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Comparative Report of National Health Accounts Findings from Eight Countries in the Middle East and North Africa

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Abstract

This paper presents a comparative analysis of National Health Accounts (NHA) findings from eight countries in the Middle East and North Africa (MENA), namely Djibouti, Egypt, Iran, Jordan, Lebanon, Morocco, Tunisia, and Yemen. NHA is a widely accepted policy tool that allows countries to clearly visualize national expenditures on health care. It is used to determine who pays for health care, how much they spend, and on what types of health services/functions. Using this comprehensive account of national health expenditures, policymakers can make informed decisions regarding health care financing and resource allocation. Previously, expenditure estimates were largely based on government spending and did not incorporate private sources of health care financing. NHA attempts to incorporate spending from all major actors, in both the public and private sectors. In doing so, NHA has revealed new profiles of health spending in the MENA region. Health funds were found to originate primarily from the private sources (61 percent of total health spending), and in particular from households, which represent the single largest source of national expenditures (51 percent of total health expenditures) and spend their health funds on pharmaceuticals (46 percent of out-of-pocket spending) and private outpatient services (35 percent). This raises concerns about equity and the fairness of letting households carry such a substantial burden of financing their health systems. Approximately 56 percent of health spending in the MENA region occurs via financing intermediaries. Intermediaries provide opportunities for cost sharing and can assume major roles in regulating providers by implementing incentive schemes, utilization reviews, etc. However, the significant involvement of intermediaries also brings up the need for clearly defining their roles so that bureaucratic procedures are minimized and efficiency in transferring health funds to providers is maximized. The private delivery sector consumes the largest share of health expenditures in MENA countries. Together, private providers (27 percent), followed by private pharmacies (24 percent) and “other” providers (7 percent) account for just under 60 percent of health expenditures. Sustained NHA activity in these countries will provide governments with a comprehensive picture of their health sectors so that policymakers can be better equipped to make good health care decisions and avoid potentially bad ones.

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Acronyms

CNOPS	*Caisse Nationales des Organismes de Prévoyance Sociale* (National Agency of Organizations Social Planning)
CNRPS	*Caisse Nationale de Retraite et de Prévoyance Sociale* (National Agency of Retirement and Social Planning)
CNSS	*Caisse Nationale de Securite Sociale* (National Social Security Agency)
CSF	Civil Servants' Cooperatives
GDP	Gross Domestic Product
GNP	Gross National Product
IMR	Infant Mortality Rate
JU	Jordan University
JUST	Jordan University of Science and Technology
MENA	Middle East and North Africa
MMR	Maternal Mortality Rate
MOE	Ministry of Education
MOF	Ministry of Finance
MOH	Ministry of Health
MOHP	Ministry of Health and Population
MOP	Ministry of Planning
MOPH	Ministry of Public Health
MSIO	Medical Service Insurance Organization
NGO	Non-governmental Organization
NHA	National Health Accounts
NSC	National Steering Committee
NSSF	National Social Security Fund
OECD	Organization for Economic Cooperation and Development
OPS	Office of Social Protection (Djibouti)
PHR	Partnerships for Health Reform Project (USAID)
PPP	Purchasing Power of Parity
PPU	Programs and Project s Unit
SSO	Social Security Organization
UNDP	United Nations Development Program

UNICEF	United Nations International Children's Fund
USAID	United States Agency for International Development
WHO/EMRO	World Health Organization/ Eastern Mediterranean Regional Office

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Executive Summary

Introduction

In 1999, eight countries in Middle East and North Africa (MENA) region jointly launched National Health Accounts (NHA) studies. They are Djibouti, Egypt, Iran, Jordan, Lebanon, Morocco, Tunisia, and Yemen. Using the common NHA methodological framework, these countries comprehensively examined national expenditures in the health sector, including where health funds came from, where funds were spent and how much was spent on particular health services/ functions. National Health Accounts, a widely-accepted tool, tracks the flow of expenditures through a health system and links the sources of health funds to service providers and to the ultimate uses of funds by function. Based on this comprehensive account of national health expenditures, policymakers are then able to make *informed* decisions regarding health financing and resource allocation.

The MENA NHA regional network is the first organized attempt by the countries of the region to estimate the true size of the health care sector as a percentage of GDP. Prior estimates of total health expenditures were largely based on government estimates of spending in the formal public sector, which usually means the Ministry of Health. Thus, these estimates failed to include health services provided by entities whose primary function is not health care, such as other ministries like the Ministry of Defense, Ministry of Interior and so forth. But perhaps more importantly, they failed to include household out-of-pocket health expenditures.

With the aid of the MENA regional network, country NHA studies attempted to remedy these problems of underestimation and provided a more comprehensive view of expenditures relating to health. In so doing, NHA has revealed new expenditure profiles of MENA countries' health sectors. It has also raised important policy issues as well as concerns relating to data availability and retrieval.

Expenditure Patterns

Sources of Health Expenditure

MENA NHA findings revealed that health funds originate primarily from the private sector (61 percent of total health expenditures). The single largest source of health expenditures is households that on average account for approximately half of all national health expenditures. In many instances, households pay more for health care than their respective country governments, which average 33 percent of total health spending. This raises concerns about equity and the fairness of letting households carry such a substantial burden of financing their health systems.

Donors, with the exception of Djibouti, presently do not play a major role in health financing in the MENA region. Countries with the most extensive public share of health care financing are Djibouti and Jordan. However, in Djibouti's case, donor funds to the government account for over half of the government's spending on health care.

Intermediaries

Approximately 56 percent of health spending in the MENA region occurs via financing intermediaries. Intermediaries provide opportunities for cost sharing and can assume major roles in regulating providers by implementing incentive schemes, utilization reviews, etc. However, the significant involvement of intermediaries brings up the need for clearly defining their roles so that responsibilities do not overlap, bureaucratic procedures are minimized, and efficiency in transferring health funds to providers is maximized.

Out-of-pocket Expenditures

Direct transfers of funds also comprise a significant portion of health spending, namely 44 percent of total health expenditures. The principal means for direct spending on health care is household out-of-pocket spending in the private sector. This occurs even in nations that do not have a well-developed private delivery sector.

Most out-of-pocket spending goes towards pharmaceutical drugs (46 percent) and secondly to outpatient services in the private sector (35 percent). This finding has prompted country NHA teams to propose government initiatives that regulate the pharmaceutical sector, by promoting generic drugs, by educating health professionals on better prescribing practices, and by promoting locally produced pharmaceuticals. In Iran, out-of-pocket expenditures on medical drugs is not as extensive as in other MENA countries; however, with decreasing subsidies for medical drugs, the country could face rapidly escalating drug expenditures as experienced by other MENA countries. To prevent this from happening, it might be useful for Iran to draw upon some of the drug cost-containment strategies suggested by other MENA NHA teams.

Providers

The private delivery sector consumes the largest share of health expenditures in MENA countries. Together, private providers (27 percent), private pharmacies (24 percent), and other facilities (7 percent) account for just under 60 percent of health expenditures. The remaining 40 percent of health spending is consumed by ministry of health facilities (32 percent), followed by providers for other ministries and parastatals (8 percent), and finally government university and teaching facilities (2 percent).

Policy Implications

Expenditure patterns from the eight MENA countries have raised three main policy issues that represent challenges for the region's health systems:

- Distributional and equity issues;
- Cost containment issues, particularly relating to high pharmaceutical utilization;
- Financial sustainability of health systems and/ the potential ability to increase health financing levels.

Methodological Issues Raised by NHA

While it can be argued that the NHA estimates from these eight countries are probably the best estimates to date on total country health expenditures, there is still room for improvement in terms of data availability and reliability. In general, expenditure data on public health spending is available but fragmented, while data on private health expenditures is not readily available and may require a lot of primary data collection or dependency on secondary sources of information.

Data fragmentation has a direct impact on the reliability of NHA estimates, because it increases the chances of double counting or, on the other hand, not counting certain expenditure items altogether. Either way, the eight MENA countries, like many other developing countries, will have to take a more serious look at the issue of data generation and reporting in general. Without it, the level of effort required to compile health expenditure estimates will always require so much effort and so many resources that it could even discourage the best data enthusiasts from generating these estimates on a regular basis. Thus, poor data availability and fragmentation can have a direct impact on the quality of information presented and can shed doubt on the source of data and method of collection.

Conclusion

Much has been gained from the regional network and its coordination of NHA studies in the eight MENA countries. The network has provided a forum for cross-country collaboration in meeting the challenge of accurately estimating health spending. The NHA activity itself has revealed new expenditure profiles of the region's health sectors and has highlighted the major financing issues facing these health systems. The success of NHA, however, depends on whether it is ultimately used and considered by policymakers as they shape the future of their nations' health sectors and consequently, the health of their citizens. This process has already begun and, with the institutionalization of NHA, policymakers can learn to rely and turn to accurate health expenditure estimates when making major decisions on health care.

1. Introduction

In 1999, eight countries in Middle East and North Africa (MENA) region jointly launched National Health Accounts (NHA) studies (Figure 1). Using a common methodological framework, these studies comprehensively examined national expenditures in the health sector, including where health funds came from, where funds were spent, and how much was spent on particular health services/ functions. Sponsors of the NHA studies included the Partnership for Health Reform (PHR) project funded by the United States Agency for International Development (USAID), the World Bank, and the World Health Organization/Eastern Mediterranean Regional Office (WHO/EMRO). PHR provided field technical assistance to Egypt, Jordan, and Morocco on their NHA studies. The WHO worked with Djibouti, Lebanon, and Tunisia, while the World Bank assisted Iran and Yemen.

Figure 1: MENA countries profiled in this study.

This paper presents a comparative analysis of NHA data from the eight participating MENA countries. It describes general trends with regard to health expenditures as well as country health sectors' accomplishments and deficiencies. Also discussed are the methodology used by the countries, the problems and benefits they experienced, lessons learned, and the policy implications of the data.

The objectives of this report are two-fold. The first objective is to aid policymakers of different nations to compare their own health care spending patterns and outcomes to those of other countries with similar socio-economic backgrounds. Lessons learned in one country's health system may be applicable and relevant to another nation's health system. The second objective is to provide internationally comparable and reliable data and analysis for the purposes of research on international health spending. Traditionally, a major obstacle to research in global health financing has been the lack of reliable and consistent health spending data on which to base international comparisons. With the advent of the NHA tool, this barrier is being overcome, since NHA provides a standardized methodological framework that countries can use to conduct comparable health expenditure studies.

Health care financing is a critical issue for many developing nations. Often these countries face the challenge of providing health care services using limited and sometimes shrinking financial resources. Also, many of these developing nations do not have sufficient or appropriate data to accurately estimate resource allocation to priority health programs and specific population groups;

this may lead to misguided policy decisions and to an inefficient allocation of already limited funds. Another health financing issue facing some governments is the failure to accurately assess the impact key funding sources have on the health care system (Berman et al., 1999). For example, the private sector has largely been ignored in the collection of health expenditure data even though it may be the largest component of the health system (Berman et al., 1999).

National Health Accounts, a widely accepted tool, allows countries to clearly visualize the sources and ultimate financial allocation of health funds. It attempts to determine, in an integrated way, who pays for health care, how much they spend, and on what types of health services. In short, NHA tracks the flow of expenditures through a health system and links the sources of health funds to service providers and to the ultimate uses of funds by function. Based on this comprehensive account of national health expenditures, policymakers can make *informed* decisions regarding some of the main policy questions of health financing such as how to mobilize sufficient funds for the health sector, how to allocate those funds to appropriate health providers and services so as to maximize health benefits for the largest number of people, and finally how to control the costs of that care (Hsiao, 1995). Since the main reason for estimating health expenditures is to make better health policy decisions, NHA has been designed to be a policy tool and does not include many complex calculations so that all policymakers, including those without economic backgrounds, can easily understand and interpret its findings.

1.1 Development and Overview of the NHA Method

Expanding upon the Organization for Economic Cooperation and Development (OECD) method of estimating health expenditures, the United States developed the NHA method in 1964 to collect health expenditure data in a more disaggregated fashion. This new method was designed to accommodate a pluralistic health system of financing and delivery, where providers may receive payment from more than one source and where payments may be made to numerous types of providers (Berman, 1997). This allowed for a financial analysis that could offer a more extensive breakdown of both public and private sources of spending, including household expenditures. The OECD methodology is most useful in countries where a single source of health spending is dominant as it is in most OECD member states. However, most developing countries today, like the United States, have highly pluralistic health care systems that may include fully public, semi-public, and private health sectors. The NHA framework of data collection and analysis integrates expenditures from many sectors to create a single picture of the nation's health economy.

At a minimum, National Health Accounts show the following important relationships (Lazenby et al., 1992):

- *Health care expenditure as a proportion of gross domestic product (GDP).* In short, the amount of resources a nation chooses to expend on health care relative to its productive capacity.

- *Expenditures by various sources of funds.* This includes private (such as household or donor expenditure) as well as public financing (e.g., the Ministry of Finance [MOF]).

- *Expenditures made to and by financing intermediaries.* These are agents who collect funds from financing sources in order to pay for the provision of health services by other health care providers. This may include the Ministry of Health (MOH), Ministry of Education (MOE), and Private Firms.

- *Resource allocation to different types of providers.* This might include government-owned hospitals and clinics, private hospitals and clinics, and so forth.

- *Expenditures for particular health service functions.* This may include inpatient curative care, outpatient care, preventive health services, and pharmaceutical expenditures.

1.2 Differing International Estimates of Expenditure Statistics Highlight the Need for NHA

Traditionally, estimates of country health expenditures have not been consistent among international organizations and publications. This is largely due to the lack of a standard methodology with which to collect data in various countries. Countries report varying health expenditure estimates depending on the source of data and the methodology used. NHA offers the first agreed upon international standard that can allow for cross-country comparisons based on reliable data.

To illustrate the varying expenditure estimates among international organizations, table 1 compares health expenditure data as a percentage of the GDP between MENA NHA findings and those published by the WHO in its *World Health Report 2000* and the World Bank in its *World Development Report 2000*.

***Table 1: Estimates of Health Expenditures; NHA vs WHO and World Bank Estimates**

Country	NHA Studies, 2000 Health Expenditures as a % of GDP (estimates for 1998*)			World Health Report, 2000 (published by the WHO) Health Expenditures as a % of GDP (estimates for 1997)			World Development Report, 2000 (published bt the World Bank) Health Expenditures as a % of GDP (estimates for 1997)		
	Total	Public Sources	Private Sources	Total	Public Sources	Private Sources	Total	Public Sources	Private Sources
Djibouti	5.1	2.9	2.2	2.8	2.0	0.8	NA	NA	NA
Egypt	3.7	1.6	2.1	3.7	1.0	2.7	3.8	1.8	2.0
Iran	5.7	1.7	4.0	4.4	1.9	2.5	NA	NA	NA
Jordan	9.1	4.6	4.5	5.2	3.5	1.7	NA	NA	NA
Lebanon	12.3	2.4	9.9	10.1	3.0	7.1	10.0	3.0	7.0
Morocco	4.5	1.6	2.9	5.3	2.2	3.1	4.0	1.3	2.7
Tunisia	5.9	3.0	2.9	5.4	2.3	3.1	NA	NA	NA
Yemen	5.0	2.1	2.9	3.4	1.3	2.1	5.0	2.1	3.0

* Egypt figures are based on latest NHA study published in 1995 (Rannan-Eliya et al., 1998)

Both the *World Health Report* and the MENA NHA studies used the same NHA framework for estimating national health expenditures. Differences in their estimates, however, arise from differences in methodological approaches and sources of data. While the MENA countries organized local NHA teams representing the main government organizations responsible for providing and/or monitoring health services, the *World Health Report* based its estimates on those reported by periodic specialized international publications. These publications have varying degrees of available information and so the *World Health Report* relied on standard estimation techniques to derive its final estimates. As table1 shows, in half of the profiled MENA countries, the WHO reports lower values for the indicator describing *private* share as a percentage of total health spending. This is most

likely because the WHO received many country estimates that were derived from incomplete private expenditure data. Households, the single largest contributor to health funds, are not necessarily included in the WHO estimates (Poullier and Hernandez, 2000). Thus, NHA estimates for private share can generally be expected to be much higher than those reported by other international organizations. In terms of nations, where WHO findings report lower numbers for *public* sources of health expenditures compared to NHA findings, this too might be due to incomplete data. Public data sources for the *World Health Report* largely came from the International Monetary Fund's Government Finance Statistics. This generally includes information on only central government expenditure, entities that are directly responsible for the provision of health services such as the Ministry of Health. Few countries add the spending on social health insurance especially if it is primarily funded out of social welfare funds. Consequently, estimates presented by governments often fail to include health services provided by institutions whose primary function is non-health care related. This underestimation occurred in the case of Egypt, where expenditures from the Health Insurance Organization, the primary provider of social health insurance, were not included in the WHO estimates. The MENA NHA studies, on the other hand, have attempted to include all public and private entities involved in the financing or provision of health care. The World Bank does not have estimates for many of the countries profiled in this report, because as the *World Development Report* itself states of the irregular reporting and poor quality of some of the data.

To limit multiple estimates of health expenditures, there is a definite need to conduct regular health accounting estimates in developing nations. NHA studies are intended to provide a standard framework of methodology to allow for international comparability of national health expenditure estimates. In addition, NHA data is more comprehensive than past government estimates since it aims to include previously excluded players involved in health financing. This data should prove to be more reliable and accurate than previous estimates, which will allow for better informed policy decisions.

1.3 Purpose and Uses of NHA

National Health Accounts are not only descriptive statements but are also documents that can be used to improve the capacity of planners to manage the health sector. NHA studies can help in formulating and monitoring new health sector strategies and in evaluating the impact of interventions. They form the bases for examining the allocation of resources and as well as measuring cost-effectiveness and identifying priorities (Rannan-Eliya and Berman, 1994). Indeed, NHA studies can determine whether too much is being spent on curative care and not enough on preventive care. If they are sufficiently detailed, they can also describe the flow of resources between households and provider institutions. In this way, they may be used to examine the impacts of health policies (such as decentralization and insurance schemes) on households thus connecting the macro level with the micro (household) level. For example, NHA findings may reveal that following implementation of decentralization policies, there was a general shift towards increased household spending compared to government expenditures. Also, these studies can estimate the size of the private sector and determine whether certain services are being duplicated or left out by both the public and private sector. At an international level, NHA can be used for cross-country comparisons that assess trends in health expenditures and resource allocation for various health functions. Thus, the potential policy benefits of NHA for developing nations are great, particularly because of the economic constraints faced by many developing nations and the need to rationalize health care resources.

1.4 The Status of NHA in Developing Countries

NHA is still at a relatively early stage in terms of implementation in the developing world. Approximately 50 middle- and low-income countries have completed or are completing their first round of NHA. These first estimates have been useful stepping stones to adapting NHA to the developing country context. Attaining a comprehensive overview of a nation's health expenditures requires a lot of information from the whole health system. In developing countries particularly, this information is not always forthcoming. Obstacles to retrieving such data include poorly developed conceptual frameworks and methodological tools relevant to the unique situations of developing nations (Rannan-Eliya and Berman, 1994). These unique challenges and issues will be discussed in detail in the NHA Methodology section as well as in the Policy and Implication section.

Recently, a joint international effort was launched by the WHO, World Bank, and USAID to develop an NHA Producer's Guide to serve as a practical manual for NHA implementation specifically in middle- and low-income countries. Based on the issues and questions raised by NHA teams as well as the lessons learned from various NHA studies, this Guide accommodates the developing country context into NHA methodology. Once published (in 2001), the NHA Producer's Guide hopes to serve as a useful manual to aid and facilitate future NHA studies in developing countries.

In addition to this Guide, the process of adapting NHA to the developing world is being catalyzed through cross-country collaboration. While individual countries can and have addressed many methodological challenges on their own, substantial benefit has been derived from cross-country collaboration in the development of NHA. In the late 1990s, various regional networks were developed to enable such collaboration. In the Middle East and North Africa region, country NHA technical teams met three times between 1998 and 1999 to learn about NHA methodology, to discuss its usefulness in strengthening their health sectors, and to collaborate in solving problems encountered during the implementation of individual NHA studies. These regional meetings provided excellent forums for the sharing of experiences and lessons learned by country NHA teams and contributed significantly to the adaptation of NHA to the MENA region context.

For many developing countries, the next step in the development of NHA is institutionalizing the NHA process so that accurate and reliable national health expenditure estimates may be generated on a regular basis. In addition, the NHA tool will need to be further promoted among key policymakers in order to allow for *well-informed* policy decisions to be made regarding the health sector.

2. Overview of the MENA Region and its Health Sectors

2.1 Background of the MENA Region

The Middle East and North Africa region is composed of a diverse mix of countries, ranging from very poor nations to wealthy oil exporting countries. The countries profiled in this study are primarily middle-income nations, with Djibouti and Yemen classified as low-income countries (table 2). With 5 percent of the world's population, the MENA region accounts for 2 percent of its income (Schieber, 1997). Political instability, rapidly growing populations, and epidemiological transitions typify the region. Ethnic, religious, and civil strife in some countries has caused significant human losses and has disrupted health systems, limiting access to basic health care. Also, civil and national conflicts have increased the numbers of displaced populations in the region (WHO, 1998).

