
# Jordan National Health Accounts
# NHA 2007

High Health Council / General Secretariat

July, 2009

His Majesty King Abdullah II Ibn Al Hussein

# تمهيد

انطلاقا من دور المجلس الصحي العالي المتمثل برسم السياسة الصحية العامة، وحرصا منه على أهمية مأسسة الحسابات الصحية الوطنية في الأمانة العامة للمجلس باعتبارها أداة هامة لرسم السياسة الصحية في المملكة، ولتطوير أداء النظام الصحي الأردني بشكل عام وتحسين المخرجات الصحية الرئيسية.

يأتي إصدار هذا التقرير الفني الهام حول الحسابات الصحية الوطنية لعام ٢٠٠٧ 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 من خلال تتبع 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 .

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

ولا بد لي من الإشادة بهذا الانجاز الذي تحقق للمرة الأولى بجهود وطنية مخلصة بذلها الفريق الوطني للحسابات الصحية الوطنية لإصدار هذا التقرير، والذي يعتبر قاعدة للمستقبل ومنطلقا نحو التطوير المستمر والتميز في عملية إعداد هذه الحسابات، وإصدار التقارير السنوية وفق المنهجية العالمية المعتمدة من قبل منظمة الصحة العالمية.

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

**رئيس الوزراء / رئيس المجلس الصحي العالي**
**المهندس نادر الذهبي**

**Hashemite Kingdom of Jordan**

# High Health Council
## General Secretariat

# Jordan National Health Accounts 2007


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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 health care expenditures. This report presents the results of the NHA 2007 for the Hashemite Kingdom of Jordan, which was completed through a collaborative effort of the High Health Council, Ministry of Health, Ministry of Finance, Ministry of Planning and International Collaboration, Ministry of Social Development, Royal Medical Services, Jordan University Hospital, King Abdullah University Hospital, Food and Drug Administration, Joint Procurement Department, Department of Statistics, and Private Hospitals Association.

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

In 2007, Jordan spent approximately JD 1.015 billion (US$ 1.4 billion) on health, or JD 177.5 (US$ 250) per capita. Total health expenditures represented 9.05 percent of GDP. The public sector is the largest source of health funding (54.9 percent) followed by the private sector (40.2 percent) and donors (4.9 percent). The main policy issues emerging from the NHA results are the high level of total health expenditures as a percentage of GDP and its implications for the ability to provide health care services at current level of quality and quantity; the high level of pharmaceutical expenditures (34 percent of total health expenditures); the indiscriminate capital investment in the private sector and little regulation that has resulted in a surge of private hospitals; and the high level of spending on curative care (74.7 percent) as compared to primary care (17.5 percent).

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## Acronyms

| | |
|---|---|
| ALOS | Average Length of Stay |
| CHCC | Comprehensive Health Care Centers |
| CIP | Civil Insurance Program |
| GDP | Gross Domestic Product |
| GNP | Gross National Product |
| GOJ | Government of Jordan |
| HH | Households |
| HHC | High health Council |
| 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 |
| PHR*plus* | Partners for Health Reform*plus* |
| RMSSHA | Royal Medical Services System for Health Accounts |
| SSC | Social Security Corporation |
| TFR | Total Fertility Rate |
| THE | Total Health Expenditure |
| TPA | Third Party Administrator |
| UNRWA | United Nations Relief Works Agency |
| USAID | United States Agency for International Development |
| UHs | Universities Hospitals |
| VHC | Village Health Center |
| WHO / EMRO | World Health Organization / Eastern Mediterranean Regional Office |
| WB | World Bank |

# Acknowledgments

The National Health Accounts (NHA) 2007 study is made possible by the advice and support of the Chairman of the High Health Council / H.E. the Prime Minister Mr. Nader Al Dahabi. The (NHA) team expresses its sincerest gratitude to H.E. the HHC Chairman and to H.E. the Minister of Health, Dr. Nayef Al Fayez, for sustaining the NHA effort in Jordan. In addition, we would like to thank Dr. Hashim Elzein Elmousaad, WHO Representative in Jordan & Head of Mission, and Dr. Hossein Salehi, the Regional Adviser of Health Economics & Health Care Financing at the Eastern Mediterranean Regional Office EMRO, for their continuous technical support aimed at institutionalizing NHA in Jordan.

Also we thank all the institutions involved directly or indirectly in achieving and preparing this technical report on Jordan's National Health Accounts (NHA) 2007 (third round) which was hosted at HHC and achieved for the first time by the national experts of the newly established NHA team.

# Executive Summary

## Socio-economic Background

The Hashemite Kingdom of Jordan is a low middle-income country, with a population of 5.7 million in 2007. In the same year, its gross domestic product (GDP) amounted to JD 11.2 billion or around US$ 16 billion and per capita GDP was JD 1961 or 2801 US$ (MOF). Jordan has a small economy with limited natural resources, arid land mostly unsuitable for agriculture, and chronic water shortages; it imports most of the energy it consumes.

Based on the commonly used developmental indicators, Jordan fares better than most countries in the low middle-income category. The majority of the populace has access to basic infrastructure like safe water, sanitation, and electricity and lives in permanent dwelling structures (Multi- purpose survey 2003). Government commitments to improve the overall quality of life and the social standards of its people (national agenda 2005) have borne impressive results. Primary and secondary education for girls and boys alike has been made a priority. The literacy rate is over 82.1 percent and Jordan has a well-developed human resource base.

As a result of declining mortality rate and high total fertility rate, the overall population growth rate dropped to 2.2 ( DOS 2007) and it has been 3.3 percent per year between 1992 and 1998 (Macro International, 1997). Rapid population growth implies an increase in demand for social programs, such as, education and health. A change in the population make-up further highlights the need for a health policy that will have to account for growing demand for health care for the elderly as well as maternal and child health care services.

## Health Sector Issues

Given the anticipated population growth in Jordan over the next decade, its changing epidemiological profile, and modest economic growth rates, sustaining the level of health care expenditures presented in this document will represent a significant challenge to policymakers. The implementation of an effective cost containment strategy will be necessary to curb the rising cost of health care services in the country. Moreover, anecdotal evidence suggests that a significant amount of inefficiencies in the provision and financing of health care services exists; hence, strategies such as engaging in contracts with private sector providers, for resources such as hospital beds, should be seriously considered – particularly in light of the significant levels of excess capacity that exist within such institutions. In addition, despite the heavily subsidized services offered by the public sector, a significant share of the population remains uninsured. According to estimates in the Jordan Health Care Utilization and Expenditure Survey, 2000 (PHR*plus* 2000), nearly 40 percent of the population is uninsured and the new estimation of the WB is 25 percent.

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

As indicated in Table 1, the total expenditure on health care in Jordan amounts to JD 1.016 billion (US$ 1.451 billion) and the per capita expenditures to JD 177.5 (US$ 250).

The total expenditure on health is 9.05 percent of the GDP and is considered very high for a low middle-income country. This level of expenditure is more in line with countries of the Organization for Economic Cooperation and Development (OECD).

The proportion of government budget allocated to health sector is almost 9.1 percent. Public sources account for 54.9 percent and private sources for 40.2 percent of health care financing. International donors account for the remaining 4.9 percent.

In terms of expenditures, the public sector accounts for 58.2 percent, private sector accounts for 40.3 percent, NGO for 0.4 percent, and UNRWA clinics for 1 percent.

Expenditures on pharmaceuticals are very high. One-third of the health expenditure is on drugs and accounts for 3.1 percent of GDP. In Table 2 we observe that curative care accounts for 74.8 percent of MOH expenditures and primary care for only 21.2 percent.

**Table 1 : Jordan National Health Accounts Main Indicators**

| Main Indicators | Year 2007 |
|---|---|
| Total Population | 5,723,000 |
| Total Health Care Expenditures ( JD ) | 1,015,773,941 |
| Per Capita Health Care Expenditures ( JD ) | 177.5 |
| Gross Domestic Product ( GDP ) ( JD ) | 11,225,300,000 |
| Gross National Product ( GNP ) ( JD ) | 11,817,400,000 |
| Per Capita GDP ( JD ) | 1961.4 |
| Health Care Expenditures As Percent Of GDP | 9.05 % |
| Health Care Expenditures As Percent Of GNP | 8.6 % |
| Percent Of Government of Jordan Budget Allocated To Health | 9.1 % |
| Sources Of Health Care Financing ( Percent Distribution )<br>• Public<br>• Private<br>• Donors | <br>54.9 %<br>40.2 %<br>4.9 % |
| Distribution Of Health Expenditure<br>• Public<br>• Private<br>• UNRWA<br>• NGOs | <br>58.2 %<br>40.3 %<br>1.0 %<br>0.4 % |
| Public Health Expenditure As Percent Of GDP | 5.27 % |
| Private Health Expenditure As Percent Of GDP | 3.78 % |
| Total Expenditure on Pharmaceuticals ( JD ) | 344,899,762 |
| Per Capita Pharmaceutical Expenditure ( JD ) | 60.3 |
| Pharmaceutical Expenditure As Percent of GDP | 3.1% |
| Pharmaceutical Expenditure As Percent of Total Health Expenditure<br>• Public<br>• Private | 34.0%<br>11.3%<br>22.7% |
| Distribution Of Pharmaceutical Expenditure as percentage of Total Pharmaceutical Expenditure<br>• Public<br>• Private | <br>33.3%<br>66.7% |

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

| Function | MOH | | RMS | | UHs | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | JUH | | KAUH | |
| | Amount | Percent | Amount | Percent | Amount | Percent | Amount | Percent |
| **Curative/ Hospital Care** | 247,912 | 74.84 % | 77,623 | 63.91% | 39,039 | 95.93% | 36,750 | 83.14 % |
| **Primary Care/ Health Centers** | 70,103 | 21.16 % | 23,884 | 19.67% | 0 | 0 % | 0 | 0 % |
| **Administration** | 6,175 | 1.86 % | 17,913 | 14.75% | 209 | 0.51 % | 500 | 1.13 % |
| **Training** | 2,207 | 0.67 % | 1,838 | 1.51% | 0 | 0 % | 1,100 | 2.49 % |
| **Other** | 4,859 | 1.47 % | 195 | 0.16% | 1,448 | 3.56 % | 5,850 | 13.24 % |
| **Total** | 331,256 | 100 % | 121,453 | 100% | 40,696 | 100 % | 44,200 | 100 % |

# 1. INTRODUCTION

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

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

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

According to current NHA estimate, in 2007 Jordan spent on the health sector approximately JD 1 billion (US$ 1.4 billion) comparing to JD 598 million (US$ 854 million) in 2001, which accounted for 9.05 percent of the GDP in 2007 and 9.6 percent in 2001. Health expenditure per capita in 2007 was JD 177.5(US$ 254) comparing to JD 115 (US$ 164) in 2001. NHA 2007 results highlight the fact that the proportion of GDP (9.05 percent) spent of health care is very high. This level of expenditure might be difficult to sustain given the high population and low economic growth rates.

The NHA 2007 results show that almost 40.2 percent of the total funds originate from private sources, where as 54.9 percent is apportioned public funds, and the remaining 4.9 percent is contributed by international donors or other sources. The private sources comprise premiums paid by people for private commercial insurance, expenditures incurred by self-insured companies that directly pay for health care services for their employees, and out-of-pocket expenditure for health care and for drugs at pharmacies. The public sources comprise mainly tax revenue allocations by Ministry of Finance (MOF) to the MOH, RMS, King Abdullah University Hospital (KAH), and Jordanian University Hospital (JUH).

A breakdown of public health expenditures by function indicates that almost 74.7 percent is spent on curative services, 17.5 percent on preventive measures, 4.6 percent on administrative activities, less than1 percent on training (0.96%), and 2.3 percent on miscellaneous activities. Even as the financing in the entire health sector is highly fragmented, within the public and private sector it is highly centralized and controlled leaving little room for flexibility and maneuverability at the facility level.

The expenditure on drugs at JD 345 million (US$ 487.3 million) is higher than most countries in Jordan's income group. It accounted for approximately one-third of the total expenditure on health care services, and 3.1 percent of the GDP in 2007.

# 2. BACKGROUND

## 2.1 Demographic Trends

The table 3 below illustrates the demographic trends in Jordan

**Table 3: Main Health Indicators**

| Indicator | 2003 | 2005 | 2007 |
|---|---|---|---|
| Crude Birth rate (per 1000.pop.) | 29 | 29 | 29.1 |
| Population Growth Rate (%) | 2.8 | 2.5 | 2.2 |
| Average Persons Per Family | 5.7 | 5.4 | 5.4 |
| Total Fertility Rate | 3.7 | 3.7 | 3.6 |
| Life Expectancy At Birth(Yrs) Average | 71.5 | 71.5 | 73 |
| Life Expectancy At Birth(Yrs) Male | 70.6 | 70.6 | 71.6 |
| Life Expectancy At Birth (Yrs)Female | 72.4 | 72.4 | 74.4 |
| Crude Death rate (per 1000.pop.) | 5 | 7 | 7 |
| Infant Mortality Rate (per 1000.live births) | 22.1 | 22 | 19 |
| Maternal Mortality Rate (per 100.000 live births) | 41 | 40.3 | 41 |
| Dependency Ratio % | 70 | 70.4 | 68.4 |
| Unemployment rate (%) | 14.5 | 14.8 | 13.1 |
| Physician/10000pop. | 22.6 | 23.5 | 26.7 |
| Dentist/10000 pop | 6.3 | 7.6 | 8.5 |
| Nurse (All Categories)/10000 pop | 29.5 | 29.4 | 33.6 |
| Pharmacist/10000pop | 11.6 | 12.9 | 14.1 |

## 2.2 Profile of Health Sub-Systems in Jordan

Table 4 shows a brief overview of the Jordanian health sector in terms of health services coverage, sources of financing, prevailing provider-payer relationships, and the size of operation of each of the health care sub-systems.

