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Hashemite Kingdom of Jordan



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الحسابات الصحية الوطنية في الاردن 2008 التقرير الفني الثاني

Jordan National Health Accounts 2008
Technical Report No.2

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التقرير الفني الثاني

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His Majesty King Abdullah II Ibn Al-Hussein



His Royal Highness Crown Prince Al-Hussein Bin Abdullah II

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تمهيد

يسعدني أن أقدم لكم وبكل فخر التقرير الفني حول الحسابات الصحية الوطنية لعام 2008 وهو يأتي تلبية لحاجة واضعي السياسات الصحية ومتخذي القرار والمخططين الصحيين إلى المعلومات المستندة على الدلائل والبراهين بغية تطوير السياسات التي تؤدي إلى تعزيز نظام التمويل الصحي الوطني .

وقد كان الأردن وما زال من الرواد في العالم العربي للعمل على إصدار مثل هذه الوثيقة لتتبع المصادر التمويلية المستخدمة في الصحة والمجالات التي تستخدم فيها هذه الأموال ومقدار ما تنفقه الدولة على الصحة في القطاعين العام والخاص بهدف احتواء التكاليف وترشيد وضبط النفقات .

وتعزيزاً لدور المجلس الصحي العالي الهادف لرسم السياسة الصحية العامة في المملكة، تم وضع الحسابات الصحية الوطنية في الأمانة العامة للمجلس الصحي العالي باعتبارها أداة هامة لرسم السياسة الصحية في المملكة ولتطوير أداء النظام الصحي الأردني بشكل عام وتحسين المخرجات الصحية الرئيسية .

يساهم نظام الحسابات الصحية الوطنية NHA في عملية تطوير إستراتيجيات وطنية من أجل الوصول إلى تمويل صحي فعال في القطاعين العام والخاص والحصول على موارد إضافية للصحة، كما يمكن الاستفادة من المعلومات في تكوين إسقاطات مالية حول حاجات النظام الصحي، وتقدير الإحتياجات المالية المستقبلية للقطاع الصحي على أسس كفيلة بتحقيق الإستدامة المالية والمحافظة على حجم ونوعية الخدمات الصحية المقدمة .

وفي هذا التقرير، نجد أنه بلغ مجمل الإنفاق على الصحة في الأردن لعام 2008 حوالي مليار و 381 مليون دينار أردني أي ما نسبته 8.58% من الناتج المحلي الإجمالي ويعتبر هذا المؤشر مرتفعاً لدولة مثل الأردن وهو من أعلى المؤشرات على مستوى الإقليم .

كما أظهرت مؤشرات الحسابات الصحية الوطنية للأعوام 2007 و 2008 أن هناك تحسن ملحوظ في عدالة التوزيع في القطاع العام، حيث ازدادت النفقات المالية على خدمات الرعاية الصحية الأولية من المراكز الصحية والعيادات مقابل الرعاية الصحية الثانوية والثالثية .

ولكننا نعرف ونطمح حكومة وأفراد وبتوجيهات من جلالة الملك المفدى عبد الله الثاني ابن الحسين أن نوسع مظلة التأمين الصحي ونطور نوعية الخدمة الصحية ونوجه الإنفاق لتحسين الكشف المبكر وبلورة التوعية الصحية والعمل بجهد على الوقاية من الأمراض بالإضافة إلى ترشيد الإنفاق على التوسعة في الخدمات ودعم وتطوير الخدمات والمرافق الموجودة إن كان في القطاع الخاص أو العام، مستنديين على المعلومات العلمية والمؤشرات الصحية التي تنبثق عن مثل هذا التقرير .

وختاماً أنتهز هذه الفرصة للإشادة بهذا الإنجاز الذي تحقق للمرة الثانية بجهود وطنية ومخلصة بذلها الفريق الوطني للحسابات لإصدار هذا التقرير، والذي يعتبر منطلقاً نحو التطوير المستمر والتميز في عملية إعداد ومأسسة الحسابات الصحية الوطنية في الأردن وإصدار التقارير السنوية وفق المنهجية العالمية المعتمدة من قبل منظمة الصحة العالمية .

وأملّي أن يساهم هذا التقرير والتقارير اللاحقة في خدمة عملية التنمية الصحية المستدامة في بلدنا العزيز في ظل الراية الهاشمية بقيادة جلالة الملك المفدى عبد الله الثاني ابن الحسين .

رئيس الوزراء
رئيس المجلس الصحي العالي

Abstract

National Health Accounts (NHA) is a basic tool for health policy development and health sector management. NHA describes how much a country spends on health, and maps out in detail the sources and uses of health care expenditures. This second technical report presents the results of the NHA 2008 for the Hashemite Kingdom of Jordan, which was completed through a collaborative effort of the High Health Council General Secretariat, Ministry of Health, Ministry of Finance, Ministry of Planning and International Collaboration, Ministry of Social Development, Royal Medical Services, Jordan University Hospital, King Abdullah University Hospital, Food and Drug Administration, Joint Procurement Department, Department of Statistics, and Private Hospitals Association.

Institutionalizing and hosting of National Health Accounts was decided by the High Health Council in the early 2007 and this report represents the second NHA round executed by the newly established national team. The previous three NHA rounds were for 1998, and 2000 – 2001, and 2007.

In 2008, Jordan spent approximately JD 1.381 billion (US\$ 1.951 billion) on health, or JD 236 (US\$ 333) per capita. Total health expenditures represented 8.58 percent of GDP. The public sector is the largest source of health funding (57.00 percent) followed by the private sector (37.49 percent) and donors (5.51 percent). The main policy issues emerging from the NHA results are the high level of total health expenditures as a percentage of GDP and its implications for the ability to provide health care services at current level of quality and quantity; the high level of pharmaceutical expenditures (35.94 percent of total health expenditures); the indiscriminate capital investment in the private sector and little regulation that has resulted in a surge of private hospitals; and the high level of spending on curative care (69.55 percent) as compared to primary care (21.00 percent).

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Acronyms

ALOS	Average Length of Stay
CHCC	Comprehensive Health Care Centers
CIP	Civil Insurance Program
GDP	Gross Domestic Product
GNP	Gross National Product
GOJ	Government of Jordan
HH	Households
HHC	High health Council
HID	Health Insurance Directorate
HIPS	Health Insurance in the Private Sector Survey
ICHA	International Classification of Health Accounts
JD	Jordanian Dinar
JHUES	Jordan Health Utilization and Expenditures Survey
JUH	Jordan University Hospital
JFDA	Jordan Food and Drug Administration
JPD	Joint Procurement Department
KAUH	King Abdullah University Hospital
MENA	Middle East and North Africa
MIP	Military Insurance Program
MOF	Ministry of Finance
MOH	Ministry of Health
MOPIC	Ministry of Planning and International Corporation
MOSD	Ministry of Social Development
NGOs	Nongovernmental Organizations
PHA	Private Hospital Association
NHA	National Health Accounts
NHS	National Health Strategy
OOP	Out Of Pocket
PHR	Partnerships for Health Reform
PHRplus	Partners for Health Reformplus
RMS	Royal Medical Services
SHA	System for Health Accounts
SSC	Social Security Corporation
TFR	Total Fertility Rate
TPA	Third Party Administrator
UNRWA	United Nations Relief Works Agency
USAID	United States Agency for International Development
UHs	University Hospitals
VHC	Village Health Center
WHO / EMRO	World Health Organization / Eastern Mediterranean Regional Office
WB	World Bank

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Executive Summary

Socio-economic Background

The Hashemite Kingdom of Jordan is a low middle-income country, with a population of 5.85 million in 2008. In the same year, its gross domestic product (GDP) amounted to JD 16.1 billion or around US\$ 22.75 billion and per capita GDP was JD 2,753.5 or 3889.1 US\$ (DOS). Jordan has a small economy with limited natural resources, arid land mostly unsuitable for agriculture, and chronic water shortages; it imports most of the energy it consumes.

Based on the commonly used developmental indicators, Jordan fares better than most countries in the low middle-income category. The majority of the populace has access to basic infrastructure like safe water, sanitation, and electricity and lives in permanent dwelling structures (Multi- purpose survey 2003). Government commitments to improve the overall quality of life and the social standards of its people (national agenda 2005) have borne impressive results. Primary and secondary education for girls and boys alike has been made a priority.

As a result of declining mortality rate and high total fertility rate, the overall population growth rate dropped to 2.2 (DOS 2008) and it has been 3.3 percent per year between 1992 and 1998 (Macro International, 1997). Rapid population growth implies an increase in demand for social programs, such as, education and health. A change in the population make-up further highlights the need for a health policy that will have to account for growing demand for health care for the elderly as well as maternal and child health care services.

Health Sector Issues

Given the anticipated population growth in Jordan over the next decade, its changing epidemiological profile, and modest economic growth rates, sustaining the level of health care expenditures presented in this document will represent a significant challenge to policymakers. The implementation of an effective cost containment strategy will be necessary to curb the rising cost of health care services in the country. Moreover, anecdotal evidence suggests that a significant amount of inefficiencies in the provision and financing of health care services exists; hence, strategies such as engaging in contracts with private sector providers, for resources such as hospital beds, should be seriously considered – particularly in light of the significant levels of excess capacity that exist within such institutions. In addition, despite the heavily subsidized services offered by the public sector, it is estimated that around 20 percent of the population remains uninsured when considering the duplication of health insurance coverage.

Jordan has made significant gains in the institutionalization of NHA at the HHC. There has been greater cooperation among public and private sector agencies with respect to the sharing of essential data, and the NHA information in finding a broader audience outside of the public sector. However, many obstacles remain: the data must have greater auditing controls and the methodology employed by various sectors to pool data needs to be more uniform, thereby, leading to enhanced comparability across agencies.

As indicated in Table 1, the total expenditure on health care in Jordan amounts to JD 1.381 billion (US\$ 1.951 billion) and the per capita expenditures to JD 236 (US\$ 333). The total expenditure on health is 8.58 percent of the GDP and is considered high for a low middle-income country. This level of expenditure is more in line with countries of the Organization for Economic Cooperation and Development (OECD). The proportion of government budget allocated to health sector is almost 10.16 percent. Public sources account for 57.00 percent and private sources for 37.49 percent of health care financing. International donors account for the remaining 5.51 percent. In terms of expenditures, the public sector accounts for 60.78 percent, private sector accounts for 38.24 percent, NGO for 0.29 percent, and UNRWA clinics for 0.69 percent.

Expenditures on pharmaceuticals are very high and reached 496,4 million JD which is equal to one-third of the total health expenditure and accounts for 3.08 percent of GDP. In Table 2 we observe that curative care accounts for 69.55 percent of public expenditures and primary care for only 21.00 percent.

Table 1 : Jordan National Health Accounts Main Indicators

Main Indicators	2008
Total Population	5,850,000
Total Health Care Expenditures (JD)	1,381,460,034
Per Capita Health Care Expenditures (JD)	236
Gross Domestic Product (GDP) (JD)	16,108,000,000
Gross National Product (GNP) (JD)	16,602,000,000
Per Capita GDP (JD)	2,753.5
Health Care Expenditures As Percent Of GDP	8.58 %
Health Care Expenditures As Percent Of GNP	8.32 %
Percent Of Government of Jordan Budget Allocated To Health	10.16 %
Sources Of Health Care Financing (Percent Distribution)	
. Public	57.00 %
. Private	37.49 %
. Donors	5.51 %
Distribution Of Health Expenditure	
. Public	60.78 %
. Private	38.24 %
. UNRWA	0.69 %
. NGOs	0.29 %
Public Health Expenditure As Percent Of GDP	5.21 %
Private Health Expenditure As Percent Of GDP	3.28 %
Total Expenditure on Pharmaceuticals (JD)	496,453,222
Per Capita Pharmaceutical Expenditure (JD)	84,86
Pharmaceutical Expenditure As Percent of GDP	3.08 %
Pharmaceutical Expenditure As Percent of Total Health Expenditure	35.94 %
. Public	13.81 %
. Private	22.12 %
Distribution Of Pharmaceutical Expenditure as percentage of Total Pharmaceutical Expenditure	
. Public	38.44 %
. Private	61.56 %

Note: Numbers may not round up to 100% due to rounding

Table 2 : Distribution Of Public Expenditure By Function JD (000s)

Function	MOH		RMS		UHs				Total	
					JUH		KAUH			
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Curative	341,722	68.02%	111,938	64.30%	35,289	88.34%	40,070	90.76%	529,019	69.55%
Primary	127,857	25.45%	31,858	18.30%	0	0.0%	0	0.0%	159,715	21.00%
Administration	22,884	4.55%	27,718	15.92%	3,093	7.74%	600	1.36%	54,295	7.17 %
Training	8,880	1.77%	2,300	1.32%	13	0.03%	1,100	2.49%	12,293	1.62 %
Other	1,070	0.21%	273	0.16%	1,554	3.89%	2,380	5.39%	5,277	0.69 %
Total	502,413	100%	174,087	100%	39,949	100%	44,150	100%	758,951	100%

1. Introduction

Jordan's health system is consisted of several highly fragmented private and public programs. Two major public programs that finance as well as deliver care are the Ministry of Health (MOH) and Royal Medical Services (RMS). Other smaller public programs include several university-based programs, such as the Jordan University, and Jordan University of Science and Technology. In addition, several non-governmental organizations (NGOs) and donor owned and operated facilities exist, largest being United Nations Relief Works Agency (UNRWA) which provides care mostly to Palestinian refugees.

At present, a limited amount of reliable data exists on utilization rates, insurance coverage, and expenditures on health care services. Health planners are unable to evaluate actual needs of the population, or to assess in any systematic way the performance of the health system. Pluralism of the health care system exacerbates the difficulty in data collection and assessment. Many individuals and their dependents are enrolled in more than one insurance program. As a result of multiple coverage, it is difficult to plan, monitor, and control expenditure, as well as ascertain the exact number of insured and uninsured. To overcome the paucity of essential planning data, the HHC, MOH and all NHA partners with World Health Organization (WHO) support the National Health Accounts (NHA) activity in Jordan and its institutionalization at the HHC General Secretariat.

NHA is designed to give a comprehensive description of resource flows in a health care system, showing where resources come from, and how they are used. Although previous health care expenditure studies have been carried out in Jordan, none has used the integrated framework of NHA to organize and compile data.

