POLICY NOTE 9

Health

Egypt Public Expenditure Review

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Human Development Department
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About this Policy Note

This Policy Note was prepared by Sameh El-Saharty, Senior Health Specialist, and Akiko Maeda, Health Sector Manager, Middle East and North Africa (MENA) Region, with contributions from Cristian Baeza, Lead Health Specialist, Latin America and Caribbean Region; Nihal Afifi, Health Management Consultant; Khaled Nada, Health Research Analyst; Heba Nassef, Economist; Amira Fekry, Data Analyst; Miho Tanaka, Health Specialist; and Sahar Hegazy and Maissa Abdel Rahmane, Research Assistants. The report was prepared with guidance from Richard Allen, Lead Public Sector Specialist, MENA Region. The peer reviewers were George Schieber, Senior Adviser, Health, Nutrition and Population Network; and Jack Langenbrunner, Senior Health Economist, Europe and Central Asia Human Development Department. Annex 1 was prepared by Cristian Baeza, Lead Health Specialist, Latin America and Caribbean Region, World Bank.

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For a list of other policy notes in this series, see http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/MENAEXT/EGYPTEXTN/0,,contentMDK: 20601542~pagePK:141137~piPK:141127~theSitePK:256307,00.html.

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Acronyms and abbreviations

CCO	curative care organization
EHHUES	Egypt Household Health Service Utilization and Expenditure Survey
EU	European Union
FONASA	Chilean National Health Fund
GDP	gross domestic product
HIO	health insurance organization
ISAPRE	Chilean Private Health Insurance Organization
LE	Egyptian pound
MDG	Millennium Development Goals
MENA	Middle East and North Africa
MoF	Ministry of Finance
MoHE	Ministry of Higher Education
MoHP	Ministry of Health and Population
MoSA	Ministry of Social Affairs
NGO	nongovernmental organization
NHA	National Health Accounts
NHIF	National Health Insurance Fund
OECD	Organisation for Economic Co-operation and Development
PASIP	Public Authority for Social Insurance and Pension
PATHI	Public Authority for Teaching Hospitals and Institutes
PER	Public Expenditure Review
PTES	Program of Treatment at the Expense of the State

1 Introduction and background

The Public Expenditures Review (PER) of the health sector was prepared in response to a request from the government of Egypt as part of a broader PER work that covers other sectors. This Policy Note is intended to inform government policymakers of the key findings from the PER and recommend strategies for improving the efficiency, equity, and sustainability of public financing in the health sector, with a special emphasis on expanding the coverage of social health insurance—a major plank in the health reform strategy announced by President Mubarak in July 2005. This section provides background information. The next section presents a summary of health outcomes, trends, and financing in Egypt; an analysis of inequities in the allocation and utilization of health resources; and an assessment of the efficiency of the delivery of health services. The third section summarizes existing government policies toward the health sector. The fourth section proposes strategies and recommendations for expanding social insurance coverage and enhancing incentives to deliver health services more efficiently and effectively.[1]

Egypt has a pluralistic health system, consisting of a number of parallel public and private health care delivery systems and multiple financing intermediaries. Total spending in the sector is dominated by direct out-of-pocket payments by households, which account for more than half of all health expenditure in Egypt. About 30 percent is financed through the government budget and another 10 percent through the social insurance contributions. Private health insurance contributes less than 1 percent of the total health spending in the country. From these figures, it is evident that the level of risk pooling and financial protection against an adverse health event available to the Egyptian citizen is limited.

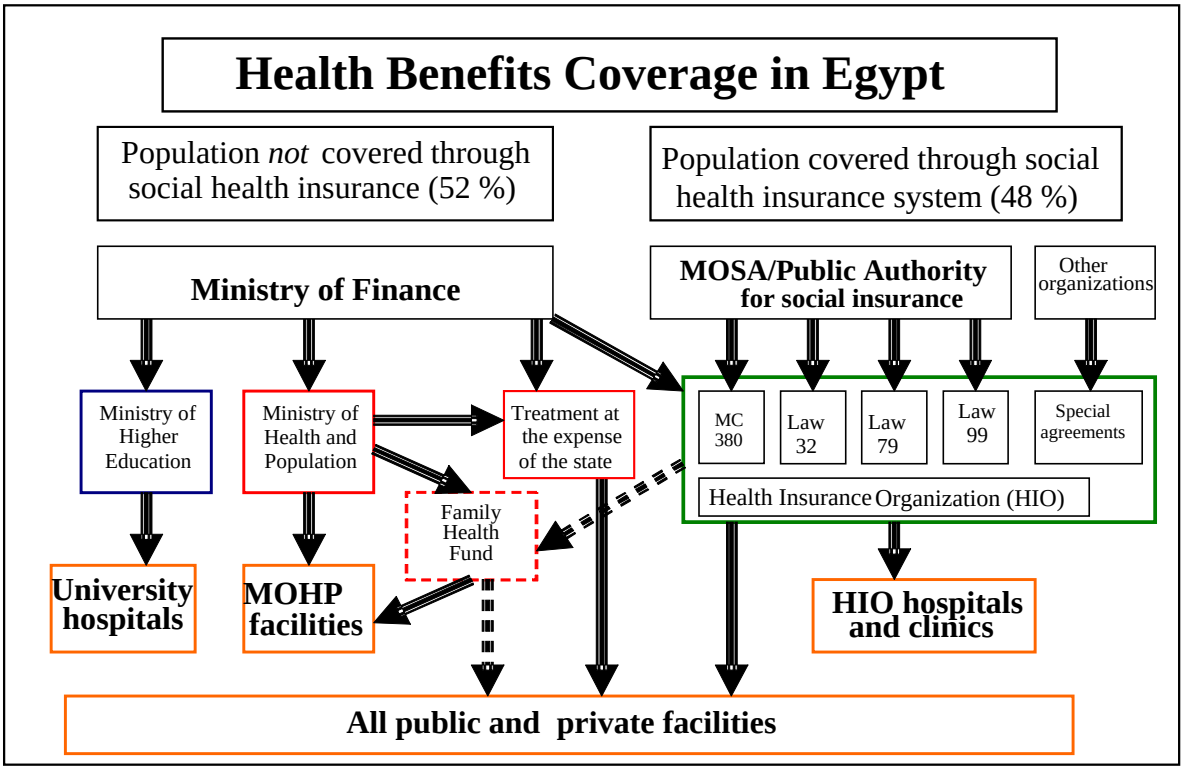
Table 1 Distribution of health expenditures by financial intermediaries, 2004

Financing intermediaries	LE million	Percent
Government budget[a]	7,927	29.5
of which special treatment at the expense of the state[b]	1,323	4.9
Social insurance (PAHI)[a]	2,020	7.5
Household (direct out of pocket)[c]	16,703	62.2
Private insurance[d]	169	0.6
Others[a]	54	0.2
Total	26,873	100

a. Ministry of Finance (MoF) expenditure data for Government and Economic Authorities for FY 2004.
b. MoHP website: http://www.mohp.gov.eg.
c. EHHUES 2002: estimated for 2004 based on linear extrapolation from household expenditures in 2002.
d. National Health Accounts 2002: estimated for 2004 based on assuming a constant coverage rate.

On the public side, the health coverage for the Egyptian population is provided through a combination of social health insurance and subsidized government health services (figure 1). Social health insurance coverage provided through the Health Insurance Organization (HIO) covers about 48 percent of the population, which includes one-third of the active labor force. The bulk of the population under HIO coverage (80 percent) is schoolchildren and infants. The Ministry of Health and Population (MoHP) and other government agencies operate a nationwide network of government health care providers, and these function as an “insurer of last resort” by providing free or substantially subsidized health services to the citizens not covered under HIO. Over the past decade, the MoHP has significantly expanded the Program of Treatment at the Expense of State (PTES), which extends financial assistance to all Egyptian citizens for expenses incurred for government spending on health care in the past 10 years.

Figure 1 Health benefits coverage in Egypt, 2005



Source: MoHP and World Bank staff.

The public sector is divided into Government Authorities and Economic Authorities.[2] The health care institutions falling under the category of Government Authorities include the administrative offices and health care facilities operated under MoHP, which includes the central headquarters in Cairo, health directorates in the 27 governorates, and the Specialized Centers for Medical Care and Cancer Treatment. The investments into these Specialized Centers, established in 2001 under the MoHP, comprise a network of about 34 tertiary hospitals, and they have contributed to a major increase in the capital and operating expenditures of the MoHP. These services are partly reimbursed through the PTES. In addition, the Government Authorities include the hospitals operated by the Public Authority for Teaching Hospitals and Institutes (PATHI), which runs nine specialized research institutes and nine large teaching hospitals, and the university hospitals managed by the Ministry of Higher Education (MoHE), which play a key role in medical education and training and clinical research.

Health care institutions falling under the category of Economic Authorities include the HIO and the Curative Care Organizations (CCOs). The HIO was established in 1964 after the enactment of Health Insurance Law 61, which conferred to HIO a historic mandate to cover all Egyptians with social health insurance. However, four decades later this objective has not been achieved. At present, HIO manages several separate compulsory social health insurance programs for formal sector workers, pensioners, widows, and schoolchildren, and for infants, who are covered on a voluntary basis by a decree. The HIO has 13 regional branches and operates a nationwide network of health facilities for its beneficiaries. It also contracts with public and private providers to extend services for its beneficiaries that it is unable to provide within its own network. More specifically, HIO contracts with individual doctors to work in its facilities (about 25 percent of total staff), as well as with public and private providers and pharmacies to serve the

health care needs of its beneficiaries. Contracting and outsourcing make up about one-third of total HIO expenditures. Thus, in its present form the HIO functions both as a purchaser and a provider of health care services for its beneficiaries.

CCOs were also established in 1964 as autonomous organizations to run nationalized hospitals. The first two were founded in Cairo and Alexandria; four more were founded in the mid 1990s. However, in 2000 three were closed and their hospitals transferred to the MoHP, thereby reducing the overall importance of CCOs in the delivery of health services. It is worth noting that while the size and scope of health care providers operating as Government Authorities has expanded over the past decade, the number of health care providers operating as Economic Authorities has declined.

2 Main findings

Trends in demographic and health outcomes

Overall health outcomes have improved significantly but regional disparities remain. Over the past decade, Egypt has achieved significant reductions in infant, child and maternal mortality rates (table 2). These health improvements are probably attributable to a combination factors, including improved access to basic health services, hygiene, and safe drinking water and higher educational attainment of mothers. If these trends continue, Egypt is likely to achieve the health-related Millennium Development Goal (MDG) by 2015.

Table 2 Trends in infant, child, and maternal mortality, 1992 and 2003

Mortality	1990	2003
Infant mortality per 1,000 live births	76	33
Under-five mortality, per 1,000 live births	104	39
Maternal mortality ratio per 100,000 live births, model estimates	170	64

Source: Infant mortality and under-five mortality figures from United Nations Children's Fund, Maternal mortality figures from national maternal mortality studies.

Yet significant disparities in health outcomes persist by regions. For example, in 2003 infant mortality rates in the rural regions were 51 per 1,000 live births, compared with 34 per 1,000 live births in the urban regions—a 50 percent difference (table 3). One positive trend is that the magnitude of the rural/urban disparities in infant and child mortality rates has been diminishing over the past decade. But in selected subregions, it is likely that the MDG targets for health will not be met.

