المملكة الأردنية الهاشمية

Hashemite Kingdom of Jordan

المجلس الصحي العالي - الأمانة العامة

High Health Council

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الحسابات الصحية الوطنية في الاردن ٢٠٠٩

التقرير الفني الثالث

Jordan National Health Accounts 2009

Technical Report No. 3

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His Majesty King Abdullah II Ibn Al-Hussein

His Royal Highness Crown Prince Al-Hussein Bin Abdullah II

تمهيـــد

يسعدني ان أقدم لكم وبكل فخر التقرير الفني الثالث حول الحسابات الصحية الوطنية للسنة المالية 2009 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 مما ينعكس على أداء النظام الصحي في المملكة .

وقد كان الأردن ومازال 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 في الأمانة العامة للمجلس الصحي العالي بإعتبار الحسابات أداة هامة لرسم السياسة الصحية في المملكة وتنسجم مع مهام المجلس .

تساعد الحسابات الصحية الوطنية في عملية تطوير إستراتيجيات وطنية من أجل الوصول إلى تمويل صحي فعال في القطاعين العام والخاص ، كما يمكن الإستفادة 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 أن مجمل الإنفاق على الصحة في الأردن لعام 2009 بلغ مليار و 610 مليون دينار أي ما نسبته 9.52 في المئة من الناتج المحلي الإجمالي ويعتبر هذا المؤشر مرتفعاً وهو من أعلى المؤشرات على مستوى الإقليم ومقارنة في الدول ذات الدخل المتوسط المتدني.

كما أظهرت مؤشرات الحسابات الصحية الوطنية أن النفقات المالية على خدمات الرعاية الصحية الأولية تراجعت مقابل نفقات الرعاية الصحية الثانوية والثالثية.

ولكننا نعمل وبتوجيهات من جلالة الملك المفدى عبد الله الثاني ابن الحسين على توسعة مظلة التأمين الصحي وتحسين نوعية الخدمة الصحية وزيادة الكشف المبكر عن الأمراض وبلورة التوعية الصحية والوقاية من الأمراض بالإضافة إلى ترشيد الإنفاق على التوسعة في الخدمات في القطاعين العام والخاص مستندين على المعلومات العلمية والمؤشرات الصحية التي تنبثق عن مثل هذا التقرير .

وختاماً أنتهز هذه الفرصة للإشادة بهذا الإنجاز الذي تحقق للمرة الثالثة على التوالي بجهود وطنية بذلها الفريق واللجنة الفنية للحسابات لإصدار هذا التقرير ، والذي يعتبر منطلقاً نحو التطوير المستمر والتميز في عملية إعداد ومأسسة الحسابات الصحية الوطنية في الأردن وفق المؤشرات والتصنيف العالمي للحسابات الصحية الوطنية .

وأملي 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

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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 healthcare expenditures. This NHA Technical report presents the results of the 2009 NHA for the Hashemite Kingdom of Jordan, which was completed through a collaborative effort made by the High Health Council (HHC) 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 the National Health Accounts at the High Health Council General Secretariat was decided by the Council in early 2007. This report represents the third NHA round to be executed by the new Jordanian NHA team, and the fifth NHA round for Jordan (the previous published NHA technical reports were for the following fiscal years: 1998, 2001 – 2002, 2007, and 2008).

In 2009, Jordan spent approximately JD 1.610 billion (US$ 2.274 billion) on health. Per capita healthcare spending was JD 269.3 (US$ 380.4). Total health expenditure represented 9.52 percent of GDP. The public sector is the largest source of health funding at 65.75 percent, followed by the private sector with 29.47 percent and donors at 4.77 percent. The main policy issues emerging from the NHA results are the high level of total health expenditure as a percentage of GDP and its implications for the ability to provide healthcare services at the current level of quality and quantity; the high level of pharmaceutical expenditures (27.91 percent of total health expenditure); and the high level of spending on curative care (76.51 percent as compared to primary care 14.71 percent).

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Acronyms

ALOS	Average Length of Stay
CHCC	Comprehensive Health Care Centers
CIP	Civil Insurance Program
GDCD	General Directorate of Civil Defense
GDP	Gross Domestic Product
GNP	Gross National Product
GOJ	Government of Jordan
GSAP	Global Strategic Action Plan
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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We thank all the institutions involved directly or indirectly in supporting and sustaining the NHA effort in Jordan. Also we thank NHA experts from The World Bank and the World Health Organization for providing continuous technical support.

We extend our thanks to the Director Institute for Global Health and Development at Brandies University/ Professor Dr. A.k. Nandakumar for his continuous support to NHA team aimed at institutionalizing NHA in Jordan at the HHC.

This 2009 NHA technical report is the third report prepared by Jordanian team and issued by HHC General Secretariat through collaborative national effort.

Executive Summary

Socio-economic Background

The Hashemite Kingdom of Jordan is a lower middle-income country, with a population of 5.98 million in 2009. In the same year, its gross domestic product (GDP) amounted to JD 16.9 billion or around US$ 23.89 billion, and per capita GDP was JD 2828.1 or US$ 3994.5 (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 development 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. Governmental commitment to improve the overall quality of life and the social standards of 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 2009) and has been 3.3 percent per year between 1992 and 1998. 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 the growing demand for healthcare for the elderly as well as maternal and child healthcare 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 healthcare expenditure 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 healthcare services in the country. Moreover, anecdotal evidence suggests that a significant amount of inefficiencies in the provision and financing of healthcare 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 30 percent of the population remains uninsured when considering the duplication in health insurance coverage which is 8.2 percent (health insurance coverage and health expenditure survey, DOS and HHC, 2010)

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 has found a broader audience outside of the public sector. However, many obstacles remain, namely, 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 healthcare in Jordan amounts to JD 1.610 billion (US$ 2. 274 billion) and the per capita expenditure reached JD 269.3 (US$ 380.4). The total expenditure on health is 9.52 percent of GDP and is considered high for a lower middle-income country like Jordan. This level of expenditure is more in line with Organization for Economic Cooperation and Development (OECD) countries. The proportion of government budget allocated to health sector is almost 10.52 percent in 2009 (GBD). Public sources account for 65.75 percent and private sources for 29.47 percent of healthcare financing; international donors account for the remaining 4.77 percent. In terms of expenditures, the public sector accounts for 69.17 percent, private sector accounts for 29.80 percent, NGO for 0.43 percent, and UNRWA clinics for 0.59 percent.

Expenditure on pharmaceuticals is very high and reached 449.4 million JD (US$ 663.6 million) which accounts for 2.66 percent of GDP. In Table 2 we observe that curative care accounts for 76.5 percent of public expenditures and primary care for only 14.7 percent.

Table 1: Jordan National Health Accounts Main Indicators

Main Indicators	2009
Total Population	5,980,000
Total Health Care Expenditures (JD)	1,610,352,435
Per Capita Health Care Expenditures (JD)	269.3
Gross Domestic Product (GDP) (JD)	16,912,200,000
Gross National Product (GNP) (JD)	17,340,500,000
Per Capita GDP (JD)	2828.1
Health Care Expenditures As Percent Of GDP	9.52%
Health Care Expenditures As Percent Of GNP	9.29%
Percent Of Government of Jordan Budget Allocated To Health	10.52
Sources Of Health Care Financing (Percent Distribution) . Public . Private . Donors	 65.75 % 29.47 % 4.77 %
Distribution Of Health Expenditure . Public . Private . UNRWA . NGOs	 69.17 % 29.80 % 0.59 % 0.43 %
Public Health Expenditure As Percent Of GDP	6.59 %
Private Health Expenditure As Percent Of GDP	2.93 %
Total Expenditure on Pharmaceuticals (JD)	449,395,115
Per Capita Pharmaceutical Expenditure (JD)	75.15
Pharmaceutical Expenditure As Percent of GDP	2.66 %
Pharmaceutical Expenditure As Percent of Total Health Expenditure . Public . Private	27.91 % 14.14 % 13.77 %
Distribution Of Pharmaceutical Expenditure as percentage of Total Pharmaceutical Expenditure . Public . Private	 50.67 % 49.33 %

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

Table 2 : Distribution Of Public Expenditure By Function JD

Function	MOH		RMS		UHs				Total	
					JUH		KAUH			
	Amount	٪	Amount	٪	Amount	٪	Amount	٪	Amount	٪
Curative	532,778,881	78.82%	141,383,532	64.11%	49,506,345	91.15%	34,000,000	86.08%	757,668,758	76.51%
Primary	101,193,853	14.97%	43,502,624	19.73%	0	0.00%	950,000	2.41%	145,646,477	14.71%
Administration	30,449,867	4.50%	32,626,969	14.80%	3,278,923	6.04%	750,000	1.90%	67,105,759	6.78%
Training	9,441,546	1.40%	2,500,000	1.13%	22,695	0.04%	1,400,000	3.54%	13,364,241	1.35%
Other	2,095,878	0.31%	505,292	0.23%	1,502,958	2.77%	2,400,000	6.08%	6,504,128	0.66%
Total	675,960,025	100%	220,518,417	100%	54,310,921	100.00%	39,500,000	100%	990,289,363	100%

1.Introduction

Jordan's health system consists 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 Jordan University, and Jordan University of Science and Technology. In addition, several non-governmental organizations (NGOs) and donor owned and operated facilities exist, the 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 and expenditures on private healthcare 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 healthcare system exacerbates the difficulty in data collection and assessment. Many individuals and their dependents are enrolled in more than one insurance program (8.2 of population). A result of the duplication in health insurance coverage is the difficulty 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, including relevant international organizations, support NHA activities in Jordan and the process of institutionalizing it at the HHC General Secretariat.

NHA is designed to give a comprehensive description of resource flows in a healthcare system, showing where resources come from, and how they are used.

According to current NHA estimates, in 2009, Jordan spent on the health sector approximately JD 1.610 billion (US$ 2. 274 billion) compared to JD 598 million (US$ 854 million) in 2001, which accounts for 9.52 percent of GDP in 2009 and 9.60 percent in 2001. Health expenditure per capita in 2009 reached JD 269.3 (US$ 380.4) compared to JD 115 (US$ 164) in 2001. NHA results highlight the fact that the proportion of GDP spent on healthcare is high. This level of expenditure might be difficult to sustain in the future.

The 2009 NHA results show that almost 29.47 percent of total funds originate from private sources, and 65.75 percent originate from public funds, and the remaining 4.77 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 healthcare services for their employees, and out-of-pocket (OOP) expenditure for healthcare and for drugs at pharmacies. The public sources comprise mainly tax revenue allocations by Ministry of Finance (MOF) to the Ministry of Health (MOH), Royal Medical Services (RMS), King Abdullah University Hospital (KAUH), and Jordan University Hospital (JUH).