Table 2: Select Economic, Demographic, and Social Indicators

Country	GDP per capita (official county estimates) US$	Population size (million) (official county estimates)	Annual Population Growth Rate % (WHO, 2000)	Urban Population (% of total in 1998) (UNDP, 2000)	Adult Literacy Rate (% aged 15 and above – 1998) (UNDP, 2000)	
					Female	Male
Djibouti (Low Human Develop. Country)* (Low Income Country)†	733	0.45	2.2	82.9	51.4	74.0
Egypt (Medium Human Develop. Country) (Medium-Income Country)	1016	60	2.0	45.3	41.8	65.5
Iran (Medium Human Develop. Country) (Medium-Income Country)	1776	61.9	1.9	60.6	67.4	81.7
Jordan (Medium Human Develop. Country) (Medium-Income Country)	1475	4.75	3.8	73.1	82.6	94.2
Lebanon (Medium Human Develop. Country) (Medium-Income Country)	4050	4.0	2.7	88.9	79.1	91.5
Morocco (Medium Human Develop. Country) (Medium-Income Country)	1209	27.5	1.7	54.0	34.0	60.3
Tunisia (Medium Human Develop. Country) (Medium-Income Country)	2001	9.2	1.7	64.1	57.9	79.4
Yemen (Low Human Develop. Country) (Low-Income Country)	449	14.6	4.7	36.2	22.7	65.7
OECD Countries	22,741‡	38.24‡	0.4	76.9	96.7	98.2

***** Classifications from the Human Development Index of the UNDP 2000
† As classified by the World Bank, 2000. Low-income countries have gross national products (GNPs) that are $760 or less; middle-income countries have GNPs that are between $761 and $9360; high-income countries have GNPs that are $9361 or more (GNP comprises the GDP plus net receipts of primary income from nonresident sources).
‡1999 Estimate. OECD 2000a.

The eight countries profiled in this report exhibit a diverse range of population sizes with Djibouti being the smallest at 450,000 and Iran being the largest at 61.9 million (table 2). When compared to OECD countries, these eight MENA countries, particularly Jordan and Yemen, exhibit relatively high annual population growth rates (table 2); most of the countries average an annual population growth rate between 1.7 and 2.7 percent. A contributing factor to high growth rates in these countries, especially in Yemen and Djibouti, are high total fertility rates. The average number of children a woman will bear in Djibouti and Yemen is 5.2 and 7.4 respectively (table 3). Reproductive health continues to be a serious concern for these nations as they attempt to sustain basic social service delivery, such as health care to rapidly growing populations.

The governments of Djibouti, Iran, Jordan, Lebanon, and Tunisia will face the additional challenge of providing services to increasingly urban populations, some larger than those found in OECD countries (table 2). However, focusing health services delivery in urban areas has, in Egypt and Morocco, been at the expense of rural areas that have distinct needs and endure different disease burdens than urban regions.

Improving adult literacy rates, particularly for women, is another urgent need in several participating MENA countries; Egypt, Morocco, and Yemen exhibit female literacy rates of less than 50 percent (table 2). It is widely known that education of women is strongly linked to both women's health and child health (World Bank, 1993). Education greatly strengthens women's ability to perform their vital role in creating healthy households, to benefit from health information, and to make good use of health services. For example, in comparison to uneducated women, educated women have been found to make greater use of prenatal care and delivery assistance. Given the MENA region's poor performance in women's schooling, child health and women's health issues continue to be important concerns. The need for strengthening women's education and other social opportunities is underscored by the finding that despite the relatively higher income levels in this region, MENA countries exhibit a high under five mortality rate (7.2 on average), well-above that found in the much poorer East/Asia Pacific region (5.3 on average) (Schieber and Maeda, 1999).

In terms of a demographic transition, infant and child mortality rates, as well as death rates among older persons have been significantly reduced over the past 50 years. However, despite these strides, life expectancies in profiled MENA countries (62.8 years on average) are still considerably low in comparison to the OECD average of 76.4 years. This is particularly so in Djibouti and Yemen, where the average life span is only 45 and 57.7 years respectively. Djibouti and Yemen also exhibit the highest infant mortality rates (111 and 87 per 1,000 respectively) among profiled MENA countries (table 3). In terms of maternal mortality rates, the more developed nations of Lebanon, Morocco, and Egypt, exhibit high death rates (table 3). However, as with other mentioned health indicators, Djibouti and Yemen exhibit the poorest maternal mortality rates of 740 and 350 deaths per 100,000 live births.

Table 3: Health Indicators

Country	Life Expectancy at Birth (WHO, 2000)	Infant Mortality Rate (per 1000 live births) (UNICEF, 2000)	Total fertility Rate in 1999 (WHO, 2000)	Maternal Mortality Rate (per 100,000 live births) (WHO, 2000)
Djibouti	45 (M), 45 (F)	111	5.2	740†
Egypt	64.2 (M), 65.8 (F)	51	3.2	170
Iran	66.8 (M), 67.9 (F)	29	2.7	37
Jordan	66.3 (M), 67.5 (F)	30	4.47	41‡
Lebanon	66.2 (M), 67.3 (F)	29	2.6	100
Morocco	65 (M), 66.8 (F)	57	2.9	230
Tunisia	67.0 (M), 67.9 (F)	25	2.5	70
Yemen	57.3 (m), 58.0 (F)	87	7.4	350§
OECD Countries*	73.2 (M), 79.6 (F)	12	2.5	8.5#

******Source:* UNDP, 2000
† Latest available data from 1989-90
‡ Jordan officially reports an MMR of 132 as of 1997 (NHA Exec Summary)
§ Yemen officially reports an MMR of 1200 and a TFR of 7.6 (Yemen NHA Report)
# 1996 estimate 6 out of the 29 OECD countries did not report MMR estimates

In addition to a demographic transition, the MENA region is going through an epidemiological transition that makes its countries susceptible to health conditions characteristic of both developing and developed countries. For example, as of 1990, communicable diseases prevalent in most developing countries accounted for 47.7 percent of the disease burden in the MENA region (Berman et al., 1999). Health conditions common among developed nations, such as non-communicable diseases, accounted for a sizeable 39.3 percent of the disease burden and injuries for 13 percent (Berman et al., 1999). Thus, these MENA countries require health systems that can cope with both extremes of the epidemiological transition, especially since economic recessions have protracted and polarized the transition period.

2.2 Health Sectors in the MENA Region

Public-private mix in financing and provision of health services is important in the low- and middle-income countries of the MENA region, while the wealthier oil-exporting countries tend to have national health service systems (Schieber, 1997). In general, among the countries profiled in this report, there is little coordination and collaboration among the multiple public and private finance and delivery systems. For example, there is almost no effective regulation of private sector providers to promote efficient use of financial resources or to contain escalating costs for health care. Households contribute a significant portion of their incomes to health care, which tends to emphasize costly curative services rather than basic primary and preventive health services (Berman et al., 1999). The increased involvement of the private sector in health care has raised concerns about the feasibility of ensuring an equitable distribution of health care services and the ability of the government to maintain adequate quality of services rendered in public facilities.

Most of the region has initiated decentralization of their health systems as part of a move toward greater social participation (WHO, 1998). However the success of decentralization is rather limited in many countries due to institutional weaknesses.

Accessibility to health care is also an issue of concern as these countries attempt to restructure their health systems. In terms of access, the WHO reports high percentages of population with access to health care in the profiled MENA countries, with the exception of Yemen (table 4). Indeed, the governments of all eight MENA countries do officially promise that health care should be accessible by all citizens. With high reported estimates of population accessibility and with many government mandates promising to ensure health care for all citizens, one would expect better health outcomes than those exhibited in the region. However, access to health services is not necessarily the same as access to *quality* health care by all citizens. The former indicator describes health care infrastructure and financial accessibility to at least government health services. But this does not include the quality of the health facilities rendering services throughout a nation's health sector, which, in many MENA nations, varies significantly depending on the type of region and the income levels of patients.

In terms of trained health care personnel such as doctors and nurses/midwives, profiled MENA countries have lower rates per 100,000 of the population in comparison to those exhibited by the OECD average (table 4). As with many developing nations, health care personnel in many MENA countries are generally clustered around urban centers. Efforts are underway in these countries to encourage and motivate health care workers to deliver services in rural regions.

Table 4: Health System Characteristics

Country	% of population with access to health care (WHO, 2000)	Doctors Rate per 100,000	Nurses/Midwives Rate per 100,000	Hospital Beds	
				Private Sector	Public Sector
Djibouti	99	20	35	12%	88%
Egypt	100	202	222	12%	88%
Iran	73	80*	230*	10%	89.8%
Jordan	92	158	224	34%	66%
Lebanon	95	191	122	90%	10%
Morocco	69	34	94	19%	81%
Tunisia	79.6	67	283	12%	88%
Yemen	Less than 50	26	51	NA	NA
OECD Countries	-	222	690†	41.2%‡	58.75%‡

Sources: Official Country Estimates
*Source: Schieber, 2000
† Only includes Nurses. 1998 estimation
‡ 1998 Estimation

Official country estimates for private sector hospital beds show that with the exception of Lebanon (which has a primarily privatized health delivery system) inpatient private health care is not as developed as in OECD countries (table 4). For inpatient care, citizens from MENA countries primarily visit public hospitals due to lower financial cost levels. However, with respect to outpatient care, the private delivery sector is extensive in the MENA region and patients of many income levels prefer to visit private outpatient facilities rather than public ones. This again is due to perceived poor quality of the region's public health systems. Since the cost for private inpatient services is much higher than for private outpatient services, private hospital care is generally unaffordable for the majority of MENA country nationals.

In terms of health insurance, social and private health insurance schemes have not been well defined in the MENA region (table 5). In about half of the profiled countries including Djibouti, Egypt, Morocco, and Yemen (though estimate for Yemen is not available), insurance schemes have not been well distributed. In countries where more than 50 percent of the population is covered by some sort of program, regulation and coordination challenges become more pronounced. For example, in these countries, numerous problems exist with individuals receiving coverage from more than one insurance program.

Table 5: Insurance Coverage

Country	% of Population Covered by Any Type of Health Insurance
Djibouti	18.4
Egypt	31 (approx)
Iran	93.81
Jordan	81
Lebanon	54
Morocco	15
Tunisia	70.5
Yemen	NA

With the end of the oil boom in the mid-1980s, many of the countries profiled in this report are presently facing serious economic constraints. Increasing efficiency in financing and delivery will be essential to preventing deterioration of present-day health systems especially considering that real annual growth in per capita GDP is projected at only 0.9 percent over the next decade, the lowest rate in the world (Schieber and Maeda, 1999).

In view of the shortcomings of current health systems and considering future economic growth projections, MENA countries are embarking on a process of reform and redefinition of the roles played by governments, providers, and private financing and delivery sectors.

2.2.1 Overview of Individual MENA Countries and Health Systems

In terms of individual country health systems, table 6 and the following sub-sections describe some of the primary characteristics and structure of health sectors in each of the eight countries. MENA health systems are primarily pluralistic in terms of financing and delivery of health services. Multiple actors are involved in these countries' health systems. Several MENA countries have what can be defined as three sectors of health care, namely fully public, semi-public, and private sectors.

In general terms, the public sector as used in this report includes all publicly owned organizations that are fully or partially funded by general public revenue. This includes all government ministries, social insurance schemes, and parastatals. The public sector may be further subdivided into fully public and semi-public sectors.

The fully-public sector includes all government entities that are funded from general or specific (earmarked) tax revenues. This would include all government ministries and social insurance schemes that are fully or largely financed and governed by the public sector.

The semi-public sector includes all government-owned organizations that are not largely financed or governed by the public sector. This could include public companies and certain insurance schemes.

The private sector, as its name implies, entails non-government involvement in its financing and delivery of health care.

Table 6: Overview of Health Care Systems and Major Health Sector Actors in Participating Countries

Country	Key Features and Issues	Sources of Health Financing	Financing Intermediaries	Providers	Insurance Schemes
Djibouti	H. financing: Plurastic though primarily donor funded	- Donors - Ministry of Finance - Households - Firms	*Fully Public Sector:* - Ministry of Health - Office of Social Protection (OPS)	*Fully Public Sector:* - MOH facilities - Local medical dispensaries (run by the OPS) *Private Sector:* - Private hospitals/clinics/ pharmacies	*Fully Public*: OPS insurance for government and formal sector employees. (only covers putpatient services) *No private insurance schemes*
Egypt	Pluralistic system: Multiple sources of financing and delivery	- Ministry of Finance - Social Insurance Organizations - Households - Donors - Firms/Syndicates (have firm schemes, private insurance)	*Fully Public Sector:* - Ministry of Health and Population (MOHP) - Ministry of Education (MOE) - Health Insurance Org. (HIO) - Ministry of Defense (MOD) - Ministry of Interior (MOI) - Ministry of Transport (MOT) *Private Sector:* - Private firms and insurance	*Fully Public Sector:* MOHP facilities - Hospital and Educational Institues Org. facilities (run by MOH) - University Teaching Hospitals (run by MOH) - Health Insurance Organization Facilities (only for HIO members) - Curative Care Organization (CCO) facilities (run by MOH; charges on a fee-for-service (FFS) basis) - MOD, MOI, MOT (only for employees) *Private Sector:* - Private hospitals/clinics (FFS/private insurance, or contracts to fully public sector) - NGOs	*Fully Public Sector:* Social Health Insurance – for widows, pensioners, formal sector/gov. employees, school children *Private Sector:* Private Insurance – plays minor role in health care financing. As of 1995, only 3 insurance companies offering health coverage in addition to general coverage for property damage and so forth
Iran	Offers comprehensive public primary health care services for all citizens Multiple government insurance plans for secondary and	- Households - Donors - Firms - Government (MOF)	*Fully Public Sector*: - Ministry of Health and Medical Education (MOHME) - Social Security Org. (SSO) - Emmam Khomeini Foundation (EKF) - Medical Services Insurance Org. (MSIO) - Ministry of Oil (MO)	*Fully Public Sector:* - MOHME facilities, hospitals, health centers, etc - SSO *Private Sector*: - Private hospitals - NGO and charity facilities	*Fully Public Insurance* Provides secondary & tertiary care: - MSIO – covers gov. employees, rural households, self-employed, others - SSO – formal sector employees - EKF – gov. plan for the poor

	tertiary level care Largely government providers Private hospitals own only 10% of hospital beds		*Semi-public Sector*: - Banks - Radio and Television Network (RTVN)		- Armed Forces – cover own employees - Ministry of Oil – cover own employees *Semi-public Sector*: - Banking System – cover wpn employees - Radio and TV Network – cover own employees *Private Sector:* - Minimal – provides supplemental to public Insurance
Jordan	Highly pluralistic public and private programs Large private delivery sector, which owns 35% of hospital beds Facing problems stemming from multiple insurance coverage	- Households - Donors - Government (MOF) - Public Firms - Private Firms	*Two MAJOR Fully Public Sector Programs:* - MOH - Royal Medical Services (RMS) *Two MINOR Fully Public Sector Programs:* - Jordan University (JU) - Jordan U. of Science and Technology (JUST) *Private Sector*: - Private firms and insurance - NGOs (e.g. UN Relief Works Agency (UNRWA) mainly for Palestinian Refugees)	*Fully Public Sector*: - MOH - RMS - JU - JUST - Other University Providers *Semi-public Sector*: - Public firms facilities *Private Sector*: - Private Providers - UNRWA Clinics - NGO Clinics	*Fully Public Insurance*: - RMS Insurance – for military personnel and dependants - JU – for university employees *Private Sector*: - Private commercial insurance - Self-insurance companies that pay directly for the health care services of employees - UNRWA – covers 400,000 Palestinian refugees
Lebanon	Primarily private delivery system; pluralistic financing system Has numerous insurance schemes All including government, purchase services from private sector	- Households - MOF - Donors	*Fully Public Sector*: - MOH - Army and other security forces – operates own facilities but also purchases from private sector - Ministries of Social Affairs and Displaced - Civil Servants Cooperative (CSC) financier only (purchases from privare sector) - National Social Security Fund (NSSF) – operates own facility but purchases largely from private *Semi-public Sector*: - Mutual funds (*Mutuelles* – mutual health	*Fully Public Sector*: - Government Service – owns facilitues for basic primary, preventive, and curative care – but also purchases services from private sector - NSSF – has one facility - Army *Private Sector*: - Private providers (largest provider group)	*Fully Public Sector:* - Two employment based social insurance schemes NSSF (Private Sector employees) and CSC for government employees) - Four schemes to cover the Security Forces - MOH covers any citizen not covered under any other scheme

			insurance co.) *Private Sector*: - Private health insurance – finances and runs private facilities - Private employer benefit schemes - NGOs		*Private Sector*: - Private insurance market – employment-based - Mutual funds
Morocco	Highly pluralistic system Significant participation from *mutuelles*	- Households - MOF - Donors - Private Companies - Public Organizations (parastatals) - Local Districts	*Fully Public Sector*: - Ministry of Public Health - Ministry of Education *Semi-public Sector:* - Local districts - *Caisse Nationale de Securite Social* (CNSS) (social security) - *Caisse Nationales des Organismes de Prevoyance Sociale* (CNOPS) (network of *mutuelles)* - Parastatals - Other ministries *Private Sector:* - Donors - Private health insurance	*Fully Public Sector:* - Ministry of Health facilities - Ministry of Education teaching and university facilities - Other ministries *Semi-public Sector:* - CNSS clinics - *Mutuelle* clinics - Parastatals *Private Sector:* - Private clinics - Traditional medical providers	*Semi-public Sector:* - CNSS – mandatory for all wage-besed earners. Sources of funds are primarily employers (with some contribution from employees) with no direct contribution from government - CNOPS – voluntary membership receives contributions from both the government and private sources - Parastatals – covers own employees only *Private:* - Private insurance
Tunisia	Highly pluralistic system Similar to Morocco in terms of health insurance schemes	- Donors - MOF - Public employers - Private employers - Households	*Fully* Public *Sector*: - Ministry of Health - National Social Security Agency (CNSS) - National Agency for retirement and Social Planning (CNRPS) - Ministry of Defense - Ministry of Interior - Ministry of Social Affairs (covers the poor) *Private Sector*: - Insurance group companies	*Fully Public Sector*: - Ministry of Health facilities which includes university hospitals - CNSS polyclinics - Ministry of the Interior hospital for the National Security Forces (police) - Ministry of Youth and Children (runs the National Center for Sports Medicine) - Ministry of National Defense (runs the Military Teaching hospital that is open to the military, members of the CNSS, and those wishing to pay FFS)	*Fully Public Sector*: - Two social security agencies subsidizing care in MOH facilities: CNSS (for private sector employees and students), CNRPS (for public employees: can get supplementary coverage; for private facilities: optional) - Free medival Insurance – grants coverage for care in MOH facilities *Semi-public Sector*: - Mutuelles (for both the public and private sector for care in the private sector)

				Private Sector: - Runs multi-disciplinary clinics as well as specialized clinics	*Private Sector*: - Insurance group companies
Yemen	Underdeveloped health system. Less than half the population have access to care Households account for a significant amount of health expenditures No insurance systems in place	- Ministry of Finance - Donors - Public firms - Private firms (no data available) - Households	*Fully Public Sector*: - Ministry of Health (also operates own facilities) - Ministry of Defense - Ministry of Interior - Ministry of Local Admin. (also operates own facilities) - Ministry of Education *Semi-public Sector:* - Public firms *Private Sector*: - NGOs - Private firms	*Fully Public Sector:* - MOH facilities - Al-thawra hospitals - Kuwait Hospital - Ministry of Local Administration - Other ministries *Private Sector* (accounts for over half of all expenditures): - Private Providers (Jabilah Baptist hpositals, Saudi hospitals)	* No insurance scheme in the country

2.2.1.1 The Republic of Djibouti

The Republic of Djibouti is a small country (23,200 sq.km) located in northeast Africa. The country has approximately 450,000 inhabitants, the majority of whom (383,000) live in the capital, which is also named Djibouti (Hatem et al., 2000). The population has expanded in recent years because of an influx of refugees from neighboring Somalia and Ethiopia. In addition to a high population growth rate, the country has faced a multitude of economic difficulties resulting from recessions and civil wars. Apart from serving as a transit port for regional and international shipment, Djibouti has few natural resources and little industry. It is therefore heavily dependent on foreign assistance to balance payments and finance development projects. Indeed, foreign aid constitutes the biggest source of financing in health care (Hatem et al., 2000).

Djibouti's government mandates free primary, secondary, and tertiary health care services for all citizens. However, public financial resources allocated to health have decreased significantly in the past few years due to economic recession and political instability. Employees and dependents in the government and private sector may receive additional government outpatient services from the Office of Social Protection by contributing at least 7.2 percent of their salaries. In terms of a private sector, Djibouti does allow for private outpatient facilities, hospitals, and pharmacies, all of which charge patients on a fee-for-service basis.

2.2.1.2 Egypt

Egypt is the most populous (60 million) country in the MENA region (Rannan-Eliya et al., 1998). Overpopulation has become a major issue for the government and is threatening to overwhelm the country's economic and structural resources. The country also faces another problem: an extremely high population density. In Cairo, the density exceeds 33,000 persons per square kilometer (El-Zanaty et al., 1997). Such high densities are attributed to the fact that only 2 percent of the nation's land is arable (Central Intelligence Agency, 2000). This has meant that 95 percent of the population is crowded into only 5 percent of Egyptian territory, primarily either in the Nile Delta or Nile Valley. In addition to population issues, the health system in Egypt is coping with a nation undergoing demographic and epidemiological transitions.

