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Financing Health Care in Egypt:
Current Issues and Options for Reform

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Contents

Abstract

Introduction: The Government of Egypt has embarked on a process of reforming health care financing in the country. Under the influence of external advisers it has so far focused on social health insurance as the main funding mechanism. Other options, in particular tax-based financing, have hardly been considered.

Methods: Review of current health care financing arrangements in Egypt, of potential areas for improvement, and of stated health policy goals. Analysis of social health insurance and taxation-based financing on their ability to meet the stated policy goals and their viability.

Results: Although both funding mechanisms have distinct advantages and disadvantages when applied to the Egyptian health system, tax-based financing seems better able to meet the official policy goals of the Government of Egypt than social health insurance on grounds of efficiency, equity and technical feasibility.

Conclusions: The Government of Egypt will have to raise public health expenditure substantially to finance care at an adequate level. Expanding and refining the present tax-based financing scheme, rather than switching to an insurance-based scheme seems the technically superior strategy. Other measures to improve the coordination of financing, such as the creation of a single fundholding agency, are needed as well as tighter regulation of private providers and the pharmaceutical market.

Zusammenfassung

Hintergrund: Die ägyptische Regierung hat begonnen die Finanzierungsmechanismen im Gesundheitssystem zu reformieren. Der Fokus der Überlegungen der Regierung und der externen Berater war bisher ein Sozialversicherungssystem. Andere Optionen, besonders ein aus Steuern finanziertes Gesundheitssystem, wurden bisher nicht ausreichend berücksichtigt.

Methoden: Übersicht über derzeitige Finanzierungsmechanismen im ägyptischen Gesundheitssystem und Aufzeigen von möglichen Ansatzpunkten für Reformen und der gesundheitspolitischen Ziele der Regierung. Vergleichende Analyse des Verbesserungspotentials durch eine allgemeine Sozialversicherungspflicht oder eine Finanzierung aus Steuermitteln. Die offiziellen gesundheitspolitischen Ziele der Regierung werden dabei neben der technischen und politischen Umsetzbarkeit als Kriterien verwendet.

Ergebnisse: Obwohl beide Finanzierungsmechanismen im Kontext des ägyptischen Gesundheitssystems unterschiedliche Vor- und Nachteile bieten, scheint eine Finanzierung aus Steuermitteln die geeignetere Finanzierungsart um die gesundheitspolitischen Ziele der Regierung wie Effizienz und Gerechtigkeit nachhaltig zu erreichen.

Empfehlungen: Zum einen müsste die ägyptische Regierung die öffentliche Finanzierung des Gesundheitssystems deutlich erhöhen um eine adäquate Gesundheitsversorgung der Bevölkerung zu gewährleisten. Zum anderen scheint eine Ausweitung und Präzision des bestehenden steuerfinanzierten Systemanteils einer Ausweitung des Sozialversicherungsanteils die technisch überlegene Strategie zu sein. Andere flankierende Massnahmen wie die Schaffung einer zentralen Koordinationsstelle für die Gesundheitssystemfinanzierung und eine verbesserte Regulierung der privaten Anbieter und des Marktes für pharmazeutische Produkte sind ebenfalls wünschenswert.

1. Introduction

The Government of Egypt has declared health a national priority and currently considers policies to reform health care financing (1). After embarking on economic liberalisation during the 1990s, Egypt has received considerable amounts of foreign aid and assistance to restructure its health care system, notably by the World Bank, USAID, and the European Commission. The technical assistance was predominantly provided by American for-profit consultancies subcontracted by USAID. More recently European non-profit consultancies have also been involved. The health reforms envisaged by the Western consultants were so far heavily focussed on a social health insurance funding model. Other options for health care financing have so far not figured prominently in publicly available documents. In this paper funding the Egyptian health system through social insurance is compared to funding through taxation, which is the other main alternative. The feasibility of expanding private health insurance has been dealt with elsewhere in detail.