According to current NHA estimate, in 2008 Jordan spent on the health sector approximately JD 1.381 billion (US\$ 1.951 billion) comparing to JD 598 million (US\$ 854 million) in 2001, which accounted for 8.58 percent of the GDP in 2008 and 9.6 percent in 2001. Health expenditure per capita in 2007 was JD 177.5 (US\$ 251) comparing to JD 115 (US\$ 164) in 2001. NHA 2007 and 2008 results highlight the fact that the proportion of GDP (9.05 percent and 8.58 respectively) spent of health care is high. This level of expenditure might be difficult to sustain.

The NHA 2008 results show that almost 37.49 percent of the total funds originate from private sources, where as 57.00 percent is apportioned public funds, and the remaining 5.51 percent is contributed by international donors or other sources. The private sources comprise premiums paid by people for private commercial insurance, expenditures incurred by self-insured companies that directly pay for health care services for their employees, and out-of-pocket oop expenditure for health care and for drugs at pharmacies. The public sources comprise mainly tax revenue allocations by Ministry of Finance (MOF) to the MOH, RMS, King Abdullah University Hospital (KAH), and Jordanian University Hospital (JUH).

A breakdown of public health expenditures by function indicates that almost 69.55 percent is spent on curative services, 21.00 percent on preventive measures, 7.17 percent on administrative activities, 1.62 percent on training, and 0.69 percent on miscellaneous activities. Even as the financing in the entire health sector is highly fragmented, within the public and private sector it is highly centralized and controlled leaving little room for flexibility and maneuverability at the facility level.

The expenditure on drugs at JD 496.4 million (US\$ 701.2 million) is higher than most countries in Jordan's income group. It accounted for approximately one-third of the total expenditure on health care services, and 3.08 percent of the GDP in 2008 compared to 3.10 percent of the GDP in 2007.

2. NHA Methodology:

The phase of data collection for this 2008 NHA round was started on August 2009. The National Health Accounts team was established and hosted by HHC in Jordan. As was done with the earlier 2007 NHA round, the team members spent roughly eight months defining and agreeing upon data definitions, rules of classification, and uniform data auditing requirements. Relying heavily upon the past experience of the previous NHA rounds.

The 2008 data collection efforts were enhanced significantly, due to the following changes:

- Expansion of the NHA Team: membership was expanded to include representatives from HHC, MOH, MOF, MOPIC, MOSD, RMS, JUH, JPD,KAUH, DOS, JFDA, GBD, and PHA.
- Establishment of a Centralized Data Collection Unit: an active NHA Unit had been established in the HHC. Having such a location allowed for easier exchange of information, and provided team members a centralized place for data auditing work;
- Official HHC Executive-level Participation: to encourage the participation of all relevant agencies from which data were to be obtained, the HHC general secretariat issued a request to more than 50 public and private sector agencies, requesting their participation in the 2008 data gathering efforts. As an official GOJ request, the letter legitimized the NHA data collection efforts; hence, team members were faced with some obstacles during the data gathering period.

The NHA team was able to gather significant data from public, donor, and NGO entities, in addition to universities. In contrast, data collection from the private sector posed a challenge. Team members were able to obtain utilization information, and some incomplete expenditure data from various sources; however, detailed expenditure information from private hospitals in particular was often lacking. For each estimate placed in the NHA matrices, every effort was made to validate each number, especially through triangulation when possible. The data collection and processing, report writing, and the interpretation of findings for policy purposes lasted around eleven months.

Moreover, by 2000, International Classification for Health Accounts (ICHA) had been developed by the Organization for Economic Cooperation and Development. The ICHA provides a comprehensive structure for classifying NHA information. This ICHA has made data compilation between agencies, within country, and among countries more comparable. Two major contributions of the ICHA were the definitions utilized for organizing and categorizing recurrent and capital expenditures. Organizing expenditures into these categories, and reaching agreement from various agencies on what constituted each of them, represented a significant point

The ICHA classifies each as follows:

- **Recurrent expenditures:** Recurrent expenditures consist of items such as salaries (including other benefits), drugs, supplies, treatment, training cost, and equipment maintenance;
- **Capital expenditures:** Capital expenditures are those on medical and non-medical equipment, as well as construction. They include expenditures that record the value of non-financial assets that have been purchased, disposed of, or have changed in value during the period under study, such as land holdings and structure.

Data Collection Strategy

The Jordanian health care sector is an amalgam of public and private sector providers and financing agents. The predominate source of public sector financing emanates from the general revenues of the (MOF, earmarked for

the MOH, RMS, KAUH, and JUH. The MOH and RMS serve as both financers and providers of health care services in the Kingdom. The predominate form of private sector financing of health care services emanates from private households. Therefore, the data required for completion of this report were obtained from a complex array of public and private sector agencies, including households. Below is a summary of data sources, both secondary and primary; all data sources mentioned were reviewed and audited according to NHA team member rules and definitions:

- Ministry of Finance (MOF): Information on MOF funds earmarked for various public agencies was obtained from the MOH Annual Statistical Reports, Central Bank of Jordan (annual and monthly reports) and MOF budget department reports.
- Ministry of Health (MOH): Information on MOH expenditures was obtained from the MOH annual reports, the MOH Budget Department (monthly statement of accounts, and annual statement of accounts).
- Ministry of Social Development (MOSD): Information on the MOSD health care expenditures was obtained from the MOH Health Insurance Directorate accounts, as well as the MOSD Budget Department (monthly and annual statement of accounts).
- Royal Medical Services (RMS): Information on RMS expenditures was obtained from the RMS Finance and Accounting Department and MOF budget department reports.

A Technical Committee for NHA Data Interpretation was formed in order to ensure the validation of NHA collected data and to identify health policy issues (Annex No. 1: List of the Members of this Committee)

3. Overview of NHA Results

This chapter discusses estimates made by the 2008 and the 2007 NHA studies. As Table (5) shows, Jordan's total Health care expenditure were approximately JD 1,016 billion (\$1,424 billion) in 2007, this amounted to 9.05 percent of GDP. Health care expenditures per capita was JD177.5 (\$251). Total Health care expenditure was approximately JD 1,381 billion (US\$ 1.951 billion) in 2008, this amounted to 8.58 percent of GDP. Health care expenditures per capita reached JD 236 (\$333). Total Health care expenditures increased by 26.5 percent between 2007 and 2008, and per capita health expenditures by 24.8 percent over the same period.

Table (3): Summary NHA Indicators, Jordan, 2007 and 2008

Main Indicators	2007	2008
Total Population	5,723,000	5,850,000
Total Health Care Expenditures (JD)	1,015,773,941	1,381,460,034
Per Capita Health Care Expenditures (JD)	177.5	236
Gross Domestic Product (GDP) (JD)	11,225,300,000	16,108,000,000
Gross National Product (GNP) (JD)	11,817,400,000	16,602,000,000
Per Capita GDP (JD)	1,961.4	2,753.5
Health Care Expenditures As Percent Of GDP	9.05 %	8.58 %
Health Care Expenditures As Percent Of GNP	8.60 %	8.32 %
Percent Of Government of Jordan Budget Allocated To Health	9.10 %	10.16 %
Sources Of Health Care Financing (Percent Distribution)		
. Public	54.9 %	57.00 %
. Private	40.2 %	37.49 %
. Donors	4.9 %	5.51 %
Distribution Of Health Expenditure		
. Public	58.2 %	60.78 %
. Private	40.3 %	38.24 %
. UNRWA	1.0 %	0.69 %
. NGOs	0.4 %	0.29 %
Public Health Expenditure As Percent Of GDP	5.27 %	5.21 %
Private Health Expenditure As Percent Of GDP	3.78 %	3.28 %
Total Expenditure on Pharmaceuticals (JD)	344,899,762	496,453,222
Per Capita Pharmaceutical Expenditure (JD)	60.3	84.86
Pharmaceutical Expenditure As Percent of GDP	3.1%	3.08 %
Pharmaceutical Expenditure As Percent of Total Health Expenditure	34.0%	35.94 %
. Public	11.3%	13.81 %
. Private	22.7%	22.12 %
Distribution Of Pharmaceutical Expenditure as percentage of Total Pharmaceutical Expenditure		
. Public	33.3%	38.44 %
. Private	66.7%	61.56 %

Source: Jordan NHA team.

Note: Numbers may not round up to 100% due to rounding

Approximately 37.49 percent (2008) of the total funds circulating within the system originated from private sources. The public sector's share amounted to 57.00 percent. (In 2001, NHA results showed that 59 percent of spending was by the private sector and 36.5 percent by the public sector). International donors (Rest of world and UNRWA) provided the remaining 5.51 percent of total funds.

Private sources of financing consist of the following:

- Premiums paid by households for public and private health insurance;
- Health care expenditures incurred by self-insured firms, on behalf of their employees;
- Private companies' expenditures for commercial health insurance;
- Households' out-of-pocket expenditure for health care services and pharmaceuticals.

Public sources consisted of general tax revenues allocated by Ministry of Finance to:

- The Ministry of Health;
- The Royal Medical Services;
- The Jordanian University Hospital;
- The King Abdullah Hospital;
- Other public sector entities such as the Royal Court.

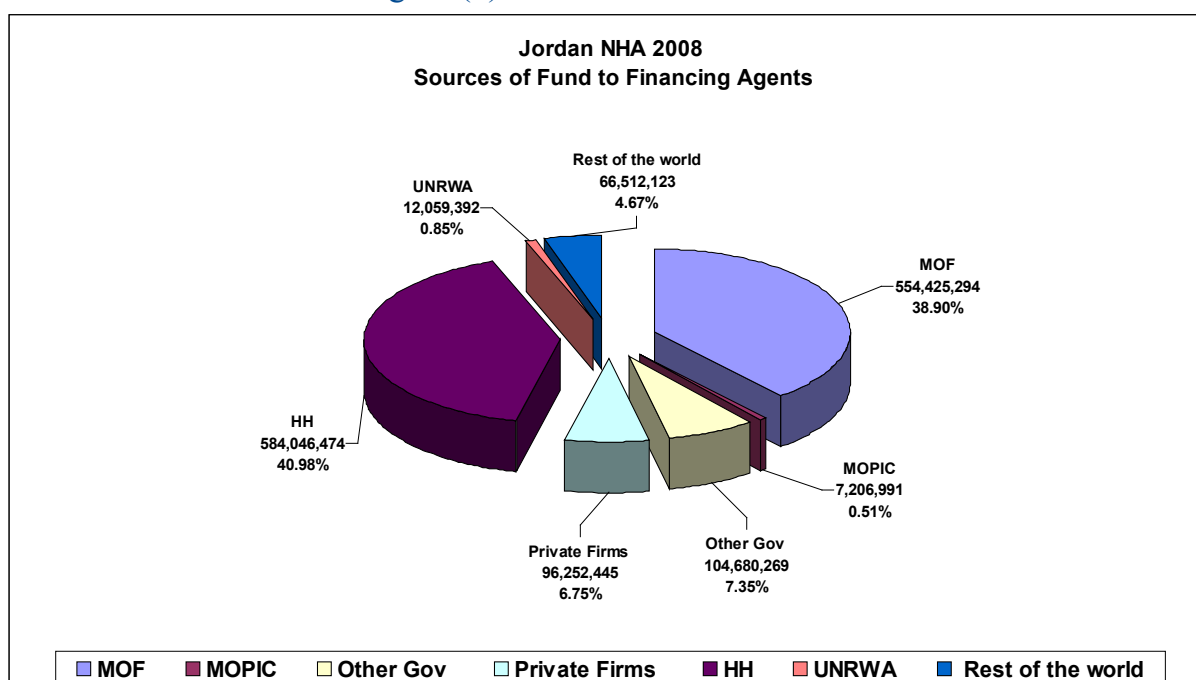
A breakdown of public health expenditures by function for 2008 revealed that significant amounts of public sector resources, roughly 69.55 percent, are earmarked for the provision of curative care services. Only 21.00 percent of these resources were for the provision primary care services. Other expenditure items were 7.17 percent for administering the system, 1.62 percent for training personnel, and 0.69 percent for miscellaneous expenditure items.

Jordanian Health Care Dinar: Where it Comes From and Where it Goes

NHA tracks the flow of health funds in a two-step process. First, funds are assumed to flow from financing sources (FS) to financing agents (FA); and secondly, from FA to providers (P). Figure (1) identifies the main sources of health care funds in 2008.

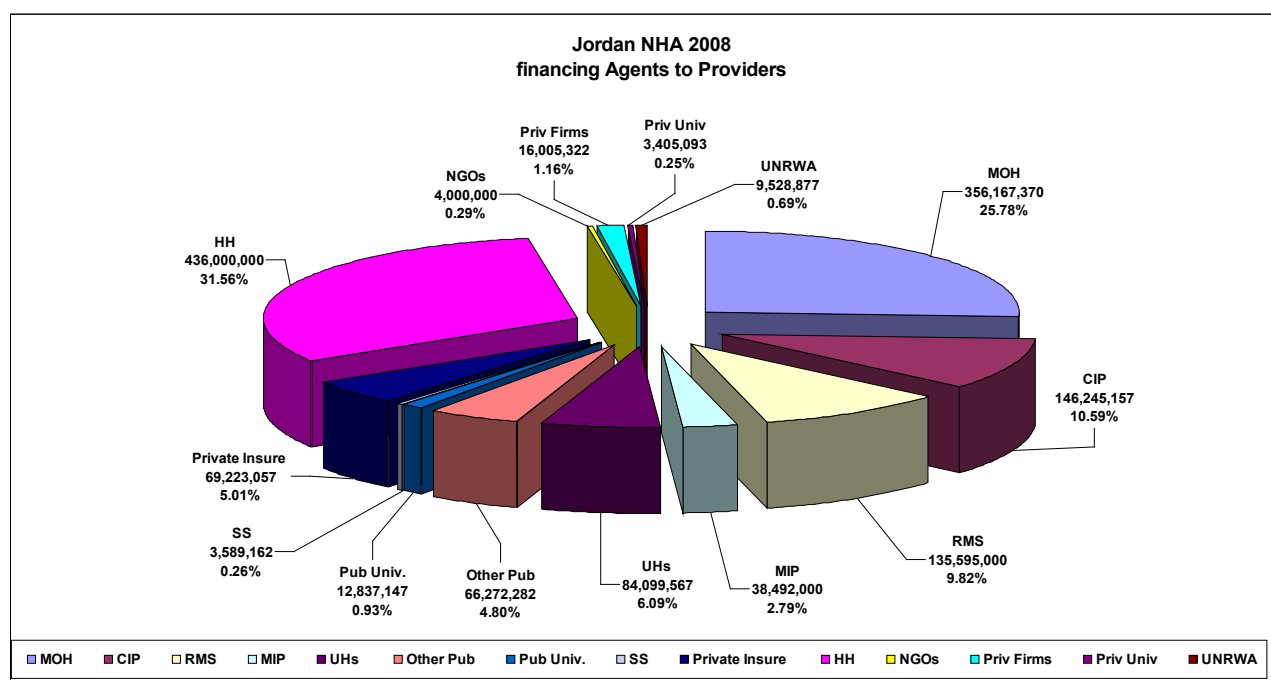
As indicated in Figure (1), the two major sources of health care funds in 2008 were households (40.98 percent) and the MOF (38.90 percent), compared to 46 percent and 33 percent respectively in 2001. The largest change comes from the next largest source, other government entities, and 7.35 percent. UNRWA and international donors together accounted for nearly 5.52 percent.

