The Health Needs of the Socially Vulnerable in Relation to the Current Allocation of Government Health Resources in Egypt

4.2.1.1 The Socially Vulnerable's Health Status and Health Service Utilization

Since it is very difficult to obtain data on health status and unmet health needs for different socioeconomic groups in Egypt, we will examine available health statistics pertaining to the rural population compared with the urban population and to residents of Upper Egypt compared with those of Lower Egypt and of the urban governorates, since the poor, especially women and children, are heavily concentrated in these areas. These observed differences should be viewed against the background of the general improvements in health status that have been achieved in Egypt in the past 20 years. For example, the overall IMR has been cut nearly in half during this period, from nearly 90 per 1,000 live births in 1976 to around 45 in 1988 (Nassar et al., 1992).

Indicators of health status and health service utilization by place of residence are presented in Table 7. They show that residents in the country's poor rural areas suffer disproportionately from higher rates of mortality and morbidity—rates that are comparable to those in countries considerably less developed than Egypt—compared with residents of the wealthier urban areas and governorates. According to the 1994 *Human Development Report* for Egypt, the IMR for rural Upper Egypt in 1989 was 72 per 1,000 live births—118 percent higher than the rate in the urban governorates (33) and nearly double the overall rate for Lower Egypt (38). Mortality from diarrheal diseases and acute respiratory diseases (ARI) account for more than half of infant deaths. The proportion of children under 5 that are malnourished is nearly 18 percent in rural Upper Egypt and almost 16 percent in Upper Egypt as a whole, more than twice the proportion in the urban governorates or in Lower Egypt.

Maternal mortality related to complications of pregnancy and childbirth is the leading cause of death among women of reproductive age in Egypt. Maternal mortality in the poor rural areas of the country is quite high by international standards, revealing a large need for improved health services among poor rural women. The estimated maternal mortality ratio in 1992 for Upper Egypt was 240 per 100,000 live births, which is 62 percent higher than the estimate for Lower Egypt (148) and 30 percent higher than the estimate for Egypt as a whole (184).

The use of primary and preventive health services by women and children in the poorer and rural areas of the country is also quite low and considerably lower than in the wealthier and urban areas. According to 1992 DHS data reported in Table 7, only about 12 percent of reported births in rural Upper Egypt took place in a health facility, compared with 64 percent of births in the urban governorates and 48 percent of births in urban areas as a whole. Only 43 percent of rural women who were pregnant during the 5 years preceding the 1992 DHS made at least one prenatal care visit, compared with nearly 70 percent of those living in the urban areas. Both prenatal visits

and deliveries at health facilities are critical to lowering maternal and infant mortality, and these sharp differentials in utilization rates between urban and rural areas further indicate a large unmet need among socially vulnerable women in Egypt. In addition, despite the fact that immunization coverage rates have improved markedly in recent years, nearly 50 percent of children ages 12 to 23 months in rural Upper Egypt were not fully immunized in 1992, compared with less than 20 percent of children living in the urban governorates.

The preceding analysis points to a large need in Egypt for effective primary health care and maternal and child health care services, especially among those living in rural areas (where the largest concentration of socially vulnerable people live).

4.2.1.2 Where Government Funds Are Going for Health Care

Although there are clearly needs for improved and expanded primary and preventive health services, the allocation of government resources for health in Egypt is heavily weighed towards curative, hospital-, and urban-based care. In 1990/91, the MOHP budget was almost evenly split between the hospital and non-hospital sectors; however, of the total government health budget (including the university hospitals, facilities of other ministries, and the HIO), 63 percent was consumed by hospital services and only 37 percent was allocated to non-hospital services. The MOHP's decline in health spending in recent years has been matched by an increase in funding for university hospitals and the HIO, both of which provide mainly inpatient services to urban populations. Expenditure data assembled by the MOHP's Department of Planning for 3 governorates show an average of only 7 percent of total expenditures being used for direct primary health care and MHC services (including family planning).

A large part of the inefficiency in Egypt's use of health resources is probably due to the heavy spending by the government on relatively expensive but cost-ineffective, hospital-based curative health care at the expense of relatively inexpensive but cost-effective primary health and preventive care, which has a far greater impact on health status. According to Berman et al., 1995, "the perception is widely held that government spends too little on the services that could have a large impact on the population's health status, and too much on those that are less cost-effective in improving health" (p. 11, Annex 2). For instance, Egypt has around 800 kidney dialysis units in the country, 463 of them in the government sector. However, according to estimates prepared by the DDM project, the money spent to gain one "healthy year of life" through renal dialysis (up to LE 36,000) would gain 174 healthy years if spent on immunizations, a highly cost-effective way to prevent illness and save lives (LE 200 per healthy year of life gained). This shows that, even if the government's health spending does not increase from current levels, just reallocating its current budget away from technology-intensive hospital-based services toward cost-effective primary and preventive health care services could have a tremendous effect on the health of socially vulnerable children and women.