**Table 4 Profile of Health Sub-systems in Jordan**

| Size of Operation | Percentage of Population Covered or Eligible | Provider – Payer Relationship | Principal Financing Sources | Coverage/Special Categories | Benefits by Health Subsystems |
|---|---|---|---|---|---|
| As indicated by staff, beds, or number of facilities. | Number of people covered or eligible by health system nationwide. | Describes relationship between financing and service delivery functions. | Describes main sources of financing. | Describes coverage and eligibility criteria, special programs for specific population groups | Describes types of services and benefits available. |
| **Government Services/MOH** | | | | | |
| Operates<br>> 71 comprehensive health centers<br>> 375 primary health centers<br>> 238 Village health centers<br>> 416 maternity and child health care centers<br>> 285 dental clinics<br>> 11 chest diseases centers<br>> 30 hospitals<br>> 4,250 hospital beds (38.5%) | 37 percent (persons enrolled in CIP). Under public law, MOH is required to provide subsidized care to all Jordanian citizens. | Ministry of Health integrated delivery system – services provided by government facilities financed through budget and salaried civil service staff. | >Ministry of Finance (general tax revenues)<br>> Ministry of Social Affairs<br>> Service fees collected at health facilities<br>> Co-payments for services and pharmaceuticals<br>> Payroll deductions<br>> Donor assistance<br>> World Bank loan | > Civil servants and dependents; individuals certified as poor, disabled, and blood donors.<br>> Highly subsidized primary and curative care for the entire population<br>> Children under 6 years of age<br>> Old people over 60 years of age ( voluntary)<br>> Pregnant women | a) Provides comprehensive public health services; primary, preventive, and curative care through its facilities.<br>b) Performs the following financing functions:<br>> Administers Civil Insurance Program (CIP).<br>> Insurer of last resort for the poor. |

| Size of Operation | Percentage of Population Covered or Eligible | Provider – Payer Relationship | Principal Financing Sources | Coverage/Special Categories | Benefits by Health Subsystems |
|---|---|---|---|---|---|
| | | | | | |
| **Royal Medical Services** | | | | | |
| Operates:<br>> 81 ambulatory care centers<br>> 7 clinics<br>> 11 hospitals<br>> 2,131 hospital beds (19%) | 27 percent | Integrated delivery system comprising RMS outpatient clinics and hospitals. Referrals to MOH facilities. | > Government budget<br>> User fees<br>> Co-payments (based on army rank and status)<br>> Minor cost sharing for pharmaceuticals | > Military personnel and their dependents.<br>> Other referrals from MOH and JUH, and contractual agreements with public firms. | Primary and curative care services. |
| **Jordan University Hospital** | | | | | |
| > 1 hospital<br>> 531 hospital beds (5%) | 1 percent (JUH+KAUH) | Serves as fee-for- service referral center for other public programs and private payers. | > Ministry of Finance<br>> Ministry of Health<br>> User fees | Covers its employees and dependents. | a) Serves as a fee- for-service referral center for other public programs and private payers.<br><br>b) Owns and operates outpatient clinics and inpatient facilities for primary and curative care. |

| King Abdullah Univ. Hospital – KAUH | | | | | |
|---|---|---|---|---|---|
| Operates:<br>• 1 hospital<br>• 650 hospital beds ( 489 are used now) | 1 percent (JUH+KAUH) | Service as a fee for service. Referral center for other public programs and private payers. | • MOF<br>• MOH<br>• User fees.<br>• RMS. | Covers its employees and dependents. | • Service as a fee for service. Referral center for other public programs and private payers.<br>• Owns and operates outpatient clinics and inpatient care |
| **United Nations Relief Works Agency** | | | | | |
| **Size of Operation** | **Percentage of Population Covered or Eligible** | **Provider – Payer Relationship** | **Principal Financing Sources** | **Coverage/Special Categories** | **Benefits by Health Subsystems** |
| Operates:<br>25 health centers<br>30 clinics<br>23 family health clinics<br>21 dental clinics | 9 percent | Operates and owns primary health care clinics managed by its own staff. | Financed through outside donor contributions. | Provides care to Palestinian refugees. | a) Owns and runs primary health care centers.<br>b) Refers hospital care to MOH or private facilities. |
| **Private Sector** | | | | | |
| > 58 hospitals<br>> 3642 hospital beds (33%)<br>> 1,810 pharmacies<br>> 71 Emergency and GPs centers<br>> Number of clinics not available | > All citizens with a willingness to pay are eligible.<br><br>> 9 percent | Private hospitals and clinics, by contract. Fee-for-service, or through a third- party payer (insurance company or employer). | > Direct out-of-pocket payments.<br>> Payments from insurance plans.<br>> Payments from employees and employers. | > Beneficiaries of any private health plan self-insured.<br>> Company employees and their dependents.<br>> All citizens with willingness to pay. | a) Owns and operates private clinics and hospitals for primary and curative care.<br>b) Owns and operates pharmacies |

HHC- Sources: Jordan's Health Map-HHC 2008. MOH, Statistical Report 2007. Jordan NHA 2006, MOH and PHR*plus*

# 3. NHA METHODOLOGY:

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

The 2007 data collection efforts were enhanced significantly, due to the following changes:

- Expansion of the NHA Team: membership was expanded to include representatives from HHC, MOH, MOF, MOPIC, MOSD, RMS, JUH, JPD, KAUH, DOS, JFDA, GBD, and PHA.

- Establishment of a Centralized Data Collection Unit: an active NHA Unit had been established in the HHC. Having such a location allowed for easier exchange of information, and provided team members a centralized place for data auditing work;

- Official HHC Executive-level Participation: to encourage the participation of all relevant agencies from which data were to be obtained, the HHC general secretariat issued a request to more than 50 public and private sector agencies, requesting their participation in the 2007 data gathering efforts. As an official GOJ request, the letter legitimized the NHA data collection efforts; hence, team members were faced with some obstacles during the data gathering period.

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

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

The ICHA classifies each as follows:

- **Recurrent expenditures:** Recurrent expenditures consist of items such as salaries (including other benefits), drugs, supplies, treatment, training cost, and equipment maintenance;

- **Capital expenditures**: Capital expenditures are those on medical and non-medical equipment, as well as construction. They include expenditures that record the value of non-financial assets that have been purchased, disposed of, or have changed in value during the period under study, such as land holdings and structure.

### 3.1 Data Collection Strategy

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

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

- Ministry of Social Development (MOSD): Information on the MOSD health care expenditures was obtained from the MOH Health Insurance Directorate accounts, as well as the MOSD Budget Department (monthly and annual statement of accounts).

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

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

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

# 4. OVERVIEW OF NHA RESULTS

This chapter discusses estimates made by the 2007 NHA study. As Table (5) shows, Jordan's total Health care expenditure were approximately JD 1,015,774 billion ($1,423,836 billion) in 2007, this amounted to 9.05 percent of GDP. Health care expenditures per capita was JD177.5 ($2485). Total Health care expenditures increased by 70 percent between 2001 and 2007, and per capita health expenditures by 53.8 percent over the same period.

**Table ( 5 ): Summary NHA Estimates, Jordan, 2001 and 2007**

| Indicator | 2001 | 2007 |
|---|---|---|
| Total Population | 5,182,000 | 5,723,000 |
| Total Health Care Expenditures (JD) | 597,834,320 | 1,015,773,941 |
| Per Capita Health Care Expenditures (JD) | 115.4 | 177.5 |
| Gross Domestic Product (GDP) (JD) | 6,258,800,000 | 11,225,300,000 |
| Gross National Product (GNP) (JD) | 6,391,500,000 | 11,817,400,000 |
| Per Capita GDP (JD) | 1221 | 1961.4 |
| Health Care Expenditures as Percent of GDP | 9.6% | 9.05 % |
| Health Care Expenditure as Percent of GNP | 9.4% | 8.6 % |
| Percent of Govt of Jordan Budget Allocated to Health | 9.6% | 9.1 % |
| Sources of Health Care Financing (percent distribution)<br>• Public<br>• Private<br>• Donors | <br>37.0%<br>58.1%<br>4.9% | <br>54.9 %<br>40.2 %<br>4.9 % |
| Distribution of Health Expenditure<br>• Public<br>• Private<br>• UNRWA<br>• NGOs | <br>45.0%<br>48.7%<br>1.3%<br>5.1% | <br>58.2 %<br>40.3 %<br>1.0 %<br>0.4 % |
| Public Health Expenditure as Percent of GDP | 3.5% | 5.27 % |
| Private Health Expenditure as Percent of GDP | 5.6% | 3.78 % |
| Total Expenditure on Pharmaceuticals (JD) | 184,630,938 | 344,899,762 |
| Per Capita Pharmaceutical Expenditure (JD) | 35.6 | 60.3 |
| Pharmaceuticals as percent GDP | 3.0% | 3.1% |
| Pharmaceuticals as percent of Total Health Expenditure | 30.9% | 34.0% |
| Distribution of Pharmaceutical Expenditure<br>• Public<br>• Private | <br>5.7 %<br>25.2 % | <br>11.3%<br>22.7% |
| Distribution of Pharmaceutical Expenditure of Total Pharmaceutical Expenditure<br>• Public<br>• Private | <br>18.5%<br>81.5% | <br>33.3%<br>66.7% |

Source: NHA team. Note: Numbers may not add up to 100% due to rounding.

Approximately 40.2 percent of the total funds circulating within the system originated from private sources, the public sector's share amounted to 54.9 percent (2007). NHA 2001 showed different Results 58.1 percent of spending was by the private sector and 37 percent by the public sector). International donors (Rest of world and UNRWA) provided the remaining 4.9 percent of total funds, which is about the same percent of 2001 result.

**Private sources of financing consist of the following:**

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

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

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

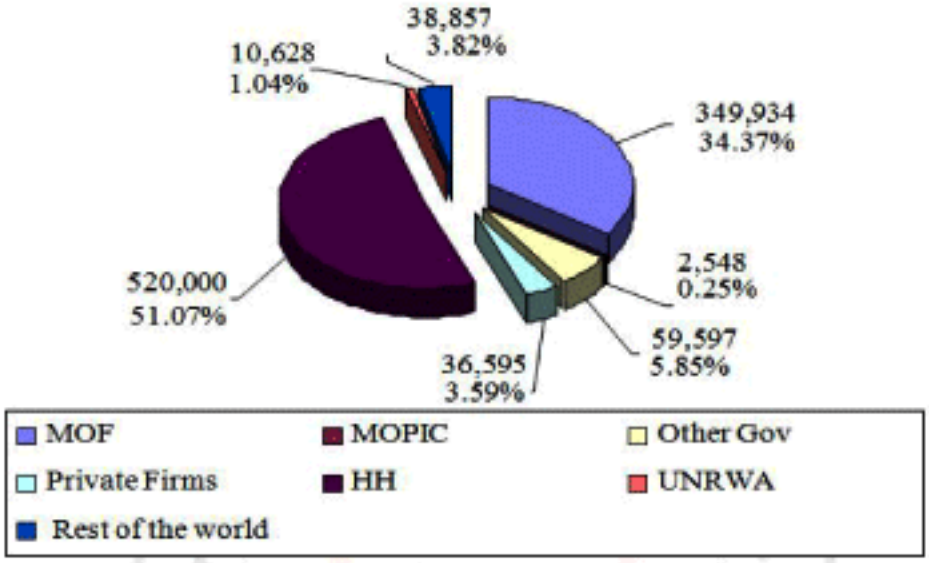
A breakdown of public health expenditures by function for 2007 revealed that significant amounts of public sector resources, roughly 75 percent, are earmarked for the provision of curative care services. Only 17.5 percent of these resources were for the provision of primary care services. Other expenditure items were 4.6 percent for administering the system, around 1 percent for training personnel, and 2.3 percent for miscellaneous expenditure items.

## 4.1. Jordanian Health Care Dinar: Where it Comes From and Where it Goes

NHA tracks the flow of health funds in a two-step process. First, funds are assumed to flow from financing sources (FS) to financing agents (FA); and secondly, from FA to providers (P). Figure ( 1 ) identifies the main sources of health care funds in 2007.

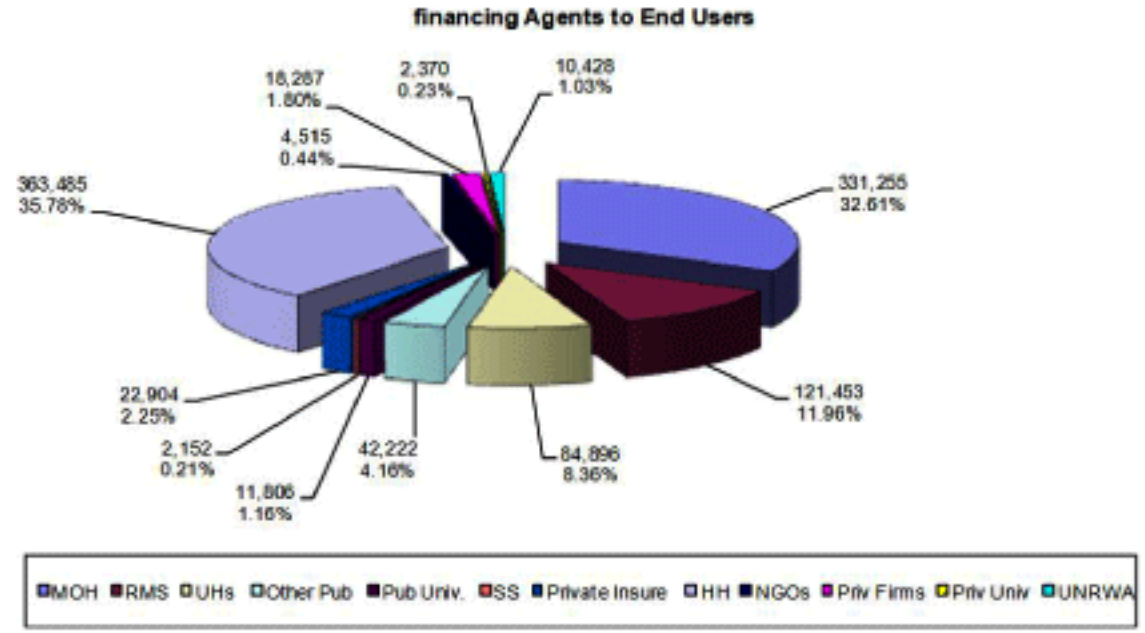
As indicated in Figure ( 1 ), the two major sources of health care funds in 2007 were households (51 percent) and the MOF (34.37 percent), compared to 46 percent and 33 percent respectively in 2001. The largest change comes from the next largest source, private firms, and 3.59% percent. UNRWA and international donors together accounted for nearly 5 percent.

**Figure ( 1 ): Sources of Health Funds, 2007**




As shown in Figure ( 2 ) in 2007, public facilities (MOH, RMS, UHs, other public entities, and public universities) received 58.2% percent of health care funds, while private facilities received 40.3 percent. UNRWA received 1 percent, and 0.4 percent were earmarked for NGO facilities. Among public facilities, MOH funded the largest share, 32.61 percent, followed by the RMS with 11.96 percent, and the JUH and KAUH with 8.36 percent.

**Figure ( 2 ): Funds to Providers, 2007**



## 4.2 Pharmaceutical Expenditures

In 2007, pharmaceutical expenditures amounted to JD 334.899.762 million, which represents 34 percent of total health care expenditure and roughly 3.1 percent of GDP (Table 6). In any event, as illustrated in the table, pharmaceutical expenditures in Jordan have amounted to approximately 3 percent of GDP since the 2001. This level is considerably high for a country with the economic and demographic profile of Jordan.

**Table ( 6 ): Expenditures on Pharmaceuticals**

| | 2001 | 2007 |
|---|---|---|
| Total expenditures on drugs | JD 184,630,938 | 344,899,762 |
| Per capita drug expenditure | JD 35.6 | 60.3 |
| Drug expenditures as percent of THE | 30.88% | 34.0% |
| Drug expenditures as percent of GDP | 2.95% | 3.1% |
| Distribution of drug expenditures:<br>• Public<br>• Private | <br>5.7%<br>25.2% | <br>11.3%<br>22.7% |

Source: Jordan NHA.

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

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

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

*Pharmaceutical promotion efforts*: the relative influence of pharmaceutical companies in promoting their products is extensive and uncontrolled in Jordan. Most Continuous Medical Education within the private sector is sponsored and/or organized by the pharmaceutical industry. In fact, the overall effects of the industry and the incentive structures it creates for provider's vis-à-vis

Their prescribing behaviors are of great concern to policymakers in Jordan (Policy Studies for the Pharmaceutical Sector, July 2004).

## 4.3 Cross-Country Comparative Analysis

In terms of GDP and per capita GDP, Jordan is classified as a low middle-income country. As illustrated in Table ( 7 ), its GDP is in the middle range of the Middle East/North Africa countries that participate in the regional NHA network. In 2007, Jordan's Total Health care Expenditures THE amounted to 9.05 percent of GDP. This percentage is much higher than those of other MENA counties which are at similar stages of economic development. While it is difficult to make international comparisons of health care expenditures due to variations in national accounting practices as well as in the structure of delivering and financing health care services, this finding for Jordan has been somewhat startling to policymakers. Jordan, with its limited resources, is consuming health care services at levels found typically among developed countries, and when this is considered in terms of population growth rates and the aging population it becomes apparent that such high level of expenditures are not sustainable.