Though the country is based on the socialist principles promoted by the former Nassr government, Egypt is moving towards a more capitalist structure. In principle, the government believes that all citizens have the right to health care including access to a doctor, a hospital, and a bed (El-Zanaty et al., 1997). However, the government offers health care to the public in gradations of financial accessibility. Health care is delivered through a multi-tiered system that is characterized by multiple sources of financing, management and delivery (see table 4). The Ministry of Health and Population (MOHP) facilities and Ministry of Education academic hospitals provide care free of charge. Other public providers that cater to specific target groups include 1) various ministry providers (such as the Ministry of Defense and Ministry of the Interior), which deliver services to their own employees; 2) the Health Insurance Organization facilities, which provide services to social health insurance beneficiaries, namely widows, pensioners, school children, and government and formal sector employees; and 3) the Curative Care Organization hospitals, which provide free services to the poor but charge others on a fee-for-service basis. There is also a growing private sector, which consist of hospitals/clinics, pharmacies, and insurance companies. This sector's facilities are generally expensive and charge on a fee-for-service basis.

2.2.1.3 The Islamic Republic of Iran

The eight-year war with Iraq during the 1980s resulted in a protracted period of economic stagnation for Iran. However, since 1989, the Iranian government has taken major efforts to liberalize the economy, reduce government deficits, and encourage foreign trade and investment. Despite efforts to diversify the economy, oil still occupies a central position in Iran and contributes 75 percent of Iran's GDP (World Bank, 2000).

The Iranian constitution guarantees all citizens a right to health care. Implementation of this law has resulted in a strong focus on the delivery of basic public health services to all Iranians through a successful fully public primary health care delivery system. This has engendered health outcomes that are among the best in the MENA region (Schieber and Klingen, 1999). For example, as table 3 shows, Iran exhibits the lowest infant mortality, total fertility, and maternal mortality rates in comparison to the other profiled countries. However, malnutrition remains a significant health issue in the country. Secondary and tertiary level curative care is financed and delivered through multiple organizations, leaving 8.8 percent of the collective population without coverage (Schieber, 2000). These organizations include:1) the Social Security Organization (SSO), which covers formal sector employees and dependents, 2) the Armed Forces Medical Service Organization, which provides curative care services to dependents and members of the military, 3) the Medical Service Insurance Organization (MSIO), which covers government employees, rural households, the self-employed, and others (e.g. students), and finally 4) the Imam Khomeni Foundation, which provides insurance coverage for the poor. Private insurance is generally supplemental to these public programs. Iran also has a semi-public sector composed of parastatals such as the Radio and Television Network and Banks. In terms of service provision, there are Ministry of Health and Medical Education, SSO, and private facilities. The private delivery sector is small and accounts for only 10 percent of hospital beds.

2.2.1.4 Jordan

Jordan is a low- to middle-income country that has achieved economic stability since 1992 (World Bank, 2000). Developmental indicators for Jordan show that the country fares better than most others in the low- to middle-income category. The majority of Jordanians have access to basic infrastructure like safe water, sanitation, and electricity and live in permanent dwelling structures. Having endured a high debt burden and inflation in the late 1980s as well as disruptions during the Gulf War crisis, Jordan has made progress to liberalize trade, promote a free market economy, and develop the private sector. Like Egypt, Jordan is also dealing with the consequences of rapid population growth (second highest among NHA participating countries) that have placed an increased demand for social programs, such as education and health. Furthermore, due to demographic and epidemiological transitions, Jordan's health sector is undergoing reforms to satisfy a growing demand for chronic disease health services as well as maternal and child services.

Health care in Jordan is highly fragmented (Brosk et al., 2000). Fully public government facilities provide comprehensive preventative and curative care to the entire population. The Royal Medical Services (fully public) provides services not only to military personnel and their dependents but also do cater to referrals from the MOH. Two additional smaller public programs include the Jordan University (JU) and Jordan University of Science and Technology (JUST) that provide coverage to employees and dependents but charge on a fee-for-service basis to other public programs and private payers. Semi-public parastatals also exist and provide services to employees and dependents. The private sector includes hospitals, clinics, and pharmacies. This sector is significant

and accounts for 35.6 percent of all hospital beds (see table 4). Private insurance is purchased by individual citizens as well as employers for their employees and dependents. In terms of donor participation in the health sector, the United Nations Relief Works Agency runs its own primary health care centers for 400,000 Palestinian refugees and may refer patients in need of secondary and tertiary care to MOH or private facilities (Brosk et al., 2000).

2.2.1.5 Lebanon

Lebanon is a middle-income country with a primarily urban population. Since the civil war, which began in 1975, the economy has fared poorly because much of the industrial and agricultural infrastructure has been destroyed. Due to increased spending on defense, public allocation of funds to social sectors, such as health care, has remained low.

The health care *delivery* sector is primarily a private one, with relatively low government participation (Fakha et al., 2000). This characteristic is illustrated by the fact that the private sector accounts for a significant 90 percent of all hospital beds in the country, a trend that is counter to that found in the other seven MENA nations (table 4). Health services are delivered primarily in urban areas and place significant emphasis on curative care. Primary care delivery is weak and has been dominated largely by NGOs that own over 80 percent of the primary care facilities across the country. The government does contribute significantly to the financing of care, primarily through insurance schemes that purchase services from private providers. These schemes include two employment-based social schemes, namely the National Social Security Fund (NSSF), and the Civil Servants Cooperative (CSF), both of which cover those working in the formal private and government sector and their dependents. The MOH also provides coverage for any citizen who is not included under any other scheme. The private insurance market is largely employment-based and offers full insurance or supplemental coverage to that provided by social insurance programs. There has also been a proliferation of mutuelles, which are autonomous non-profit organizations where membership is voluntary and based on an ethic of mutual aid, solidarity and the collective pooling of health risks (Atim, 1998).

2.2.1.6 Morocco

Over the past decade, Morocco has made significant achievements in economic stabilization and modernization and this has contributed to improvements in living conditions. In terms of health, incidences of infectious and parasitic diseases have been dramatically reduced. The country, like other MENA countries, is undergoing an epidemiological transition and incidences of cardiovascular conditions, injuries, and cancers are steadily increasing while maternal and childhood morbidity and communicable diseases still account for a third of the total burden of disease (Berman et al., 1999). A problem facing Morocco is the large social disparity between rural and urban areas; this has been particularly evident with regard to health care accessibility.

As with some of the other MENA countries, Morocco also exhibits fully public, semi-public, and private health sectors. With respect to fully public services, the Ministry of Public Health finances and delivers a wide range of both curative and preventive services that are available to the entire population independent of ability to pay. However, the quality of these services is poor and consequently utilization rates are low.

The semi-public sector is composed of three main groups, the National Social Security Agency (*Caisse Nationale de Securite Sociale*, CNSS), a network of mutual health organizations (*Caisse Nationales des Organismes de Prévoyance Sociale*, CNOPS), and parastatals. The CNSS was initially

established as a mandatory retirement program for all wage-based employees; however, it is also involved in health service delivery and runs a network of polyclinics. The CNSS derives its funding from employers and employees, with no direct contribution from the government. The services provided at CNSS facilities are considered to be of good quality and are offered to members at highly subsidized rates. The second major group in the semi-public sector, the CNOPS, is a well-established network of *mutuelles*. These are member-owned and controlled not-for-profit organizations. Any profit that is accrued is redistributed among members. Membership is voluntary and is largely employment-based. There are multiple sources of funding for mutuelles including the government, households, and public and private organizations and companies. CNOPS members are free to choose their source of medical care but their benefits vary according to their choice. Like the CNSS, the CNOPS also runs a number of polyclinics. The third major category in the semi-public sector includes parastatal organizations (public organizations), which, as stated earlier, are firms that are either wholly or partially owned by the government. Parastatals provide health benefits to their employees and their dependents. Some parastatals contribute to CNSS, while others may finance care through mutuelles. Also, parastatals like the *Office Chérifen du Phosphate*, a public phosphate company, have their own facilities including hospitals and clinics.

There are private mutuelles, which, unlike public mutuelles, receive no government funding. In addition, Morocco has private insurance companies whose services are used by many private industries, such as General Tire and Coca Cola, for their employees and dependents. In the private delivery sector, providers are allowed to charge on a fee-for-service basis.

2.2.1.7 Tunisia

Since 1956, Tunisia has been a strict one-party state that has invested heavily in human resources and progressively built up a comprehensive social system (Central Intelligence Agency, 2000). The country's health indicators have improved significantly as a result of better living conditions, greater access to education, improved nutrition, and the development of both preventive and curative health care services.

Like Morocco, Tunisia has multiple types of health insurance schemes (Achour et al., 2000). There are two types of social security schemes, the National Social Security Agency (*Caisse Nationale de Securite Sociale*, CNSS) and the National Agency of Retirement and Social Planning (*Caisse Nationale de Retraite et de Prévoyance sociale*, CNRPS). The former covers private sector employees and students while the latter insures government employees. Both the CNSS and the CNRPS largely subsidize care in MOH facilities. Beneficiaries of the CNSS program are eligible for care at CNSS polyclinics for preventive and ambulatory care. The poor benefit from a system of free health insurance offered by the Ministry of Social Affairs. This entitles beneficiaries to care in MOH facilities. Like Morocco, Tunisia's health system also involves the participation of mutuelles, found in the semi-public and private sector. Those in the semi-public sector cover employees of ministries and public organizations. Private sector mutuelles cover employees of service production. Mutuelles provide supplemental coverage for care in private facilities. Another form of insurance in Tunisia comes from Insurance Groups, which are essentially private insurance companies.

2.2.1.8 Yemen

Yemen faces numerous challenges to improving the health status of its population. The country is significantly affected by poverty, low literacy rates, limited access to potable water and poor sanitation. Consequently, Yemen has one of the poorest health statistics in the MENA region, second only to Djibouti. In terms of major health ailments, Yemen's population suffers from problems

associated with severe malnutrition and rapid population growth. At 4.7 percent each year, the highest among participating MENA countries, Yemen's population growth rate is also one of the highest in the world. At the same time, Yemen is seeing an increase in incidences of injuries and chronic diseases. Thus, these health challenges show the need for a well-developed basic primary care system as well as a rising demand for more costly specialized health services.

The health system in Yemen is not extensively developed. As a result, less than half of the population has access to basic health services (Al-Gohaly et al., 2000). The public sector remains the major provider of health care at all levels of the system. The Ministry of Public Health runs most public sector facilities. Other government ministries coordinate the remaining facilities. Two hospitals, namely Al-Thawra and Al-Kuwait hospitals, receive budget allocations directly from the Ministry of Finance. Though the public sector accounts for most health care provision in Yemen, less than one-third of all health spending goes through MOPH facilities, while more than half is received by to private providers and pharmacies. The private sector is composed of NGOs and for-profit providers. There is also a semi-public sector that includes parastatals, which offer their own health facilities to employees. There is no health insurance market and thus there are only two main financing sources: the government and individual households.

2.3 WHO Health System Rankings of MENA Countries in the NHA Network

In its *World Health Report 2000,* the WHO evaluated and ranked the health systems of all member countries, with 1 being the highest score and 191 the lowest. The *Report* set out to measure three main objectives of health systems: improving the health of the population served, responding to people's expectations, and providing financial protection against the cost of ill-health. Its findings with respect to the countries profiled in this paper are presented in table 7. The overall ranking of the health systems are displayed in column one. This indicator is a composite measure of indicators that rank the achievements made in each of the aforementioned health system objectives. The rankings of these individual indicators are presented in the remaining columns.

Table 7: MENA Country Health Systems as Ranked by the World Health Organization, 2000

Country	**World Ranking Overall health System Attainment** (composite measure of achievement in: - level of health (25%) - distribution of health (25%) - level of responsiveness (12.5%) - distrib. Of responsiveness (12.5%) - Fairness of financial contrib. (25%)	**World Ranking of achievement in the level of health** (WHO, 2000)	**World Ranking of achievement in the distribution of health** (WHO, 2000)	**World Ranking of the level of responsiveness of health systems** (WHO, 2000)	**World Ranking of the achievement in the distribution of responsiveness** (WHO, 2000)	**World Ranking of fairness of financial contribution to health Systems** (WHO, 2000)
Tunisia	77	90	114	94	60-61	108-111
Jordan	84	101	83	84-86	53-57	49-50
Lebanon	93	95	88	55	79-81	101-102
Morocco	94	110	111	151-153	67-68	125-127
Egypt	110	115	141	102	59	125-127
Iran	114	96	113	100	93-94	112-113
Yemen	146	141	165	180	189	135
Djibouti	170	166	166	170	140	3-5

Note: Ranking is out of 191 WHO member countries.

The countries described in this report received a broad range of rankings in each category. In terms of overall health system attainment, Tunisia ranks the highest among profiled MENA countries, followed by Jordan, Lebanon, and Morocco. Yemen and Djibouti place low in the world in terms of health system attainment. The next four columns in table 7 describe country achievement in the level and distribution of health and responsiveness. Note that the level of health pertains to achieving the best attainable *average* level of good health in the population; whereas, the *distribution* of health refers to the achievements made in *minimizing inequalities* in health outcomes among groups and individuals. Within these four columns, patterns of achievement are similar to that shown in the overall health system attainment category. The category of fairness of financial contribution to health systems has produced some interesting results however. Djibouti, which performs poorly in all the other categories of indicators, places among the best in the world in terms of fairness in financial contribution. This may be explained by the fact that the category only measures the distribution of financial contribution across the population and so Djibouti, despite its low health expenditures, shows that each family pays the same share of income once basic needs have been met. Thus, expenditures on health care do not vary greatly among households in Djibouti.

The WHO evaluations of health sectors provides a general overview of country health systems' successes and failures. This serves as a good backdrop to this report's findings of expenditure trends in the eight participating countries.

3. NHA Methodology

3.1 Data Retrieval

The data and analysis provided in this report are drawn from individual country reports on NHA findings, from personal communication with country NHA team members, and from the outcomes of three NHA MENA workshops (conducted between January 1999 and May 2000) that dealt with NHA methodology, findings, and policy implications. Country NHA studies were conducted by NHA teams comprised of specialists typically representing the Ministry of Health, the Ministry of Finance, national statistical authorities and research or policy institutes.

Whenever available, the authors of this paper used the actual framework tables containing NHA data in their most disaggregated and original form (see figure 2a and 2b for examples). As figure 2a and 2b show, this consists of two matrix tables, one describing the flow of funds from their original sources to financing intermediaries and the other describing the flow of funds from financing intermediaries to providers.

Figure 2: An Illustrative Figure of the NHA-Framework Table Displaying the Flow of Funds

A) **Sources to Financing Intermediaries**

SOURCES OF FUNDS

FINANCING INTERMEDIARIES	Ministry of Finance	Households	Donors	*TOTAL*
Ministry of Health	**$X**		$S	**$X + $S**
Ministry of Education	$Y			**$Y**
Private Insurance		$Z		**$Z**
Households		$R*		**$R**
TOTAL				$M

B) **Financing Intermediaries to Providers**

FINANCING INTERMEDIARIES

PROVIDERS	Ministry of Health	Ministry of Education	Private Insurance	Households	*TOTAL*
MoH Hospitals	$A				
MoH outpatient clinics	$B				
Administration	$C				
University Hospitals		$Y			
Private Providers			$Z	$R	
TOTAL	**($A+$B+$C)= ($X +$S)**	**$Y**	**$Z**	**$R**	$M

***** Amounts appearing with the same primary and intermediary sources imply that there was no financing intermediary and that funds were paid directly to providers with no intermediaries.

The original or ultimate sources of funds trace health funds to their point of origin; this category may include entities such as the ministry of finance, households, foreign donors, and private enterprises.

The next level in the flow of health expenditures through a system is the financing intermediary level. This level has been included in NHA frameworks to emphasize the complexity of flow of funds

and the multiplicity of stakeholders in the financing of health services in low- and middle-income countries in particular. Financing intermediaries are entities that collect funds from financing sources in order to pay for the provision of health services by other health care providers (Rannan-Eliya 1997). They may include categories such as the ministry of health (which generally receives its funding from the MOF source), social health insurance organizations, private insurance companies, other ministries, public organizations, private enterprises and so forth. In some instances, however, there are entities that do not pass funds through a specific financing intermediary; rather, they directly transfer funds from sources to providers. One example of this is households, which often pay providers directly on a fee-for-service basis. In this case, households are both sources and intermediaries, and the flow of funds through them at both levels is noted as such (figure 2).

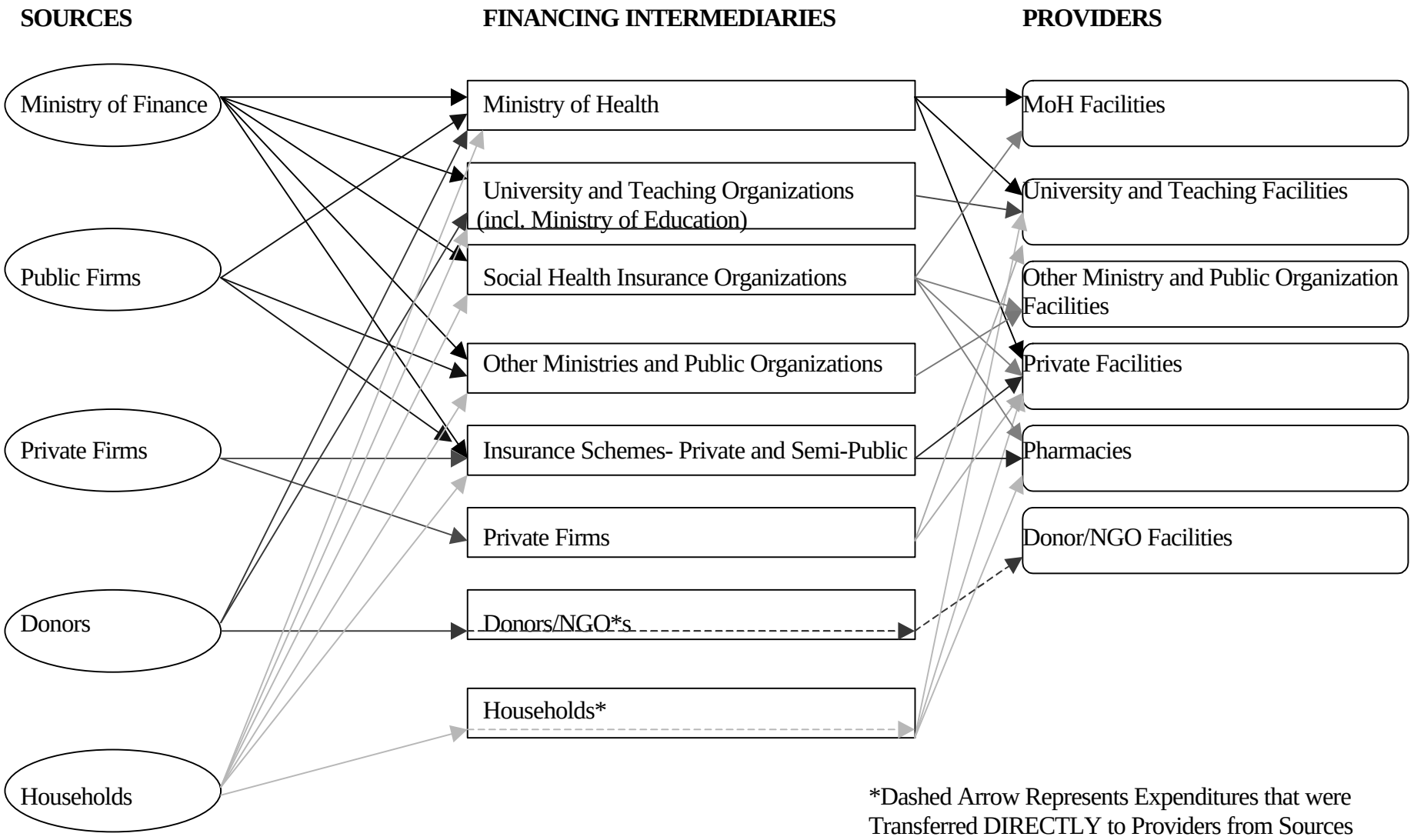
The third level in the flow of health expenditures is the provider level. It includes those institutions, facilities, and individuals that directly deliver health care services. This may include MOH facilities, other ministry clinics, private providers, university hospitals, and public organization facilities.

Often, the financing intermediary-provider matrix shows sufficient information to determine the specific uses or functions of health care funds, namely, how money is allocated to services such as outpatient/preventive care, inpatient curative care, pharmaceuticals, and so forth.

As mentioned earlier, NHA provides health policymakers with a clear picture of flow of funds through the various entities involved in both the funding and provision of health services. Figure 3 illustrates the flow of funds through a typical middle- or low-income country health system, from sources directly to providers and from sources indirectly to providers via financing intermediaries.