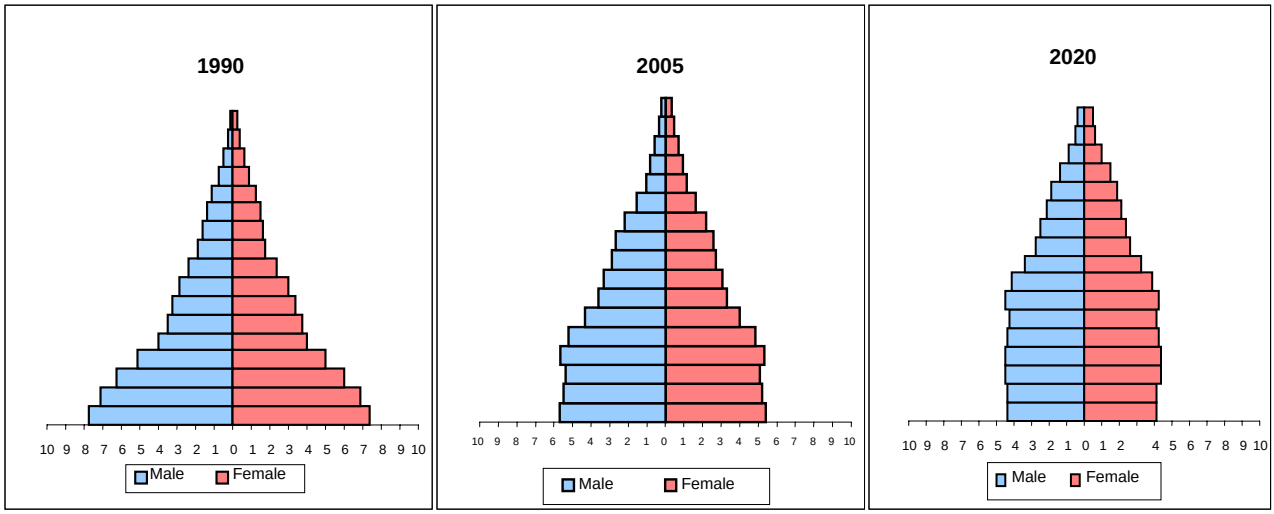
Table 3 Rural/urban inequities in health outcomes, 1992 and 2003

Health inequality	1992	2003
Disparity in infant mortality rates (ratio of rural/urban rates)	1.77	1.51
Disparity in under-five mortality (ratio of rural/urban rates)	1.85	1.48

Source: Calculated from Egypt Demographic Health Surveys, 1992 and 2003.

Egypt is in the midst of a demographic and epidemiologic transition. In the past two decades, substantial investments in family planning programs, higher educational achievements of women, and later age of marriage have contributed to a significant reduction in fertility and population growth rates in Egypt. Specifically, between 1980 and 2002 total fertility rate[3] fell from 5.1 to 3.1. The use of modern contraception rose from 24 percent to 60 percent over the same period. Despite the deceleration in the population growth rate the population will continue to grow, from 70 million in 2005 to 90 million in 2020, because of demographic momentum. At the same time, a large cohort of youths will enter the labor market and the aging population will double in the coming decade (figure 2). The aging and urbanization of the population will also lead to a substantial transformation in the epidemiological profile of the population, as a growing share of the disease burden will shift from communicable diseases to noncommunicable diseases and injuries. Treatment of these diseases will require investments in new technologies and procedures, which in turn will lead to substantial increases in per capita expenditures on health care.

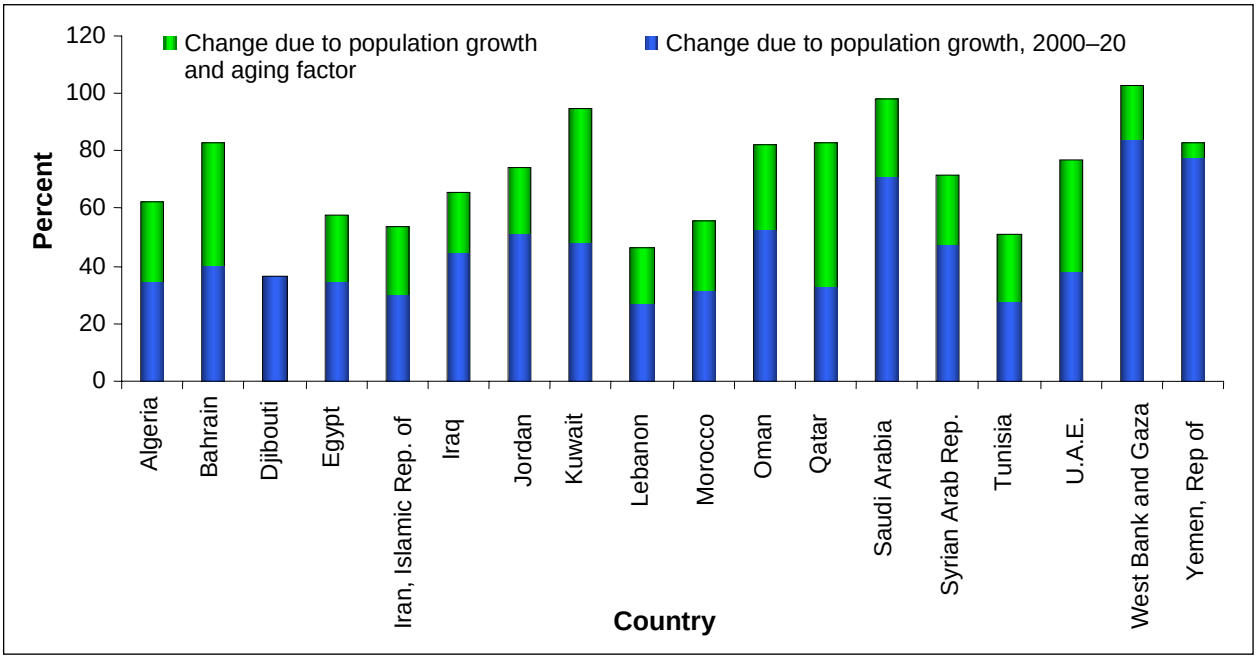
Figure 2 Population pyramid of age-gender structure of Egypt, 1990, 2005, and 2020



Source: World Bank, 2005.
Note: Age scale increases in four-year increments per block from ages 0–4 at the bottom to ages 80 and older at the top.

Growth in population between 2000 and 2020 in Egypt is projected to add 34 percent, and the aging factor (increase in cost per capita) to add another 24 percent to total health spending (figure 3). This translates to an average annual growth rate in health spending of 2.3 percent in real terms. Since this estimate is based on the assumption of constant medical technology and cost structure, it represents the lower boundary of the projected health expenditure growth rate.

Figure 3 Projected regional changes in health spending due to population growth and aging, 2000–20 (percent)

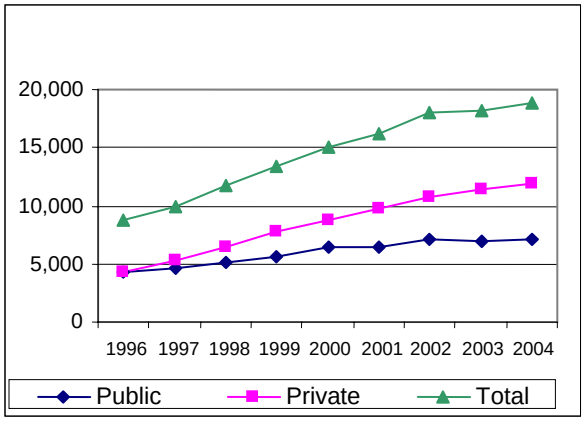


Source: World Bank estimates, 2005.

Health financing

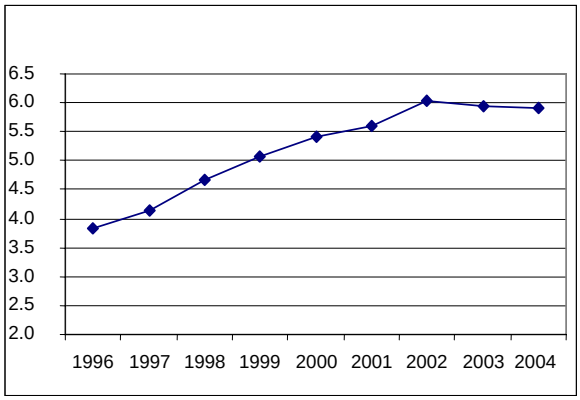
Growth in total health spending outpaced economic growth between 1996 and 2002. Egypt experienced a rapid escalation in total health spending between 1996 and 2002, averaging 13 percent per year in real terms and outpacing economic growth rate by about 9 percent per year. As a result, the share of GDP spent on health jumped from 3.7 percent in 1996 to 6.0 percent in 2004 (figures 4 and 5). The increase in spending between 1995 and 2003 brought Egypt's health spending to a level commensurate with countries at comparable income levels (figure 6). Private out-of-pocket spending grew faster than public spending, resulting in a higher share of private spending at the end of the period. This section provides an overview of how the Egyptian health financing system has performed in terms of mobilizing and expending public and private resources. The following sections describe how well the system has performed in terms of managing the risk pools (social insurance) and ensuring equity and efficiency.

Figure 4 Trends in health expenditures, 1996–2004 (constant 1996 LE)



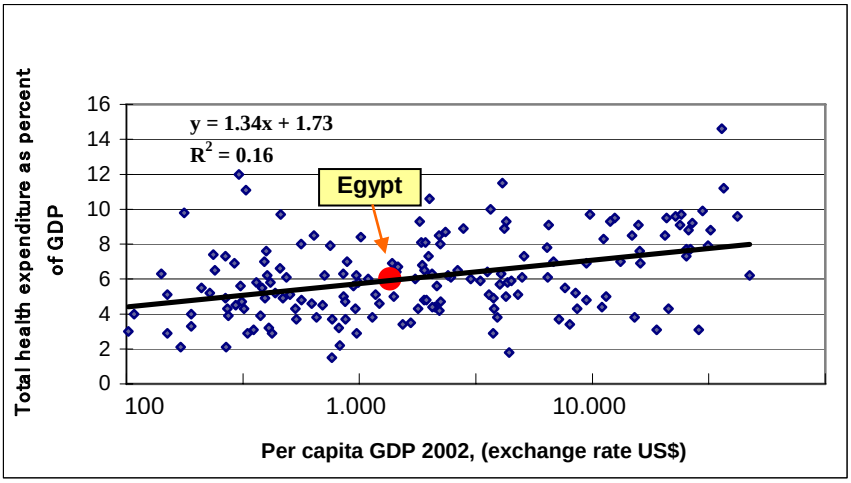
Source: MoHP and World Bank staff.

Figure 5 Total health expenditures as percentage of GDP, 1996–2004



Source: MoHP and World Bank staff.

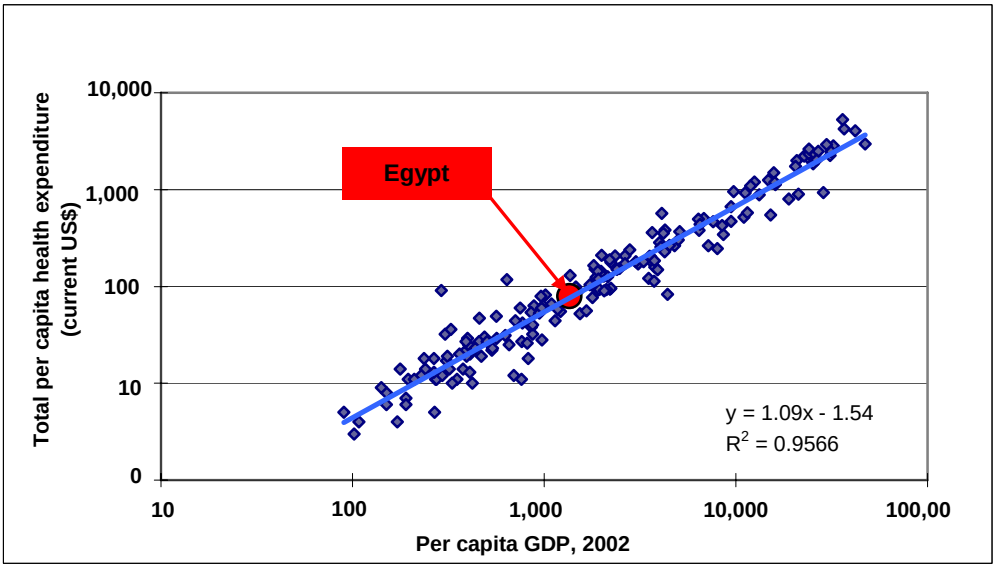
Figure 6 Global trends in total health spending as percentage of GDP, 2002



Source: MoHP and World Bank staff.