A breakdown of public health expenditures by function indicates that almost 76.51 percent is spent on curative services, 14.71 percent on preventive measures, 6.78 percent on administrative activities, 1.35 percent on training, and 0.66 percent on miscellaneous activities. Even though 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 449.4 million (US$ 634.7 million) is higher than most countries in Jordan's income group. It accounted for 2.66 percent of GDP in 2009 compared to 3.1 percent of GDP in 2008.

2. NHA Methodology:

The phase of data collection for this 2009 NHA round started on February 2011 and was completed in December 2011. The Jordanian National Health Accounts team was established and hosted at HHC. 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 experiences of previous NHA rounds.

The 2009 NHA data collection efforts were enhanced significantly due to the following changes:

- Multi-sectoral NHA team which includes representatives from HHC, MOH, MOF, MOPIC, MOSD, RMS, JUH, JPD,KAUH, DOS, JFDA, GBD, and PHA.

- Establishment of a new Health Economics and Financing Division within the Directorate of Technical Affairs and Studies at the HHC General Secretariat, which acts also as an active NHA Unit.

- Establishment of a Technical Committee for NHA (subcommittee of NHA team- see list of committee' members in Annex No. 1 page 57) responsible for collection, validation, data entry, and writing of NHA technical reports.

- 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 2009 data gathering efforts. As an official GOJ request, the letter legitimized the NHA data collection efforts; hence, team members were faced with fewer obstacles during the data collection 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 OECD. 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 for categorizing recurrent and capital expenditures. Organizing expenditures into these categories, and reaching consensus 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 Method

The Jordanian healthcare 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 healthcare services in the Kingdom. The predominate form of private sector financing of healthcare services emanates from private households. Therefore, the data required for completion of this report was 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 by the technical committee according to NHA team rules and definitions:

- Ministry of Finance (MOF): Data on MOF funds earmarked for various public agencies were obtained from the MOH Annual Statistical Reports, Central Bank of Jordan (annual and monthly reports) and MOF budget department reports.

- Ministry of Health (MOH): Data on MOH expenditures were obtained from the MOH annual reports, the MOH Budget Department (monthly statement of accounts, and annual statement of accounts).

- Ministry of Social Development (MOSD): Data on the MOSD healthcare expenditures were obtained from the accounts of MOH Health Insurance Administration, as well as the MOSD Budget Department (monthly and annual statement of accounts).

- Royal Medical Services (RMS): Data on RMS expenditures were obtained from the RMS Finance and Accounting Department and MOF budget department reports.

- University Hospitals (UHs): Data obtained from Finance and Accounting Departments of JUH and KAUH, as well as from the MOH- Health Insurance Administration.

- Royal Court: Data on Royal Court expenditures were obtained from Royal Court, JUH, RMS, and MOH- Health Insurance Administration.

- General Directorate of Civil Defense GDCD: Data on GDCD expenditures were obtained from the GDCD Finance and Accounting Department

- Household-level Expenditure Estimates: Data on Households were obtained in particular from the last Health Insurance and Expenditures Survey (DOS and HHC, 2010), Fairness in Financial Contribution Study conducted by the HHC General Secretariat in collaboration with DOS and WHO/HQ in Geneva (Abu-Elsamen T., Abu-Saif J. et al, 2010).

- Private Sector Organizations: Data on private sector organizations were obtained from private universities, self-insured firms, Third Party Administrators, NGOs, and non-profit organizations (including hospitals). The NHA team conducted site interviews, based upon a predefined set of data collection techniques. Moreover, additional data were obtained from the Department of Statistics, the General Union of Voluntary Society, and the Insurance Regulatory Commission.

- Donors: Data on international donor contributions were obtained mainly from MOH, and MOPIC.

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

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

3. Overview of NHA Results

This chapter discusses estimates made by the 2008 and the 2009 NHA studies. As Table (3) shows, Jordan's total healthcare expenditure were approximately JD 1.381 billion (US$1.95 billion) in 2008, this amounted to 8.58 percent of GDP. Per capita healthcare expenditures was JD 236 ($333). Total healthcare expenditure was approximately JD 1.610 billion (US$ 2.276 billion) in 2009, this amounted to 9.52 percent of GDP. Healthcare expenditures per capita reached JD 269.3 ($380.4). Total Healthcare expenditures increased by 16.6 percent between 2008 and 2009, and per capita health expenditures by 14.1 percent over the same period.

Table (3): Summary NHA Indicators, Jordan, 2008 and 2009

Main Indicators	2008	2009
Total Population	5,850,000	5,980,000
Total Healthcare Expenditures (JD)	1,381,460,034	1,610,352,435
Per Capita Healthcare Expenditures (JD)	236	269.3
Gross Domestic Product (GDP) (JD)	16,108,000,000	16,912,200,000
Gross National Product (GNP) (JD)	16,602,000,000	17,340,500,000
Per Capita GDP (JD)	2,753.5	2828.1
Healthcare Expenditures As Percent Of GDP	8.58 %	9.52%
Healthcare Expenditures As Percent Of GNP	8.32 %	9.29%
Percent Of Government of Jordan Budget Allocated To Health	10.16 %	10.52%
Sources Of Health Care Financing (Percent Distribution)		
. Public	57.00 %	65.75 %
. Private	37.49 %	29.47 %
. Donors	5.51 %	4.77 %
Distribution Of Health Expenditure		
. Public	60.78 %	69.17 %
. Private	38.24 %	29.80 %
. UNRWA	0.69 %	0.59 %
. NGOs	0.29 %	0.43 %
Public Health Expenditure As Percent Of GDP	5.21 %	6.59 %
Private Health Expenditure As Percent Of GDP	3.37 %	2.93%
Total Expenditure on Pharmaceuticals (JD)	496,453,222	449,395,115
Per Capita Pharmaceutical Expenditure (JD)	84,86	75.15
Pharmaceutical Expenditure As Percent of GDP	3.08 %	2.66 %
Pharmaceutical Expenditure as Percent of Total Health Expenditure	35.94 %	27.91 %
. Public	13.81 %	14.14 %
. Private	22.12 %	13.77 %
Distribution Of Pharmaceutical Expenditure as percentage of Total Pharmaceutical Expenditure		
. Public	38.44 %	50.67 %
. Private	61.56 %	49.33 %

Source: Jordan NHA team.

Approximately 29.47 percent of the total funds circulating within the system originated from private sources (2009). The public sector's share amounted to 65.75 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 4.77 percent of total funds.

Private sources of financing consist of the following:

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

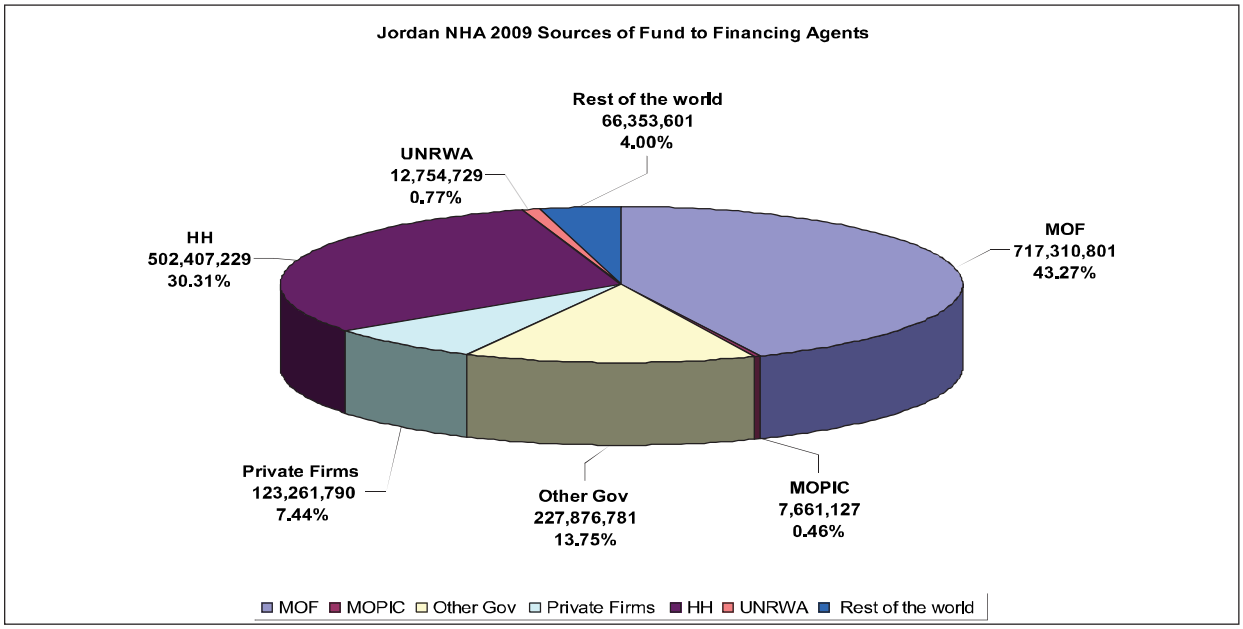
A breakdown of public health expenditures by function for 2009 revealed that significant amounts of public sector resources, roughly 76.51 percent, are earmarked for the provision of curative care services. Only 14.71 percent of these resources were for the provision of primary care services. Other expenditure items were 6.78 percent for administering the system, 1.35 percent for training personnel, and 0.66 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 healthcare funds in 2009.

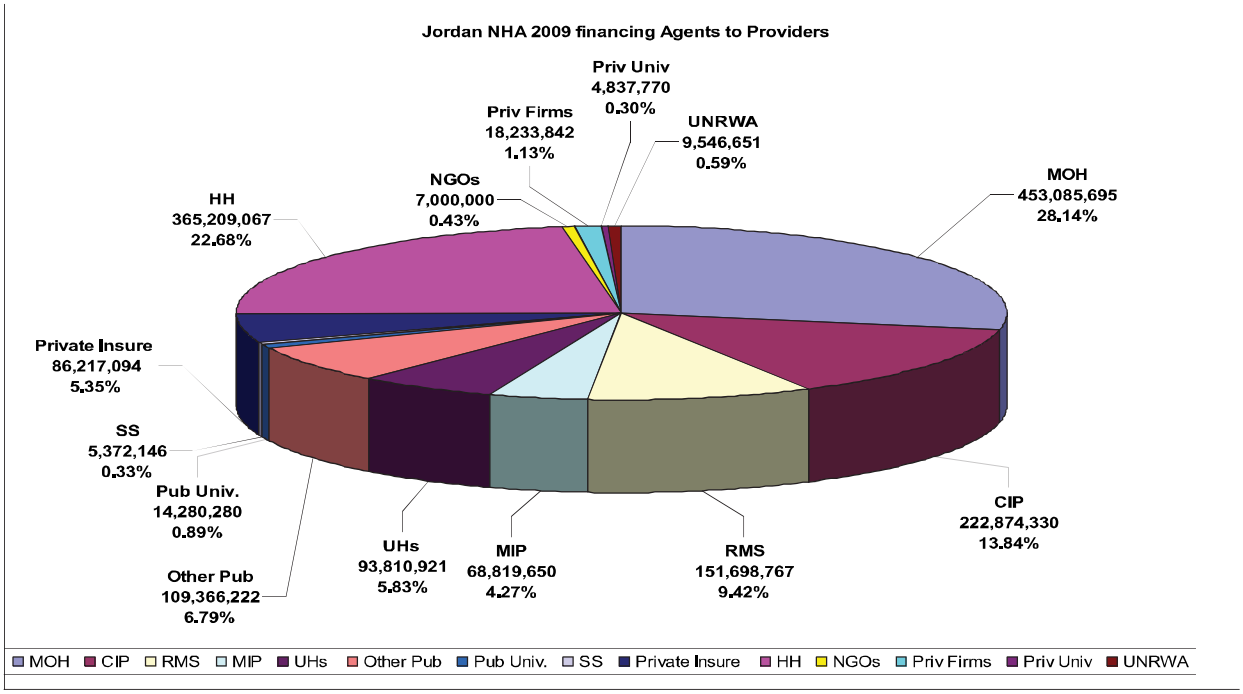
As indicated in Figure (1), the two major sources of healthcare funds in 2009 were the MOF (43.27 percent) and households (30.31 percent), compared to 33 percent and 46 percent respectively in 2001. The next largest source is other government entities with 13.75 percent. UNRWA and international donors together accounted for 4.77 percent.