Due to the unique country characteristics of entities involved in health financing and provision, the results' section of this paper displays country data under aggregate headings (figure 3). For example, individual government ministries besides the MOH, which coordinate and often provide health care for their own employees, such as the ministry of interior or the ministry of defense, have been aggregated in this report under the heading of "Other Ministries and Public Organizations." Public organizations refer to parastatals, such as the Royal Jordanian Airlines or the National Phosphate Company in Morocco, which finance and deliver health services to their own employees and their dependents. As each level of health expenditure is discussed (i.e., sources, financing intermediaries, providers, functions) in following sections of this report, each aggregate category will be defined and described.

Figure 3: Illustrative Diagram of the Flow of Funds through a Health System



3.2 Constraints and Limitations

3.2.1 Reliability, Availability, and Accessibility of Data

NHA analysis requires the availability of expenditure information from numerous sources in both the public and private sectors. Typically, data on the government sector came from national budgets, and it was usually forthcoming. Retrieving information from public organizations and other ministries required more perseverance, and the NHA teams of some countries in this study, such as Yemen, found a paucity of available and reliable data in these categories. In fact, the Yemen team reported that, due to a lack of financial transparency in government institutions, their ability to retrieve essential data was quite limited (Al-Gohaly et al., 2000). In Yemen and Egypt, the ministry of defense in particular was found to be uncooperative in releasing health expenditure data; many experts believe that the exclusion of this ministry from NHA reports likely underestimated health expenditures substantially.

Traditionally, the most significant data collection problems occur in the estimation of private health expenditures, particularly out-of-pocket spending that in many developing countries account for the largest source of health spending and have in the past been significantly underestimated. Since there is usually no legal requirement for the private sector to report information, obtaining reliable if any data from the private delivery sector necessitates using multiple sources. For information on private firms, providers, or insurance, NHA analysts may need to consult sources such as medical or other professional syndicates, tax departments, and private organizations, such as the chamber of commerce. Some of the countries included in this study, such as Jordan, found it best to collect data by conducting separate sample surveys of private providers, private firms, NGOs, and private insurance companies.

One of the most difficult and costly sources of information to access was households. Out-of-pocket spending was usually estimated from two sources: national consumer expenditure surveys and more focused household health care use and expenditure surveys. The former, usually do not provide very accurate data. Although they are routinely carried out in many countries, general household spending questionnaires may be so extensive, requiring information from various social sectors, that they result in under-reporting of health-related spending. Therefore, specific health care use and spending surveys are more accurate and consequently report higher levels of health expenditure (Berman, 1997). Despite their accuracy, conducting health expenditure-specific surveys of households require significant financial and human resources, which are not usually available in most developing nations. Many of the nations profiled in this study reported the requirement of outside funding for the support and continuation of such activities.

Retrieving disaggregated data was also a challenge in many MENA countries. For example, in some cases, due to the limited capabilities of existing accounting systems, outpatient and preventive services provided in hospitals were not disaggregated from inpatient services. This likely caused an underestimation of outpatient and preventive services costs in some countries. Also, training provided by the central government (MOH) to its personnel could not be separated from other administrative and management functions. Similarly, there is a possibility that the countries have underestimated the amount of health funds spent on “administration”. There is anecdotal evidence describing cumbersome bureaucratic processes and complex administrative procedures that consume a significant portion of MENA country’s health expenditures. However, NHA findings were not able to prove or disprove this theory, largely because administrative costs were difficult to tease out of other functions. Thus, the only “administration” costs listed are those typically accrued in the central

ministries of health. Attention to this line item should perhaps be given in the next round of NHA studies.

Other limitations in conducting NHA studies included multiple accounting systems that were not necessarily reconciled within countries. Some institutions used a cash accounting system while other used an accrual accounting system, the latter of which could lead to overestimation of health expenditures.

3.2.2 Limitation in the Classification of NHA Categories

In order to be internationally comparable, National Heath Accounts tries to provide a standardized system of classification for the different functional categories involved in health care expenditures. In other words, it attempts to outline what can and cannot be included as a health expenditure and how to classify it (e.g., curative vs. preventive, inpatient vs. outpatient etc). This standardized system, which outlines the boundaries of health care, has been adapted from the International Classification for Health Accounts-Functional Classification (ICHA-FC) developed by the OECD system of health accounts (SHA) (OECD, 2000b). It attempts to offer precise definitions to avoid double counting and prevent statistical omissions, thus making the framework for expenditure estimation more consistent.

Nonetheless, many of the profiled MENA countries use various descriptions for what often is the same service. This has led to categorizing the same services under different functional classifications for different countries. For example, many MENA countries mix the mode of care (inpatient, outpatient, and same-day care) with the intensity of care (primary, secondary, and tertiary care). Such discrepancies are due to improvisations and inconsistencies in estimating health expenditures. This places some challenges on the ability to accurately compare across functional categories of services among countries. As stated previously, efforts are underway to produce a more comprehensive standardized system of classifications and definitions for future NHA studies in developing nations (namely, *The NHA Producers' Guide*).

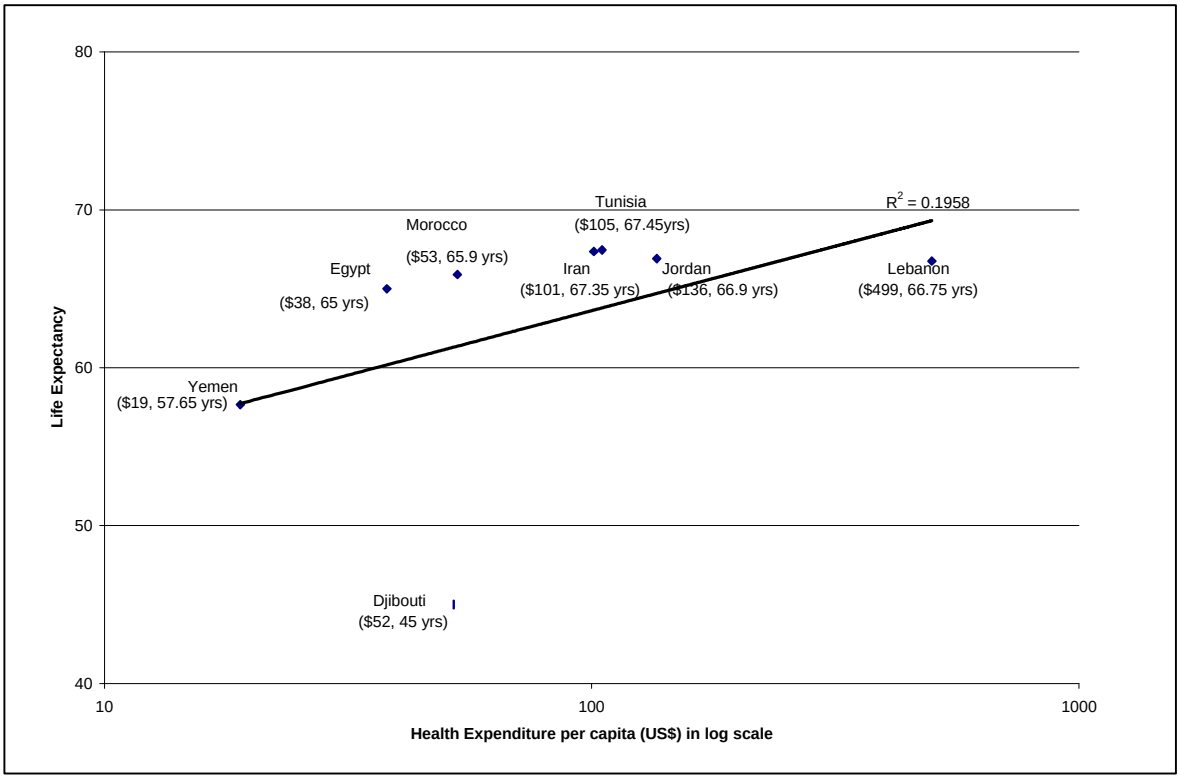
4. Analysis of NHA Findings

This section analyzes several major expenditure indicators and financing issues, and gives country findings from each level of the NHA framework. It begins with a discussion of total and public health expenditures and their associations with select health outcomes and national GDPs. It then looks at the most general of health expenditure estimates provided by NHA, namely health spending as a percentage of the GDP. This is followed by discussion of the more specific spending estimates identified at each level of the NHA framework: sources of health expenditures, financing intermediaries, providers, and functions. The section concludes with a description of expenditure patterns of one of the major players in health financing, households.

4.1 Relationship between Total Health Spending and Health Outcomes

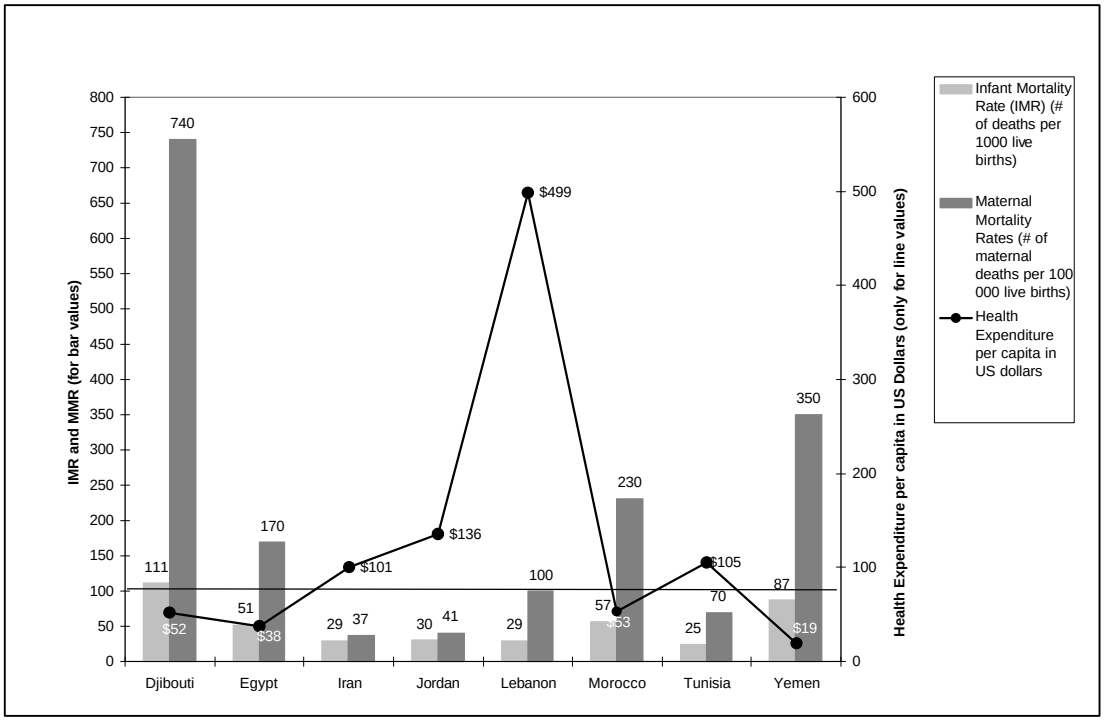
Globally, there is a positive correlation between health care spending and health outcomes (Schieber and Maeda, 1999). When life expectancies of the world's countries are plotted against their corresponding national health expenditures per capita, there is a pattern of increasing life spans associated with countries that devote more financial resources to the health sector. In the MENA region, there is a slight correlation between these two variables (figure 4). However, this relationship is not straightforward and many deviations from this pattern exist.

Figure 4: Life Expectancy and Health Expenditure per capita



The pattern generated by comparing health care spending with infant and maternal mortality rates is shown in figure 5. As expected, the figure shows that countries with very low levels of health care spending, such as Djibouti and Yemen, have severe infant and maternal mortality rates. Conversely, countries that spend much more on health care generally achieve lower death rates. However, in the MENA region this relationship is not linear and not all nations with good health outcomes necessarily spent a lot on health care. Iran is a good example of this; its health outcomes are among the best in the region, despite its medium level of spending on health. This may be due in part to Iran's focus on primary and preventive health care, rather than curative care. Lebanon represents the reverse; though it spends the most on health care among the eight MENA countries, it still has a high maternal mortality rate of 100 deaths per 100,000 live births.

Figure 5: Health Expenditure per Capita and Selected Health Outcomes



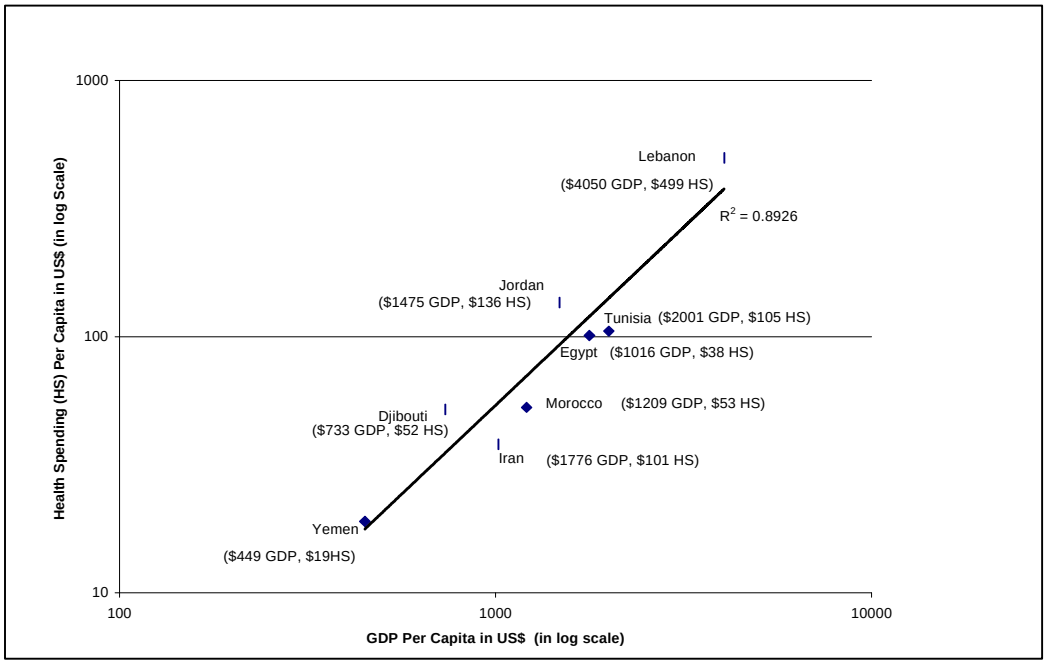
Indeed, the amount spent on health care is important but so too are other factors, such as the allocation and distribution of funds within the health sector, education, individual income, basic infrastructure like sanitation and potable water, and the availability of other social opportunities (World Bank, 1993). National Health Accounts allows countries to visualize one of these significant factors contributing to health outcomes, namely the distribution of health funds. Using NHA findings, policymakers are able to make informed decisions that can improve resource allocation and construct more efficient and effective health systems, consequently contributing to better health outcomes.

4.2 Relationship between per Capita Health Spending and per Capita GDP

Globally, there is a strong positive relationship between GDP per capita and health spending per capita. Richer countries usually devote larger proportions of per capita income to health care. This pattern may result from the increased ability of individuals within these countries to afford health care services. Additionally, richer country governments are able to raise more tax revenue due to population shifts to urban areas and the growth of the formal sector or "easier-to-tax enterprises." Schieber and Maeda (1997) estimate that the global elasticity value between per capita income and per capita health expenditures is 1.13. This means that for every 10 percent difference in per capita income, there is an 11.3 percent difference in the same direction in per capita health expenditures. So a country with a 10 percent higher per capita GDP than another country is expected to spend 11.3 percent more per capita on health.

Like the global trend, the eight profiled MENA countries exhibit a strong positive trend between per capita GDP and per capita health expenditure (figure 6). Lebanon, with the highest per capita GDP spends the most on health care and Yemen with the lowest per capita GDP spends the least on health care. However, variations do exist within this general pattern. Djibouti, with its lower GDP, spends more on health per capita than Egypt. Similarly, Jordan spends more on health than Iran and Tunisia, countries with higher GDPs. As will be seen later, these irregularities may be due in part to Jordan and Djibouti's spending high proportions of the GDP on the public delivery sector; these two countries exhibit the highest percentages in the MENA region (5.2 percent and 3.5 percent of the GDP respectively). Given the strong relationship between health spending and GDP, the very low GDP growth projections for the MENA region of 0.9 percent within the next decade (Schieber and Maeda, 1999) raises serious concerns about the region's future ability to maintain or improve health expenditure levels and also meet the increased health care demands of the region's rapidly growing population. MENA countries are likely to face serious resource constraints as they try to expand health services.

Figure 6: Relationship between Health Spending Per Capita and GDP Per Capita



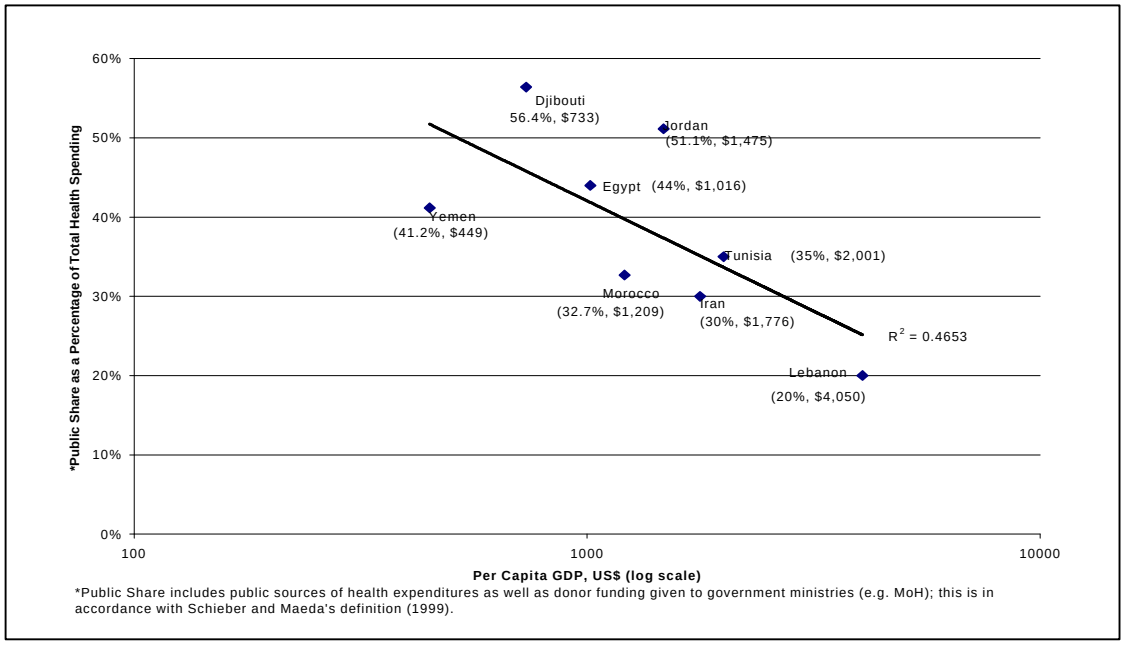
4.3 Relationship between Public Health Spending and GDP

Schieber and Maeda (1999) note another global pattern: in countries with higher per capita incomes, the public share of health care costs is also higher.[1] Indeed, all high-income countries, with the exception of the United States, have achieved universal coverage and use private insurance to supplement core services covered by public services (Schieber and Maeda, 1999). As with overall health expenditures and the GDP, the positive association between per capita income and *public* share of health expenditures may be attributed to an improved ability of richer country governments to collect revenue from growing formal and urban sectors.

Nonetheless, in many developing nations, including the eight profiled MENA countries, there is considerable variation regarding public health expenditure and GDP levels. Data from these countries actually displays a slightly negative correlation between public share of health spending and the GDP level (figure 7).[2] This is likely due to the diversity of approaches to health care financing in the region, which seem to reflect country political and economic structures. Health systems based on socialist principles, such as those found in Yemen, Egypt, and Djibouti, display relatively high levels of public health spending. However, countries such as Lebanon and Morocco, with increasingly market-driven economies, display lower levels of government health spending. Iran, despite its emphasis on a strong public primary and preventive health care, has the second lowest percentage of public financing of health care. This may be due to lower Iranian government involvement in the financing of more expensive services, such as inpatient curative care. A secondary factor that may contribute to high public health expenditures in the poorer nations profiled in this study may be the limited ability of these countries to collect sufficient data from private sources of financing, particularly households (a major contributor to health expenditures); this would result in underestimation of the private share of total health expenditures.