The paper begins with an overview of the Egyptian health care system and its political and socioeconomic environment. Next, current issues in health care financing are highlighted and policy goals are specified. The subsequent section analyses the advantages and disadvantages of the two main alternative sources of finance, social insurance and taxation, with respect to their ability to achieve stated policy goals and their viability. The paper concludes with a number of recommendations to reform health care funding in Egypt. Health service delivery issues are beyond the scope of this study.

2. Background

2.1. Political and socioeconomic environment

With 67.3 million inhabitants, Egypt is the most populous country of the Middle East and North Africa (MENA) (2). According to World Bank criteria, Egypt is a lower-middle income country (3). Currently 35% of its population are under 15 years of age, and the workforce totals 28% of the population, with roughly one third employed in agriculture and another third employed in the public sector (4). At least 45% of the population are urban (6). This is probably an underestimate, as many Egyptian "villages" are now the size of small towns. Other sources estimate that 60% of Egypt are now urban (5).

After three decades of socialist economy and rapid economic growth, Egypt started implementing economic reforms in 1986 to counter a substantial deterioration of economic performance due to falling oil prices and economic imbalances (7). In 1990 it embarked on a comprehensive structural adjustment programme. Meanwhile it has become the very model of a modern emerging market (5). Macroeconomic indicators are favourable: a sustained growth rate around 6%, inflation below 4%, a budget deficit at 1.3% of GDP (from 15% in 1989), and foreign reserves of US$20.6 billion (3, 5, 8). However, economic reforms have also given rise to adverse social effects, namely the aggravation of poverty and unemployment (9). Measures included the reduction of government spending, elimination or reduction of subsidies on food and other goods and services, and higher taxes required to attain fiscal balance, all of which primarily affect the poor (9). Unemployment was primarily caused by restructuring of the public sector and privatisation (9).

In 1990, the number of poor in both urban and rural areas was estimated at 34%, defined as persons living below the abject poverty line with a monthly expenditure of less than $35 per individual (purchasing power in 1985 prices) according to UNDP criteria (10). The improved income of other social groups benefiting from the reforms creates larger income discrepancies and further heightens the poverty perception of this large segment of the population (9).

Officially 14% of the workforce was unemployed in 1995, but when new graduates and 1.5 million redundant public sector employees are taken into account, effective unemployment adds up to 20% (9). Between 1991 and 1999, public investment in the social sector decreased steadily from 1.9% to 1.3% of GDP (4). Public investment in health fell from 0.16% in 1991 to 0.04% in 1994, but has since risen to 0.23% of GDP in 1999 (4). Detailed data on public expenditures are not available, but total current public expenditure decreased from 26.2% in 1994 to 19.4% of GDP in 1999 (8).

There has been no political counterpart to economic liberalisation. Power remains centralised, with little authority devolved to local levels (5). The legal and regulatory system is a thicket of tens of thousands, sometimes contradictory, laws and decrees, dating from different periods including Islamic, French, Ottoman, British, Soviet-inspired, and recently those favouring a globalised market economy.
(5).

2.2. Egypt's health care system

Egypt has a complex health system, with many different public and private providers and financing agents. There are four main financing agents: i) the government sector which is understood in Egypt to refer to the various ministries and departments of the government (7); ii) the public sector, consisting of financially autonomous organisations owned by the government, the largest being the Health Insurance Organisation (HIO) and Curative Care Organisations (CCO); iii) private organisations, like private insurance companies, unions, professional organisations, and nonprofit NGOs; and iv) households (7, 11). Health care providers in the government sector are the Ministry of Health (MOH), teaching and university hospitals, HIO, and the Ministries of Interior and Defence. Public providers are HIO, CCO, and other public firms. The private sector consists of both nonprofit and profit providers, such as private clinics, hospitals and pharmacies (7). NGOs are currently one of the fastest growing sectors (11).