Total health spending increase in Egypt appears to have leveled off in the past few years, but this period of expenditure stabilization may be only temporary. A cross-sectional analysis of global health spending trends reveals an income elasticity of approximately 1.1 for the health sector (figure 7). This signifies that as incomes rise, demand for health care grows at a rate about 10 percent faster than an average economic growth rate. Therefore, in the long run Egypt's health spending is expected to increase at a rate above its average long-run economic growth rate.

Figure 7 Global trends in per capita health expenditure, 2002



Source: MoHP and World Bank staff.

Global health spending trends show that as a nation's income rises, the share of public spending tends to increase (table 4). It should be noted that public spending includes both direct spending through the government budget and publicly mandated (statutory) health coverage, which could be privately administered. Thus, as incomes rise, state involvement in the health sector tends to expand, either directly or indirectly through mandates and regulations, to address the high propensity for market failure in the health sector. Health spending figures for Egypt in 1995 and

2002 show that over the past decade the share of public spending on health declined while private out-of-pocket spending increased (table 5). This trend reveals a low level of risk pooling, which exposes the population to potentially catastrophic and impoverishing effects of adverse health events.

Table 4 Global trends in health expenditures, by low-, middle-, and high-income groups, 2003

	Low income	Middle income	High income
Average per capita health spending, exchange rate US$	27	178	2,012
Average total health expenditure as percentage of GDP	5.3	6.0	8.0
Average public spending on health as percentage of GDP	2.1	3.5	5.6
Average public spending as percentage of total health spending	49	59	70

Note: Low income = countries with per capita gross national product in 2003 under $765, middle income = $765–$9,385, high income = $9,385 and above.

Table 5 Trends in health expenditures in Egypt, 1995 and 2002

	1995	2002
Per capita total health expenditure, exchange rate US$	38.0	79.4
Total health expenditure, percentage of GDP	3.7	6.0
Public spending on health, percentage of GDP	1.8	2.4
Public spending as a percentage of total health expenditure	49	40

Source: Egypt National Health Accounts, 1995 and 2002.

Although Egypt's public spending on health increased from 1.9 percent to 2.2 percent of GDP between 1996 and 2004, its spending level remains low relative to other countries of comparable income levels. Table 6 summarizes the main macroeconomic trends and the growth in health spending from 2001 to 2009 (see annex 3 for details). In 2004 Egypt's public spending on health (including social insurance) accounted for 7.4 percent of total government expenditures, down from 8.0 percent in 2003. By comparison, middle-income countries spent on average 3.5 percent of GDP from public resources, and about 15 percent of total government expenditures, on health.

Table 6 Medium-term macroeconomic trends, 2001–09

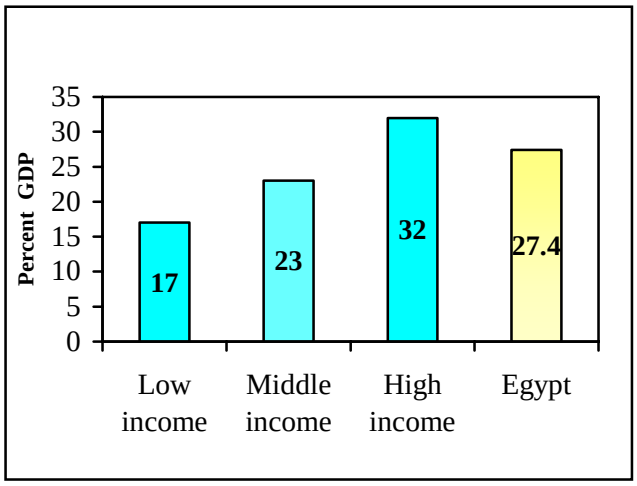
				Projections		
	2001/02	2002/03	2003/04	2004/05	2005/06	2009/10
Real annual growth rate of GDP[a]	3.1	3.2	4.1	4.1	5.0	4.5
Real per capita GDP growth rates[a]	1.2	1.4	2.3	2.3	3.2	3.8
Total government revenues (including grants) as percentage of GDP[a]	26.5	27.0	26.7	25.3	26.1	—
Real annual growth rate of total health spending	7.1	11.1	1.5	3.7	—	—
Public expenditures on health (including social insurance) as percentage of GDP[b]	2.2	2.4	2.2	2.2	—	—
Public spending on health as percentage of total government expenditures[b]	7.8	8.0	7.4	7.4	—	—

— = not applicable.

a. IMF 2005.

b. Calculated from government budget data.

Figure 8 Total government revenues as percentage of GDP, global trends and Egypt, 2003



Source: World Bank estimates for low-, middle-, and high-income countries, 2003; government revenues (excluding grants) for 2003 from IMF 2005.

Note: Low income = countries with per capita GNP in 2003 under $765, middle income = $765 to $9,385, and high income = $9,385 and above. Government revenues include tax and nontax revenues and grants.

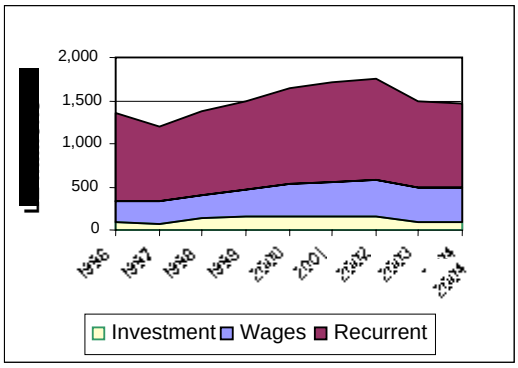
The government's proposal gradually to move implicit subsidies onto the budget would help expand fiscal space, increase the transparency of public subsidies, and improve targeting of social programs, including the financing of priority health benefits. Egypt's government revenues are relatively high for its income level,[4] but a significant share of the budget is spent on generalized subsidies rather than on targeted social programs. At about 27 percent of GDP, Egypt's government revenues are above average for middle-income countries (figure 8). But implicit subsidies on electricity and fuel products are estimated to be significant[5] and crowd out the fiscal space for social programs. The introduction of the new income tax law aims to reduce tax rates, simplify the tax structure, and render it more transparent. While rate reductions may initially lower revenues, other measures in the new legislation to limit loopholes and the expected increase in prices of domestic energy and electricity should offset this shortfall. Overall these fiscal reform measures should expand the fiscal space for financing priority social programs, including health benefits.

Moreover, the government's new tax reform measures to expand the tax base, including provisions to encourage the informal economy to legalize its status, will benefit the social health insurance system. The social health insurance system currently receives very little contribution from private workers, who face little incentive to participate in the system. Any future expansion of social insurance coverage will depend on improving the incentives for participation in, and contribution to, the social insurance system by nonpoor private sector workers.

The rise in public expenditures on health in the 1990s appears due mainly to the expansion of HIO coverage, the expansion of PTES, and the expansion in high-end services provided by Government Authorities. The HIO showed a rapid increase in spending in the mid 1990s but the rate of spending appears to have slowed over the past four years (figure 9). By comparison, the Government Authorities have shown an even more pronounced increase in real expenditures over the past decade (figure 10). Among the main cost drivers in public spending are the wage bill and the introduction of the PTES. The significant investments in the Specialized Centers

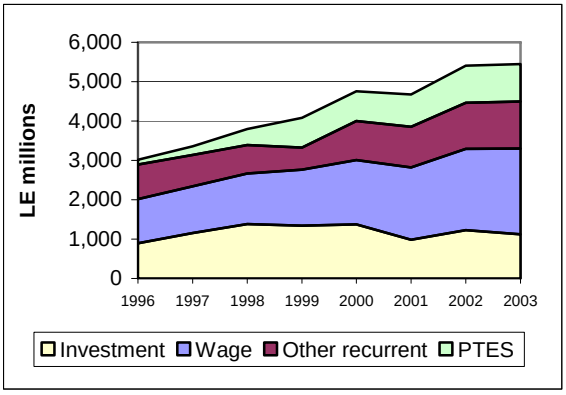
under the MoHP in the 1990s contributed to the expansion of the supply of high-end health care providers. This development, coupled with the expansion of PTES funding, fueled the rapid increase in health spending among the Government Authorities. The spending increase by the Government Authorities has been pulled back since 2003. These parallel trends are evident when comparing HIO and PTES expenditures (figure 11).

Figure 9 Trend in public expenditures on health by budget chapters, Economic Authorities (constant 1996 LE)



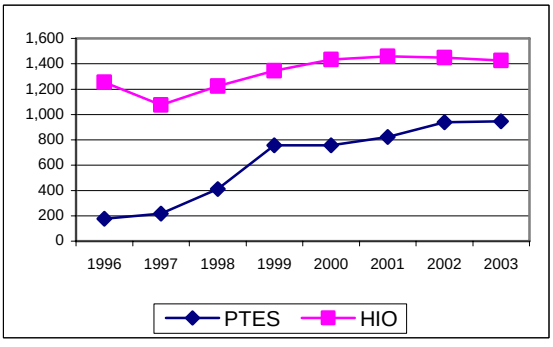
Source: MoHP and World Bank staff.

Figure 10 Trends in public expenditures on health by budget chapters with PTES highlighted, Government Authorities (constant 1996 LE)



Source: MoHP and World Bank staff.

Figure 11 Trend of HIO and PTES expenditures (constant 1996 LE)



Source: MoHP and World Bank staff.

Since 1996 spending for health services under the HIO has grown faster than revenues, resulting in a persistent and rising operating deficit, which more than doubled between 1997 and 2001. An analysis of the HIO's financial flows reveals that workers under Law 326 accounted for a significant portion of the net deficit, while workers under Law 79 accounted for little of the deficit, reflecting the substantially higher payroll taxes paid by the latter group. Pensioners and widows represent an even larger share of deficit for the HIO, accounting for some 60 percent of the net deficit in 2001, while they represented only about 6 percent of enrollment. This is not surprising given that the elderly are a higher-risk group: their contribution rates are low while their costs are highest among HIO beneficiaries. School Health Insurance Program enrollees accounted for a modest surplus in all years reported, but the level of surplus has dropped and stabilized at a modest level in 2001. Since the contributions to this program are not indexed to inflation, it is expected that this program will run into deficits in the near future. The expansion of HIO coverage to infants under Decree 380 in 1997 has increased expenditures in this period without providing an additional source of revenues for the HIO. Infants constitute another high-risk group. Cross-subsidization from other sources of revenue is required to ensure the financial sustainability of the program.

HIO has made substantial efforts in recent years to control its expenditures. Measures include restricting the use of non-HIO pharmacies and specialist referrals; reducing HIO staff size through attrition and hiring restrictions; freezing the construction of new HIO health facilities while expanding the contracting of services that could be provided more efficiently by other providers; and engaging in active price negotiations with private providers to obtain better and more competitive prices. These efforts have helped reduce HIO's operating deficits and improve its financial balance. But what is not yet well evaluated is how these cost-containment measures have affected quality of care and access to services for beneficiaries. There is a potential risk that the stringent cost containment by HIO is resulting in cost-shifting of expenses and risks to households and providers.