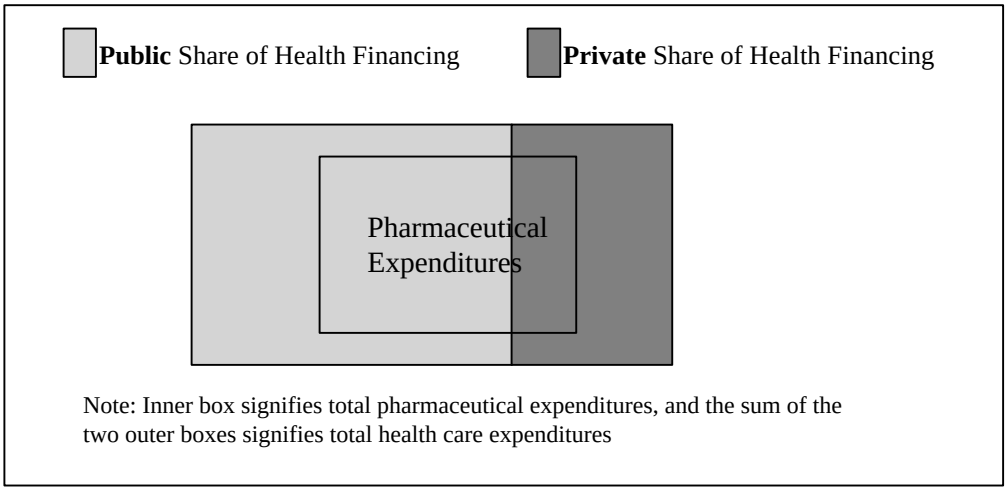
[1] Note, this indicator refers to public *sources* of health financing.
[2] The definition used by Schieber and Maeda for "public share" includes donor money contributed to government services. With the exception of Djibouti, donor contributions are not very substantial in the profiled countries and the slightly negative trend between the public share of health spending and GDP would still hold true if donor contributions were excluded.

Figure 7: Public Share of Health Spending and GDP per capita



Also, the slightly negative correlation between public spending and GDP may be attributed in part to increased government provision of pharmaceuticals in the more publicly structured, as opposed to market-driven, health systems. As will be seen later in this comparative report, a significantly large portion of private health expenditures in MENA countries reflects households purchasing medical drugs. Therefore, the financing source (public or private) that incurs greater pharmaceutical expenditures is likely to bear a significant if not greater share of financing for health care. Figure 8 illustrates this point.

Figure 8: Financing of Most Pharmaceutical Expenditures by either Public or Private Sources Contributes Significantly to that Source's Share of Health Care Financing



4.4 Total Health Spending as a Percentage of the GDP

At its broadest level, NHA provides nations with information concerning their total annual financial investment in health. Some MENA country studies and NHA technical experts use these numbers to assess whether they have spent too little or too much on health. The percentage of GDP spent on health care is a common indicator used in international comparisons of health care resources. This is important because as national funds are limited, health care must compete for its share of the GDP with many other country programs, such as defense, public works, communication and so forth. Thus, the percentage of the GDP spent on health sketches the relative importance of health care to the country in addition to describing how much of a nation's resources are devoted to health care. There are no firm globally accepted rules on how much of a country's income should be spent in the health sector. There is general agreement among experts on what the unacceptable levels are. For example, 3 percent of the GDP may be considered very low and describe low national interest in financing of health care. Large proportions of the GDP spent on health care, such as those above 9 percent, signal decreasing proportions of a country's income that can be made available for the purpose of other goods and services. The OECD average is 8.3 percent.

Among the MENA countries profiled in this report, values representing the health sectors' consumption of GDP vary greatly (table 8). Egypt and Morocco spend the lowest amounts (3-4.5 percent of GDP). Interestingly, Djibouti and Yemen, countries with weak economies, poor health system infrastructures (table 4) and poor health statistics, spend larger proportions of their GDPs on health care (approximately 5 percent) than the more developed nations of Egypt and Morocco. This may be due in part to the already low GDP levels of Djibouti and Yemen and hence the low absolute amounts spent on health care. Also, perhaps resources are not efficiently or effectively distributed within the health system.

Table 8: National Health Expenditures per Capita and as a Percentage of GDP

Country (1997-1998)	Total Health Expenditures as a percent of the GDP (mid-late 1990s)
Djibouti	5.1
Egypt	3.7
Iran	5.7
Jordan	9.1
Lebanon	12.3
Morocco	4.5
Tunisia	5.9
Yemen	5.0
OECD Countries	8.3

The more market driven health sectors of Jordan and Lebanon spend high proportions of their GDP on health care (9.1 percent and 12.3 percent respectively) — more so than the OECD average. This raises issues of sustainability: can these countries sustain such high expenditures, particularly with rapidly growing populations and not so rapidly growing economies? Such high health expenditures also raise the issue of whether or not health funds are being efficiently used in order to maximize health outcomes. Later in this report, we will examine where and how health expenditures are being spent in these countries.

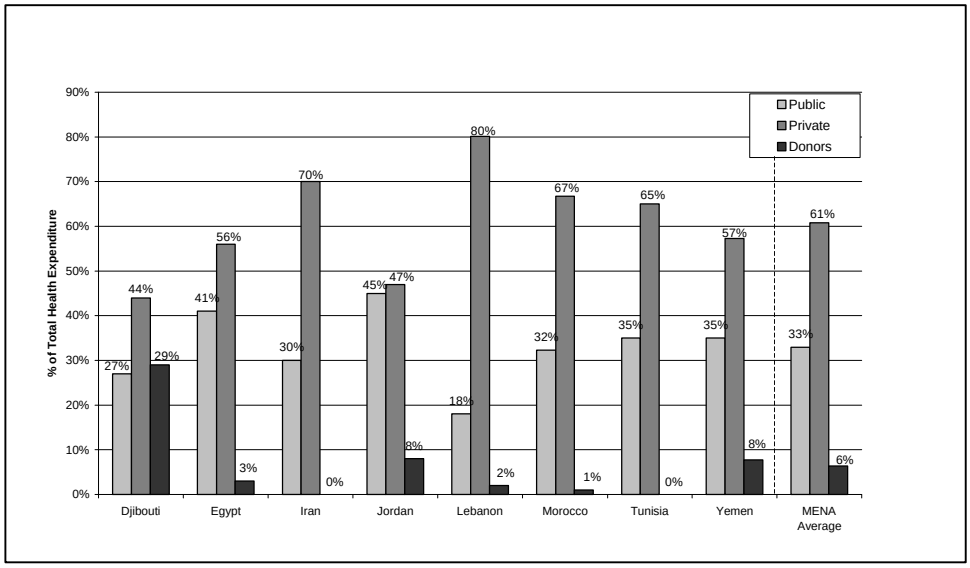
4.5 Sources of Funds

4.5.1 Health Care is Largely Financed by Private Sources

The majority of health funds in the MENA region originate from private sources. Compared to high-income countries where the public share of total health expenditures is approximately 70 percent of total health expenditures (Schieber and Maeda, 1999), the governments of MENA countries profiled in this study exhibit a much lower average of 39 percent of total health expenditures.[3] Thus, approximately 60 percent of health spending is privately financed. With such a large involvement of private financiers, MENA policymakers will have to focus on effectively using private sources of funding (often underestimated and hence neglected in the past) in addition to public sources when attempting to strengthen their health systems.

Figure 9 displays the sources of health financing in the eight MENA countries and divides sources into three categories, which are defined in table 9.

Figure 9: Sources of Funds as a Percentage of Total Health Expenditures



[3] If calculated in the same manner as the Schieber and Maeda report. That paper included donor funding allocated to the government in the *public sources* category.

Table 9: Categories of Health Expenditure Sources

Public sources	Refers to the Ministry of Finance and parastatals or public firms, and unlike the World Bank definition of "public share of health expenditures" does not include donor aid transferred to the government.
Private sources	Include households, private employers, and NGOs.
Donor sources	Refers to international donor organizations

As figure 9 shows, in six of the eight countries, private sources accounted for more than 50 percent of total health expenditures. In two countries, Iran and Lebanon, this number equals or surpasses 70 percent of total health spending (70 percent and 80 percent respectively). With respect to Iran, the government largely finances primary and preventive health care leaving the expensive inpatient curative services to be financed by private sources. In Lebanon, the fact that 80 percent of national health spending originates from private sources illustrates the low level of government involvement in financing health care.

The substantial contribution to health spending from private sources may be due in part to the limited ability of governments to generate revenue because of the small size of the formal sector, limited savings, underdevelopment of financial sectors and so forth (Schieber and Maeda, 1999). Low-income countries on average are only able to raise 20 percent of GDP as revenue and middle-income nations, 31 percent (Schieber and Maeda, 1999). These percent portions of GDP must then be distributed to many competing government functions, only one of which is health. In MENA countries enduring civil conflict or war, the Ministry of Defense may absorb a significant portion of public funds. Given this limited ability of governments to fully finance health care, private financiers are required to fill in the gap.

Donor assistance does not play a significant role in health financing (average 6 percent) in any of the MENA countries, with the exception of Djibouti (figure 9), which attributes 29 percent of total health spending to donor assistance. This proportion is larger than that contributed by the government and other public entities (27 percent). Since the health sector covers a sizeable portion of its costs from donor money, it becomes a concern as to whether the health sector can be financially sustainable once donor assistance ceases. If donors were to withdraw their financial support, the government would have to more than double its health spending in order to maintain current levels of health expenditures.

4.5.2 The Main Private Financiers of Health Care are Households

As figure 10 shows, households account for the largest share of private health expenditures. In Egypt, Iran, Jordan, Lebanon, and Morocco, households fund more than 80 percent of *private* expenditures. Private employers contribute significantly less in comparison. Note that data on employer contribution was not available in Yemen. In terms of *total* health expenditures, households in five of the eight countries accounted for more than 50 percent of total health expenditures (table 10). Households were, on average, the single largest source of health funds in the countries (account for 51 percent of total health spending on average) (table 10). This raises concerns about equity and the fairness of letting households carry such a substantial burden of financing their countries' health systems.

Figure 10: From Where Do Private Health Funds Come? Breakdown of Private Sources

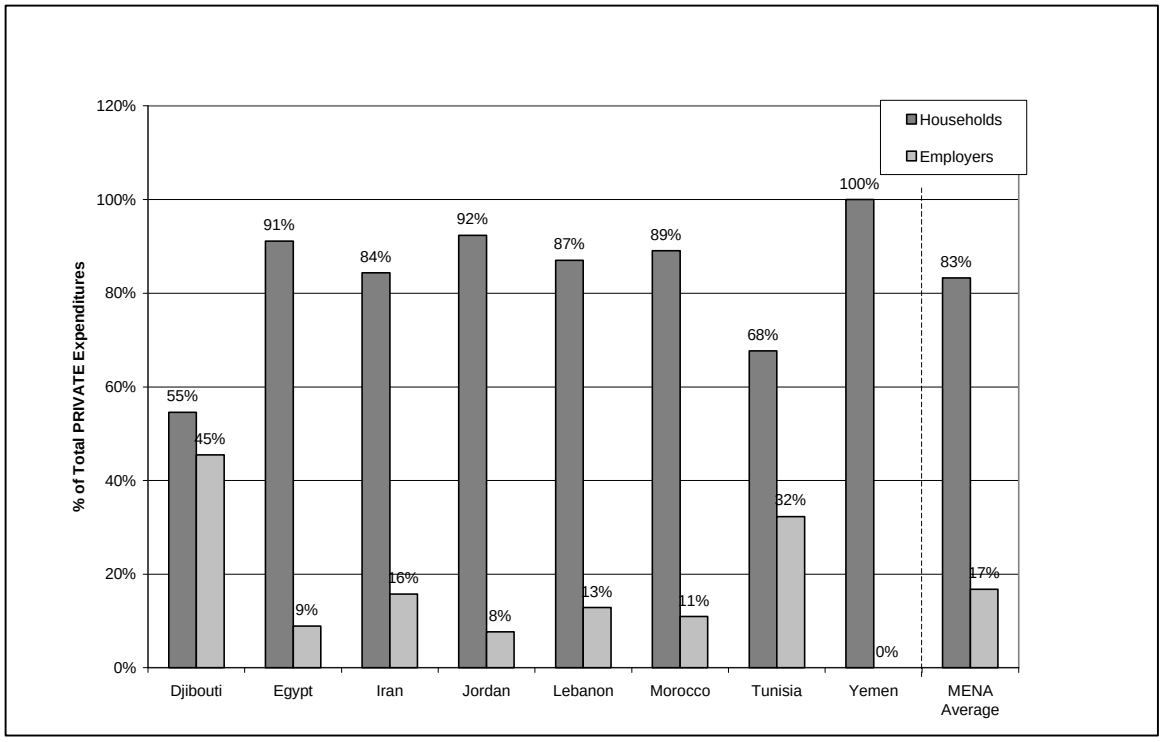


Table 10: From Where the Money Comes? Sources of Funds;

Country	Public Sources (% of Total Health Expenditures) (includes Government and Public Firms)	Private Sources (% of Total Health Expenditures)					Donor Sources (% of Total Health Expenditures)
		Overall Private % of Total Health Expenditures		Households as a % of Total Health Expenditures		Private Employers as a % of Total Health Expenditures	
Djibouti	27	**44**	=	24	+	20	29
Egypt	41	**56**	=	51	+	5	3
Iran	30	**70**	=	59	+	11	0
Jordan	**45** (Public Firms=3.6%)	**47**	=	43.6	+	3.6	8
Lebanon	18.0	**80.1**	=	69.7	+	10.3	2
Morocco	32.3	**66.7**	=	59.4	+	4.8 (+2.5 others)	1
Tunisia	**35** (Public Firms=2.8%)	**65**	=	44	+	21	0
Yemen	**35** (Public Firms=6.5%)	**57.3**	=	57.3	+	Not Available	7.7
MENA Average	32.9	60.8		51		9.8	6.3

* Numbers in bold add up to 100%

4.6 Financing Intermediaries

4.6.1 Flow of Funds from Sources to Providers

Approximately 44 percent of health expenditures in the MENA region flow directly from the sources of funds to providers (figure 11). The remaining 56 percent of funds reaches providers/end users by a third party or a financing intermediary (figure 11). Intermediaries, for the purposes of this paper, have been divided into several categories, which are listed in table 11.

Figure 11: Health Expenditure Proportions that Flow Directly and Indirectly to Providers

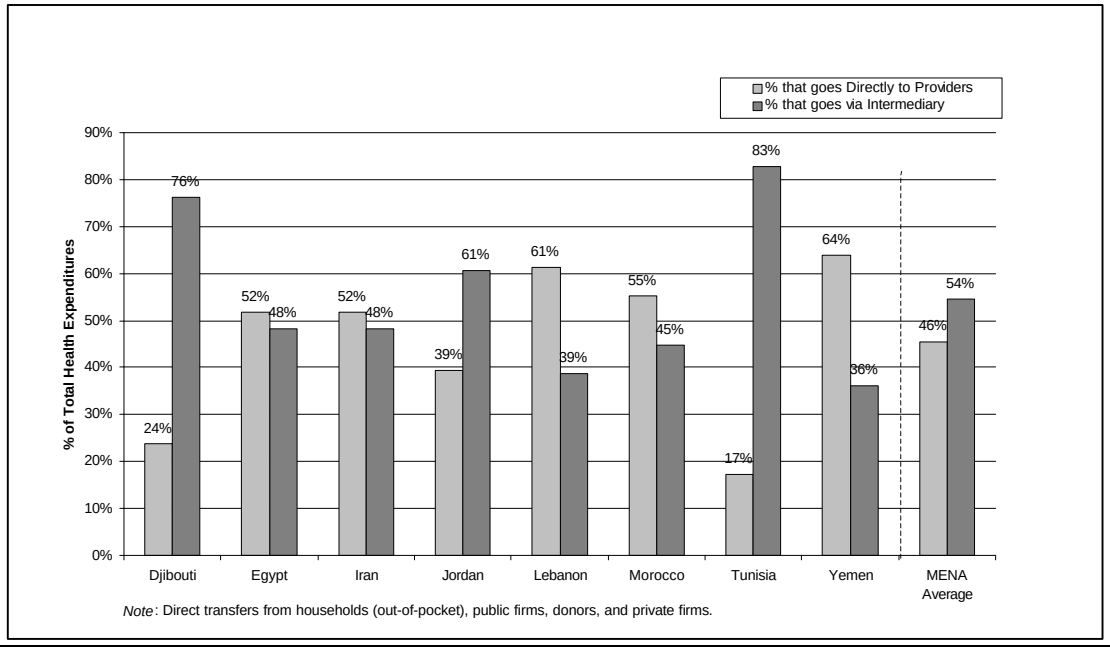


Table 11: Financing Intermediary Categories

Ministry of Health	Runs and manages MOH health services and facilities; also includes public health issues within its mandate.
Other Government Ministries and Public Organizations	Includes other ministries that may offer separate health care coverage or health services apart from the Ministry of Health. Public organizations (parastatals) include companies such as a national airline or bank.
Social Health Insurance Organizations	Refers to the government's managing entity responsible for the provision and administration of social health insurance, which is defined as being coordinated by the government and mandatory for select groups of people.
Insurance Schemes (other than social health insurance)	Refers to insurance schemes that may or may not receive government contributions but are *not* mandatory for any group of people; public and private mutuelles as well as private insurance schemes are included in this category.
Private Firms	Includes those private companies that make their own arrangements for providing medical care to their employees, which may range from contractual arrangements with various providers to running their own health facilities.
University and Teaching Institutions	Includes those educational institutions that manage and operate their own health care facilities.
Other	Includes other intermediaries, such as NGO and donors, that provide funding for their own facilities.
Households* (not an intermediary but rather a source of funds)	As stated earlier, households are listed as an intermediary as a convention of NHA methodology, to maintain the consistency of the three-tiered NHA matrix table. The inclusion of a category in the sources and intermediary level denotes a direct transfer of funds between source and providers.

Intermediaries receive a substantial proportion of health fund transfers in all MENA countries. Those countries exhibiting more indirect than direct transfers do so with larger differences between the two methods; for example in Djibouti, Jordan, and Tunisia, more than 60 percent of health expenditures occur via financing intermediaries. The involvement of intermediaries presents opportunities for financial risk sharing. Moreover, this middle layer will also be useful in regulating and managing providers through incentive schemes, controls, and utilization reviews. This regulation aspect is hard to implement in countries where health expenditures are primarily made directly through out-of-pocket spending. However, one point that should be considered with respect to the heavy involvement of intermediaries is that policymakers will need to ensure that this bureaucratic layer is not administratively complex and that funds travel smoothly and efficiently to providers. Thus, the roles of intermediaries need to be clearly defined and demarcated so as not to overlap responsibilities.

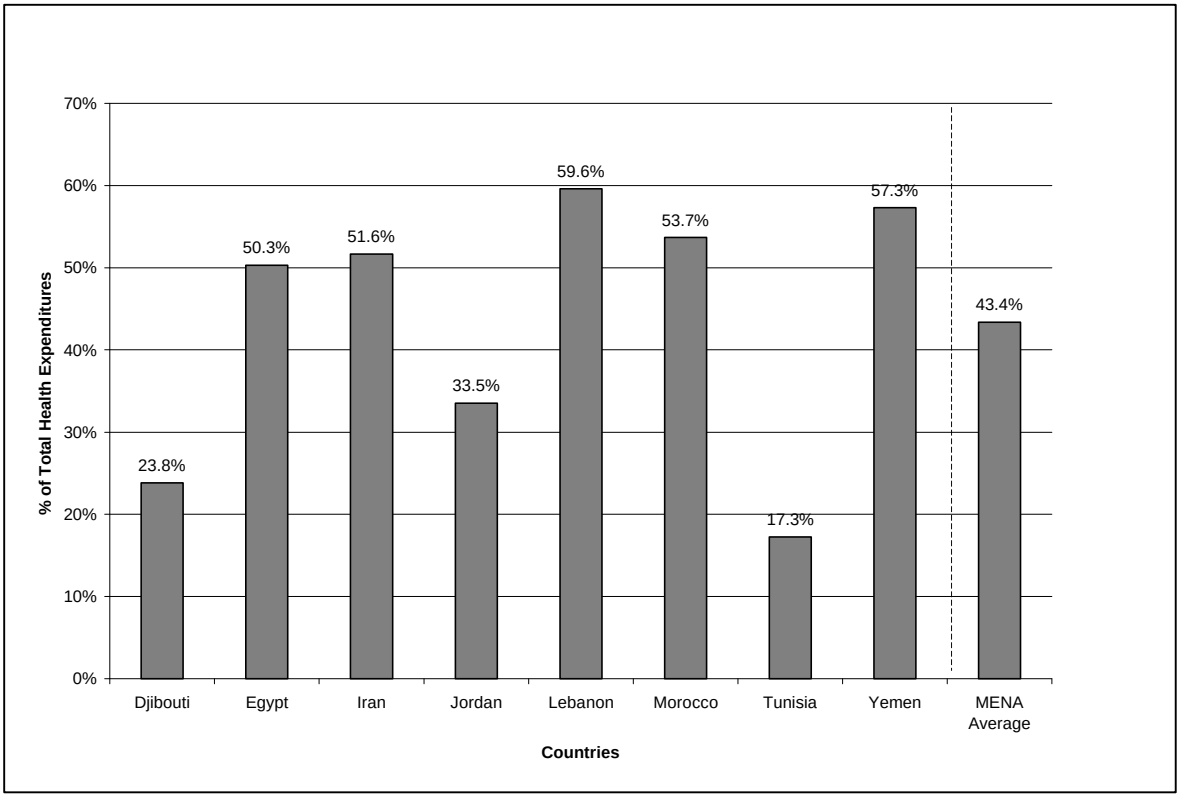
4.6.2 Direction of Flow of Funds from Sources to Intermediaries

In profiled MENA countries, sources of health expenditures primarily transfer their funds to one to three financing intermediaries (table 12). The average MENA Ministry of Finance transfers 74 percent of its health funds to the Ministry of Health, 10.6 percent to other government ministries and public organizations, and 9.1 percent to social health insurance programs. MENA public firms tend to spend most of their health funds on their own health care coverage programs or facilities (50.3 percent) and secondly on social (19.0 percent) and other insurance programs (19.7 percent). Private employers channel their funds primarily to social health insurance programs and secondly to other insurance schemes. Donors transfer most of their funds to the Ministry of Health and secondly to their own donor-run health services facilities. Households transfer 85 percent of their health funds *directly* to providers. This form of transfer is referred to as out-of-pocket expenditures. On average, out-of-pocket spending accounts for more than 43 percent of *total* health expenditures in the MENA region (figure12).