**Table ( 7 ): Comparison of Total Health Expenditures in Some MENA Countries**

| Country | Total Health Expenditures as Percentage of GDP (2007) | Total Health Expenditures/ capita at exchange rate ( US$ ) |
|---|---|---|
| Yemen | 4.5 | 41 |
| Egypt | 6.1 | 106 |
| Morocco | 5.4 | 130 |
| Jordan (2007) | 9.05 | 254 |
| Iran | 6.8 | 259 |
| Tunisia | 5.1 | 174 |
| Lebanon | 8.8 | 516 |

* Sources: NHA/WHO website, NHA Country reports

Table ( 8 ) shows the variation in health insurance coverage among some MENA countries. The variations reflect the differences in political and social institutions of the countries, in the particular role of government as a provider of social services.

The issues involved are too complex for discussion within this NHA report; however, in Jordan, health insurance coverage is primarily a function of one's employment status. Civil Service and military personnel are insured through one of two government programs (MOH and RMS), while a significant share of private sector employees receive employer sponsored private health insurance. These arrangements are discussed in more detail throughout the remainder of this document.

**Table ( 8 ): Health Insurance Coverage in Some (MENA) Countries**

| Country | Percentage of population covered by any form of health insurance |
|---|---|
| Egypt | 56% |
| Jordan | 83% |
| Iran | 98% |
| Tunisia | 99% |
| Lebanon | 48.3% |

Sources: NHA/WHO website, NHA Country reports

# 5. JORDAN NHA FINDINGS: NATIONAL LEVEL

## 5.1 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 9, 10-A, and 10-B present this flow in Jordan, in 2007. The primary source of health care funds is private households. Their contributions amounted to JD (520) million in 2007. The second largest source is the public sector, primarily the Ministry of Finance, in the amounts of JD (350) million in the same year.

Second, we estimated the transfer of health care funds from Financing Agents to Providers. Financing Agents purchase health care services from providers on behalf of their beneficiaries. As Tables ( 10-A, and 10-B ) show, the main providers are the Ministry of Health, Royal Medical Services, Jordan University Hospitals (JUH, KAUH), private sector providers, nongovernmental organizations, and the United National Relief Works Agency. A separate line item, Treatment Abroad, measures the amount of expenditures earmarked to overseas providers. The single largest amount of funds paid by households private hospitals, JD (363. 5) million. The second largest amount transferred from financing agent to providers are those that MOH pays to operate its hospitals JD (211.5) million.

The following table ( 9 ) shows **Financing Sources to Financing Agents,** and tables (10-A, and 10-B ) show **Financing Agents To Providers.**

**Table ( 9 ): Financing Sources to Financing Agents, in 2007 (JD 000s )**

| | Financing Agents | PRIMARY SOURCES OF FUND ( JD 000 s ) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MOF | MOPIC | Government Entities | Private Firms | HH | UNRWA | Rest of The World | TOTAL |
| | | FS.1.1.1 | FS.1.1.2 | FS.1.4 | FS.2.1 | FS.2.2 | FS.3.1 | FS.3.2 | |
| 1 | MOH /CIP HF.1.1.1 | 236,758 | 2,377 | 9,482 | 1,358 | 54,382 | 201 | 28,620 | 333,178 |
| 2 | RMS / MIP HF.1.1.2 | 79,500 | 170 | 15,519 | 1,700 | 20,774 | | 3,790 | 121,453 |
| 3 | UHs HF.1.1.3 | 4,000 | | 31,056 | 2,000 | 47,285 | | 960 | 85,301 |
| 4 | Other Government Entities HF.1.1.4 | 29,676 | | 3,540 | 5,982 | 2,600 | | 482 | 42,280 |
| 5 | Public Universities HF.1.1.5 | | 1 | | 8,242 | 2,747 | | 815 | 11,805 |
| 6 | Social Security HF.1.2 | | | | NA | 2,152 | | | 2,152 |
| 7 | Private insure Enterprises HF.2.2 | | | | NA | 22,905 | | | 22,905 |
| 8 | Household HF.2.3 | | | | | 363,485 | | | 363,485 |
| 9 | NGOs HF.2.4 | | | | | 325 | | 4,190 | 4,515 |
| 10 | Private Firms HF.2.5 | | | | 15,535 | 2,752 | | | 18,287 |
| 11 | Private Universities HF.2.5.1 | | | | 1,778 | 593 | | | 2,371 |
| 12 | UNRWA HF.3.1 | | | | | | 10,427 | | 10,427 |
| | TOTAL | 349,934 | 2,548 | 59,597 | 36,595 | 520,000 | 10,628 | 38,857 | 1,018,159 |

Source: NHA Spreadsheets

* Other government entities, such as the Ministry of Social Development (MOSD), (HHC), (JFDA)

## Table ( 10 - A ): Financing Agents To Providers

| Providers | Financing Agents ( JD 000 s ) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MOH | RMS | UHs | Other Pub | Pub Univ. | SS | Private Insure | HH | NGOs | Private Firms | Private Universities | UNRWA | TOTAL |
| | HF.1.1.1.1 | HF.1.1.1.2 | HF.1.1.1.3 | Entities HF.1.1.1.4 | HF.1.1.1.5 | HF.1.2 | HF.2.2 | HF.2.3 | HF.2.4 | HF.2.5 | HF.2.5.1 | HF.3.1 | |
| **MOH Hospitals / Curative Care HP.1.1.1.1** | 211,623 | 5,517 | | | 123 | | | | | 33 | | 201 | **217,497** |
| **MOH Clinics / Primary Care HP.3.4.9.1** | 63,616 | 1,839 | | 1 | | | | | | | | | **65,456** |
| **MOH Administration HP.6.1** | 6,175 | | | | | | | | | | | | **6,175** |
| **MOH Training & Research HP.8.2** | 2,207 | | | | | | | | | | | | **2,207** |
| **MOH HP.n.s.k** | 4,859 | | | | | | | | | | | | **4,859** |
| **MOH Facilities** | 288,480 | 7,356 | 0 | 1 | 123 | 0 | 0 | 0 | 0 | 33 | 0 | 201 | **296,194** |
| **RMS Hospitals / Curative Care HP.1.1.1.2** | 7,356 | 67,726 | | | | | | | | | | | **75,082** |
| **RMS Clinics / Primary Care HP.3.4.9.2** | | 22,045 | | | | | | | | | | | **22,045** |
| **RMS Administration HP.6.1** | | 17,913 | | | | | | | | | | | **17,913** |
| **RMS Training & Research HP.8.2** | | 1,838 | | | | | | | | | | | **1,838** |
| **RMS Facilities** | 7,356 | 109,522 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **116,878** |
| **UHs Hospitals / Curative Care HP.1.1.1.3** | 18,850 | 2,844 | 75,789 | | 2,183 | | | | | | | | **99,666** |
| **UHs Clinics / Primary Care Clinic HP.3.4.9.3** | | | 0 | | | | | | | | | | **0** |
| **UHs Administration HP.6.1** | | | 709 | | | | | | | | | | **709** |
| **UHs Training & Research HP.8.2** | | | 1,100 | | | | | | | | | | **1,100** |

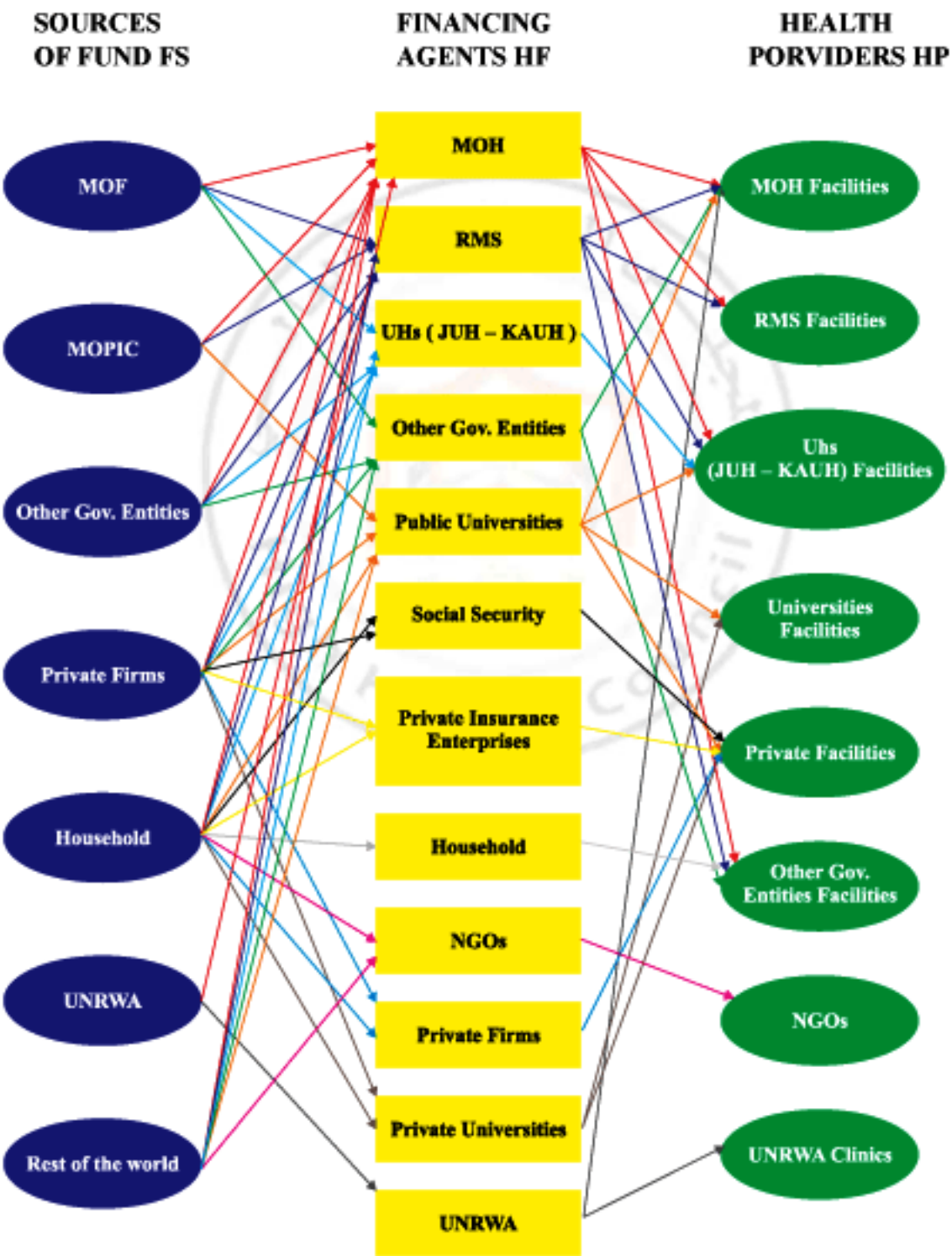
| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **UHs HP.n.s.k** | | | 7,298 | | | | | | | | | | **7,298** |
| **UHs Facilities** | 18,850 | 2,844 | 84,896 | 0 | 2,183 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **108,773** |
| **Universities Facilities** | | | | | 2,951 | | | | | | 593 | | **3,544** |
| **Private Hospitals / Curative Care HP.1.1.2** | 7,839 | | | | 3,438 | 631 | 11,452 | 90,000 | | 9,577 | 933 | | **123,870** |
| **Private Physicians HP.3.1** | | | | | 1,146 | 364 | 5,726 | 54,697 | | 4,572 | 311 | | **66,816** |
| **Private Pharmacies HP.4.1** | 4,494 | | | | 1,965 | 957 | 5,726 | 218,788 | | 4,105 | 533 | | **236,568** |
| **Private Training & Research HP.8.2** | | | | | | | | | | | | | **0** |
| **Private HP.n.s.k** | | | | | | 200 | | | | | | | **200** |
| **Private Facilities** | 12,333 | 0 | 0 | 0 | 6,549 | 2,152 | 22,904 | 363,485 | 0 | 18,254 | 1,777 | 0 | **427,454** |
| **Other Gov Entities Hospitals / Curative Care HP. 1.1.1.4** | 1,303 | | | 27,258 | | | | | | | | | **28,561** |
| **Other Gov Entities Clinics / Primary Care HP. 3.4.9.4** | 1,993 | | | 7,544 | | | | | | | | | **9,537** |
| **Other Gov Entities Administration HP. 6.1** | | | | 5,723 | | | | | | | | | **5,723** |
| **Other Gov Entities T & R HP.8.2** | | | | 1,019 | | | | | | | | | **1,019** |
| **Other Gov Entities HP.n.s.k** | | 195 | | 63 | | | | | | | | | **258** |
| **Other Gov Entities Facilities** | 3,296 | 195 | 0 | 41,607 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **45,098** |
| **NGOs Hospitals / Curative Care HP.1.1.3** | | | | | | | | | | | | | **0** |
| **NGOs Clinics / Primary Care HP.3.4.9.4** | | | | | | | | | | | | | **0** |
| **NGOs facilities** | | | | | | | | | 4,515 | | | | **4,515** |
| **UNRWA** | | | | | | | | | | | | 10,227 | **10,227** |
| **Treatment Abroad HP.9.2** | 940 | 1,536 | | 614 | | | | | | | | | **3,090** |
| **TOTAL** | **331,255** | **121,453** | **84,896** | **42,222** | **11,806** | **2,152** | **22,904** | **363,485** | **4,515** | **18,287** | **2,370** | **10,428** | **1,015,773** |

| Providers | Table ( 10 – B ) : Financing Agents To Providers As Percentage Of THE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Financing Agents ( Percentage ) | | | | | | | | | | | |
| | MOH | RMS | UHs | Other Pub | Pub Univ. | SS | Private Insure | HH | NGOs | Private Firms | Private Universities | UNRWA |
| | HF.1.1.1.1 | HF.1.1.1.2 | HF.1.1.1.3 | Entities HF.1.1.1.4 | HF.1.1.1.5 | HF.1.2 | HF.2.2 | HF.2.3 | HF.2.4 | HF.2.5 | HF.2.5.1 | HF.3.1 |
| MOH Hospitals / Curative Care HP.1.1.1.1 | 20.83% | 0.54% | 0.00% | 0.00% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.02% |
| MOH Clinics / Primary Care HP.3.4.9.1 | 6.26% | 0.18% | 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 | 0.61% | 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 | 0.22% | 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 | 0.48% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| RMS Hospitals / Curative Care HP.1.1.1.2 | 0.72% | 6.67% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| RMS Clinics / Primary Care HP.3.4.9.2 | 0.00% | 2.17% | 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% | 1.76% | 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% | 0.18% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| UHs Hospitals / Curative Care HP.1.1.1.3 | 1.86% | 0.28% | 7.46% | 0.00% | 0.21% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| UHs Clinics / Primary Care Clinic HP.3.4.9.3 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| UHs Administration HP.6.1 | 0.00% | 0.00% | 0.07% | 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% | 0.11% | 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% | 0.72% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Universities Facilities | 0.00% | 0.00% | 0.00% | 0.00% | 0.29% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.06% | 0.00% |
| Private Hospitals / Curative Care HP.1.1.2 | 0.77% | 0.00% | 0.00% | 0.00% | 0.34% | 0.06% | 1.13% | 8.86% | 0.00% | 0.94% | 0.09% | 0.00% |
| Private Physicians HP.3.1 | 0.00% | 0.00% | 0.00% | 0.00% | 0.11% | 0.04% | 0.56% | 5.38% | 0.00% | 0.45% | 0.03% | 0.00% |
| Private Pharmacies HP.4.1 | 0.44% | 0.00% | 0.00% | 0.00% | 0.19% | 0.09% | 0.56% | 21.54% | 0.00% | 0.40% | 0.05% | 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% |
| Private HP.n.s.k | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other Gov Entities Hospitals / Curative Care HP .1.1.1.4 | 0.13% | 0.00% | 0.00% | 2.68% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other Gov Entities Clinics / Primary Care HP .3.4.9.4 | 0.20% | 0.00% | 0.00% | 0.74% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other Gov Entities Administration HP. 6.1 | 0.00% | 0.00% | 0.00% | 0.56% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other Gov Entities T & R HP. 8.2 | 0.00% | 0.00% | 0.00% | 0.10% | 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% | 0.02% | 0.00% | 0.01% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| NGOs Hospitals / 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% |
| NGOs Clinics / 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% | 0.00% | 0.00% |
| NGOs facilities | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.44% | 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% | 1.01% |
| Treatment Abroad HP.9.2 | 0.09% | 0.15% | 0.00% | 0.06% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

## JORDAN NHA 2007

### Jordanian Health Sector's Flow of Funds



## 5.2 Financing Sources

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

As indicated in Table ( 11 ), households were the major source of health care funds, accounting for 51.07% percent in 2007. The MOF was the second largest source, accounting for 34.37% percent. Private firms provided 3.59%, by funding for their employees' health insurance plans through self-insurance or commercial insurers. Self-insured firms are different from commercial insurers, in that they provide direct reimbursement for employees' consumption of health care services from a health insurance fund that is managed by the company and often administered by a Third Party Administrator. Alternatively, companies can also enroll their employees in plans managed by commercial insurers. Donor contributions (Rest of the worlds), without the UNRWA contributions was 3.82% percent. UNRWA's share amounted to 1.04; other governmental entities supplied 5.85% of health care funds in the respective year.