Figure (1): Sources of Health Funds



As shown in Figure (2) in 2008, public facilities (MOH including CIP, RMS including MIP, UHs, other public entities, and public universities) received 60.8% percent of health care funds, while private facilities received 38.2 percent. UNRWA received 0.7 percent, and 0.3 percent were earmarked for NGO facilities. Among public facilities, MOH including CIP funded the largest share, 36.37 percent, followed by the RMS including MIP with 12.61 percent, and the JUH and KAUH with 6.09 percent.

Figure (2): Financing Agents to Providers



Pharmaceutical Expenditures

In 2008, pharmaceutical expenditures amounted to JD 496,453,222 , which represents 35.94 percent of total health care expenditure and roughly 3.08 percent of GDP compared to 3.10 in 2007 (Table 4). This level is considerably high for a middle income country.

Table (4): Expenditures on Pharmaceuticals

	2007	2008
Total expenditures on drugs (JD)	344,899,762	496,453,222
Per capita drug expenditure (JD)	60.3	84.86
Drug expenditures as percent of THE	34.0%	35.94 %
Drug expenditures as percent of GDP	3.1%	3.08 %
Distribution of drug expenditures:		
Public	11.3%	13.81 %
Private	22.7%	22.12 %

Source: Jordan NHA.

The high level of expenditures on pharmaceuticals is primarily the result of private sector behavior. This includes, but is not limited to the following:

Provider prescribing behavior: the prescribing behavior of physicians and pharmacists is the primary reason for the high level of drug consumption in Jordan. This is due partly to the lack of sufficient pharmaceutical regulatory policies. In addition, providers in Jordan have vastly different medical training backgrounds, and thus different prescribing behaviors. Hence, changing the prescribing behaviors of providers is a necessary condition for achieving overall cost containment objectives.

Consumer behavior: the health seeking behavior of consumers (patients), particularly with respect to the practice self-medication, is a major reason for inefficient consumption of pharmaceuticals. Pharmacists tend to dispense the most expensive drugs to consumers who do not have prescriptions. Hence, the behavior and expectations of consumers must be changed significantly in order to achieve overall reductions in pharmaceutical expenditures in Jordan;

Pharmaceutical promotion efforts: the relative influence of pharmaceutical companies in promoting their products is extensive and uncontrolled in Jordan. Most Continuous Medical Education within the private sector is sponsored and/or organized by the pharmaceutical industry.

Cross-Country Comparative Analysis

In terms of GDP and per capita GDP, Jordan is classified as a low middle-income country. its GDP is in the middle range of the Middle East/North Africa countries that participate in the regional NHA network. In 2008, Jordan's health care expenditures amounted to 8.58 percent of GDP. This percentage is much higher than those of other MENA counties are at similar stages of economic development. While it is difficult to make international comparisons of health care expenditures due to variations in national accounting practices as well as in the structure of delivering and financing health care services, this finding for Jordan has been somewhat startling to policymakers. Jordan, with its limited resources, is consuming health care services at levels found typically among developed countries, and when this is considered in terms of population growth rates and the aging population it becomes apparent that such high level of expenditures are not sustainable.

4. Jordan NHA Findings: National Level

Structure of National Health Accounts Results

The Jordan NHA team derived expenditure results using the aforementioned two-step method of interlinked NHA matrices to depict the flow of funds throughout the system.

First, we estimated the flow of health care funds from Financing Sources (public and private sector organizations, including households) to Financing Agents (public and private sector organizations, including households). Tables 5 and 6 present this flow in Jordan, in 2008. The primary source of health care funds is private households. Their contributions amounted to JD (584) million in 2008. The second largest source is the public sector, primarily the Ministry of Finance, in the amounts of JD (554) million in the same year.

Second, we estimated the transfer of health care funds from Financing Agents to Providers. Financing Agents purchase health care services from providers on behalf of their beneficiaries. As Tables 7 and 8 show, the main providers are the Ministry of Health, Royal Medical Services, Jordan University Hospitals (JUH, KAUH), private sector providers, nongovernmental organizations, and the United National Relief Works Agency. A separate line item, Treatment Abroad, measures the amount of expenditures earmarked to overseas providers. The amount of funds paid by households on private facilities was JD (436) million. The amount transferred from financing agent to providers are those that MOH pays to operate its hospitals JD (205) million.

Table (5): Financing Sources to Financing Agents, (JD)

	Financing Agents	PRIMARY SOURCES OF FUND (JD)							TOTAL
		MOF	MOPIC	Government Entities	Private Firms	HH	UNRWA	Rest of The World	
		FS.1.1.1	FS.1.1.2	FS.1.4	FS.2.1	FS.2.2	FS.3.1	FS.3.2	
1	MOH (within budget) HF.1.1.1.1	307,766,499	4,364,191	1,638,571				42,398,109	356,167,370
2	CIP HF.1.1.1.2	80,306,967		11,154,609	26,550	64,236,311	623,262	2,905,187	159,252,886
3	RMS HF.1.1.2.1	101,000,000	2,842,800	18,181,000	2,200,000			11,371,200	135,595,000
4	MIP HF.1.1.2.2					38,492,000			38,492,000
5	UHs HF.1.1.3			59,995,551	9,618,263	11,878,944		2,817,000	84,309,758
6	Other Government Entities HF.1.1.4	65,351,828		8,118,548	10,110,017	1,372,895		3,910,194	88,863,482
7	Public Universities HF.1.1.5			2,743,883		10,975,533			13,719,416
8	Social Security HF.1.2			2,831,879	2,831,879	3,049,716			8,713,474
9	Private insure Enterprises HF.2.2				55,378,446	13,844,611			69,223,057
10	Household HF.2.3					436,000,000			436,000,000
11	NGOs HF.2.4			16,228	472,889	400,450		3,110,433	4,000,000
12	Private Firms HF.2.5				15,614,401	390,921			16,005,322
13	Private Universities HF.2.5.1					3,405,093			3,405,093
14	UNRWA HF.3.1						11,436,130		11,436,130
	TOTAL	554,425,294	7,206,991	104,680,269	96,252,445	584,046,474	12,059,392	66,512,123	1,425,182,988

Source: NHA Spreadsheets

Table (6): Financing Sources to Financing Agents, (Percentages)

Financing Agents		PRIMARY SOURCES OF FUND (Percent)							Rest of The World FS.3.2	TOTAL
		MOF FS.1.1.1	MOPIC FS.1.1.2	Government Entities FS.1.4	Private Firms FS.2.1	HH FS.2.2	UNRWA FS.3.1			
1	MOH (within budget) HF.1.1.1.1	86.41%	1.23%	0.46%					11.90%	100.00%
2	CIP HF.1.1.1.2	50.43%		7.00%	0.02%	40.34%	0.39%		1.82%	100.00%
3	RMS HF.1.1.2.1	74.49%	2.10%	13.41%	1.62%				8.39%	100.00%
4	MIP HF.1.1.2.2					100.00%				100.00%
5	UHs HF.1.1.3			71.16%	11.41%	14.09%			3.34%	100.00%
6	Other Government Entities HF.1.1.4	73.54%		9.14%	11.38%	1.54%			4.40%	100.00%
7	Public Universities HF.1.1.5			20.00%		80.00%				100.00%
8	Social Security HF.1.2			32.50%	32.50%	35.00%				100.00%
9	Private insure Enterprises HF.2.2				80.00%	20.00%				100.00%
10	Household HF.2.3					100.00%				100.00%
11	NGOs HF.2.4			0.41%	11.82%	10.01%			77.76%	100.00%
12	Private Firms HF.2.5				97.56%	2.44%				100.00%
13	Private Universities HF.2.5.1					100.00%				100.00%
14	UNRWA HF.3.1						100.00%			100.00%
	TOTAL	38.90%	0.51%	7.35%	6.75%	40.98%		0.85%	4.67%	100.00%

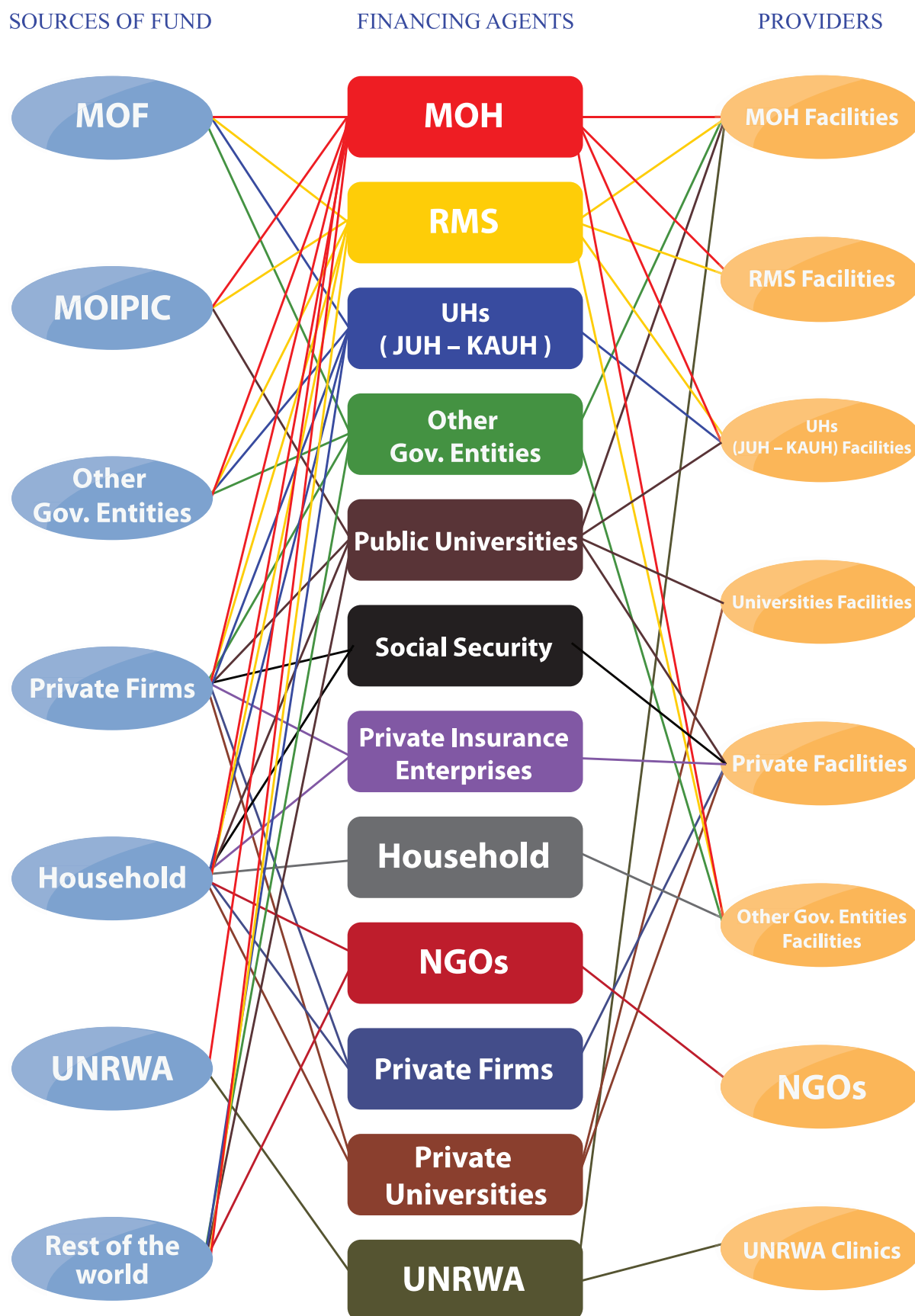
Tabel (7): Financing Agets To Providers (JD)

Providers	Financing Agents (JD)														TOTAL
	MOH HF, 1.1.1.1	CIP HF, 1.1.1.2	RMS HF, 1.1.2.1	MIP HF, 1.1.2.2	UHs HF, 1.1.3	Other Pub Entities HF,1.1.4	Pub Univ., HF, 1.1.5	SS HF, 1.2	Private Insure HF, 2.2	HH HF, 2.3	NGOs HF, 2.4	Private Firms HF, 2.5	Private Universities HF, 2.5.1	UNRWA HF, 3.1	
MOH Curative Care HP.1.1.1	205,102,281	32,911,033		2,107,000										926,365	241,046,679
MOH Primary Care HP.3.4.9.1	112,117,637	10,134,934		3,161,000											125,413,571
MOH Administration HP.6.1	20,067,827	2,816,273													22,884,100
MOH Training & Research HP.8.2	8,879,625	410													8,880,035
MOH HP.n.s.k		419,751													419,751
MOH Facilities	346,167,370	46,282,401		5,268,000										926,365	398,644,136
RMS Curative Care HP.1.1.1.2	2,018,687	17,331,732	85,876,000	19,502,000											124,728,419
RMS Primary Care HP.3.4.9.2			22,667,000	6,030,000											28,697,000
RMS Administration HP.6.1			24,986,000	2,732,000											27,718,000
RMS Training & Research HP.8.2			1,800,000	500,000											2,300,000
RMS . N.S.K			266,000	7,000											273,000
RMS Facilities	2,018,687	17,331,732	135,595,000	28,771,000											183,716,419
Uhs Curative Care HP.1.1.1.3	2,880,872	46,705,881		2,162,000	75,359,364										127,108,117
UHs Primary Care Clinic HP.3.4.9.3															
UHs Administration HP.6.1					3,693,096										3,693,096
UHs Training & Research HP.8.2					1,112,639										1,112,639
UHs HP.n.s.k					3,934,468										3,934,468
UHs Facilities	2,880,872	46,705,881		2,162,000	84,099,567										135,848,320