In the Egyptian financial year 1995, health spending totalled E£7.5 billion or 3.7% of GDP, equivalent to E£127 (US$38) per capita (7). Public financing, mainly from

general taxation, contributed 1.6%, private financing 2.1% of GDP (7). In 1999 government revenues totalled 23.6% of GDP. Central tax revenues accounted for 15.6%, transferred profits for 3.2% and other, not-tax revenues for 1.8%. Local revenues accounted for 2.9%. Since 1994 total revenues have decreased steadily from 30% of GDP, and tax revenues from 17.9%, respectively (8).

Social insurance, which accounted for 18% of public funding (7), is mandatory for formal government and company employees, who contribute 0.5 and 1% of their base salary, and their employers 1.5 and 3%, respectively (11). 5% of funding was raised by firms, private insurance and syndicates, and 51% were spent by households (7). Sources of finance are summarised in Table 1.

Table 1. Egyptian Health Revenues: Sources of finance. Source: (7).

Source of Finance	**Percent of Total Health Revenues**
Households	51
Ministry of Finance	35
Social insurance contributions	6
Firms	5
Foreign donors	3

Almost all public monies passed through financial intermediaries before being transferred to providers, whereas more than 90% of household expenditures consisted of direct out-of-pocket payments to private providers and pharmacies (7). There were three major financing channels (7):

1. From Ministry of Finance (MOF) to MOH facilities through MOH budget (E£1337 million).
2. From Social Insurance Organisation (E£448 million) and MOF (E£434 million) to HIO.
3. From households (E£3780 million) directly to private providers and pharmacies.

The use of funds at provider level is visualised in Table 2. Less than 60% of MOF funds were actually spent in MOH facilities (7). The rest was transferred to teaching and university hospitals, HIO and CCO. MOH facilities thus only received 19% of all health sector resources, or 0.7% of GDP (7). 56% of all resources were spent in the private sector, most of it for the purchase of drugs (63%) or paying for private ambulatory care (17%). Less than 10% of private funds were used to purchase inpatient care (7).

Despite the radical economic policy shift, there has been little change in the overall financing and structure of the health system since 1991. The only notable changes were the expansion of social insurance coverage to 10 million schoolchildren in 1993 (11), and an increase in total health spending from 3.4 to 3.7 of GDP (7).

Table 2. Egyptian Health Expenditure: Use of funds. Source: (7).

Users of Funds	**Percent of Total Health Expenditure**
Pharmacies	36%
Ministry of Health services	19%
Private providers	18%
University and teaching hospitals	10%
Health Insurance Organisation services	8%
Other private	5%
Other public	3%
Non-governmental organisations	1%

3. Current issues

The Egyptian health system has some strengths, like an extensive infrastructure of physicians, clinics and hospitals, availability of technology and pharmaceuticals, and excellent physical access to care with 95% of the population being within 5 km reach of a medical facility.
It achieved high immunisation rates and a reduction of annual population growth from 2.3% in 1990 to 1.8% in 1999 (3, 6). However, the belief that the lowering of the Egyptian birth rate is a result of the systematic extension of family planning services has been challenged. Evidence seems to suggest, that it is rather a response to the country's changing economic, social, and political circumstances (12).

During the period of structural adjustment, there has been continuing concern with the government's policies in the social sector, and there has been some recognition that performance in the health sector both before and during adjustment has been less than adequate (7). The Egyptian health system has been characterised as having virtually all the problems encountered in former socialist countries, while at the same time possessing few of the advantages and most of the problems of an open-ended, US type system (13).

In particular, the following problems have been identified:

- *Health status concerns*: Although substantial health improvements have occurred in the 1980s, like a reduction in child mortality and in infectious diseases (14), these have given way to stagnation of health conditions in the 1990s (7). Compared to other countries at its income level, Egypt's health indicators were and remain poor (7, 15).