*** Table 12: Where Do Funds from Sources Go? The MENA Average**

	Sources				
Financing Intermediaries	**Ministry of Finance and Other Government Entities**	**Public Firms**	**Households**	**Private Employers**	**Donors**
Ministry of Health	73.8	6.0	3.7	2.4	77.8
Other Ministries and Public Organizations	10.6	50.3	0.5	2.7	1.2
Social Health Insurance	9.1	19.0	6.9	50.8	0.8
Insurance Schemes	1.3	19.7	3.3	23.7	0.0
Private Firms	0.0	0.0	0.0	20.3	0.0
Households	0.0	0.0	84.7	0.0	0.0
University and Teaching	3.0	4.9	0.4	0.0	0.4
Other (includes NGOs)	2.2	0.0	0.4	0.0	19.9
TOTAL	100	100	100	100	100

Figure 12: Out-of-Pocket Expenditures



MENA intermediaries receive the majority of their funding from likely sources (table 13). For example, the Ministry of Finance is the major financier for the MOH and university and teaching groups. Also, NGOs and other aid groups receive their funds primarily from donors.

Table 13: From Where do Intermediaries Receive their Funding? The MENA Average

	Sources					
Financing Intermediaries	**Ministry of Finance and Other Government Entities**	**Public Firms**	**Households**	**Private Employers**	**Donors**	**Total**
Ministry of Health	79.4	0.2	4.7	1.1	14.7	100
Other Ministries and Public Organizations	67.2	17.5	1.7	12.9	0.7	100
Social Health Insurance	26.8	1.0	16.7	55.3	0.2	100
Insurance Schemes	2.8	4.0	32.6	60.6	0.0	100
Private Firms	0.0	0.0	0.0	100.0	0.0	100
Households	0.0	0.0	100.0	0.0	0.0	100
University and Teaching	18.5	6.4	13.1	0.0	2.0	100
Other (includes NGOs)	29.1	0.0	6.3	5.9	58.6	100

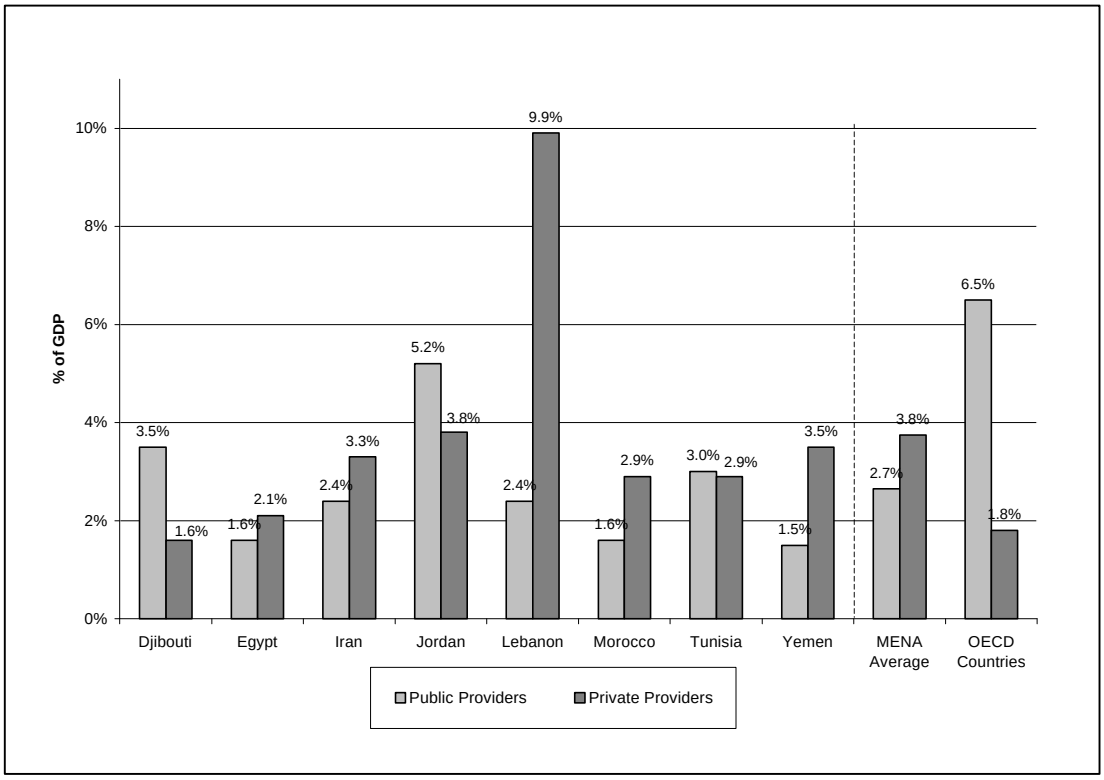
However, ministries other than the MOH and parastatals, social health insurance, and other insurance schemes have multiple sources of funding. Though the government accounts for 26.8 percent of social health insurance funds, the actual majority of funding (55 percent) is derived from private employers. Households contribute 16.7 percent of social health insurance funds. Like social insurance, other insurance schemes also receive most of their funds from private employers (67.2 percent) with households accounting for the next largest portion (26 percent). Though ministries besides the MOH and parastatals receive most of their financing from the government and public firms, private employers also occupy a significant third place and contribute to 12.9 percent of their funds. It is likely that as the formal sector develops in these MENA countries, private employers will become increasingly important as financiers of health care. Thus, data from this group of sources will be more and more crucial for any meaningful analysis of national health expenditures.

4.7 Providers

4.7.1 Public versus Private Provider Expenditures

Private providers are the major recipients of national health funds. Figure 13 shows the breakdown of expenditures among the public and private providers. In this figure, public providers refers to MOH providers, other ministries' facilities, social health insurance facilities, parastatal/public organization provider institutions, and university hospitals. Private providers refers to private for-profit providers as well as not for-profit entities such as donors and non-governmental organizations; it also includes private pharmacy expenditures.

*** Figure 13: Health Spending on Public and Private Providers as a Proportion of the GDP**



On average, profiled countries spent more health funds on private providers than on public ones (over 1 percent difference of the GDP; this translates to approximately 40 percent of total health expenditures on public providers and 60 percent on private providers). The private provider emphasis in the MENA region varies significantly from the trend seen in OECD countries, where public providers account for more than three times the expenditures attributed to private providers. Despite the presence of extensive government services in many of these MENA countries and the low proportions of hospital beds in the private sector, most health spending still occurs in the private sector, primarily on private pharmacies and outpatient providers. However, expenditure estimates from Djibouti, Tunisia, and Jordan show the converse: more is spent on public providers than on private ones. In Djibouti's case, one should note that all donor aid, which is substantial and larger than government health expenditures (figure 9), is contributed to public providers and the private sector for health care delivery is largely undeveloped. Tunisia's health spending values should be interpreted with caution as the country NHA team had difficulty in retrieving sufficient and accurate data from private providers (Arfa, 2000). Jordan has indeed a developed and extensive public delivery system.

Given the general importance of private providers in consuming health funds, data retrieval from these group should be a major priority in the assessment of health care spending patterns.

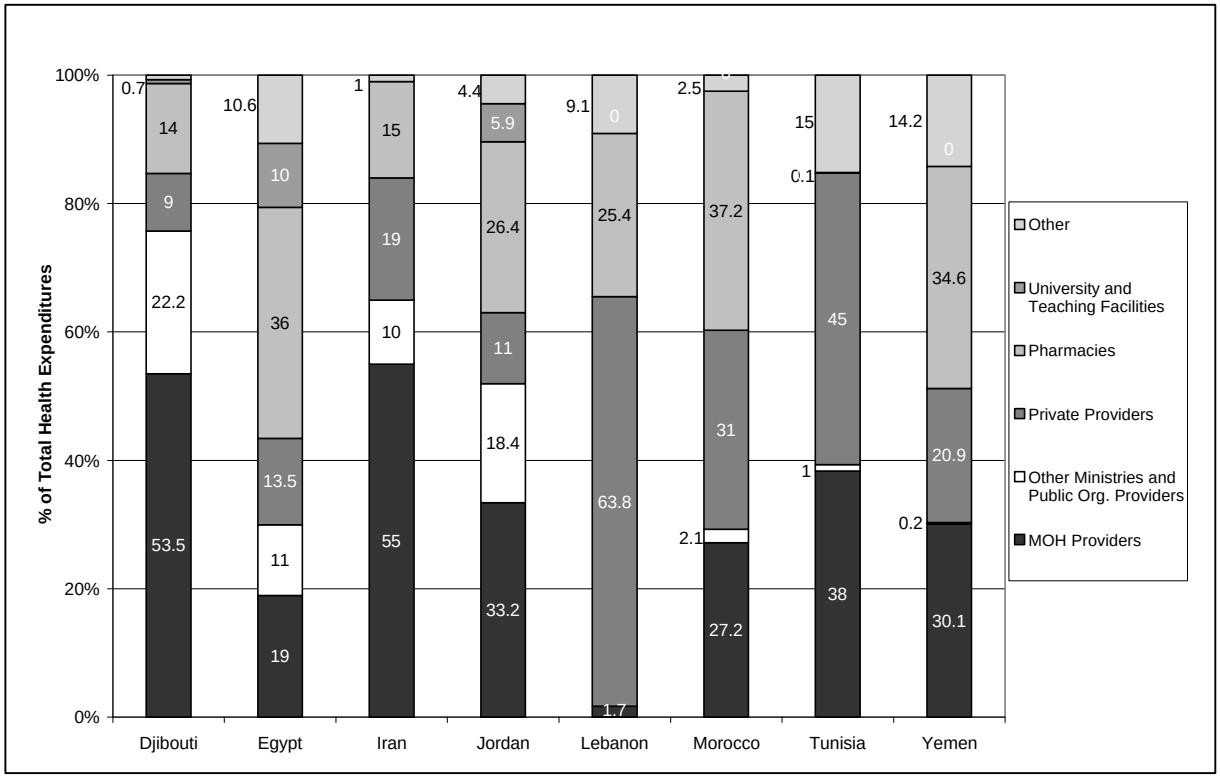
4.7.2 Breakdown of Expenditures by Provider Type

The aggregate categories used for this level are defined in table 14. Figure 14 shows country distribution of total health spending by provider type. Those countries exhibiting a variety of colored bars in the figure, such as Djibouti, Egypt, Iran, and Jordan, signify the multiple actors involved in those nations' health care delivery systems. Interestingly, some of these pluralistic delivery systems occur in countries that have supposedly socialist-structured health delivery sectors (e.g. Djibouti, Iran, and Egypt). With the involvement of so many different actors in service delivery, health systems become much more complex. Regulatory issues, such as maintaining quality of care in these facilities, become more pronounced as governments attempt to manage a diverse group of providers driven by various incentives.

Table 14: Definitions of Aggregated Categories at the Provider Level

MOH Facilities	Refers to health centers, clinics, and hospitals run by the Ministry of Health.
Other Ministries and Public Organization Facilities	Includes health centers, clinics, and hospitals managed by parastatals and ministries other than the MOH; these facilities are primarily intended for employees and dependents.
Private Providers	Includes private health care workers and facilities run by private-for-profit organizations.
Pharmacies	Referes to privately run pharmacies.
University and Teaching Facilities	Generally refers to hospitals run by universities and other health personnel residency programs.
Other Facilities	Includes donors and NGO facilities.

Figure 14: Distribution of Health Spending, by Type of Provider



Public facilities receive on average 40 percent of total health expenditures in all profiled MENA nations, with the exception of Lebanon. As mentioned earlier, Lebanon does not have a developed public infrastructure to supply health care services; rather, the government contracts with private providers on a fee-for-service (which may provide them with an incentive to provide unnecessary services) and a capitation basis to offer health care services for the nation. Though this arrangement frees the government from financial responsibilities in managing a health care delivery system, it does so at an expensive price for the country. Lebanon spends more (12.3 percent of GDP) on health care than any other country profiled in this study and much more than the OECD average (8.3 percent). More than half of this spending comes from household out-of pocket expenditures (figure 12). This, in addition to slow economic growth, calls into question the sustainability and financial accessibility of Lebanon's health care system.

As stated previously, private providers (including private for-profit and not-for-profit providers, pharmacies, and other facilities) account for just under 60 percent of total health expenditures in the MENA region. The major actors are private providers (27 percent) and private pharmacies (24 percent). The significance of these actors in MENA health systems will be discussed later in the sub-section outlining expenditure patterns by function.

4.7.3 The Flow of Funds from Intermediaries to Providers

Unlike the multiple sources of funds received by financing intermediaries, providers largely receive their health funds from one principal intermediary (table 15). Generally, the flow of funds between intermediaries is direct and compartmentalized because intermediaries transfer funds to those facilities that they own and operate. Thus, MOH facilities on average receive the majority of their funds from the MOH acting as the intermediary. Similar direct transfers of funds occur for categories such as "other ministries and public organization facilities," "universities and teaching facilities," and "other (including donor/ NGO facilities)."

Table 15: Where Providers Receive their Financing From

	Financing Intermediaries								
Providers	**MOH**	**Social health Insurance**	**Other Ministries and Public Org.**	**Insurance Schemes**	**Private Firms**	**Households**	**University and Teaching Groups**	**Other (incl. NGOs)**	**TOTAL**
MOH Facilities	82.0	2.4	0.9	0.4	0.0	13.0	0.0	1.4	100%
Other Ministries and Public Org. Facilities	12.4	34.8	44.2	0.0	0.3	2.4	0.0	5.9	100%
Private Facilities	2.7	5.2	3.7	9.9	3.1	74.7	0.0	0.8	100%
Pharmacies	2.1	19.4	0.4	4.6	0.3	73.2	0.0	0.01	100%
Universities and Teaching Facilities	15.0	1.5	33.3	0.1	0.2	0.1	48.5	1.3	100%
Other (incl. Donor/NGOs)	18.5	17.4	6.5	3.5	3.8	20.5	0.0	29.8	100%

Private providers and pharmacies derive their funding largely from out-of- pocket transactions. In comparison, insurance schemes, social or otherwise, play a much smaller financial role in private provision of health services. As figures 15 and 16 show, insurance schemes of any type contribute to 15 percent of private facility expenditure and to 27 percent of pharmaceutical expenditure. Thus, out-of-pocket spending accounts for a large 74 percent of funds received by private facilities and 70 percent of funds consumed by pharmacies.

Figure 15: Where MENA Private Facilities Receive their Funds on Average

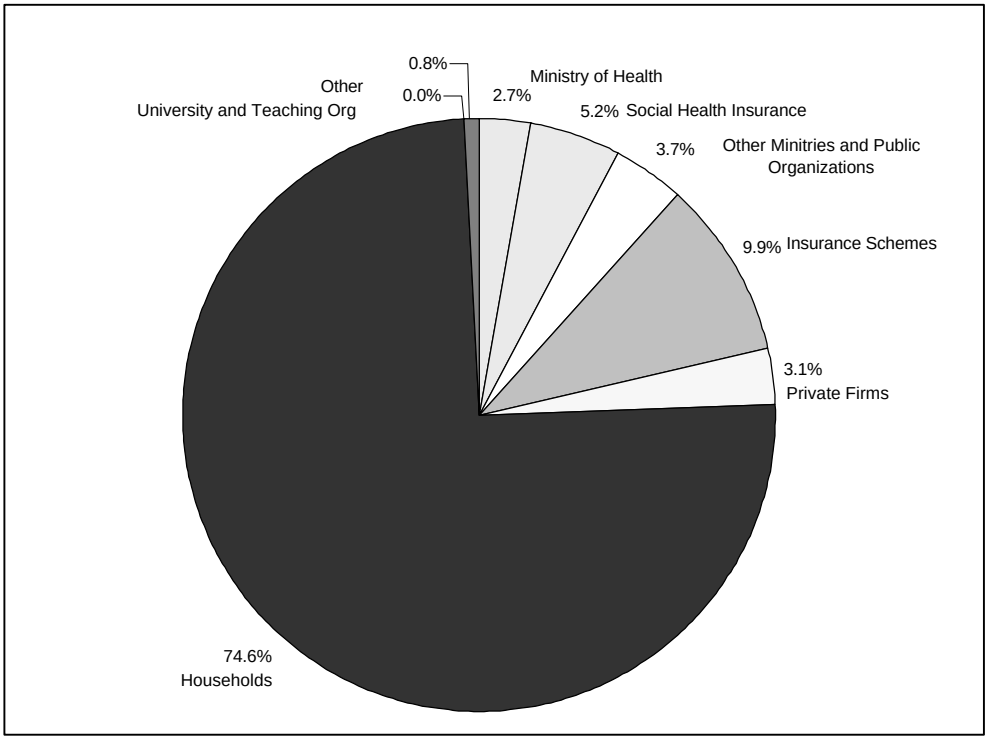
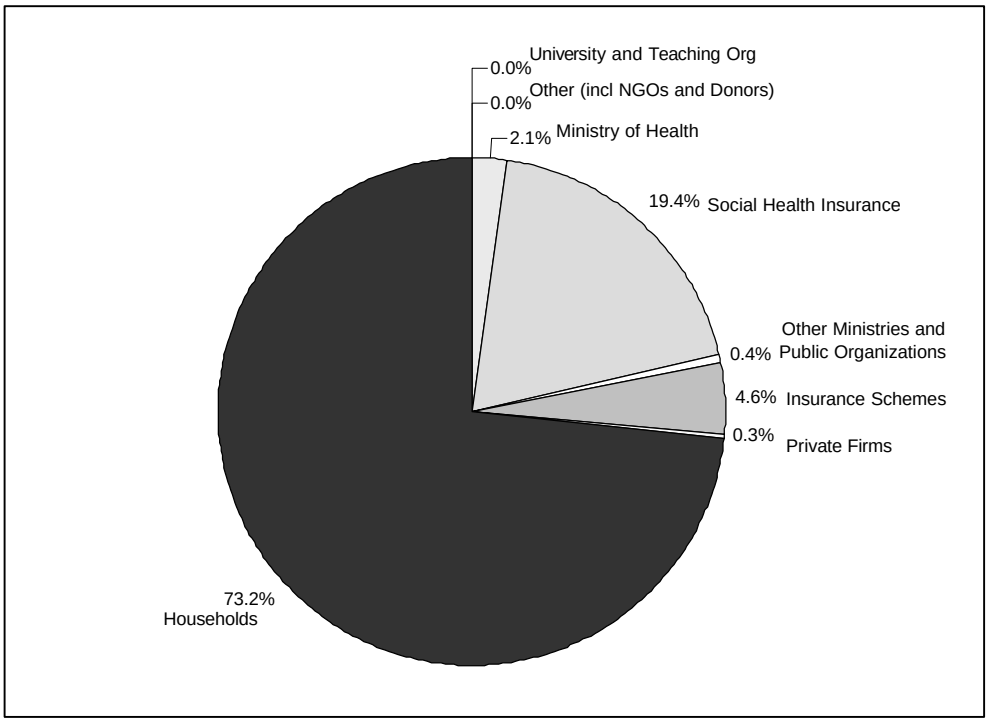


Figure 16: Where MENA Pharmacies Receive their Funds on Average



4.8 Functional Distribution of Health Expenditures

4.8.1 Functional Distribution of Health Spending is Varied in MENA Countries

Figure 17 shows that countries vary in terms of the services/functions they finance. Generally, health funds in developing countries are primarily spent on expensive curative care; very little goes towards preventive care. There is little doubt that such an emphasis on curative care is not as cost-effective as the cost per life saved by relatively inexpensive preventive health care (World Bank, 1997). As mentioned previously, due to varying interpretations of OECD classifications of functions, many of the countries profiled in this report collected expenditure information based on different definitions of health care functions. For example, some did estimate preventive vs. curative care, whereas others examined primary, secondary, and tertiary, or outpatient versus in-patient care. Thus, it was not possible to extract and compare preventive and curative expenditure estimates from all the profiled MENA countries. The aggregated categories ultimately used in this paper are inpatient curative care, outpatient and preventive care, and other health functions. These are defined in table 16.

Djibouti, Iran, Jordan, and Tunisia (note data for Tunisia was derived entirely from the public sector) spent more on inpatient curative services than on outpatient and preventive health care (figure 17). Seemingly unusual, countries such as Lebanon, Morocco, and Egypt show the reverse trend. However, this does not mean these countries actually spent more on preventive care versus curative care. The larger outpatient and preventive care estimates most likely reflect heavy spending on private outpatient health services, which often are basic curative services. Note that with respect to Egypt, functional expenditure estimates were only provided from the public sector and so do not represent the full health sector. In Morocco, the "other" category surpasses outpatient and preventive as well as inpatient curative categories. This is largely due to the "other" category's inclusion of pharmaceuticals, which account for a sizeable 37 percent of the country's health expenditures. Note that data for Yemen was not available.

