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EGYPT NATIONAL HEALTH ACCOUNTS: 2008/09

November 2011

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HEALTH SYSTEMS 20/20

EGYPT NATIONAL HEALTH ACCOUNTS: 2008/09

Mission

The Health Systems 20/20 **cooperative agreement,** funded by the U.S. Agency for International Development (USAID) for the period 2006-2011, helps USAID-supported countries address health system barriers to the use of life-saving priority health services. Health Systems 20/20 works to strengthen health systems through integrated approaches to improving financing, governance, and operations, and building sustainable capacity of local institutions.

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MESSAGE FROM HIS EXCELLENCY THE MINISTER OF HEALTH AND POPULATION

Building on the spirit of the January 25th Revolution and the will of the people for freedom, reform and democracy, the Egyptian Ministry of Health and Population (MOHP) is paving the way to achieve health sector reform goals promoting welfare of the Egyptian citizen. To that end, MOHP – in collaboration with Health Systems 20/20 USAID-funded Project – has produced the fourth round of the National Health Accounts (NHA) Report for 2008/09.

NHA is an evidence-based tool to inform health financing policy as well as monitor the impact of policy interventions on healthcare systems. It is a globally accepted approach to collect, catalog, and estimate healthcare flows of funds. The current round of NHA highlights key areas that need reform in our healthcare system. I encourage all stakeholders to use this report as a guide for maximizing efficient use of health resources.

Finally, I would like to acknowledge the remarkable efforts of MOHP team in bringing this report into light. I highly appreciate the continuous support of our partners in USAID. I look forward to maintaining this fruitful collaboration to institutionalize the National Health Accounts in Egypt as a tool to achieve the healthcare reform that every Egyptian aspires.

Dr. Amr Helmy
Minister of Health and Population

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ACRONYMS

CAPMAS	Central Agency for Public Mobilization and Statistics
CCO	Curative Care Organization
FY	Fiscal Year
GDP	Gross Domestic Product
GoE	Government of Egypt
GSAP	Global Strategic Action Plan
HEU	Health Economics Unit
HHEUS	Household Health Expenditure and Utilization Survey
HIO	Health Insurance Organization
HSRP	Health Sector Reform Program
ICHA	International Classifications for Health Accounts
LE	Livre Egyptienne (Egyptian pound)
MHE	Ministry of Higher Education
MOF	Ministry of Finance
MOHP	Ministry of Health and Population
NGO	Nongovernmental organization
NHA	National Health Accounts
OOP	Out-of-Pocket
PTES	Program for Treatment at the Expense of the State
THE	Total Health Expenditure
THIO	Teaching Hospitals and Institutes Organization
USAID	United States Agency for International Development
WHO	World Health Organization

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Finally, we wish to acknowledge the contribution of various institutions and individuals whose inputs made this study possible.

EXECUTIVE SUMMARY

Egypt was one of the first low- and middle-income countries in the world to conduct a National Health Accounts (NHA) analysis. NHA is a powerful tool used to inform health financing policy as well as monitor the impact of policy interventions. The first round of NHA in Egypt covered resource-tracking for fiscal year (FY) 1994/95, the second for FY 2001/02,[1] and the third for FY 2007/08. Over the years, the United States Agency for International Development (USAID) and the World Health Organization (WHO) have supported this effort both globally and in Egypt. The Government of Egypt (GoE) has used NHA results in discussions on a variety of reform initiatives, ranging from the Health Sector Reform Program in the late 1990s to the Family Health Fund of the 2000s.

KEY FINDINGS

OVERALL HEALTH SPENDING

Over the past decade and a half, Egypt's total health expenditure (THE) has risen from 7.5 billion Egyptian pounds (Livre Egyptienne (LE)) in 1994/95 to 23.1 billion LE in 2001/02, 42.5 billion LE in 2007/08, and 61.4 billion LE in 2008/09. Egypt's health spending per capita also grew during this period, from 127 LE per capita in 1994/95 to 800 LE per capita in 2008/09.

However, compared with most other middle-income countries in the region, Egypt invests a smaller percentage of its gross domestic product (GDP) on health care. As a percentage of GDP, THE has ranged between lows of 3.7 percent and 4.8 percent in 1994/95 and 2007/08 respectively, and highs of 6.0 percent and 5.9 percent in 2001/02 and 2008/09. In contrast, in 2009 Jordan spent 9.3 percent of GDP on health, and Lebanon 8.1 percent.[2]

COMPOSITION OF HEALTH SPENDING: FINANCING SOURCES

In 2008/09, the vast majority of Egypt's health spending (72 percent) came directly from household out-of-pocket (OOP) payments, with another 25 percent coming from Government of Egypt (GoE). The remainder was paid for by private employers (approximately 2 percent) and external sources, including donors (approximately 1 percent).

These results indicate that the share of spending by households has increased by more than 20 percentage points since 1994/95, while the public share of health spending has fallen by 8 percentage points. These trends are troubling, particularly when compared to regional norms: Egypt's percentage of OOP spending within the THE is the highest among all the middle-income countries in the region, and public health spending as a percentage of the total government spending in Egypt is comparatively lower than in other middle-income countries in the region (it was 4.3 percent in 2008/09). This difference in health spending as a percentage of the total budget between Egypt and other regional middle-income countries highlights how far Egypt still remains from the 2000 Abuja Declaration's target to allocate at least 15 percent of participating countries' annual budget to improving health.

1 All Fiscal years mentioned in the document are Egypt governmental fiscal year starting from July 1st to June 30th.

2 WHO: Global Health Expenditure Database: http://www.who.int/nha/expenditure_database/en/. Accessed September 10, 2011.

MANAGING FUNDS AND RISK POOLING: FINANCING AGENTS

Funds from the GoE, households, employers, and donors flow through a large number of entities that manage the allocation of health spending and, in some cases, provide mechanisms for insurance coverage and financial risk protection. Households manage 70 percent of THE directly, public agencies manage 28 percent, and private sector entities manage the remaining 2 percent.

Among the public sector financing agents, the national Health Insurance Organization (HIO) is Egypt's primary insurance provider. HIO data show that the percentage of the population insured by HIO increased from 35 percent to 57 percent between 1994/95 and 2008/09. However, while HIO insurance coverage has spread, it remains below regional norms: Tunisia (99 percent), Iran (98 percent), and Jordan (83 percent) all have significantly higher health insurance coverage rates (Jordan 2007 NHA, 2009). Also, over the same time period the role of HIO as financing agent declined from 12 percent to 6 percent, while the share of OOP spending as part of THE rose from 51 percent to 72 percent.

The PTES (Program for Treatment at the Expense of the State) is another important public sector financing agent. The PTES is affiliated with and operated by the MOHP; it is not a completely autonomous entity like the HIO. It is a special discretionary fund that provides a safety net to cover the uninsured for a certain package of services. The PTES covered about 2.5 percent of the population and spent over three billion LE in 2008/09.

In-depth analysis based on Household Health Expenditure and Utilization Survey (HHEUS) data provides further information about how insurance functions in Egypt. Comparing trends among the insured and uninsured shows that the insured incur less OOP expense than the uninsured, indicating that insurance is useful for those who have it. However, having insurance does not appear to affect the demand for health care, with similar percentages of insured and uninsured not receiving care when they needed it. Having insurance also does not appear to affect the choice of provider, with, for example, a surprisingly large number of insured opting to use expensive private providers rather than HIO or MOHP facilities.

The analysis also shows that insurance distribution as well as spending and utilization trends are not even across population groups. For example, while women use more health care and spend more on health than men, fewer women are covered by health insurance. Comparison of income groups shows that higher income groups spend more per capita on health care at an aggregate level, but less as a percentage of household income; at the same time, higher income groups have higher visit rates than lower income groups. These trends point to notable inequities across gender and income groups.

USES OF FUNDS: HEALTH CARE PROVIDERS

Providers of health care in Egypt include both public and private entities. The private sector, accounting for more than 60 percent of the THE, represents the largest share. Among private service providers, pharmacies and private clinics are the most prominent, accounting for 31 percent and 20 percent of THE respectively. In the public sector, the MOHP, the HIO, and other agencies operate their own facilities. The share of THE at MOHP facilities was 17 percent in 2008/09, which is slightly lower than the 21 percent in 2007/08 and significantly lower than the 25 percent in 2001/02. HIO hospitals account for 5 percent of THE. Additionally, the provider-level analysis shows that pharmaceutical spending including both private and public providers has reached 34 percent of THE, which is significantly higher than regional norms.

POLICY IMPLICATIONS AND RECOMMENDATIONS

These results indicate that the GoE would benefit from the following actions:

- **Increase public investments in health,** to support reform efforts and expand the role of the GoE in supporting the health system.
- **Address gender and income inequity,** to address findings from the HHEUS among population groups, and move towards a health system that ensures care of reasonable quality across gender and income groups while at the same time protecting the poor against catastrophic spending.
- **Link investments to disease burden and demographic trends,** by moving resources to high-disease-burden governorates, increasing the focus on prevention and priority chronic diseases, and developing and implementing programs for new population groups such as the elderly.
- **Conduct further research on OOP and insurance,** to address the continued high burden of OOP spending.
- **Bolster insurance reform efforts,** to make social health insurance both responsive to consumer needs and sustainable in Egypt.
- **Make the private sector a true partner,** to increase access to quality health care for the population and make the most of the growing, competitive space in the private sector.
- **Prioritize pharmaceutical reform,** to reduce the amount of THE spent on pharmaceuticals.
- **Conduct more research on PTES,** to ensure best use of the available funds to improve the extent and efficiency of the financial risk protection PTES provides to the poor. The future program reforms should aim to expand the number of poor and uninsured beneficiaries protected from catastrophic health spending while reining in costs.
- **Institutionalize health resource tracking,** for routine, efficient production of resource-tracking methodologies that will make it possible to assess progress toward policy goals and to monitor governance. This is achievable by establishing and providing sufficient resources for the Health Economics Unit (HEU) as the new resource tracking center, expanding stakeholder networks, systematically collecting and analyzing information on financing and costs at the facility and program levels, and participating in the World Bank's global initiatives for institutionalizing NHA.

ORGANIZATION OF THIS REPORT

The 2008/09 NHA report begins with background on the epidemiological, macroeconomic, and institutional context for health financing and reform in Egypt. The methodology section then describes the design and implementation of the two primary data collection efforts, and documents procedural information related to the analysis. The results section presents the findings of the analysis in detail, beginning with an overview of the key NHA findings and continuing with a breakdown of expenditures at the financing source, financing agent, and provider levels of analysis. The final section presents policy implications and recommendations of the analysis.

1. INTRODUCTION

1.1 THE NHA FRAMEWORK

National Health Accounts (NHA) is a powerful methodology for informing health financing policy as well as monitoring the progress of policy interventions. NHA represents a globally accepted approach to collecting, cataloging, and estimating flows of funds in the health system. They are important as a tool for evidence-based decision-making and planning. Policymakers and advocates can use NHA to make better use of health care resources and in measuring the performance of the health care system, as a whole or through individual initiatives.

The NHA framework measures total health expenditure (THE) in a given country's health system, including public, private, and donor spending. It tracks resources from their origin, or source, through financing agents who manage funds, to health care providers and health functions (WHO 2003). The International Classifications for Health Accounts (ICHA) provides a basis for NHA. ICHA is a comprehensive classification system in four fundamental dimensions: financing sources, financing agents, providers, and functions. It is attuned with several other existing classification schemes and practices in economic statistics. The use of internationally standardized classification schemes makes cross-country comparisons possible.

1.2 THE EGYPTIAN CONTEXT

Although the 2008/09 NHA analysis focuses on health financing, this story is intertwined with epidemiological and macroeconomic trends, and occurs within and among the institutions and organizations that make up Egypt's health system. Health reforms responsible for creating or influencing these institutions and organizations have also had a deep impact on health financing flows. The following section provides background on these contextual issues.

1.2.1 TRENDS IN HEALTH

Egypt's health indicators are listed in Table 1 below. Life expectancy rates are on a par with the regional average, and while the fertility rate in Egypt has fallen considerably since the 1980s, it remains higher than in countries such as Iran, which has witnessed the largest drop.

TABLE 1: HEALTH INDICATORS FOR EGYPT 2008

Health Indicators	Male	Female	Total Population	Middle East/North Africa Regional Average
Life expectancy at birth	68	72	70	70
Child malnutrition, weight for age (percentage of children < 5 years) (2003-2008)	—	—	6.0	14.0
Child mortality (probability of dying at < 5 years per 1,000 children)	—	—	23	43
Adult mortality ratio (probability of dying 15-59 years per 1,000 population)	163	107	—	—
Maternal mortality ratio (per 100,000 live births)	—	55	—	210
Total fertility rate	—	2.9	—	2.9
Immunization coverage (DTP3)	—	—	97	89

Sources: World Bank: Health, Nutrition and Population Statistics: http://data.worldbank.org/data-catalog/health-nutrition-and-population-statistics, WHO: Global Health Observatory: http://www.who.int/gho/en/. Accessed July 15, 2011. UNICEF (2010).

While population growth in Egypt has stabilized to roughly 2 percent annually, the population remains extremely young. Recent figures indicate that over one-third of the country's 77 million people are between the ages of 10 and 25 (UNFPA 2008). This "youth bulge" suggests that more people will be entering their reproductive years and having children, thus increasing the burden on health care and other social services for future generations.

The disease profile is also changing as Egypt develops. Infectious and parasitic diseases associated with agricultural work, such as schistosomiasis, used to be the primary causes of illness and death. In recent years, these diseases are becoming less relevant, as non-communicable diseases such as diabetes and hypertension, associated with environment and lifestyle, are rising in prevalence. Indeed, approximately half of the deaths among Egyptian adults today are caused by cardiovascular disease. These trends carry significant implications for the health system, which will need to adapt to the changing epidemiological profile.

1.2.2 ECONOMIC PROFILE

Egypt's gross domestic product (GDP) per capita in 2009 reached 13,541 Egyptian pounds (Livre Egyptienne (LE)) per capita, almost a fourfold increase since 2002.[3] Over three million jobs were created during this period, with economic growth in 2008–2009 exceeding 7 percent.[4] This growth can largely be attributed to fiscal reform, changes in macroeconomic policy, and improvements in the business climate. Despite the larger economic downturn during these years, private business and investment in Egypt were stimulated through greater access to foreign exchange markets, a decline in personal and corporate taxes, and the streamlining of business regulations. Exports and imports also rose, as did work remittances (over 5 percent of GDP), Suez Canal receipts, and tourism revenues.

Egypt is considered a lower middle-income country. Its GDP in 2009 was estimated at 1040 billion LE.[5] The country was ranked as 116 out of 176 on the human development index, on the basis of its per capita income, literacy levels, and improvements in access to technology (UNDP 2008). Two-thirds of the adult population is considered literate, with progress more pronounced among women. Close to half of all females have completed secondary education, and females also represent 30 percent of the student body in tertiary systems in 2005.[6] In addition, Egypt's 12 million-plus Internet users and 50 million mobile phone subscribers reflect how deeply Egypt's population is connected within the global network.

Despite these illusions of prosperity, recent World Bank estimates reveal that close to one in five individuals lives below the national poverty line, with the income gap having steadily increased over the past decade. Reaching the poorest groups through targeted assistance has been a challenge. Women in rural areas are particularly vulnerable. The majority of these women do not have identification cards, which makes it difficult for them to access services. While women have been granted the same constitutional rights as men, poor women from rural areas generally are not equally represented in the labor force, are unable to access basic health and education services, and do not actively participate in politics. Recent political tensions combined with global economic woes have served to further exacerbate their situation.

3 Egypt Ministry of Finance. Economic Indicators: http://www.mof.gov.eg/English/Pages/Selected-Economic-Indicators.aspx. Accessed Aug. 20, 2011.

4 World Bank. Data: http://data.worldbank.org/. Accessed Aug. 5, 2011.

5 Egypt Ministry of Finance. Economic Indicators: http://www.mof.gov.eg/English/Pages/Selected-Economic-Indicators.aspx. Accessed Aug. 20, 2011.
World Bank. Data: http://data.worldbank.org/. Accessed Aug. 5, 2011.