Tabel (8): Financing Agets To Providers (Percentages)

Financing Agents (Percent)														
Providers	MOH HF, 1.1.1.1	CIP HF, 1.1.1.2	RMS HF, 1.1.2.1	MIP HF, 1.1.2.2	UHs HF, 1.1.3	Other Pub Entities HF,1.1.4	Pub Univ. HF, 1.1.5	SS HF, 1.2	Private Insure HF, 2.2	HH HF, 2.3	NGOs HF, 2.4	Private Firms HF, 2.5	Private Universities HF, 2.5.1	UNRWA HF, 3.1
MOH Curative Care HP.1.1.1.1	57.59%	22.50%		5.47%										9.72%
MOH Primary Care HP.3.4.9.1	31.48%	6.93%		8.21%										
MOH Administration HP.6.1	5.63%	1.93%												
MOH Training & Research HP.8.2	2.49%	0.00%												
MOH HP.n.s.k	0.00%	0.29%												
MOH Facilities	97.19%	31.65%		13.69%										9.72%
RMS Curative Care HP.1.1.1.2	0.57%	11.85%	63.33%	50.67%										
RMS Primary Care HP.3.4.9.2			16.72%	15.67%										
RMS Administration HP.6.1			18.43%	7.10%										
RMS Training & Research HP.8.2			1.33%	1.30%										
RMS . N.S.K			0.20%	0.02%										
RMS Facilities	0.57%	11.85%	100.00%	74.75%										
Uhs Curative Care HP.1.1.1.3	0.81%	31.94%		5.62%	89.61%									
UHs Primary Care Clinic HP.3.4.9.3														
UHs Administration HP.6.1					4.39%									
UHs Training & Research HP.8.2					1.32%									
UHs HP.n.s.k					4.68%									
UHs Facilities	0.81%	31.94%		5.62%	100.00%									

Figure (3)
JORDAN NHA 2008
Jordanian Health Sector's Flow of Funds



Financing Sources

In Jordan, health care is funded by the following sources: the Government of Jordan (primarily from the Ministries of Finance and Planning, and other governmental entities such as the Royal Court, Ministry of Social Development), households, international donors, and UNRWA. Household contributions are made primarily through premiums paid to health insurance plans and more importantly by out-of-pocket expenditures.

As indicated in Table (9), households were the major source of health care funds, accounting for 40.98 percent in 2008. The MOF was the second largest source, accounting for 38.90 percent. Private firms provided around 6.75 percent, by funding for their employees' health insurance plans through self-insurance or commercial insurers. Self-insured firms are different from commercial insurers, in that they provide direct reimbursement for employees' consumption of health care services from a health insurance fund that is managed by the company and often administered by a Third Party Administrator. Alternatively, companies can also enroll their employees in plans managed by commercial insurers. Donor contributions (Rest of the worlds), without the UNRWA contributions was around 4.67 percent. UNRWA's share amounted to 0.85 percent; other governmental entities supplied 7.35 percent of health care funds in the respective year.

Table (9): Total Amounts Allocated by Original Financing Sources, (JDs)

Entity	MOF	MOPIC	Other Government Entities	Private Firms	Households	UNRWA	Rest of the World	Total
Amount	554,425,294	7,206,991	104,680,269	96,252,445	584,046,474	12,059,392	66,512,123	1,425,182,988
Percent	38.90%	0.51%	7.35%	6.75%	40.98%	0.85%	4.67%	100.00%

Source: NHA Team

Financing Agents

Financing agents are institutions or entities that receive and channel the funds provided by financing sources and use those funds to pay for or purchase the activities inside the health accounts boundaries (WHO et al. 2003). They consolidate and distribute funds on behalf of their clients. The main Financing Agents in Jordan are:

- s MOH: for CIP beneficiaries and other categorical groups;
- s RMS: for active and retired military personnel and public security personnel, and their dependents;
- s JUH: for its employees and their dependents, as well as students;
- s JUST: for its employees and their dependents, as well as students;
- s Other public entities, such as the Department of Statistics, the High Health Council, and the National Population Council: primarily for research, policy, and training in the area of health .
- s Public universities: such as Jordan University of Science and Technology for employees and their dependents, as well as students;
- s Social Security Corporation (SSC): for work-related injuries;
 - sInsurance firms (commercial insurers): for the purchase of services on behalf of their beneficiaries;
- s Households: through out-of-pocket expenditures and various user fees at points of service;
- s NGOs: for categorical groups of patients, such as the Jordan Association of Family Planning and Protection;
- s Private firms and universities: for employees;
- s UNRWA: for Palestinian refugees.

Use of Funds

Financing Agents use the funds they receive from Financing Sources to purchase health care from the following public and private sector providers. The following list considers the major Financing Agents and Providers:

- s ***MOH to MOH facilities:*** The MOH is both a purchaser and provider of health care services. While the MOH does not allocate individual operating budgets to the hospitals and clinics that it owns, it uses the financing it receives from various sources to centrally budget and manage the delivery of services from its facilities;
- s ***RMS to RMS facilities:*** Much like the MOH, the RMS is both a purchaser and provider of services, for RMS beneficiaries and other groups. Also like the MOH, the RMS does so through a centralized budgetary and managerial process;
- s ***JUH;***
- s ***JUST;***
- s ***SSC;***
- s ***Private sector purchasers to providers:*** Private sector purchasers include households, firms, universities, and commercial insurers, which purchase services on behalf of their beneficiaries from both public and private sector providers.

- **University Hospitals (UHs):** Information obtained from their Finance and Accounting Departments, as well as from the MOH- Health Insurance Administration.
- **Royal Court:** Information obtained on Royal Court expenditures were obtained from the Royal Court, the Jordan University Hospital, the RMS, and MOH Health Insurance Administration.
- **Household-level Expenditure Estimates:** Information obtained on Jordanian Households was obtained from the last Jordan Health Care Utilization and Expenditure Survey 2000 , and from NHA team estimations using the results of Jordan Fairness in Financial Contribution Study 2010 conducted by the HHC General Secretariat in collaboration with DOS and WHO.
- **Private Sector Organizations:** To obtain information on private sector organizations, including universities, self-insured firms, Third Party Administrators, Jordanian Health Insurance Purchasing Cooperative, NGOs, and non-profit organizations (including hospitals), the NHA team conducted site interviews, based upon a predefined set of data collection techniques. Moreover, additional information was obtained from the Department of Statistics, the General Union of Voluntary Society, and the Insurance Regulatory Commission.
- **Donors:** Information obtained on international donor contributions were obtained mainly from MOH, and MOPIC.

Major shortcoming of the data collection efforts was the lack of primary or secondary information on private sector provider (i.e., hospital, physicians, and pharmacies) expenditures or revenue estimates. The information on these organizations had to be extrapolated from the expenditures that were reported by households. Our ability to audit such information (i.e., restriction on our ability to triangulate the results) was greatly limited.

5. Jordan's NHA Results: Sub- systems level

5.1 Ministry of Health (MOH)

Organization and Size of the MOH

The Ministry of Health is the largest single institutional financier and provider of health care services in Jordan. In 2008, the MOH budget accounted for 7.4 percent of the general budget. The proportion of general budget funds allocated for the MOH has varied only slightly in the past five years. It has ranged from 6 to 7.4 percent since 2004. The MOH in (2008) also is largest in terms of the size of its operation as compared to RMS, JUH, JUST or the private sector. The MOH owns and operates 30 hospitals in governorates, and has the most hospital beds (4333), followed by the private sector (3712) beds.

The occupancy rate of MOH hospitals is (69) percent in 2008. The average length of stay is 3.2 days for the same year.

The total number of admissions has increased by approximately 14.5 percent between the years 2004 -2008 as shown in Table 10. The death rate has actually increased since 2003 becoming 1.5 percent in 2008.

The occupancy rate has dropped vaguely, whereas the average length of stay is still almost steady at 3.2 days.

Table 10: MOH Hospitals: Utilization and Efficiency Indicators 2004-2008

Item \ Year		2004	2005	2006	2007	2008
Admissions		271866	279723	290186	314554	318032
Discharged	Alive	267862	275973	285598	309330	313219
	Dead	3897	4070	4516	4920	4857
Death Rate %		1.4	1.5	1.6	1.6	1.5
Occupancy Rate %		69.8	71.0	65.8	69.0	69.0
Avg. Length of Stay		3.2	3.2	3.3	3.3	3.2
Surgical Operations		80406	82517	81032	83231	85371
Deliveries		71487	70783	71687	79655	77136
Out-Patient Visits		2352115	2414403	2472155	2647261	2859276

Source: MOH annual statistical book 2008,

Table 11, shows the MOH Primary Health Care Centers 2008 distributed through out the kingdom.

Table 11: MOH Primary Health Care Centers.

	Comprehensive	Primary	Peripheral	Maternity& Child Care	Dental Clinics
Total*	68	375	240	419	313

Source: MOH annual statistical book 2008,

Table 12 shows the distribution of health care personnel at MOH and other health sectors. It is illustrated that MOH have the largest medical personnel in order to be able to provide health services to all Jordanian citizens. The physicians have the largest number followed by registered nurses.

Table 12: Distribution of Health Care Personnel at MOH and Other sectors

Sector Category	MOH	RMS	JUH	KAUH	Private	UNRWA	Total	Rate per.10000 of population
Physicians	3763	1292	458	450	8501	112	14576	24.9
Dentists	595	232	68	3	4165	31	5094	8.7
Pharmacists	359	182	35	30	7107	2	7715	13.2
Registered Nurses	2647	1754	450	447	4168	46	9512	16.3
Associate Degree Nursing	1757	1472	109	0	0	0	3338	5.7
ssociate Nurses	2036	238	111	102	1954	186	4627	7.9
Midwives	1168	96	0	14	597	34	1909	3.3

Source: MOH Annual Statistical Report, 2008.

Analysis of MOH Funds

Sources of MOH Funds

As mentioned earlier and indicated in Table 13, most of the MOH funds (86.4 percent) comes from the MOF followed by rest of the world (11.9) percent.

Table 13: Sources of Funds for MOH, (JD 000s)

Financing Agents	MOH (within budget)	Percent
MOF	307,766	86.4%
MOPIC	4,364	1.22%
Other Gov. Entity	1,639	0.48%
Private Firms	0	0%
HH	0	0%
UNRWA	0	0%
Rest of the world	42,398	11.9%
Total	356,167	100%

Source: MOH

Note: Numbers may not round up to 100% due to rounding

Use of Funds

NHA analyses the use of funds in two ways:

- By function – primary, curative, administrative, training, and others (miscellaneous).
- By type of expense – recurrent, capital, and other miscellaneous expenditure. Other expenses are of all categories which include expenses such as travel.

When all the sources are summed, MOH received a total of JD 356,167,370 million in 2008 . As indicated in Table 14 JD 346,167,370 million (97.2%) allocated to facilities it owns and operates. The remaining amount of 10 millions JD was spent on reimbursing RMS, JUH, and private providers for their services, and other governmental entities.

Table 14 : MOH Expenditures on different Facilities (JD 000s)

	MOH	
	Amount	Percent
Own facilities	346,167	97.2%
RMS	2,019	0.6%
UHS	2,881	0.8%
Other Gov. Entities	5,100	1.4%
Total	356,167	100%

Note: Numbers may not round up to 100% due to rounding

Conforming to the pattern of distribution of total expenses by function at MOH the expenses on curative care at MOH facilities increased between 2000 and 2007 of about 10%, but it was again decreased in 2008 by about 14% due to the fact that the NHA team has separated the CIP from MOH health accounts, while it was before included within MOH health accounts. Also the expenses on primary care were increased by about 14% for the same period. Administrative and training expenses too decreased by 1.1% and 1.3% respectively for the same period as it is shown in the table 15 but in the year 2008 also increased for the same above mentioned reason which is the separation between MOH and CIP health accounts.

Table 15: Expenditures by Function at MOH For Various Years (JD 000s)

Type of service	MOH							
	2000		2001		2007		2008	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount *	Percent
Curative Care	103,196	65%	113,718	65%	247,912	74.84%	215,047	60.4%
Primary Care	46,983	29%	50,187	29%	70,103	21.16%	112,173	31.5%
Administrative	4,751	3%	5,695	3%	6,175	1.86%	20,068	5.6%
Training	3,513	2%	3,157	2%	2,207	0.67%	8,880	2.5%
Others	1,400	1%	1,355	1%	4,859	1.47%	0	0
Total	159,843	100%	174,112	100%	331,256	100%	356,167	100%

Source: previous NHA technical reports

Note: Numbers may not round up to 100% due to rounding

* This amount does not include the CIP/MOH budget (JD 159.3 million)

Table 16: Distribution of MOH Expenditures
by Type (JD 000s)

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	147,128	41,3 %
Drugs	55,116	15,5 %
Supplies	8,576	2,4 %
Exp. Of Sustainability & Operation	33,830	9,5 %
Exp. Of Food & Housekeeping	12,597	3,5 %
Treatment	12,875	3,6 %
Training	6,051	1,7 %
Sub-Total	276,173	77,5 %
Capital Investment		
Medical Equipment	21,810	6.1 %
Non-Medical Equipment	3,066	0,9 %
Constructions	34,321	9,6 %
Sub-Total	59,197	16 %
Other Expediter		
Other Exp.	20,799	5,8 %
Sub-Total	20,799	5,8 %
Grand Total	356,167	100%

Notes: Nu,bers may not add up to 100% because of rounding

5.2 Royal Medical Services RMS

Organization and Size:

Royal Medical Services contributes in providing health care as the second largest public entity in Jordan in this field through:

Providing curative and primary health care to the armed forces through 11 main hospitals spread all over the country. These benefits are extended to the dependents of the military personnel as well as public security and civil defense personnel and their dependents. This system covers about 1.584 million individuals, accounting for around 35 percent of the population (RMS, Annual Statistical Report, 2008). The number of people covered under the military insurance program has increased during 1964 - 2008 by over 674 percent.