After a rapid expansion in the late 1990s, the PTES has also shown signs of moderating expenditures. The average cost of treatment has declined in recent years because of the reduction in spending on overseas treatment. PTES expenditures on treatment abroad decreased from LE 25 million (for 212 patients) in 1997 to LE 1.8 million in 2003 (for 34 patients). This has been made possible by the establishment of the Specialized Centers, which can treat patients. Over the same period, PTES expenditures on the domestic program increased from LE 215 million for 100,000 patients to LE 1.3 billion for almost 1.2 million patients. The PTES is thus playing an increasingly important role as a third-party payer for citizens. It is worth noting that the average cost of LE 1,064 per domestic PTES patient is still high compared with the average cost of the most costly group of HIO beneficiaries. By comparison, the average cost of the "highly specialized services" offered to the pensioners and workers treated outside HIO facilities was LE 482 in 2003.

A significant portion of increased private spending could be induced by the increased level of cost-sharing requirements associated with the publicly funded programs such as HIO and PTES. For example, the availability of new health benefits through the PTES may have played a role in inducing demand for treatment that an individual might otherwise have forgone. Since the PTES reimburses only part of the total cost of treatment, a significant balance of payments will have to be paid by the individual. Available data do not distinguish the out-of-pocket spending associated with public programs, such as copayments for PTES or HIO, and therefore, it was not

possible to confirm the extent of private spending induced by the improved insurance coverage. This interaction between private and public spending on health care is an important aspect of health expenditures that will require more detailed analysis based on the availability of appropriately disaggregated data.

Coverage under social health insurance

Social health insurance coverage is fragmented by beneficiaries. For historical reasons, Egypt's social insurance system has developed into multiple programs with different coverage and benefits package for various segments of the population, resulting in a patchwork of coverage. Social health insurance coverage is extended to only half of the population, including about one-third of the active labor force. In a typical Egyptian family, the father, a public or private sector employee, will be covered by HIO Law No.79; his wife, a government employee, would be covered by Law No.32; his son, a university student, will not be covered; his daughter, a school student, will be covered by HIO Law No. 99; and his infant child would be covered by a decree (table 7). More than one-half of the population, mostly the unemployed, self-employed, and informal sector workers and out-of-school children, are not covered under the HIO system.

Table 7 Coverage and eligibility of HIO beneficiaries, 2005

Governing law	Law 32 of 1975 (workers)	Law 79 of 1975 (workers)	Law 79 for 1975 (pensioners)	Law 99 of 1992 (schoolchildren)	Decree 380 of 1997 (infants)
Beneficiaries	Government workers	Public and private sector workers	Pensioners and widows	Students up to high school	Infants
Number (millions)	3.74	3.29	1.75	16.89	9.14
Payroll tax or annual premium					
Enrollee share	0.5% of salary	1% of salary	1% pensioners; 2% widows	LE 4 per student	LE 5
Employer share or government share	1.5% of salary	3% of salary plus 1% for disability	None	LE 12 (government budget) and cigarette tax	None
Copayments	General practitioner visit: LE 0.05 Specialist visit: LE 0.10 Tests: < LE 1 Drugs: 50%	None	None	Drugs: 33%	Visit: LE 0.50 Drugs: 33%

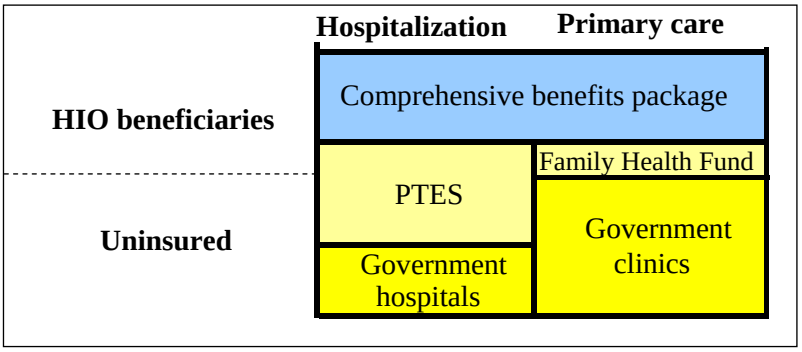
Source: HIO, Annual Report for 2002/2003, 2004.

The different laws in effect under the HIO result in different systems of benefits and copayments, which complicate the effective administration of the program. Members of the same household have different coverage depending on their status within the household (table 8). The "uninsured" population has access to financial protection through the PTES for hospitalization and related high-cost health services. However, the PTES is a passive reimbursement scheme not related to any contribution systems or to a well defined benefits package. In a limited number of governorates access to primary care services is financed through the Family Health Fund, but this remains a pilot program without a clear institutional base. The rest of the uninsured population depends on free or subsidized government health services (figure 12).

Table 8 Current HIO coverage (shaded), by household and worker categories

Household category	Members of household			
Formal sector	Workers	Students and infants	Other dependents	Pensioners
Self-employed, informal sector	Workers	Students and infants	Other dependents	Retired Workers
Unemployed and social cases	Head of household	Students and infants	Other dependents	Elderly

Figure 12 Social insurance coverage and access to government services



Source: MoHP and World Bank staff.

The level of risk pooling in Egypt is low. As discussed above, despite the presence of different types of health coverage provided by the MoHP and the HIO, between 1996 and 2002 the share of direct household spending increased from 50 percent of total health spending to 60 percent. This could be due to several causes. First, the level of benefits covered under the HIO is limited in scope and requires beneficiaries to make additional payments to obtain services not covered. Second, the proportion of the labor force participating in HIO is low (only 30 percent). Third, the recent cost containment exercised by HIO could be shifting costs onto households. Fourth, the PTES requires a significant level of cost-sharing by patients; therefore, the expansion of PTES would be accompanied by a concomitant increase in household spending to cover the balance of payments. Fifth, the quality of subsidized government health services may be inadequate (shortage of drugs in health facilities, lack of responsiveness), forcing many households to seek private providers. Recent trends in budget allocation in government health services show that operating and maintenance costs have not kept pace with needs, possibly contributing to inadequate supply of drugs and other essential materials at government health care providers. This would leave many households heavily reliant on out-of-pocket spending and vulnerable to financial stress in the event of a catastrophic illness or injuries.

Table 9 Enrollees in HIO by laws and number of active labor force, 1997–02 (millions)

	1997	1998	1999	2000	2001	2002
Law 32 workers	3.1	3.3	3.4	3.5	3.6	3.6
Law 79 workers	2.6	2.6	2.7	2.8	3.0	3.1
Total number of workers covered by HIO	5.7	5.9	6.1	6.3	6.6	6.7
Pensioners and widows	0.8	1.0	1.1	1.3	1.5	1.6
Law 99 (schoolchildren)	15.4	15.8	16.0	16.3	16.6	16.7
Decree 380 (infants)	N/A	1.0	1.6	2.9	4.2	5.5
Total active labor force	16.2	16.8	17.2	17.6	17.9	18.2
Government and public enterprise employees	5.6	5.6	5.9	5.9	—	6.2
Private sector workers	10.6	11.2	11.3	11.7	—	12.0

— = not available.
Source: HIO.

Social insurance coverage of private sector workers is low. In 2002 about 18.2 million Egyptians were in the active labor force, out of an estimated total labor force of 20.2 million. Of these, about 6.2 million were government and public sector employees and 12 million were private sector workers (formal and informal). In the same year, HIO covered about 6.7 million of the working population under both Law 32 and 79 (table 9). Since all government and public sector employees are covered under HIO by mandate, only about 500,000 private sector workers were covered by HIO—less than 5 percent of the active labor force working in the private sector. There are two explanations for this low coverage rate. First, small and medium enterprises are not required to enroll in the social health insurance plan under HIO, although they are required to contribute to the social security administration for pensions. It is likely that this group of employers and employees will not contribute to HIO health insurance, preferring to take advantage of the subsidized MoHP services or the financial coverage offered by PTES. Second, larger firms that are required to contribute to HIO would opt out of the scheme, preferring to contribute the mandatory 1 percent of payroll and enroll in alternative insurance plans.

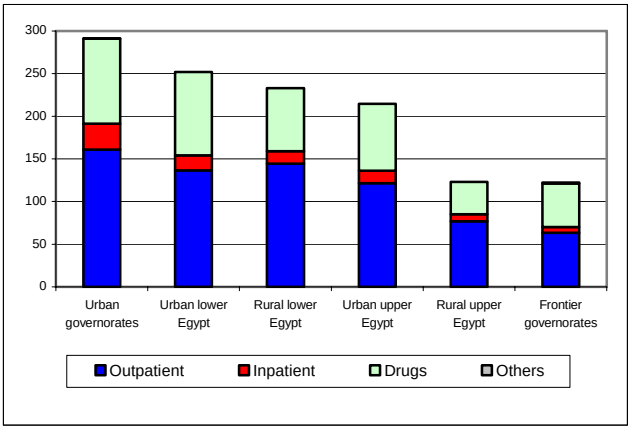
Participation in well designed and well functioning risk-pooling schemes is essential for reducing the likelihood of falling into poverty in the event of a "health shock." Evidence from several middle-income countries reveals that inadequacies in financial risk protection can cause a significant number of nonpoor households to fall below the poverty line. Households in the lower-income groups just above the poverty line are most vulnerable to the impoverishing effects of adverse health events, but even those in the middle-income range are at risk. For example, in Argentina (Maceira 2004) 5 percent of all nonpoor households fell below the national poverty line in 1997 as a result of health spending, and in Ecuador (Montenegro 2004) up to 11 percent of nonpoor households fell below the poverty line in 2000 because of medical expenses. Even in the industrial economies, medical expenses contribute to economic hardship: for example, in the United States medical expenses accounted for about half of all bankruptcies declared in 2001 (Himmelstein and others 2005). Thus, the availability of risk pooling arrangements plays a vital role in protecting both poor and nonpoor households from the impoverishing effects of health shocks.

Inequities in the allocation and use of health resources

Total health spending by both public and private sources was 2.5 times higher in urban governorates than in rural governorates and Upper Egypt (figure 13). The distribution of health resources, as measured by the number of hospital beds and health facilities in the public sector, is also inequitably distributed in favor of the wealthier urban governorates. Upper Egypt, the

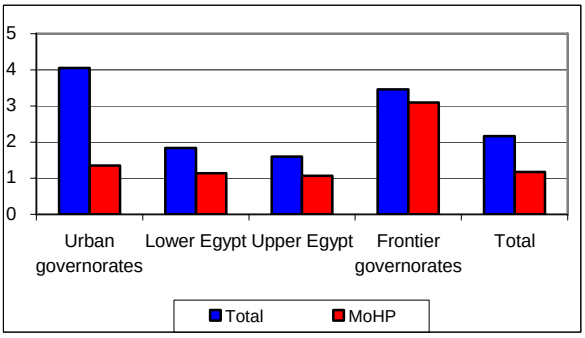
poorest region in Egypt, consistently had the lowest number of hospital beds and physicians per capita (figures 14 and 15).

Figure 13 Annual per capita total expenditures (LE) on health by regions, 2002



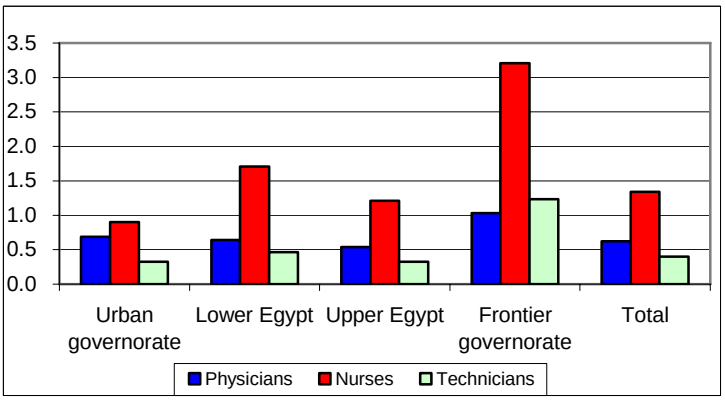
Source: EHHUES, 2002.