6 World Bank EdStat. Education Statistics: http://data.worldbank.org/data-catalog/ed-stats. Accessed Aug. 10, 2011.

1.2.3 INSTITUTIONS IN EGYPT'S HEALTH SECTOR

Among the diverse and multitudinous set of public institutions within the health sector, several that are chaired by His Excellency the Minister of Health and Population stand out. Among public providers are the Ministry of Health and Population (MOHP), the Health Insurance Organization (HIO), the Teaching Hospitals and Institutes Organization (THIO), the Curative Care Organization (CCO), and a number of other ministries. In the private sector, companies and professional syndicates offer alternative insurance options, while nongovernmental organizations (NGOs) and private hospitals and pharmacies offer alternative health care services.

Ministry of Health and Population: The MOHP is responsible for setting the policy and regulatory framework of health in Egypt. The MOHP runs a network of facilities that provide comprehensive health services, including preventative and curative care services at the primary, secondary, and tertiary levels. The MOHP network includes 60 general hospitals with 12,168 beds, and 214 district hospitals with 18,908 beds. The MOHP network also includes 135 specialty hospitals with 12,103 beds, and 4,839 primary health care centers. MOHP facilities provide highly subsidized care for all Egyptian citizens, with only 20 percent of services requiring some amount of out-of-pocket (OOP) payment. In addition to tax revenue and OOP direct payment from households, MOHP facilities also receive funding from donors, primarily through grants and loans for vertical programs.

Health Insurance Organization: The HIO is an independent governmental organization under the authority of the MOHP and is the primary provider of insurance in Egypt. Egypt established the HIO in 1964 by presidential decree. Under the supervision of the MOHP, the HIO was tasked with providing health insurance coverage for all Egyptians. Initially the HIO provided coverage for just 14,000 beneficiaries at a time when Egypt's total population was 31 million, but the pool was gradually broadened by a succession of governmental actions. In 1975, the People's Assembly passed Public Law 32 providing coverage to certain governmental employees. Public Law 79, passed in the same year, covers other governmental employees; employees, retirees, and widows of publicly owned institutions; and some private-sector employees (Abd El Fattah et al. 1997). Schoolchildren are covered under the Student Health Insurance Program by Law 99, passed in 1992 (Abd El Fattah et al. 1997). Newborns are covered by a ministerial decree, also passed in 1992.

The HIO is funded through a system of premiums and copayments from households, a mandatory premium collected by the Social Insurance Organization, and premiums collected through the Pensions and Insurance Organization. Occasionally, the MOF steps in to cover HIO operating losses. In 2008/2009, the HIO reported it covered 42,794 million Egyptians, or 57 percent of the population. The HIO has 22 regional branches that include 37 hospitals and 5,027 outpatient clinics, in addition to 8,162 school clinics that employ 12,620 physicians, and 22,167 nurses.

Teaching Hospitals and Institutes Organization and Curative Care Organization: In addition to the MOHP and the HIO, the THIO, and CCO, acting autonomously within the MOHP, are important agents and providers of health care in Egypt. The THIO provides primary, secondary, and tertiary services through 11 general teaching hospitals and 20 research institutes, where 50 percent of services are free for patients. The THIO receives funding from the MOF, the MOHP, private firms, international donors, and household OOP payments. The CCO runs 11 urban hospitals, all of which achieve 100 percent cost recovery. The CCO receives funding through HIO and MOHP contracts, private companies, and OOP user fees. Emergency services at CCO facilities are free for the poor under an agreement with the Government of Egypt (GoE). Both the THIO and CCO provide services to HIO and MOHP patients as well as public and private firm patients and private households.

University Hospitals and other ministries: The University Hospitals, affiliated with individual universities and under the purview of the Ministry of Higher Education (MHE), are another important public institution within Egypt's health sector. The University Hospitals network includes 74 hospitals that operate as teaching and research institutions and provide primary, secondary, and tertiary level services, mostly for the Cairo area, non-poor population. The University Hospitals expenditure is primarily attributed to OOP payments collected as user fees, and a smaller amount is attributed to the MHE, which receives its funds from the MOF. Other ministries, including the Ministry of Interior, Ministry of Transport, and Ministry of Defense, also operate facilities that provide primary, secondary, and tertiary services as well as pharmaceuticals.

Private insurance and occupational syndicates: In addition to the HIO, companies also provide health insurance coverage to Egyptians. The insurance market, however, comprises only three companies, all of which are parastatal rather than private. On a smaller scale, many companies, both private and parastatal, make their own arrangements with employers to provide medical care to their employees (e.g. Egypt Air and Arab Steel). Also, groups of professionals and workers in medical, commercial, agricultural sectors have organized into occupational associations, or syndicates, that give members and families coverage for outpatient and inpatient care, as well as pharmaceuticals, at providers contracted by the syndicate.

Nongovernmental organizations and private pharmacies and hospitals: The private sector is also a prominent provider of health care services, and contains an equally diverse set of players. These players include private for-profit companies, such as private clinics, hospitals, and pharmacies, and not-for-profit organizations, such as NGOs, mosques, and church clinics. The actual size, in terms of numbers of facilities in the for-profit and not-for-profit private sectors, is hard to estimate. Evidence shows, however, that the provision of health care services through the private sector is relatively more developed than that through the public sector, though it is also more concentrated in Cairo and other large urban centers. Private providers must register with both the MOHP and the national-level Medical Syndicate. Private hospitals and pharmacies are owned by individuals, and provide services to all citizens who can afford to pay their prices, which tend to be higher than those in the public sector. Almost all private hospitals and pharmacies are funded directly through OOP payments by individuals and households.

NGOs provide care to target audiences through health-related programs. In some cases they also provide primary health care medicine or other direct care. NGOs are mainly funded by co-payments (72 percent) followed by domestic and international donations.

1.2.4 REFORMS IN THE HEALTH SECTOR

Egypt's National Charter states that "the right of health welfare is foremost among the rights of every citizen." This directive, which was drafted in 1962, was heavily inspired by the Soviet model and social systems of Eastern Europe, and became the foundation for the design of the country's health system. In the following decades, market-oriented elements were incorporated into the system through reforms. Though institutions and mechanisms developed during this period, the public health sector in particular became fragmented, creating a system with many complex elements and entry points that resulted in poor coordination and inefficiency. Given the health sector objectives of ensuring equity and access to high-quality care and improving population health status and social well-being, health sector reform in Egypt coalesced into the Health Sector Reform Program (HSRP). Since its formal initiation in 1997, the HSRP has expanded through implementing and assessing pilot experiments, and rolling out successful interventions.

As the HSRP progresses, one of its overarching objectives continues to be to help develop a sound and integrated health care system capable of regulating market-oriented services. Beneath this general objective, several specific goals stand out. These are to:

- Increase coverage and access to higher-quality health care at the primary and secondary levels, with the ultimate goal of universal coverage.
- Develop human resource and management capacity within the MOHP, particularly through the division of service purchasing and providing.
- Decentralize programs and build autonomy and capacity at the governorate and district level.
- Rationalize public health expenditure on infrastructure and human resource development (WHO 2006; MOHP 2003).

Among the most important reforms will be expanding social health insurance and extending the Family Health Model to all of Egypt's governorates.7 The continuing rollout of the Family Health Model will involve: establishing more Family Health Units that are accredited to deliver primary care through a purchasing agency, the Family Health Fund; expanding the scope of the program to include secondary as well as primary care by establishing "District Provider Organizations"; and transforming the Family Health Fund into a full purchasing agency with links to both public and private sector institutions and organizations. These efforts will address the issue of fragmentation by integrating vertical programs, and will focus on improving the quality and accessibility of health care services.

1.2.5 NHA IN EGYPT

Outside of countries in the Organization for Economic Co-Operation and Development, only 30 countries have completed at least as many rounds of NHA as Egypt. Also, Egypt has incorporated NHA results into the policy-making process. In particular, the first round of NHA in 1994/95 stimulated discussion about a rise in OOP spending and the insufficient attention paid to outpatient and primary care, influencing the initiation of and planning for the HSRP in the late 1990s. Similarly, findings from Egypt's second round of NHA in 2001/02, which revealed excessive household expenditures on primary care, influenced the development of the Family Health Fund.

Despite Egypt's successful record in producing NHA and the potential of this latest round to inform decision makers as critical health reform progresses, several interlocking problems have become obstacles to the routine production and widespread use of NHA in Egypt. One problem relates to interagency barriers that slow the flow of information, thus diminishing the strength and reputation of the NHA data produced, and hampering efforts to build ownership of the NHA. Another, related problem concerns the institutional capacity to produce and disseminate NHA. The high rate of employee mobility within the MOHP provides an explanation for why capacity to produce NHA has not accumulated, and why processes and methodologies may have not remained consistent over time. Underlying all of these problems is the fact that, to date, NHA have not had an "institutional home" within the MOHP, and there has been no official government decree mandating NHA production and the reporting of expenditure data.

With limited political support and capacity, stakeholder outreach, dissemination, and use of NHA results have remained insufficient. The NHA Steering Committee, which oversees the production process, has not engaged key players in the health sector outside of the government. This situation is a particular concern in Egypt, given the growing presence of private health providers.

Despite these limitations, NHA dissemination efforts have increased in recent years. The 2007/08 NHA report was the first NHA report published on the MOHP website, and this publication occurred only after its results were disseminated at the MOHP annual conference in Sharm. The 2008/09 NHA analysis, the subject of this report, has benefited from this increased momentum, with preliminary results disseminated at an event attended by 140 professionals from different backgrounds in June 2011.

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7 In the Family Health Model, families rather than individuals register with primary health care facilities. "Family Health Units" can be located within public or private facilities. These "Family Health Units" are contracted by a purchasing agency – the Family Health Fund – to provide services to the population.

A new established Health Economic Unit (HEU),[8] currently being staffed, can create further opportunities to address these problems and develop an institutional framework for the production and use of NHA. The HEU can become a critical driver of institutionalization as the institutional home of NHA. The HEU will be somewhat autonomous which will allow HEU staff to expand stakeholder involvement and buy-in while also streamlining data collection and other production processes. With an institutional home for NHA, the GoE will also be better able to accumulate capacity for NHA production and dissemination over time.

The HEU has the potential to drive institutionalization of NHA in another way as well. Because it will also direct costing, economic evaluation, and risk-pooling analyses, the HEU will be ideally situated to facilitate data linkages between NHA and other results as a way to produce policy-relevant conclusions. For example, combining NHA data with costing tools can also provide policymakers in the government with a powerful tool for setting targets and budgeting. Non-financial data such as disease/illness prevalence rates and provider utilization rates, when used in conjunction with NHA data, can also add to the wealth of the insights and contribute to robust decision-making that can produce meaningful reform.

2. METHODOLOGY

2.1 OVERVIEW

The 2008/09 NHA round was conducted in 2010-2011. Data collection occurred in 2010 by administering surveys and gathering secondary sources. Data analysis occurred during the winter and spring of 2011.

The data from the current round of NHA are particularly robust due to the extensive surveys completed as part of the production process. Most notably, the extensive Egypt Household Health Expenditure and Utilization Survey (HHEUS) provided the NHA team with in-depth primary data that increased the power and relevancy of the analysis. Another survey of NGOs and other institutions further added to the primary data collected and the strength of the analysis. Adjustments to the classification framework also added value to this round of NHA by making results more in line with Egyptian realities.

This version of the 2008/09 NHA contains only two of the four standard NHA matrices, with the other two scheduled for completion. The two matrices discussed in this report are financing source by financing agent (FSXFA) and financing agent by provider (FAXHP). The other two matrices, provider by health function (HPXHC) and financing agent by health function (FAXHC), will be completed by the new Health Economics Unit.

2.2 SURVEYS

The 2009/2010 HHEUS was conducted for the MOHP as part of the USAID-funded project Health Systems 20/20, in coordination with the Central Agency for Public Mobilization and Statistics (CAPMAS) in Egypt. The main objective of the survey was to provide policymakers and researchers with comprehensive information on the type and frequency of health services used. The survey was also intended to provide information about the level and distribution of out-of-pocket spending on health care, factors that influence the use of health care services, and health care spending.

8 In June 2006 a memo of establishment was issued stating the functions of the HEU.

Sampling in the HHEUS was designed to provide nationally representative estimates (excluding the border governorates) of all survey items, and representative estimates for rural and urban populations and for the five geographic regions in Egypt (main urban governorates, rural Lower Egypt, urban Lower Egypt, rural Upper Egypt, and urban Upper Egypt). The survey was conducted in February and July 2010 to capture the seasonal effects on health and patterns of disease; different households were surveyed during the two rounds of data collection, for a total of 12,002 households covering 56,305 individuals. Outputs from the household survey (Year 2010) were deflated to represent the year for which NHA were conducted (2008/09).

The survey questionnaires were designed to include comprehensive questions covering household socio-demographic characteristics, health service utilization, and expenditure. The data for the Household Survey were collected through interviews with the heads of households using seven structured questionnaires, as follows: 1) household questionnaire, 2) chronic disease questionnaire, 3) acute disease questionnaire, 4) hospital admissions questionnaire, 5) out of the country health care questionnaire, 6) dental care questionnaire, and 7) preventive services use questionnaire. The responses from each of these questionnaires relate to health care services and use of health care for all members of the household, and comprise a robust data set that can be used to conduct powerful analyses related to health trends and health care expenditures in Egypt.

This survey is the most detailed assessment of household spending on health to date in Egypt. It represents a significant effort to deepen understanding of current health financing in Egypt. It also provided an opportunity to move forward efforts at institutionalizing NHA, as the partnership with CAPMAS helped to promote Egypt's ability to independently continue NHA surveys and estimation in the future.

The 2008/09 NHA also take a more comprehensive look at private firms and NGOs involved in health, because of the institutional survey, also administered by CAPMAS, that was conducted as part of the production effort. The nationally representative survey covered 182 different types of related NGOs, providing the NHA team with the expenditure information needed to estimate the role these institutions play at each level of the NHA analysis. The survey also covered 213 public and private firms, allowing the NHA team to assess the financial role these firms have within the health system and, specifically, in providing health care services to employees through different schemes.

2.3 DATA ANALYSIS

In the 2008/09 round of NHA, several adjustments were made to the funding classifications and coding rules. One adjustment concerns the CCO. The CCO is essentially self-funded, with a very small subsidy from the government for treating the poor. It receives a loan from the MOF that then has to be repaid during the course of the year. This issue had not been adequately reflected in prior NHA. Another adjustment has refined the treatment of financial flows through MOHP facilities. In the previous round, MOHP facility expenditure that came from user fees was attributed to the MOF. However, in discussions with relevant authorities, it transpired that even though the MOF might reflect these fees in its budget estimates, these fees are actually retained and used by the MOHP, and do not flow into the national treasury. Therefore, for this round of NHA, MOHP facility expenditure coming from user fees is attributed to households rather than the MOF.

3. RESULTS

3.1 SUMMARY STATISTICS

Table 2 describes the overall findings from the 2008/09 NHA and compares them to earlier findings and other macroeconomic indicators.

TABLE 2: SUMMARY OF KEY INDICATORS

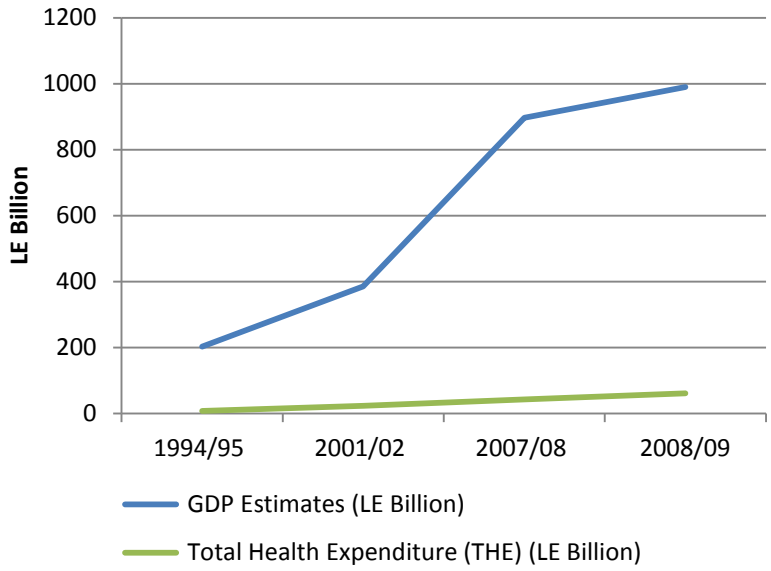
(NHA ESTIMATIONS FROM 1994/95, 2001/02, 2007/08, 2008/09)

Key Indicators	1994/95	2001/02	2007/08	2008/09
Total population (million)	59.2	66.7	75.1	76.8
GDP estimates (le billion)	203.1	385.0	896.5	1040
GDP per capita (LE)	3,431	5,772	11,937	13,541
THE (LE billion)	7.5	23.1	42.5	61.4
Public health expenditures (LE billion)	2.5	6.8	13.9	15.2
MOHP expenditures (LE billion)	1.6	5.2	10.2	10.1
Household expenditures (LE billion)	3.8	14.3	25.5	44.1
Pharmaceuticals (LE billion)	2.7	8.6	11.0	21.0
THE per capita (LE)	127.0	346.0	566.4	800.1
Percentage of GDP spent on health	3.7%	6.0%	4.8%	5.9%
Public health expenditures as percentage of THE	33.0%	30.0%	33.0%	24.8%
MOHP expenditures as percentage of THE	22.0%	23.0%	24.0%	16.5%
Out-of-pocket expenditures as percentage of THE	51.0%	62.0%	60.0%	71.8%
Pharmaceuticals as percentage of THE	36.0%	37.0%	26.0%	34.2%
Public spending as percentage of GoE expenditures	—	5.0%	5.0%	4.3%
MOHP expenditures as percentage of GoE expenditures	—	4.0%	3.5%	2.9%

Source: Egypt Ministry of Finance (MOF). Economic Indicators: http://www.mof.gov.eg/English/Pages/Selected-Economic-Indicators.aspx. Accessed Aug. 20, 2011. World Bank. Data: http://data.worldbank.org/. Accessed Aug. 5, 2011.