**Table ( 11 ): Total Amounts Allocated by Original Financing Sources, 2007 (JD 000s)**

| | MOF | MOP | Private Firms | Households | Rest of the world | UNRWA | Other Govt. Entities | Total |
|---|---|---|---|---|---|---|---|---|
| Amount | 349,934 | 2,548 | 36,595 | 520,000 | 38,857 | 10,628 | 59,597 | 1,018,159 |
| Percent | 34.37% | 0.25% | 3.59% | 51.07% | 3.82% | 1.04% | 5.85% | 100% |

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

## 5.3 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 Department of Statistics, the High Health Council, and the National Population Council: primarily for research, policy, and training in the area of health .
- *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.

## 5.4 Use of Funds

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

- *MOH to MOH facilities*: The MOH is both a purchaser and provider of health care services.
  While the MOH does not allocate individual operating budgets to the hospitals and clinics that it owns, it uses the financing it receives from various sources to centrally budget and manage the delivery of services from its facilities;

- *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;
- *JUH*;
- *JUST*;
- *SSC*;
- *Private sector purchasers to providers*: Private sector purchasers include households, firms, universities, and commercial insurers, which purchase services on behalf of their beneficiaries from both public and private sector providers.

- University Hospitals (UHs): Information obtained from their Finance and Accounting Departments, as well as from the MOH- Health Insurance Administration.

- *Royal Court*: Information obtained on Royal Court expenditures were obtained from the Royal Court, the Jordan University Hospital, the RMS, and MOH Health Insurance Administration.

- Household-level Expenditure Estimates: Information obtained on Jordanian Households was obtained from the last Jordan Health Care Utilization and Expenditure Survey 2000 , and from NHA team estimations

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

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

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

# 6. JORDAN'S NHA RESULTS: SUB- SYSTEMS LEVEL

## 6.1 Ministry of Health (MOH)

### 6.1.1 Organization and Size

The Ministry of Health is the largest single institutional financier and provider of health care services in Jordan. In 2007, the MOH budget accounted for 5.6 percent of the general budget. The proportion of general budget funds allocated for the (MOH) has varied only slightly in the past five years. It has ranged from 6 to 5.6 percent since 2003. The MOH also is the largest in terms of the size of its operation as compared to RMS, JUH, KAUH or the private sector. The MOH owns and operates 30 hospitals in governorates, and has the most hospital beds (4250), followed by the private sector (3642) beds.

The Table ( 12 ) sheds some light on the distribution of MOH hospitals. The high number of beds per 10,000 people in Ma'an is probably because of the low population density in this governorate.

**Table ( 12 ): Number of MOH Hospitals Beds, Per 10.000 population**

| Governorates | Number of Beds | Population | Beds per10.000 |
|---|---|---|---|
| Amman | 1459 | 2220500 | 6.57 |
| Irbid | 648 | 1018700 | 6.4 |
| Zarqa | 471 | 852700 | 5.5 |
| Balqa | 245 | 383400 | 6.4 |
| Mafraq | 191 | 269000 | 7.1 |
| Karak | 207 | 223200 | 9.3 |
| Jarash | 135 | 171700 | 7.9 |
| Madaba | 129 | 143100 | 9 |
| Ajloun | 105 | 131600 | 8 |
| Ma'an | 203 | 108800 | 18.6 |
| Total | 3793 | 5723000* | 6.6 |

Source: MOH

*Jordan total population 2007

As indicated in Table ( 13 ), the health directorates of Irbid and Karak have the highest number of facilities in the country, followed by Amman and East Amman compared to Dier Alla ,Agwar shamaleyeh and Janobeyeh.

**Table (13): MOH Health Care Centers by Health Directorate 2007.**

| | Comprehensive | Primary | Peripheral | Maternity & Child Care | Dental Clinics |
|---|---|---|---|---|---|
| Capital | 9 | 36 | 13 | 40 | 31 |
| East Amman | 4 | 30 | 22 | 25 | 17 |
| Madaba | 2 | 12 | 17 | 14 | 11 |
| Zarqa | 5 | 29 | 8 | 35 | 22 |
| Balqa | 6 | 23 | 16 | 28 | 19 |
| Deir Alla | 1 | 9 | 5 | 12 | 9 |
| Shounah Janoobiyah | 0 | 8 | 4 | 8 | 5 |
| Irbid | 6 | 40 | 14 | 40 | 29 |
| Agwar Shamaliyah | 0 | 9 | 5 | 8 | 3 |
| Ramtha | 1 | 12 | 0 | 13 | 8 |
| Koura | 2 | 11 | 1 | 13 | 7 |
| Bani Kenaneh | 0 | 16 | 5 | 18 | 12 |
| Ajloun | 3 | 14 | 10 | 21 | 17 |
| Jerash | 1 | 17 | 10 | 18 | 14 |
| Mafraq | 5 | 25 | 21 | 26 | 15 |
| Badia Shamaliyah | 3 | 13 | 15 | 14 | 8 |
| Karak | 5 | 34 | 29 | 38 | 22 |
| Agwar Janoobiyah | 1 | 4 | 2 | 3 | 3 |
| Tafeileh | 4 | 10 | 8 | 16 | 10 |
| Ma'an | 3 | 18 | 21 | 18 | 13 |
| Aqaba | 3 | 7 | 12 | 8 | 10 |
| Total* | 64 | 377 | 238 | 416 | 285 |

Source: MOH,

Table ( 14 ) indicates the size of the MOH operation and its share in the provision of hospital services in Jordan. The occupancy rate of MOH hospitals is (69) percent. The average length of stay is 3.3 days.

The total number of admissions has increased by approximately 14.3 percent, between 2003-2007, as shown in (Table 15 ). The death rate has actually increased since 2003 becoming 1.6 percent in 2007.
The occupancy rate has dropped vaguely, whereas the average length of stay gone up slightly to become 3.3 days.T

**Table ( 14 ): MOH Hospitals: Utilization and Efficiency Indicators,**

| Sector | No. of Beds | Admissions | Discharged | | Death Rate% | Avg. Length of Stay | Occupancy Rate | Outpatient Visits | Surgical Operations | Deliveries |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Alive | Dead | | | | | | |
| MOH | 4,083 | 314,554 | 309,330 | 4,920 | 1.6 | 3.3 | 69.0 | 2,647,261 | 83,231 | 79,655 |

Source: MOH Annual Report 2007

**Table ( 15 ): MOH Hospitals: Utilization and Efficiency Indicators2003-2007**

| Item \ Year | | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|---|
| Admissions | | 269,450 | 271,866 | 279,723 | 290,186 | 314,554 |
| Discharged | Alive | 265,934 | 267,862 | 275,973 | 285,598 | 309,330 |
| | Dead | 3,633 | 3,897 | 4,070 | 4,516 | 4,920 |
| Death Rate % | | 1.3 | 1.4 | 1.5 | 1.6 | 1.6 |
| Occupancy Rate % | | 71.3 | 69.8 | 71.0 | 65.8 | 69.0 |
| Avg. Length of Stay | | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 |
| Surgical Operations | | 76,210 | 80,406 | 82,517 | 81,032 | 83,231 |
| Deliveries | | 72,556 | 71,487 | 70,783 | 71,687 | 79,655 |
| Out-Patient Visits | | 2,222,950 | 2,352,115 | 2,414,403 | 2,472,155 | 2,647,261 |

Source: MOH Annual Report 2007

**Table ( 16 ): Distribution of Health Care Personnel in MOH in 2007.**

| | MOH (Overall) | |
|---|---|---|
| **Category** | **Number** | **specialist per 10000 Population** |
| **Physicians** | 3,702 | 6.5 |
| **Dentists** | 533 | 0.9 |
| **Pharmacists** | 273 | 0.5 |
| **Registered Nurses** | 2,465 | 4.3 |
| **Associate Degree Nursing** | 1,413 | 2.5 |
| **Associate Nurses** | 3,307 | 5.8 |
| **Midwives** | 1,111 | 1.9 |

Source: MOH Annual Report,2007.

### 6.1.2 Analysis of MOH Funds

#### Sources of MOH Funds

As mentioned earlier and indicated in Tables ( 9 and 17 ), most of the MOH funds (71 percent) comes from the MOF, (16.3 )percent from households in the form of insurance premiums from Civil Insurance enrollees and user fees, almost (8.6) Percent from international donors and (2.85) percent from other government entities. The MOH is also responsible for administering the Civil Insurance Program, which is the largest public insurance program.

**Table ( 17 ): Sources of Funds for MOH, (JD 000s)**

| | MOF | Households | Rest of the world (Donors) | Other government entities | Private firms & UNRWA | Total |
|---|---|---|---|---|---|---|
| **Amount** | 236,758 | 54,382 | 28,620 | 9,482 | 1,559 | 333,178 |
| **Percent** | 71.06 | 16.32 | 8.59 | 2.85 | 0.47 | 100% |

Source: MOH,
Note: Numbers may not add up to 100% because of rounding.

As illustrated in Table ( 9 ) MOH received a total of 236.758 JD millions from the MOF, the amount coming from within the budget accounted to 224.236 millions. The rest of this amount came from Royal Court Grants as well as from the general expenditure. (See table 18)

**Table (18): MOH Budget as a Percentage of General Budget (JD 000s)**

| Item | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|
| **General Budget** | 2,511,000 | 2,670,000 | 3,330,000 | 3,448,600 | 4,264,310 |
| **MOH Budget** | 148,146 | 161,400 | 190,002 | 211,486 | 237,150* |
| **Current** | 125,568 | 138,400 | 148,172 | 155,800 | 168,150 |
| **Capital** | 22,578 | 23,000 | 41,830 | 55,686 | 69,000 |
| **Percentage (%)** | 5.6 | 6.0 | 5.7 | 6.1 | 5.6 |

Source: MOH Annual Statistical Book (for years 2003-2007 ).
** This figure is different from the one shown in table ( 9 ) ( JD 236,758 ) million, because of the difference between budgeted figure and the actual figure transferred to the MOH .*

## Use of Funds

**NHA analyses the use of funds in two ways:**

a) By function – primary, curative, administrative, training, and others (miscellaneous).

b) By type of expense – recurrent, capital, and other miscellaneous expenditure. Other expenses are a catch – all categories which includes expenses such as travel. When all the sources are summed, MOH received a total of JD 333,178 million in 2007. As indicated in Table ( 19 ), it allocated JD 286,480 million (86.48%) to facilities it owns and operates and the remaining amount of JD 44,775million (13.5%) was spent on reimbursing RMS, JUH, KAUH and private providers for their services, including treatment abroad.

**Table (19): MOH Expenditures on different Facilities 2007 (JD 000s)**

| | MOH | |
|---|---|---|
| | **Amount** | **Percent** |
| **Own facilities** | 286,480 | 86.48% |
| **RMS** | 7,356 | 2.22% |
| **UHs** | 18,850 | 5.7% |
| **Private sector** | 12,341 | 3.72% |
| **Others** | 4,824 | 1.45% |
| **Total** | 331,255 | 100% |

The different amount between total sources of fund 333,178 (JD 000s) and total expenditures of MOH was located at the Civil health insurance administration which accounted of 1,9(JD 000s)

Conforming to the pattern of distribution of total expenses by function at MOH the expenses on curative care at MOH facilities increased between 2000 and 2007 of about 10% while the expenses on primary care decreased of about 8% for the same period. Administrative and training expenses decreased by 1.1% and 1.3% respectively for the same years as it is shown in the Table ( 20 ).

**Table ( 20 ): Expenditures by Function at MOH 2000 , 2001 , 2007, (JD 000s)**

| Type of service | MOH | | | | | |
|---|---|---|---|---|---|---|
| | 2000 | | 2001 | | 2007 | |
| | Amount | Percent | Amount | Percent | Amount | Percent |
| Curative Care | 103,196 | 65% | 113,718 | 65% | 247,912 | 74.84% |
| Primary Care | 46,983 | 29% | 50,187 | 29% | 70,103 | 21.16% |
| Administrative | 4,751 | 3% | 5,695 | 3% | 6,175 | 1.86% |
| Training | 3,513 | 2% | 3,157 | 2% | 2,207 | 0.67% |
| Others | 1,400 | 1% | 1,355 | 1% | 4,859 | 1.47% |
| Total | 159,843 | 100% | 174,112 | 100% | 331,256 | 100% |

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

Tables (21), looks at MOH expenditure in terms of recurrent, capital, and other expenditures. From 2001 to 2007 total health expenditure increased by 90.2%. Most of MOH expenditure occurred in recurrent expenditure (86%). In 2007 overall expenditures on recurrent inputs increased by 0.2%, however, expenditures on few types of recurrent expenses fell; for example expenditures on supplies decreased by 1.75%, training by 0.33%. Overall capital expenditure increased by 0.2%

Table ( 21 ): Distribution of MOH Expenditures by Type of Expenditure, Percentage

| Type of Expenses | 2001 | 2007 | Percent change |
|---|---|---|---|
| **Recurrent Expenditure** | | | |
| Salaries | 46% | 43.57% | -2.5 |
| Drugs | 12% | 15.7% | +3.7 |
| Supplies | 5% | 3.25% | -1.75 |
| Maintenance | 5% | 7.1% | +2.1 |
| Food & Cleaning | 5% | 3.32% | -1.7 |
| Treatment | 10% | 12.6% | +2.6 |
| Training | 1% | 0.67% | -0.33 |
| Sub-total | 86% | 86.2% | +0.2 |
| **Capital Investment** | | | |
| Medical Equipment | 2% | 2.3% | +0.3 |
| Non-medical Equipment | 0% | 0. 05% | 0 |
| Construction | 6% | 6.8% | +0.8 |
| Sub-total | 8% | 9.15% | +1.15 |
| **Other Expenses** | | | |
| Other | 6% | 4.13% | -1.7 |
| Sub-total | 6% | 4.13% | |
| Grand Total | 100% | 100% | |

Source: NHA Team Notes: Numbers may not add up to 100% because of rounding

## 6.2 Royal Medical Services Rms

### 6.2.1 Organization and Size:

Royal Medical Services contributes in providing health care as the second largest public entity in Jordan in this field through providing primary and curative health care to the armed forces through 11 main hospitals spread all over the country. These benefits are extended to the dependents of the military personnel as well as public security and civil defense personnel and their dependents. This system covers about 1.56 million individuals, accounting for 35 percent of the population (RMS, Annual Statistical Report, 2007). Table (22) bellow shows that the number of people covered under the military insurance increased since 1964 by over 660 percent.