Figure 14 Beds per 1,000 population, 2003



Source: MoHP.

Figure 15 Health workforce per 1,000 population, 2003

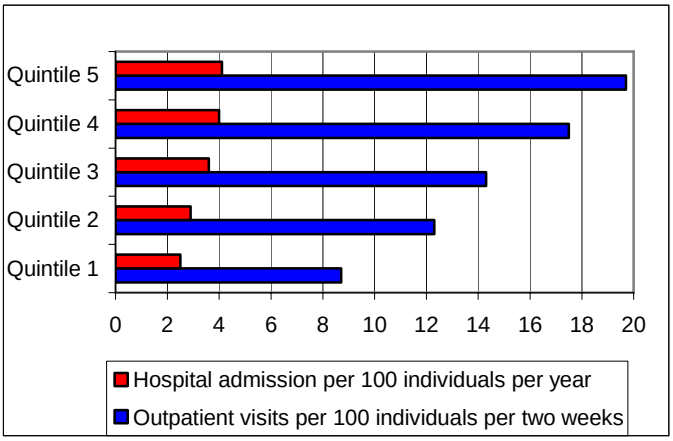


Source: MoHP.

In addition to regional disparities in the distribution of health services, there are inequities in access to and use of health services by region and by income levels. The richest quintile of the population spent 2.3 and 1.6 times as much on hospital and outpatient services as the poorest quintile households (figure 16 and table 10). In the urban governorates, utilization rates were 1.7

and 1.4 times higher than in rural Upper Egypt for outpatient visits and hospital admissions, respectively. In principle the MoHP facilities should be providing free care for the poor. However, a graph of the distributional data reveals a negative correlation between the poverty index and public health spending levels by governorates (figure 17), suggesting that the MoHP health services may not be adequately serving the needs of the poor. Solving this problem requires a better understanding of the systemic constraints, including inadequate incentives and poor quality of services, that prevent the effective provision of health services for the poor.

Figure 16 Use of health services, by income quintiles



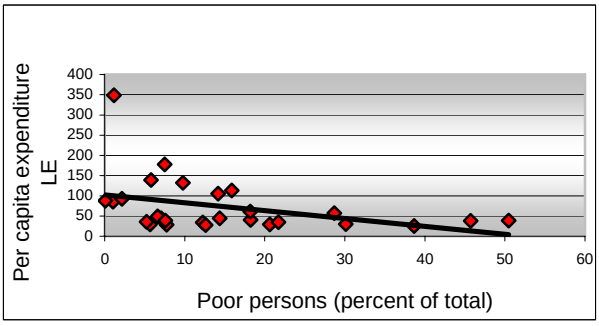
Source: Egypt Household Health Service Utilization and Expenditure Surveys, 2002.
Note: Includes utilization rate for private and public facilities.

Table 10 Inequities in health services utilization rates, ratio of richest to poorest quintile, 2002

	Ratio
Average outpatient visits per person	2.3
Average hospital admission rates per person	1.6

Source: Egypt Household Health Service Utilization and Expenditure Surveys, 2002.

Figure 17 Correlation between poverty and government expenditures on health, by governorate



Source: Based on government budget data, 2003.

Inefficiencies in the health delivery system

The productivity of the government health delivery system is low. One measure of the low productivity is the very low bed occupancy rate, which indicates that a substantial portion of fixed capital is not well utilized. Although Egypt's bed capacity is comparable to that of other countries at similar income levels, the national average for bed occupancy is estimated at 25 percent, and 35 percent at MoHP hospitals (table 11). If average occupancy rates could be raised to the international standard of good practice of 80 percent, the productivity of the existing stock of hospital infrastructure would more than double. In the last few years the government has pursued an investment program that has significantly expanded the hospitals and Specialized Centers operating under the Government Authorities. Before any new hospital capacity is added in the public sector, there needs to be a comprehensive re-evaluation of the strategies for investment in health infrastructure under all the Government Authorities.

Table 11 Profile of MoHP hospitals, 2003

MoHP hospital types	Number of beds	Share of total MoHP beds (%)	Bed occupancy rate (%)
Specialized Centers	5,285	6.6	58.2
General and district hospitals	34,456	42.9	43
Fever hospitals	9,150	11.4	40
Chest hospitals	6,519	8.1	31
Integrated and rural hospitals	8,792	11.0	—
Group health centers	3,219	4.0	—
Other MoHP hospitals	4,818	6.0	—
Total acute care hospitals	72,239	90.0	32.6
Psychiatry	8,021	10.0	50
Total	80,260	100	

Source: MoHP.

Incentives for improving productivity in the government health delivery system are low. Government Authorities rely primarily on the state budget, are not held accountable for their financial performance, and have little autonomy and limited ability to generate revenues. Public provider financing is mostly based on historical supply-side financing, with no link between provider revenue and delivery of services to patients. This situation is not conducive to efficient operations in the government sector. Health service providers in the MoHP and other Government Authorities are also constrained by the rigidities of the civil service administration, including low wages and fixed salaries not linked to performance. Some 89 percent of private physicians have a dual employment status (government and public sector), making it possible for public hospital facilities to be used for private practice with no reimbursement to the state.

The quality of government services could be significantly improved. Several quality improvement programs have been initiated by health care providers, but none has been institutionalized. In the public sector, resources allocated to essential items such as pharmaceuticals and maintenance have been constrained or crowded out by other expenditure items such as the wage bill. The patient load on HIO service providers has been increasing while budget increases and staffing have been constrained. This could be compromising the quality of care and user satisfaction in the HIO facilities. Another common problem in the HIO program is the delay that beneficiaries face in accessing doctors of reasonable quality in a reasonable time. HIO beneficiaries are required to enroll with an HIO-designated doctor, who subsequently refers patients to specialists. The lack of access to qualified doctors is one of the main bottlenecks in the current system. Overall, the poor allocation of resources and the lack of a strategic approach

to quality improvement are contributing to the loss of patient satisfaction with the public health services. As a result, most Egyptians, including those living in the poorest regions, are more often seeking health services from the private sector.

3 Government policy on health sector reform

On July 7, 2005, President Mubarak announced a medium-term strategic framework for reforming the health sector. The strategy is based on six pillars: (i) improving the management capacity and financing sustainability of HIO; (ii) expanding the coverage of primary care services under the Family Health Fund; (iii) expanding social health insurance coverage to all uninsured Egyptian citizens; (iv) expanding primary health care services in all governorates; (v) improving the performance of all government-owned hospitals; and (vi) merging all these components of the system into a national social health insurance system over the medium term.

The reformed health system would include new roles for the key institutions. The MoHP would reduce its role in the direct provision of health services, instead focusing its resources on leading health sector policy development and on planning, regulation, and management of population-based public health programs. The National Health Insurance Fund (NHIF) would be established to manage a defined benefits package for the population, with administrative capacities at the governorate level. The government health facilities could be reorganized into a network of health care providers managed at the governorate level and contracted by the NHIF. Private health care providers would also be eligible for contracting by NHIF and would compete with public sector providers for patients.

Regulation of health service quality and safety would be supported by new nongovernmental and professional entities that would undertake independent assessments of quality and safety. This would include, for example, the establishment of an Egyptian Council for Quality Assurance and Accreditation responsible for developing and updating quality standards and undertaking the accreditation process for private and public health care providers.

4 Strategies and recommendations

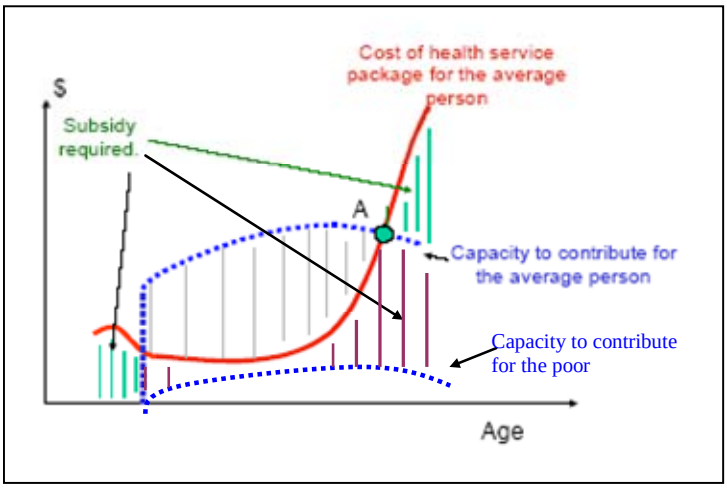
The government's proposed expansion of the social health insurance system, in conjunction with the parallel reforms in the tax and budget systems, offers a unique opportunity for creating fiscal space and generating political momentum to extend an effective, affordable, and equitable system of health benefits and financial protection to all citizens. The design of an effective social health insurance system depends on careful consideration of five factors: (i) the content of the benefits package; (ii) the availability of fiscal space for sustaining equity subsidies; (iii) the capacity at the HIO for strategic purchasing; (iv) the size of the risk pool and the extent of risk-pool fragmentation; and (v) the regulatory framework for risk-pooling organizations. As a first step in building consensus and defining the parameters for reform, it is important to review the key elements of the health system, especially in terms of their fiscal impact and social and political feasibilities and ultimately their ability to ensure adequate financial protection and access to health services in an affordable and equitable manner.

Targeting the allocation of government subsidies toward priority programs and beneficiaries

The use of public resources to subsidize health care for the population is justified on at least three grounds. The first is to subsidize the cost of health care for the poor, who lack the resources to meet the full cost of health care. The second is to finance public health programs with high externalities and public goods content, such as disease surveillance, immunization, public information, and health education. The third is to address market failures in the medical insurance market and offer financial risk protection against adverse health events, either by directly financing the priority health services or by mandating insurance coverage and regulating the insurance market.

Individuals need to pool risks over their life cycles (figure 18). In the figure, the red line represents the cost of health care for an average individual at different stages, with the highest costs occurring toward the end. The blue lines represent an average individual's capacity to contribute to the risk pool over the course of the life cycle. The upper blue line represents the contribution capacity of an average nonpoor individual, who may require subsidies at certain points (pre-employment and old age) but whose capacity to contribute exceeds the average medical cost for at least part of his or her life. The lower blue line represents a poor individual, who is unable to contribute sufficient resources to cover health costs at any time in the life cycle. A system of social insurance enables financial risks to be spread over a large number of individuals at different stages in life. It also enables the wealthy to subsidize the poor and the healthy to subsidize the unhealthy.

Figure 18 Cost of health services and capacity to contribute over an individual's life cycle



Source: Adapted from Baeza and others, 2002.

In Egypt a significant portion of the government budget is being used to subsidize access to comprehensive health care services for a large number of nonpoor beneficiaries, while the poor continue to face access problems. There is a need to improve the targeting of government subsidies to priority population groups (the poor and vulnerable) and, by defining the benefits package, to ensure that subsidies are focused on providing effective protection against the impoverishing effects of health shocks.

Promoting participation in and contributions for the social insurance system by all nonpoor beneficiaries

Expanding health coverage to new beneficiaries would increase the total liabilities on the social insurance funds. Financial sustainability depends on securing adequate revenues from both the government budget and workers' contributions. Mobilizing contributions directly from the workers and introducing additional cost-sharing schemes would help reduce the dependence on the government budget. But this approach must be balanced with the need to avoid spillover to the labor market, and to avoid creating an excessive contribution-benefits gap. A social insurance system will not function if it lacks credibility and the contribution-benefits gap is perceived to be wide —for example, if appropriate health care services are not available or perceived to be of poor quality. This could exacerbate the "informalization" of the workers, who would rather evade than participate in a system perceived to be substandard.