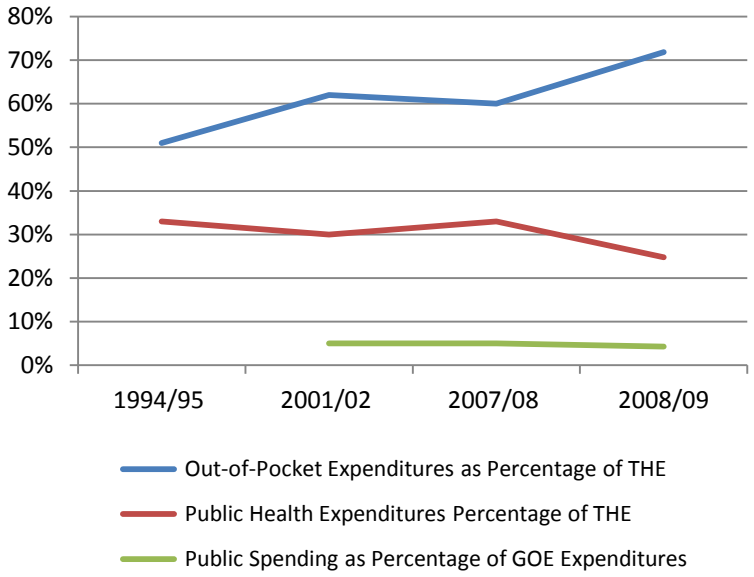
As GDP has risen from 203.1 LE billion to 1040 LE billion over this 15-year period, THE and THE per capita have also increased. In 1994/95, THE was 7.5 billion LE. It was 23.1 billion LE in 2001/02, 42.5 billion LE in 2007/08, and 61.4 billion in 2008/09, increasing to more than seven times its initial value. Due to population growth, THE per capita increased by only five times, beginning in 1994/95 at 127 LE per capita and rising to 800 LE per capita in 2008/09. These trends are represented in Figure 1.

FIGURE 1: GDP AND THE, 1994/95 THROUGH 2008/09



An increasing overall and per capita THE masks some changes in terms of the distribution across funding sources, as household OOP expenditures have accounted for an ever-increasing share of THE, while the public sector's share declined. In 1994/95, household expenditures accounted for 51 percent of THE and the public sector accounted for 33 percent, while in 2008/09, household expenditures accounted for 72 percent and the public sector accounted for 25 percent. This trend has become clearer in more recent years, as the share of spending by households has increased by over 10 percentage points since 2007/08, while the public share of health spending has fallen by 8 percentage points. Public health spending as a percentage of the total government spending in Egypt, at 4.3 percent in 2008/09, is still a distance away from the 15 percent pledged at the 2000 Abuja Declaration. These trends are represented in Figure 2.

FIGURE 2: CHANGE IN OOP AND PUBLIC HEALTH EXPENDITURE AS PERCENTAGE OF THE AND AS PERCENTAGE OF GOE EXPENDITURE, 1994/95 THROUGH 2008/09



3.2 EGYPT IN REGIONAL CONTEXT

Table 3 places Egypt's summary statistics in regional perspective, comparing them to those from other middle-income countries in the Middle East and North Africa. The comparison indicates that OOP spending as a percentage of the THE in Egypt, at 72 percent, is higher than in the other middle-income countries in the region, where the 10-country regional average is 45 percent. This results show that Egypt's risk-pooling mechanisms provide for less of the country's population than similar mechanisms in other countries in the region. The comparison also indicates that government health spending as a percentage of the THE, 25 percent in Egypt, is comparatively lower than in other middle-income countries in the region, where the regional average is 52 percent. Finally, Table 3 also indicates that Egypt, along with Syria, Morocco, and Libya, is much further away from reaching the Abuja target of spending 15 percent of the total government budget on health than other countries such as Algeria, Djibouti, Jordan, and Lebanon.

TABLE 3: EGYPT COMPARED WITH OTHER MIDDLE-INCOME COUNTRIES IN THE REGION

Countries	Percentage of GDP Spent on Health	Government Health Spending as % of THE	Government Health Spending as % of Total Government Budget	Out-of-Pocket Expenditure as % of THE
Algeria	4.1	80.6	9.2	18.3
Djibouti	7.0	76.9	13.9	22.8
Egypt	6.2	24.8	4.3	71.8
Iran	5.5	39.0	8.7	58.9
Jordan	8.6	60.8	10.2	42.3
Lebanon	8.1	49.2	12.1	40.5
Libya	3.9	66.1	5.5	33.9
Morocco	5.5	34.4	7.0	56.6
Syria	2.9	31.0	4.6	69.0
Tunisia	6.2	54.1	10.4	40.0
Regional Average	5.8	51.7	8.6	45.4

Sources: WHO. Global Health Expenditure Database: http://www.who.int/nha/expenditure_database/en/. Accessed Sept. 10, 2011.

Note: All indicators are from 2009 except for Jordan and Tunisia, which are from 2008.

As Table 4 shows, Egypt is even further from reaching the expenditure levels achieved by high-income countries. With the exception of the United States, high-income countries have government health spending as a percentage of THE above 70 percent, and OOP expenditure at or below 25 percent of THE. Comparative figures in Egypt are precisely opposite, with government covering only 25 percent of total health expenditures, and OOP expenditures accounting for 72 percent.

TABLE 4: EGYPT IN COMPARISON WITH HIGH-INCOME COUNTRIES

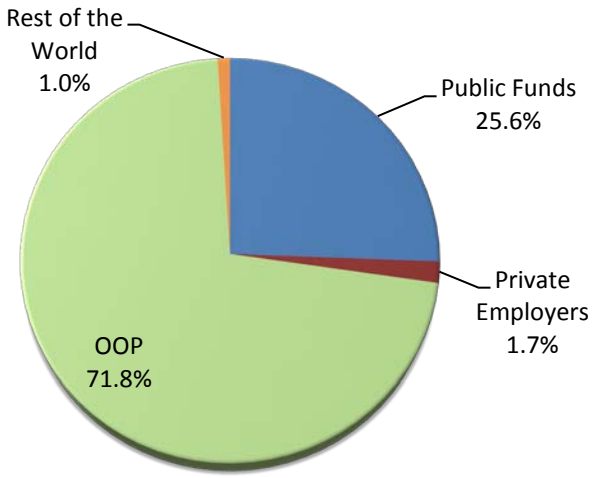
	Percentage of GDP Spent on Health	Government Health Spending as Percentage of THE	Health Spending as Percentage of Total Government Budget	Out-of-Pocket Expenditure as Percentage of THE
Egypt	5.9	24.8	4.3	71.8
Finland	8.4	74.8	12.9	25.2
Norway	8.6	84.2	18.0	15.8
U.K.	9.0	82.8	15.6	17.2
Sweden	9.1	82.0	14.1	18.0
Denmark	9.9	84.7	16.2	15.3
Germany	10.4	76.8	18.2	23.2
France	11.1	79.0	16.6	21.0
USA	16.0	46.5	19.2	53.5

Source: World Bank. Data: http://data.worldbank.org/. Accessed Aug. 15, 2011.

3.3 FINANCING SOURCES: WHO PAYS FOR HEALTH CARE

In the NHA framework, financing sources are those institutions or entities that ultimately contribute funds used in the health care system. In Egypt, health funds come from a combination of public, private, and external sources. As shown in Figure 3, in 2008/09 public sources accounted for 26 percent of THE, while households accounted for 72 percent, and 2 percent from private firms. Finally, just 1 percent came from external sources, including donors.

FIGURE 3: FINANCING SOURCES AS PERCENTAGE OF THE

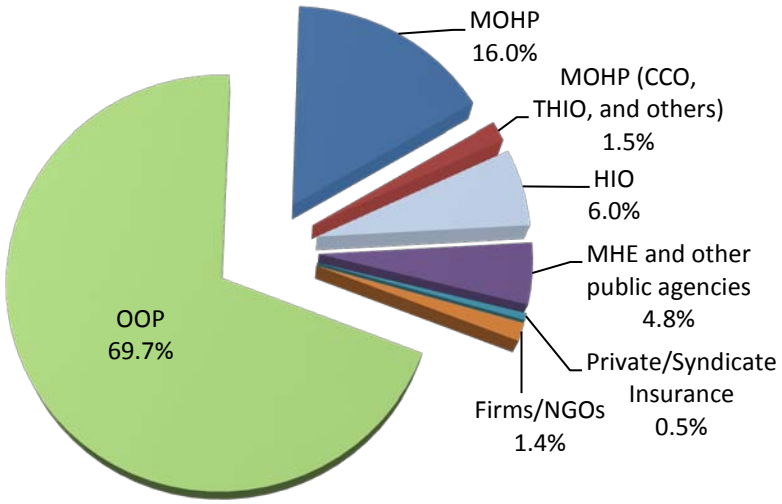


3.4 FINANCING AGENTS: WHO MANAGES HEALTH FUNDS

3.4.1 OVERVIEW

Overall, households manage most of the health funds entering Egypt's health sector. As Figure 4 shows, household OOP expenditures funneled directly to health care providers account for 70 percent of THE. In comparison, public entities were responsible for 28 percent of THE; and private agents, including private insurance programs as well as firms and NGOs, were responsible for 2 percent.

FIGURE 4: FINANCING AGENTS AS PERCENTAGE OF THE



3.4.2 MOHP

As the primary government entity responsible for preserving, restoring, and promoting health in Egypt, the MOHP is an important financing agent in Egypt's health system. It acts as a financing agent by spending funds directly on providers. The CCO, THIO, and other agencies under the purview of the MOHP are also financing agents. Altogether, the MOHP and these related entities account for 17.5 percent of THE at the financing- agent level.

The MOHP spends 16 percent of the THE on providers directly. Figures 5 and 6 below show the source and direction of these MOHP financing flows. Of MOHP expenditure, 99 percent is general revenue from the MOF, while donors and other external funders account for the rest. These funds are spent evenly between MOHP headquarters and MOHP Governorate, or regional, offices.

FIGURE 5: MOHP EXPENDITURE BY SOURCE

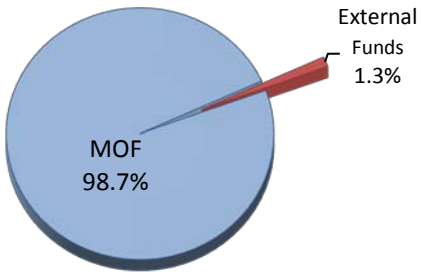
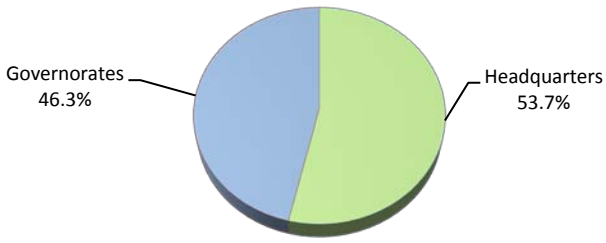
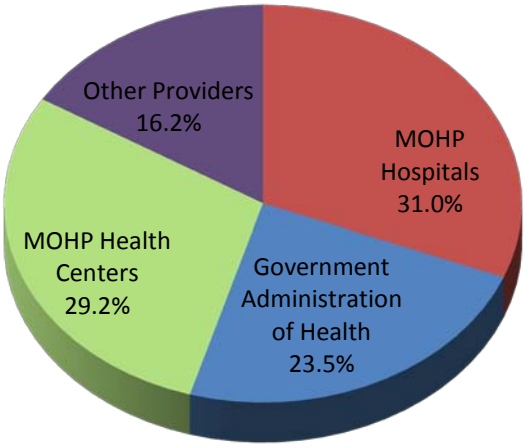


FIGURE 6: MOHP EXPENDITURE BY OFFICE



Headquarter and governorate expenditure attributed to funds from the MOF is spent among providers. As Figure 7 shows, two-thirds of MOHP expenditure (60 percent) occurs at MOHP provider facilities. Another fourth of MOHP expenditure (24 percent) occurs at the Government Administration of Health. The rest of MOHP expenditure (16 percent) occurs at other providers, including public hospitals run by the HIO, Universities, THIO, CCO, and the Ministry of Defense, as well as hospitals run by private or not-for-profit providers, or at MOHP specialized hospitals, medical and diagnostic laboratories, and ambulance services.

FIGURE 7: MOHP EXPENDITURE BY PROVIDER



The MOHP allocates 1.5 percent of THE to the CCO, THIO, and other autonomous agencies under its authority to manage as financing agents. The THIO attributes 99 percent of its expenditure to funds from the MOF, with the remaining funds coming from external sources. The CCO attributes 87 percent of its expenditure to funds from parastatals, and the remaining 13 percent to funds from the MOF. Both agencies direct the entirety of their resources to one provider. For THIO, all funds are allocated to THIO hospitals, and for CCO, all funds are allocated to CCO facilities.

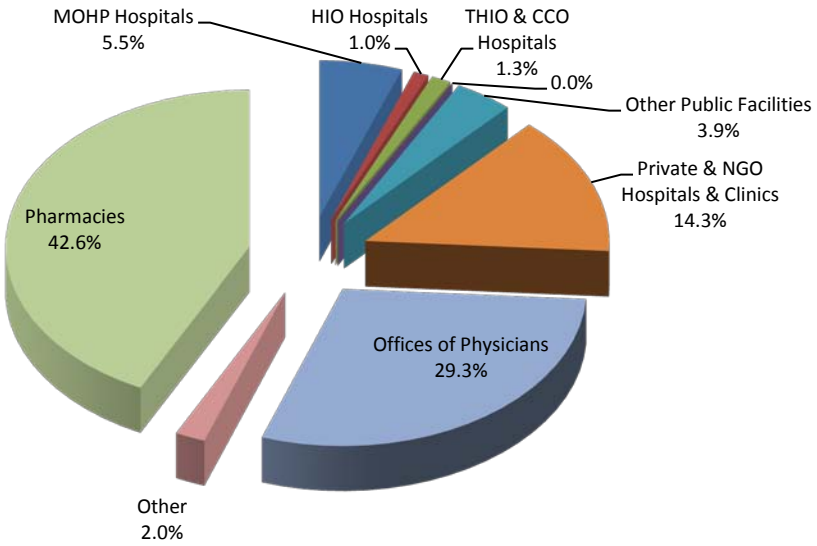
3.4.3 MINISTRY OF HIGHER EDUCATION

The MHE accounts for 4 percent of the THE at the financing-agent level of analysis. The MHE attributes 99 percent of its funds to the MOF, with the remaining funds attributed to external sources. All of the MHE expenditures are allocated to the University Hospitals.

3.4.4 HOUSEHOLD OOP EXPENDITURES

Accounting for 70 percent of THE at the financing-agent level, households rather than risk-pooling entities are the primary managers of health funds in Egypt, and allocate resources to providers directly. In Figure 8, a breakdown of OOP payments by provider shows that the bulk of OOP spending is at pharmacies (43 percent), the Offices of Physicians (29 percent), and private or NGO clinics and hospitals (14 percent).