Providing high quality care, including some complex procedures and specialty treatment to Jordanians and to other patients from Arab countries. RMS facilities, both inpatient as well as outpatient, are mainly centered in Amman and are not as widely spread out as the MOH facilities. The RMS focuses more on providing inpatient care than outpatient care.

Contribution in activating the role of Jordan in the region and world by sending medical teams and field hospitals to disaster and conflict areas such as (Afghanistan, Iraq, Sierra Leone, Eritrea, Liberia, Congo, Haiti). The occupancy rate in the RMS hospitals indicated in Table 17 is about 75.7 percent which is accepted all over the world.

According to the type of beneficiaries, the biggest proportion of expenditure is for dependents of active army personnel. As expected, active army personnel and their dependents account for 24.2 percent of the total expenditure. The second biggest category is retired army personnel and their dependents, which account for more than one-fifth (19.7 percent) of the total expenditure. Prince Rashed Hospital is the most commonly used, followed by Prince Hashem Hospital and Al Hussein hospital. The total number of patient visits to specialty clinics in 2008 was almost 2.236 million (Source: RMS, Annual Statistical Report, 2008).

Table 17: RMS Hospitals: Utilization and Efficiency Indicators

No. of Beds	Admissions	Discharged		Death Rate	ALOS	Occupancy Rate	Outpatient Visits	Surgical Operations	Deliveries
		Alive	Dead						
2,131	146,982	144,478	3,730	2.5	4.07	75.7	2,235,682	48,366	29,878

Source: RMS, Annual Statistical Report,

The Role of RMS in Jordanian Health System:

The RMS was established in the year 1948 and since then it has largely contributed to shaping the Health Care System. The RMS has been a pioneer in the medical field by developing a wide range of specialties, creating a medico-technical pole of excellence at the King Hussein Medical Centre, defining an active training and residency programs.

The role of the RMS in the Jordanian health system can be summarized as follows

- Preserving the health of the officers and soldiers of the Jordan military forces and the different security forces, and providing the field medical services, which they need under all times and circumstances.
- Providing comprehensive medical insurance for more than one third of the inhabitants.
- Treatment of the costly complicated medical cases transferred from the Ministry of Health, the Jordan University Hospital, the private sector and neighboring Arab countries.
- Providing hospital care for all the citizens and residents of some governorates (Aqaba and Tafilah Governorates).
- Carrying out the main and pilot role in the case of disasters and collective accidents, including the transportation of injured people by helicopters and ambulances.

- Providing complete and comprehensive medical coverage for all the Arab and international conferences that are held in Jordan.
- Equipping and sending special medical teams to some Arab and friendly countries (Yemen, Iraq, Lebanon, Croatia, Sirloin, Afghanistan, Palestine, Liberia, Gaza, etc..).
- Participating in the education and training of physicians and nurses and auxiliary medical professions for all health sectors of the Kingdom.
- Replenishing the medical sector in the kingdom with trained and highly skilled people of all medical and technical specializations.
- The RMS exerts with the other concerned parties strenuous efforts to prevent disease and limit its spread and effect on the individual and the society in general.

Analysis of RMS Funds

Sources of Funds

The RMS, like all other public entities, receives most of its annual budget from the MOF, 58 percent in 2008 (Table 18). The second most significant source of funds are the contributions made to the RMS budget from other government agencies , which include the civil defense , civil aviation authority , Royal Court , and Jordanian intelligence service .The largest of these contributors is the Royal Court , which reimburses categorical groups of the RMS patients who are deemed eligible for such support .

Table 18: Sources of Funds for RMS (JD 000s)

	MOF	Other Government Entities	Households	Rest of the world	Private Firms	Total
Amount	101,000	18,181	38,492	14,214	2,200	174,087
Percent	65.5%	12.8%	17.1%	8.2%	1.4%	100%

Source: NHA Team

Note: Numbers may not round up to 100% due to rounding

Uses of Funds

In Table 19 below we see that the RMS spends approximately 64.3 percent of its budget on curative care. This is probably because RMS is predominantly oriented to inpatient care. Primary care, administrative duties, training, and other miscellaneous activities account for 18.3 percent, 15.92 percent, 1.32 percent, and 0.16 percent respectively of the total budget.

Table 19: Expenditure by Function (JD 000s)

Type Of Expenditure	Amount	Percent
Curative Care	111,938	64.3%
Primary Care	31,858	18.3%
Administrative	27,718	15.9%
Training	2,300	1.3%
Others	273	0.2%
Total	174,087	100%

Note: Numbers may not round up to 100% due to rounding

Source: NHA Team

Table 20: Distribution of RMS Expenditures by Type JD 000s

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	58,059	33.3%
Drugs	29,916	17.2%
Supplies	15,499	8.9%
Exp. of Sustainability & Operation	9,959	5.7%
Exp. of Food & Housekeeping	3,997	2.3%
Treatment	10,663	6.1%
Training	2,300	1.3%
Sub-Total	130,393	74.8%
Capital Investment		
Medical Equipment	12,515	7.2%
Non-Medical Equipment	2,912	1.7%
Constructions	27,994	16.1%
Sub-Total	43,421	25.0%
Other Expediter		
Other Exp.	273	0.2%
Sub-Total	273	0.2%
Grand Total	174,087	100%

Note: Numbers may not add up 100% due to rounding

5.3 Jordan University Hospital

Organization and Size of JUH

Jordan University is the principal university in Jordan, often referred to as the “Mother University” for the role it plays in academia. Its affiliate hospital, Jordan University Hospital, which is associated with Jordan University medical school, is one of the largest in the country. JUH was built in 1973 exclusively to serve as a referral center for the MOH. However, over the years its functions have diversified significantly. It is one of the most specialized and high – tech medical centers in the public sector, along with King Hussein Medical Center. The outpatient clinics, the inpatient facility, as well as the pharmacies it operates, are all housed under the same roof.

JUH patients are referrals from the MOH, employees of Jordan University and their dependents, employees of private and public firms with whom JUH has contractual agreements, as well as some independent private (cash – payer) patients. Currently, the proportion of private patients is very low, and JUH is in the process of changing its patient mix and engaging in activities to attract private patients. One of the main objectives is to encourage private business to contract with JUH to increase the profitability of the hospital. JUH’s annual budget has experienced some deficits as the reimbursement from MOH for its referrals have been insufficient to cover the costs of providing care to these patients. UHs insurance programs cover a very small percentage (1.3) of the population.

JUH has 531 bed percent (4.9 %) of the total number of hospital beds in the in Jordan which accounts for 27651 percent (3.4%) of the total admissions (Table 21). JUH has only one location and outpatient clinics are in – house.

Table 21: Utilization of JUH Facilities

No. of Beds	Admissions	Discharged		Death Rate	Avg. Length of Stay	Occupancy Rate	Outpatient Visits	Surgical Operations
		Alive	Dead					
522	26,874	26,942	648	1.7%	4.9	68%	391,246	22,050

Source: JUH, Annual Report, 2008

Analysis of JUH Funds

Sources of Funds

An executive decree mandated the MOF to allocate funds to cover a small amount of the JUH annual budget. However, in practice this proportion has varied significantly. Approximately JD 4 million is a fixed transfer from the MOF to the JUH. The remaining amount is reimbursements to the JUH from the MOH, for treating referral patients covered under the Civil Insurance Program and from the RMS for treating their referral patients. As noted in Table 22, in 2008 the JUH total sources were about JD 40 million (64.5 percent of which from Other Government entities such as the CIP and the royal court. The households and international donors together contributed by 21 percent, followed by private firms at 14.5 percent and rest of the world at 6.3 percent. The MOH is not a primary source of funding for the JUH. It functions only as an intermediary financing agent that reimburses JUH for treating individuals covered under the CIP who are referred by MOH facilities.

Table 22: Sources of Funds for JUH. (JD 000s)

	Other Government Entities	Private Firms	Households	Rest of the world	Total
Amount	25,801	5,808	5,874	2,500	39,983
Percent	64,5%	14,5%	14,7%	6,3%	100%

Source: NHA Team

Note: Numbers may not round up to 100% due to rounding

Uses of Funds

Table 23: Distribution of JUH Expenditures by Type (JD 000s)

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	21,079	52.8%
Drugs	9,232	23.1%
Supplies	3,134	7.8%
Exp. of Sustainability & Operation	1,612	4.0%
Exp. Of Food & Housekeeping	714	1.8%
Treatment	1,400	3.5%
Training	13	0.03%
Sub-Total	37,184	93.08%
Capital Investment		
Medical Equipment	778	1.95%
Non-Medical Equipment	234	0.59%
Constructions	199	0.50%
Sub-Total	1,211	3.03%
Other Expediter		
Other Exp.	1,554	3.89%
Sub-Total	1,554	3.89%
Grand Total	39,949	100%

Note: Numbers may not round up to 100% due to rounding

Table 24: JUH Expenditure by Function, (JD 000s)

Type Of Expenditure	Amount	Percent
Curative Care	35,289	88.34%
Primary Care	0	0 %
Administrative	3,093	7.74%
Training	13	0.03%
Others	1,554	3.89%
Total	39,949	100.00%

Note: Numbers may not round up to 100% due to rounding

5.4 King Abdullah university hospital

Organization and Size of KAUH

KAUH is considered to be one of the distinct landmarks in Jordan and the region as a whole, as to its design and health care services intended. As a general hospital, KAUH provides various clinical and referral health care services to other health care sectors in Jordan in a framework of mutual agreements and contracts, this is in addition to being a teaching hospital where university health science students receive their education and training courses.

KAUH is being built within the Jordan University of science and Technology (JUST) campus which is located in the north of Jordan on the high way linking Jordan to Syria. This carefully chosen location allows the hospital to provide primary and secondary & tertiary health care services to more than 1 million inhabitants of Irbid, Ajloun, Jarash and Mafraq governorates in particular and to all Jordanians in general.

The hospital bed capacity is (683) beds which can be increased to (800) beds in any emergent situation.

Structurally, the hospital is composed of a (15) story high-rise building, in which all hospital beds are located, and a 3 story Low-rise buildings in which out patients clinics, diagnostic and other services are located. The hospital is connected to various health science faculties via the ground floor of the low-rise building.

Technically, KAUH has been equipped with fixed and mobile equipments that are the top of their line. This in addition to the fact that a critically and systematically selected highly qualified and experienced technical and administrative personnel, have been / and are being employed to run the hospital as a non - profit organization that suits the hospitals mission.

Analysis of KAUH Fund

Sources of Funds for KAUH are shown in table 25.

Table 25: Sources of Funds for KAUH (JD 000s)

	Other Government Entities	Private Firms	Households	Rest of the world	Total
Amount	34,195	3,810	6,005	317	44,327
Percent	77,1 %	8,6 %	13,5 %	0,7 %	100%

Note: Numbers may not round up to 100% due to rounding

Uses of Funds

Table26: Distribution of KAUH Expenditures by Type (JD 000s)

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	14,200	32.2 %
Drugs	11,900	27.0 %
Supplies	6,900	15.6 %
Exp. of Sustainability & Operation	4,745	10.7 %
Exp. Of Food & Housekeeping	1,100	2.5 %
Treatment	150	0.3 %
Training	1,075	2.4 %
Sub-Total	40,070	90.8 %
Capital Investment		
Medical Equipment	1,400	3.2 %
Non-Medical Equipment	620	1.4 %
Constructions	500	1.1 %
Sub-Total	2,520	5.7 %
Other Expediter		
Other Exp.	1,560	3.5%
Sub-Total	1,560	3.5%
Grand Total	44,150	100 %

Note: Numbers may not round up to 100% due to rounding

Table 27: KAUH Expenditure by Function (JD 000s)

Type Of Expenditure	Amount	Percent
Curative Care	40,070	90,76 %
Primary Care	0	0
Administrative	600	1.36 %
Training	1,100	2.49 %
Others	2,380	5.39 %
Total	44.150	100 %

Note: Numbers may not round up to 100% due to rounding

5.5 King Hussein Cancer Center KHCC

Role and Functions of KHCC

In 1997, the KHCC opened its doors. The first name for the center was “Al-Amal Center” which means “The center of hope”. With the available resources, the center took its first steps with numbers of patients increasing steadily. Shortly later, His Late Majesty King Hussein Bin Talal formed the King Hussein Cancer Foundation and a board of trustees was nominated to supervise the operations of this important institution.

On the 19th of September in 2002, there was an official ceremony to change the name of the center to honor the late King Hussein, who died of cancer.

Currently, the center is undergoing major construction, renovation and expansion to increase the number of beds and meet the growing demand of patients from Jordan and the region. Most importantly, the KHCC research office is working hard to promote cancer research, so that the center will have its landmark on the care of cancer globally.

Analysis of Funds

Table 28 shows a breakdown of KHCC Expenditures by function

Table 28: Breakdown of K.H.C.C Expenditures by Function (JD 000s)

Function	Amount	Percent
Curative care	40,476	84 %
Primary care	2,409	5 %
Administrative	4,819	10 %
Training	482	1 %
Other Exp.	0	0%
Total	48,186	100 %

Note: Numbers may not round up to 100% due to rounding

5.6 The National Center for Diabetes, Endocrinology, and Genetics

Role and Functions of NCDEG

NCDEG is one of the centers attached to the Higher Council for Science and Technology. It is established for treatment, training qualifications, development and research on diabetes, endocrinology, and genetics.

The main Function o NCDEG are:

- . Promotion of Health Education of the patient, their family members and citizens in general to identify the optimum manner of dealing patients.
- . Treatment of the diseases of diabetes, endocrine glands and genetics.

The centre has very close relations with Jordanians and International organizations and societies.

NCDEG was designated as a WHO collaborative center in 1996 with the following terms of reference:

- . To collaborate with WHO collocation, review and dissemination of information on the prevalence and incidence of diabetes and long term complications in the region.
- . To develop a community – oriented program for diabetes prevention
- . To collaborate with WHO in the implementation of the medium-term program in developing a model for diabetes care as an integral part of primary health care.