- *Inequity*: Although in theory, the government guarantees "free health care to all" (11), there is a huge disparity in financial access to care. The burden of households on out-of-pocket spending is greater than in any other country in the MENA region, with the exception of Yemen (7). The poor pay relatively more (both out-of-pocket and through the tax system) and receive relatively less in benefits than the better-off social strata (13). Less than 40% of the general

population, and only 15% of those over 15 years of age benefit from social insurance coverage (11, 13). Social insurance with nearly 50% contribution from general revenues resembles more a subsidised public finance scheme than a true insurance, which only benefits formal sector workers (7), and even excludes spouses and children of employees (11). There is also an important geographic disparity of service delivery. Utilisation rates for ambulatory and hospital care are nearly double in urban compared to rural regions (16).

- *Macro-inefficiency*: With total health care spending at 3.7% of GDP, Egypt spends on the lower side of what is seen in developing countries, and less than most countries in the MENA region (7). If government health spending is seen as an indicator for its commitment to improve health conditions, Egypt's commitment is low compared to its regional comparators (7).

- *Micro-inefficiency*: Financing and management is completely fragmented with 29 public agencies involved (13). This precludes efficient and equitable risk pooling as well as a consistent policy focus or consistent incentives for efficiency (13). The low quality of government and public services is generally acknowledged (7, 11) . This is evidenced by an estimated 30-40% of nosocomial infections in hospitals (13), and 50% of deaths in emergency cases thought to be due to improper case management (1). Public health provision is poorly targeted, as the focus is on expensive tertiary care. Primary care is mainly left to the private sector. Partly due to an employment guarantee for doctors and nurses there is an oversupply of providers, but their training is often insufficient (13). More than 80% of physicians conduct private clinics in addition to their public employment (17). Hospital occupancy rate is below 50% (13). There are too many specialists vs. primary care physicians (13), and pharmaceutical consumption and spending is 50% higher than in comparable countries (13).

- *Rising health care costs*: Due to an epidemiological transition from infectious to non-communicable diseases, a continued high population growth (high birth rate and longer life expectancy), and rising expectations of the population through access to global communication and commerce, an upward pressure on health care costs is expected (1).

4. Policy aims

Guiding goals of any health sector reform are to improve health status and the quality of care (18). As these are multidimensional and notoriously difficult to measure, policies are better assessed using operational objectives (18). Since policy goals can be conflicting there is a need to set priorities (18).

In view of current problems we consider the following objectives priorities for successful reform of health care financing in Egypt:

- Improvement of efficiency at the macro and micro level, notably the ability of policies to increase revenue while maintaining expenditure control, and analysis of incentives for efficiency and quality inherent to policies.

- Reduction of inequity in finance and delivery, notably the ability of policies to increase coverage and to improve risk pooling through reduction of out-of-pocket expenditures, as well as their ability to meet the needs of the poor in particular.

In addition, the technical and political feasibility of policies will be assessed, notably the administrative and institutional capacity to carry out policies, and the acceptability of reforms to users, health professionals and politicians.

Possible options for reform will be judged against these criteria in the following section.

5. Options for reform

Health care financing options can be classified according to i) source of finance (voluntary and compulsory/public), ii) management of finance, and iii) provider payment methods (19, 20). Of the many possible subsystems resulting of combinations of these mechanisms, only a few seem suitable as main components of health care financing in Egypt. As detailed above, the current system relies mainly on the combination of a voluntary, out-of-pocket model and a public integrated model. The dominant model in many OECD countries is a public contract model (20). This seems also a feasible option in Egypt, which not only has the potential to improve efficiency and equity of health services, but also to recycle out-of-pocket expenditures into the public system, which has been considered the greatest challenge for reform (13). The weaknesses and strengths of different ways of funding such a model will be analysed here. The possible role of voluntary health insurance or compulsory saving accounts in Egypt is very limited, and has been reviewed elsewhere in detail (11).