FIGURE 8: HOUSEHOLD OOP SPENDING BY PROVIDER



Further discussion of household expenditures within the context of mechanisms for financial risk protection can be found in the next section.

3.4.5 FINANCIAL RISK PROTECTION

Insurance and other types of financial risk protection are fundamental components of Egypt's health sector, as they play a critical role in decreasing financial barriers to accessing health care and limiting catastrophic spending on health. The HIO is the primary insurance provider in the country; other private sector insurance providers are also active, but their role is smaller. The Program for Treatment at the Expense of the State (PTES) is another mechanism within the public sector (MOHP) that provides risk protection for the poor.

Through secondary data and the 2009/2010 HHEUS, information was collected about health insurance coverage, financing flows through the HIO and PTES, and expenditure, utilization, and provider choice among insurance holders and non-insurance holders. Expenditure data provide inputs for the standard NHA analysis, which shows how much of the THE is attributed to the HIO and other insurance providers. Comparing trends among the insured and uninsured using HHEUS data further expands the scope of the discussion by illuminating how current health financing programs, institutions, and facilities interact and affect behavior. HHEUS data also make it possible to analyze the distribution of health insurance among population groups, yielding insights about the functioning of current risk-pooling structures.

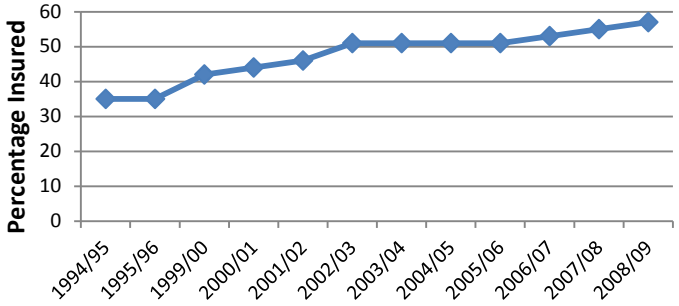
This discussion of financial risk protection in Egypt includes the following topics:

- Estimates of overall insurance coverage in Egypt and coverage under the PTES.
- Breakdown of HIO expenditure by source and provider.
- Breakdown of PTES expenditure by provider.
- Impact on household expenditure of holding insurance.
- Impact on service utilization and provider choice of holding insurance.
- Distribution of insurance coverage across population groups, with equity implications for gender and economic class.

3.4.5.1 OVERALL INSURANCE AND PTES COVERAGE

According to HIO data, insurance under HIO has been gradually increasing over the last decade and a half. In 2008/2009, the HIO reported that it covered 42,794 million Egyptians, or 57 percent of the population. Figure 9 shows this trend.

FIGURE 9: PERCENTAGE OF POPULATION INSURED BY HIO



Source: HIO annual report (2008).

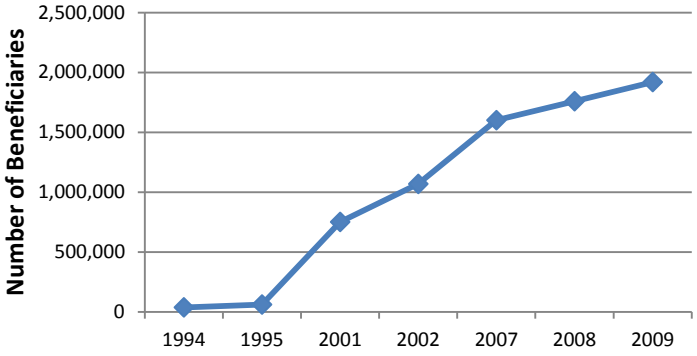
HIO estimates for the coverage rate differ somewhat from the estimates drawn from the household survey. As a low-end estimate, the 2008/09 HHEUS indicates that some type of health insurance covers 51 percent of the population Egypt; of those that report having insurance, most (89 percent) report having insurance through HIO, which indicates that 45 percent of Egypt's population is covered by HIO. The HHEUS results also show that the other insurance schemes, including those offered by private firms and professional syndicates, are available mostly for males, those living in urban areas and major cities, those with more education, and those in the highest income quintiles.

Thus, despite the different estimates of coverage, both data sources do confirm that the HIO is the primary insurance provider in the country.

In addition to the HIO, the PTES is also a major player in the public sector as a way to protect the poor from catastrophic health expenditures. The PTES is a special discretionary fund set up to pay for certain services within the country and treatment abroad on behalf of those who cannot afford them, and particular those not covered by the HIO. In this way, the PTES functions as a safety net to protect the uninsured population.

Since its inception, the PTES has expanded, with funding from the MOF as part of the MOHP budget. As Figure 10 shows, the number of PTES beneficiaries has increased dramatically since 1994, when there were approximately 39,000, to 2008/09, when there were over 1.9 million. However, in a country with a population of 76.8 million, this total comes to only 2.5 percent of the population.

FIGURE 10: PTES BENEFICIARIES

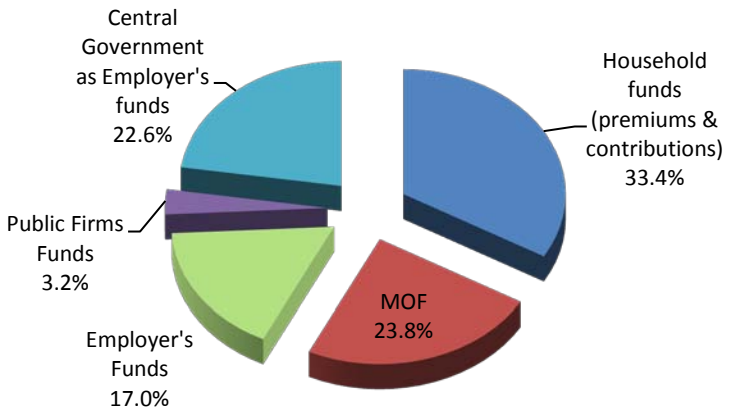


Source: Ministry of Health, Egypt (2010).

3.4.5.2 HIO EXPENDITURE FLOW

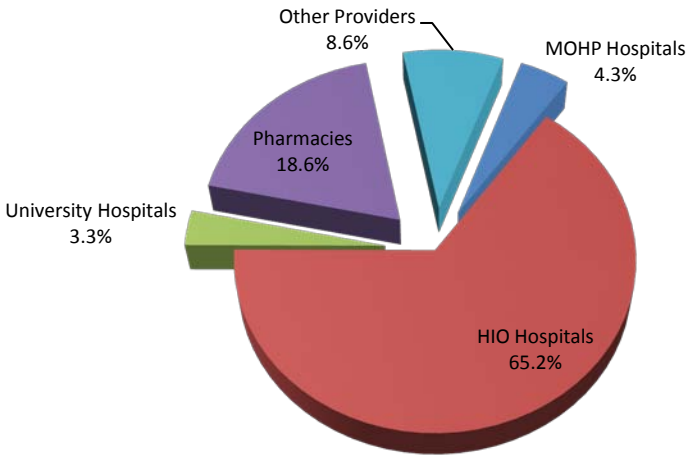
Expenditure data also show the importance of the HIO relative to other insurance programs, and allow the breakdown of financing flows through the HIO. The HIO and other insurance providers account for 8 percent of THE, and of this amount, the HIO accounts for 80 percent. As Figure 11 shows, the HIO receives funding from households, governmental agencies, and private and parastatal firms. The central government provides 46 percent of its funds, half coming as tax revenue through the MOF and half as employers' funds. Households are also significant, making up 33 percent of HIO funding in the form of premiums and contributions. Additionally, employers' funds and public firms account for 17 percent and 3 percent, respectively.

FIGURE 11: HIO EXPENDITURE BY SOURCE



The HIO allocates its funds among several providers. As shown in Figure 12, the majority of its funds (65 percent) are spent at HIO hospitals. MOHP hospitals and University Hospitals are other significant recipients of HIO expenditure in the public sector (accounting for 4 percent and 3 percent of funds, respectively), while private pharmacies receive 19 percent of HIO funds. Other providers who receive HIO expenditures include THIO, CCO, and Ministry of Defense Hospitals as well as private and NGO hospitals.

FIGURE 12: HIO EXPENDITURE BY PROVIDER

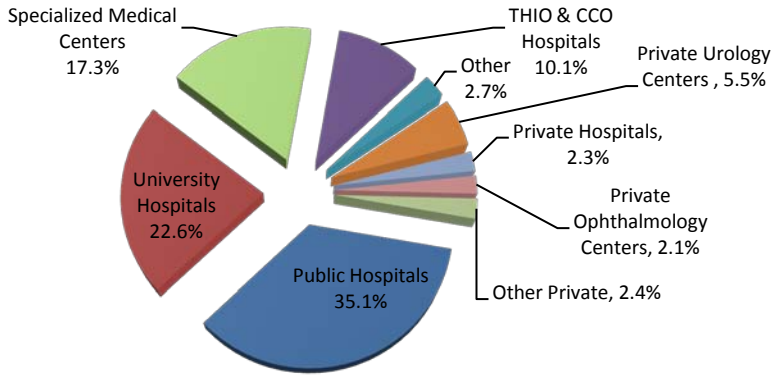


3.4.5.3 PTES EXPENDITURE FLOWS

In 2008/09, total PTES expenditures amounted to over three billion LE. As Figure 13 shows, 12 percent of total PTES expenditure occurred at private providers, including private urology centers, hospitals, and ophthalmology centers. PTES expenditure at private providers shows an increase since the 2007/08 NHA, which reported that only 8.5 percent of total PTES expenditures went to private providers. Planners within the PTES are currently considering shifting back towards prioritizing providers in the public sector, where prices are typically lower, in order to provide financial protection to more people while reining in expenditure levels at the same time.

As for public sector providers, PTES spent 35 percent of its expenditure at public hospitals, 23 percent at University Hospitals, 17 percent at specialized medical centers, 10 percent at the THIO and CCO together, and another 3 percent at other government agencies. Though the PTES covers treatment abroad,9 only a small percentage of its expenditure is for this purpose.

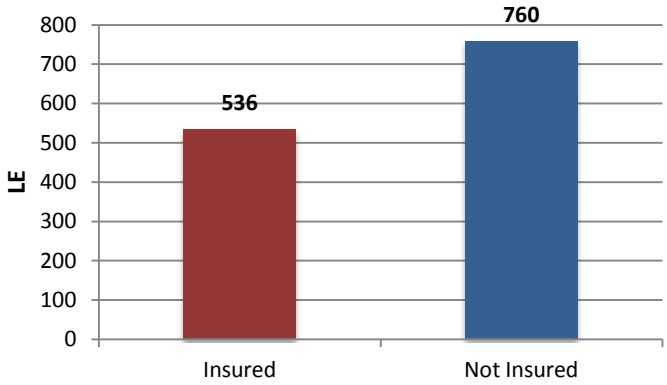
FIGURE 13: PTES EXPENDITURE BY PROVIDER



3.4.5.4 IMPACT OF INSURANCE ON OOP EXPENDITURE

HHEUS results indicate that insurance does have a positive impact on OOP spending at an aggregate level, reducing burden for insurance holders. As Figure 14 shows, the insured spent 536 LE per capita annually, compared with 760 LE for the uninsured.

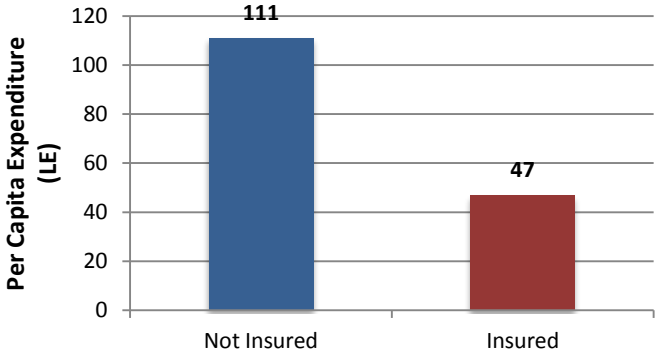
FIGURE 14: ANNUAL PER CAPITA OOP SPENDING BY INSURANCE STATUS



9 Data for the treatment abroad was not included. Results from Egypt's NHA 2007/08 showed that treatment abroad represented less than 2 percent.

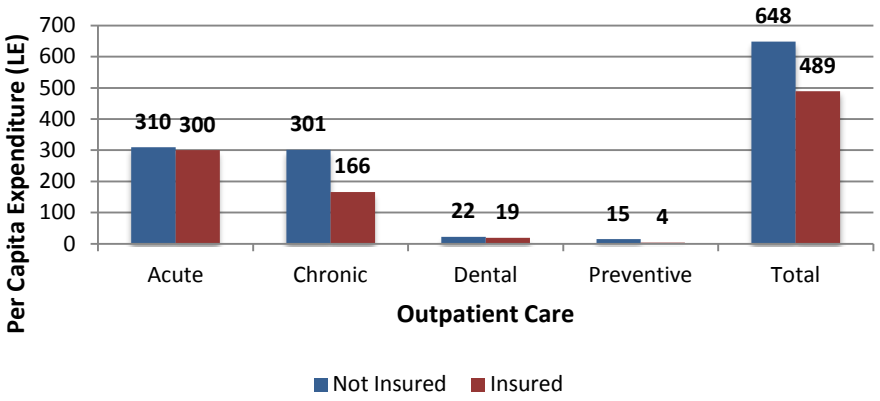
When inpatient expenditures are analyzed separately, the impact of insurance is even clearer. As Figure 15 shows, the insured spent 47 LE per capita annually on inpatient care, compared with 111 LE for the uninsured.

FIGURE 15: PER CAPITA EXPENDITURES FOR INPATIENT CARE BY INSURANCE STATUS



When outpatient services are analyzed separately, however, results show that differences in expenditure among insured and uninsured are significant for certain types of services only. As Figure 16 shows, the uninsured spent about as much as the insured for acute care and dental care, but the uninsured spent more for chronic and preventive care. Overall the insured spent 489 LE per capita annually on outpatient care, compared with 648 LE among the uninsured.

FIGURE 16: PER CAPITA EXPENDITURES FOR OUTPATIENT CARE BY INSURANCE STATUS



3.4.5.5 IMPACT OF INSURANCE ON SERVICE UTILIZATION AND PROVIDER CHOICE

Using HHEUS data to compare the insured and uninsured population yields surprising results for utilization rates and choice of providers, namely, that holding insurance does not appear to affect the demand for health care or the choice of provider. These results run counter to accepted theories about the effects of insurance on these variables.

UTILIZATION RATES

Comparing utilization rates reveals an unexpectedly small difference in the annual per capita outpatient utilization rate between the insured and uninsured. Figure 17 shows that the insured used an average of 9.6 visits per year, and the uninsured 9.5 visits, indicating that insurance does not seem to affect the demand for outpatient care. Some difference appears in acute and preventative care,

where the insured used more visits per capita than the uninsured. The uninsured demand more inpatient care than the insured. For chronic care (Figure 17) and inpatient admissions (Figure 18), the utilization rates for the uninsured were even higher than those of the insured.