Analysis of Funds

Table 29 shows a breakdown of NCDEG Expenditures by function

Table 29: Breakdown of NCDEG Expenditures by Function (JD 000s)

Function	Amount	Percent
Curative care	0	0%
Primary care	3,771	95.2 %
Administrative	189	4.8 %
Training	0	0%
Other Exp.	0	0%
Total	3,960	100 %

Note: Numbers may not round up to 100% due to rounding

5.7 Jordan Food and Drug Administration JFDA

Organization and Size of JFDA

The Food and Drug Administration JFDA had been established according to the Law No. 31 for year 2003. The Administration is governed by a Board of Directors headed by His Excellency the Minister of health and members from both public and private sectors. The General Director is the official representative of JFDA.

JFDA is an independent public sector regulatory institution working in collaboration with other institutes in public and private sectors, and it works through agreements and memorandums of understanding with national, and regional institutes such as: Ministry of Health, Ministry of Environment, WHO, and FDA.

JFDA has an important role in rationalizing the use of drugs in the country in order to decrease the expenditure level of drugs which occupies third of total expenditures on health.

Analysis of JFDA Funds

Table 30: JFDA Expenditures By Type (JD 000s)

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	2,837	47.9 %
Drugs	0	0%
Supplies	572	9.6 %
Exp. of Sustainability & Operation	340	5.7 %
Exp. Of Food & Housekeeping	97	1.6 %
Treatment	0	0%
Training	34	0.6
Sub-Total	3,880	65.5 %
Capital Investment		
Medical Equipment		
Non-Medical Equipment	336	5.7 %
Constructions	1,645	27.7 %
Sub-Total	1,981	33.4%
Other Expediter		
Other Exp.	67	1.1 %
Sub-Total	67	1.1 %
Grand Total	5,928	100 %

Note: Numbers may not round up to 100% due to rounding

5.8 Ministry of Social Development MOSD

Health Services Provision by MOSD

There are many of the health services provided by the Ministry of Social Development through the centers and branches all over in all regions of the Kingdom.

The most important health and medical services are:

- . Diagnosis.
- . Treatment.
- . Intensive nursing care around the clock.
- . Community rehabilitation.
- . Physical therapy.
- . Health insurance for persons with disabilities.
- . International health nutrition program.
- . The provision of appropriate treatment programs within the Centers, in cooperation with hospitals in the Ministry of Health.
- . Rehabilitation of the disabled.

Table31: Expenditure of MOSD By Type

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	1,003	26.06 %
Drugs	3	0.08 %
Supplies	0	0%
Exp. of Sustainability & Operation	186	4.82 %
Exp. Of Food & Housekeeping	506	13.14 %
Treatment	149	3.86 %
Training	0	0%
Sub-Total	1,847	47.95 %
Capital Investment		
Medical Equipment	0	0%
Non-Medical Equipment	0.9	0.02 %
Constructions	1,991	51.72 %
Sub-Total	1,992	51.74 %
Other Expediter		
Other Exp.	12	0.30 %
Sub-Total	12	0.30 %
Grand Total	3,851	100 %

Note: Numbers may not round up to 100% due to rounding

National Aid Fund NAF

Provides disabled poor patients with financial aid and medical equipment and devices they need. MOSD pays roughly JD 2 million annually against treatment of poor people in the country

5.9 The High Health Council HHC

Role, Structure, and Responsibilities of HHC

The HHC is headed by the Prime Minister and includes in its membership representatives of the different health and health-related sectors, namely the Minister of Health as the Vice Chairman, Ministers of Finance, Planning, Labor, and Social Development, the Director General of RMS, the Head of the Jordan Medical Association, one of the deans of medical schools, the head of another health related associations, the President of the Association of Private Hospitals, and two additional persons with expertise in health matters. Law no. 9, year 1999 stated that the objective of the High Health Council is to draw the general policy of the health sector and to put forward the strategy to achieve it and to organize and develop the health sector as a whole so as to extend health services to all citizens according to the most advanced methods and scientific technology. To achieve that the Council has several responsibilities:

- . Periodic evaluation of health policies and introducing any needed changes after implementation.
- . Identification of the needs of the health sector and taking decisions regarding equitable distribution of health services in the different regions of the kingdom to achieve justice and qualitative upgrading of the services.
- . Participation in drawing up the educational policy for health sciences, and medicine within the kingdom, and organization of the process by which students join such studies outside the kingdom.
- . Encouragement of studies, and research, and support for programs' activities, and services to achieve the objectives of the general health policy.
- . Coordination of work between health establishments in the public and private sectors, to achieve complementarity of their work.
- . Strengthening cooperation between local health establishments, and Arabic, regional, and international health establishments and agencies.
- . Continuity in expanding the umbrella of health insurance.
- . Studying the health problems and taking appropriate decisions up to restructuring of the health sector.
- . Studying the proposed laws, bylaws, and regulations, of the HHC and the health sector and submitting the necessary recommendations.

The government is highly committed to institutionalize NHA within the HHC - General Secretariat in order to ensure the regular producing of NHA technical reports and to link the NHA results with national health policy process. The National Health Strategy NHS 2008 – 2012 of the HHC has focused on the financial function of the health system in order to ensure the efficient use of financial resources and to control the increasing health care expenditures.

Analysis of HHC Funds

Table (32): Distribution of HHC Expenditures by Type (JD 000s)

Type Of Expenditure	2008	Percentage
Recurrent Expenditure		
Salaries	112	67.3 %
Drugs	0	0%
Supplies	0	0%
Exp. of Sustainability & Operation	31	18.8 %
Exp. Of Food & Housekeeping	0	0%
Treatment	0	0%
Training	18	10.7 %
Sub-Total	161	96.7 %
Capital Investment		
Medical Equipment	0	0%
Non-Medical Equipment	5	3.3 %
Constructions	0	0%
Sub-Total	5	3.3 %
Other Expediter		
Other Exp.	0	0%
Sub-Total	0	0%
Grand Total	166	100 %

Note: Numbers may not round up to 100% due to rounding

5.10 Joint procurement Department JPD

Role of JPD

JPD was established on 12th of august 2004 based on low no. (91) for the year 2002 which covers medical supplies and drugs, the main role Of JPD is managing of pharmaceuticals procurement which is considered as high priority in the Jordanian health sector .

Strategic goals of JPD focused on procurement of drugs and medical supplies of high quality within the frame of joint and consolidated specifications, procurement standardization, costs and expenditures control, and duplication elimination, achieve physical wealth by applying the economics of procuring big quantities principles, information and experiences exchange between parties taking part in procurement employ transparency approach in bids offer and studies, complete bids invitation and awarding as soon as possible, reevaluate suppliers and manufacturers continuously, prepare a list of the approved drugs used in the public sector, and achieve competence and justice amongst bidders.

Analysis of funds

Table 33 : JPD Expenditures By Type

Type Of Expenditure	2008	Percentage
Recurrent Expenditure		
Salaries	301	64.2 %
Drugs	0	0%
Supplies	3	0.6 %
Exp. of Sustainability & Operation	75	16.0 %
Exp. Of Food & Housekeeping	7	1.6 %
Treatment	0	0%
Training	26	5.5 %
Sub-Total	412	87.9 %
Capital Investment		
Medical Equipment	0	0%
Non-Medical Equipment	25	5.3 %
Constructions	0	0%
Sub-Total	25	5.3 %
Other Expediter		
Other Exp.	32	6.9 %
Sub-Total	32	6.9 %
Grand Total	469	100 %

Note: Numbers may not round up to 100% due to rounding

5.11 Non Governmental Organizations NGOs

Volume of NGOs Health Services and flow of funds.

The NGO sector provides primary, curative, and public health services. The FS of NGOs amounted JD 4 million, donors' sources represent 77.8 (JD 3.1 million). Table // shows the volume of health services provided by charitable societies in Jordan (under the General Union of Voluntary Societies GUVS) to around 693 thousand beneficiaries. The Ministry of Social Development is responsible for regulating the affairs of the non-governmental, voluntary sector. International and regional organizations operate under special agreements.

Table 34: volume of health services provided by charitable societies in Jordan

Societies	Hospitals	G.P Clinics	Gynecology Clinics	Pediatric Clinics	Dental Clinics	Laboratories	Beneficiary
54	2	34	15	14	22	4	692990

5.12 Social Security Corporation SSC

SSC Mandate

The Jordanian Social Security Law was issued as a provisional law under No. 30 of the year 1978, as a result of the economic and social development in the kingdom where it addressed the working groups uncovered with any other retirement rules or laws, such as civil or military retirement, the matter that required the existence of a socio-economic umbrella to protect those productive groups, and grant them subsequently more security, safety and stability, especially after the issuance of the Jordanian Labor Law at the beginning of the sixties of last century. As an autonomous public corporation, it enjoys financial and administrative autonomy, and it has the right to enforce acts, execute contracts, invest, accept donations, issue loans, and draft wills. Employer's participation in the social security system is mandatory and costs roughly 2 percent of employee's wages.

The Social Security Act encompasses six types of social insurance. SSC's role in the health care sector is limited to that of providing coverage to employees for work-related injuries and occupational diseases, primarily through its' worker's compensation provision, and it is this aspect that is relevant to. NHA estimation part of the SSC covers the following services:

1. Medical care as determined by the Social Security Administration Board and awarded on a case-by-case basis
2. Daily disability allowances, due to disease or on-the-job injury
3. Monthly wages and lump sum compensations
4. Funeral costs

Financial Sources of SSC:

The social security programs are financed through the following main sources in accordance with the rules of the law:

1. Contributions of those applicable to the rules of law whether paid by the insured employee or by the employer for his/her employees as well as the revenue of combining the previous service years in which they were not included by the rules of law.
2. Interests, fines and additional amounts in cases of delay in contributions payment, not including the employees, delay in notifying at service termination, or any other cases stipulated in law.
3. Investment revenues of social security accruals in different fields of investment

Currently applied insurances are:

- Insurance against work injuries and occupational diseases.
- Insurance against old age, disability and death.

Insurance Compulsory:

At present, the insurance is obligatory on all establishments that hire five laborers or more, the law did not make a distinction between laborers due to nationality, contract period or form, wage nature or value provided that the wage is not less than the adopted minimum limit for wages which is defined at (150) JD per month according to the issued regulations under the Jordanian Labor Law

Advantages and Benefits:

. Pensions:

1. Old age pension (mandatory, early).
2. Natural disability pension (total, partial).
3. Natural death pension\

. Insurance services of Work injuries and occupational diseases:

1. Medical care.
2. Daily compensations.
3. Transfer compensations.
4. Occupational compensations.
5. Total disability due to work injury pension.
6. Permanent partial disability due to work injury pension.
7. Death due to work injury pension.

. Lump sum compensations (in case of in fulfillment of pension's entitlement conditions).

SSC Health Expenditures:

Table 35 below illustrates expenses on Health (accidents and work injuries) by Type of expenditure 2008

Table 35: SSC Expenditure on Health by Type
(accidents and work injuries)

Function	Amount	Percent
Curative care	2,294	63.9 %
Primary care	942	26.3 %
Administrative	353	9.8 %
Training	0	0%
Other Exp.	0	0%
Total	3,589	100 %

Note: Numbers may not round up to 100% due to rounding

5.13 Ministry of Finance

The Ministry of Finance MOF Plays a major role in Jordan's Public health Sector through its role in providing financial allocations to ensure continuity in the work of this sector, through financial support for citizens treatment cost, in addition to the role of directing spending and ensuring the best use of available financial resources in general, and in the health sector in particular.

The main Strategic objectives of MOF:-

- . Drawing up the financial policy to promote financial stability and stimulates economic growth.
- . Reduce the balance and the burden of public debt.
- . Improve the efficiency of control over public money.
- . Improve transparency and disclosure.
- . Improve the level of services provided.

General Budget Department sets allocations according to updated methodologies which enable the ministries and other governmental institutions, including health related entities to implement their health policies and achieve their objectives in the most equitable manner possible among the Jordanian governorates

5.14 Department of Statistics:

The Department of Statistics (DOS), which founded in 1949, is one of the first governmental institutions that have accompanied the establishment of the kingdom of Jordan. The department is the only institution -according to the law- responsible on gathering different kinds of data covering demographic, economic, social and other aspects. The department conducts surveys and censuses according to a work plan on fixed periods of time (monthly, quarterly, annually). These censuses and surveys cover various fields such as population and housing, economy, agriculture and other fields. The data produces by the Department of Statistics serve all data users and decision-makers. The department of Statistics produces different reports on different time bases such as the Statistical Yearbook , Jordan In Figures and household scurvies . These publications contain different indicators and data such as the GDP indicators and other socio-economic and demographic indicators. The DOS and the HHC are working currently together to produce new oop and health insurance coverage data in order to improve the NHA data quality.

5.15 Ministry of Planning and International Cooperation.

Role of MOPIC in Health Sector

Ministry of Planning and International Cooperation MOPIC was established in the year 1984. Its main role is to be a link between all the international donors, ministries and government institutions, working to coordinate the development efforts for the advancement of the level of national economy and improve the standard of living, through the preparation and follow-up implementation and evaluation of development plans and strengthen the economic ties of technical and financial cooperation with various countries , international bodies and institutions, which contribute to the achievement of sustainable development within the framework of the Ministry's efforts to achieve national goals and to advance the reform and development programs in all different sectors,

MOPIC provides the support for many health sector projects either through financial contributions and support from its budget, or loans and grants. within clear and transparent mechanism of action, where MOPIC Study funding requests for various projects and their classification in terms of strategic priorities and their compatibility with national objectives and the operational programs for each sector, after that, MOPIC discuss requests with funding agencies to provide the necessary support , after coordination with Ministry of Finance on the terms of the proposed funding to select the most appropriate, funding agreement is prepared by the funding agencies and in coordination with MOPIC, as well as the beneficiaries of the project.