Figure 17: Functional Distribution of Health Expenditures

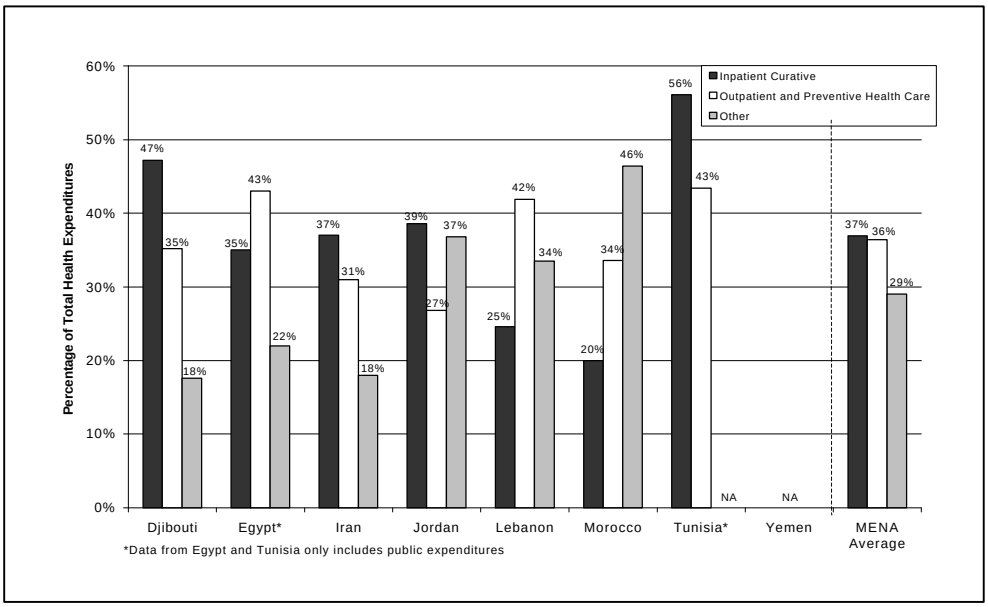
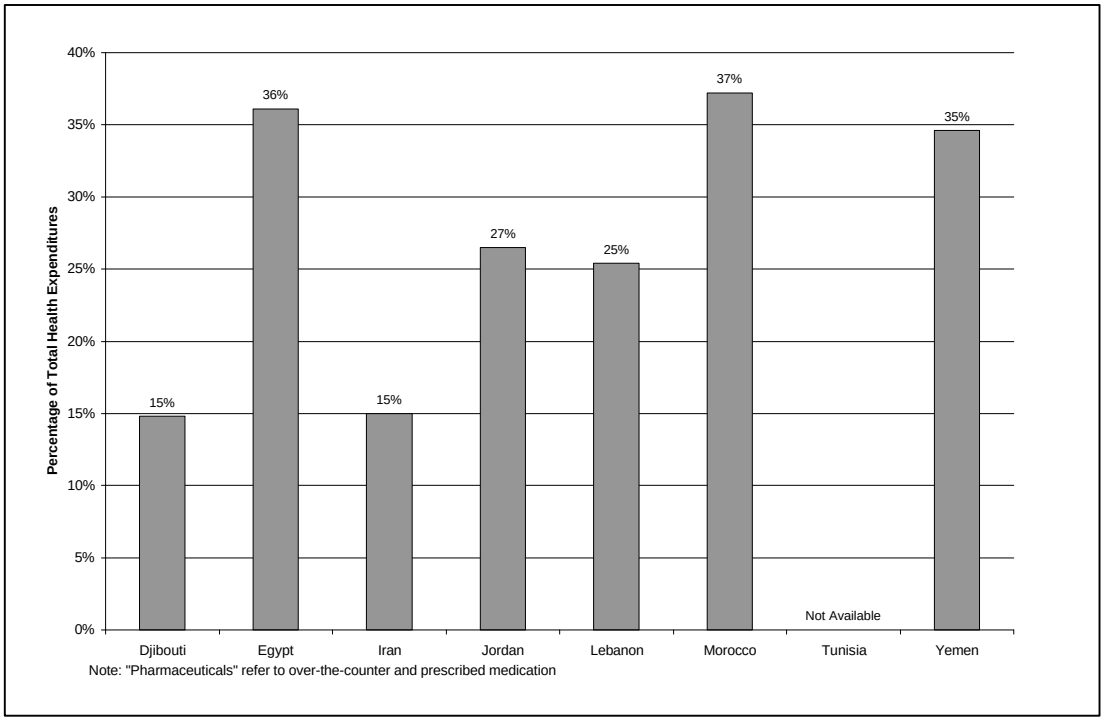


Table 16: Functional Categories Used in this Paper

Inpatient Curative	Refers to all inpatient public and private facilities, such as MOH hospitals, teaching hospitals, and other specialized hospitals. It includes all services associated with inpatient service delivery such as administration, medical imaging, and pharmaceuticals given during an inpatient visit. In several instances, however, it might also include outpatient services delivered in hospital settings (e.g. Jordan, Lebanon, Morocco).
Outpatient and Preventive Health Care	Includes all services provided in outpatient clinics, services provided in rural health centers, ambulatory clinics and family planning clinics.
Other	Includes all other health care services such as administration, pharmaceuticals (over-the counter and prescribed drugs), education, research and development, capital investments and so forth.

Figure 18 shows specific country estimates that display the sizeable role of drugs in consuming national health expenditures. In five out of the seven countries with available information, pharmaceutical expenditures (over-the-counter and prescribed drugs) account for over 25 percent of national health spending. This is in contrast to high-income countries, where pharmaceuticals account for 10-15 percent of total health expenditures (Management Sciences for Health, 1997). The MENA region's pharmaceutical trend is in line with the general global trend that finds drug expenditures consume higher shares of national health expenditures in lower-income countries than in higher-income nations (Management Sciences for Health, 1997). Moreover, as will be seen, MENA countries, like most developing nations, place the financing burden of medical drugs on the private sector, primarily on households (see next sub-section). Such high spending patterns on pharmaceuticals has to do with substantial over-prescription of drugs, self-prescribing practices, large patient demand and over-valuing of medicines, and also with the high prevalence of expensive brand name drugs as opposed to cheaper generic drugs. Cost-containment strategies targeting pharmaceutical expenditures in particular should be explored by MENA countries.

Figure 18: Pharmaceutical Expenditures in Select MENA Countries



4.8.2 Household Expenditures

Households in the MENA region represent the largest source of health expenditures and spend approximately 85 percent of their health funds as out-of-pocket expenditures (remaining household funds goes to intermediaries, such as various insurance programs) (table 12). Thus, they primarily pay providers directly for health services, and this transaction method is the principal source of funds for the private health care delivery sector (figure 15 and 16). So what services do households pay for?

Figure 19 shows that, on average, the MENA region attributes 46 percent of out-of-pocket expenditures to pharmaceuticals. However, this indicator underestimates total actual out-of-pocket pharmaceutical expenditures because it does not include drugs provided in inpatient and outpatient services. Such data is difficult to extract from hospital and clinic expenditure estimates. Those countries, such as Morocco, where drug expenditures are estimated from household surveys rather than from pharmacies are likely to be more accurate and complete.

Among established market economies, private spending on drugs averages one-third of total *pharmaceutical* spending with the remaining two-thirds paid through public budgets and social insurance (Management Sciences for Health, 1997). In profiled MENA countries, the exact reverse trend is observed and more than two-thirds (70 percent; table 14) of funding for pharmaceuticals is provided by the private sector, specifically households, and less than a third (30 percent) is derived from public budgets and social insurance. Such high household shares of health expenditures stem from the relative lack of health education and the over-valuing of drugs, especially antibiotics, by patients. This prevents market competition in the private sector allowing drug costs to escalate (McPake and Mills, 2000). Such market failures need to be offset with increased government involvement and regulation of the drug sector.

Figure 19: Regional Breakdown of Out-of-Pocket Expenditure

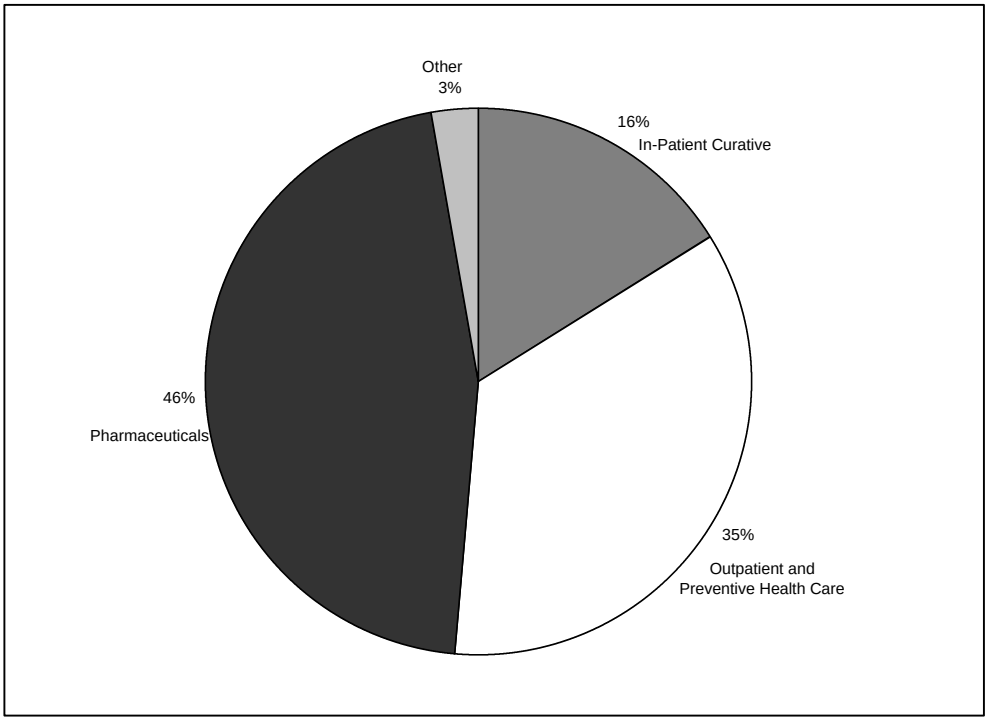
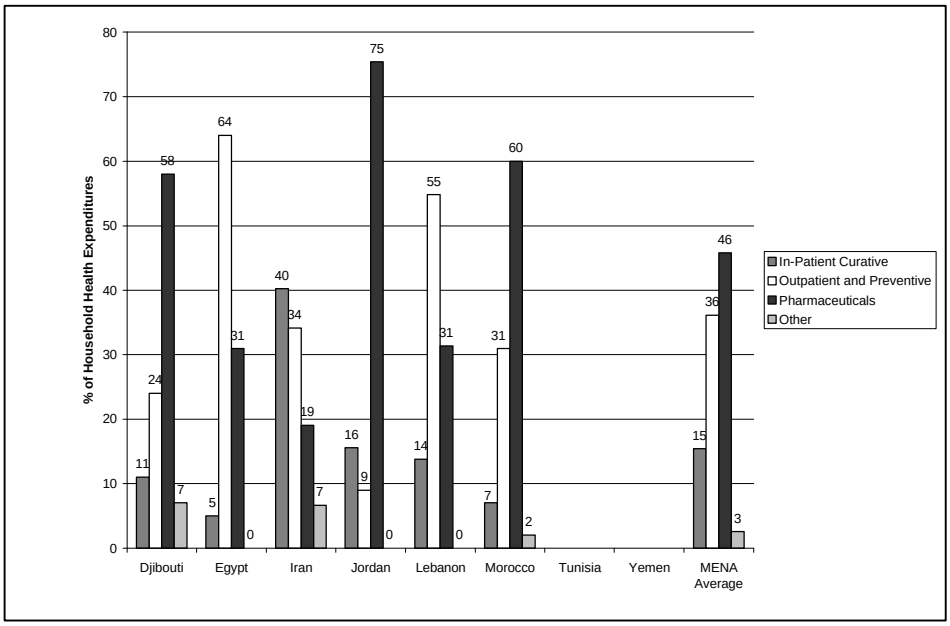


Figure 20 shows out-of-pocket spending for six of the eight countries. Data could not be calculated for Tunisia and Yemen based on their somewhat more aggregated intermediary-to-provider matrix table. In three out of the five countries with available data, households spent more than 55 percent of their out-of-pocket funds on pharmaceuticals. Jordan represents the most extreme of this trend: 75 percent of out-of-pocket expenditures are for medical drugs.

Figure 20: Country Breakdown of Out-of-Pocket Expenditures by Function



On average (see figure 19), outpatient and preventive health care consume the next largest portion (37 percent) of out-of-pocket expenditures. This is likely because private outpatient care, generally perceived to be of higher quality than public care in many MENA countries, is less expensive and hence more affordable by households than inpatient care. This latter service accounts for only 16 percent of out-of-pocket expenditures, probably because inpatient curative care is too expensive for the average MENA household or that these services are generally covered under health insurance or publicly financed health care.

4.9 Summary of Principal Observations from Comparative Analysis

> Like the global pattern, profiled MENA countries with larger per capita GDPs are associated with larger health expenditures.

> There is variability, and even a slight negative correlation, between public health expenditures and national income levels. This may be because of traditional political philosophies that govern the organization of health systems. For example, more socialist countries tend to spend more public funds on health care than market driven countries, which, in the MENA region, tend to be the richer nations. Another factor may be that private spending could be under-reported in some of these countries causing public

expenditures to account for a larger share of total health expenditures.

- In terms of national health expenditures, MENA countries spend varying proportions of their GDP on health. Jordan and Lebanon spend more in comparison to other MENA countries as well as to the OECD average. This raises issues of sustainability of such high levels of health financing in the face of slow growing economies and rapidly increasing populations.

- Health funds originate primarily from the private sources (61 percent of total health spending) and are spent primarily on private providers (58 percent total health expenditures), with a heavy emphasis on pharmaceutical goods (46 percent of household spending).

- Donors do not play a large role in health financing in MENA countries, with the exception of Djibouti.

- More than half of total health expenditures in the MENA region, and a large 83 percent in Tunisia, go *indirectly* to providers via a financing intermediary. Intermediaries provide opportunities for cost-sharing and can assume major roles in regulating providers through the implementation of incentive schemes, utilization reviews, etc. However, the significant involvement of intermediaries brings up the need for clearly defining their roles so that responsibilities do not overlap, bureaucratic procedures are minimized, and efficiency in transferring health funds to providers is maximized.

- Intermediaries receive funds from multiple sources but transfer funds more directly i.e. to facilities they own and operate.

- Djibouti, Egypt, Iran, and Jordan have highly pluralistic health delivery systems (interestingly, some of these countries have socialist health systems)—more so than the other four countries profiled in this report.

- In terms of function, Djibouti, Iran, Jordan, and Tunisia spend the most on inpatient curative care. The remaining countries either spend more on private outpatient care (Egypt and Lebanon) or on pharmaceuticals (Morocco).

- Pharmaceuticals account for a much larger share of total health expenditures in MENA countries (27 percent on average) compared to established market economies (10-15 percent). Moreover, private sources of financing account for over two-thirds of pharmaceutical expenditures whereas in developed nations, public sources account for more than two-thirds of drug expenses.

- Households are the single largest source of funds, accounting for 51 percent of total health expenditures in the MENA region. Their spending on health care is largely out-of-pocket spending (85 percent of household spending), which is the principal source of funding of the private health care delivery sector. Out-of-pocket expenditures goes primarily to pharmaceuticals (46 percent), followed by outpatient and preventive health services (35 percent) and lastly on inpatient curative care (16 percent).

5. Policy Implications

The purpose of conducting NHA studies is to provide accurate information that can help in making good health policy decisions and avert potentially bad ones. Specifically, NHA allows policymakers to make *informed* policy decisions. Policy areas that can be affected by NHA are broad and numerous and include the mobilization of resources for health care, the containment of health care costs, and the maximization of efficiency and effectiveness of the health sector. Moreover, NHA results can be used to identify problem areas that can be addressed by reform, such as equity and quality of care issues. Additionally, these findings can be used to quantify the size of previously underestimated private health sectors and provide insight into the internal organization of country health sectors. In the final NHA workshop for participating MENA countries (May 20-24, 2000), country NHA teams met to discuss their experiences with NHA and to identify key policy issues. A list of these concerns is provided in table 17. This section will examine those issues as well as issues presented by individual country reports. Also discussed are some of the policy efforts that are already underway in response to NHA findings.

Table 17: Summary of Methodological, Policy, Institutionalization Issues Faced by Eight Participating Countries in the 3rd Regional NHA Workshop, Amman, Jordan

Country	Methodological Issues	Policy Implications	Institutionalization Plan	Other Remarks and Specific Contribution
Djibouti	> Limited support for NHA at MOH and MOF > 1996 household survey the primary source of data > Lack of data on secondary and tertiary care at certain hospitals	> Cost recovery > Gaps in information (hospital costs, population-based data) > High dependancy on foreign aid in support of health sector	> Increase awareness and commitment for NHA > Develop accounting in public health services > Increase training of NHA team in cost recovery and general acoounting	
Iran	> Very limited support for NHA > Lack of standard classification and accounting definitions > Surveys not designed for NHA > Changes in top management > Poor accounting practices at MSIO, SSO	> Subsidies > Parallel insurance coverage > Cost containment > Excess hospital capacity > Very low expenditure on primary health care (only 7%) > Excessive pharmaceutical expenditures	> NHA activity should be independent > Technical knowledge > Legal mandate	Health expenditure 5.8% of GDP Personnel involved in conducting NHA should not interpret results
Jordan	Four major constraints: > Availability of data > Quality, validity, and reliability of data > Lack of standard accounting definitions > Non-conventional budgetary transfers	> Sustainability > Cost containment and efficiency > Decentralize budgeting > Implement new MIS systems > Excess hospital capacity > Reallocate expenditure – curative to primary health care > Control capital investment in private hospital sector > Equity > Quality of care – staffing imbalances > Excessive pharmaceutical expenditures > Health insurance – limit multiple coverage and expand coverage	> Increase awareness and commitment for NHA > Set up NHA steering committee > Development of standardized financial management systems > Identify the final arrangement for NHA	Health expenditure 9.1% of GDP

* Egypt did not attend the 3rd workshop.

Country	Methodological Issues	Policy Implications	Institutionalization Plan	Other Remarks and Specific Contribution
Lebanon	> NHA working group (MOH, WHO, Ministry of Defense, Internal Security Forces, National Social Security, Civil Servant Cooperative) > Agree on common definitions > Feasibility of OECD classification across government and private institutions > Drafted Lebanese versions of classification	> Sustainability > Cost containment > Rationalizing capacity in the hospital sector > Relallocating expenditures from curative to Primary Health Care > Rationalizing expenditure on pharmaceuticals > Expanding health insurance coverage to the uninsured and limiting multiple covergae > Equity	> Consensus of political bodies > Activities accomplished: Î Revision of the existing data Î Identification of data sources Î Finalizing of the first round of data collection for 1998 in July 2000 Î Dissemination plan for institutionalization	Total health expenditure 9.8% of GDP Lebanon has formalized their won unique set of cost classifications and definitions
Morocco	> Linking NHA results to priority health questions throughout the elaboration, analysis, and ultimatelky the report writing stages of the work > Establishing a connection between household data and public health indicators > Further operationalizing local level participation in the elaboration of NHA > Data issues: Î Absent: Armed Forces, Civil Protection Î Weak: NGO, private enterprises Î Though quality is generally acceptable, it varies significantly according to the institution providing for it	Need for further analysis on: > Equity > Linking with public health indicators > MOH expenditure: size, allocation, problems, targeting of under-served populations, cost recovery, share of prevention and maternal and child health services > Output and performance indicators	> Emphasis on building technical capacity of all personnel of the Health Econimies Unit of the Ministry of Health to elaborate NHA > Organizing stimation procedures so that the estimation method is transparent and easily understood by outsider audiences > Writing the report in a collaborative manner with participation of various departments with the MOH as well as the Ministry of Planning (Department of Statistics), Ministry of the Interior, etc.	Preliminary results show that the health expenditures equal approximately 4% of GDP

Country	Methodological Issues	Policy Implications	Institutionalization Plan	Other Remarks and Specific Contribution
Tunisia	> Quality of data collected questionnable > Matrices don't allow for realistic schematic of health care financing in Tunisia > Discrepancies in the Harvard and OECD NHA calculations/formulas confuse NHA data collection efforts	> Increased health care spending relative to GNP > Cost recovery from benefits provided by hospitals is weak	> INSP collaboration with government agencies and mutuelles (community insurance groups) > Research needed on means to better collaborate with public and private sector	
Yemen	> Lack of accurate data > No data on private firms and Ministry of Defense > Shortcomings in the design of household surveys	> MOH system highly underfunded > Cost containment of hospitals > Highly fragmented system with little coordination > Limited resources for primary health care > Excessive capital expenditure > Increase funding without affecting equity and accessiblity > Efficiency at the facility level > Excessive pharmaceutical expenditure > Disproportionate allocation of resources between urban and rural areas > Serious equity issues	> MOH going through health sector reform. The NHA activity will continue with the present task force. And is impplemented jointly by the MOH Planning Unit, MOF Finance Unit, and Central Statistical Office > High-level organizational commitment already exists at the PM level > Line item budget has been allocated for the NHA activity – financial support	Health expenditure 5.5% of GDP > Yemeni system is highly under-funded. Possibilities for funding: Î Increase allocations by international donors Î Change formulae for debt payment Î Set up an insurance system Î Sector reform should not focus on cost recovery because of equity issues

5.1 Policy Issues Identified by NHA Country Reports

5.1.1 Coordination between and within Private and Public Health Sectors

NHA findings highlighted the highly fragmented nature of the MENA region's health care systems and the lack of coordination between the public and private sectors. Even in countries with very low levels of private sector provision, expenditures in the private sector are still substantial, primarily due to out-of-pocket purchasing of drugs. In many of the profiled health systems, whether based on publicly provided models of health care or market driven ones, the private sector has grown unfettered without much government coordination or regulation. This growth in private supply has improved provider availability (in terms of increased numbers of providers) but has also rapidly increased costs. Moreover, the quality and services provided by the private sector have not been developed in response to the specific health needs of these countries. As a result, there is an oversupply and duplication of services, particularly in the curative care sector, while the burden of preventive services is completely placed the public sector.