Figure (1): Sources of Health Funds to Financing Agents



As shown in Figure (2) in 2009, public facilities (MOH including CIP, RMS including MIP, UHs, other public entities, and public universities) received 69.17 percent of healthcare funds, while private facilities received 29.80 percent. UNRWA received 0.59 percent, and 0.43 percent were earmarked for NGO facilities. Among public facilities, MOH including CIP funded the largest share, around 42 percent, followed by the RMS including MIP with 13.7 percent, JUH and KAUH with 5.8 percent.

Figure (2): Financing Agents to Providers



Pharmaceutical Expenditures

In 2009, pharmaceutical expenditures amounted to JD 449,395,115, which represents 27.91 percent of total healthcare expenditure and roughly 2.66 percent of GDP compared to 3.1 in 2008 (Table 4). This level is considerably high for a lower middle income country.

Table (4): Expenditures on Pharmaceuticals

	2008	2009
Total expenditures on drugs (JD)	496,453,222	449,395,115
Per capita drug expenditure (JD)	84.86	75.15
Drug expenditures as percent of THE	35.93 %	27.91 %
Drug expenditures as percent of GDP	3.08 %	2.66 %
Distribution of drug expenditures: Public Private	 13.81 % 22.12 %	 14.14 % 13.77 %

Source: Jordan NHA

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

Consumer behavior: the health seeking behavior of consumers (patients), particularly with respect to the practice of 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.

Provider prescribing behavior: the prescribing behavior of physicians and pharmacists is an essential 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.

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 lower 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 2009, Jordan's healthcare expenditures amounted to 9.52 percent of GDP. This percentage is much higher than those of other MENA counties that are at similar stages of economic development. While it is difficult to make international comparisons of healthcare expenditures due to variations in national accounting practices as well as in the structure of delivering and financing healthcare services, this finding for Jordan has been somewhat startling to policymakers. Jordan, with its limited resources, is consuming healthcare 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 is 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 2009. The primary source of healthcare funds is the public sector, primarily the Ministry of Finance, in the amount of JD 717 million in 2009. The second largest source is private households. Their contributions amounted to JD 502 million in the same year.

Second, we estimated the transfer of healthcare funds from Financing Agents to Providers. Financing Agents purchase healthcare services from providers on behalf of their beneficiaries. Tables 7 and 8 show that the main providers are the Ministry of Health, Royal Medical Services, Jordan University Hospitals (JUH, KAUH), private sector providers, non-governmental 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 365 million. The amount transferred from financing agent to providers are those that MOH pays to operate its hospitals; JD 301 million.

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

Financing Agents	PRIMARY SOURCES OF FUND (JD)							
	MOF FS.1.1.1	MOPIC FS.1.1.2	Other Government Entities FS.1.4	Private Firms FS.2.1	HH FS.2.2	UNRWA FS.3.1	Rest of The World FS.3.2	TOTAL
MOH (within budget) HF.1.1.1.1	406,914,419	3,912,054	459,543	150,000			41,649,679	453,085,695
CIP HF.1.1.1.2	134,222,018		20,911,540	384,816	75,963,235	1,281,047		232,762,656
RMS HF.1.1.2.1	128,500,000	3,749,073	1,555,000				17,894,694	151,698,767
MIP HF.1.1.2.2	2,753,505		49,125,313	3,855,000	13,085,832			68,819,650
UHs HF.1.1.3	3,184,439		70,554,146	12,561,012	6,511,324		1,000,000	93,810,921
Other Government Entities HF.1.1.4	41,736,420		78,320,131	15,577,707	1,685,141		363,228	137,682,627
Public Universities HF.1.1.5			2,856,056		11,424,224			14,280,280
Social Security HF.1.2			4,067,052	4,067,052	4,379,903			12,514,007
Private insure Enterprises HF.2.2				68,973,675	17,243,419			86,217,094
Household HF.2.3					365,209,067			365,209,067
NGOs HF.2.4			28,000	826,000	700,000		5,446,000	7,000,000
Private Firms HF.2.5				16,866,528	1,367,314			18,233,842
Private Universities HF.2.5.1					4,837,770			4,837,770
UNRWA HF.3.1						11,473,682		11,473,682
TOTAL	717,310,801	7,661,127	227,876,781	123,261,790	502,407,229	12,754,729	66,353,601	1,657,626,058

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

Financing Agents	PRIMARY SOURCES OF FUND (Percentages)							
	MOF FS.1.1.1	MOPIC FS.1.1.2	Other Government Entities FS.1.4	Private Firms FS.2.1	HH FS.2.2	UNRWA FS.3.1	Rest of The World FS.3.2	TOTAL
MOH (within budget) HF.1.1.1.1	89.81%	0.86%	0.10%	0.03%	0.00%	0.00%	9.19%	100.00%
CIP HF.1.1.1.2	57.66%	0.00%	8.98%	0.17%	32.64%	0.55%	0.00%	100.00%
RMS HF.1.1.2.1	84.71%	2.47%	1.03%	0.00%	0.00%	0.00%	11.80%	100.00%
MIP HF.1.1.2.2	4.00%	0.00%	71.38%	5.60%	19.01%	0.00%	0.00%	100.00%
UHs HF.1.1.3	3.39%	0.00%	75.21%	13.39%	6.94%	0.00%	1.07%	100.00%
Other Government Entities HF.1.1.4	30.31%	0.00%	56.88%	11.31%	1.22%	0.00%	0.26%	100.00%
Public Universities HF.1.1.5	0.00%	0.00%	20.00%	0.00%	80.00%	0.00%	0.00%	100.00%
Social Security HF.1.2	0.00%	0.00%	32.50%	32.50%	35.00%	0.00%	0.00%	100.00%
Private insure Enterprises HF.2.2	0.00%	0.00%	0.00%	80.00%	20.00%	0.00%	0.00%	100.00%
Household HF.2.3	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%
NGOs HF.2.4	0.00%	0.00%	0.40%	11.80%	10.00%	0.00%	77.80%	100.00%
Private Firms HF.2.5	0.00%	0.00%	0.00%	92.50%	7.50%	0.00%	0.00%	100.00%
Private Universities HF.2.5.1	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%
UNRWA HF.3.1	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
TOTAL	43.27%	0.46%	13.75%	7.44%	30.31%	0.77%	4.00%	100.00%

Table (7): Financing Agents to Providers (JD)

Providers	Financing Agents (JD)														
	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	TOTAL
MOH Curative Care HP.1.1.1.1	301,065,778	20,058,980		2,728,411											323,853,169
MOH Primary Care HP.3.4.9.1	86,846,769	8,725,533		6,366,292											101,938,594
MOH Administration HP.6.1	27,169,905	3,064,721													30,234,626
MOH Training & Research HP.8.2	9,432,973	8,573													9,441,546
MOH HP.N.S.K	1,349,886	40,992													1,390,878
MOH Facilities	425,865,311	31,898,799		9,094,703											466,858,813
RMS Curative Care HP.1.1.1.2		49,125,313	96,847,899	39,534,925											185,508,137
RMS Primary Care HP.3.4.9.2			29,799,353	7,336,979											37,136,332
RMS Administration HP.6.1			22,349,515	10,277,454											32,626,969
RMS Training & Research HP.8.2			2,500,000												2,500,000
RMS . N.S.K			202,000	303,292											505,292
RMS Facilities		49,125,313	151,698,767	57,452,650											258,276,730
UHs Curative Care HP.1.1.1.3	4,000,000	52,689,543			83,506,345										140,195,888
UHs Primary Care (Clinic) HP.3.4.9.3					950,000										950,000
UHs Administration HP.6.1					4,028,923										4,028,923
UHs Training & Research HP.8.2					1,422,695										1,422,695