**Table 22: Number of Population Covered by the RMS 1964-2007**

| Year | Number |
|---|---|
| 1964 | 235,000 |
| 1985 | 970,000 |
| 2004 | 1,620,165 |
| 2007 | 1,550,601 |

Source:RMS, Annual Statistical Report, 2007

Providing high quality care, including some complex procedures and specialty treatment to Jordanians and other 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, as it is evident in Table 23.

**Table 23 : Number of RMS Facilities, 2007**

| Governorates | Inpatient | Outpatient |
|---|---|---|
| Amman | 6 | 3 |
| Irbid | 1 | 0 |
| Zarqa | 1 | 1 |
| Karak | 1 | 0 |
| Aqaba | 1 | 0 |
| Tafielah | 1 | 0 |
| Maan | 0 | 1 |
| Mafraq | 0 | 1 |
| **Total** | **11** | **6** |

Source: RMS, 2007

RMS Contributes in activating the role of Jordan at national and international levels by sending medical teams and field hospitals to disaster and conflict areas such as (Afghanistan, Iraq, Sera lion, Liberia, Congo, and Haiti ).

The occupancy rate in the RMS hospitals indicated in Table 24 is about 76 percent which is accepted all over the world.

Table 25 gives insight into the type of services that are available at RMS hospitals. Specialty treatment accounts for 56 percent of the total, followed by emergency and dentistry. Al Hussein Hospital appears to be the most extensively used.

Table 26 lists the patient visits to specialty clinics 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 26 percent of the total expenditure. The second biggest category is retired army personnel and their dependents, which account for more than one-fifth (20.08 percent) of the total expenditure. Prince Rashed Hospital is the most commonly used, followed by Al Hussein and Prince Hashem Hospitals. The total number of patient visits to specialty clinics in 2007 was almost 2.062 million.

## Table 24: RMS Hospitals: Utilization and Efficiency Indicators, 2007

| Sector | No. of Beds | Admissions | Discharged | | Death Rate | Avg. Length of Stay | Occupancy Rate | Outpatient Visits | Surgical Operations | Deliveries |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Alive | Dead | | | | | | |
| RMS | 2,131 | 143,028 | 139,466 | 3,562 | 2.5 | 4.1 | 76.1 | 2,061,730 | 50,567 | 4,017 |

Source: RMS, Annual Statistical Report, 2007



## Table 25: Number of Patients Visiting the Speciality, Emergency, & Dentistry Clinics in All RMS Hospitals, 2007

| Hospital | Al- Hussein | Heart Center | Rehabilitation Center | Prince Hussein Center | Queen Alia | Prince Rashed | Prince Hashem | Prince Ali | Princess Haya | Prince Zied | Total | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Specialty Clinics | 560,487 | 54,012 | 50,655 | 26,507 | 53,596 | 520,217 | 361,865 | 243.336 | 97,715 | 93,340 | 2,061,730 | 56.35% |
| Emergency | 136,673 | 0 | 0 | 0 | 130,946 | 122,848 | 365,751 | 64,507 | 138,240 | 63,275 | 1,022,240 | 27.94% |
| Dentistry | 153,342 | 0 | 12,861 | 0 | 20,686 | 164,390 | 90,980 | 77,860 | 29,149 | 25,571 | 574,839 | 15.71% |
| Total | **850,502** | **54,012** | **63,516** | **26,507** | **205,228** | **807,455** | **818,596** | **385,703** | **265,104** | **182,186** | **3,658,809** | **100%** |
| Percent | **23.25%** | **1.48%** | **1.74%** | **0.72%** | **5.61%** | **22.07%** | **22.37%** | **10.54%** | **7.25%** | **4.98%** | **100%** | **100%** |

Source: RMS, Annual Statistical Report, 2007

## Table 26: Patient Visits to Speciality Clinics in Hospitals According to Type of Beneficiaries for 2007

| Hospital | Al- Hussein | Heart Center | Rehabilitation Center | Prince Hussein Center | Queen Alia | Prince Rashed | Prince Hashem | Prince Ali | Princess Haya | Prince Zied | Prince Rashed suburb | total | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Army | 43,488 | 1,608 | 9,051 | 3,701 | 6,154 | 43,369 | 35,739 | 26,663 | 4,940 | 5,025 | 17,094 | 196,832 | 9.55% |
| Beneficiary /Army | 89,225 | 7,380 | 12,639 | 5,959 | 11,185 | 141,890 | 130,054 | 58,612 | 10,614 | 23,670 | 31,781 | 523,196 | 25.83% |
| Public Security | 14,930 | 816 | 2,580 | 832 | 2,051 | 13,102 | 5,996 | 9,537 | 1,873 | 1,985 | 11,813 | 65,494 | 3.18% |
| Beneficiary/P.S | 34,262 | 4,308 | 3,965 | 1,060 | 3,339 | 43,096 | 29,022 | 26,031 | 3,419 | 7,529 | 18,438 | 174,469 | 8.46% |
| Intelligence | 8,154 | 708 | 754 | 262 | 596 | 4,269 | 1,418 | 3,393 | 549 | 369 | 6,959 | 27,431 | 1.33% |
| Beneficiary/Int. | 14,132 | 2,304 | 1,385 | 265 | 1,196 | 12,629 | 9,735 | 7,660 | 938 | 2,494 | 9,190 | 61,928 | 3% |
| Civil Defense | 8,356 | 432 | 583 | 266 | 1,226 | 7,522 | 1,704 | 7,017 | 964 | 1,357 | 8,045 | 37,472 | 1.82% |
| Beneficiary/C.D | 14,772 | 2,496 | 1,187 | 561 | 3,217 | 23,602 | 9,454 | 19,668 | 1,532 | 5,416 | 10,257 | 92,162 | 4.47% |
| Retired | 37,855 | 5,319 | 5,341 | 7,308 | 10,366 | 75,488 | 39,437 | 24,158 | 3,554 | 6,128 | 23,948 | 42,736 | 11.78% |
| Beneficiary/Retired | 70,263 | 9,583 | 6,390 | 2,631 | 8,555 | 140,507 | 90,227 | 38,534 | 5,957 | 13,265 | 28,079 | 413,991 | 20.08% |
| Royal Jordanian | 5,941 | 1,476 | 425 | 187 | 1,102 | 103 | 703 | 1,394 | 560 | 0 | 3,257 | 15,148 | 0.73% |
| Beneficiary/ RJ | 6,835 | 1,656 | 522 | 197 | 2,296 | 222 | 2,949 | 311 | 491 | 324 | 4,019 | 19,822 | 0.96% |
| Other Subscribers | 1,409 | 1,032 | 215 | 46 | 820 | 3,254 | 2,055 | 6,187 | 7,959 | 7,863 | 1,624 | 32,464 | 1.57% |
| Beneficiary/ OS | 2,196 | 864 | 286 | 18 | 408 | 10,797 | 3,139 | 13,362 | 30,280 | 14,801 | 62 | 76,213 | 3.7% |
| Civil/Jordanian | 34,124 | 9,996 | 5,162 | 3,214 | 1,068 | 367 | 233 | 809 | 24,085 | 3,114 | 0 | 82,172 | 3.99% |
| Civil/Non-Jordanian | 5,091 | 1,752 | 170 | 153 | 54 | 0 | 13 | 8 | 216 | 500 | 0 | 7,957 | 0.39% |
| **Total** | **385,921** | **54,012** | **50,655** | **26,507** | **53,596** | **520,217** | **361,865** | **242,336** | **97,715** | **93,340** | **174,566** | **2,061,730** | |
| **Percent** | **18.72%** | **2.62%** | **2.46%** | **1.29%** | **2.60%** | **25.23%** | **17.55%** | **11.8%** | **4.74%** | **4.53%** | **8.47%** | | **100%** |

Source: RMS, Annual Statistical Report, 2007

### 6.2.2 Analysis of RMS Funds

#### Sources of Funds

The RMS, like all other public entities, receives most of its annual budget from the MOF, 65.5 percent in 2007 (Table 27). The second most significant source of funds are the contributions made to the RMS budget from other government agencies , which include the civil defense , civil aviation authority , Royal Court , and Jordanian intelligence service .The largest of these contributors is the Royal Court , which reimburses categorical groups of the RMS patients who are deemed eligible for such support .

**Table 27: Sources of Funds for RMS, 2007, (JD 000s)**

| | MOF | MOPIC | Govt. Entities | Households | Donors | Private Firms | Total |
|---|---|---|---|---|---|---|---|
| Amount | 79,500 | 170 | 15,519 | 20,774 | 3,790 | 1,700 | 121,453 |
| Percent | 65.5% | 0.1% | 12.8% | 17.1% | 3.1% | 1.4% | 100% |

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

#### Uses of Funds

In Table 28 below we see that the RMS spends approximately 63.9 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 19.7 percent, 14.7 percent, 1.5 percent, and 0.2 percent respectively of the total budget.

**Table 28: Expenditure by Function, 2007 (JD 000s)**

| Function | 2007 | Percent |
|---|---|---|
| **Curative Care** | 77,623 | 63.9% |
| **Primary Care** | 23,884 | 19.7% |
| **Administrative** | 17,913 | 14.7% |
| **Training** | 1,838 | 1.5% |
| **Others** | 195 | 0.2% |
| **Total** | **121,453** | **100%** |

Source: NHA Team

**Table 29 : Distribution of RMS Expenditures by Type of Expenditure, JD 000s**

| Item | 2007 | Percentage |
|---|---|---|
| **Recurrent Expenditure** | | |
| SALARIES | 48,801 | 40.2% |
| DRUGS | 20,773 | 17.1% |
| SUPPLIES | 9,964 | 8.2% |
| Exp. Of Sustainability & Operation | 7,024 | 5.8% |
| Exp. Of Food & Housekeeping | 2,277 | 1.9% |
| TREATMENT | 4,420 | 3.6% |
| TRAINING | 1,838 | 1.5% |
| **SUB-TOTAL** | 95,097 | 78.3% |
| **Capital Investment** | | |
| MEDICAL EQUIPMENT | 10,780 | 8.9% |
| NON-MEDICAL EQUIPMENT | 3,676 | 3.0% |
| CONSTRUCTIONS | 11,705 | 9.6% |
| **SUB-TOTAL** | 26,161 | 21.5% |
| **Others** | | |
| others | 195 | 0.2% |
| **SUB-TOTAL** | 195 | 0.2% |
| **Grand Total** | **121,453** | 100% |

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

## 6.3 Jordan University Hospital

### 6.3.1 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 and king Abdullah university hospital. 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 pubic 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. Privet Rooms and Suites ar being renovated and assigned to facilitate the provision of medical care to private payers. 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.

JUH has 531 bed percent (4.9 %) of the total number of hospital beds in the in Jordan accounts for 27651 percent (3.4%) of the total admissions (Table 30). JUH has only one location and outpatient clinics are in – house.

## Table 30: Utilization of JUH Facilities

| Sector | No. of Beds | Admissions | Discharged | | Death Rate | Avg. Length of Stay | Occupancy Rate | Outpatient Visits | Surgical Operations | Deliveries |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Alive | Dead | | | | | | |
| **JUH** | **531** | **27,651** | **27,514** | **642** | **1.6%** | **5.2** | **73%** | **420,020** | **16,160** | **3,217** |

Source: JUH, Annual Report,

## Table 31: Number of Health Personnel at JUH

| Type of Personnel | Number |
|---|---|
| Physicians | 215 |
| Dentists | 28 |
| Residents | 210 |
| Staff Nurses | 408 |
| Assistant Nurses | 198 |
| Medical technicians | 280 |

### 6.3.2 Analysis of JUH Funds

**Sources of Funds**

An executive decree mandated the MOF to allocate funds to cover a small amount of the JUH annual budget. However, in practice this proportion has varied significantly. Approximately JD 4 million is a fixed transfer from the MOF to the JUH. The remaining amount is reimbursements to the JUH from the MOH, for treating referral patients covered under the Civil Insurance Program and from the RMS for treating their referral patients. As noted in Table 32, in 2007 the JUH received only 9.7 percent of its total budget from MOF. Households and national donors together contributed 29.8 percent, followed by public firms at 23 percent and other government entities, such as the Royal Cabinet, at 37.5 percent. Some of the public firms that do not have in-house medical facilities reimburse the JUH for medical services provided to their employees.

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 32: Sources of Funds for JUH. (JD 000s)**

| | MOF | Public Firms | Households | Donors | Other Govt. Entities | Total |
|---|---|---|---|---|---|---|
| **Amount** | 4,000 | 9,456 | 11,445 | 750 | 15,449 | 41,100 |
| **Percent** | 9.7 | 23 | 28 | 1.8 | 37.5 | 100% |

Source: NHA Team

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

**Uses of Funds**

**Table 33: Distribution of JUH Expenditures by Type of Expenditure, JD 000s**

| TYPE | 2007 |
|---|---|
| Salaries | 19,947 |
| Drugs | 9,605 |
| Supplies | 5,312 |
| Maintenance | 2,158 |
| Food & Cleaning | 664 |
| Treatment | 1,4000 |
| Training | 0 |
| Sub-total | 39,088 |
| Medical Equipment | 95 |
| Non-medical Equipment | 64 |
| Construction | 0 |
| Sub-total | 160 |
| Other | 1,447 |
| Sub-total | 1,447 |
| Grand Total | 40,696 |

**Table 34: Expenditure by Function, (JD 000s)**

| TYPE | 2007 |
|---|---|
| Curative Care | 39,039 |
| Primary Care | 0 |
| Administrative | 209 |
| Training | 0 |
| Others | 1,447 |
| Total | 40,696 |

## 6.4 King Abdullah University Hospital

### 6.4.1 Organization and Size of (KAUH)

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

KAUH is within the Jordan University of science and Technology (JUST) campus which is located in the north of Jordan on the high way linking Jordan to Syria. This carefully chosen location allows the hospital to provide primary and secondary& tertiary health care services to more than 1 million inhabitants of Irbid, Ajloun, Jarash and Mafraq governorates in particular and to all Jordanians in general.
The hospital bed capacity is (683) beds which can be increased to (800) beds in any emergent situation.

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

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

### 6.4.2 Analysis of KAUH Fund

Sources of funds for KAUH are shown in table 35 - A and utilization rate are illustrated in table 35 - B.