Table 7

Indicators of Health Status and Health Service Utilization by Region

Place of Residence	Infant Mortality Rate (1989 adjusted) ^a	Maternal Mortality Ratio (deaths per 100,000 live births), 1992 ^a	Percent of Children Less than 5 Years Underweight, 1991 ^b	Percent of Births Occurring at Health Facility, 1992 ^c	Percent of Pregnant Women Receiving Antenatal Care, 1992 ^c	Percent of Children 12–23 Months of Age Who Are Fully Immunized, 1992 ^d
Urban	41		7.0%	47.9%	68.9%	77.1%
Rural	48		12.1%	14.6%	43.3%	61.7%
Regions:						
Urban	33	174	5.8%	56.2%	63.5%	81.7%
Governorates	38	148	7.5%	23.7%	50.0%	74.4%
Lower Egypt						
Urban	34		7.4%	44.5%	67.5%	83.4%
Rural	39		7.6%	17.2%	43.4%	71.7%
Upper Egypt	67	240	15.7%	17.8%	47.5%	54.8%
Urban	54		8.5%	36.1%	62.0%	63.6%
Rural	72		17.8%	12.2%	43.0%	52.0%
Total	45	184	10.4%	27.1%	52.9%	67.4%

a. Source: Human Development Report, Egypt, 1994

b. Source: 1992 Demographic Health Survey

c. Source: 1992 Demographic Health Survey. Antenatal care defined as at least one consultation during a pregnancy.

d. Source: 1992 Demographic Health Survey. Fully immunized means that children have received BCG, measles, three doses of DPT, and polio vaccines.

4.2.2 The Potential Impact of Strengthening the MOHP's Role in PHC and in Redirecting Resources from Curative to PHC on Utilization of Health Services by Socially Vulnerable Groups: Will They Seek Out and Receive More Health Care, Including Primary Health Care?

Even if the MOHP increases resources allocated to PHC and MHC services, one could argue that many socially vulnerable groups, including poorer rural women and children, will not take advantage of these services since:

- ▲ The socially vulnerable are much less likely than their wealthier, urban counterparts to use formal health services of any kind;
- ▲ People mainly go to health facilities for curative care and not for preventive care;
- ▲ Government services, especially in rural areas, are considered to be of very poor quality, and many people avoid them; and

- ▲ Even the socially vulnerable rely heavily on the private sector for outpatient care and are therefore unlikely to receive PHC and preventive care at government facilities.

However, evidence from Egypt as well as other countries suggests that the poor, even those in remote rural areas, tend to take advantage of good quality health services when available. This evidence includes the following:

- ▲ The demand for outpatient care in the formal health sector, even among the poor and rural residents, is quite high in Egypt. People in rural areas made an average of 3.5 outpatient visits in the year preceding to the 1994 Health Expenditure Survey, and those in rural Upper Egypt made an average of almost 3 visits per year (Berman et al., 1995). Although these utilization rates are considerably lower than those registered by residents of the urban governorates (which averaged 6.25 outpatient visits per year), they do indicate a substantial demand for modern health care services among the socially vulnerable.
- ▲ MOHP facilities remain an important source of outpatient care for the socially vulnerable (e.g, the poor, including women, and rural residents), despite the perceived poor quality of their services. As shown in Table 4, 30 percent of those in the low-income group who reported outpatient visits in the 1994 Health Expenditure Survey made their last outpatient visit to an MOHP facility, compared with less than 15 percent of those in the high-income group. Although more than 50 percent of the low-income respondents used private providers, this was still less than the nearly 60 to 70 percent of those in the middle- and high-income groups who used private providers. Low-income women were also slightly more inclined to use MOHP outpatient services than men in the same income group. Thus, expanding and improving PHC services at the outpatient level at MOHP facilities would especially benefit the poor and women, since they use such services more than other groups do.
- ▲ Experience in some other countries has shown that an increase in utilization of curative public health services can lead to an increase in the use of preventive care services, even among the poor. In Niger, for example, pilot tests demonstrated that combining cost recovery with quality improvements (especially increases in the availability of drugs) led not only to a large increase in the use of curative services at government health clinics, but also to a 10 percent increase in the use of prenatal care services (Yazbeck and Leighton, 1995). In these clinics, providers apparently took advantage of their contacts with patients to persuade them to use preventive and PHC services.

These facts lead us to believe that a redirection of MOHP resources to an increased focus on primary and preventive health services could result in a substantial increase in the use of these services by the poor, including women and rural residents, and ultimately lead to significant improvements in their health status. The MOHP has already demonstrated, through its diarrheal disease control and tetanus toxoid programs, that it can implement preventive health care programs that significantly reduce maternal and child mortality and morbidity in a relatively short time, even in remote areas. To maximize the impact of these policy reform strategies, however, they should be carried out under the conditions discussed below.