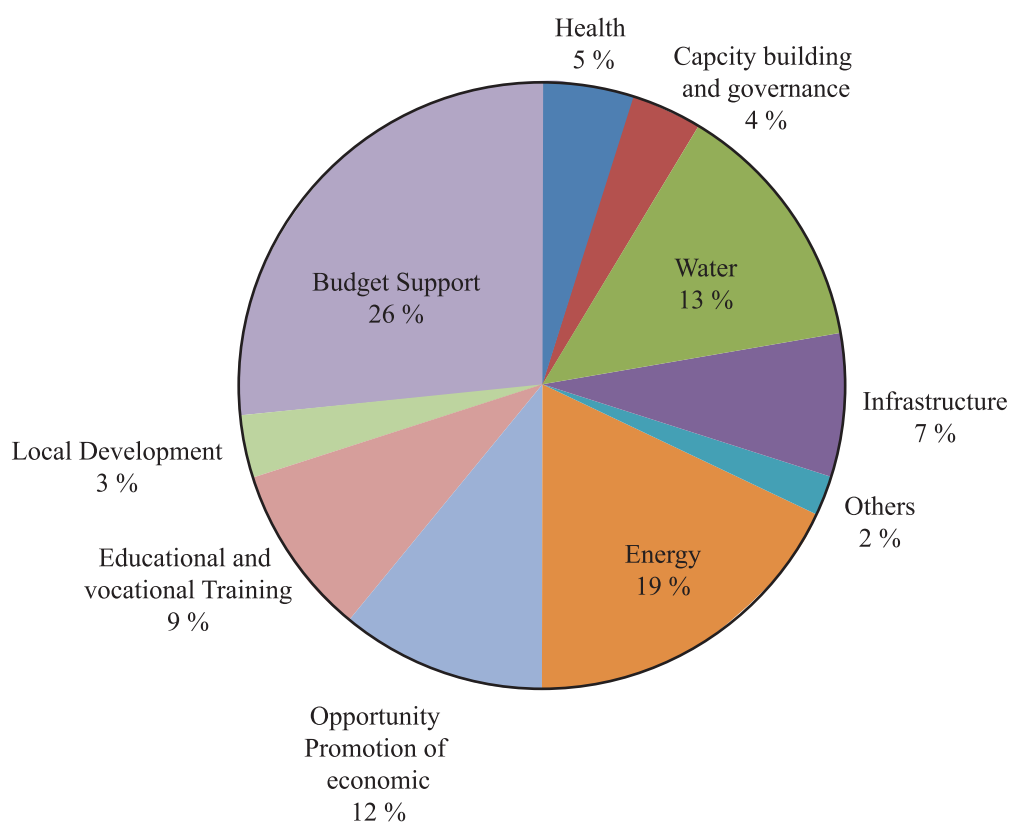
MOPIC is also responsible for the follow-up procedures during project implementation as well as coordination between the funding agencies and the beneficiary, to ensure that the implementation of the project is in line with the signed agreement and to handle any obstacles during the implementation period.

As mentioned above MoPIC also supports projects from its own budget, and as for the 2008 year MoPIC supported health sector projects which are financed either by loans or grants with a total amount of approximately JD (6,9) million, MoPIC is working continuously to enhance and strengthen linkages with various donors, in order to provide the necessary funding and support for various priority projects, donors are classified as follows:

- American and Canadian Funding agencies, Australian and South America countries,
- United Nations organizations and institutions:
- European Union, the European Investment Bank
- European donors
- Asian donors
- World Bank
- Arab and Islamic funds

Figure (4) below shows that the volume of foreign aid grants and soft loans represent only (5%) of the total volume allocated to all sectors .

Figure 4: The volume of foreign aid grants and soft loans by sector – 2008



Breakdown expenditures of MOPIC Loans and Grants are shown in Table 36.

Table 36: Breakdown Expenditures of MOPIC Loans & Grants
By Type (JD 000s)

Type Of Expenditure	Loans		Grants	
	Amount	Percent	Amount	Percent
Recurrent Expenditure				
Salaries	0	0%	0	0%
Drugs	0	0%	0	0%
Supplies	30	0.1%	3,077	14.4%
Exp. of Sustainability & Operation	0	0%	1,379	6.5%
Exp. Of Food & Housekeeping	0	0%	0	0%
Treatment	0	0%	0	0%
Training	0	0%	2,781	13.0%
Sub-Total	30	0.1%	7,237	33.9%
Capital Investment				
Medical Equipment	1,038	2.6%	7,450	34.9%
Non-Medical Equipment	267	0.7%		
Constructions	38,091	96.0 %	3,448	16.2%
Sub-Total	39,396	99.3%	10,898	51.1%
Other Expediter				
Other Exp.	253	0.6%	3,210	15.0%
Sub-Total	253	0.6%	3,210	15.0 %
Grand Total	39,679	100%	21,345	100 %

Note: Numbers may not round up to 100% due to rounding

5.16 Insurance Sector

The DOS in collaboration with The HHC will provide the policy makers and the planners in the health and health related sectors in the first quarter of 2011 with up-to-date national health insurance coverage rates by conducting a national survey together with the employment and unemployment survey 2010. It is estimated that 75 percent of the populations have some form of health insurance (excluding the duplication in health insurance coverage). The largest insurer is the Civil Health Insurance program CIP/MOH, covering over 34 percent of the population, followed by the Military Health Insurance Program / RMS, covering 23 percent, UNRWA covering 9 percent, private insurance covering 8 percent, and UHs covering 1 percent. The remaining 25 percent of the population are without any form of health insurance (MOH and RMS annual statistical reports 2008 & WB estimates). This section provides an overview of the provision of private health in insurance through commercial insurers, self-insured firms, and universities.

Private Health Insurance

Eight percent of insured Jordanians are covered by health insurance plans of private (commercial) companies or by self-insured firms. Commercial insurers may function in two ways: as insurers, or as third-party administrators TPA for self-insured firms. Self-insured firms pay directly for health care services on behalf of their employees and their dependents. They also assume full financial risk for their health insurance plans. These firms typically utilize third-party administrators to administer their health plans; thereby, reducing the administrative costs that are associated with managing a health insurance program.

Insurance Legislation

The first authority to act as a regulatory body for insurance affairs in Jordan was the Jordan Association for Insurance Companies, circa 1956. In 1987, the Jordan Insurance Federation was established by a Royal Decree to assume the responsibility of regulating and managing the insurance sector. In 1999, the Insurance Regulatory Commission was established in accordance with the Insurance Regulatory Act No. 33. Since then, both the Jordan Insurance Federation and the Insurance Regulatory Commission have assumed responsibility for managing and regulating the insurance sector.

Insurance Commission

The Insurance Commission (I.C) is an independent public institution established at the end of 1999 whose mission is to protect the rights of the insured and to develop insurance services in the Kingdom through supervising and regulating the local insurance sector

One of the main characteristics of the IC strategy is the commission quest to complete the frameworks necessary to regulate the insurance institutions operating in the Jordanian insurance market, and make them abide by the most updated international standards,

In this respect as well the IC continues its efforts to regulate the financial and technical instruments of supervision and control of the insurance sector by providing the actuarial experience and regulating the scrutiny and analysis of insurance companies operations and the comprehensive auditing and inspection procedures.

Based on its belief that the insurance disputes should be settled promptly in a highly professional manner the Commission instituted programs encouraging settlement of insurance disputes by arbitration, mediation and other alternative disputes resolution.

The Commission launched insurance awareness campaigns among the different social and economical layers in the Kingdom, to promote the insurance concept.

The Insurance Commission has provided the NHA team with the necessary data from all insurance companies registered at the IC (28 TPPs and 10 TPAs according to the annual report of IC issued in 2008) . Data include health expenditures of private firms, insured individuals, and number of public and private universities, table 37 was developed in collaboration between NHA technical committee and representatives from the Insurance Commission and it shows expenditures items by inpatients and outpatients.

Table 37: Health Expenditure Data From Private Firms, Insured Individuals, and From Public and Private Universities by Inpatients and Outpatients.

	Inpatients	Outpatients	Total
Pharmaceuticals	2,704	22,267	24,971
Doctor fees	5,156	11,165	16,321
Laboratories	1,448	2,408	3,856
X- Rays	1,131	1,539	2,670
Emergences	1,447	4,143	5,590
Other Benefits	4,945	3,980	8,925
Sub – Total	16,831	45,502	62,333
Administrative Exp.on Inpatient and Outpatient	9,489		9,489
Grand Total			71,822

Jordan's Universities and Health Insurance

Jordan has one of the most well-established and modern higher education sector in the MENA region. There are 22 public and private universities, located in major cities of the country. However, most universities are located in Amman. All universities offer health insurance to their students and employees. Private universities typically offer coverage through their university-owned and -operated clinics.

The public universities are the largest contributor to Jordan universities' health insurance plans; it financed the universities' health sector by 80.1 percent (13,720 million) in 2008. Table 38 shows that the Households are the largest contributors, to the public universities insurance program supplying 80 percent (10,976 million JD) of total operating revenue in 2008, the other government entities supply the remaining 20 percent (2,744 million JD) from the public universities' subsidy.

Table 38: Sources of Health Funds for Public Universities (JD 000s)

Year 2008	Other Government Entity	Households	Total
Amount	2,744	10,976	13,720
Percent	20	80	100

Table 39 shows that the Households are the only contributor, to the private universities insurance program supplying 100 percent (3,405 million JD) of total operating revenue in 2008

Table 39: Sources of Health Funds for Private Universities(JD 000s)

Year 2008	Other Government Entity	Households	Total
Amount	0	3,405	3,405
Percent	0	100	100

5.17 Civil Insurance Program (CIP):

Organization

The first civil insurance program (CIP) bylaw was issued in 1965 and was amended in 1966 where the major funding came from compulsory enrollment of public sector employees and optional enrollment for the rest of the population provided that the enrollee would pay for in-patient services. Another amendment was made in 1979 making it possible to provide curative services (in-patient services) by facilities other than the Ministry of Health hospitals; this bylaw was amended once again in 1980. In 1983 the health insurance bylaw number 10 was issued, and in 2004 the new bylaw number 83 was issued according to paragraph C of Article 66 of the public health law number 54 for the year 2002.

It is worth mentioning that the civil health insurance covers about 34 percent of the population when considering the duplication in health insurance coverage.

Sources of funds

The CIP has several sources of funds (table 40):

Table 40: Sources of Funds for CIP (JD 000s)

Entity	MOF	Other Government Entities	Private Firms	Households	UNRWA	Rest of the World	Total
Amount	80,307	11,155	27	64,236	623	2,905	159,253
Percent	50.43%	7.00%	0.02%	40.34%	0.39%	1.82%	100.00%

Source: CIP / MOH

Note: Numbers may not round up to 100% due to rounding

Expenditures

The CIP has witnessed several developments through; amending the bylaw to include other categories, improving the level of provided healthcare, and contracting with the private sector to compensate for shortages of the curative services. This implies increasing the obligations and expenditure of the CIP fund. Table 41 shows the distribution of CIP expenditures by type.

Table 41: Distribution of CIP Expenditures by Type, 2008 (JD 000s)

Type Of Expenditure	2008	Percentage
Recurrent Expenditure		
Salaries	24,314	16.63%
Drugs	19,363	13.24%
Supplies	1,995	1.36%
Exp. of Sustainability & Operation	419	0.29%
Exp. Of Food & Housekeeping	0	0.00%
Treatment	98,795	67.55%
Training	0.4	0.00%
Sub-Total	144,887	99.07%
Capital Investment		
Medical Equipment	250	0.17%
Non-Medical Equipment	38	0.03%
Constructions	0	
Sub-Total	289	0.20%
Other Expediter		
Other Exp.	1,070	0.73%
Sub-Total	1,070	0.73%
Grand Total	146,245	100.00%

Note: Numbers may not round up to 100% due to rounding

Source: CIP / MOH

Categories covered by civil insurance program (CIP / MOH)

- * Public sector employees and their dependants.
 - * The poor holding cards according to social studies.
 - * Disabled.
 - * Blood donors.
 - * Pregnant woman.
 - * Children under 6 years of age
 - * Elderly (above 60 years).
 - * Other categories.
- * Some costly diseases are insured according to special standards determined by the health insurance bylaw, these include the followings:
1. Mental diseases according to the Minister decision.
 2. In-patients recommended by the Ministry of Social Development.
 3. Alcohol and drug addicts in addition to drug poisoning cases.
 4. Snake and scorpion bites
 5. AIDS patients.
 6. Chronic blood diseases including:
 - . Hemophilia.
 - . Thalasemia.
 - . Sickle cell anemia.
 - . Aplastic Anemia.
 - . Inherited immunodeficiency diseases.
 - . Gamma globulin deficiency.
 - . Cystic fibrosis.
 - . Cancer diseases and side effects.

5.18 United Nations Relief Works Agency UNRWA

UNRWA provides assistance to Palestinian refugees in Jordan. Its services are comprehensive and include health, education, and social welfare assistance. UNRWA's health care programs are implemented in collaboration with the MOH. UNRWA provides mainly comprehensive preventative, family planning, and health education services to the refugee population through its network. UNRWA operates: 25 health centers, 30 clinics, 23 family health clinics, and 21 dental clinics.

UNRWA health expenditures amounted to nearly JD 9.5 million in 2008. The distribution of these funds is illustrated in Table 42.

Table 42: Breakdown of UNRWA/Jordan Health Expenditures by Function (JD 000s)

Function	Amount	Percent
Curative care	1,409	14.79%
Primary care	7,364	77.28%
Administrative	394	4.13%
Training	3	0.03%
Other	359	3.77%
Total	9,529	100.00%

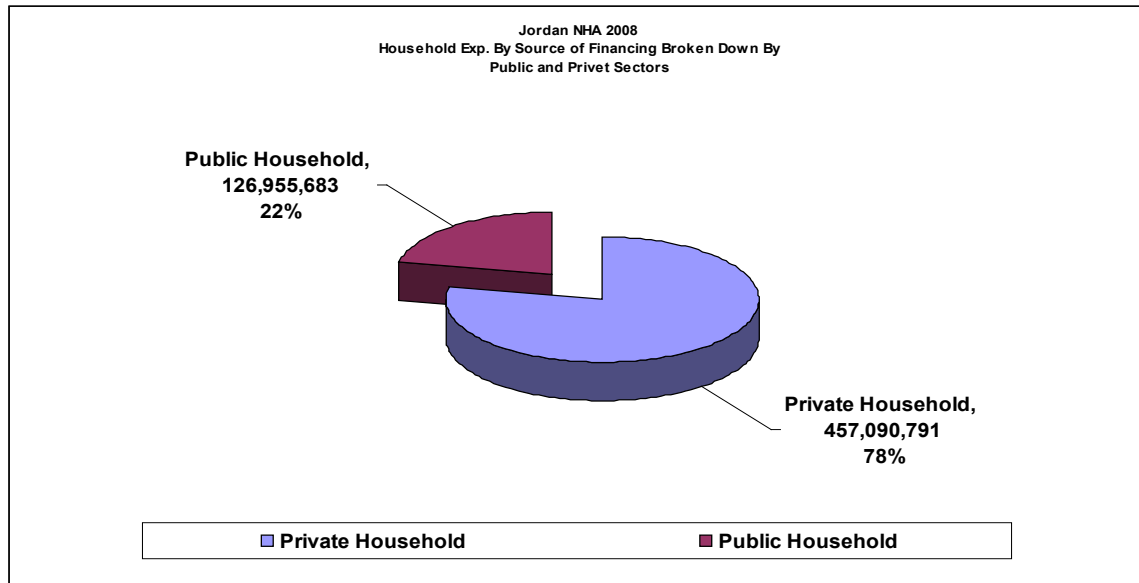
5.19 Household Health Care Expenditure Estimates

Household Exp. By Public and Private Sectors

Total household health care expenditures in 2008 amounted to JD584 million, 78 percent in the private sector and 22 percent in the public sector as shown in figure 5.