**Table 35-A: Sources of Funds for KAUH (JD 000s)**

| | MOF | Private firms | Households | Donors | Other Govt. Entities | Total |
|---|---|---|---|---|---|---|
| **Amount** | 0 | 6,150 | 35,840 | 210 | 2,000 | 44,200 |
| **Percent** | 0 | 14% | 81% | 0.48% | 4.5% | 100% |

**Table 35-B: Utilization of KAUH Facilities**

| No. of Beds | Admissions | Discharged | | Death Rate | Avg. Length of Stay | Occupancy Rate | Out-patient Visits | Surgical Operations | Deliveries |
|---|---|---|---|---|---|---|---|---|---|
| | | Alive | Dead | | | | | | |
| **489** | **35370** | **35116** | **608** | **1.8%** | **4.2** | **70.5%** | **296509** | **13450** | **2445** |

Source: KAUH, Annual Report, 2007

## Uses of Funds

### Table 36 - A: Distribution of KAUH Expenditures by Type of Expenditure, JD 000s

| Type of Expenditure | 2007 |
|---|---|
| **Recurrent Expenditure** | |
| Salaries | 14,800 |
| Drugs | 11,000 |
| Supplies | 5,300 |
| Maintenance | 3,75 |
| Food & Cleaning | 800 |
| Treatment | 100 |
| Training | 1,100 |
| Sub-total | 36,850 |
| **Capital Investment** | |
| Medical Equipment | 700 |
| Non-medical Equipment | 500 |
| Construction | 300 |
| Sub-total | 1,500 |
| **Other Expenses** | |
| Other | 5,850 |
| Sub-total | 5.850 |
| **Grand Total** | **44,200** |

### Table 36 - B: KAUH Expenditure by Function (JD 000s)

| Function | Amount | Percent |
|---|---|---|
| Curative Care | 36,750 | 83.1% |
| Primary Care | 0 | 0 |
| Administrative | 500 | 1.1% |
| Training | 1,100 | 2.5% |
| Others | 5,850 | 13.2% |
| **Total** | **44,200** | **100%** |

**Table 37: Number of health personal at KAUH**

| Type of Personnel | Number |
|---|---|
| Physicians | 432 |
| Dentists | 10 |
| Pharmacists | 46 |
| Staff Nurses | 502 |
| Assistant Nurses | 117 |
| Technical | 133 |
| total | **1240** |

## 6.5 King Hussein Cancer Center KHCC

### 6.5.1 Role and Functions of KHCC

The idea of the creation of this leading institution dates back to the mid 1980's. Cancer care in Jordan back then was disorganized and sporadically distributed between individuals. Most wealthy patients would travel abroad to receive treatment, while those with financial hardship were locally treated with scattered resources and outcomes were poor. Many people feared the disease and would refer to cancer as "THAT" disease, as the fear of mentioning the word "cancer" prevented them from uttering it.

In 1984, the idea gained acknowledgement and was initiated; soon, governmental approval was granted for the innovative project. The building was established with generous support from public charities, under the supervision of the Union of Voluntary Societies. Jordanians paid for this project with full faith that fighting cancer should not be left to the government alone since we are all affected with cancer.

In 1997, the hospital finally 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 Spetember 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. The process of recruiting new staff and bringing stability to senior staff is ongoing. Most importantly, the KHCC research office is working hard to promote cancer research, so that the center will have its landmark on the care of cancer globally.

**Goals**

In accordance with the stated mission of the center, our goals and objectives are to attain and maintain:

- Excellence in Clinical Care
- Excellence in Cancer Education, Training and Public Awareness
- Excellence in Clinical Research

### 6.5.2 Analysis of KSCC Funds

Table 38 shows a breakdown of KHCC Expenditures by function

**Table 38: Breakdown of K.H.C.C Expenditures by Function (JD 000s)**

| Type | Amount | Percent |
|---|---|---|
| **Curative care** | 27,258 | 87.00% |
| **Primary care** | 1,567 | 5.00% |
| **Administrative** | 1,567 | 5.00% |
| **Training** | 939 | 3.00% |
| **Other Exp.** | 0 | 0.00% |
| **Total** | **31,331** | **100%** |

## 6.6 The National Center for Diabetes, Endocrinology, and Genetics (NCDEG)

### 6.6.1 Role and Functions

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

**The main Function of NCDEG are:**

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

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

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

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

### 6.6.2 Analysis of Funds

Table 39 shows a breakdown of NCDEG Expenditures by function

**Table 39: Breakdown of NCDEG Expenditures by Function (JD 000s)**

| Type | Amount | Percent |
|---|---|---|
| **Curative care** | 0 | 0 |
| **Primary care** | 3,315 | 80.9 % |
| **Administrative** | 785 | 19.1% |
| **Training** | 0 | 0 |
| **Other Exp.** | 0 | 0 |
| **Total** | **4,100** | **100.0%** |

## 6.7 Jordan Food and Drug Administration JFDA

### 6.7.1 Organization and Size of JFDA

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

JFDA is an independent public sector regulatory institution who's main objectives are to ensure:

- That foods are safe, wholesome, and sanitary.
- That drugs are safe, and efficacious.

**Role and responsibilities:**

a - Supervise and inspect the quality and suitability of foods stuffs, in accordance with technical specifications, and standards.

b- Achieve the requirements and take measures: guarantee and supervise the

safety and quality of medications in accordance with the rules and standards.

c- Exercise any other supervision needed in connection with food stuffs and drugs

JFDA is working in collaboration with other institutes in public and private Sectors, and it works through many agreements and memorandum of understanding with national, and regional institutes such as: Ministry of Health, Ministry of Environment, WHO, and FDA.

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

### 6.7.2 Analysis of JFDA Funds

**Table 40: Distribution of JFDA Expenditures by Type of Expenditure, JD 000s**

| Type of Expenditure | 2007 |
|---|---|
| **Recurrent Expenditure** | |
| Salaries | 2,092 |
| Drugs | 0 |
| Supplies | 112 |
| Exp. Of Sustainability & Operation | 260 |
| Exp. Of Food & Housekeeping | 79 |
| Treatment | 0 |
| Training | 46 |
| Sub-total | 2,589 |
| **Capital Investment** | |
| Medical Equipment | 482 |
| Non-medical Equipment | 156 |
| Construction | 790 |
| Sub-total | 1,428 |
| **Other Expenses** | |
| Other | 53 |
| Sub-total | 53 |
| **Grand Total** | **4,070** |

## 6.8 Ministry of Social Development MOSD

### 6.8.1 Health Services Provision by MOSD

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

The most important health and medical services are :

1. Diagnosis .
2. Treatment .
3. Intensive nursing care around the clock .
4. Community rehabilitation .
5. Physical therapy .
6. Health insurance for persons with disabilities .
7. International health nutrition program .
8. The provision of appropriate treatment programs within the Centers, in cooperation with hospitals in the Ministry of Health.
9. Rehabilitation of the disabled.

### 6.8.2 Expenditure of MOSD Centers

**Table 41 : Expenditure of MOSD Centers 2007 ( JD 000s )**

| | |
|---|---|
| **Handicaps Centers ( Jarash & karak )** | **1,646** |
| **Other MOSD Centers** | **26** |
| **Total** | **1,672** |

### 6.8.3 National Aid Fund NAF

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

## 6.9 The High Health Council HHC

### 6.9.1 Role, Structure and Responsibilities of HHC.

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

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

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

### 6.9.2 Analysis of HHC Funds

**Table ( 42 ): Distribution of HHC Expenditures by Type of Expenditure, (JD 000s)**

| Type of Expenses | 2007 |
|---|---|
| **Recurrent Expenditure** | |
| Salaries | 74 |
| Drugs | 0 |
| Supplies | 4 |
| Maintenance | 13 |
| Food & Cleaning | 0 |
| Treatment | 0 |
| Training | 4 |
| Sub-total | 95 |
| **Capital Investment** | |
| Medical Equipment | 0 |
| Non-medical Equipment | 42 |
| Construction | 0 |
| Sub-total | 42 |
| **Other Expenses** | |
| Other | 0.390 |
| Sub-total | 0.390 |
| Grand Total | 137 |

## 6.10 Joint Procurement Department JPD

### 6.10.1 Role of JPD

Managing of pharmaceuticals procurement represents the main role of JPD, and it's considered as high priority in the Jordanian health sector because the national expenditure on drugs is very high and exceeded 3 percent of GDP. Joint procurement helps in decreasing the costs of drugs as it's stated in the reports of the World Bank, the reorganization project for the pharmaceutical sector, the National health strategy NHS 2008 – 2012, the national drug policy documents, and the accounting bureau report for the year 2003.

JPD was established on 12/8/2004 based on low No. (91) For the year 2002 which covers medical supplies and drugs.

Strategic goals of JPD focused on procurement of drugs and medical supplies of high quality within the frame of joint and consolidated specifications, procurement standardization, costs and expenditures control, and duplication elimination, achieve Physical wealth by applying the economics of procuring big quantities principles, information and experiences exchange between parties taking part in procurement, employ transparency approach in bids offer and studies, complete bids invitation and awarding as soon as possible, reevaluate suppliers and manufacturers continuously, prepare a list of the approved drugs used in the public sector, and achieve competence and justice amongst bidders. Table (43) illustrates type of JPD expenses in 2007.

### 6.10.2 Analysis of Funds

**Table 43 : JPD Expenses by Type in 2007**

| Type of Expenses | 2007 ( JD 000s ) |
|---|---|
| **Recurrent Expenditure** | |
| Salaries | 142 |
| Drugs | 0 |
| Supplies | 2 |
| Exp. Of Sustainability & Operation | 58 |
| Food & Cleaning | 4 |
| Treatment | 0 |
| Training | 28 |
| Sub-total | 235 |
| **Capital** | |
| Medical Equipment | 0 |
| Non-medical Equipment | 64 |
| Construction | 0 |
| Sub-total | 64 |
| Other Expenses | |
| Other | 0 |
| Sub-total | 0 |
| **Grand Total** | 298 |

## 6.11 Non Governmental Organizations NGOs

### 6.11.1 Volume of NGOs Health Services and Flow of Funds.

The NGO sector provides primary, curative, and public health services. The FS of NGOs amounted JD 4.5 million (4. 2 million from donors' sources and the rest JD 325 thousand is from household sources). Table 44 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 44: Volume of Health Services Provided by Charitable Societies in Jordan**

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

## 6.12 Social Security Corporation SSC

### 6.12.1 SSC Mandate

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

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

### 6.12.2 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

**Insurances Stipulated In Law:**

1. Insurance against work injuries and occupational diseases.

2. Insurance against old age, disability and death.

3. Insurance against temporal disability due to sickness or maternity.

4. Medical insurance for laborer and beneficiaries.

5. Family grants.

6. Insurance Against unemployment.

**Currently applied insurances are:**

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

**Insurance Compulsory:**

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

**Advantages and Benefits:**

- Pensions:

    1. Old age pension (mandatory, early).

    2. Natural disability pension (total, partial).

    3. Natural death pension

- Insurance services of Work injuries and occupational diseases:
    1. Medical care.
    2. Daily compensations.
    3. Transfer compensations.
    4. Occupational compensations.
    5. Total disability due to work injury pension.
    6. Permanent partial disability due to work injury pension.
    7. Death due to work injury pension.
- Lump sum compensations (in case of in fulfillment of pension's entitlement conditions).

### 6.12.3 SSC Staff Expenses on Health Insurance

Table 45 below illustrates SSC staff expenses on Health insurance of expenditure by Type 2007

**Table 45: SSC Staff Expenses on Health Insurance of Expenditure by Type 2007**

| No. | Type of Expenditure | Amount (JD) |
|---|---|---|
| 1 | Private Hospitals | 472,854 |
| 2 | Drugs | 957,071 |
| 3 | Private Doctors | 293,889 |
| 4 | laboratories | 89,854 |
| 5 | Radiology | 51,554 |
| 6 | Centers of the Emergency | 87,421 |
| 7 | TPA fees | 199,848 |
| | Total | 2,152,491 |

Note: The health insurance contributions were deducted from the staff and security staff to retired in 2007 amounted to JD (140361.00)

## 6.13 Ministry of Finance

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

**The main Strategic objectives of MOF:-**

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

## 6.14 Department of Statistics DOS:

The department of statistics DOS, which founded in late 1949, is one of the first governmental institution that have accompanied the establishment of the stat of Jordan. The department produces various economic date such as national accounts , economic growth , inflation, unemployment, unemployment, and employment , and contributions of different sectors in the national accounts including health sector, domestic trade , foreign trade, income and expenditure, as well as demographic data , population estimates , population projections, vital statistics ( births and deaths), migration statistics , fertility , mortality and population growth .

With the growing importance and value of the statistical figure, and the role played by the department of statistics in providing the decision makers with date and information on all aspects of social and economic sides through the implementation of economic and demographic surveys, and producing highly accurate statistical data to be used as the basis of decision –making in planning for the future in programs and policies, and monitor the progress achieved in various areas of development and monitoring their affects on the national economy and well-being of the Jordanian citizen and enrich the dialogue on the Issues of society and contribute to the development of solutions. The department is seeking to upgrade its capacity to the level that it could achieve this role.

The department applies the latest international methodologies in the implementation of survey and censuses, using the developed software in the statistical analysis and preparation of population projections and demographic indicators. Likewise, takes the recommendations of the United Nations with regard to international standards. The DOS in Jordan is contributing in the institutionalization process of NHA.

## 6.15 Ministry of Planning and International Cooperation

### 6.15.1 Role of MOPIC in Health Sector

Ministry of Planning and International Cooperation MOPIC was established in the year 1984, replacing the National Council for Planning, its functions and works, under the law No. (68) For the year 1971. On 25/10/2003 the name of the Ministry had been amended to become the Ministry of Planning and International Cooperation.

Ministry of Planning and International Cooperation is the link between all the international donors, ministries and government institutions, working to coordinate the development efforts for the advancement of the level of national economy and improve the standard of living, through the preparation and follow-up implementation and evaluation of development plans and strengthen the economic ties of technical and financial cooperation with various countries , international bodies and institutions, which contribute to the achievement of sustainable development.

Within the framework of the Ministry's efforts to achieve national goals and to advance the reform and development programs in all different sectors, MOPIC provides the support for many health sector projects either through financial contributions and support from its budget, or loans and grants. within clear and transparent mechanism of action, where MOPIC Study funding requests for various projects and their classification in terms of strategic priorities and their compatibility with national objectives and the operational programs for each sector, After that, MOPIC discuss requests with funding agencies to provide the necessary support , after coordination with Ministry of Finance on the terms of the proposed funding to select the most appropriate, funding agreement is prepared by the funding agencies and in coordination with MOPIC, as well as the beneficiaries of the project. MOPIC is also responsible for the follow-up procedures during project implementation as well as coordination between the funding agencies and the beneficiary, to ensure that the implementation of the project is in line with the signed agreement and to handle any obstacles during the implementation period.