4.2.3

Conditions or Interventions Necessary to Help Ensure a Positive Impact on the Socially Vulnerable of Efforts to Focus MOHP Resources on PHC/MHC

- (1) Curative care and PHC services should be offered at the same place and the same time, as Strategy 1.2.4 suggests. Since curative care is the main motive people have for seeking health care, one cannot expect the use of PHC and preventive services to increase significantly if people cannot also receive curative care at the same time and in the same location. This should be especially true for the poor and for women, whose costs in terms of time and travel to health facilities are particularly burdensome. This strategy's importance in increasing PHC/MHC utilization has been demonstrated in Niger and elsewhere.
- (2) Similarly, for the use of government outpatient facilities to increase, especially in rural areas where utilization rates are lowest, there must be a noticeable improvement in the quality of curative care services in primary health facilities. This would be the likely outcome of Strategy 1.2.5 (ensuring adequate allocation of resources), if this reallocation results in substantial increases in supplies of drugs and equipment, as well as a personnel reallocation.
- (3) A further means of improving quality at MOHP outpatient facilities would be to provide PHC and MHC training to physicians and nurses as part of a continuing medical education program, since medical student training still largely focuses on curative, technology-intensive, hospital-based care. This training could focus on the application of standard diagnostic and treatment protocols, on preventive health measures, and on how to carry out health education and communicate with poor rural people.
- (4) Health education and promotion activities should also accompany efforts to focus on PHC/MHC. These should include everything from individual patient counseling to mass media campaigns using radio and television. The efforts to increase awareness of oral rehydration therapy through TV commercials and other mass media strategies are considered to have been an important factor in the success of the Egypt's National Diarrheal Disease Control Program in the 1980s.
- (5) The PHC/MHC improvements should not be carried out at the expense of curative inpatient care, the quality of which must be maintained and preferably improved, particularly in the rural areas where residents have limited access to hospital-based outpatient care.

If these strategies are implemented in such a way as to result in expanded and improved PHC/MHC services in MOHP facilities, they should result in a significant increase in the use of these services among the socially vulnerable, and thus have a positive impact on their health status. In addition, by drawing the poor away from private providers and to free or low-cost MOHP services, these reform strategies should also help lower their total health care expenditures, leaving more funds available for food and other critical needs.

4.3 Reallocate MOHP Resources, Including Personnel and Facilities, to Where They Are Most Needed and Reduce Overall Number of MOHP Personnel

4.3.1 Resource Reallocation

One set of suggested reform strategies focuses on redistributing MOHP resources, particularly personnel, to areas where health care needs are greatest, that is, in areas with the lowest health status indicators and areas that are underserved by the public health system. These areas are generally considered to include the rural areas of Egypt, particularly of Upper Egypt (see Table 7).

Despite the greater unmet health needs in the rural areas, especially in Upper Egypt, MOHP resources are concentrated in the urban areas. This is particularly true of personnel, which absorbs approximately 60 percent of total expenditures. Table 8 shows that the number of doctors per capita in the urban governorates (13.2 per 10,000 population) is 75 percent higher than in either Upper or Lower Egypt. The number of nurses per capita is also considerably higher in the urban governorates and in Lower Egypt than it is in Upper Egypt. MOHP hospital beds are also highly concentrated in urban areas, as expected, but there are also significant regional differences as well. The number of beds per 1,000 population in Upper Egypt is 1.1 compared with 1.4 and 1.3, respectively, in the urban governorates and Lower Egypt. The fact that rural residents are hospitalized at half the rate of urban residents and urban residents of Upper Egypt at two-thirds the rate of urban residents of Lower Egypt (Berman et al., 1995) reflects these differences in the accessibility of inpatient facilities (although the inability of rural residents to pay for services and the differences in quality of care between areas probably contribute as well to these differentials in inpatient care utilization).

Another indication of the extent to which the allocation of government health resources is biased against the poor and residents of rural areas is the large differences in government subsidies per hospital bed between MOHP facilities (often the only source of inpatient care available to rural residents) and university and teaching hospitals (mainly available to urban residents and those in Lower Egypt). Government subsidies per hospital bed in FY 1990 for MOHP facilities were 40 percent lower than those given to teaching hospitals (LE 5.8 thousand versus LE 13.5 thousand) and less than one-third of the subsidies given to university hospitals (LE 19.1 thousand) (Department of Planning, MOHP, 1995).