Redirecting government resources from supply-side subsidies to active purchasing through a third-party insurer

Establishing a national insurance fund involves a fundamental shift away from supply-side subsidization of government providers, which has been a predominant form of government financing of health services in Egypt, to strategic and performance-based purchasing of services. This transition has often proven difficult in countries that have launched similar reforms. The more successful cases involved a staged approach that built on political consensus and phasing of reforms that maintained the broad consensus. The health system in Egypt does not yet have mechanisms in place to direct resources toward the most cost-effective services and programs, and management of contracts with providers remains rudimentary. Expanding social insurance coverage requires a concurrent development of enabling legislations and management capacities. The ultimate objective is to ensure the establishment of a social insurance system with a strong

and effective strategic purchasing capacity and a provider market capable of responding efficiently to these incentives.

Defining a path to universal coverage by introducing a gradual and phased expansion in the depth and breadth of the benefit package

The breadth of coverage refers to the number of beneficiaries with access to the package, and the depth refers to the richness of the content, including the number and types of interventions included. The fiscal risk and impact of health insurance reform are determined by both the breadth and depth of the benefits package (see annex 1 for more extensive discussion). Countries that have attempted to expand the depth and breadth of coverage simultaneously have tended to face greater political resistance and difficulties in implementation. Countries that have successfully achieved universal coverage have generally opted to take a more gradual approach to expanding the depth of coverage in stages (for example, Chile, Korea, and Taiwan) rather than aim for immediate implementation of a comprehensive benefits package. Their experiences offer useful lessons. Chile's experience with the establishment of a consolidated National Health Insurance Fund (FONASA) (box 1) offers some relevant lessons for the proposed Egyptian reform.

Box 1 Chile's National Health Fund (FONASA), consolidating public sector insurance and purchasing functions

In 1985 Chile implemented a radical reform of the health system (together with structural reforms in the old-age pension system). It separated the insurance and financial administration from public provision of health care services and created the National Health Fund (FONASA). FONASA was financed by a combination of general taxation (to subsidize the contributions for the poor, who are included in the pool from general taxation) and a 7 percent payroll tax contribution from formal sector workers (public and private). The reform aimed to consolidate all public financing for health in a single fund, reducing duplication and establishing the basis for implementing strategic purchasing in the public sector. FONASA consolidates the Ministry of Health financing (from general taxation) and the public Social Insurance Scheme for formal workers (abolished in 1985).

Through subsequent reforms in the mid 1990s and a final set of legal reforms in 2004, FONASA has become the most important insurer in the country, covering almost 80 percent of the population. FONASA is mandated to collect and pool all public revenue for health and use it to purchase services from public and private providers. To do so, it has developed contracting, pricing, and payment mechanisms with public and private providers.

The implementation of the FONASA reform has taken more than 10 years. Consolidating all resources was a complex technical and political process. FONASA's consolidation as the health service purchasing agency in the public sector has been particularly complex and required substantial political and technical efforts in the 1990s. Shifting away from traditional, supply-side financing of public providers toward allocation of these revenues to FONASA was a very demanding process. Even more challenging has been the shift from historical budgets to production-based financing for the public providers. Government efforts over the years have been rewarded by a general perception that FONASA has become a key pillar for guaranteeing access to health services and financial protection for the vast majority of the population.

But the success of FONASA was not guaranteed at the time of its foundation. Simultaneously with its creation, the reform allowed for the introduction of private competing health insurance organizations (ISAPREs). All workers and their families were given a choice to contribute either to FONASA or to an ISAPRE. In contrast to FONASA, which charges all members the same 7 percent payroll tax irrespective of risk, ISAPREs can adjust the contribution and the benefits package to reflect the risk of the principal and his or her family. Thus FONASA is based on salary-related contributions with no

exclusions, and ISAPREs are based on risk-related contributions. Moreover, except for very limited oversight by the Ministry of Health, no regulatory agency was set up to regulate ISAPREs until 10 years after their creation. Consequently, for a long time, their stewardship depended only on external, hierarchical, command-and-control incentives—which proved ineffectual. As a result, the use of ISAPREs grew, covering 2 percent of the population in 1983 and 27 percent in 1996. Lack of regulation and weak stewardship led to severe market segmentation. The ISAPREs focused on the richest affiliates and risk-selected the healthiest affiliates.

To correct this structural problem, Chile began an extensive reform of the health insurance system, including substantial reforms of the regulatory framework of private insurance. Between 1999 and 2005 Chile introduced a mandatory benefits package, financial incentives, and major changes in the health insurance regulation—all in an attempt to correct these severe failures of health insurance competition. As a result, cream skimming has been substantially reduced and demand has been increasing for migrating from ISAPREs to FONASA, with FONASA covering 80 percent of the population as of 2005.

The following sections discuss short- and medium-term options and strategies for reform under three topics: (i) expanding social insurance coverage; (ii) consolidating multiple social insurance programs and redirecting the flow of the budget; and (iii) introducing economic incentives to improve the quality, efficiency, and accessibility of government health delivery systems.

Expanding social insurance coverage

Expanding social insurance toward universal coverage requires different approaches depending on the occupational and social status of beneficiaries. They can be sorted into three distinct groups: (i) those in need of social assistance, including unemployed workers and their families; (ii) the nonpoor self-employed and informal sector workers; and (iii) dependents of the formal sector workers who are currently not covered under the HIO.

Expanding coverage to the poor, unemployed, and other vulnerable groups

It is estimated that one out of every five Egyptians was living in poverty in 2004. This group of beneficiaries should, in principle, be eligible for exemption from premium contributions and copayments, and have these contributions fully subsidized through the government budget. A major challenge is to target the exemptions effectively to minimize both leakage (extending benefits to the ineligible) and gaps (denying benefits to the eligible). Targeting for health insurance coverage should be closely linked with the reforms in the social safety net and social assistance programs. Close coordination of social benefits and social targeting among public agencies could reduce administrative costs and improve the effectiveness of these social programs. Subsidization of the poor under the proposed NHIF requires adequate and sustainable fiscal resources. A significant portion of the resources required is already available in the form of the historical supply-side subsidization of government health care providers. As discussed above, the challenge lies in shifting from supply-side subsidization to subsidization of premium payments for the poor.

Expanding coverage to nonpoor self-employed and informal sector workers and their families

Nonpoor informal sector workers currently do not contribute to or participate in the social insurance system. Their health care needs are covered through PTES for catastrophic illness, the Family Health Fund for primary care services in the pilot governorates, or through direct purchase of private health services. To the extent that the recent tax reforms succeed in giving

the informal workforce legal status, a segment of these workers will be brought into the formal social insurance system.

For the remaining informal sector workers, participation in the social insurance system would require either enforcing a means-tested contribution system based on an estimation of their income or assets, or establishing a risk-rated contribution system designed to encourage voluntary participation. The first option involves high administrative costs and is extremely difficult to enforce because the income and employment status of informal sector workers are, by definition, volatile and unobservable. The second option also involves the administrative costs of establishing a risk-rating mechanism and also raises the risk of adverse selection if the insurer is unable to evaluate risks effectively. However, this risk could be mitigated if the self-employed and informal sector workers could be organized into groups that would permit community risk rating. For example, some self-employed workers are organized into affinity groups and associations that could form the basis for a collective contribution mechanism. The enrollment of beneficiaries in the Family Health Fund, which involves household contributions to a prepayment scheme within a community setting, also offers a potential entry point for establishing a beneficiary registry and contribution mechanism at the community level for nonpoor informal sector workers and their families. Finally, their willingness to contribute will depend on the perceived value of the benefits offered through social insurance. If the benefits are perceived to be inadequate and of poor quality, then the incentives is to avoid contributions.

Expanding coverage to the dependents of HIO workers

Of the three groups, expanding coverage to the dependents of workers covered by HIO would require relatively fewer administrative and institutional reforms, since the head of the household would already be registered and contributing through the HIO contribution system. One option would be to use the existing social insurance system to extend HIO coverage to the dependents of workers. To ensure that the system remains in equilibrium, it would be necessary to revise the contribution rates according to the size of the household and the defined benefits package for the new beneficiaries. Because this option would significantly expand the number of HIO beneficiaries, this step would also require concurrent capacity building and reforms within the HIO to absorb these new beneficiaries.

HIO continues to provide most health services for its beneficiaries through its own facilities. With the expansion in the number of beneficiaries over the years, HIO has turned more frequently to contracting for services from the private sector, but its capacity to manage these contracts effectively remains limited. It has managed to curb cost escalation in recent years by imposing hard budget constraints, but this may be reducing reimbursement rates for the contracted providers. That may produce a negative effect on quality of care as well as potential cost shifting of payments to the beneficiaries.

Sequencing the expansion of the breadth and depth of the benefits package

The content of the benefits package largely defines the affordability of the proposed social insurance coverage. As discussed earlier, one option for phasing in the expansion of coverage is to limit the depth of the benefits package while expanding its breadth of coverage to new beneficiaries. For example, the benefits package for the expanded social insurance program could initially be limited to priority health interventions for problems that have a potentially catastrophic social and economic impact on households but are relatively rare. This package would provide a significant value to the beneficiaries, since it focuses on providing full financial

protection from potentially catastrophic health events, but it would also have a limited fiscal impact. Moreover, clearly defining the interventions and limiting their numbers would allow the rest of the health system, including both the health insurance agency (purchaser) and providers, to adjust to the new flow of funds and financing of services. As these capacities are built and tested, the content of the benefits package could be gradually expanded.

Restructuring the copayment system for effective cost-sharing

Expanding social insurance coverage should reduce the share of direct out-of-pocket spending by households on health care and increase the share of household budget used for premium contributions to the social insurance scheme. This improves risk pooling and increases the financial protection of individuals and households against catastrophic health problems. If contribution rates can be linked to beneficiaries' income levels and budget subsidies are well targeted toward the more needy groups, then the system has a progressive contribution structure. However, improved insurance coverage also increases the risk of moral hazard and induced demand problems. To counter these effects it is necessary to introduce a well designed copayment system to moderate moral hazard problems on the demand side, as well as active management of providers to moderate moral hazard problems on the supplier side.

Defining the role of the private voluntary insurance market in the framework of the social insurance system

The private medical insurance market could play an important role in mobilizing additional resources for financing the risk pool and reducing the burden on the state budget. But the medical insurance market is also highly prone to market failure problems and requires a strong regulatory framework to ensure its effective operation. Different types of voluntary insurance programs could be offered in the context of the existing social insurance system (box 2). The private insurance market could offer three types of plans: for services covered under social insurance (substitution), for services not covered under social insurance (supplementary insurance), and for covering the costs of copayments and other cost-sharing elements of the social insurance program (complementary insurance). Each type of voluntary insurance plan has advantages and disadvantages to be considered in the framework of a social insurance scheme. In the European context, voluntary health insurance has played an important but relatively limited role within an existing comprehensive statutory insurance system (annex 2).

Box 2 Voluntary private insurance programs

There are primarily three functions that a voluntary health insurance program could play in the context of an existing social insurance program.

Substitution. Under this option, private insurance is permitted to cover the same benefits covered by the statutory insurance system. The existing opt-out clause provides a basis for expanding this category of private insurance support to the mandatory social insurance system. Sufficient regulations need to be in place to reduce cost-shifting and risk-dumping from private insurers to a social insurance fund.

Supplementary. This option would limit the role of voluntary private insurance to health care benefits not covered under the statutory health insurance system, such as access to greater nonmedical amenities (private rooms) and services offered by private providers not covered under the social insurance scheme.

Complementary. This option would permit private insurance to complete the coverage of benefits that are only partially covered under the statutory insurance scheme. Typically, this takes the form of extending coverage on copayments and deductibles on services covered under the statutory schemes. This type of insurance could undermine the effectiveness of copayments and coinsurance systems that have been designed to reduce moral hazard.