FIGURE 17: PER CAPITA OUTPATIENT UTILIZATION RATES BY INSURANCE STATUS

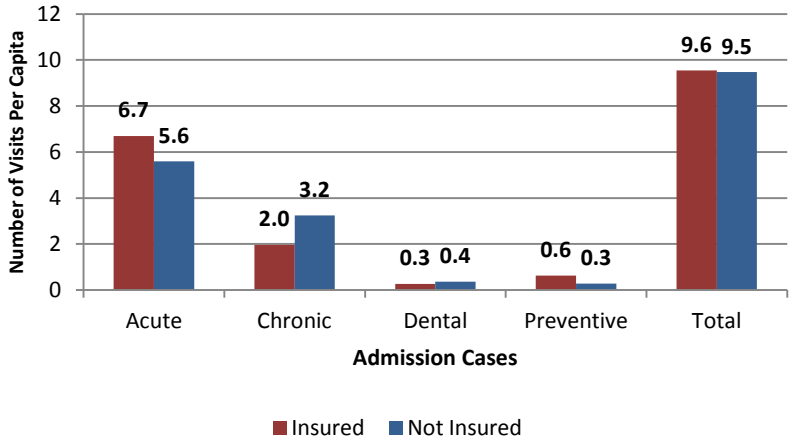
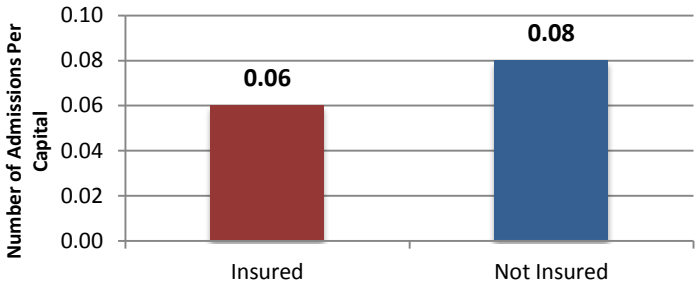


FIGURE 18: ANNUAL PER CAPITA INPATIENT ADMISSION RATES BY INSURANCE STATUS



Some analysts argue that the similarity of outpatient utilization rates among the insured and uninsured is surprising because holding insurance is usually associated with moral hazard, whereby the information gap between the insurer and insured is likely to result in significantly higher demand among the insured than among the uninsured. It is also impossible to attribute these findings to any restrictions on services covered under HIO packages, as the HIO package is fairly comprehensive, covering almost every type of service, with only a few exceptions such as orthodontic care. As for the findings on inpatient care, given that inpatient care tends to be expensive and the presence of insurance buffers the insured against these costs, all things being equal, theory dictates that the insured tend to use more inpatient care than the non-insured.

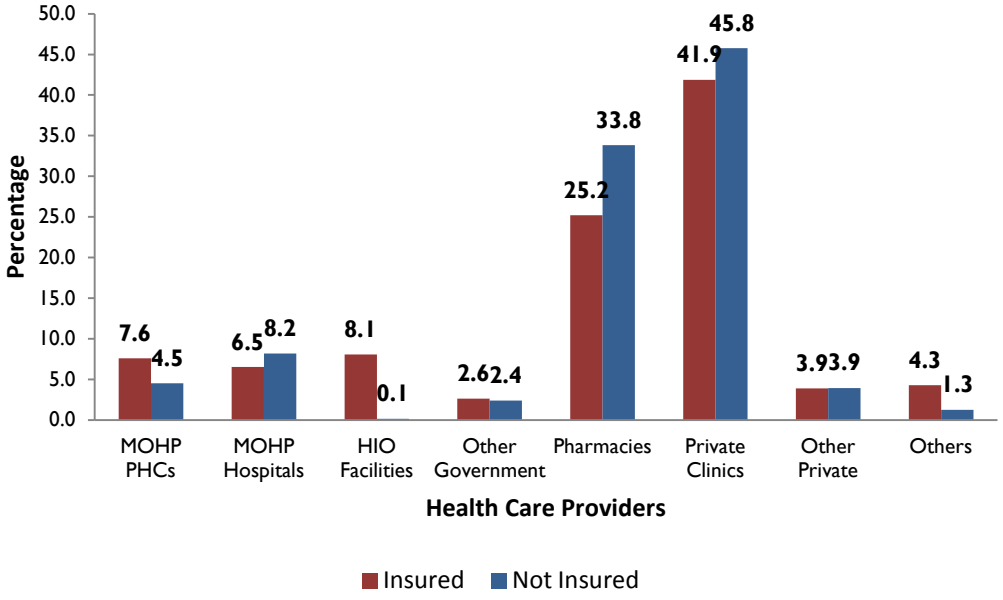
Another variable that provides a substantiated explanation for these results concerns the composition of HIO enrollees. Students and preschool children account for a large percentage of HIO enrollees (42 percent and 31 percent respectively). At the same time, these age groups showed higher utilization rates for acute and preventative care, and lower utilization rates for chronic and inpatient visits (HIO Annual Report 2008). Given this information, it is understandable that utilization trends by age group would correlate with utilization by insurance status.

PROVIDER CHOICE

Shifting to comparisons of provider choice, the analysis shows that holding insurance does affect the relative demand between the insured and uninsured for outpatient providers, but, as before, not always in expected ways. Figure 19 shows the choice of provider for outpatient care by insurance status. The results reveal that only 8 percent of the insured use HIO facilities for outpatient care, while 42 percent use private clinics, which account for only one part of the private sector. Although HIO does provide enrollees with some private sector coverage, data show that only 2 percent of HIO expenditure is spent at private facilities, indicating that the insured are most likely spending OOP at these private providers for outpatient care.

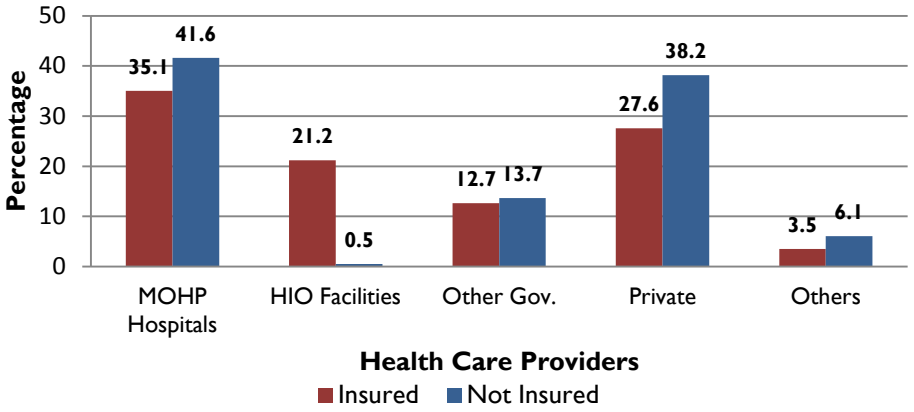
These results are unexpected given the benefits to insurance holders of using in-network facilities. That being said, these results do show that the uninsured do make more use of pharmacies as well as private clinics compared to the insured, which is in line with theoretical predictions.

FIGURE 19: CHOICE OF PROVIDER FOR OUTPATIENT CARE BY INSURANCE STATUS



Relative demand for inpatient providers reveals predictable differences between the insured and uninsured, but unexpectedly low use of MOHP facilities among the insured. Figure 20 shows that, as expected, 21 percent of inpatient admissions of the insured occurred at HIO facilities, while the uninsured hardly used HIO facilities. Also, the uninsured were more likely than the insured to use MOHP hospitals and private hospitals, which is also expected. However, even for the insured, 35 percent of inpatient admissions took place at MOHP hospitals, 13 percent at other public hospitals, and 28 percent at private clinics. The insured reported several reasons for not using HIO facilities: 18 percent of the insured sample cited distance, 35 percent cited the long waiting time, and 44 percent cited lower-quality services. These data indicate that even the insured prefer to use private hospitals if they can afford it.

FIGURE 20: CHOICE OF PROVIDER FOR INPATIENT CARE BY INSURANCE STATUS



3.4.5.6 DISTRIBUTION OF INSURANCE ACROSS POPULATION GROUPS

The HHEUS results further supplement the findings in the standard NHA analysis by revealing inequities in the distribution of insurance coverage by regional, gender, and socio-economic classifications. Results show that insurance coverage is highest for males (58 percent), those in urban areas (54 percent), those living in urban lower Egypt (56 percent), those aged 5-15 years old (94 percent), those with less than a high school degree (64 percent), and those in the highest income quintiles (56 percent).

Some of these patterns in health insurance coverage can be explained. For example, the greater coverage for males relative to females may be due to the higher level of employment for males versus females. The higher coverage for the under-5 and 5 – 15 years old age groups is likely due to the HIO newborn and school health program. The high insurance coverage for the highest wealth index as well as the urban areas is most likely due to higher levels of employment. The high insurance coverage for those with less than a high school degree could be attributed to the fact that this group consists of youth under age 15, who have high coverage rates according to health insurance Law 99. In addition, this group also consists of workers, who are covered by HIO according to health insurance Laws 32 and 79.

The next two sections deepen the discussion of inequity by gender and economic class.

IMPLICATIONS ACROSS GENDER

Utilization, choice of provider, and expenditure trends vary by gender in Egypt. The HHEUS data show that women use more outpatient and inpatient care than men, are more likely to use private providers, and spend more overall on all types of care. The fact that holding insurance has greater prevalence among men makes these differences both more understandable and more concerning.

Annual per capita utilization rates for outpatient and inpatient care by gender show that women use more health care than men. As Figure 21 shows, women use 10.3 visits per capita annually, compared with 8.7 visits for males. The higher utilization rate among women holds for acute, chronic, dental, and preventive health care services. The largest differential appears with the use of chronic care services, where females use 3.1 visits per capita, compared with 2.1 for men. Figure 22 shows the annual per capita admissions by gender. Women have 0.08 admissions per capita annually, compared with 0.06 admissions per capita for men.

FIGURE 21: ANNUAL PER CAPITA OUTPATIENT CARE BY GENDER

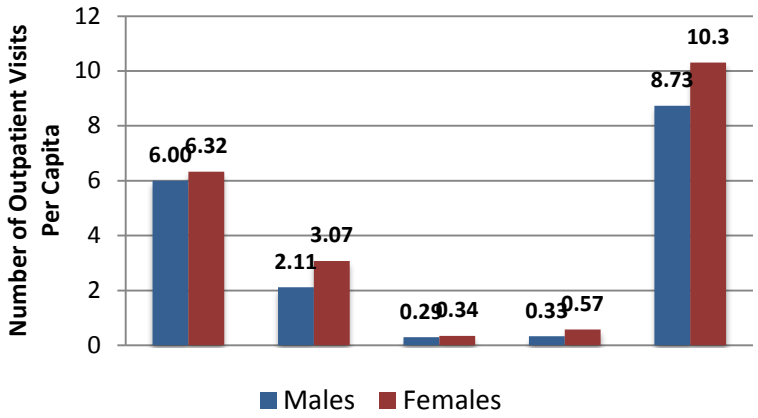
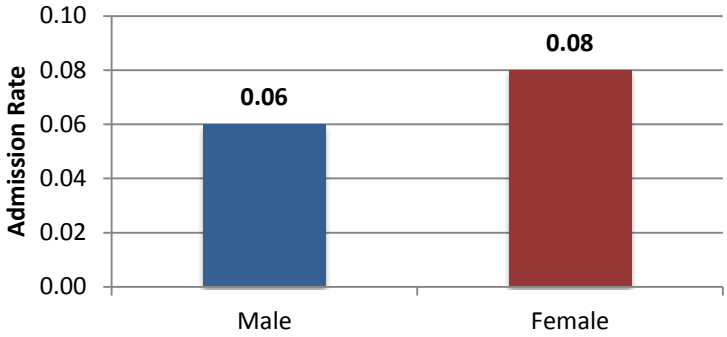
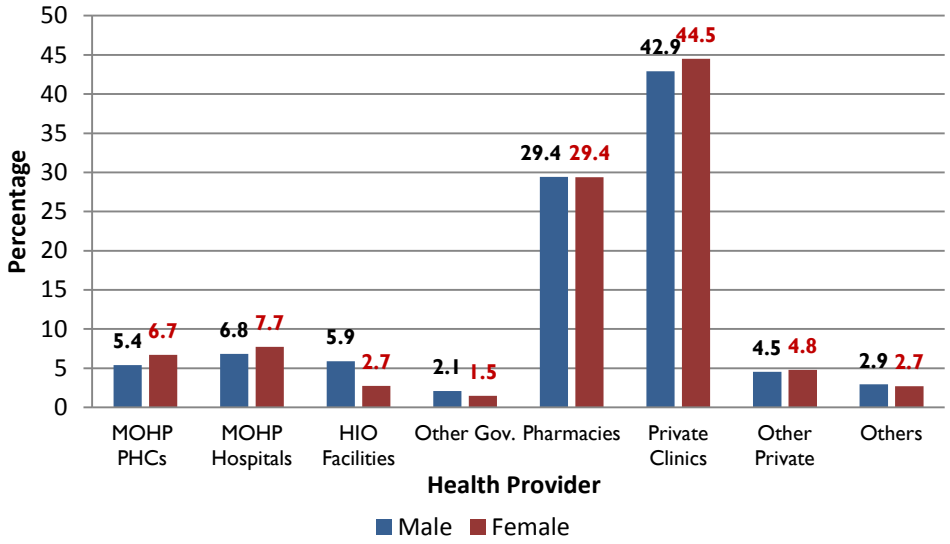


FIGURE 22: ANNUAL PER CAPITA ADMISSIONS BY GENDER



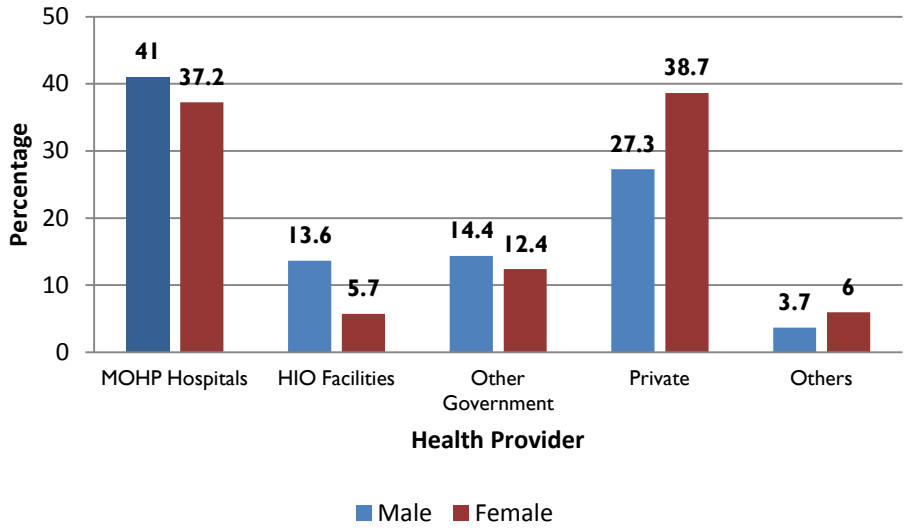
The analysis also reveals differences between men and women in choice of provider. As Figure 23 shows, women are more likely than men to use private providers, MOHP hospitals, and MOHP outpatient clinics. Women are also less likely to use HIO facilities for outpatient care, which makes sense, as women are less likely to be insured. Also of note is that private providers remain the predominant provider of care for both men and women.

FIGURE 23: CHOICE OF PROVIDER FOR OUTPATIENT CARE BY GENDER



The comparison is similar for inpatient care, where women are more likely than men to use private providers and are less likely to use MOHP hospitals, HIO facilities, and other government providers. Figure 24 presents these comparisons. While it is understandable that women are less likely to use HIO hospitals, it is surprising that they do not use MOHP hospitals and other government hospitals, which have lower OOP user fees than private providers, as much as men.

FIGURE 24: CHOICE OF PROVIDER INPATIENT ADMISSIONS BY GENDER



Given that women have lower insurance coverage as well as higher utilization rates for health services overall and private providers in particular, it is not surprising that women spend more per capita than men for all types of outpatient and inpatient services. As Figure 25 shows, women spent 626 LE per capita on outpatient health care and men spent only 509 LE. Similarly, Figure 26 shows that females spent 99 LE per capita on inpatient care and men spent only 58 LE per capita.