5.1. Social-insurance-based financing

Macro-efficiency: Compared to systems financed through general taxation, there is in general less political resistance to raising social insurance contributions (21). This would make it easier for the government to increase revenue for public health spending. However, social insurance, being effectively a payroll tax, can increase labour costs (21), which might not be desirable in the actual context of economic reforms and encourage the non-reporting of economic activity (22). Independence of the management of finance from government control and state budget, which is a key feature of social insurance schemes, leads to loss of governmental control of expenditure. This has proven to be particularly problematic in CEE and CIS countries, who experienced an increase in costs after the introduction of social insurance and large deficits of funds, which had to be covered by the state budget (22). Some are now considering reverting to tax-based schemes (22). Likewise a number of southern European countries recently changed their finance systems from

social insurance to general taxation, mainly because of difficulties to control expenditure (23).

Micro-efficiency: In contrast to out-of-pocket payments, social insurance, like any form of third party payment mechanism, will lead to consumer moral hazard. Even under the current, low-quality HIO scheme a significant increase in utilisation is observable when compared to no insurance (16). Whether this increased use as compared to a perfect market is inefficient is very controversial (24). Provider moral hazard is frequently observed in social insurance systems (21), but this is thought to be related to fee-for-service payment of providers often associated with social insurance, rather than to the funding mechanism. In general, social insurance systems deliver high-quality care (21), but this might essentially be due to the fact that it is the system employed in the world's richest countries with high overall spending on healthcare and high living standards. Competition between providers, and even between funds can be incorporated in the design of such a system, when consumer choice of provider and/or fund is given and money follows patients. If competition between multiple funds is permitted, care has to be taken to prevent risk selection by funds and adverse selection by consumers. Administrative costs are likely to be higher than for a tax-based financing scheme.

Equity: According to the ability to pay principle, social insurance systems tend to be equitable to a certain extent, as contributions are usually related to income (21). However, most social insurance systems fund health care in a regressive way, since contributions are calculated as a flat percentage of salary and there is often a ceiling, resulting in comparatively lower contributions for the better-off (22). In Europe, no social-insurance-financed system has achieved complete universal coverage, since cover follows entitlement based on some criterion relating to contributions (22). Thus inequality of access is present, and especially targeting the poor which should be a priority for Egypt is not a strength of these systems. In addition, in some countries with multiple insurance funds benefits vary between funds (22), which is counter the principle of equal care for equal need.

Feasibility: In all insurance-financed systems ways have to be found to cover non-contributing individuals. This is likely to be an important obstacle to social insurance

funding in Egypt, as for every contributing individual working in the formal sector, there are 5 non-contributing individuals. It is worth noting, that under the current HIO scheme even close dependants are not eligible (11). Even in high-income countries using social insurance financing schemes, 20-40% of total health care spending are funded through the state budget from general taxation (22). Payment compliance problems are likely to arise as a result of the increased financial burden on state and private employers. In CEE and CIS countries large arrears in social insurance contributions have been accumulated by employers (22). Administrative capacity to manage a social-insurance scheme in Egypt is considered limited (13), and lack of adequate information systems, lack of technical expertise in insurance management, lack of institutional infrastructure and an inadequate regulatory framework may further impede viability of insurance-based financing in Egypt. For example, 95% of small enterprises, which employ 75% of the non-agricultural labour force, do not have bank accounts (5). In contrast to its weak technical feasibility, social insurance is likely to be highly acceptable to better-off citizens and politicians in favour of current economic reforms for its dissimilarity to previous state financing, and to health care professionals because of expected higher earnings.

5.2. Tax-based financing

Macro-efficiency: Health systems financing through general taxation tends to restrict the overall level of health care funding to one below the level generated by social insurance (21). With respect to cost containment and the expected rise of health care costs, this can be considered a clear advantage. However, raising revenue for health purposes may be more difficult, as taxpayers seem more resistant to increases in general taxes compared to insurance contributions earmarked for health (21). This could partly be compensated by the introduction of complementary, hypothecated taxes on income or consumption.

Micro-efficiency: Addressing the fragmentation of Egyptian financing and organisational structures seems easier under a tax-based scheme than under insurance-based financing. Quality issues traditionally considered associated with finance through the state budget, notably the lack of incentives for efficiency, can partly be overcome by introducing quasi-market mechanisms like a purchaser-

provider split, by allowing competition between providers, and by devolving financial autonomy to local units. The quality issue is also watered by the fact that countries with health care financing through general taxation mostly follow a public integrated model, and efficiency problems encountered in these systems may rather be related to public provision of services than to the finance mechanism. Administrative costs are likely to be lower than under an insurance-based scheme.