In addition to a skewed distribution of personnel, facilities, and beds in favor of the urban population and against the socially vulnerable in the rural areas, there also appears to be a large difference in the quality of health care services between urban and rural areas in Egypt. Rural health facilities often lack essential drugs and equipment. They are also the facilities to which the least qualified new medical graduates tend to be assigned to do their compulsory service (Kemprecos, 1993). Anecdotal evidence suggests that people in rural areas enter hospitals only as a last resort (i.e., when they are already very sick). Differences in annual expenditures per bed between MOHP hospitals and those of other providers—which include government subsidies and all other revenue sources (e.g., user fees)—also suggest that there are

Table 8

**Comparison of MOHP Resources
Between Regions in Egypt**

Location	MOHP Service Ratios		
	Doctors per 10,000 population	Nurses per 10,000 population	Beds per 1,000 population
Urban Governorates	13.2	10.2	1.4
Upper Egypt	7.5	8.2	1.1
Lower Egypt	7.6	12.6	1.3
Urban			2.3
Rural			0.3
Total	9.2	12.1	1.2
<i>Source: Berman et al., 1995</i>			

large differentials in the quality of inpatient services available to rural residents compared with urban populations, although such differences can also reflect differences in service delivery efficiency. Annual expenditure per bed in MOHP hospitals is only around one-third of what it is in private hospitals (LE 5,966 versus LE 17,231) and around one-quarter of the per bed expenditure in university hospitals (LE 21,789) (Berman et al., 1995).

The fact that the existing distribution and quality of government health resources is so uneven in Egypt suggests that redistributing MOHP resources to underserved areas could have a substantial positive impact on the health of the socially vulnerable living in the areas benefiting from such a redistribution. Basing resource allocation, including personnel, on health status indicators and assessments of unmet need (Strategies 1.3.2 and 1.4.2), together with targeting government subsidies toward the poorer populations (Strategy 1.4.4), would begin to reverse the existing bias toward better-off urban populations. The redistributed resources would be additionally effective, in terms of their impact on health, if they were directed mainly toward expanding and improving PHC and MHC services, which are more cost-effective in preventing and treating the diseases and health conditions that predominate in the rural areas (e.g., diarrhea, ARI, malnutrition). Using some of these resources to train volunteer, community-based village health workers, as UNICEF has done in the Assiut governorate, could be a cost-effective way to improve the accessibility of PHC/MHC services in underserved areas.

For these strategies to have the maximum effect on the health status of those living in underserved areas, it is also critical that some additional resources be made available to these areas and used to purchase drugs and needed equipment and make other much-needed improvements in the quality of services. These quality improvements will be essential in not only increasing the effectiveness of MOHP services, but also in attracting the population to MOHP facilities. Another important way to improve the quality of services in the rural and underserved areas would be to provide additional training to medical personnel working in these areas, given that they are often less qualified than their urban-based colleagues.

Two specific reform strategies—to provide incentives for MOHP personnel (1.3.4) and for other (including private) personnel to work in underserved areas (1.4.3)—could also have a positive impact on the quality and availability of health services in these areas. These incentives, which might include salary supplements (such as “hardship pay”) or funding for additional professional training, could attract more experienced and qualified doctors to areas where they are needed most. As the job market for physicians becomes tighter with the elimination of guaranteed employment for all medical students, these incentives could become increasingly attractive to physicians and thus serve as an effective inducement in getting physicians and nurses to work in underserved areas.

There are, however, several constraints to the effectiveness of these strategies. One is that physicians in Egypt, as in the United States and most other countries, are reluctant to work in isolated rural areas, far from the amenities of urban life and culture. Another constraint is that female physicians, who now make up 20 to 25 percent of all doctors in Egypt, are typically exempted from having to carry out their compulsory (postgraduate) service in rural Upper Egypt, given the harsh conditions under which they would live and work. Therefore, a health care source that rural women may find more culturally acceptable, especially for reproductive health services (e.g., obstetric deliveries), and thus a means of increasing their utilization of such services is usually not available to them. In addition, an incentive program to encourage doctors to move to underserved rural areas would put female physicians at a disadvantage, given the difficulties they would face working in these areas.

4.3.2 Reducing the Number of MOHP Personnel

Two reform strategies are aimed at reducing the number of MOHP personnel overall and thus the proportion of the total MOHP budget going to salaries. Strategy 1.3.1 would end guaranteed government employment for new medical school graduates, which is a major reason for what is considered to be a general oversupply of doctors in Egypt and for excessive employment of physicians by MOHP in particular. Strategy 1.3.3 would reduce MOHP manpower overall by not replacing retired workers and others who leave the system through attrition. Half of the ministry’s total expenditures and 60 percent of its recurrent expenditures go to salaries, according to the report on the National Health Accounts (Department of Planning, MOHP, 1995). The overemployment of physicians puts a considerable burden on the MOHP’s budget and severely constrains its ability to provide the system with adequate supplies of drugs, equipment, and medical supplies.

As noted earlier, 1994 Health Expenditure Survey data show that the poor rely much more heavily on MOHP services than do better-off groups. Sixty-three percent of those in the lowest income group (lowest 35 percent) who last sought inpatient care went to an MOHP hospital compared with around 40 percent of those in the highest income group. Similarly, 31 percent of those in the low-income group who visited outpatient facilities used the MOHP’s services, versus less than 15 percent of those in the highest income group.