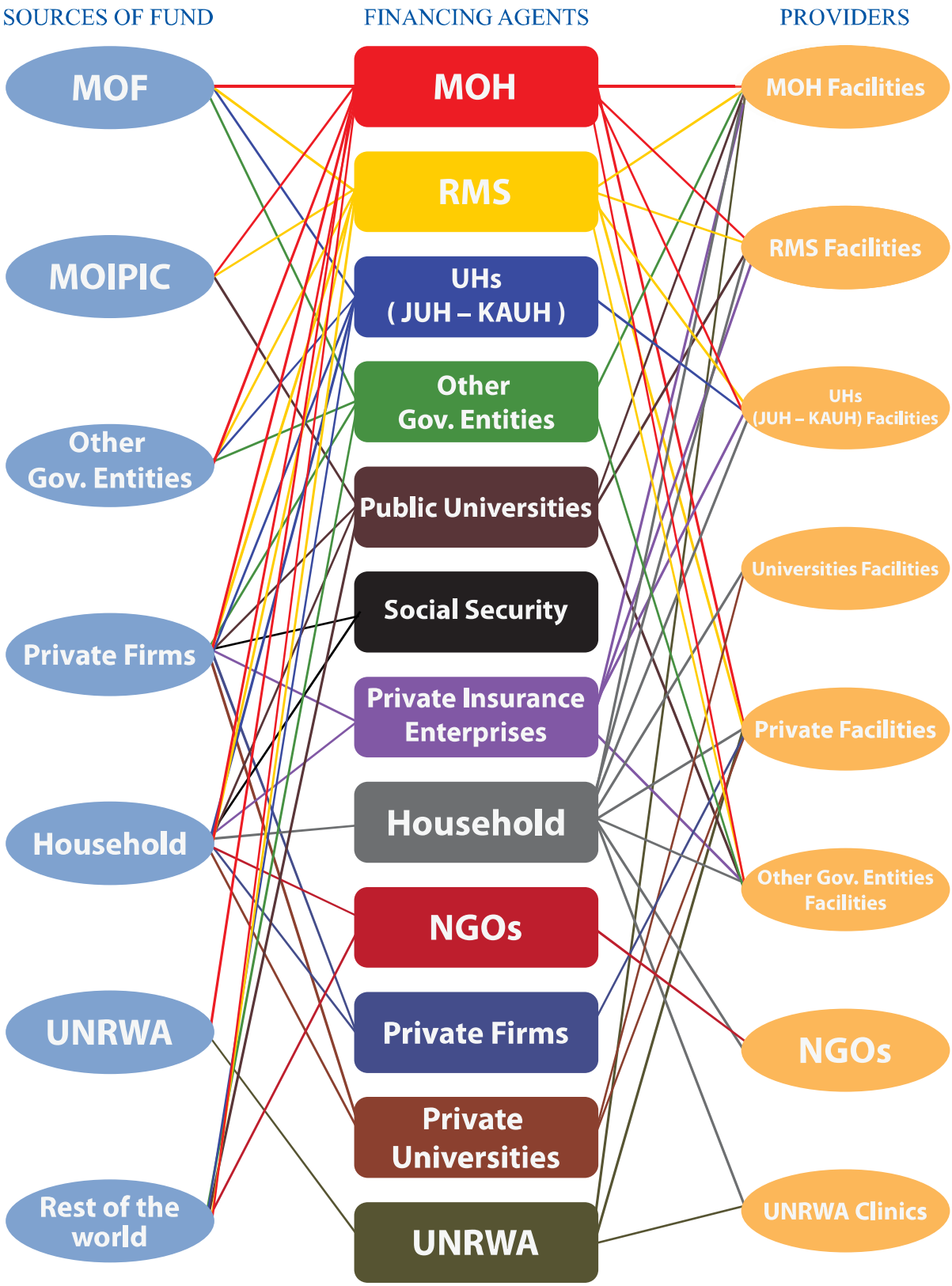
UHs HP.N.S.K					3,902,958										3,902,958
UHs Facilities	4,000,000	52,689,543			93,810,921										150,500,464
Universitics Facilities							4,284,084						1,451,330		5,735,414
Private Curative Care HP.1.1.2	16,800,000	9,940,642		602,358		1,352,881	1,874,287	3,469,410	22,524,180	131,219,618		6,416,380	846,610		195,046,366
Other Private Facilities HP.3.1						165,444	4,498,288	438,606	29,879,350	105,295,252		6,552,884	1,523,898		148,353,722
Private Pharmacies HP.4.1		1,017,462				809,765	2,998,859	995,092	25,806,469	128,694,197		5,112,664	1,015,932		166,450,440
Private Training & Research HP.8.2															
Private HP.N.S.K						67,525		469,038	8,007,095			151,914			8,695,572
Private Facilities	16,800,000	10,958,104		602,358		2,395,615	9,371,434	5,372,146	86,217,094	365,209,067		18,233,842	3,386,440		518,546,100
Other Gov Entities Curative Care HP	5,705,143	72,884,712				51,212,146	624,762								130,426,763
Other Gov Entities Primary Care HP	500,000	4,104,089				41,334,294									45,938,383
Other Gov Entities administratio n HP	215,241					12,903,068									13,118,309
Other Gov Entities T & R HP.						829,034									829,034
Other Gov Entities HP.N.S.K		705,000				177,065									882,065
Other Gov Entities Facilities	6,420,384	77,693,801				106,455,607	624,762								191,194,554
NGOs Curative Care HP.1.1.3															0
NGOs Primary Care HP.3.4.9.4											7,000,000				7,000,000
NGOs Facilities											7,000,000				7,000,000
UNRWA														9,546,651	9,546,651
Treatment Abroad HP.9.2		508,770		1,669,939		515,000									2,693,709
TOTAL	453,085,695	222,874,330	151,698,767	68,819,650	93,810,921	109,366,222	14,280,280	5,372,146	86,217,094	365,209,067	7,000,000	18,233,842	4,837,770	9,546,651	1,610,352,435

Table (8): Financing Agents to Providers, (Percentages)

Providers	Financing Agents (Percentages)													
	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	66.45%	9.00%	0.00%	3.96%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MOH Primary Care HP.3.4.9.1	19.17%	3.92%	0.00%	9.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MOH Administration HP.6.1	6.00%	1.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MOH Training & Research HP.8.2	2.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MOH HP.N.S.K	0.30%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MOH Facilities	93.99%	14.31%	0.00%	13.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RMS Curative Care HP.1.1.1.2	0.00%	22.04%	63.84%	57.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RMS Primary Care HP.3.4.9.2	0.00%	0.00%	19.64%	10.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RMS Administration HP.6.1	0.00%	0.00%	14.73%	14.93%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RMS Training & Research HP.8.2	0.00%	0.00%	1.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RMS . N.S.K	0.00%	0.00%	0.13%	0.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RMS Facilities	0.00%	22.04%	100.00%	83.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
UHs Curative Care HP.1.1.1.3	0.88%	23.64%	0.00%	0.00%	89.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
UHs Primary Care (Clinic) HP.3.4.9.3	0.00%	0.00%	0.00%	0.00%	1.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
UHs Administration HP.6.1	0.00%	0.00%	0.00%	0.00%	4.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
UHs Training & Research HP.8.2	0.00%	0.00%	0.00%	0.00%	1.52%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

UHs HP.N.S.K	0.00%	0.00%	0.00%	0.00%	4.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
UHs Facilities	0.88%	23.64%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Univcrsitics Facilities	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%	0.00%
Private Curative Care HP.1.1.2	3.71%	4.46%	0.00%	0.88%	0.00%	1.24%	13.13%	64.58%	26.12%	35.93%	0.00%	35.19%	17.50%	0.00%
Other Private Facilities HP.3.1	0.00%	0.00%	0.00%	0.00%	0.00%	0.15%	31.50%	8.16%	34.66%	28.83%	0.00%	35.94%	31.50%	0.00%
Private Pharmacies HP.4.1	0.00%	0.46%	0.00%	0.00%	0.00%	0.74%	21.00%	18.52%	29.93%	35.24%	0.00%	28.04%	21.00%	0.00%
Private Training & Research HP.8.2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Private HP.N.S.K	0.00%	0.00%	0.00%	0.00%	0.00%	0.06%	0.00%	8.73%	9.29%	0.00%	0.00%	0.83%	0.00%	0.00%
Private Facilities	3.71%	4.92%	0.00%	0.88%	0.00%	2.19%	65.63%	100.00%	100.00%	100.00%	0.00%	100.00%	70.00%	0.00%
Other Gov Entities Curative Care HP	1.26%	32.70%	0.00%	0.00%	0.00%	46.83%	4.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Gov Entities Primary Care HP	0.11%	1.84%	0.00%	0.00%	0.00%	37.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Gov Entities administratio n HP	0.05%	0.00%	0.00%	0.00%	0.00%	11.80%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Gov Entities T & R HP.	0.00%	0.00%	0.00%	0.00%	0.00%	0.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Gov Entities HP.N.S.K	0.00%	0.32%	0.00%	0.00%	0.00%	0.16%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Gov Entities Facilities	1.42%	34.86%	0.00%	0.00%	0.00%	97.34%	4.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NGOs Curative Care HP.1.1.3	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NGOs Primary Care HP.3.4.9.4	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
NGOs Facilities	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
UNRWA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
Treatment Abroad HP.9.2	0.00%	0.23%	0.00%	2.43%	0.00%	0.47%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Figure (3)
JORDAN NHA 2009
Jordanian Health Sector's Flow of Funds



Financing Sources

In Jordan, healthcare 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), the MOF is the major source of healthcare funds, accounting for 43.27 percent. The second largest source is households with 30.31 percent, and other governmental entities supply 13.75 percent of healthcare funds. Private firms provide around 7.44 percent by funding 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 healthcare services from a health insurance fund that is managed by the company and often administered by a Third Party Administrator (TPA). Alternatively, companies can also enroll their employees in plans managed by commercial insurers. Rest of the world contributions (without UNRWA) is around 4.00 percent. UNRWA's share is 0.77 percent.

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	717,310,801	7,661,127	227,876,781	123,261,790	502,407,229	12,754,729	66,353,601	1,657,626,058
Percent	43.27%	0.46%	13.75%	7.44%	30.31%	0.77%	4.00%	100.00%

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:

- MOH: for CIP beneficiaries and other categorical groups.
- RMS: for active and retired military personnel and public security personnel, and their dependents.
- JUH: for its employees and their dependents, as well as students.
- JUST: for its employees and their dependents, as well as students.
- Other public entities, such as the KHCC, NCDEG, JFDA, MOSD, HHC, JPD.
- Public universities: such as Jordan University of Science and Technology for employees and their dependents, as well as students.
- Social Security Corporation (SSC): for work-related injuries.
- Insurance firms (commercial insurers): for the purchase of services on behalf of their beneficiaries.
- Households: through out-of-pocket expenditures and various user fees at points of service.
- NGOs: for categorical groups of patients, such as the Jordan Association of Family Planning and Protection.
- Private firms and universities: for employees.
- UNRWA: for Palestinian refugees.

Use of Funds

Financing Agents use the funds they receive from Financing Sources to purchase healthcare from the following public and private sector providers; the following list considers the major Financing Agents and Providers:

- MOH to MOH facilities: The MOH is both a purchaser and provider of healthcare 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;

- 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;

- Private sector purchasers to providers: Private sector purchasers include households, firms, univer sities, and commercial insurers, which purchase services on behalf of their beneficiaries from both public and private sector providers.

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 purchaser and provider of healthcare services in Jordan. In 2009, the MOH budget accounted for 8.0 percent of the general budget. The proportion of general budget funds allocated for the MOH has varied slightly in the past five years. It has ranged from 5.7 to 8 percent since 2005. The MOH also is the largest in terms of the size of operation as compared to RMS, JUH, JUST, and the private sector. The MOH owns and operates 30 hospitals throughout governorates, and has the most hospital beds (4358), followed by the private sector with (3853) beds. The occupancy rate of MOH hospitals is (68.6) percent in 2009. The average length of stay is 3.2 days for the same year.

The total number of admissions has increased by approximately 16.8 percent between the years 2005 -2009 as shown in Table 10. The death rate has decreased since 2005 to 1.4 percent in 2009. The occupancy rate has slightly dropped from 71 percent in 2005 to 68.6 percent in 2009.