Equity: In contrast to insurance-based systems, entitlement is based on citizenship or residence, and universal coverage as well as risk pooling is generally achieved in countries with tax-based health funding (22). The equitable distribution of the financial burden according to the ability to pay principle will depend on the progressivity of the overall taxation system (21). Funding from direct taxes is usually progressive (25). In contrast, indirect taxes are mildly regressive (26). For earmarked taxes, opportunities to modify equity characteristics of the financing system are greater than for general taxation, as policies to change the latter effect the whole tax system (26). In general, formal financial barriers to care do not exist in tax-financed systems, which contributes to equity on the delivery side (21). Targeting the poor in designing such a system seems easier than in an insurance-based system. However, with less funds available for the overall system, rationing of services may be more prominent, and can contribute to discrimination of special groups, especially the poor rural population (21).

Feasibility: The technical feasibility of a tax-based finance system is excellent, as such a system is already in place and both the administrative and institutional capacity to administer such a scheme are present. The political feasibility depends on the acceptability of the taxes. Earmarking taxes for health purposes can increase acceptability to contributors (21). Furthermore, the tax burden has steadily been reduced since 1994 by 2.3% of GDP (8). Thus raising taxes is likely to be more acceptable than in countries where taxes have recently been increased. Acceptability to politicians will be mixed, but in view of a current tendency to counterbalance or slow the market-oriented reforms (27) sticking to tax-based health care financing may be more acceptable than introducing a new scheme.

6. Recommendations

To address some of the health care financing issues reviewed, the Government of Egypt will have to raise public health expenditure substantially to finance care at an adequate level. On the basis of this analysis of main funding alternatives, we recommend to expand and refine the present tax-based finance scheme, rather than to switch to an insurance-based scheme as has been recommended by other organisations (1, 13). In the current situation, funding through taxes seems superior to social insurance on grounds of efficiency, equity and technical feasibility. Increasing revenue will be a major challenge, and could be addressed by expanding the use of hypothecated taxes in addition to the existing, minimal sin tax on nicotine. The current mandatory social insurance scheme for formal workers could be continued alongside to finance the public scheme, but separate provision and associated privileges should be discontinued since they decrease the solidarity of the overall scheme. Additional measures related to the source of finance will be needed, like a discontinuation of the current policy to allow companies to opt out of the social insurance scheme. In order to maintain the better-off contributors in the public financing scheme, only complementary voluntary insurance should be permitted.

User charges in the public sector should be kept at a minimum, since they represent the most regressive form of health care financing and since they are not a very powerful policy tool to improve efficiency nor to contain costs (22), and exempting the poor is very difficult (28). If permitted at all, facilities should be allowed to retain them to improve quality of services (29). Out-of-pocket payments in the private sector should be regulated and ways should be sought to replace them in the long run by other provider payment methods, e.g. capitation, under a public contract model.

Increasing health expenditure and reform of sources of funding alone will of course not be sufficient to address all issues raised. The management of finance has to be better coordinated, which could be achieved by creating a single, fundholding agency with greater purchasing power. Ways have to be found to bind private providers into the public finance system, possibly through a public contract model, in order to recycle the large amount of out-of-pocket expenditures into the public system and to create incentives for efficiency and quality, for example through changes in provider

payment methods. Other accompanying measures, like divesting inefficient public facilities, abolishing employment guarantees for doctors and nurses, limiting medical school enrolment, introducing quality assurance mechanisms, and improved regulation of the pharmaceutical market are equally important.

Finally, health sector reforms cannot be seen in isolation. Other important determinants of health, such as education, safe water and sanitation, housing and traffic regulations have to be developed in order to achieve a significant impact on population health.

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