Thus, efforts to reduce the MOHP’s salary burden could have the greatest positive impact on the poor, including those in rural Upper Egypt, particularly if the resources saved are used to improve the accessibility and quality of primary health care and preventive (e.g., MHC) services and purchase adequate supplies of drugs and equipment for facilities in the underserved areas. Some savings from personnel reductions could also be used to increase salaries of the remaining MOHP physicians and nurses, since their salaries are currently extremely low (with a base salary of around LE 100 per month). The low salaries received currently by MOHP

physicians and other medical personnel provide little incentive to them to work hard; they also force most of them to set up a private practice on the side.

The negative effect of reducing MOHP personnel would be the unemployment that would occur as a consequence of government layoffs. The effects of layoffs and subsequent unemployment might fall most heavily on female physicians, who would be more vulnerable to layoffs since they tend to be younger and have less seniority than their male colleagues. They would also be hit disproportionately if guaranteed employment of new medical school graduates were to end suddenly.

4.3.3 Conclusions

In summary, reform strategies aimed at reallocating MOHP resources to the most needy groups and areas in Egypt could go a long way to redress the current health care system's inequities and benefit the socially vulnerable, provided that they focus on the provision of PHC and other cost-effective services, and that the quality of care in the MOHP's facilities is simultaneously improved. The personnel reforms may, however, adversely affect female physicians and health workers more than their male colleagues.

4.4 Improving the HIO and Extending Social Health Insurance to Universal Coverage

One set of reform strategies (under 2.0) deals with improving the HIO by (1) putting it on a sound financial footing, (2) transforming it into a financing organization, and (3) expanding social insurance (either the HIO or a new program) to cover the entire population. For the purpose of this analysis, we will view insurance mainly as a means to finance necessary hospital care. We will analyze the potential impact of these insurance reforms on socially vulnerable groups by trying to answer the following questions:

- ▲ To what extent are the socially vulnerable, especially poor women and children, currently covered by the HIO and to what extent are these beneficiaries using its services?
- ▲ Are a significant number of the poor, women, and other socially vulnerable who need to be hospitalized not receiving inpatient care because of inadequate financial resources or other reasons?
- ▲ Would expanding social insurance improve the health status and financial position of the socially vulnerable?
- ▲ What additional steps or strategies would be required to ensure the above outcomes?

4.4.1 Current HIO Enrollment and Use by Socially Vulnerable Groups

By law, the HIO covers three groups of individuals: (1) government employees, (2) industrial workers in both the public and private sectors, and (3) widows and pensioners. In 1992, there were 4.9 million HIO beneficiaries (9.1 percent of Egypt's population). In addition, the Student's Health Insurance Program, which began in 1992, offers health insurance to all school children. Although the number of covered school children alone is expected to number approximately 14 million when the program is fully implemented (about 25 percent of the total population), these two social insurance programs together currently cover only about 22 percent of Egypt's population.

Since the HIO mainly covers government employees and workers in the formal sector, it excludes most of the poor, who tend to work in agriculture or in the informal private sector. Women are also less likely to be covered than men, since a greater proportion of them work in the informal sector and since the HIO does not cover dependents of beneficiaries. Although the new school health insurance program should help extend health insurance coverage to many poor children, a significant portion of the poorest children will not be covered, since they are less likely to be in school than better-off children. For example, it has been estimated that 27 percent of rural children 6 to 14 years of age are working and not in school, compared with only 11 percent of urban children (DHS 1992, cited in Nassar, 1995). Girls, particularly those from poor families, will also benefit less from the school insurance program than boys, since only 41 percent of girls complete primary education compared with 75 percent of boys (World Bank, 1991, cited in Nassar, 1996).

Table 9 shows the percent of the population covered by the HIO by region, as well as the number of HIO beds per beneficiary. The coverage rates in the two urban governorates (Cairo and Northwest Delta, which includes Alexandria) are more than double the rates of Upper Egypt (12 and 16 percent, respectively, compared with 6 percent). These differences in coverage rates by region are not surprising, given that government and formal sector employees are concentrated in the urban areas. Although the HIO's 25 hospitals and 116 clinics are distributed throughout the country, about half of the beds available through its facilities are located in the urban governorates and the number of beds per beneficiary is somewhat higher in the urban governorates compared to other regions (see table).

Data from the 1994 Health Expenditure Survey also demonstrate that social insurance in Egypt disproportionately benefits urban-based and better-off populations. Half of all low-income (lowest 35 percent) households reported having some sort of health insurance for at least one of its members, compared with three-quarters of households in the middle- and high-income groups. And for the vast majority (75 percent) of low-income persons, it was SHIP membership that was reported, which covers only children attending school.