Table 10: MOH Hospitals: Utilization and Efficiency Indicators 2005-2009

Item \ Year		2005	2006	2007	2008	2009
Admissions		279723	290186	314554	318032	326730
Discharged	Alive	275973	285598	309330	313219	322008
	Dead	4070	4516	4920	4857	4717
Death Rate ٪		1.5	1.6	1.6	1.5	1.4
Occupancy Rate ٪		71.0	65.8	69.0	69.0	68.6
Avg. Length of Stay		3.2	3.3	3.3	3.2	3.2
Surgical Operations		82517	81032	83231	85371	86329
Deliveries		70783	71687	79655	77136	75705
Out-Patient Visits		2414403	2472155	2647261	2859276	3159200

Table 11, shows the MOH Primary Health Care Centers 2009 distributed throughout the kingdom.

Table 11: MOH Primary Healthcare Centers

	Comprehensive	Primary	Peripheral	Maternity& Child Care	Dental Clinics
Total	70	378	236	431	349

Source: MOH annual statistical book 2009,

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

Table 12: Distribution of Healthcare Personnel by Sector

	MOH	RMS	JUH	KAUH	Private	UNRWA	Total	Rate per.10000 of population
Physicians	3965	1333	375	420	8483	98	14674	24.5
Dentists	653	245	0	66	3389	30	4383	7.3
Pharmacists	356	460	34	29	7528	2	8409	14.1
Registered Nurses	3036	2335	468	459	5781	40	12119	20.3
Associate Degree Nursing	1581	1783	0	112	0	0	3476	5.8
ssociate Nurses	3000	301	98	87	2261	187	5934	9.9
Midwives	1203	140	17	0	425	32	1817	3.0

Source: MOH Annual Statistical Report, 2009.

Analysis of MOH Funds

Sources of MOH Funds

As mentioned earlier and indicated in Table 13, most of the MOH funds (89.8 percent) come from the MOF followed by rest of the world (9.2) percent.

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

Financing Agents	MOH (within budget)	Percent
MOF	406,914,419	89.81 %
MOPIC	3,912,054	0.86 %
Other Gov. Entity	459,543	0.10 %
Private Firms	150,000	0.03 %
HH	0	0%
UNRWA	0	0%
Rest of the world	41,649,679	9.19 %
Total	453,085,695	100%

Source: MOH

Use of Funds

NHA analyses the use of funds in two ways:

A) By function – primary care, curative care, administrative, training, and others (miscellaneous).
B) 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 453,085,695 in 2009. As indicated in Table 14 JD 425,865,311(94%) allocated to MOH facilities. The remaining amount of about JD 27 million was spent on reimbursing RMS, UHs, private providers, and other governmental entities for their services,.

Table 14 : MOH Expenditures on different Facilities JD

	MOH	
	Amount	Percent
MOH Facilities	425,865,311	94.0%
UHs Facilities	4,000,000	0.9%
Private Facilities	16,800,000	3.7%
Other Gov. Entities	6,420,384	1.4%
Total	453,085,695	100.0%

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 increased between 2001 and 2007 by around 10%, but decreased between 2007 and 2008 by around 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). An increase of 12 percent was seen between 2008 and 2009 on curative care expenditures. On the other hand the primary care expenditures were decreased dramatically by about 12.2 percent between 2008 and 2009. Administrative function increased by 0.44 percent (from 5.6 in 2008 to 6.04 percent in 2009), but the training expenses decreased by 0.42 percent (from 2.5 to 2.08) for the same period as shown in table (15).

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

Type of service	MOH							
	2001		2007		2008		2009	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount *	Percent
Curative Care	113,718	65%	247,912	74.84%	215,047	60.4%	327,571	72.30%
Primary Care	50,187	29%	70,103	21.16%	112,173	31.5%	87,347	19.28%
Administrative	5,695	3%	6,175	1.86%	20,068	5.6%	27,385	6.04%
Training	3,157	2%	2,207	0.67%	8,880	2.5%	9,433	2.08%
Others	1,355	1%	4,859	1.47%	0	0	1,350	0.30%
Total	174,112	100%	331,256	100%	356,167	100%	453,086*	100%

Source: previous NHA technical reports

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

* This amount does not includes the CIP/MOH budget (JD 222.8 million)

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

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	157,938,335	34.86 %
Drugs	98,088,256	21.65 %
Supplies	19,938,622	4.40 %
Exp. Of Sustainability & Operation	47,539,894	10.49 %
Exp. Of Food & Housekeeping	16,089,008	3.55 %
Treatment	40,648,654	8.97 %
Training	6,913,715	1.53 %
Sub-Total	**387,156,484**	**85.45 %**
Capital Investment		
Medical Equipment	15,493,462	3.42 %
Non-Medical Equipment	3,153,948	0.70 %
Constructions	45,200,171	9.98 %
Sub-Total	**63,847,581**	**14.09 %**
Other Expediter		
Other Exp.	2,081,630	0.46 %
Sub-Total	**2,081,630**	**0.46 %**
Grand Total	**453,085,695**	**100 %**

Table (16) shows MOH expenditures by line item. Recurrent expenditures amounted to JD 387 million (85.5 percent of total MOH expenditures). The expenditure on salaries item accounted for around JD 158 million (35 percent) of recurrent expenditures followed by drugs with JD 98 millions (22 percent)

5.2 Royal Medical Services (RMS)

Organization and Size:

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

Providing curative and primary healthcare to the armed forces through 11 main hospitals spread 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 1.6 million individuals, accounting for around 27 percent of the population (RMS, Annual Statistical Report, 2009). The number of people covered under the military insurance program has increased during 1964 - 2009 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, Seralion, Eretria, Liberia, Congo, Haiti, and Pakistan).The occupancy rate in the RMS hospitals indicated in Table 17 is about 79.7 percent, which is widely perceived as an acceptable rate.

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 58.2 percent of the total expenditure. The second biggest category is retired army personnel and their dependents, which account for 30.1 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 2009 was almost 2.236 million (Source: RMS, Annual Statistical Report, 2009).

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	157,034	155,097	4,141	0.026	4.0	79.7	4,277,876	46,149	30,882

Source: RMS, Annual Statistical Report 2009.

The Role of RMS in Jordanian Health System:

The RMS was established in the year 1948 and since then has largely contributed to shaping the Jordanian Healthcare 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, and 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 field medical services needed under all times and circumstances.

- Providing comprehensive medical insurance for about 1.6 million individuals.

- Treatment of the costly and 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 Arab and international conferences that are held in Jordan.

- Equipping and sending special medical teams to Arab, friendly, and war and disaster struck countries (Yemen, Iraq, Lebanon, Croatia, Seralion , Afghanistan, Palestine, Liberia, Gaza, etc..).

- Participating in the education and training of physicians, 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, 59.52 percent in 2009 (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 the 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)

		MOF	MOPIC	Other Government Entities	Households	Rest of the world	Private Firms	Total
Amount	RMS	128,500,000	3,749,073	1,555,000	0	17,894,694	0	151,698,767
	MIP	2,753,505	0	49,125,313	13,085,832	0	3,855,000	68,819,650
Total		131,253,505	3,749,073	50,680,313	13,085,832	17,894,694	3,855,000	220,518,417
Percent		59.52 %	1.70 %	22.98 %	5.93 %	8.12 %	1.75 %	100 %

Source: NHA Team

Uses of Funds

In Table 19 below we see that the RMS spends approximately 64.11 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 19.72 percent, 14.81 percent, 1.13 percent, and 0.23 percent respectively of the total budget.

Table 19: RMS Expenditure by Function (JD)

Function	RMS	MIP	Total	Percent
Curative Care	96,847,899	44,535,633	141,383,532	64.11%
Primary Care	29,799,353	13,703,271	43,502,624	19.73%
Administrative	22,349,515	10,277,454	32,626,969	14.80%
Training	2,500,000		2,500,000	1.13%
Others	202,000	303,292	505,292	0.23%
Total	151,698,767	68,819,650	220,518,417	100.00%

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

Table 20: RMS Expenditures by Type (JD)

Type Of Expenditure	RMS	MIP	Total	Percent
Recurrent Expenditure				
Salaries	75,000,000	20,408,873	95,408,873	43.27%
Drugs	3,000,000	23,715,691	26,715,691	12.11%
Supplies	6,327,612	1,856,050	8,183,662	3.71%
Exp. Of Sustainability & Operation	9,198,000	3,613,252	12,811,252	5.81%
Exp. of Food & Housekeeping	3,950,000	219,570	4,169,570	1.89%
Treatment	0	13,107,295	13,107,295	5.94%
Training	2,500,000	0	2,500,000	1.13%
Sub-Total	**99,975,612**	**62,920,731**	**162,896,343**	**73.87%**
Capital Investment				
Medical Equipment	17,366,000	5,298,286	22,664,286	10.28%
Non-Medical Equipment	5,800,000	82,580	5,882,580	2.67%
Constructions	28,355,155	214,761	28,569,916	12.96%
Sub-Total	**51,521,155**	**5,595,627**	**57,116,782**	**25.90%**
Other Expediter				
Other Exp.	202,000	303,292	505,292	0.23%
Sub-Total	**202,000**	**303,292**	**505,292**	**0.23%**
Grand Total	**151,698,767**	**68,819,650**	**220,518,417**	**100%**

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 (1.4 percent) of the population.

JUH has 519 bed, 4.6 percent of the total number of hospital beds in Jordan. Number of admissions is 29,026 which accounts for 3.4percent of the total admissions at the country level (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	ALOS	Avg. Length of Stay	Occupancy Rate	Surgical Operations	Outpatient Visits
		Alive	Dead						
519	29026	28492	566	1.9	4.3	66.0	317087	28091	3861

Source: JUH, Annual Report, 2009

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 MOF to JUH. The remaining amount is reimbursements to JUH from 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 2009 JUH total sources were about JD 54 million (57 percent of which from Other Government entities such as CIP and royal court. private firms contributed by around 16 percent, households by 6.5 percent, and rest of the world by 1.8 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)

	MOF	MOH	Other Government Entities	Households	Rest of the world	Private Firms	Total
Amount	1,261,539	8,929,656	30,947,390	3,511,324	1,000,000	8,661,012	54,310,921
Percent	2.32%	16.44%	56.98%	6.47%	1.84%	15.95%	100.00%

Uses of Funds

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

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	22,686,628	41.77%
Drugs	11,145,315	20.52%
Supplies	8,932,164	16.45%
Exp. Of Sustainability & Operation	1,218,394	2.24%
Exp. Of Food & Housekeeping	2,436,870	4.49%
Treatment	1,600,000	2.95%
Training	22,695	0.04%
Sub-Total	**48,042,066**	**88.46%**
Capital Investment		
Medical Equipment	4,313,608	7.94%
Non-Medical Equipment	253,132	0.47%
Constructions	199,157	0.37%
Sub-Total	**4,765,897**	**8.78%**
Other Expediter		
Other Exp.	1,502,958	2.77%
Sub-Total	**1,502,958**	**2.77%**
Grand Total	**54,310,921**	**100.00%**

Table 24: JUH Expenditure by Function (JD)

Function	Amount	Percent
Curative Care	49,506,345	91.15%
Primary Care	0	0.00%
Administrative	3,278,923	6.04%
Training	22,695	0.04%
Others	1,502,958	2.77%
Total	54,310,921	100.00%

Note: Numbers may not add 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 healthcare services intended. As a general hospital, KAUH provides various clinical and referral health-care services to other healthcare 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 was built within the Jordan University of Science and Technology (JUST) campus which is located in the north of Jordan on the highway linking Jordan to Syria. This carefully chosen location allows the hospital to provide primary, secondary, and tertiary healthcare 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. In 2009 this hospital had 494 bed (4.4 percent of total beds in the kingdom). 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 building in which outpatient 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-the-line. KAUH critically and systematically selects and hires highly qualified and experienced technical and administrative personnel who run the hospital as a non - profit organization that suits the hospital's mission.