Households' expenditure as percentage of total health care expenditure is 42.3%

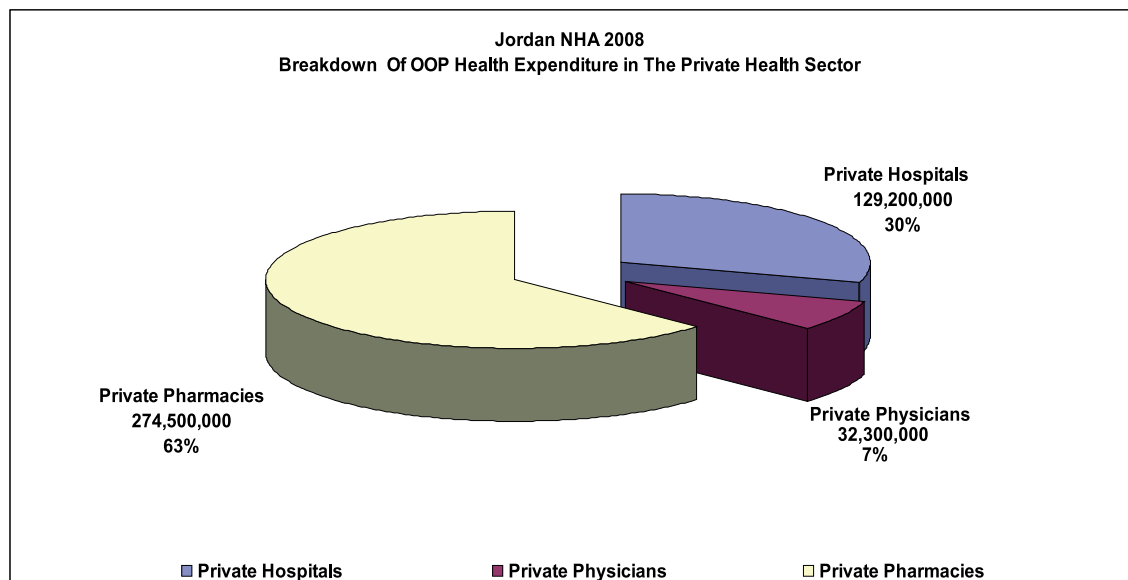
Figure 5: Household Exp. By Public and Private Sectors



Breakdown of oop Expenditures

Total out-of-pocket expenditures on health services by Jordanian households in the private sector amounted to around JD 436 million (\$615.8 million) in 2008, figure 6 shows the distribution of these oop expenditures. This represented roughly 95.4 percent of total health care expenditures that were paid directly by Jordanian households in the private sector. The remaining 4.6 percent was spent on premium contributions. Households' expenditures on pharmaceuticals amounted 63 percent, private hospitals 30 percent, and private physicians 7 percent.

Figure 6: Household Exp. By Public and Private Sectors



5.20 Hospital Sector

As presented in Table 58, the total number of hospital beds in Jordan is 11200, or 18 hospital bed per 10,000 population in 2008 compared to 17 in 2005. Table 58 also provides some key indicators of inpatient services. (Additional information, on the production of other inpatient services, can be obtained from MOH Annual Statistical Reports.) It is of import to note that Jordan hosts one of the highest bed-to-population ratios in the Middle East. The public sector has nearly twice the number of the beds as the private sector, 7488 versus 3712. The average occupancy rate was 65.1 in 2008, the ALOS was 3.2, and the admissions per 1000 population were 141 in the same year.

Table 43: Distribution of Beds in Public and Private Facilities and Occupancy Rates

Entity		No Of Beds		Occupancy Rate
		No.	%	
MOH		4,333	38.7	69.0 %
RMS		2,129	19	76.1%
UHs	JUH	522	4.7	73%
	KAUH	504	4.5	70.5%
Private		3,712	33.1	49.9%
Country level		11,200	100.0	65.1%

The percentage distribution of hospital beds in 2008 indicates that the MOH occupies 38.7 percent, RMS 19 percent, JUH 4.7 percent and KAUH 4.5 percent. Around third of hospital bed in Jordan are operated by the private hospital sector.

6. Policy Implications

Sustainability of Current Levels of Health Care Expenditures

Jordan spent 8.58 percent of its GDP on health care services in 2008 and 9 percent in 2007. Such high levels of health expenditures may prove to be unsustainable in the near term. Moreover, with changing demographics, population aging, and shift from infectious to chronic diseases, it becomes apparent that current expenditure levels will not be sustainable. Hence, an effective strategy of cost containment, to include greater use of utilization review mechanisms and the implementation of an effective prescription drug policy, should be of highest priority to stakeholders. Furthermore, the public sector is the major supplier of health care services in the country, and its services are provided to Ministry of Health and Royal Medical Service beneficiaries with little or no cost-sharing. This has implications for both cost- containment objectives, as well as the distribution of the financial burden among consumers of these services. It indicates that the government should consider developing a system of means-testing among beneficiaries. Such a system could shift the financial burden of the system in such a way that those with greater means are responsible for paying a greater share of their service provisions. A recent study on Fairness in Financial Contribution in Jordan conducted by the HHC in collaboration with DOS and WHO has shown that the health insurance premiums in the public sector should be revisited as the source of financing of these premiums is regressive, across public health insurance programs.

Health Policy Issues

Jordan NHA estimates (1998, 2000, 2001, 2007, and 2008) showed that Jordan is spending between 30 and 36 percent of its total health care expenditures on pharmaceuticals. This figure is considered very high for a country like Jordan, given the fact that this level of expenditure is difficult to sustain into the future. In addition, Jordan still has a high total fertility rate (3.8 according to 2009 DHS). Coupled with the facts that life expectancy has increased for both males and females, and child and infant mortality have decreased to be one of the lowest in the region, this will exert more pressure and demand for health care services on the system, reinforcing the concept of cost-containment. One specific area of cost-containment that was highlighted as a priority was the pharmaceuticals. Rational Drug Use will continue to be promoted and implemented, thus contributing to the government's cost containment efforts.

Public and Private Health Sector Coordination

Private sources financed around 37.5 percent of all health care expenditures, while the public sector financed roughly 57 percent in 2008. Increasing public and private sector coordination is needed for optimal health care policy design and its implementation. This becomes more evident when one considers the low levels of occupancy that prevails at private sector hospitals. Given the amount of excess capacity in the private sector, the government could accelerate its plans to engage in greater private sector contracting for health care services on behalf its beneficiaries. Contracting can increase utilization in the currently underutilized private sector and reduce the need for greater capital investment. Currently, the MOH is engaged in contracting with private hospitals in collaboration with PHA.

Equity

One major finding from this study is the significant amount of household out-of-pocket expenditures – roughly 42.3 percent (oop and health insurance premiums) of total health care expenditures – that occurs within the Jordanian health care sector. Another troubling finding is that the uninsured are provided services without determining their ability to pay. The government provides highly subsidized services to all persons, irrespective of a person's income or asset holding; hence, low-income persons are responsible for the same cost-sharing arrangements as higher-income households. Hence, while the publicly provide health care services are quite generous, the 25 percent of the Jordanian population that is uninsured seems to be facing significant financial risk under the current system. Significant changes are needed for male and female employees of small- and medium-sized business, as well as others who must supplement their current health insurance offerings by paying out-of-pocket for needed services.

Reallocating Expenditures from Curative to Primary Health Care

Jordan, like other middle-income countries, allocates a disproportionately large share of its health care expenditures to curative care services. Policymakers have expressed concern about this, and the current study reinforces the need for concern. Hence, it is imperative that the government engage in a significant preventive health strategy that earmarks expenditures towards more primary and preventive treatment. A well-designed information, education and communication (IEC) strategy should part of such a campaign. For example, it is common knowledge that the lifestyles of many Jordanians contribute to the high prevalence of diabetes mellitus, and heart diseases. An anti-smoking campaign, aimed at providing information to consumers about the health risk of tobacco smoking, would be a cost-effective strategy. Other steps, such as the promotion of daily exercise and reductions in the amounts of daily sugar intake, will also lead to overall healthier lifestyles, and lower health care costs.

7. Achievements of Jordan for NHA Institutionalization

As a result of a four-year effort by the HHC General Secretariat (2007-2010), the Jordan NHA activity became formally institutionalized within the government of Jordan at HHC General Secretariat. This is a remarkable achievement for NHA in Jordan as the HHC is directly involved in drawing up the national health policy and uses the NHA as a main health policy tool. The initial effort in Jordan was supported by PHR and PHRplus Projects. This 2008 NHA Technical Report is the second report issued by the HHC in Jordan (the first was 2007 NHA). The previous two NHA Reports were issued as a result of collaboration between the NHA team and the above mentioned projects.

Development of a Standardized Data Reporting System

The information that is available, through existing government and private agencies, is inaccurate and of poor quality. Moreover, there is little coordination among government sectors with respect to their accounting practices. The NHA team members expended a disproportionate amount of effort organizing various public sector agencies data, so that their accounting definitions would be comparable (Annex 2: page .. Unified definitions on Expenditures by line item and function). Significant work remains to be accomplished in the area of uniform data reporting for various actors within the health care sector. For example, little information exists regarding private sector hospitals' expenditures and revenues.

Adoption and Diffusion of NHA Results for Public Policy

Determining the appropriate policy designs, implementation, and methods of evaluation requires the availability of reliable data and sound methodologies for collecting and analyzing such data. The NHA results presented in this technical report are a step toward achieving this for Jordan's health care policy and planning. It is therefore imperative for policymakers to link the NHA findings in the process of national health policy debates and within the policy formulation and implementation processes.

In summary, the following has been achieved:

- . NHA team constituted, hosted at HHC General Secretariat, and trained in methodology.
- . Team has worked together to collect, analyze data, and produce technical annual reports.
- . A technical NHA committee was formed.
- . A number of lessons have been learned during this process.
- . NHA team attended a training workshop at WHO/EMRO, on using NHA and its relevance to planning and policy formulation.
- . NHA team conducted several workshops, for various national institutions. These workshops aimed at improving the NHA data collection process.

8. Recommendations for The Future of NHA in Jordan

Health Expenditure by Geographic Regions

NHA team decided to study during 2011, the possibility of producing some new health expenditure indicators by Governorates. This addition to NHA methodology will support the Government's plan aimed at implementing decentralization.

Following The Progress of The New NHA International Classification.

Jordan NHA team is committed to follow the progress of the new revised NHA classification SHA 2.0 and the possibility of implementing the new suggested methodology. This issue will be followed up by the HHC in collaboration with WHO.

Continuing The NHA Institutionalization Process

The NHA team is committed also to adopt the global strategic plan recommended by the World Bank in order to strengthen the process of institutionalizing NHA in Jordan at the HHC. Jordan was classified by the World Bank as one of few low middle income countries who almost institutionalized NHA.

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Annex No. 1

NHA Technical Committee

High Health Council General Secretariat:

- . Dr. Jamal Abu Saif
- . Mr. Fahmi Al-Osta
- . Mr. Muein Abu - Shaer
- . Mr. Sami Al Salem

Ministry of Health:

- . Dr. Taissir Fardous
- . Mr. Hussein Qasrawi

Royal Medical Services

- . Dr. Mohamed Qudah

Annex No. 2

Unified Definitions of Expenditures by Line Item and Function

Definitions of health expenditures by line item

1. Salaries : (salaries, allowances, wages, fees, social security, bonuses, incentives, day by day payments and the costs of official duties).
2. Drugs : (medicines, medical supplies, vaccines and serums).
3. Supplies :
 3. A medical supplies : medical devices and consumable (medical glasses and headphones,).
 3. B non-medical supplies: non medical devices and consumable (clothing, fabrics, stationery, printings, furniture, materials and raw materials).
4. Sustainability and operating expenses :
 4. A recurrent public expenditure: (telephone, fax, water, electricity, fuel, rents, studies, insurance of cars and buildings, building permit fees, customs fees, announcements) .
 4. B Maintenance: (the maintenance of medical and non-medical equipment, spare parts of medical and non-medical equipment, maintenance and repairs and modernization of buildings, car spare parts and maintenance).
5. Food and beverage, and Housekeeping:
 - 5.A Food and beverage including contracts.
 5. B Housekeeping including contracts.
6. Treatment: (treatment in hospitals within the Kingdom and outside the Kingdom).
7. Training: (training within and outside the Kingdom).
8. Medical devices and equipment: (all devices and medical equipment).
9. Devices and non-medical equipment: (vehicles, electrical appliances and mechanical) .
10. Constructions: (buildings and lands, constructions and works) .
11. Other expenditures: (aids, contributions, and other expenses) .

Definitions of health expenditure by function

1. Administration : includes salaries, wages, operating expenses and manufacturing expenses and capital expenditures, which belong to the Department.
2. Training : It includes salaries, wages, operating expenses and transferring expenses and capital expenditures, which belong to colleges, institutes and training.
3. Preventive services (primary care): This includes salaries and wages, operating expenses and transferring expenses and capital expenditures related to the health centers.
4. Curative services (secondary care) : This includes salaries and wages, operating expenses and transferring expenses and hospital capital expenditures.
5. Other expenditures :
 - * Treatment fees in private hospitals.
 - * Treatment fees in university hospitals, .
 - * The prices of medicines from private pharmacies.
 - * Expenses of treatment abroad.
 - * Medical glasses and headphones.
 - * Contributions.
6. Grants and loans : the World Bank, the U.S. Agency for International Development, the World Health Organization, and UNISEF

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