The data on HIO membership and the distribution of HIO resources suggest that HIO membership benefits middle- and upper-income groups more than it does the socially vulnerable. When the HIO runs a deficit, as it does currently, the GOE funds used to finance the deficit are effectively a subsidy to the predominantly middle- and upper-income groups that belong to the HIO. Eliminating the HIO's deficit (strategy 2.1), thereby freeing up additional GOE resources to be invested in primary and preventive health care, ought to benefit the poor and other socially vulnerable groups.

Branch	Number of Beneficiaries (000's)	Population (000's)	Coverage Rate (percent)	Number of HIO Hospital Beds	Beds/1,000 Beneficiaries
Cairo	807	6,588	12.2	1,215	1.5
Northwest Delta	1,132	7,090	16.0	1,285	1.1
Lower Egypt					
Canal and East Delta	1,050	13,105	8.0	901	0.9
Middle Delta	716	7,688	9.3	449	0.6
Upper Egypt					
Giza and North Upper Egypt	675	10,541	6.4	682	1.0
Assiut and South Upper Egypt	515	8,908	5.8	419	0.8
TOTAL	4,895	53,920	9.1	4,949	1.0
<small>Sources: DOP, HIO, and CAPMAS, cited in Department of Planning, MOHP (1995) and Kemprecos, 1993</small>					

Even for those socially vulnerable that are HIO beneficiaries, the quality of care that they receive is perceived by most people to be rather poor. The HIO has a reputation for “crowded clinics with doctors who either cannot take the time or will not make the effort to treat patients respectfully, and poor management of resources, which means that HIO cannot cover its costs, and runs out of supplies” (Kemprecos, p. 12). As a result, those who have the option to do so often choose not to use its services. Poorer beneficiaries have fewer options, being able to choose between the poor HIO services and even poorer quality MOHP services. Analysis of the 1994 Health Expenditure Survey data indicates that, on average, about 75 percent of households in the low-income group (lowest 35 percent) reported that they use the services provided by their employer’s health insurance program (e.g., the HIO), while only about 60 percent of those in the highest (10 percent) income group reported using theirs.

4.4.2 Are the Socially Vulnerable Not Receiving Needed Hospital (Inpatient) Care?

One of the best arguments for having a national health insurance program is to ensure that no one, regardless of socioeconomic level or employment status, is prevented from having necessary inpatient care because services are not physically accessible or are not affordable.

One indication of whether the socially vulnerable are in fact receiving needed inpatient care is to compare their hospitalization rates with those of better-off groups. The 1994 Health Expenditure Survey data show that the annual number of hospital stays per person among those in the lowest income quintile (0.022) is half the number of visits made by those in the two highest income quintiles (.041 and .044). Differentials by region are even greater. For example, the annual number of hospital stays per person is 0.0576 in the urban governorates, compared with 0.0212 in

rural Upper Egypt (Berman et al., 1995). These differences may be due in part to unnecessary care given to the better-off and urban-based populations who have greater access to care and can more easily afford it. However, some observed differences are also likely to be because the poor, especially in rural areas, are not receiving needed inpatient care.

Further analysis of the 1994 Health Expenditure Survey data by income group reveals that only 28 percent of respondents in the low-income group who said they were in need of inpatient care in the last 12 months received it, compared with 34 percent of those in the middle-and high-income groups. However, there were no significant differences in the proportions needing inpatient care and not receiving it between men and women.

The most commonly cited reason for not receiving needed inpatient care was its high cost. This was mentioned by more than 60 percent of those in the low-income group, compared with 52 percent in the middle-income group and 40 percent in the high-income group. Although the poor are theoretically exempt from paying for care in MOHP and CCO hospitals, they do in fact pay, primarily for medicines and such services as X-rays and laboratory tests. Because of MOHP budget decreases in recent years, drugs that used to be available through MOHP facilities at highly subsidized rates are no longer available, and public hospital patients are regularly provided with a list of drugs and supplies that they must buy before coming to the hospital for treatment (Kemprecos, 1993).

According to the data presented above (Table 6), the poor paid an average of LE 66 per hospital stay at MOHP facilities and LE 70 at CCO hospitals. These amounts are the equivalent of more than one month's salary at the minimum wage rate (LE 60 per month). According to Berman et al. (1995), a single hospitalization episode costs a household an average of LE 294 in urban Egypt and LE 228 in rural Egypt, although this includes all income groups and all types of hospitals (such as more expensive university hospitals). Cost is therefore an important barrier to the most socially vulnerable in Egypt receiving needed inpatient care.

Other common reasons given by respondents of the 1994 Health Expenditure Survey for not receiving needed inpatient care were that they did not have the time to be hospitalized and that the quality of care was poor. Interestingly, distance from the hospital was not a common reason given for not consuming inpatient care, even among those in the low-income group.