The opt-out clause under the health insurance law permits private corporations to opt for a private insurance scheme provided they continue to contribute 1 percent of their payroll to HIO. This substitution option has two important implications for the expansion of the social insurance system. First, it has the advantage of offering greater choice to corporations and their workers: a private insurance plan may offer better benefits than the HIO. Second, it takes one of the wealthier (and possibly healthier) groups of beneficiaries out of the social insurance scheme, thereby reducing the size of the risk pool and its capacity to redistribute resources across different risk groups. The clause potentially reduces the size of the social security pool, and it simultaneously increases the average household risk and decreases the average household nominal contribution. Thus, it could put at risk the financial sustainability of HIO and that of the NHIF.

An actuarial estimate can determine whether the 1 percent payroll contribution will sustain the financial viability of the remaining risk group. Alternative options involve increasing general revenue subsidies for the remaining risk groups to make up for the loss of contributions from those who have opted out, and limiting the opt-out clause to retain these beneficiaries in the risk pool. The government's regulatory role would be to ensure that insurers do not resort to risk selection to enhance their profitability and that potential and existing subscribers have access to adequate information to enable them to make appropriate choices. The impact of new private insurance products on the utilization patterns of health services and medical products should be closely monitored to determine whether they provide an incentive for providers to treat private insurance patients differently from those not covered. This monitoring would ensure that any impact of private insurance on equity and appropriate use of care would be detected early and appropriate actions would be taken.

Short-term recommendations

- Launch an initial technical analysis of the definition of the benefit package to be covered by the universal social insurance reform. It should include an in-depth analysis of the breadth and depth of the package considering Egypt's health and financial protection priorities.

- Based on this analysis, undertake an actuarial estimate and modeling of the revenues and expenditures for the proposed expansion of social insurance to the uninsured.

- Specifically assess the fiscal implications of expanding coverage to the unemployed and other social cases through budget financing; expanding coverage to the self-employed and informal sector workers and their families under a new contribution scheme; and expanding HIO coverage to include dependents. The model should include scenarios for different levels of benefits, contribution rates, copayment structure, and general budget subsidies. The study should assess the impact of an increase in the premium (for example, to include coverage of additional family members) on the incentives for opting out of the system, and disincentives for participation, such as through the "informalization of the workforce.

Medium-term recommendations

- Design and implement a social health insurance program for the unemployed and the poor based on the targeting system established under the broader Social Assistance Program, and establish clear criteria for budget transfers to subsidize the premiums and copayments of these social cases.

- Based on actuarial estimates and consultation with key stakeholders, revise the contribution rates for formal sector workers and their dependents, and establish new contribution mechanisms and beneficiary registry systems for the nonpoor self-employed and informal sector workers and their dependents.

- Define the roles and functions of private insurance schemes in the context of statutory insurance, including their role in covering services (substitution) for those who opt out of the social insurance system as well as coverage of complementary and supplementary benefits.

- Enhance the capacity of the Egyptian Insurance Supervisory Agency to regulate the private medical insurance market, especially its role in monitoring and assessing new private health insurance products and disseminating information to consumers regarding benefits and restrictions.

Consolidating multiple social insurance programs under a National Health Insurance Fund

Harmonizing the existing laws and proposed new programs under a common legislative framework

To reorganize the fragmented social insurance programs into a national health insurance system will require regrouping both the beneficiaries and the benefits package into a coherent package of programs organized on principles of fairness, affordability, and administrative efficiency. Based on the assessment of the proposed expansion of social insurance coverage (discussed earlier), a comprehensive framework for the development of the national health insurance system would need to be developed. Such a framework would include definitions of beneficiaries and eligibility criteria, contribution rates, the benefits package including copayments and other cost-sharing responsibilities, eligible service providers, and administrative bodies responsible for collecting and managing the funds. The agreement on the legislative framework would require an extensive consultative process with the key stakeholders.

A national health insurance system would necessarily involve distinct groups of beneficiaries with different contribution mechanisms and possibly different benefits packages. Consolidation of these distinct social insurance programs under a single NHIF would require stringent management of revenues and expenditures to ensure that any cross-subsidizations across beneficiary groups occur deliberately and transparently, not ad hoc.

Redirecting the flow of budget from Government Authorities to the National Health Insurance Fund

One of the major challenges in the transition period would be to redirect the budget going directly to government health services to the NHIF. The Fund, in turn, would contract with providers in its role as a third-party payer.

This step would require close coordination with the proposed reforms of government health care providers, which would transform them into autonomous public entities (Economic Authorities), thereby reducing their reliance on direct budget allocation. In this scenario, HIO would need either to divest itself of direct provision and management of health care services to become a third-party purchasing agency, or to transform itself into a provider agency with a network of hospital and clinical facilities. Transferring the existing HIO facilities to an autonomous network

of public sector providers would essentially accomplish this transformation. Although this is technically feasible, the political economy of the reform process would require extensive consultation and careful phasing of reforms.

Preparing a business model and a critical path analysis for the establishment of the National Health Insurance Fund

While new legislation will establish the objectives and principles of the NHIF, it will take time to develop essential capacities and functions for the Fund. It will be essential to develop a business model and undertake a critical path analysis for the establishment of the new institution, including an assessment of capacities in HIO, MoHP, and other key institutions that will be closely involved in developing the new structure.

Introducing economic incentives by establishing effective contract management capacity in the National Health Insurance Fund

Since the expansion of beneficiaries under Law 99, the HIO has been outsourcing and purchasing services from providers outside its network. Expanded purchasing functions of HIO could form the basis of the future NHIF. Contract management is a key function that the NHIF would undertake in its role as the purchaser of health care services. Doing so will require developing significant new capacities within the HIO to manage contracts with providers, including private sector providers. It will also require modernizing management information systems at different levels of the health system. A modern health management information system is an essential tool for managing the core functions of the social insurance funds, including managing the beneficiary registry and eligibility checking system, claims processing, payment and billing systems, utilization reviews, and medical audits.

Short-term recommendations

- Draft framework legislation for the establishment of the NHIF, including the definition of beneficiaries, contribution rates, copayments and other cost-sharing responsibilities, the benefits package, medical tariffs, eligible service providers, and the administrative arrangements for management of the Fund, and engage in extensive consultation with key stakeholders on the design of the NHIF.

- Evaluate the effectiveness of the Family Health Fund in providing cost-effective and appropriate primary health care services; estimate the cost of expanding the system for national coverage; and examine the feasibility of integrating the program into the benefits package to be covered under the NHIF.

- Assess the PTES in terms of the level of financial protection for the uninsured population, and develop options for redirecting the budget under PTES into the new NHIF framework.

Medium-term recommendations

- Promulgate a new health insurance law based on the broad consultative process of the draft framework legislation.

- Establish the NHIF based on the analysis of the business model, organizational structure, and staffing requirements, with a phased expansion of social insurance coverage based on feasibility analyses.

- Based on the evaluation of the Family Health Fund and PTES, integrate appropriate elements of these programs in the NHIF framework.

Enhancing economic incentives to improve the quality and efficiency of government health services

Reorganizing government providers under Economic Authorities and encouraging the participation of private providers in the National Health Insurance Fund

Currently, public sector hospitals and clinics are managed under multiple national organizations, contributing to the fragmentation of services at the governorate level. In line with the government policy toward decentralizing public services, public hospitals belonging to the MoHP, PATHI, HIO, and CCOs could be reorganized into a hospital network under a common management structure at the governorate level. These facilities could be transformed into Economic Authorities, but doing so would require an in-depth review of performance and rectification of any structural and organizational constraints. This network would be managed as autonomous public entities under a board comprising representatives of the local authority, MoHP, NHIF, medical syndicates, and patient advocates. Budget financing for these networks would be gradually phased out and replaced with the revenues from contracting with the NHIF.

Regulating investments in new medical technologies and procedures

All public investments in new public hospitals, new technologies, and new procedures should be subject to rigorous review of evidence for need, efficacy, cost-effectiveness, and affordability. The MoHP has introduced the use of a Governorate Health Master Plan under the health sector reform program to rationalize investments in primary health care services. a similar approach is needed for the hospital sector. With regard to investments in new technologies and procedures, including the registration of new pharmaceuticals, the government should invest in the development of national capacities to undertake a more rigorous assessment of cost-effectiveness and affordability of new technologies.

Introducing a National Quality Improvement and Accreditation Program

The MoHP needs to establish a national program for quality improvement, which would involve public and private sector providers. The proposed Egyptian Council for Accreditation and Quality of Health Care would play a key role in introducing a process of peer review and enforcement of quality standards at the facility level. The Council will be an autonomous entity under a board of directors representing providers in the public and private sectors. Its primary function would be to establish standards of service, undertake facility inspections to establish accreditation, and provide technical assistance to providers. Accreditation could be one of the key conditions for contract awards by the NHIF.

Short-term recommendations

- Develop a medium-term investment plan for rationalizing the network of public health care providers, including an expansion of the Governorate Health Master Plan.

- Prepare a change management plan for reorganizing the existing government health care providers into a network of autonomous providers operating as Economic Authorities.

Medium-term recommendations

- Roll out the reorganization of government providers into Economic Authorities.
- Introduce a health technology assessment process for evaluating all major public investments in new medical technology or adding new procedures and drugs.
- Establish a national accreditation program and a quality of health care agency with an independent board.

Annex 1. Challenges and opportunities of a guaranteed health benefit package: Empowering citizens, increasing efficiency, and introducing financial and fiscal discipline and transparency

The constitution of most countries includes citizens' right to good health or access to health services, but few provide provisions in the constitution or legal mandates that translate into effective instruments for citizens to demand compliance by the state or other health system actors with such rights. There is growing agreement internationally that societies need to make explicit a guaranteed package of health services both as a tool to empower citizen in demanding compliance of their rights to health and as a key instrument to ensure equity and efficiency in the health system.

A benefits package lists the interventions covered by one or a group of health insurance schemes; defines quality of service and its timing, copayments, deductibles (if any), and stop-loss provisions; and contains provisions on confidentiality, accommodations, privacy, access to patient information, patient rights, and other elements essential to the preservation of dignity. In addition to the empowering effect, the benefits package is also essential for public subsidy policy. Public subsidies are justified to forestall sickness-generated poverty. Fiscal constraints limit government's capacity to subsidize households. Even if there were no fiscal constraints, however, households might demand ineffective health interventions because of information asymmetry or incomplete knowledge. Therefore, an explicit benefits package is also a fundamental tool to increase efficiency in the subsidization (and mandate for insurance) policy of states. At the same time, because this increased efficiency may demand exclusions from the package, it also makes a benefit package politically complex.

Furthermore, in the absence of a benefits package, public subsidization of households based exclusively on households paying for services that could plunge them into poverty can result in regressive subsidization. Rich households, demanding complex and expensive interventions (with no limit), could argue that they are also at risk of impoverishment because most public subsidies with a significant opportunity cost for society are concentrated on subsidizing the poor for simple and often highly cost-effective interventions. As a result, tax incentives for health insurance (an indirect subsidy) are often put in place without any benefits package. This signifies that society is willing to subsidize consumption regardless of the services demanded or the income of the household receiving the subsidy. The adequate policy response for the rich-household case is to promote voluntary private health insurance with no subsidization.

The benefits package is of key importance in determining the performance of a health insurance arrangement. It defines a participant's entitlement to use a specified package of health care services under a set of conditions (for example, quality, waiting time, service price at delivery). These definitions largely determine the effectiveness of the insurance scheme in ensuring access to health services with financial protection. A benefits package with too many constraints and limitations, one with too few interventions, or one with the wrong interventions (for example, uninsurable events) will not work.

To be effective, the definition of a benefits package must specify the health services included. It should also contain clear guidelines and provisions for guaranteeing the conditions under which the covered services will be provided, including those pertaining to financial protection and dignity. A benefits package must therefore include the following elements:

- The list of health interventions (health care services), which must be insurable events.