Analysis of KAUH Fund

Sources of Funds for KAUH are shown in table 25.

Table 25: Sources of Funds for KAUH (JD)

	MOF	Other Government Entities	Households	Private Firms	Total
Amount	1,922,900	30,677,100	3,000,000	3,900,000	39,500,000
Percent	4.87%	77.66%	7.59%	9.87%	100.00%

Uses of Funds

Table26: Distribution of KAUH Expenditures by Type (JD)

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	16,900,000	42.78%
Drugs	10,470,000	26.51%
Supplies	4,260,000	10.78%
Exp. Of Sustainability & Operation	3,500,000	8.86%
Exp. Of Food & Housekeeping	1,300,000	3.29%
Treatment	100,000	0.25%
Training	1,400,000	3.54%
Sub-Total	**37,930,000**	96.03%
Capital Investment		
Medical Equipment	850,000	2.15%
Non-Medical Equipment	100,000	0.25%
Constructions	220,000	0.56%
Sub-Total	**1,170,000**	2.96%
Other Expediter		
Other Exp.	400,000	1.01%
Sub-Total	**400,000**	1.01%
Grand Total	**39,500,000**	100.00%

Table 27: KAUH Expenditure by Function (JD)

Function	Amount	Percent
Curative Care	34,000,000	86.08%
Primary Care	950,000	2.41%
Administrative	750,000	1.90%
Training	1,400,000	3.54%
Others	2,400,000	6.08%
Total	39,500,000	100.00%

5.5 General Directorate of Civil Defense (GDCD)

Emergency Ambulance Services

The Ambulance service is considered as one of the vital services which are delivered to people to save lives and properties, and aims at protecting the development achievements, which depend on human capital as an essential element.

Risks are increased as a result of development in industry and increasing population. Hence, it's essential to respond rapidly and efficiently at the first moments of trauma.

Stages of Establishing the Emergency Ambulance:
As a result of increasing rates of Road Traffic Accidents RTA and mortality, a National Committee was formed in 1979 to organize ambulance and emergency services in Jordan. It consists of MOH, RMS, Private Sector, and Civil Defense. Establishing a specialized unit at the Civil Defense Department to provide ambulance services in Jordan, this is known as Emergency Ambulance Directorate.

Uses of Funds

Table 28 shows the Distribution of the Emergency Ambulance Expenditures by type. Expenditures on salaries represent around 56 present, followed by expenditures on sustainability and operation by around 23 present.

Table 28 : Distribution of the Emergency Ambulance Expenditures by Type (JD)

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	12,217,000	55.69 %
Drugs	40,000	0.18 %
Supplies	707,000	3.22 %
Exp. Of Sustainability & Operation	5,126,600	23.37 %
Exp. Of Food & Housekeeping	133,000	0.61 %
Treatment	0	0.00 %
Training	112,000	0.51 %
Sub-Total	**18,335,600**	83.59 %
Capital Investment		
Medical Equipment	1,600,000	7.29 %
Non-Medical Equipment	0	0.00 %
Constructions	2,000,000	9.12 %
Sub-Total	**3,600,000**	16.41 %
Other Expediter		
Other Exp.	0	0 %
Sub-Total	**0**	0 %
Grand Total	**21,935,600**	100.00 %

5.6 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 could become a landmark in cancer care of globally.

Analysis of Funds

Table 29 shows a breakdown of KHCC Expenditures by function

Table 29: Breakdown of K.H.C.C Expenditures by Function (JD)

Function	Amount	Percent
Curative Care	46,160,000	69.66%
Primary Care	15,930,000	24.04%
Administrative	3,600,000	5.43%
Training	570,000	0.86%
Other Exp.	0	0.00%
Total	66,260,000	100.00%

5.7 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 was established to support treatment, training qualifications, development and research on diabetes, endocrinology, and genetics.

The main Functions o NCDEG are:

- Promotion of health education of the patient, their family members, and citizens in general to identify the optimum manner of dealing with 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 healthcare.

Analysis of Funds

Table 30 shows a breakdown of NCDEG Expenditures by function

Table 30: Breakdown of NCDEG Expenditures by Function (JD)

Function	Amount	Percent
Curative Care	0	0.00%
Primary Care	4,018,120	93.74%
Administrative	256,476	5.98%
Training	11,674	0.27%
Other Exp.	0	0.00%
Total	4,286,270	100.00%

5.8 Jordan Food and Drug Administration JFDA

Organization and Size of JFDA

The Jordan 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 the Ministry of Health, Ministry of Environment, WHO, and the FDA.

JFDA has an important role in rationalizing the use of drugs in the country in order to optimize the level of expenditure on drugs at the national level.

Analysis of JFDA Funds

Table 31: JFDA Expenditures By Type (JD)

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	3,566,000	52.87%
Drugs	0	0.00%
Supplies	509,000	7.55%
Exp. Of Sustainability & Operation	335,000	4.96%
Exp. Of Food & Housekeeping	89,000	1.32%
Treatment	0	0.00%
Training	27,000	0.40%
Sub-Total	**4,526,000**	**67.10%**
Capital Investment		
Medical Equipment	0	0.00%
Non-Medical Equipment	448,000	6.64%
Constructions	1,666,000	24.70%
Sub-Total	**2,114,000**	**31.34%**
Other Expediter		
Other Exp.	105,000	1.56%
Sub-Total	**105,000**	**1.56%**
Grand Total	**6,745,000**	**100.00%**

5.9 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 their centers and branches spread in all regions of the Kingdom. The most important health and medical services are:

. Diagnosis.
. Treatment.
. Intensive around-the-clock nursing care.
. Community rehabilitation.
. Physical therapy.
. Health insurance for persons with disabilities
. Nutritional services.
. Provision of appropriate treatment programs in cooperation with MOH hospitals.
. Rehabilitation of disabled persons.

Table 32: Expenditure of MOSD Centers By Type

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	1,449,296	27.61%
Drugs	6,233	0.12%
Supplies	244,373	4.66%
Exp. Of Sustainability & Operation	175,058	3.34%
Exp. Of Food & Housekeeping	248,664	4.74%
Treatment	110,625	2.11%
Training	0	0.00%
Sub-Total	**2,234,249**	**42.57%**
Capital Investment		
Medical Equipment	0	0.00%
Non-Medical Equipment	64,937	1.24%
Constructions	2,928,204	55.79%
Sub-Total	**2,993,141**	**57.03%**
Other Expediter		
Other Exp.	21,396	0.41%
Sub-Total	**21,396**	**0.41%**
Grand Total	**5,248,786**	**100.00%**

National Aid Fund (NAF)

Provides disabled and/or poor patients with financial aid and medical equipment and devices they need. MOSD pays roughly JD 2 million annually for treating poor people in MOH facilities.

5.10 The High Health Council HHC

Role, Structure, and Responsibilities

The HHC is headed by the Prime Minister and includes in its membership representatives from 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 the Jordanian medical schools, the head of another health-related associations, the President of the Association of Private Hospitals, and two additional persons with expertise in healthcare and health systems. Law no. 9, year 1999 stated that the objective of the High Health Council is to draw up the general policy of the health sector and to put forward the strategy to achieve it. Also, another objective is 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 those objectives the Council has several responsibilities:

- Periodic evaluation of health policies, and the introduction of 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 Arab, regional and international health establishments and agencies.
- Continuity in expanding the umbrella and coverage of health insurance.
- Studying the health problems facing Jordan, introducing recommendations, and taking appropriate decisions in regards to restructuring 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 produce annual NHA technical report 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.

Table (33): Distribution of HHC Expenditures by Type (JD)

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	145,674	67.66%
Drugs	0	0.00%
Supplies	0	0.00%
Exp. Of Sustainability & Operation	24,945	11.59%
Exp. Of Food & Housekeeping	0	0.00%
Treatment	0	0.00%
Training	43,068	20.00%
Sub-Total	**213,687**	**99.25%**
Capital Investment		
Medical Equipment	0	0.00%
Non-Medical Equipment	1,610	0.75%
Constructions	0	0.00%
Sub-Total	**1,610**	**0.75%**
Other Expediter		
Other Exp.	0	0.00%
Sub-Total	0	0.00%
Grand Total	**215,297**	**100.00%**

5.11 Joint procurement Department JPD

Role of JPD

JPD was established on12th of august 2004 based on law no. (91) for the year 2002 which covers medical supplies and drugs. The main role 0f JPD is managing pharmaceuticals procurement which is considered a high priority in the Jordanian health sector.

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

Table 34: JPD Expenditures by Type

Type Of Expenditure	Amount	Percent
Recurrent Expenditure		
Salaries	346,883	62.08%
Drugs	0	0.00%
Supplies	8,802	1.58%
Exp. of Sustainability & Operation	80,722	14.45%
Exp. Of Food & Housekeeping	6,906	1.24%
Treatment	0	0.00%
Training	22,667	4.06%
Sub-Total	**465,980**	**83.40%**
Capital Investment		
Medical Equipment	65,912	11.80%
Non-Medical Equipment	0	0.00%
Constructions	0	0.00%
Sub-Total	**65,912**	**11.80%**
Other Expediter		
Other Exp.	26,857	4.81%
Sub-Total	26,857	4.81%
Grand Total	**558,749**	**100.00%**

5.12 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 to JD 7 million; donors' sources represent 78 percent (JD 5.4 million). Table 34 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 35: volume of health services provided by charitable societies in Jordan

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

5.13 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. The law addressed working groups not covered with any other retirement rules or laws (such as civil or military retirement) and it stipulated the existence of a socio-economic umbrella to protect those productive groups and grant them 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/Employees' 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 healthcare sector is limited to that of providing coverage to employees for work-related injuries and occupational diseases, primarily through its workers compensation provision. 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.

Compulsory Insurance:

At present, insurance is obligatory for all establishments that hire five employees or more, the law did not make a distinction between employees 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.