4.4.3 Conclusions: Would Expanding Social Health Insurance Really Help the Socially Vulnerable?

If a national health insurance program is properly designed, the answer to this question is yes for a number of reasons. First, as has been shown in the United States and elsewhere, including Egypt, that people with health insurance are more likely to seek medical care than those without insurance. For instance, the mean annual number of outpatient visits per person in the 1994 Health Expenditure Survey was 28 percent higher among individuals who were insured than among those without insurance (4.83 versus 3.77) (Berman et al., 1995). Second, most of the socially vulnerable are not currently insured—even the school health insurance program will not reach a significant proportion of the poorest children and of girls who are not able to go to school. Therefore, a program providing universal coverage would significantly decrease the gap in health care utilization, especially inpatient care, between the poor and better off, between rural and urban residents, and between women and men (and girls and boys).

Several proposed reform strategies would help ensure that a national health insurance program is well designed and would benefit the socially vulnerable in Egypt. Ensuring the viability of the HIO by reducing its deficit, developing an appropriate benefits package, establishing premiums and co-payments based on actual costs, and contracting services out and allowing beneficiaries to choose providers would be necessary steps to take before the government should be willing to embark on an ambitious and potentially costly program of universal health insurance. To protect the poor, however, both the HIO and the eventual national health insurance program should include an exemption system or a sliding scale for premiums and co-payments. Such a system might include charging premiums and co-payments above costs for the wealthiest beneficiaries to cross-subsidize the health care of poorer beneficiaries. Alternately, the health insurance cost for the poor might be subsidized out of general tax revenues.

The strategies that call for separating HIO financing from the provision of health care, which would involve the insurance program contracting with providers and allowing beneficiaries to choose among providers, would potentially benefit the socially vulnerable by improving the quality of care and increasing their utilization of health services. These effects have been demonstrated in Ismailia, where an HIO experiment allowing a portion of beneficiaries to receive outpatient care from the Suez Canal University's group practice resulted in a substantial increase in utilization of outpatient services (Kemprecos, 1993). Given the relative shortages of MOHP and other government facilities in some rural areas, contracting-out for services would have to include private providers and facilities as well.

5.0 Summary of the Impact of Proposed Health Sector Reforms on the Socially Vulnerable

Table 10 presents a matrix listing the proposed reform strategies, their main effects on the socially vulnerable, and the actions and conditions that should be considered to maximize the positive effects and minimize the negative effects on the socially vulnerable in Egypt.

Table 10
Summary of Impact of Suggested National Health Sector Reform Strategies on the Socially Vulnerable

Reform Strategy	Main Resulting Effect/Action	Conditions/Requirements to Ensure Positive Impact on the Socially Vulnerable; Major Issues to Consider
1.1.2 Transfer existing hospitals to other parastatal organizations.	Cost recovery	<p>Cost recovery will have a negative impact on the poor unless (a) an effective and fair means testing policy is put into place and well implemented, and (b) the quality of services (e.g., drug supplies) at the MOHP facilities is greatly improved, which should lead to an increase in utilization, offsetting the negative impact of fees.</p> <p>Cost recovery should be implemented primarily for curative hospital services (particularly for outpatient care, which is used very little by poor rural groups), to decrease government subsidies and resource allocation to curative services. Cost recovery could later be phased in at the PHC level.</p> <p>The PHC level focus should be on increasing utilization, especially among women and in the rural areas. Cost recovery should not be attempted, therefore, until quality improvements are made at PHC facilities to prevent a utilization decrease among the most vulnerable.</p>
1.1.3 Expand cost recovery in government facilities.		
1.1.4 Allow private practitioners to use the MOHP facilities.		
1.1.5 Allow hospital autonomy.		
1.1.7. Examine (test) the cost recovery of curative services at the PHC level.		
1.1.1 Stop the construction of unnecessary hospitals and set strict guidelines for the completion of facilities under construction.	Redirecting MOHP resources from curative care to PHC/MHC	<p>Quality of PHC should be noticeably improved, including improvements in the availability of medicines, equipment, and supplies.</p> <p>Curative services should continue to be provided in PHC facilities because some types of curative care are cost-effective (e.g., ORT, ARI) and because it brings patients in regular contact with primary health providers.</p> <p>MOHP inpatient care should not be allowed to deteriorate with a renewed focus on PHC/MHC, since MOHP hospitals are the main source of inpatient care for the socially vulnerable.</p>
1.2.1 (Also 1.4.5) Use cost-effectiveness analysis to identify a package of essential preventive medicine and PHC services to be supported by the MOHP to which every Egyptian is entitled.		
1.2.2 Increase emphasis on MHC programs.		<p>Health education and promotion activities should accompany all major efforts to focus on PHC/MHC.</p>
1.2.3 Provide incentives for health care providers to specialize in preventive medicine, PHC, and family medicine.		