FIGURE 25: ANNUAL PER CAPITA EXPENDITURES FOR OUTPATIENT CARE BY GENDER

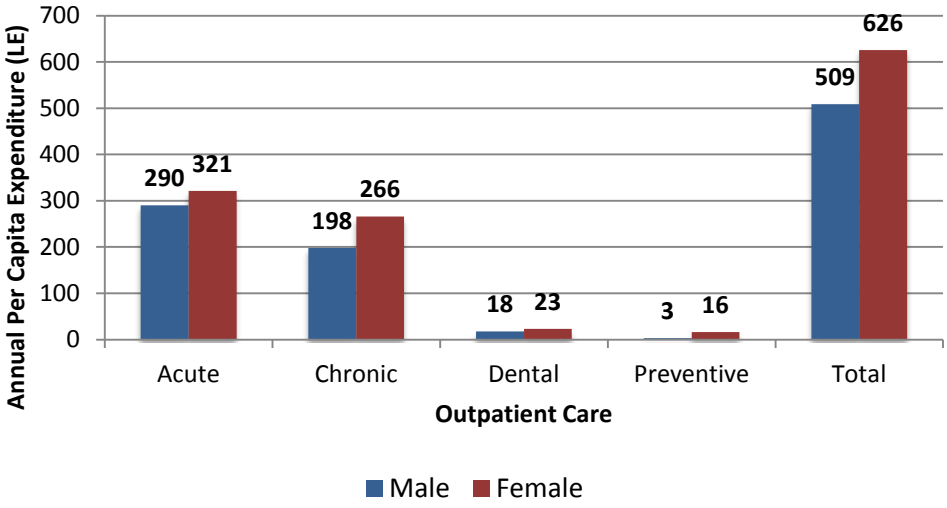
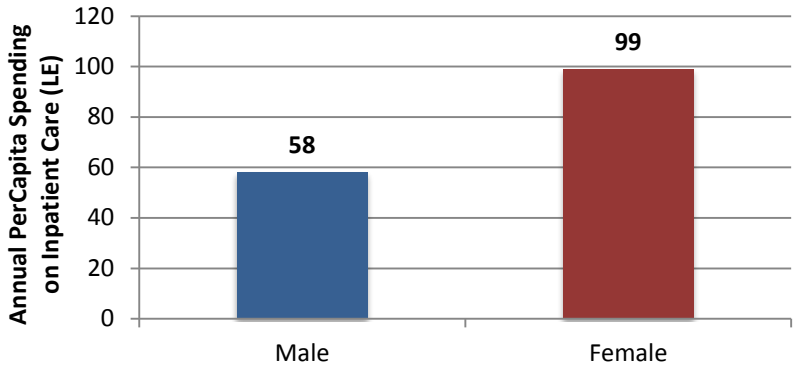


FIGURE 26: ANNUAL PER CAPITA SPENDING ON INPATIENT CARE BY GENDER



IMPLICATIONS ACROSS ECONOMIC CLASS

The HEUSS data also reveal significant equity issues across economic class within Egypt's health financing system. The analysis shows that those in the highest income quintiles use over twice as much outpatient and inpatient care as those in the lowest income quintile. Meanwhile, the wealthier tend to use private providers more than the less wealthy, but even in the lowest wealth quintile, private providers are fairly prevalent. Finally, those in the lower income quintiles also spend a higher proportion of household income on health care than those in the highest income quintile. All of these results point to the inability of current financing mechanisms, institutions, and programs to provide equitable care to the Egyptian population.

For both outpatient and inpatient care, data show that income is positively correlated with utilization rates. As Figure 27 shows, those in the highest income quintile used 12.6 outpatient visits per capita, while the lowest income quintile used only 6.6 outpatient visits. The differential is the highest for chronic care, where those in the highest income quintile used 5.1 visits per capita and those in the lowest income quintile used 1.2 visits per capita. It is only for preventive care that one observes those in the lowest income quintile using more care than those in the highest income quintile. Similarly, analysis of inpatient care use by income (Figure 28) reveals that those in the highest income quintile use nearly twice as many inpatient admissions per capita as those in the lowest income quintile.

FIGURE 27: PER CAPITA UTILIZATION RATES FOR OUTPATIENT CARE BY INCOME QUINTILE

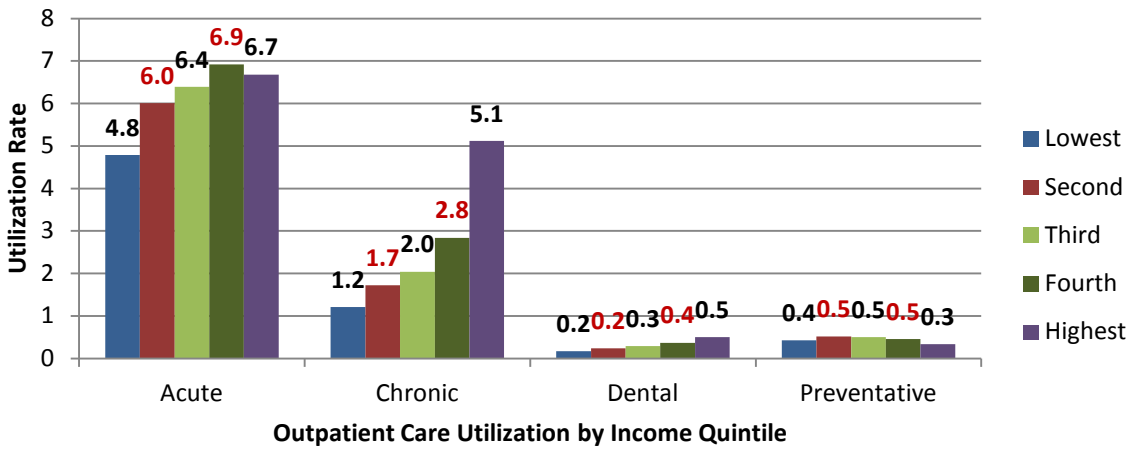
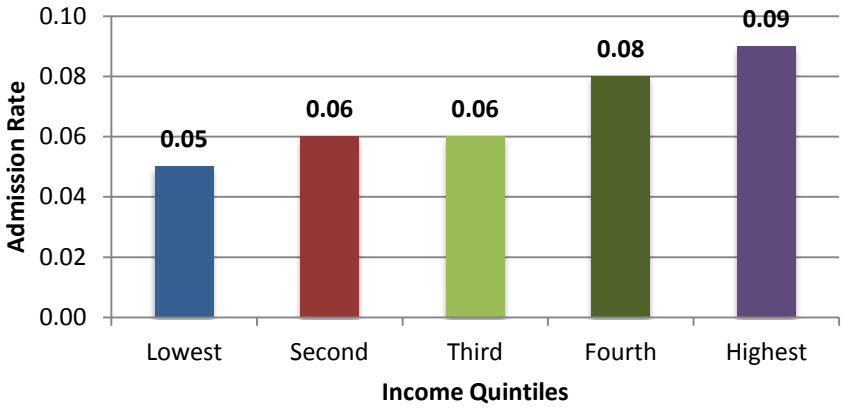


FIGURE 28: ANNUAL PER CAPITA ADMISSIONS BY INCOME QUINTILE



Analysis of provider choice by income quintile reveals that use of private providers, which require higher OOP payments than public providers, is significantly larger than expected among low-income groups. Figure 29 shows choice of provider for outpatient care by income status. Not surprisingly, those in the highest income quintile are more likely to use private clinics and pharmacies, and less likely to use MOHP outpatient facilities, MOHP hospitals, and HIO facilities. However, for those in the lowest income quintile, 70 percent of all outpatient visits occurred in the private sector, with 25 percent at pharmacies, 42 percent at private clinics, and another 3 percent at other private providers. Results are similar for inpatient care, as Figure 30 shows. The MOHP and other government agencies are, as expected, the preferred providers for inpatient care for the lowest income quintile, but roughly 20 percent of inpatient admissions still occur in private facilities. These results show that choice of private provider for outpatient and inpatient care is inversely related to income, but private spending still accounts for a large portion of spending among lower income groups.

FIGURE 29: CHOICE OF PROVIDER FOR OUTPATIENT CARE BY INCOME QUINTILE

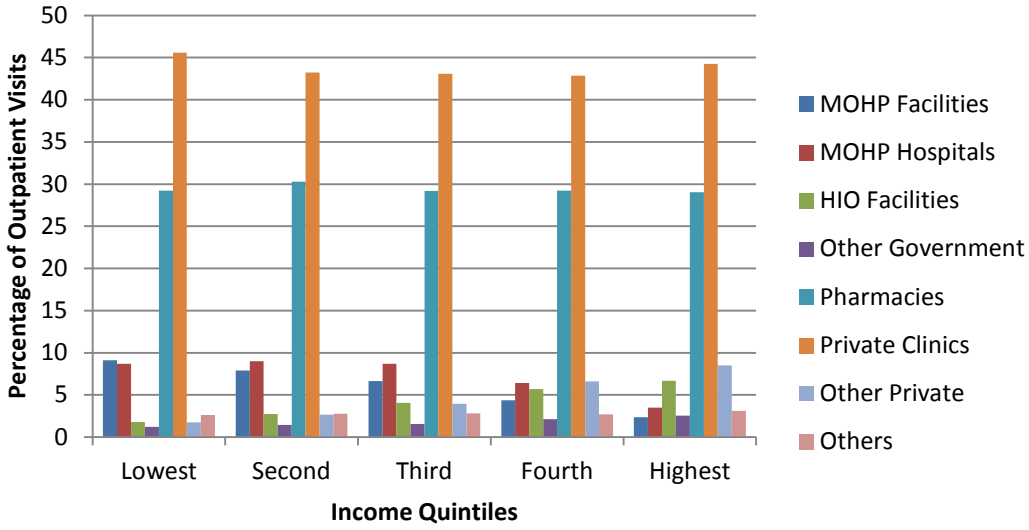
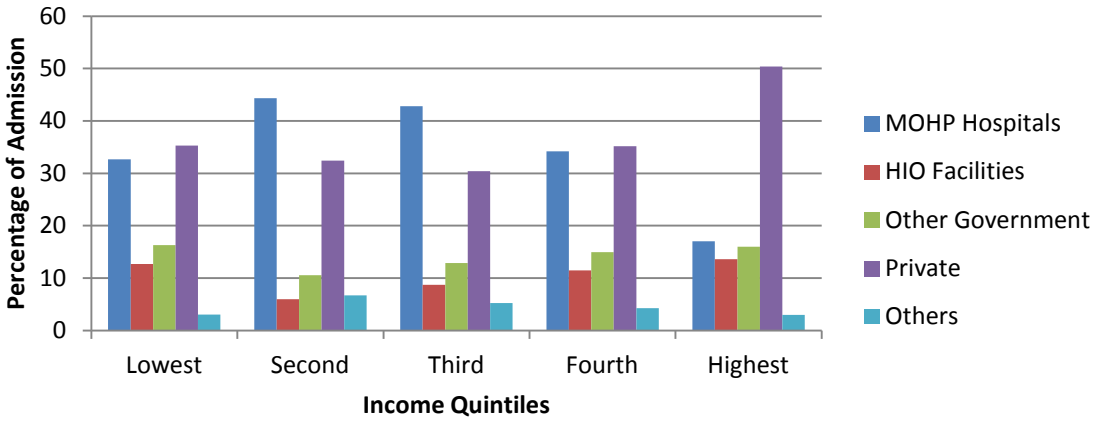


FIGURE 30: CHOICE OF PROVIDER FOR INPATIENT CARE BY INCOME QUINTILE



A comparison of per capita expenditure by income quintile reveals that, while those in the higher quintiles spend more than those in the lower quintiles on health care overall, they spend less as a percentage of income. As Figure 31 shows, those in the highest income quintile spent 1,348 LE per capita on health care, and those in the lowest only 301 LE. However, Figure 32 shows the proportion of household income going to health, where the burden of spending for health care is greater for the lowest- income households, which spend 21 percent of household income on health care. In contrast, highest-income households spend 13.5 percent of their income on health.

FIGURE 31: ANNUAL PER CAPITA SPENDING ON HEALTH CARE BY INCOME QUINTILE

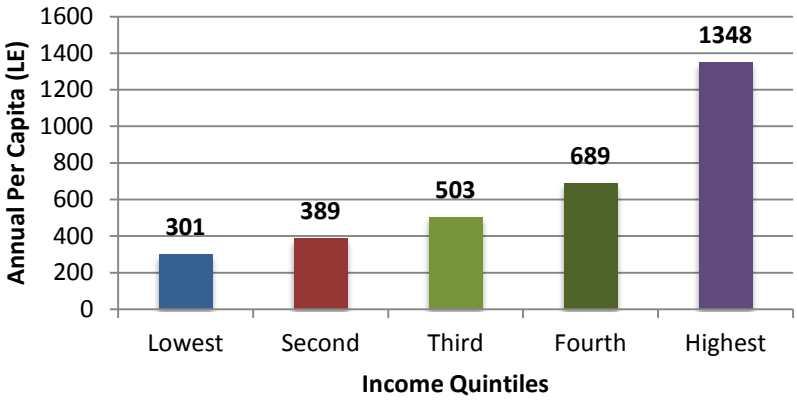
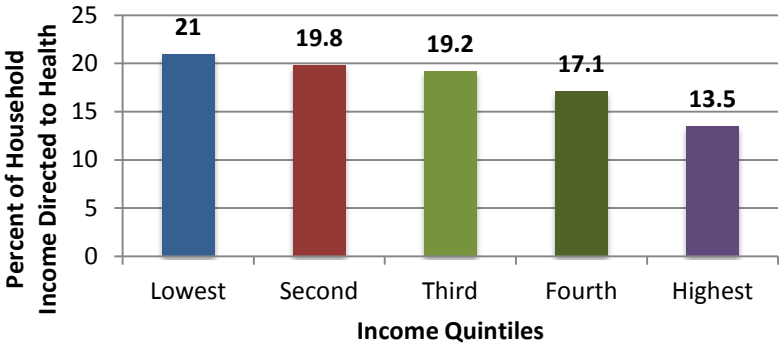


FIGURE 32: PERCENT OF HOUSEHOLD INCOME GOING TO HEALTH



3.4.6 PRIVATE SECTOR AND PARASTATAL AGENTS

Private, parastatal, and not-for-profit actors are also relevant financing agents within Egypt's health sector. Though they represent a small portion of the THE, a breakdown of their expenditures fills a hole in knowledge about the role these organizations play in Egypt's health care system, and provides policymakers with important information as they consider new partnerships with the private sector and NGOs.

In the private sector, private employers' funds spent approximately 130 thousand LE in 2008/09 at private providers, and parastatals spent approximately 150 thousand LE on provision of care for their employees. Unlike all other financing agents in Egypt, NGOs attribute the majority of their expenditure (76 percent) to external funding sources and 24 percent to domestic donations.

These actors spend their funds in different ways. NGOs spend all of their funds at NGO provider facilities. Parastatals spend 64 percent of their funds at private hospitals, 22 percent at HIO hospitals, and 14 percent at CCO hospitals. Private firms spend 60 percent of their funds at private hospitals, 11 percent at CCO hospitals, and 8 percent at HIO hospitals, with the rest spent at a range of public and private providers. Figures 33 and 34 show private and parastatal firm uses of funds in 2008/09.

FIGURE 33: PRIVATE FIRMS' EXPENDITURE BY PROVIDER

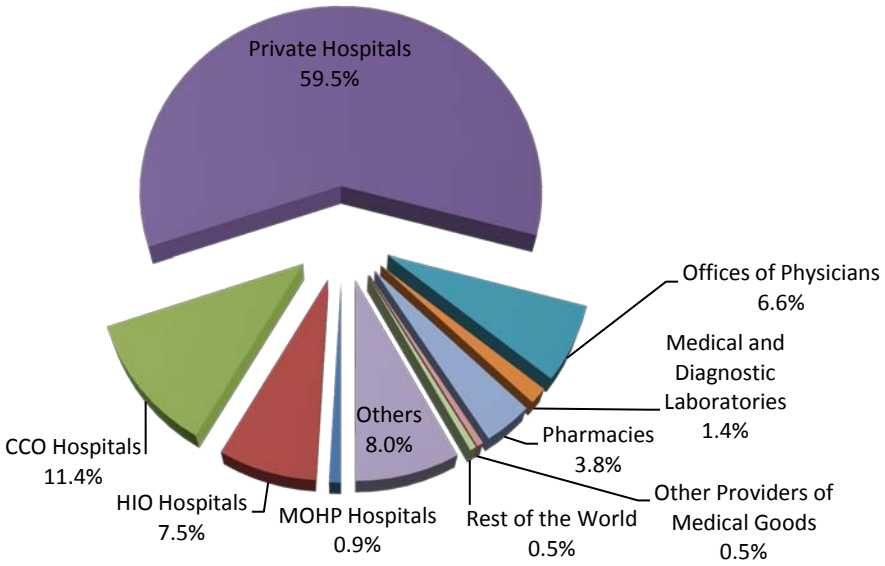
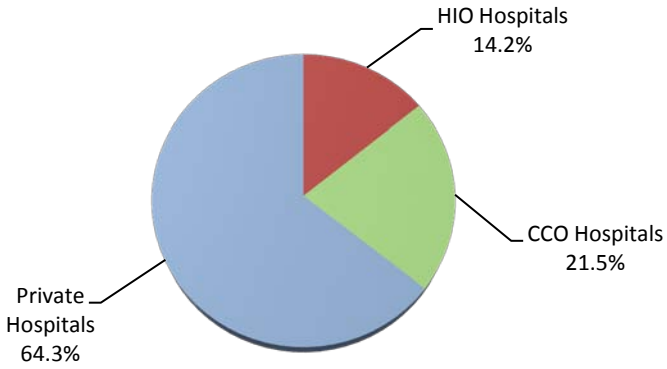


FIGURE 34: PARASTATAL FIRMS' EXPENDITURE BY PROVIDER



3.5 PROVIDERS: WHO PROVIDES HEALTH CARE

3.5.1 OVERVIEW

Many providers are active in the provision of health services in Egypt, as Figure 35 shows. In the public sector, the MOHP works with the HIO, the THIO, the CCO, and University Hospitals to provide health services. In the private sector, pharmacies account for about a third of provider-level expenditure, and the Offices of Physicians accounts for another 20 percent.