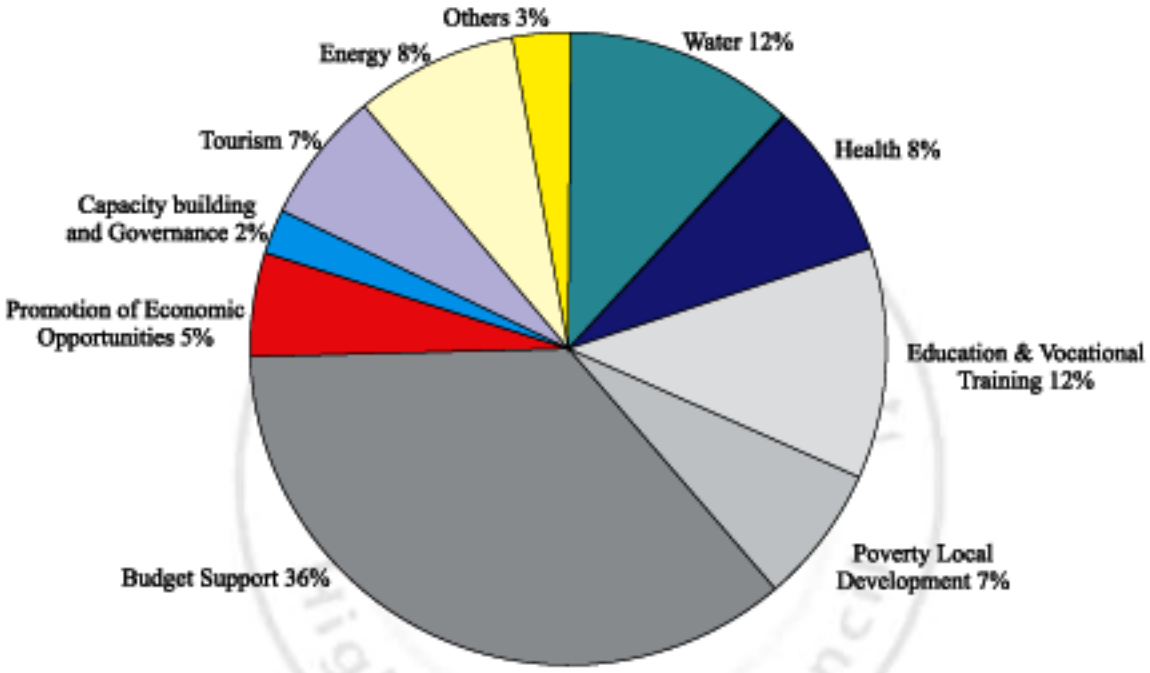
MOPIC is working continuously to enhance and strengthen linkages with various donors, in order to provide the necessary funding and support for various priority projects, donors are classified as follows:

- American and Canadian Funding agencies , Australian and South America countries, (USAID).
- United Nations organizations and institutions:
  UNDP / ILO / UNFPA / UNICEF / UNIDO / FAO /ESCWA / COMCEC / UNIFEM / IOM/ UNESCO/ IFAD
- European Union , the European Investment Bank
- European donors (Germany, France, Spain, Italy, Switzerland, Sweden, Denmark)
- Asian donors (Japan, China, Korea)
- World Bank
- Arab and Islamic funds: the Islamic Development Bank / Arab Fund for Economic and Social Development / the Saudi Fund for Development / Abu Dhabi Fund for Development / Kuwait Fund for Arab Economic Development / OPEC Fund for International Development.

### 6.15.2 The Volume of Foreign Aid Grants and Soft Loans by Sector

Graph No. 3 Shows that the volume of foreign aid grants and soft loans is 8 percent for the health sector in 2007.

**Figure 3 The volume of foreign aid grants and soft loans by sector - 2007**



### 6.15.3 Breakdown Expenditure of MOPIC Loans and Grants.

Table 46 shows Breakdown expenditure of MOPIC Loans by type and function

**Table 46: Breakdown Expenditure of MOPIC Loans by Type and Function 2007**

| Sources Of Fund | |
|---|---|
| Entities | 2007 (JD) |
| Ministry of Finance | 2,432,141 * |
| Ministry of Health | |
| Other government entities | |
| Households | |
| Donors | 19,385,791 |
| Private Firms | |
| Total | 21,817,932 |

| Expenditures | |
|---|---|
| Recurrent Expenditure | |
| Type | 2007 (JD) |
| Salaries | |
| Drugs | |
| Supplies | 296,372 |
| Maintenance | |
| Food & Cleaning | |
| Treatment | |
| Training | |
| Sub-total | 296,372 |
| **Capital Investment** | |
| Medical Equipments | 2,073,122 |
| Non-Medical Equipments | 4,869 |
| Constructions | 17,011,428 |
| Sub-total | 19,089,419 |
| **Others** | |
| Others | 2,432,141 * |
| Sub-total | |
| Grand Total | 21,817,932 |

| Expenditure by function | |
|---|---|
| **Type** | **2007 (JDs)** |
| Curative care | 21,817,932 |
| Primary care | 0 |
| Administrative | 0 |
| Training | 0 |
| Others | 0 |
| **Total** | **21,817,932** |

*MOPIC contribution, this figure was not possible to braked down

Table 47 shows Breakdown expenditure of MOPIC grants by type and function

**Table 47: Breakdown Expenditure of MOPIC Grants by Type and Function 2007**

| Sources Of Fund | |
|---|---|
| **Entities** | **2007 (JD)** |
| Ministry of Finance | |
| Ministry of Health | |
| Other government entities | |
| Households | |
| Donors | 17,815,778 |
| Private Firms | |
| **Total** | **17,815,778** |

| | |
|---|---|
| **Recurrent Expenditure** | |
| **Type** | **2007 (JD)** |
| Salaries | |
| Drugs | |
| Supplies | 74,944 |
| Maintenance | 2,500,000 |
| Food & Cleaning | |
| Treatment | |
| Training | 1,450,000 |
| **Sub-total** | **4,024,944** |
| **Capital Investment** | |
| Medical Equipments | 2,950,607 |
| Non-Medical Equipments | 1,776,227 |
| Constructions | 4,724,000 |
| Sub-total | 9,450,834 |
| Others | |
| Others* | 4,340,000 |
| Sub-total | 4,340,000 |
| Grand Total | 17,815,778 |

| Expenditure by function | |
|---|---|
| **Type** | **2007 (JDs)** |
| Curative care | 5,423,551 |
| Primary care | 6,120,540 |
| Administrative | 4,340,000 |
| Training | 1,450,000 |
| Others** | 481,687 |
| **Total** | **17,815,778** |

Note: Data in this table of the USAID grants were estimated by MOPIC

* Administrative expenses includes: studies & polices, Software, Establishment of community health committees, awareness campaigns and ads.

** JFDA Grant

## 6.16 Insurance Sector

Approximately 83 percent of the population have some form of health insurance. 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 / RMS, covering 27 percent, UNRWA covering 9 percent, private insurance covering 9 percent, and UHs covering 1 percent. The remaining 17% of the population are without any form of health insurance (MOH statistical reports 2007 & WB), but this percentage reaches 25% if we consider Duplication in health insurance This section provides an overview of the provision of private health insurance coverage (Wolrd Bank 2008) through commercial insurers, self-insured firms, and universities.

### 6.16.1 Private Health Insurance

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

**Insurance Legislation**

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

**Health Insurance Companies: Size and Contribution to Private Insurance Market**

According to the annual report of the Insurance Commission in 2007, there were 29 insurance companies in Jordan in addition to the 11 companies for the management of expenses and medical insurance services (Third Party Administrators), medical premiums represent a total of 17.8% percent of the total insurance premiums, and compensation is a 18.37% percent of the total compensation (table 48)

**Table 48: Breakdown of Insurance Market (JD 000s)**

| Type of Premium | 2007 | Percent of Total Insurance |
|---|---|---|
| General Insurance | 210,583 | 72.2 |
| Life Insurance | 29,180 | 10 |
| Health Insurance | 51,887 | 17.8 |
| **Total Insurance** | **291,650** | **100** |

Source: Jordan Insurance Commission

### 6.16.2 Private Firms and Health Insurance

More than 7962 private companies are legally operating in Jordan (Central Bank of Jordan 2007). According to the recent Health Insurance Private Sector Survey (HIPS, 2001), approximately 14 percent of these companies offer health insurance to their employees and their dependents. Overall they cover approximately 47 percent of the private sector workforce. Information from the HIPS and Department of Statistics allow for estimating total health care expenditures for private sector firms in 2007 (Table 49).

**Table 49: Health Expenditures of Some Private Firms (JD 000s)**

| Firms | 2007 |
|---|---|
| Jordan Telecom | 3,000 |
| Potash | 2,900 |
| Phosphate | 4,511 |
| Cement | 3,825 |
| Refinery & Petroleum | 4,050 |
| **Total** | **18,286** |

Source: NHA team.

### 6.16.3 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 most major cities in the country. However, most universities are within the capital city of Amman. According to the Ministry of Higher Education, the total number of registered university students was 218904 in the 2006-2007 academic years. The vast majority of students are Jordanian, although significant numbers are from nearby Arab countries. All universities offer health insurance to their students and employees. Private universities typically offer coverage through their university-owned and -operated clinics.
The public sector is the largest contributor to public universities' health insurance plans, 76.73 percent in 2007 (Table 50). Households are the second largest contributors, supplying 23.27 percent of total operating revenue in 2007.

Households' contributions to student health insurance plans at private universities represented roughly 25 percent (2007) of the total health insurance budgets. The remaining came from the universities' general budgets. The private universities themselves spent around JD1.8 million (2007) on health care services (Table 51).

**Table 50: Sources of Health Funds for Public Universities**

| Year 2007 | Households | Other Government Entities | Total |
|---|---|---|---|
| VALUE | 2747341 | 9058433 | 11805774 |
| % | 23.27 | 76.73 | 100% |

Source: NHA team, theses figures are for six public universities: Jordan University of Science and Technology, Al-Yarmouk, Balqa, Mou'ta, Aal-El-Beit, and Al-Hashemiah University.

**Table 51: Sources of Health Funds for Private Universities**

| Year 2007 | Households | University Budgets | Total |
|---|---|---|---|
| VALUE | 592652 | 1777957 | 2370609 |
| % | 25 | 75 | 100% |

Source: NHA Team, Reports of 6 private universities; Al-Essra, Al-Zaitoona, Philadelphia, Jarash, Irbid Private University, and Zarqa Private University,Expect other 3 private universities; Amman Private University, Applied Science, & Petra,

## 6.17 Civil Insurance Program ( CIP ) :

### 6.17.1 Organization

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

It is worth mentioning that the civil health insurance covers about 34.5% the population (31/12/2007).

This percentage includes all categories under the health insurance in an attempt to reach a universal health insurance.

**Table 52: Numbers of Insured Population 2003-2007**

| Year | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|---|---|---|---|---|
| Numbers of insured | 882,000 | 1,026,100 | 1,170,000 | 1,554,705 | 1,936,077 |

Source: CIP / MOH.

### 6.17.2 Expanding the Coverage of the (CIP / MOH)

**The first and second stages included:**

1. Children under 6 years of age.
2. Social security retirees and their dependants from the public sector.
3. Spouses of female public sector employees and retirees.
4. Children of females' enrollees (18-25 years)
5. Retired daily paid laborers.
6. Peripheral areas inhabitants or residents.
7. Residents of the less privileged areas.
8. Unable to pay Jordanian according Ministry of Social Development.
9. Beneficiaries of the National Aid Fund.

**The third stage included**:

1. Individuals above 60 years of age.
2. Pregnant women.

3. Articles 30 and 31 in the health insurance bylaw pertaining to age groups.

This will have an impact on raising the expenditure of the Health Insurance Fund to cover all of the above mentioned categories ensuring an appropriate level of health care, taking into consideration that the enrollment fees only cover the minimum of the actual service cost.

### 6.17.3 Sources of funds

The Health Insurance Fund has the following Sources ( table 53):

1. Ministry of finance
2. Other government Entities
3. Households.
4. Donors (UNRWA, Red Crescent)
5. Private Firms

**Table 53: Sources of Funds for CIP, 2007 (JD 000s)**

| | MOF | Other government entities | Households | Donors | Private firms | Total |
|---|---|---|---|---|---|---|
| **Amount** | 7,351 | 9,482 | 54,382 | 212 | 1,358 | 72,786 |
| **Percent** | 10.1 | 13.0 | 74.7 | 0.3 | 1.9 | 100 |

Source: CIP / MOH Donors: UNRWA , Red Crescent

The Health Insurance Fund 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 Fund.

### 6.17.4 Expenditures

**Table 54: Distribution of CIP Expenditures by Type of Expenditure, 2007 (JD 000s)**

| Type of Expenses | 2007 |
|---|---|
| **Recurrent Expenditure** | |
| Salaries | 21,165 |
| Drugs | 8,616 |
| Supplies | 1,570 |
| Exp. Of sustainability & Operations | 771 |
| Food & Cleaning | 0 |
| Treatment | 37,972 |
| Training | 2 |
| Sub-total | 70,097 |
| **Capital Investment** | |
| Medical Equipment | 0 |
| Non-medical Equipment | 66 |
| Construction | 0 |
| Sub-total | 66 |
| **Other Expenses** | |
| Other | 700 |
| Sub-total | 700 |
| Grand Total | 70,863 |

Source: CIP / MOH

**Categories covered by civil insurance program (CIP / MOH)**

* Public sector employees and their dependants.
* The poor holding cards according to social studies.
* Disabled.
* Blood donors.
* Pregnant woman.
* Children under 6 years of age
* Elderly (above 60 years).
* Other categories.
* Some costly diseases are insured according to special standards determined by the

**health insurance bylaw, these include the followings:**

1. Mental diseases according to the Minister decision.
2. In-patients recommended by the Ministry of Social Development.
3. Alcohol and drug addicts in addition to drug poisoning cases.
4. Snake and scorpion bites
5. AIDS patients.
6. Chronic blood diseases including:
    - Hemophilia.
    - Thalasemia.
    - Sickle cell anemia.
    - Aplastic Anemia.
    - Inherited immunodeficiency diseases.
    - Gamma globulin deficiency.
    - Cystic fibrosis.
    - Cancer diseases and side effects.

**Future Plans:**

1. Computerizing the information and accounting systems.
2. Setting training plans for employees in the health insurance domain.
3. Decentralizing budget preparation and other financing issues in the health insurance department.
4. Implementing a new accounting cycle appropriate to the current situation, in the Health Directories and MOH hospitals.

## 6.18 United Nations Relief Works Agency UNRWA

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

UNRWA health expenditures amounted to nearly JD 10 million in 2007, representing roughly 1 percent of total health expenditures in the country. The distribution of these funds is illustrated in Table 55.

**Table 55: Breakdown of UNRWA/Jordan Health Expenditures by Function (JD 000s)**

| Type | Amount | Percent |
|---|---|---|
| Curative care | 1,023 | 9.6% |
| Primary care | 8,554 | 80.5% |
| Administrative | 443 | 4.2% |
| Training | 6 | 0.1% |
| Other E | 602 | 5.7% |
| Total | 10,628 | 100.0% |

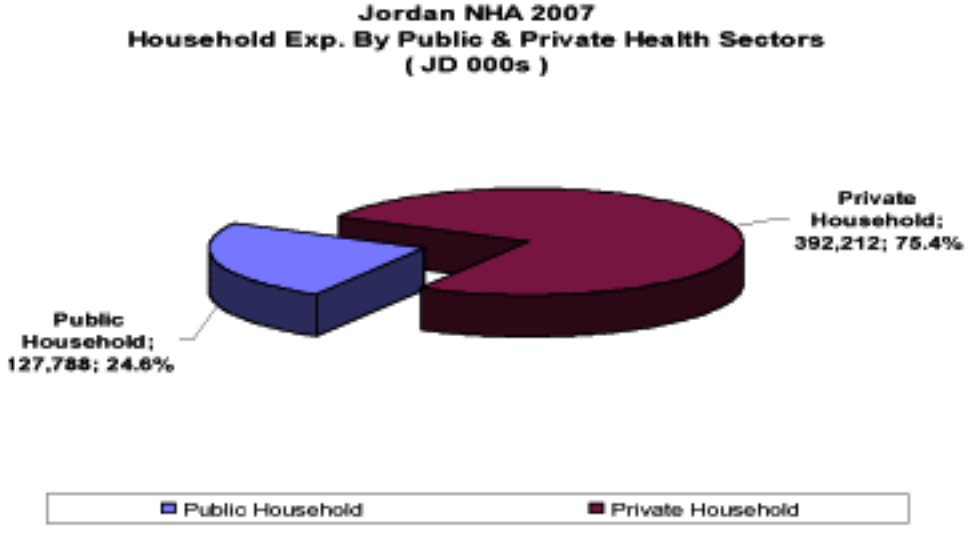
## 6.19 Household Health Care Expenditure Estimates

### 6.19.1 Household Expenditures by Public and Private Sectors.

As illustrated in Table 9, total household health care expenditures in 2007 amounted to JD520 million ($734.5 million), 75. 4 percent in the private sector (JD 392,2) million and 24.6 percent in the public sector (JD 127.78) million as shown in figure 4.