SSC Health Expenditures:

Table 35 below illustrates expenses on Health by Type of expenditure 2009

Table 36: SSC Expenditure on Health by Type

Function	Amount	Percent
Curative Care	3,469,410	64.6%
Primary Care	1,433,698	26.7%
Administrative	469,038	8.7%
Training	0	0
Others	0	0
Total	5,372,146	100.0%

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

5.14 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 stimulate 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 levels of services provided

As it was stated before, MOF is the main health financing source in Jordan. In 2009 MOF financial allocations to public sector reached around JD 717.3 million (US$ 1.013 billion) and distributed to MOH/CIP, RMS/MIP, Other Gov. Entities, and UHs. (table 37)

Table 37: MOF Financial Allocations to Public Sector (JD)

Public sector institutions	Amount	Percent
MOH / CIP	541,136,437	75.44%
RMS / MIP	131,253,505	18.30%
Other Gov. Entities	41,736,420	5.82%
UHs	3,184,439	0.44%
Total	717,310,801	100.00%

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

5.15 Department of Statistics:

The Department of Statistics (DOS), which was 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 for gathering different kinds of data covering demographic, economic, social and other types of data. The department conducts surveys and censuses according to a work plan for 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 produced 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 surveys. These publications contain different indicators and data such as the GDP indicators and other socio-economic and demographic indicators. The DOS and the HHC General Secretariat have completed recently a national survey on health insurance and households' expenditures (2010). The results of this survey have improved the quality of NHA private sector data.

5.16 Ministry of Planning and International Cooperation.

Roles of MOPIC in the Health Sector

Ministry of Planning and International Cooperation MOPIC was established in 1984. It's 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 enhancement of the standards of living through the preparation, follow-up, implementation, and evaluation of development plans. MOPIC also aims at strengthening the economic ties and 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 through financial contributions, support from its budget, or loans and grants. MOPIC operates within a clear and transparent mechanism of action, where MOPIC studies 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. Afterwards, MOPIC discuss requests with funding agencies to provide the necessary support with coordination from the Ministry of Finance on the terms of the proposed funding to select the most appropriate projects. Funding agreements are prepared by the funding agencies and in coordination with MOPIC, as well as the beneficiaries of the project.

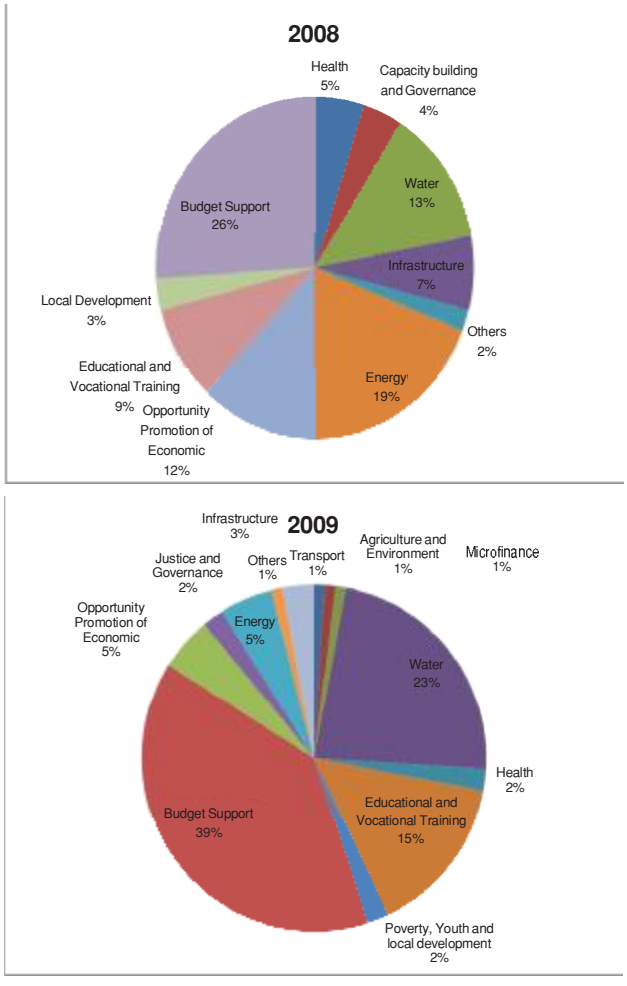
MOPIC is also responsible for follow-up procedures during project implementation as well as coordination between the funding agencies and the beneficiary, to ensure that the implementation of the project is in line with the signed agreement and to handle any obstacles during the implementation period.As mentioned above MOPIC also supports projects from it's own budget, and for the 2009 year MOPIC supported health sector projects which are financed either by loans or grants with a total amount of approximately JD 7.6 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

MOPC works also on Executive Development Program (EDP) 2011-2013 which is considered as an action plan for the government . EDP provides funds for implementing the high priority programs in all sectors . EDP was prepared by MOPIC in collaboration with all stakeholders

Figure (4) below shows that the volume of foreign aid grants and soft loans represent only (2 %) of the total volume allocated to all sectors in 2009 compared with (5 %) in 2008 .

Figure 4: The Volume of Foreign Aid Grants and Soft Loans by Sector, 2008- 2009



Breakdown expenditures of MOPIC Loans and Grants are shown in Table 37

Table 38: Breakdown Expenditures of MOPIC Loans & Grants By Type (JD)

Type Of Expenditure	Loans		Grants	
	Amount	Percent	Amount	Percent
Recurrent Expenditure				
Salaries	0	0.00%	0	0.00%
Drugs	0	0.00%	1,109,232	4.29%
Supplies	927,612	2.18%	381,000	1.47%
Exp. of Sustainability & Operation	0	0.00%	0	0.00%
Exp. Of Food & Housekeeping	0	0.00%	0	0.00%
Treatment	0	0.00%	0	0.00%
Training	0	0.00%	4,100,000	15.85%
Sub-Total	**927,612**	**2.18%**	**5,590,232**	**21.61%**
Capital Investment				
Medical Equipment	6,077,569	14.25%	5,738,381	22.19%
Non-Medical Equipment	0	0.00%	0	0.00%
Constructions	35,643,533	83.57%	12,371,106	47.83%
Sub-Total	**41,721,102**	**97.82%**	**18,109,487**	**70.02%**
Other Expediter				
Other Exp.	0	0.00%	2,163,644	8.37%
Sub-Total	**0**	0.00%	**2,163,644**	**8.37%**
Grand Total	**42,648,714**	**100.00%**	**25,863,363**	**100.00%**

5.17 Insurance Sector

The most recent health insurance and households' expenditures survey, 2010 (DOS and HHC) estimated that around 70 percent of the populations have some form of health insurance (excluding duplication in health insurance coverage which accounts for 8.2). The largest insurer is the Civil Health Insurance program CIP/MOH, covering over 37 percent of the population, followed by the Military Health Insurance Program MIP/ RMS, covering 27 percent (including duplication in health insurance coverage).

Private Health Insurance

It's estimated that around 9 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 (IC) 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 targeting the different social and economic 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 2009). Data include health expenditures of private firms, insured individuals, and number of public and private universities, table 39 was developed in collaboration between NHA technical committee and representatives from Insurance Commission and it shows expenditures items by inpatients and outpatients

Table 39: Health Expenditure Data From Private Firms, Insured Individuals, and From Public and Private Universities, by Inpatients and Outpatients.

	Inpatients	Outpatients	Total
Pharmaceuticals	3,573,912	26,611,799	30,185,712
Doctor fees	6,637,534	14,096,844	20,734,378
Laboratories	1,887,020	3,920,171	5,807,191
X- Rays	1,410,569	3,058,696	4,469,265
Emergences	1,885,071	5,971,527	7,856,598
Other Benefits	7,779,929	4,005,636	11,785,565
Sub – Total	23,174,036	57,664,673	80,838,709
Administrative Exp.on Inpatient and Outpatient	8,276,221		8,276,221
Grand Total	89,114,930		89,114,930

Jordan's Universities and Health Insurance

Jordan has one of the most well-established and modern higher education sectors 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. Table 39 shows that the public universities health funds are around JD 14.3 million, households are the largest contributors to the public universities insurance program supplying around JD 11.4 million (80 percent), the other government entities supply the remaining JD 2.9 million (20 percent) from the public universities' subsidies.

Table 40: Sources of Health Funds for Public Universities (JD)

Year2009	Other Government Entity	Households	Total
Amount	2,856,056	11,424,224	14,280,280
Percent	20.0%	80.0%	100 %

Table 41 shows that the Households are the only contributor, to the private universities insurance program supplying around JD 4.8 million (100 percent)

Table 41: Sources of Health Funds for Private Universities (JD)

Year2009	Other Government Entity	Households	Total
Amount	0	4,837,770	4,837,770
Percent	0	100 %	100 %

5.18 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, followed by a new bylaw number 83 in 2004, which was issued according to paragraph C of Article 66 of the public health law number 54 for the year 2002.

It is worth mentioning again that the civil health insurance program covers around 37 percent of the population

Sources of funds

The CIP has several sources of funds (table 42):

Table 42: Sources of Funds for CIP (JD)

Entity	MOF	Other Government Entities	Private Firms	Households	UNRWA	Total
Amount	134,222,018	20,911,540	384,816	75,963,235	1,281,047	232,762,656
Percent	57.7%	9.0%	0.2%	32.6%	0.6%	100%

Source: CIP / MOH

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 43 shows the distribution of CIP expenditures by type.

Table 43: Distribution of CIP Expenditures by Type, (JD)

Type Of Expenditure	Amount	Percentage
Recurrent Expenditure		
Salaries	**27,165,916**	12.19%
Drugs	**2,971,070**	1.33%
Supplies	**1,950,455**	0.88%
Exp. of Sustainability & Operation	**665,336**	0.30%
Exp. Of Food & Housekeeping	**0**	0.00%
Treatment	**189,253,069**	84.91%
Training	**8,573**	0.00%
Sub-Total	**222,014,419**	**99.61%**
Capital Investment		
Medical Equipment	**62,024**	0.03%
Non-Medical Equipment	**51,892**	0.02%
Constructions	**0**	0.00%
Sub-Total	**113,916**	**0.05%**
Other Expediter		
Other Exp.	**745,991**	0.33%
Sub-Total	**745,991**	**0.33%**
Grand Total	**222,874,326**	**100.00%**

Source: CIP / MOH

Categories covered by civil insurance program (CIP / MOH)

* Public sector employees and their dependants.
* The poor (holding cards according to social research and studies)
* The 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 a Ministerial 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.

5.19 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 healthcare 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 24 health centers and one health point. The services include non-communicable diseases clinics (24), MCH clinics (24), specialists clinics (13), laboratories (24), mini laboratories (2) and (28) stationed dental clinics, (4) mobile dental clinics and (4) school health teams.

UNRWA health expenditures amounted to nearly JD 10.8 million in 2009. The distribution of these funds is illustrated in Table 44.