Table 10
Summary of Impact of Suggested National Health Sector Reform Strategies on the Socially Vulnerable

Reform Strategy	Main Resulting Effect/Action	Conditions/Requirements to Ensure Positive Impact on the Socially Vulnerable; Major Issues to Consider
1.2.4 Do not separate curative services from PHC services at the PHC (outpatient) level.		
1.2.5 Ensure adequate allocation of resources (e.g., personnel) at the PHC level.		
1.3.3 Reduce the overall number of MOHP personnel.	Reallocating MOHP resources to where they are most needed and reducing MOHP personnel (continued)	Overall, these strategies should have a positive impact on the socially vulnerable.
1.3.4 Provide incentives for the MOHP personnel to serve in underserved and remote areas.		<p>Reallocating medical personnel to rural areas could hurt female doctors disproportionately, since they are less willing to work in rural areas.</p> <p>Female doctors would also be expected to receive a less than proportionate share of relocation incentives, since it is anticipated that fewer female physicians will choose to serve in the rural areas.</p> <p>Reductions in personnel would negatively affect younger, newer physicians and those who lack “connections.” Female doctors might especially be affected, since they tend to be younger and have less seniority and because of traditional attitudes which value female employment less than male employment.</p>
1.1.6 Support hospitals based on efficiency indicators such as on a per capita, per bed basis.	Reallocating MOHP resources to where they are most needed and reducing MOHP personnel	Instead of or in addition to ending guaranteed employment for all medical graduates, GOE needs to reduce medical school classes to a level that can be absorbed by the health sector.
1.4.2 Prioritize the allocation of MOHP resources based on needs using health status indicators.		

Table 10
Summary of Impact of Suggested National Health Sector Reform Strategies on the Socially Vulnerable

Reform Strategy	Main Resulting Effect/Action	Conditions/Requirements to Ensure Positive Impact on the Socially Vulnerable; Major Issues to Consider
1.4.3 Create incentives for other health care providers to function in the underserved areas.		
1.4.4 Target GOE subsidy to poor and indigent populations.		
2.1 Ensure the HIO's viability (by eliminating the deficit, not adding any new groups of beneficiaries, developing premiums and co-payments based on actual costs, identifying and adopting an affordable health benefits package, etc.).	Improving and expanding national insurance	Need to have a system of exemptions or sliding scale for premiums and co-payments so poorer beneficiaries can afford to obtain insurance and to use services.
2.2 Transform the HIO into a financing organization (by developing mechanisms to contract out services, allowing beneficiaries to choose service providers, stopping construction of new HIO hospitals, and selling or transferring existing HIO facilities to the private or parastatal sectors).		<p>These strategies could increase the utilization of services, including among poorer beneficiaries and women.</p> <p>If system can actually lead to accessible health care of acceptable quality for the majority of Egyptians, this would greatly benefit the socially vulnerable (including the poor, women, and school-aged children not attending school), since, at present, they receive fewer and poorer quality services, and are less likely be to insured than the rest of the population.</p>

6.0 Further Analysis to Conduct from Existing Data

Several recent surveys can potentially provide much relevant information on the likely impact of health reforms on the socially vulnerable. Analysis of these data sets has only just begun in some cases and is fully under way in others. These surveys include:

- ▲ the 1996 CAPMAS budget survey;
- ▲ the 1996 DHS, including the new women’s module; and
- ▲ the 1995 Poverty Study.

As policy reform proceeds, it is important that the results of these analyses be examined carefully for any possible implications they may have for the reform’s impact on the socially vulnerable.

The DDM project is in the process of preparing an econometric analysis of the demand for health services using data from both rounds of the Health Expenditure Survey. In particular, this study is concerned with the factors (including quality of care) that determine the choice of a public versus a private sector provider and the tradeoffs between price and quality in patient demand for health care (including how this varies by income level). The results of this analysis will be important in formulating cost recovery policies that benefit the socially vulnerable. The preliminary findings from this analysis suggest that household income and quality of care (as perceived by the patient) are major determinants of the public-private provider choice, while price plays a comparatively minor role. If these preliminary findings hold up to further analysis, they are extremely relevant to cost recovery. For example, one set of preliminary simulations suggests that simultaneously improving public facility quality to the “best” category while raising the public price by 40 percent actually results in an *increased* proportion of consumers selecting a public provider.

The DDM project is also proceeding with a cost-effectiveness analysis of alternative health interventions in Egypt. The results of this analysis will be important for a variety of policy reforms including (1) the pricing of individual services in a cost recovery program so that consumers are encouraged to utilize cost-effective health interventions, (2) the design of a minimum package of cost-effective health interventions to which all Egyptians should have access, and (3) the definition of a minimum benefits package for social insurance.

Another useful study would be to analyze the incidence of benefits and costs of the Egyptian health system to estimate the value of the net subsidy in the form of health care that each income group currently receives from the GOE budget. A better understanding of who benefits from the current system—and the sources of these benefits and how they vary by income group—would greatly facilitate the formulation of policy reforms that produce the greatest net gains for the socially vulnerable.

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