Households' out-of-pocket expenditure as a percentage of total health care expenditure is 51.2%.

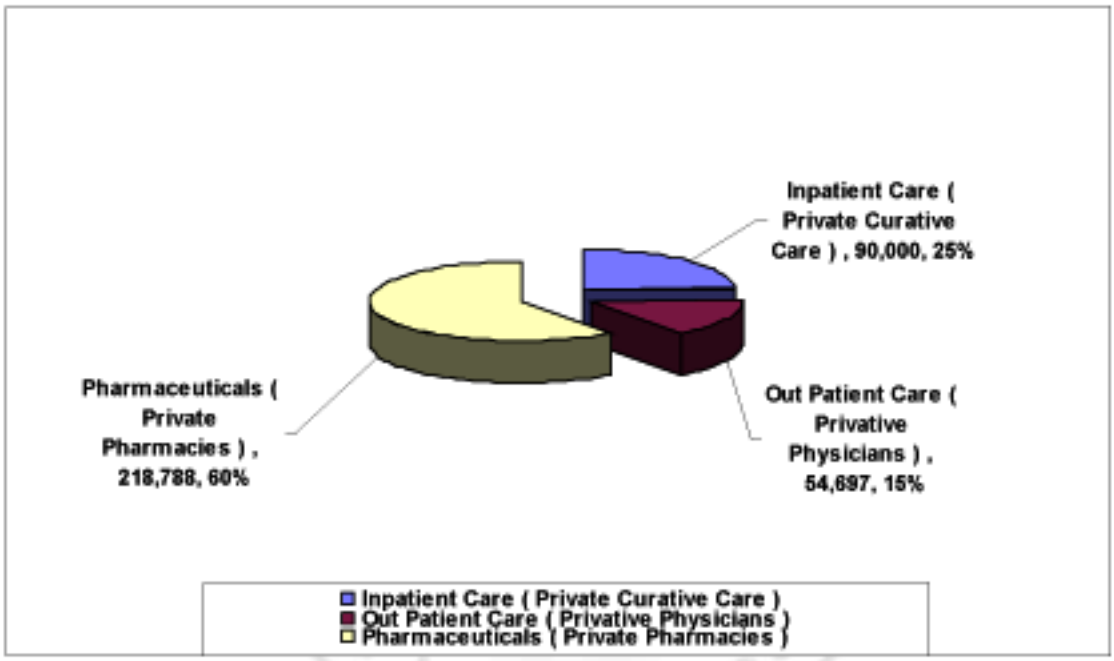
**Figure 4: Household Exp. By Public and Private Sectors**



### 6.19.2 Breakdown of OOP Expenditures

Total out-of-pocket expenditures on health services by Jordanian households in the private sector amounted to around JD 363.5million ($513.4 million) in 2007, figure 5 shows the distribution of these oop expenditures. This represented roughly 89 percent of total health care expenditures that were paid directly by Jordanian households in the private sector. The remaining 11 percent was spent on premium contributions. Households' expenditures on pharmaceuticals amounted 60 percent, inpatient care 25 percent, and outpatient care 15 percent.

**Figure 5: Breakdown of OOP Health Expenditure in the Private Health Sector**




### 6.19.3 Utilization Behavior of Households

As illustrated in Table 56, the vast majority of MOH and RMS beneficiaries receive their outpatient care through MOH clinics and hospitals. This is not surprising, given that the MOH operates such a large network of clinics throughout the country, of which it provides outpatient treatment to RMS personnel on a contractual basis. Moreover, as one would expect, a majority of individuals with commercial health insurance, 71.2 percent, obtain their outpatient treatment at private clinics, compared to 15.1 percent, 19.7 percent, and 23.1 percent for CIP, RMS, and JUH personnel, respectively. Of particular concern, however, is the significant proportion of the uninsured who receive outpatient treatment at private clinics and hospitals, 42.6 percent, because nearly 60 percent of the uninsured fall within the third quintile of households' income distribution (HUES, 2000).

Moreover, roughly 17.4 percent of the uninsured receive their outpatient treatment from private sector pharmacies, compared to 15.4 percent, 5.8 percent and 3.5 percent for JUH, MOH and RMS beneficiaries, respectively. Hence, the JHUES shows that the uninsured are more likely to obtain their outpatient treatment from private entities (e.g., clinics, hospitals, and pharmacies) as opposed to MOH facilities.

**Table 56: Choice of Providers for Outpatient Visits, 2000: Percentage Distribution**

| Insurance Status | MOH Clinics | MOH Hospitals | RMS Clinics | RMS Hospitals | Private Clinics | Private Hospitals | JUH Hospital |
|---|---|---|---|---|---|---|---|
| Uninsured | 28.8% | 9.1% | 0.6% | .8% | 38.9% | 3.7% | .3% |
| CIP (MOH) | 61.0% | 13.7% | .3% | 2.1% | 15.1% | .7% | 1.0% |
| RMS | 47.9% | 10.1% | 2.4% | 15.7% | 19.7% | .3% | ---- |
| JUH | 38.5% | 7.7% | ---- | ---- | 23.1% | ---- | 7.7% |
| Private | 9.0% | 2.7% | ---- | ---- | 71.2% | 8.1% | ---- |

As illustrated in Table 57, the largest outpatient out-of-pocket expenditure item is pharmaceuticals: on average, 73.3 percent of all out-of-pocket expenditures that are incurred by individuals in their consumption of outpatient services. In this respect, there exists little variation among insured and uninsured persons, the exception being that of individuals with private health insurance coverage.

The privately insured appear to incur a higher proportion of out-of-pocket expenditures for physician services, and significantly less for pharmaceuticals. This is likely due to the co-payment rates that are imposed on the privately insured and the prospectively utilization mechanisms that are imposed on pharmaceutical consumption by these groups. Other insurers, such as the MOH, RMS, and JUH impose less stringent pre-approval requirements on drug consumption. As previously stated, 17.4 percent of the uninsured receive their outpatient treatment from private sector pharmacies.

This likely accounts for the relatively high levels of out-of-pocket expenditures on pharmaceuticals that are incurred by this category of individuals. Unlike MOH, RMS and JUH personnel, the uninsured must purchase their pharmaceuticals at market prices from commercial pharmacist.

Hence, evidence suggests that the distributional affects of the current structure of services delivery may have a disproportionate impact on uninsured households – particularly given that they are more likely to be represented in the lower quintiles of the income distribution.

**Table 57: Percentage Distribution of Outpatient Out-of-pocket Expenditures, by Insurance Status**

| Insurance Status | Physician Fees | Lab/X-ray Expenditures | Drug Expenditures | Transportation Expenditures |
|---|---|---|---|---|
| Uninsured | 14.1% | 6.5% | 76.0% | 2.7% |
| CIP (MOH) | 13.8% | 4.1% | 76.5% | 5.5% |
| RMS | 14.3% | 4.4% | 72.8% | 8.3% |
| JUH | 17.9% | ---- | 78.6% | 3.4% |
| Private | 20.3% | 11.2% | 62.5% | 5.7% |

## 6.20 Hospital Sector

As presented in Table 58, the total number of hospital beds in Jordan is 10826, or 19 beds per10,000 persons in 2007 compared to 17 in 2001. Annual admissions in 2001 amounted to 587,345 and in 2007amounted to 802751. Table 58 also provides several key measures of inpatient services. (Additional information, on the production of other inpatient services, can be obtained from MOH Annual Statistical Reports.) It is of import to note that Jordan hosts one of the highest bed-to-population ratios in the Middle East. The public sector has nearly twice the number of the beds as the private sector, 7,234 versus 3,592.

The Occupancy rate varies by sector, ranging from an average of 49.9 Percent in private sector facilities, to 76.1 percent in RMS facilities.

**Table 58 :Analysis Of Hospital Sector**

| Entity | | No. Of Beds | | Occupancy Rate | ALOS | No. Of Admissions |
|---|---|---|---|---|---|---|
| | | No. | % | | | |
| **MOH** | | 4083 | 37.7 | 69.0 | 3.3 | 314554 |
| **RMS** | | 2131 | 19.7 | 76.1 | 4.1 | 143028 |
| **UHs** | **JUH** | 531 | 4.9 | 73 | 5.2 | 27651 |
| | **KAUH** | 489 | 4.5 | 70.5 | 4.3 | 35370 |
| **Private** | | 3592 | 33.2 | 49.9 | 2.2 | 282148 |
| **Total** | | **10826** | **100.0** | **338.5** | **19.1** | **802751** |

MOH and private sector hospitals are the major suppliers of hospital-based services in Jordan. This has been the case for nearly 15 years. The percentage distribution of hospital beds in 2007 indicates that the MOH occupies 37.7 percent. RMS and JUH together represent roughly 25 percent of all beds and admissions in Jordan.

Self-reported information on household expenditures per admission were estimated from the JHUES 2000. Households spent JD25 ($35) per admission at MOH hospitals, JD9 ($13) at RMS hospitals, JD33 ($47) at JUH hospitals, and JD402 ($567) per admission at private sector hospitals.

That is, as one would expect the private sector exhibits the most expensive admission in Jordan, more than ten times the costs of admission to MOH, RMS or JUH facilities. This information should not be interpreted as the differences in the cost of producing services at each institution, and the cost per admission has no relationship to the relative efficiency of service production at the different types of facilities.

In order to make such inferences, detailed economic and accounting data are needed at the facility level. Once such information is obtained, case-mix adjustments must be conducted in order to make cross-sectional comparisons of the various hospital categories

# 7. POLICY IMPLICATIONS

## 7.1 Sustainability of Current Levels of Health Care Expenditures

Jordan spent 9.6 percent of its GDP on health care services in 2001 and 9 percent in 2007.

Such high levels of health expenditures may prove to be unsustainable in the near term.

Moreover, with changing demographics, population aging, and shift from infectious to chronic diseases, it becomes apparent that current expenditure levels will not be sustainable.

Hence, an effective strategy of cost containment, to include greater use of utilization review mechanisms and the implementation of an effective prescription drug policy, should be of highest priority to stakeholders. Furthermore, the public sector is the major supplier of health care services in the country, and its services are provided to Ministry of Health and Royal Medical Service beneficiaries with little or no cost-sharing. This has implications for both cost- containment objectives, as well as the distribution of the financial burden among consumers of these services.

It indicates that the government should consider developing a system of means-testing among beneficiaries. Such a system could shift the financial burden of the system in such a way that those with greater means are responsible for paying a greater share of their service provisions.

## 7.2 Public and Private Health Sector Coordination

Private sources financed around 40 percent of all health care expenditures, while the public sector financed roughly 55 percent in 2007. Increasing public and private sector coordination is needed if optimal health care policy is to be designed and implemented for the country. This becomes more evident when one considers the low levels of occupancy that prevails at private sector hospitals. Given the amount of excess capacity in the private sector, the government could accelerate its plans to engage in greater private sector contracting for health care services on behalf its beneficiaries. Contracting can increase utilization in the currently underutilized private sector and reduce the need for greater capital investment.

Currently, the MOH *is* engaged in a private sector contracting of hospital care in collaboration with PHA.

## 7.3 Equity

One major finding from this study is the significant amount of household out-of-pocket expenditures – roughly 50 percent ( oop and health insurance premiums) of total health care expenditures – that occurs within the Jordanian health care sector. Another troubling finding is that the uninsured are provided services without determining their ability to pay. The government provides for highly subsidized services to all persons, irrespective of a person's income or asset holding; hence, low-income persons are responsible for the same cost- sharing arrangements as higher-income households. Hence, while the publicly provide health care services are quite generous, the 25 percent of the Jordanian population that is uninsured seems to be facing significant financial risk under the current system. Significant changes are needed for male and female employees of small- and medium-sized business, as well as others who must supplement their current health insurance offerings by paying out-of-pocket for needed services.

## 7.4 Reallocating Expenditures from Curative to Primary Heath Care

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

# 8. HEALTH POLICY ISSUES

Jordan NHA estimates (1998, 2000, 2001, and 2007) showed that Jordan is spending between 30 and 35 percent of its total health care expenditures on pharmaceuticals. This figure is considered very high for a country like Jordan, given the fact that this level of expenditure is difficult to sustain into the future. In addition, Jordan still has a high total fertility rate (3.6). Coupled with the facts that life expectancy has increased for both males and females, and child and infant mortality have decreased to be one of the lowest in the region, this will exert more pressure and demand for health care services on the system, reinforcing the concept of cost-containment. One specific area of cost-containment that was highlighted as a priority was the pharmaceuticals.

The Jordanian government has designed a rational drug use policy to streamline and optimize expenditures on pharmaceuticals. The major steps to be accomplished over the five-year period (2004-2009) are to have a National Essential Drug List and a National Formulary for Essential Drug List developed, distributed, and used in all public sector facilities at all levels (primary health care and hospitals), fully supported and adopted by GOJ. Moreover, the JPD is expected to utilize the Jordan National Drug Formulary as its reference in all procurement procedures. Ultimately, Rational Drug Use will continue to be promoted and implemented, thus contributing to the government's cost containment efforts.

As a result of a six-year effort by PHR, PHR*plus*, the Jordan NHA activity has become formally institutionalized within the government of Jordan at HHC General Secretariat. This is a remarkable achievement for NHA in Jordan as the HHC is directly involved in drawing up the national health policy including financing health care.

**Development of a Standardized Data Reporting System**

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

**Adoption and Diffusion of NHA Results for Public Policy**

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

# 9. RECOMMENDATIONS

- To allocate more funds for primary health care, and to focus on cost containment measures in curative care provision.
- To enhance the NHA data collection by reviewing the current adopted procedures, in order to get reliable data in a convenient period of time.
- To improve NHA methodology implementation during the future NHA rounds in conformity with ICHA and SHA.
- To conduct a new household survey on utilization, and expenditure of health care in Jordan.
- To build the technical capacity of the newly established NHA team in collaboration with the World Health Organization.
- To support the current government's efforts on rationalizing of drug use and on joint procurement of pharmaceuticals.

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# Annex No. 1

**List of the Members of "NHA Data Interpretation and Technical Committee"**

## High Health Council General Secretariat:

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

## Ministry of Health:

- Dr. Taissir Fardous
- Mr. Bassam Al Mnier
- Mr. Mustafa Kasem

# Annex No. 2

# Definition of Expenditure

**2.1 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. 1 medical supplies** : medical devices and consumable (medical glasses and headphones, ……) .

**3. 2 non-medical supplies**: non medical devices and consumable (clothing, fabrics, stationery, printings, furniture, materials and raw materials).

**4. Sustainability and operating expenses** :

**4. 1 recurrent public expenditure**: (telephone, fax, water, electricity, fuel, rents, studies, insurance of cars and buildings, building permit fees, customs fees, announcements) .

**4.2 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**:

**5.1** Food and beverage including contracts.

**5.2** 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) .

## 2.2 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 UNICEF.

# Annex No. 3

## List of the Members of "Health policy Recommendations' Committee"

**High Health Council General Secretariat:**

Dr. Taher Abuelsamen / S.G.

**Ministry of Health:**

Architect Qasem Al Na'san
Dr. Abdel Razzaq Shafei

**Royal Medical Services:**

Dr. Mohamed Al-Qudah

**Private Hospital association:**

Mr. Gassan Turab