Table 44: Breakdown of UNRWA/Jordan Health Expenditures by Function (JD)

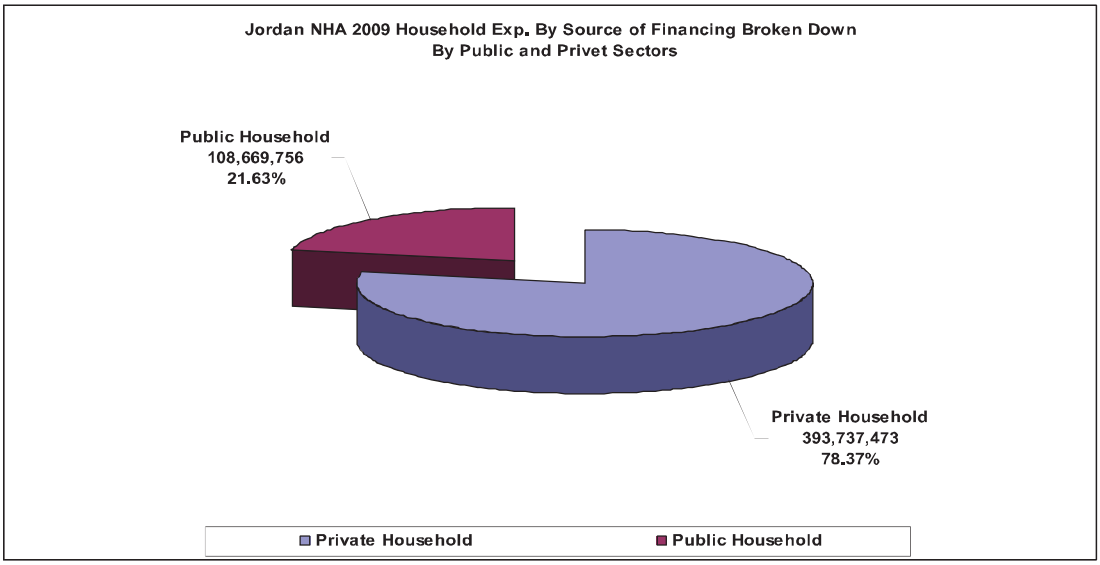
Function	Amount	Percent
Curative Care	1,349,536	12.46%
Primary Care	8,865,192	81.88%
Administrative	362,788	3.35%
Training	2,126	0.02%
Other	248,056	2.29%
Total	10,827,698	100.00%

5.20 Household Health Care Expenditure Estimates

Household Exp. By Public and Private Sectors

Total household healthcare expenditures in 2009 amounted to JD 502 million, 78.37 percent in the private sector and 21.63 percent in the public sector as shown in figure 5. Households' expenditure as percentage of total healthcare expenditure is 30.3 percent.

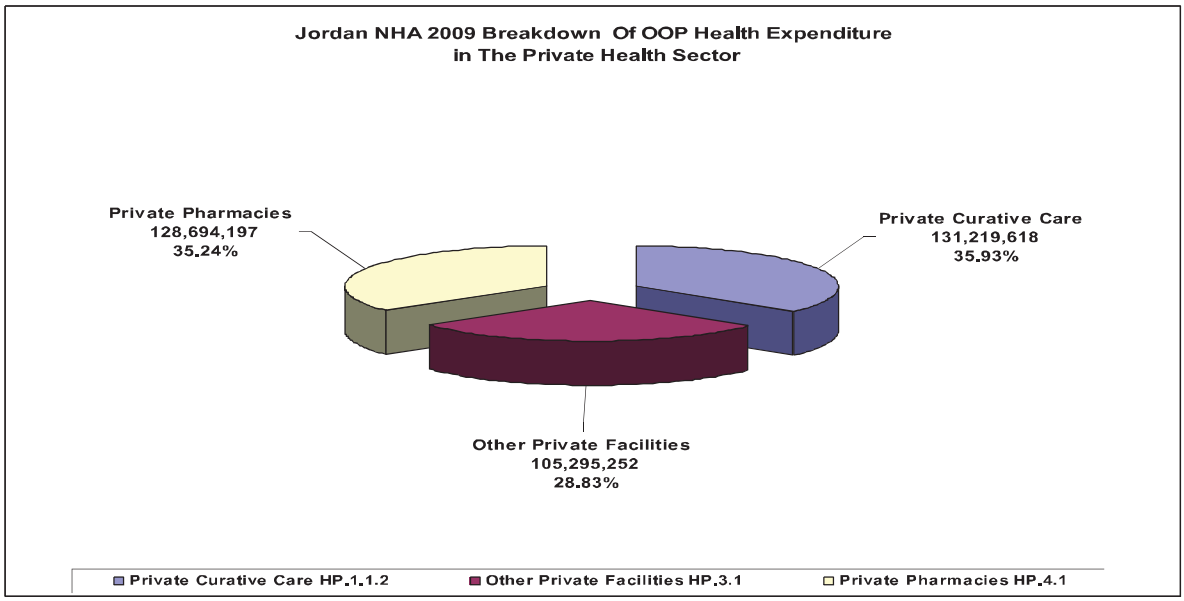
Figure 5: Household Exp. By Public and Private Sectors



Breakdown of 00P Health Expenditure in the Private Health Sector:

Total out-of-pocket expenditures on health services by Jordanian households in the private sector amounted to around JD 365 million (US$ 515.5 million) in 2009, figure 6 shows the distribution of these OOP expenditures. This represented roughly 92.8 percent of total healthcare expenditures that were paid directly by Jordanian households in the private sector. The remaining 7.2 percent was spent on premium contributions. Households' expenditures on pharmaceuticals amounted 35.2 percent, private hospitals 35.9 percent, and other Private Facilities 28.8 percent.

Figure 6: Breakdown of 00P Health Expenditure in the Private Health Sector



5.21 Hospital Sector

As presented in Table 45, the total number of hospital beds in Jordan was 11,355, or 18 hospital beds per 10,000 people in 2009, compared to 17 in 2005. Table 45 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 number of beds as the private sector, 7,502 versus 3,853. In 2009 the average occupancy rate was 61.7, the ALOS 2.9, and the admission rate 141 per 1000 population.

Table 45: Distribution of Hospital Beds in Public and Private sectors and Occupancy Rates

Entity		No Of Beds		Occupancy Rate
		No.	٪	
MOH		4358	38.4 %	68.6 %
RMS		2131	18.8 %	80.0 %
UHs	JUH	519	4.6 %	66.0 %
	KAUH	494	4.4 %	63.7 %
Private		3853	33.9 %	51.3 %
Country level		11355	100 %	61.7 %

The percentage distribution of hospital beds in 2009 indicates that the MOH occupies 38.4 percent, RMS 18.8 percent, JUH 4.6 percent and KAUH 4.4 percent. Around third of hospital bed in Jordan are operated by the private hospital sector

6. Policy Implications

Sustaining the Current Level of Health Care Expenditure

Jordan spent 8.58 percent of its GDP on healthcare services in 2008 and 9.52 percent in 2009. Such high levels of health expenditures may prove to be unsustainable in the near term. Moreover, with changing demographics, population aging, and the 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 healthcare 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 clear 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 FFC in Jordan conducted by the HHC in collaboration with DOS and WHO (Abu El-Samen T., Abu Saif J. et al, 2010) has shown that the premiums' source of financing is regressive across public health insurance programs. This study recommends that health insurance premiums' mechanisms should be revisited in the public sector.

Health Policy Issues

Jordan NHA estimates (1998, 2000, 2001, 2007, 2008, and 2009) showed that Jordan is spending between 27 and 36 percent of its total healthcare expenditures on pharmaceuticals. This figure is considered high for lower middle income countries, 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 healthcare 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. The HHC and all concerned parties in the Jordanian pharmaceutical sector have launched the national strategy for rationalizing drug expenditure, 2012-2016.

Public and Private Health Sector Coordination

Private sources financed around 30 percent of all healthcare expenditures, while the public sector financed roughly 66 percent in 2009. Increasing public and private sector coordination is needed for optimal healthcare 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 healthcare services on behalf its beneficiaries. Contracting can increase utilization in the 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

The government provides subsidized health services to all persons, irrespective of a person's income or asset holdings. Low-income persons are responsible currently for the same cost- sharing arrangements as higher-income households, this mechanism is considered unfair. The results of Fairness in Financial Contribution in Jordan study (HHC in collaboration with DOS and WHO, 2010) have shown that the source of financing is regressive across health insurance programs in the public sector. It was suggested to reset the health insurance premiums mechanisms according to the household capacity to pay. The 30 percent of the population that is uninsured are facing less financial risk under the current system which subsidizes services to all citizens of Jordan. The government is fully committed to achieve comprehensive health insurance coverage of population and to provide more social and financial risk protection.

Reallocating Expenditures from Curative to Primary Heath Care

Jordan, like other middle-income countries, allocates a disproportionately large share of its healthcare 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 healthcare costs.

7. Achievements of Jordan for NHA Institutionalization

The Jordanian NHA team has produced this third NHA Technical Report as a result of a five-year effort by the HHC General Secretariat (2007-2011). The previous NHA reports have covered the 2007 and 2008 fiscal years. A five-year action plan for institutionalizing NHA at HHC was prepared by NHA team in collaboration with NHA experts from the World Bank and Brandies University. 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 an important health policy tool. The initial NHA effort in Jordan was supported by PHR, PHRplus, and WHO.

Development of a Standardized Data Reporting System

The information that is available, through existing government agencies, is accurate and of good 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 58 Unified definitions of Expenditures, by line item and by function). Significant work remains to be accomplished in order to ensure uniform data reporting from various institutions to HHC General Secretariat. To overcome this problem a new bylaw proposal for data collection was prepared at HHC General Secretariat by NHA technical committee. Also the NHA team has conducted several workshops, for concerned national institutions in order to improve the NHA data collection process. It's worth to mention here that the main private expenditures data in this report were taken from household surveys.

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 healthcare 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.

8. Recommendations for the next NHA reports

Health Expenditure by Geographic Regions

NHA team decided to explore 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.

International Classification of NHA.

Jordan NHA team is committed study the new revised NHA classification SHA 2.0 and the possibility of implementing the new suggested methodology. This issue will be more analyzed by the HHC General Secretariat in collaboration with international related agencies.

9. Continuing the NHA Institutionalization Process

As it was stated before, a five- year action plan for institutionalizing NHA in Jordan at HHC was prepared by NHA team in collaboration with NHA experts from the World Bank and Brandies University. The NHA team is committed to implement this plan and to adopt the Global Strategic Action Plan GSAP 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

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- Mr. Ali F. khasawneh / KAUH / Financial Manager
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- Mrs. Alia Omar Atieh / HHC / Head of Financial Division
- Mr. Sami Al Salem / HHC / Head of the Legal Advisory Unit

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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