FIGURE 35: PROVIDERS AS PERCENTAGE OF THE

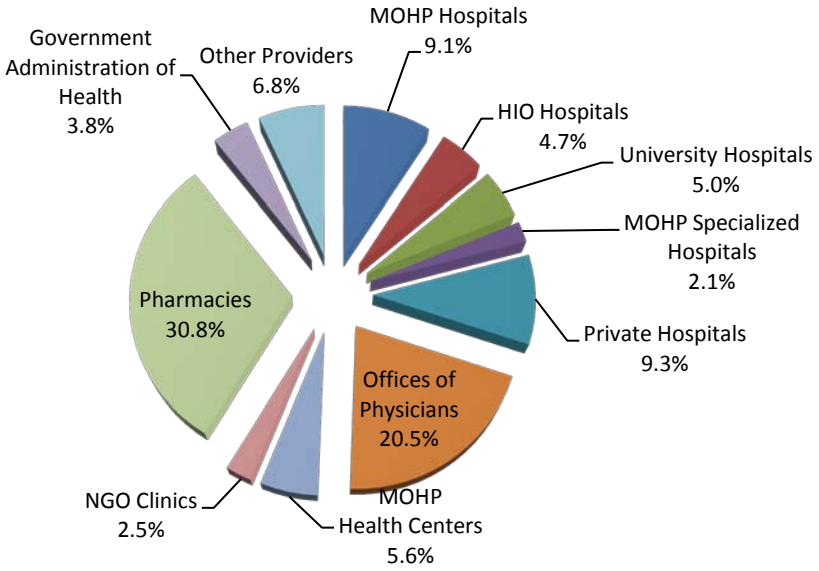
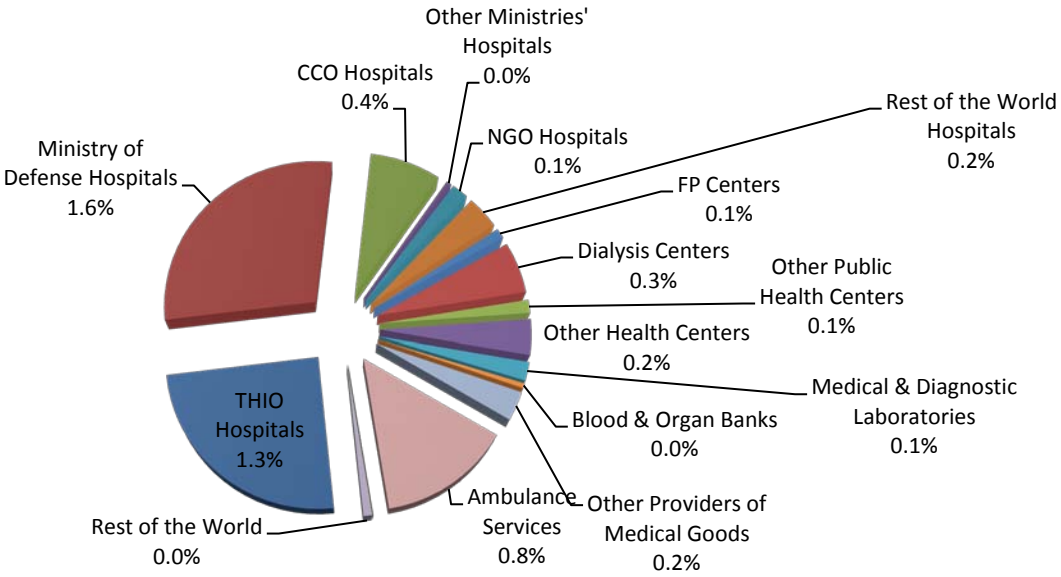


Figure 36 presents a further breakdown of "other providers," which account for 6.8 percent of the total provider-level expenditure. This figure shows how prominent entities such as THIO and CCO hospitals in the end account for only a small share of total provider spending. Together, Figures 35 and 36 illustrate the fragmentation in Egypt's health care system.

FIGURE 36: OTHER PROVIDERS – BREAKDOWN



3.5.2 PUBLIC SECTOR PROVIDERS

Both the MOHP and HIO run a network of facilities, including hospitals and clinics. Additionally, the THIO and CCO, autonomous agencies within the MOHP, and the University Hospitals, autonomous within the MHE, are also important providers of health services in Egypt.

MOHP facilities include MOHP hospitals, specialized hospitals, and health centers. As Figure 37 shows, 65 percent of MOHP facility expenditure is attributed to the MOHP as financing agent. Household OOP spending accounts for another 33 percent of MOHP facility expenditure, and the HIO and private firms account for the rest. As Figure 38 shows, HIO accounts for 84 percent of HIO hospital expenditure and household OOP spending another 15 percent, with public firms and the MOHP making up the remaining amounts.

FIGURE 37: MOHP FACILITIES EXPENDITURE BY FINANCING AGENT

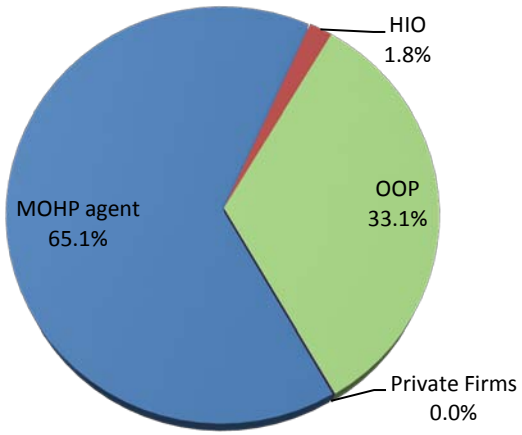
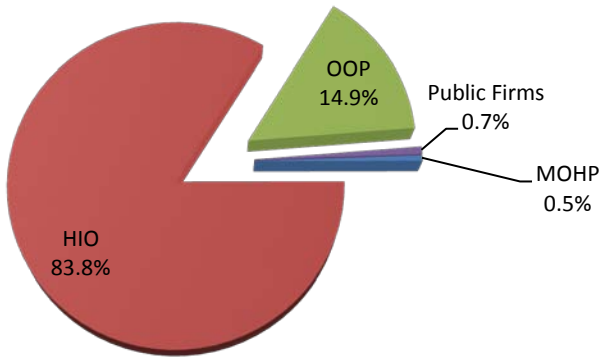
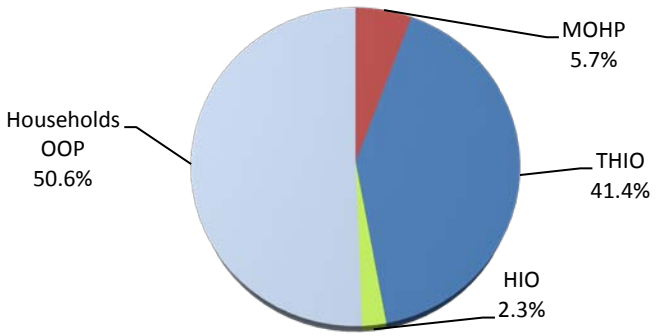


FIGURE 38: HIO HOSPITAL EXPENDITURE BY FINANCING AGENT



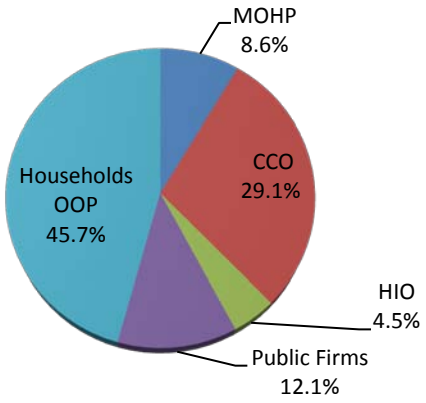
The THIO hospitals receive half of the funds they spend directly from households. Additionally, 41 percent of its expenditure comes from the THIO as financing agent, which, as discussed in the previous section, sources most of its expenditure to the Ministry of Finance. Figure 39 displays the breakdown of THIO hospital expenditure by agent. As a provider, the THIO hospital network spent 828 million total and 10.79 LE per capita in 2008/09, accounting for 1.3 percent of Egypt's provider-level expenditure.

FIGURE 39: THIO HOSPITAL EXPENDITURE BY FINANCING AGENT



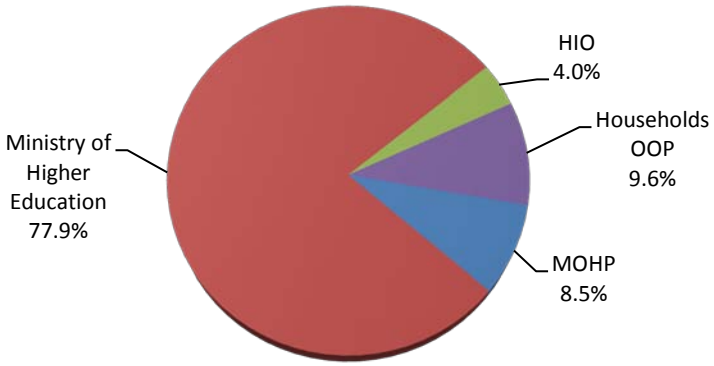
The CCO facilities receive 46 percent of their funds from households (as financing agents) as out-of-pocket expenditure. Another fourth of their funds come through contracts with the HIO, the MOHP, and public firms. The remaining 29 percent of their funds come from the CCO itself, which receives the majority of its funds from the parastatals, as discussed above. Figure 40 shows this breakdown.

FIGURE 40: CCO FACILITY EXPENDITURE BY FINANCING AGENT



The University Hospitals receive 78 percent of their funds from the Ministry of Higher Education, which, as discussed above, allocates its entire budget to the University Hospitals. Additionally, 10 percent of University Hospital funds come from households as out-of-pocket expenditure, another 9 percent from the MOHP, and a final 4 percent from the HIO. Figure 41 shows this breakdown.

FIGURE 41: UNIVERSITY HOSPITAL EXPENDITURE BY FINANCING AGENT



3.5.3 PRIVATE SECTOR PROVIDERS

As Figure 35 shows, private sector providers include pharmacies, NGOs, and private hospitals and account for 42.6 percent of provider-level expenditure in Egypt. Figure 42 shows the relative importance of pharmacies among private providers. The offices of physicians and private hospitals also account for significant percentages of overall private sector provider spending. As Figure 43 shows, the vast majority of private sector funds come directly from households as out-of-pocket expenditure, while HIO, the country's main insurance provider, accounts for only 2 percent.

FIGURE 42: PRIVATE PROVIDER BREAKDOWN

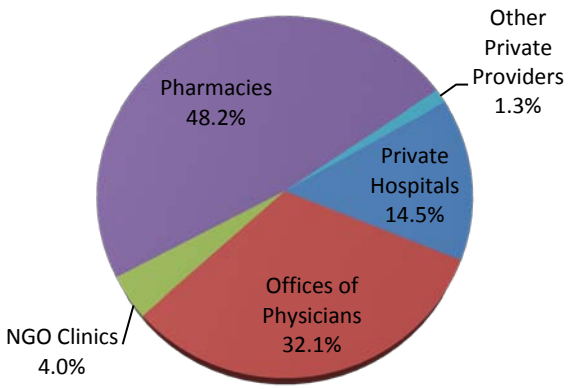
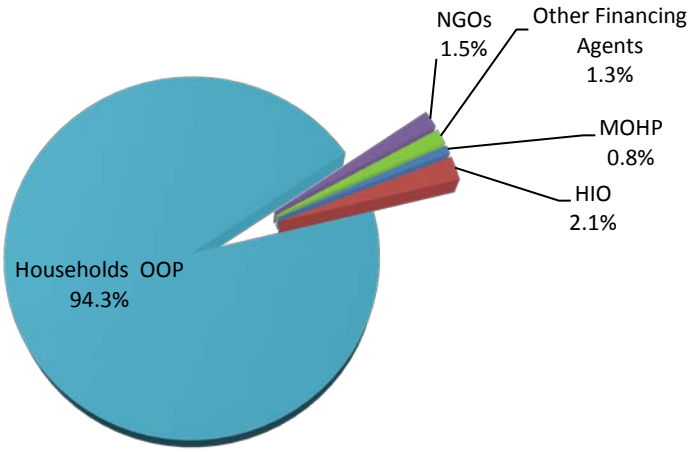


FIGURE 43: PRIVATE PROVIDER BREAKDOWN BY FINANCING AGENT



3.5.4 PHARMACEUTICALS

This NHA estimation includes only private sector pharmacies in the provider classification. However, Egypt also has public sector pharmacies. Thus, in the discussion of Egypt's overall spending on pharmaceuticals, both sectors are combined. Combining sectors in this way shows that 34 percent of Egypt's total health expenditure is on pharmaceuticals. As Table 5 shows, Egypt spends significantly more on pharmaceuticals than Lebanon, Iran, and Djibouti, and only slightly less than Jordan.

TABLE 5: PHARMACEUTICAL EXPENDITURES: REGIONAL COMPARISON

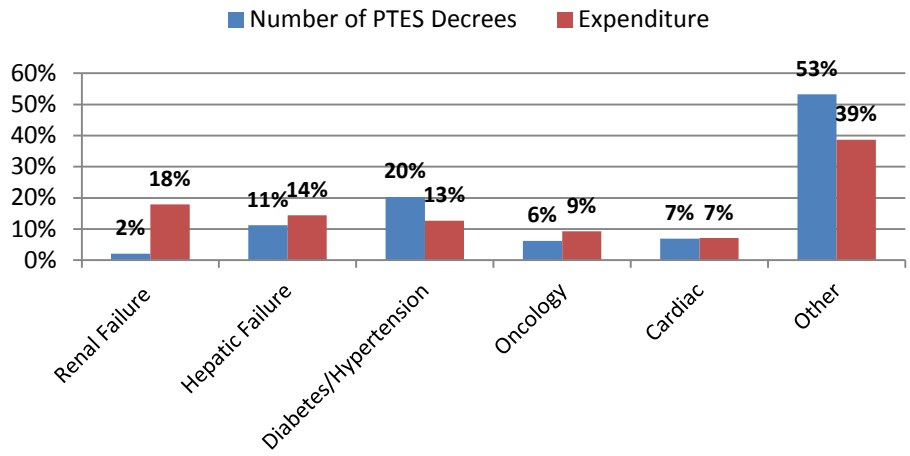
Country	Pharmaceutical Expenditure as a Percentage of THE
Jordan	36
Egypt	34
Lebanon	25
Iran	15
Djibouti	15

Source: NHA Reports. Government of Jordan (2010).

3.5.5 PTES

As discussed above, in 2008/09 over 1.92 million people benefited from the PTES, and total expenditures amounted to over three billion LE. The top five services for which these payments were made are diabetes/hypertension, cardiac diseases, hepatic failure, renal failure, and oncology. Figure 44 shows the breakdown of PTES expenditure and number of decrees by health service.

FIGURE 44: PTES UTILIZATION AND EXPENDITURE BREAKDOWN BY HEALTH SERVICE



These data identifying some of the most common diseases covered by the PTES can guide the curative care sector as it determines disease burden and plans resource allocation accordingly. The data have already been used to plan for future health interventions. For example, the fact that hepatitis regularly accounted for a significant percentage (11 percent in 2008/09) of PTES decrees has inspired the establishment of the National Committee for Controlling the Hepatic Viruses, which is intended to find ways of addressing the challenge this disease is presenting to the Egyptian poor.

As policymakers strategize about the future direction of the program, this information will help inform them about current spending trends as they relate to epidemiological trends. Policymakers are currently considering whether to shift PTES funding to the new health insurance scheme that will serve a similar purpose, or channel it into the public provision system, and/or restructure and revise the functions of the PTES to cover certain interventions as a way to ensure the poor have an effective safety net.