The coordination of the public-private mix in health care financing and delivery should become a priority for many MENA countries. In particular, countries will need to focus on offsetting "market failures" that are implicit in market driven health systems. Such market failures occur particularly because of information asymmetry between providers and patients. Private providers are not pressured through market competition to achieve public health goals. Without appropriate coordination of the private sector, unnecessary or excessive health services, such as the over-prescription of pharmaceuticals, will grow sizably. Offsetting market failures could be done by increased regulation or by introducing a contracting relationship between the government and private providers to preserve private sector participation within a public health sector framework.

The poor coordination of the public and private health sectors in MENA countries has become increasingly pronounced in recent years and is in need of consolidation. In Lebanon, about 50 percent of care is delivered through financing intermediaries. Each intermediary's activities, including those of private intermediaries, have a separate supervising ministry. This makes inter-agency coordination difficult. Table 17 shows the fragmented nature of government supervision over financing intermediaries.

Table 18: Lebanon's Supervisory System over Financing Intermediaries

Financing Agency	Supervising Ministry
National Social Security Fund	Ministry of Labor
Civil Servants Cooperative	Presidency of the Council of Ministers
Army	Ministry of National Defense
Internal Security Forces	Ministry of Interior
General Security, Special Services	Ministry of Interior
Private Insurance	Ministry of Economy and Commerce
Mutual Funds	Ministry of Housing and Cooperatives
Ministry of Health	Ministry of Health

5.1.2 The Issue of Sustaining and/or Increasing Funds for Health Care

Perhaps the primary issue identified by the NHA estimates is the critical issue of financial sustainability of MENA health systems. Many countries found that NHA revealed excessive national health expenditures and that these levels of spending could not be sustained let alone increased given the slow projected growth of MENA economies (0.9 percent of GDP). In the future, many of these economically strained countries will need to support health systems that cater to much larger and older populations in which chronic diseases will represent a large portion of the total disease burden. In addition to facing these demographic and economic challenges, many of the profiled countries are also dealing with high net public debt and high pay scales for public sector employees. Without significant gain in economic performance in these countries, the current pattern of health care expenditures will be hard to maintain or increase without causing significant strain on scarce resources. This will adversely affect the current level and quality of services provided (Fakha et al., 2000). Achieving health financing sustainability in MENA countries will entail the implementation of cost-containment strategies, some of which are mentioned in the following sub-section.

In Djibouti, sustainability will depend on another factor — the country's ability to decrease its over-reliance on foreign aid. This aid has already been gradually decreasing over the years (Hatem et al., 2000) and Djibouti will need to ultimately sustain its health sector without donor involvement. Presently, donors contribute more to health care than does the government itself. To rationalize health funds, the government is already in the process of implementing a new health planning department. Its responsibilities will include the coordination of international aid and the channeling of aid money into the health sector in order to avoid the duplication of health interventions and to ensure that donor efforts meet MOH priority objectives.

5.1.3 Pharmaceutical Cost-containment Possibilities

NHA estimates revealed areas of health sectors that are in need of cost-containment mechanisms. By far, the prevailing issue that arose was the need to control health spending in the pharmaceutical sector. On average, pharmaceutical products account for a sizeable 46 percent of out-of-pocket expenditures in the MENA region. In some countries, such as Lebanon, Jordan, Egypt and Morocco, pharmaceutical expenditures range from a significant 25 percent to an even larger 37.2 percent (Morocco) of these nations' *total* health expenditures (figure 18). As a share of out-of-pocket expenditures, pharmaceuticals in Morocco consume a sizeable 60 percent and in Jordan an even larger 75 percent. This spending pattern is likely due to self-prescribing practices and over-prescription of medical drugs by providers. Also, high pharmaceutical expenditures may be due to high prices for brand name drugs and high patient demand for medications such as antibiotics and injectables, which have been found to be over-valued by patients in developing nations (McPake and Mills, 2000).

Djibouti's NHA findings revealed that their country's households spent an estimated 58 percent of their out-of-pocket expenditures on pharmaceuticals. To counter this trend, the government is currently examining ways of allowing the social health insurance system to control drug expenses. Other cost-containment strategies should include the promotion of generic pharmaceutical products and the education of providers, particularly private providers, about adequate prescription practices.

In Lebanon, generic and locally produced drugs are also becoming a government priority. Presently, 98 percent of drugs sold are trade name brands, and generic drugs account for only 2 percent; this spending pattern is likely due to the government's lax policy on promoting generic products (Fakha et al., 2000). Moreover, imported drugs in Lebanon account for 94 percent of

consumption with locally manufactured drugs making up only 6 percent. Both the importing of drugs and the excessive use of brand name drugs have contributed to Lebanon's drug expenditures increasing at 7 percent per annum, a figure that is higher than the rate of inflation. Thus, it is imperative that these costs be controlled and for the government to initiate policies to encourage local production of generic drugs and improve regulatory measures by which pharmaceuticals are imported, distributed, and sold in the country. Like Lebanon, Jordan is also considering greater government regulation of the retail pharmaceutical market so that the purchasing of self-prescribed medications may be reduced (Brosk et al., 2000).

In Yemen, where 61 percent of out-of-pocket expenditures are attributed to drugs, there is need for government regulation of pricing laws and drug embezzlement in addition to the other mentioned cost-containment strategies (Al-Gohaly et al., 2000)

Though Iran provides government subsidies for pharmaceuticals, this financing has been decreasing in recent years and households are starting to pay more of their expenditures on (19 percent) on drugs. From the lessons learned in other MENA countries, Iran may be able to avoid the excessive drug expenditures by considering some of the above mentioned cost-containment policies.

5.1.4 Equity: Excessive Out-of-pocket Expenditure

One of the principal findings of this report is that households in the MENA region represent the single largest source of national health expenditures (51 percent of total health spending) and 85 percent of household health funds are out-of-pocket expenditures. Regardless of whether or not government health services are provided free of charge to all citizens, the issue remains that households, on average, spend more on health care than do country governments. This has important implications for equity, particularly for those individuals in the lower-income brackets whose health concerns are likely excluded in a health market driven primarily by out-of-pocket expenditures. Thus, achieving equity and relieving households of the burden of health care financing is one of the major challenges for health reform efforts in these MENA countries.

NHA reports of Iran, Yemen, Egypt, Jordan and Lebanon all stated that out-of-pocket expenditures were excessive and expressed concerns about the consequences of such high household spending. Iran's report noted that the government had initially desired an increase in financial contribution of health funds from households; however, their share is now very high (about 59 percent), and this has caused a decline in real health care consumption in the nation (Schieber and Klingen, 1999). In Yemen, there are equity concerns stemming from within the public health system; government facilities charge prices (particularly for operations and complicated births) that are out of the range for the majority of Yemenis (Al-Gohaly et al., 2000). Egyptian policymakers have recognized that government financing is too low to have substantial effect. As stated earlier, the government is taking steps to alleviate the situation through the provision of a basic benefits package to all citizens. Another issue related to equity stems from the fact that in Egypt, over 56 percent of outpatients and similarly in Jordan, more than 50 percent of the uninsured use private health care services as their first place of consultation rather than government services. This has led these nations to examine the quality of care rendered at public health facilities and to seek ways to improve it so that citizens are not deterred from using more affordable government services due to real or perceived poor quality services.

5.1.5 Health Insurance Policy Issues

The MENA countries profiled in this report were almost equally divided in terms of how extensive health insurance coverage was among their populations. Djibouti, Egypt, and Morocco reported low coverage levels, less than 31 percent, whereas Iran, Jordan, Lebanon and Tunisia reported more than 50 percent coverage of their health populations by any type of health insurance plan. Well-designed insurance programs are widely believed to aid in mobilizing resources for the health sector while simultaneously protecting households from large financial losses (World Bank, 1987). Moreover, health insurance plans makes more effective use of private funds and should relieve the government budget of particularly the high costs of curative services (World Bank, 1987).

Those nations with low population coverage are seeking to expand the prevalence of health insurance schemes among their citizens. Nations that already report high health insurance coverage among their citizens find that there are numerous cost-containment and efficiency issues in need of being addressed. For example, Iran, Jordan, and Lebanon all report high numbers of citizens covered through multiple health insurance plans. In Jordan, an estimated 19 percent of the population has multiple coverage. This has allowed beneficiaries to double dip and over-utilize health services, thereby contributing to higher overall expenditures on services.

So countries seeking to expand their health insurance markets should take note of the problems facing those nations with numerous health insurance schemes. Care should be taken to monitor and regulate health insurance growth so that multiple coverage issues do not arise.

6. Future Steps for NHA

6.1 Institutionalization of NHA

Given the potentially crucial role of national health expenditures estimates in helping governments make good health policy decisions, NHA will need to be institutionalized, that is, conducted on a regular basis fully supported by the government. Institutionalization can sometimes take a number of years and a number of estimates before becoming a regular part of a government's activities. The intention to regularly update health expenditure estimates should be present from the onset of NHA implementation; otherwise its effectiveness as an accurate and useful policy tool markedly diminishes.

While policymakers recognize the importance of data driven decisions, this recognition has not always led to investment in developing data tracking and reporting standards on health expenditures, particularly in the private sector. This is the single largest obstacle hindering the institutionalization of NHA in developing countries. NHA teams in many MENA countries found data retrieval to be very difficult. For example, Djibouti's team members felt that the comprehensiveness of their findings was significantly limited by lack of official and logistical support for the collection of NHA data from various groups, particularly the private sector (Hatem et al., 2000). Iran similarly found that major health institutions "perceived NHA as a menace." In many cases, poor data retrieval was not necessarily due to a lack of data as much as it was due to a lack of requirements to share or report this data. Consequently, most NHA teams had to spend much time and effort to collect expenditure data that otherwise should or could have been collected routinely.

NHA institutionalization is an ongoing process that necessitates supportive policies, standardized methods for data reporting, government appreciation of NHA as a useful policy tool, effective leadership, and adequate resource allocation to the NHA activity. These essential elements provide the "staying power" for NHA; their presence or absence determines whether NHA remains a set of isolated, limited activities or becomes an activity institutionalized within the system. In addition, sustaining NHA requires a clear delineation of roles, responsibilities, and accountability in NHA implementation.

The specific organizational structure for implementation can vary greatly from one country to another, and evolve over time as the NHA program matures. Therefore, there is no "correct" or "best" structure for sustaining NHA. Country NHA teams put forward different proposals for attaining a legal basis for NHA. Egypt proposed establishing NHA capability in the MOH and other local institutions in order to monitor and evaluate the impact of any future reforms (Rannan-Eliya, 1998). Iran suggested the creation of an institution in charge of NHA that would be semi-autonomous, have a legal mandate for its activities, and be able to provide technical knowledge of the health care system (Rannan-Eliya, 1997). Authors of the Jordanian NHA report put forward a specific strategy to implement the institutionalization of NHA (Brosk et al., 2000). Their four-step approach entails the following:

- *Sensitizing senior policymakers both within and outside the MOH to NHA results* and its reliance to planning and policy formulation; organizing internal dissemination and discussion meetings at government health institutions to secure support for results and

findings. Next, under the auspices of the Prime Minister or the Minister of Health, the NHA team would organize a national dissemination workshop for senior representatives from Ministry of Finance, Ministry of Planning, the Higher Health Council, and key representatives from the private sector;

- *Enhancing NHA activity to a national level through an appropriate decree (possibly issued by the Prime Minister) to establish a National Steering Committee (NSC*); the NSC should consist of representatives from the major health institutions, including government, ministry, teaching, and private sector facilities; the NSC would be responsible for the annual production of NHA reports, and their dissemination and use in the policy process; moreover, the NSC would have a technical arm made up of the existing team and some new members (MOF, MOP, and the private sector); the decision to issue a decree should be the outcome from the dissemination workshop;

- *Providing support for capacity building and development of standardized financial management and accounting systems in the public sector*; and

- Using experience gained over the next three years, the NSC could make final arrangements for sustaining NHA activity.

Since the completion of this first round of NHA, great strides have been achieved in the institutionalization of NHA in Morocco. An NHA team has been formulated without donor financial support and is located within the health economics unit division in the Department of Planning at the Ministry of Health. Efforts are currently being pursued to ultimately include NHA as a line item in the government budget.

It is important to keep in mind that while it does not matter where NHA is housed, it does matter if that decision would impact in any way the manner it may be used by the policymakers. Since most health care systems in middle- and low-income countries are pluralistic in nature, it adds more importance that the entity responsible for the coordination of NHA would have the legal authority and clout to engage various other public and private providers of health including its own.

6.1.1 Using NHA Methodology to Study Specific Issues

NHA methodology can also be specialized to examine select priority issues of a country. For example, NHA has been used to study expenditures relating to solely to HIV/AIDs as well as to maternal and child health services. Many MENA NHA teams were interested in the issue of equity in health care and how to achieve it. Should public services target economically poor citizens, rural citizens, the children and the elderly, or other socially-marginalized groups? Though this present round of NHA finds that households spend a disproportionate amount on health care in comparison to the government, more information needs to be ascertained as to what groups are being particularly disadvantaged by the present health systems. Wealthy households may not be as hurt financially from expenditures on health care as much poorer households are. Thus Djibouti, in its country report, suggests that NHA data should be tailored to “equity issues” and should also collect data based on income quintiles and urban/ rural differences of health expenditures (Hatem et al., 2000). Morocco’s NHA report echoed this concern, particularly in terms of regional differences, and its present health reform strategies seek to correct regional inequalities in health coverage and aim to decentralize control of health resources to the regions themselves (Bhawalker et al., 2000). Since half of Morocco’s (table 2) population resides in rural regions, the country’s NHA team recommends “regionalizing NHA” in order to deal with Morocco-specific issues. The team also suggested linking

NHA's financial indicators to socio-economics, demographic, epidemiological, and performance indicators.

6.1.2 Methodological Challenges for Future NHA studies

Accessibility to financial expenditures from government institutions was also difficult in some countries. This could be due to any number of factors: lack of financial transparency between institutions, questionable validity of data, multiple accounting systems used at different institutions, or conflicting government definitions of health expenditure indicators. These issues will need to be resolved to improve the accuracy of NHA data. Retrieving data from the private sector was also difficult without legal mandates. Household data collection necessitated the implementation of separate household surveys in most countries. Ideally, retrieving regular household expenditure information should be incorporated in annual household surveys conducted by the government. The publication of the *NHA Producer's Guide* should aid NHA teams to deal with many of these methodological issues.

Another effort that would improve the validity of future NHA studies would be the retrieval of more disaggregated data so that functions such as curative, preventive, and administration health expenditures can be discerned from all types of facilities.

7. Conclusion

The MENA NHA network is the first organized attempt by the countries of the region to estimate the true size of the health care sector as a percentage of GDP. Prior estimates of total health expenditures were largely based on government estimates of spending in the formal public sector, which usually means the Ministry of Health. Thus, these estimates failed to include health services provided by entities whose primary function was not health care, such as the Ministry of Defense, Ministry of Interior, and so forth. But perhaps more importantly, they failed to include household out-of-pocket health expenditures.

With the aid of the MENA regional network, country NHA studies attempted to remedy these problems of underestimation and provided a more comprehensive view of expenditures relating to health. In so doing, NHA has revealed new expenditure profiles of MENA countries' health sectors. It has also raised important issues and needs relating to data availability and retrieval. Finally, the NHA activity has highlighted the usefulness and value of regional collaboration. Each of these NHA consequences will be discussed in the remaining sub-sections.

7.1 Expenditure Patterns

Health funds in profiled MENA countries are shown to originate primarily from the private sources (61 percent). The single largest source of health expenditures is households, which on average account for half of all national health expenditures. In many instances, households pay more for health care (51 percent) than their respective country governments, which average 33 percent of total health spending. Most out-of-pocket spending goes to pharmaceutical drugs (46 percent of out-of-pocket expenditures) and to outpatient services in the private sector (35 percent). This raises concerns about equity and the fairness of letting households carry such a substantial burden of financing their health systems.

Approximately 56 percent of health spending in the MENA region occurs via financing intermediaries. Intermediaries provide opportunities for cost sharing and can assume major roles in regulating providers by implementing incentive schemes, utilization reviews, etc. However, the significant involvement of intermediaries also brings up the need for clearly defining their roles so that responsibilities do not overlap, bureaucratic procedures are minimized, and efficiency in transferring health funds to providers is maximized.

The private delivery sector consumes the largest share of health expenditures in MENA countries. Together, private providers (27 percent), followed by private pharmacies (24 percent) and "other" providers (7 percent) account for just under 60 percent of health expenditures. The remainder of health spending is consumed by MOH facilities (32 percent) followed by providers run by "other ministries and parastatals" (8 percent), and finally government university and teaching facilities (2 percent).

Expenditure patterns from the eight MENA countries have raised three main policy issues that represent challenges for the region's health systems:

> Distributional and equity issues;

- Cost containment issues, particularly relating to high pharmaceutical utilization,
- Financial sustainability of health systems and/ the potential ability to increase health financing levels.

7.2 Data Fragmentation and Reliability

While it can be argued that the NHA estimates from these eight countries are probably the best estimates to date on total country health expenditures, there is still room to improve in terms of data availability and reliability. In general, expenditure data on public health spending is available but fragmented, while data on private health expenditures is not readily available and may require a lot of primary data collection or dependency on secondary sources of information.

Data fragmentation has a direct impact on the reliability of NHA estimates since it increases the chances of double counting or, on the other hand, not counting certain expenditure items altogether. Either way, the eight MENA countries, like many other developing countries, will have to take a more serious look at the issue of data generation and reporting in general. Without it, the level of effort required to compile health expenditure estimates will always require so much effort and resources that could even discourage the best data enthusiasts from generating these estimates on a regular basis. Thus, poor data availability and fragmentation can have a direct impact on the quality of information presented and can shed doubt on the source of data and method of collection.

7.3 The Value of the MENA NHA Network

Developing a regional approach to implementing NHA in MENA countries did prove useful and beneficial. From the perspective of the organizers, the MENA network was a model of how collaboration between international donors, when done right, can produce very positive results. Having multiple sponsors enabled the inclusion of all eight countries and therefore allowed for a greater cross-country sharing of experiences and learning. More importantly, multiple donor involvement ensured consistency of methods, which then led to findings that were comparable with other countries and also met accepted international standards. However, this said, it should be noted that due to the division of financial and technical support offered by various organizing partners (USAID/PHR, WHO/EMRO and the World Bank), network countries received a varied amount of outside technical support. For example, while Jordan received intensive technical assistance from the PHR project, which was also engaged in other health sector reform activities in the country, Djibouti received very limited assistance from the WHO/EMRO due to the lack of sufficient funding. Varied donor financial and technical support contributed to country differences in the extensiveness of their NHA studies. However, despite its funding issues, the Djibouti NHA team benefited from attending all three workshops, particularly from discussing problems with other country teams and technical experts.

The objective of forming a regional network was originally derived from the notion that country teams will work better and faster when they are part of a larger group of countries as opposed to working individually. This has impacted positively on the various NHA teams, as they were all eager to share their findings with other countries. In addition, the same country teams met with each other three times over a period of a year and a half to share data, methods, and problems, and solutions. This provided MENA countries with the opportunity to learn from each other's experiences and to engage in productive technical dialogue.

7.4 Conclusion

MENA countries face low projected economic growth rates (0.9 percent of GDP) over the next 10 years, rapidly increasing populations, and a growing need for more costly health services for chronic conditions. Given these characteristics, MENA countries are very much pressed to reexamine and reorient their health financing strategies to ensure the sustainability of their health systems. The NHA activity hopes aid in this process.

To date, much has been gained from the development of a regional network and its coordination of NHA studies in the eight MENA countries. The network has provided a forum for cross-country collaboration in meeting the challenge of accurately estimating health spending. The NHA activity itself has revealed new expenditure profiles of the regions' health sectors and has highlighted the major financing issues facing these health systems. The success of NHA, however, depends on whether it is ultimately used and considered by policymakers as they shape the future of their nations' health sectors and consequently, the health of their citizens. This process has already begun and with the institutionalization of NHA, policymakers can learn to rely and turn to accurate health expenditure estimates when making major decisions on health care.

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