- Acceptable service quality (clear definitions of interventions and the eligibility of accredited providers).

- Copayments, deductibles (if any), and stop-loss provisions.

- Specific definitions on confidentiality, accommodations, privacy, access to patient information, patient rights, and other elements essential to the preservation of dignity.

Increasingly, countries with guaranteed benefit packages are also beginning to experiment with specifications of appropriate timing for delivery of the services, such as maximum waiting times, as an important component of the specifications.

The preparation of an explicit guaranteed benefit package is complex. It needs to include all the dimensions listed above as well as estimations of financial and fiscal impact to ensure political, financial, and fiscal feasibility. Discussions on what to include as the core drivers of the definition of services to be included are difficult and long. They usually center on the equilibrium between household financial protection and objectives of health status gains for society. The financial and fiscal estimations are technically difficult and require significant actuarial and health financing expertise. The introduction of explicit guaranteed benefit packages is having both intended and unexpected effects (as in Colombia since 1996 and in Chile since 2002):

- First, it has forced a re-evaluation of the breadth and depth discussion that many middle-income countries thought they had solved. Breadth of coverage refers to the number of people who have access to basic health services. Depth refers to the quality of the health benefits package: the services included and the technical characteristics involved in the delivery of those services. Before the reforms, all services were theoretically available to every citizen (a deep benefits package). In practice, however, nothing was guaranteed (often resulting in a shallow package, particularly for the poor). Now, under the explicit guaranteed reforms, as benefits packages become legally binding on governments, the debate over whether to guarantee a limited package or a deep package is very much alive.

- Second, the guaranteed package reforms have encouraged (often forced) a much closer dialogue between ministries of finance and ministries of health, because the legally binding nature of the packages shrinks the space for fiscal adjustment at the expense of the health sector, depending on the breadth and depth of the package and on the mechanism for indexation of fiscal transfers and package costs. Errors in defining the package can have far-reaching consequences on the financial—particularly the fiscal—sustainability of the reform.

- Third, these reforms have provided governments with a powerful instrument for achieving efficiency-enhancing reforms without losing public support. Guaranteeing a package requires clarity and certainty regarding the quality of services delivered, which in turn requires complex monitoring systems and provider-payment systems with contracts or quasi-contracts between the public financing agency and health service providers. All these features hinge on effective purchasing.

The most interesting feature of explicit entitlement reforms is that although they appear to require the implementation of most of the efficiency-enhancing reform measures, these measures are subordinated to the primary goal of guaranteeing the package, rather than being the instruments for achieving the specific reform objectives such as improving efficiency of or access to care. This is a significant departure from the purely efficiency-enhancing reforms of the 1990s that focused almost exclusively on the instruments (such as payment mechanisms or granting autonomy to providers or the purchasing agency) rather than on the specific benefits for the target population.

Annex 2. Role of voluntary health insurance systems in the European Union

In the European Union and in countries that have a statutory (compulsory) health insurance system in place, the role of voluntary health insurance (VHI) is classified as substitutive, complementary, or supplementary, as defined below:

- *Substitutive insurance:* Coverage for services that would otherwise be covered by the state or social health insurance.

- *Complementary insurance:* Coverage for services only partially covered by the state (e.g.,such as co-payments required by social health insurance).

- *Supplementary insurance:* Coverage for services not covered by statutory health insurance, access to alternative providers not covered under social insurance, faster access (i.e. avoiding waiting lists) to selected services; and for non-medical amenities such as single rooms in hospitals.

A review of experience in the European Union shows that the role of VHI is relatively limited in countries that have a well-established statutory health insurance system. In the EU countries, VHI has been used mainly for improved amenities care (for example, private hospital rooms), faster access (for example, use of private clinics to avoid the waiting lists at public providers), and greater choice of providers. In some countries, such as France, VHI has also been used extensively to provide complementary coverage for copayments and other cost-sharing requirements of the statutory health insurance programs. Market participation rates throughout the European Union remain relatively low, with expenditures on VHI accounting for less than 10 percent of total health expenditures in most states.

Annex table 1 Examples of benefits covered under supplementary and complementary voluntary insurance in the European Union

Country	Complementary	Supplementary
Austria	Hospital per diem charge (cash benefit)	Physician costs
	Alternative treatment	Supplementary hospital costs
		Faster access or increased choice
Belgium	Legal copayments for nonreimbursed in- and outpatient costs	Supplementary hospital costs
	Home care costs (loss of independence)	
Denmark	Copayments for drugs, dental care, physiotherapy, glasses, etc.	Access to private hospitals in Denmark and abroad
France	Copayments (including differences between negotiated and real prices)	Faster access to specialist consultations
	Treatments excluded by public sector	Choice of private room in hospital
	Home help	
	Hospital per diem charge	
Germany	Outpatient care	Choice of specialist
	Dental care	Amenity beds
	Hospital daily allowance (cash benefit)	

Italy	Copayments	Increased choice of provider
	Nonreimbursed services	Increased access to private hospitals
	Dental care	
	Hospital per diem charge	
Netherlands	Mainly dental care	Faster access to acute and long-term care
	Drug copayments (marginal)	
	Cross-border care	
	Alternative treatment	
Spain	Dental care	Increased choice of provider
United Kingdom	Cash benefits	Faster access to specialists and elective treatment
	Dental care	
	Alternative treatment	Choice of amenities in public hospitals

Source: Mossialos and Thomas 2003.

Annex table 2 Levels of VHI coverage in the European Union as a percentage of the total population

Country	Substitutive	Complementary/supplementary
Austria (1999)	0.2%	18.8% (complementary) 12.9% (supplementary; hospital expenses)
Belgium (2000)	7.1%	30–50% (complementary)
Denmark (1999)	None	28% (mainly complementary; some supplementary)
France (2000)	Marginal (frontier workers)	85% (1998) (complementary) 94% (2000 estimate) (complementary)
Germany (1999)	9%	9%
Italy (1999)	None	15.6%
Netherlands (1999)	24.7% (+4.2% WTZ	>60% (complementary) Marginal (supplementary)
Spain (1999)	0.6%	11.4%
UK (2000)	None	11.5% (mainly supplementary)

Source: Mossialos and Thomas 2003.
Note: WTZ means those covered by the Access to Health Insurance Act.

Annex 3. Health expenditures in Egypt

Annex table 3 Total health expenditures, FY 1996–2004 (LE)

	1996	1997	1998	1999	2000	2001	2002	2003	*2004
Health expenditures, nominal (million LE)									
Public expenditures	4,369.0	5,050.6	5,946.7	6,513.2	7,790.3	7,937.2	9,121.7	9,351.8	10,001.2
Private expenditures	4,373.0	5,935.4	7,497.7	9,060.1	10,622.5	12,184.8	13,747.2	15,309.6	16,871.9
Total	8,742	10,986	13,444	15,573	18,413	20,122	22,869	24,661	26,873
Change from previous year (%)	n.a.	25.7	22.4	15.8	18.2	9.3	13.7	7.8	9.0
Health expenditures, (millions, constant 1996 LE)									
Public expenditures	4,369.0	4,560.4	5,171.5	5,577.8	6,390.2	6,383.0	7,174.0	6,922.6	7,043.1
Private expenditures	4,373.0	5,359.3	6,520.3	7,758.9	8,713.4	9,798.8	10,811.8	11,332.9	11,881.6
Total	8,742	9,920	11,692	13,337	15,104	16,182	17,986	18,256	18,925
Change from previous year (%)	n.a.	13.5	17.9	14.1	13.2	7.1	11.1	1.5	3.7
Public as % of total	50.0	46.0	44.2	41.8	42.3	39.4	39.9	37.9	37.2
Per capita expenditures (nominal LE)									
Public expenditures	73.7	83.6	96.6	103.8	121.8	121.8	137.4	138.4	145.5
Private expenditures	73.8	98.2	121.8	144.3	166.0	186.9	207.1	226.6	245.5
Total	147.5	181.8	218.3	248.1	287.8	308.7	344.6	365.0	391.0
Per capita expenditures (constant 1996 LE)									
Public expenditures	73.7	75.5	84.0	88.9	99.9	97.9	108.1	102.5	102.5
Private expenditures	73.8	88.7	105.9	123.6	136.2	150.3	162.9	167.7	172.9
Total	147.5	164.2	189.7	212.3	235.9	248.2	270.8	270.1	275.4
Total health expenditures									
As % of GDP	3.8	4.1	4.7	5.1	5.4	5.6	6.0	5.9	5.9
Memo items									
GDP deflator (1996 = 100)	100.0	110.8	115.0	116.8	121.9	124.4	127.2	135.1	142.0
Total public spending (million LE)	—	—	—	—	—	237,643	259,542	285,820	286,479
GDP (million LE)	228,000	265,900	287,400	307,600	340,100	358,700	378,500	415,000	455,000
Population (million)	59.3	60.4	61.6	62.8	64.0	65.2	66.4	67.6	68.7

Source: MOF, NHA 1995, and NHA 2002.

Notes: n.a. = not applicable. — = data not available. Public expenditures for FY 1996–2002 are all final actual expenditures; those for FY 2003 and FY 2004 are interim actual expenditures. Private expenditures for FY 1996 and 2002 from the National Health Accounts (NHA). Private expenditures for FY 1997–2001 based on NHA for 1996 and 2002 using a linear interpolation. Private expenditures for FY 2003 and 2004 based on NHA 2002

assuming the same linear trend. Exchange rate in any fiscal year is the average of exchange rates of the period spanning two calendar years. Figures may not add due to rounding.

Annex 4. National Health Accounts

Annex table 4 National Health Accounts, financing agents to providers, 2002

	MoHP	HIO	CCO	PATHI	Other ministries	Syndicates	Private/NGO providers	Foreign providers	Pharmacies	Other health	**Total**
MoHP											
LE million	3,421.54	2.62	28.84	115.36	10.49		110.12	196.00	1,012.31		4,897.29
%	14.8		0.1	0.5			0.5	0.8	4.4		21.1
HIO											
LE million	43.08	1,343.19	70.96	83.63	15.21		195.14	1.37	603.84		2,356.42
%	0.2	5.8	0.3	0.4	0.1		0.8		2.6		10.2
Other ministries											
LE million			52.86	1,520.96	24				405.75		2,003.57
%			0.2	6.6	0.1				1.8		8.6
Public firms											
LE million					101.39				65.64		167.04
%					0.4				0.3		0.7
Households											
LE million	676.19	177.58	5.46	232.23	163.92	1.37	3,278.48		5,873.95	3,251.16	13,660.34
%	2.9	0.8		1.0	0.7		14.1		25.3	14.0	59.0
NGOs											
LE million							22.70				22.70
%							0.1				0.1
Syndicates											
LE million						33.03	2.77	33.03	9.68		45.48
%						0.1		0.1			0.2
Rest of world											
LE million										18.69	18.69
%										0.1	0.1
Total											
LE million	4,140.81	1,523.40	158.13	1,952.18	315.02	34.4	3,609.21	34.40	7,971.17	3269.85	23,171.53
%	17.9	6.6	0.7	8.4	1.4	0.1	15.6	0.1	34.4	14.1	100.0

Source: Egypt National Health Accounts, 2002.

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Notes

[1] A background report describing Egypt's health system in more detail will be available online.

[2] Government Authorities are financed directly through the state budget, whereas Economic Authorities are financed through self-generated revenues.

[3] Total fertility rate is defined as the total number of children ever born to a woman over the course of her lifetime.

[4] Egypt's government revenues benefit from sizeable nontax revenues, which accounted for about 12.5 percent of GDP in 2003 (IMF 2005).

[5] The IMF estimates that implicit subsidies have increased to 7.7 percent of GDP in 2003/04 (IMF 2005).

[6] Law 32 covers government sector workers, while Law 79 covers public sector workers (employees of the Economic Authorities) and private sector workers.