4. POLICY IMPLICATIONS AND RECOMMENDATIONS

The policy implications and recommendations based on NHA results have played a key role in shaping Egypt's health reform in the past. As discussed in the introduction, 1994/95 NHA results influenced discussions that established the HSRP in the late 1990s, and 2001/02 NHA results similarly played a role in shaping how the HSRP, in particular the Family Health Model, developed, and how it addressed issues such as excessive household expenditures in primary care.

Other countries in the region have also used NHA results during times of reform. In Morocco, the prime minister used NHA data that described inequities in the health system to advocate for expanded social insurance and insurance for the poor. In Jordan, NHA findings from 2001 helped the country shift its policy focus away from areas with high functionality to problematic areas. Initially, Jordan was interested in implementing universal insurance based on an unsubstantiated belief that the majority of the population was uninsured; however, NHA results revealed that insurance coverage was high, with 20 percent of individuals holding multiple insurance. This finding indicated that insurance coverage was actually not a critical issue, and policymakers shifted their focus to cutting costs and increasing efficiency.

Though the problems with Egypt's health system are deeply entrenched, concrete actions can be taken by all key stakeholders (government, civil society, political parties and the private sector) to overcome them. The following represent a set of suggested actions based on the NHA findings.

4.1 POLICY IMPLICATIONS

Increase public investments in health. There is urgent need for Egypt to increase public investments in health overall and significantly increase its investments in the MOHP. In the current environment of resource constraints, it is important to not simply increase spending but look to "smart spending." In other words, sufficiency of spending is not enough. It is important to look at the efficiency of spending as well. This will require emphasis on improving the quality of care at Ministry of Health and Population clinics (so as to reduce the strain on MOHP hospitals and make access easier for patients), a specific focus on public health, special attention to chronic health conditions, and promoting healthy lifestyles.

Address inequities. The analysis showed that inequity across gender and income groups remains a major problem and one that time has only exacerbated. Gender and income inequities need to be addressed if a country is to move towards a health system that ensures care of reasonable quality for all its citizens, and at the same time protects the poor against catastrophic spending.

Link investments to disease burden and demographic trends. To date, investments in health follow historical patterns and are tied to inputs (personnel, number of beds, etc.). Investments do not reflect the geographic distribution of disease burden or demographic trends (e.g., the increased percentage of elderly). While such a change will continue to emphasize primary health care, it will lead to moving resources to governorates with high disease burden; increased focus on prevention;

focus on priority chronic diseases; and a focus on developing and implementing programs for the new population groups such as the elderly.

Conduct further research on OOP spending and insurance. The continued high burden of OOP spending is a matter of serious concern. There is a need to understand why increased spending on primary health care, as well as an increase in insurance coverage, have not led to a decrease in out-of-pocket spending. The government has to ensure there is an effective safety net for the poor, be it through expanding insurance coverage or by increased spending through the public system.

Bolster insurance reform efforts. As with the recommendation in the previous round of NHA, there is a need to fast-track efforts for comprehensive reforms of the health insurance systems. The increase in OOP spending, even as insurance coverage has expanded, signals the need to make social health insurance both responsive to consumer needs and sustainable in Egypt.

Consolidate strategies and procedures. Current inefficiencies in the HIO can be addressed in part by consolidating strategies and procedures into one system designed to cover the various population groups.

Develop auditing and management capacity. The HIO should continue to develop its auditing and case management capacity in order to isolate its function as insurance provider from its role as a health service provider, and to ensure that its program is financially sustainable.

Prioritize comprehensive pharmaceutical reforms. Once again, the NHA results emphasize the need for comprehensive pharmaceutical reforms. Though the MOHP has undertaken various steps to streamline the procurement and distribution of pharmaceuticals, expenditures on pharmaceuticals remain high, with most spending incurred directly by households. Any attempt at reducing OOP spending and improving equity and efficiency of health spending has to include a continued emphasis on a comprehensive reform of the pharmaceutical sector.

Make the private sector a true partner. As health reforms move forward, the GoE would gain from further leveraging the growing private sector as a way to increase access to quality health care for the population. As NHA results show, private providers make up a large and expanding part of health care financing in Egypt. Some argue that the GoE has missed opportunities to effectively capitalize on the potential this growing sector offers, and argue further that in some cases GoE actions have stifled its growth. In particular, channeling government and HIO funds primarily to public facilities blocks private providers, who might be more competitive, from engaging fruitfully with the public insurance system. Indeed, some have noted that, as the HIO's function in the system is growing as an insurance provider but not as a service provider, the HIO might consider focusing on risk-pooling and use the growing private sector at the provider level.

Conduct more research on PTES. This research is needed to ensure that future program reforms allow the efficient use of available PTES funds to provide protection from catastrophic health spending while reining in costs; that is, to improve the extent and efficiency of the financial risk protection that PTES provides. A promising first step is that the Minister of Health and Population has formed a committee, effective in August 2011, to study how to best use PTES funds. The committee is studying whether to shift the PTES funds to the new health insurance scheme, or to channel it to the public provision system. The committee's main focus is on how they could implement the reform gradually without negatively affecting the PTES beneficiaries.

4.2 SUGGESTED IMPROVEMENTS TO THE HEALTH FINANCING SYSTEM WITHIN THE MOHP

The following actions could be taken as a result of these findings.

Leverage the HEU to institutionalize health financing work. This new unit can provide an institutional home for health financing work: including NHA, other resource tracking methodologies, and costing can all be done within this unit. The HEU can also become the vehicle for creating such capacity at the level of the governorates.

Ensure sufficient resources for HEU. In order for the HEU to reach its potential, the GoE will need to ensure that it has sufficient human, economic, and political resources. Most importantly, it will be necessary to build a cadre of health economists who have the requisite skills in economics, statistics, health policy, and management. HEU staff must also include political analysts who can take advantage of the wealth of health analyses produced at the HEU, to articulate insights that are easily understandable by all stakeholders.

Expand NHA stakeholder network. NHA champions should take the lead in convincing ministry officials of NHA's significance to policy, as well as expanding the NHA stakeholder network to include other ministries, NGOs, media, and schools of public health such as the High Institute of Public Health in Alexandria. This leadership role is one that the HEU might be able to take on and in this way, promote dissemination and substantive use of NHA results.

Institutionalize at facility and program levels. Institutionalize a structure to systematically collect and analyze information on financing and costs at the facility and program levels. Every round of NHA has highlighted the fact that the MOHP cannot tell on a monthly basis what it spends by governorate, by hospital, by primary health care facility, or by program. This means that managers do not have the information to monitor and efficiently run their facilities and programs. Similarly, hospitals and primary health care centers do not have information on the cost and efficiency of services they produce. The MOHP has undertaken an innovative expenditure tracking exercise to understand how family planning, maternal-child health, and infection control program expenditures are made by level (national, governorate, districts, and facilities), activity, and function. This study needs to be completed. Similarly, costing exercises have been undertaken at a number of hospitals and primary health care centers. It is important to put a system in place whereby NHA, expenditure tracking, and costing become routine activities of the MOHP, and to ensure that this information is used for planning, budgeting, and policy formulation. The MOHP should also consider creating sub-national health accounts at the level of the governorates.

Continue NHA institutionalization efforts. Additionally, the GoE should continue its efforts to implement the Global Strategic Action Plan (GSAP). Egypt was one of 40 participants in drafting the GSAP for Promoting the Institutionalization of NHA in October 2011. The GoE should take steps to build momentum behind the preparation and implementation of Egypt's strategic plan for NHA institutionalization, and contribute to the global effort to standardize and routinize NHA production and use around the world.

ANNEXES

ANNEX A: FLOW OF FUNDS FROM FINANCING SOURCES (FS) TO FINANCING AGENTS (FA)

FINANCING AGENTS		SOURCES OF FUNDS								
		FS.1 Public Funds			FS.2 Private Funds			FS.3 Rest of the World		TOTAL
		FS.1.1 Territorial Government Funds (MOF)	FS.2.1.1 Central government as employers' funds	FS.2.1.4 Public Firms Funds	FS.2.1 Employers Funds	FS.2.2 Households Funds		F.S.3.1 Donors Funds Grant	F.S.3.2 Other External Funds	
Codes	HF					FS 2.2.1 Premiums and Contributions	FS 2.2.2 Out-Of-Pocket			
HF.1	Public Sector									
HF.1.1	Territorial Government									
HF.1.1.1	Central Government									
HF. 1.1.1.1	MOH									
H.F.1.1.1.1.1	HQ	5,142,310,377						125,802,535		5,268,112,912
H.F.1.1.1.1.2	Governorates	4,550,768,234							369,195	4,551,137,429
H.F.1.1.1.1.3	Center of Excellancy & Specialized Institutions	303,341,062						1,000,172		304,341,234
H.F.1.1.1.1.4	CCO	9,613,994		66,875,089						76,489,083
H.F.1.1.1.1.5	THIO	338,833,114						4,171,198		343,004,312
H.F.1.1.1.1.6	Other Government Org.	216,863,155						881,552		217,744,707
HF. 1.1.1.2	Ministry of Higher Education	2,364,123,430						15,291,608		2,379,415,038
HF.1.2	Social Security Funds									0
HF.1.2.1	HIO	883,523,688	837,900,381	120,283,404	630,081,668	1,237,759,769				3,709,548,910
HF.1.2.2	Ministry of Defence Health Insurance Schemes	581,000,000								581,000,000
HF.1.2.3	Ministry of Interior Health Insurance Schemes									0
HF.2	Private Sector									0
HF. 2.1	Private Employers Insurance Programmes									0
HF.2.1.1	Syndicates Insurance Programmes									0
HF.2.1.1.1	Medical			45,961,476		1,216,070				47,177,546
HF.2.1.1.2	Agriculture			2,282,168		1,838,284				4,120,452
HF.2.1.1.3	Engineering			8,134,000		25,837,965				33,971,965
HF. 2.2	Private Insurance			115,438,233	114,711,388	8,633,494				238,783,115
HF.2.3	Household OOP						42,818,976,191			42,818,976,191
HF.2.4.	Non profit institutions (NGOs)				144,038,371				451,000,924	595,039,295
HF.2.5	Private Firms (other than insurance programmes)									0
HF. 2.5.1	Public Firms			147,493,919						147,493,919
HF.2.5.2	Private Firms				131,296,135					131,296,135
HF.3	Rest of the World									0
TOTAL		14,390,377,054	837,900,381	506,468,289	1,020,127,562	1,275,285,582	42,818,976,191	147,147,065	451,370,119	61,447,652,243
%		23.4%	1.4%	0.8%	1.7%	2.1%	69.7%	0.2%	0.7%	100.0%

ANNEX B: FLOW OF FUNDS FROM FINANCING AGENTS (FA) TO HEALTH PROVIDERS (HP)

PROVIDERS		FINANCING AGENTS																	
		HF.1 Public Sector									HF.2 Non-public Sector							TOTAL
		HF.1.1 Territorial Government							HF.1.2 Social Security Funds		HF. 2.5.1 Public Firms	HF. 2.1 Private Employers Insurance Programmes				HF.2.3 Households OOP	HF.2.4. Non profit institutions (NGOs)	HF.2.5.2 Private Firms	
		HF.1.1.1 Central Government										HF.2.1.1 Syndicates Insurance			HF.2.1.2				
		HF. 1.1.1.1 MOH						HF. 1.1.1.2 Ministry of Higher Education	HF.1.2.1 HIO	HF.1.2.2 'Ministry of Defence Health Insurance Schemes		HF.2.1.1.1 Medical	HF.2.1.1.2 Agriculture	HF.2.1.1.3 Engineering	HF.2.1.2.2 Private Firms Insurance Programmes				
Codes	HP	H.F.1.1.1.1.1 HQ	H.F.1.1.1.1.2 RHA	H.F.1.1.1.1.3 Center of Excellancy	H.F.1.1.1.1.4 CCO	H.F.1.1.1.1.5 THIO	H.F.1.1.1.1.6 Other Government												
HP.1	Hospitals																		
HP.1.1	General Hospitals																		
HP. 1.1.1	Public Hospitals																		
HP.1.1.1.	MOH Hospitals	1,128,265,817	1,919,402,338						159,713,543							2,369,336,108		2,625,923	**5,579,343,728**
HP.1.1.1.	HIO Hospitals	15,039,819							2,418,623,709		20,914,650					430,690,090			**2,885,268,268**
HP.1.1.1.	University Hospitals	258,680,946						2,379,415,038	120,923,523							294,610,573		0	**3,053,630,081**
HP.1.1.1.	THIO Hospitals	47,077,015				343,004,312			19,123,026							419,120,840		0	**828,325,193**
HP.1.1.1.	CCO Hospitals	22,495,780			76,489,083				11,913,983		31,705,546					119,871,569			**262,475,961**
HP.1.1.1.	Ministry of Defence Hospitals	20,237,311							5,266,486	581,000,000						354,762,596			**961,266,393**
HP.1.1.1.	Other ministries Hospitals	18,329,934																	**18,329,934**
HP.1.1.1.	MOH Specialized Hospitals	353,524,765		304,341,234			113,924,574									516,713,820			**1,288,504,393**
HP.1.1.2	Private Hospitals	54,084,645							16,273,609		94,873,723	47,122,351	4,120,452	33,971,965	238,783,115	5,136,351,208		70,899,913	**5,696,480,981**
HP. 1.1.3	NGO Hospitals	10,544,543														51,013,115			**61,557,658**
HP.1.1.4	Rest of the World Hospitals															122,932,874			**122,932,874**
HP.3	Providers of Ambulatory Health Care																		
HP.3.1	Offices of Physicians															12,560,593,337		18,381,459	**12,578,974,796**
HP.3.2	Offices of Dentists																	0	**0**
HP.3.4	Outpatient Care Centres																		
HP.3.4.1.	FP Centres	20,813,673							3,418,129							12,003,933			**36,235,735**
HP.3.4.4.	Dialysis Centres	124,378,694							65,880,984										**190,259,678**
HP.3.4.5	All other outpatient multi-specialty																		
HP.3.4.5.	MOH Health Centres	856405618.5	201303721				11038775		24730254							515435455			**3420641823**
HP.3.4.5.	HIO Health Centres																		**0**
HP.3.4.5.	Other Public Health Centres								48443145										**48443145**
HP.3.4.5.	Other Health Centres								10,802,472							119,893,180			**130,695,652**
HP.3.4.9.	Other Centres (chemio Therapy ...)																		**0**
HP.3.4.10	NGO Clinics															958,463,419	595,039,295		**1,553,502,714**
HP.3.5	Medical and Diagnostic Laboratories	11,328,801							52,813,964									3,938,884	**68,081,649**
HP.3.9	Other Providers of Ambulatory Health Care																		
HP.3.9.1.	Ambulance Services	466,807,753																	**466,807,753**
HP.3.9.2	Blood and Organ Banks	17,745,000																	**17,745,000**
HP.3.9.3	Alternative or Traditional Practitioners																		**0**
HP.4	Retail sale & other providers of medical goods																		
HP.4.1	Pharmacies								690,400,000			55,195				18,220,095,133		10,503,691	**18,921,054,019**
HP.4.2	Providers of Optical Glasses																		**0**
HP.4.9	Other providers of Medical Goods	106,029,818																1,312,961	**107,342,779**
HP.5	Provision & Adm. of Public Health																		**0**
HP.6	General Health Administration and Insurance																		
HP.6.1	Government Administration of Health	1690262980	618703369.9																**2308966350**
HP.6.2	Social Security Administration																		**0**
HP.6.3	Other Social Insurance Administration																		**0**
HP.6.4	Private Insurance Administration																		**0**
HP.8	Institutions Providing Health-Related Services																		**0**
HP.9	Rest of the World	28,060,000							380,396									1,312,961	**29,753,357**
HP. Nsk	Others	18,000,000					92,781,358		60,841,687							617,086,932		22,320,343	**811,030,320**
TOTAL		5268112912	4551137429	304341234	76489083.12	343004312	217744707	237941503 8	370954891 0	581000000	147493919	47177546.28	4120452	33971964.7	238783115	42818974182	595039295	131296135	**61447650234**
%		0.08573335	0.07406528	0.00495285	0.001244785	0.005582057	0.00354358 1	0.038722637	0.060369256	0.009455203	0.00240032	0.000767768	6.706E-05	0.0055286	0.00388596	0.69683664 1	0.00968368	0.00213672	**1**

ANNEX C: BIBLIOGRAPHY

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