

EMRO

# HEALTH SYSTEM PROFILE

BAHRAIN



Regional Health Systems Observatory  
World Health Organization

2007

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## List of Abbreviations

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## FOREWORD

Health systems are undergoing rapid change and the requirements for conforming to the new challenges of changing demographics, disease patterns, emerging and re emerging diseases coupled with rising costs of health care delivery have forced a comprehensive review of health systems and their functioning. As the countries examine their health systems in greater depth to adjust to new demands, the number and complexities of problems identified increases. Some health systems fail to provide the essential services and some are creaking under the strain of inefficient provision of services. A number of issues including governance in health, financing of health care, human resource imbalances, access and quality of health services, along with the impacts of reforms in other areas of the economies significantly affect the ability of health systems to deliver.

Decision-makers at all levels need to appraise the variation in health system performance, identify factors that influence it and articulate policies that will achieve better results in a variety of settings. Meaningful, comparable information on health system performance, and on key factors that explain performance variation, can strengthen the scientific foundations of health policy at national, regional and international levels. Comparison of performance across countries and over time can provide important insights into policies that improve performance and those that do not.

The WHO regional office for Eastern Mediterranean has taken an initiative to develop a Regional Health Systems Observatory, whose main purpose is to contribute to the improvement of health system performance and outcomes in the countries of the EM region, in terms of better health, fair financing and responsiveness of health systems. This will be achieved through the following closely inter-related functions: (i) Descriptive function that provides for an easily accessible database, that is constantly updated; (ii) Analytical function that draws lessons from success and failures and that can assist policy makers in the formulation of strategies; (iii) Prescriptive function that brings forward recommendations to policy makers; (iv) Monitoring function that focuses on aspects that can be improved; and (v) Capacity building function that aims to develop partnerships and share knowledge across the region.

One of the principal instruments for achieving the above objective is the development of health system profile of each of the member states. The EMRO Health Systems Profiles are country-based reports that provide a description and analysis of the health system and of reform initiatives in the respective countries. The profiles seek to provide comparative information to support policy-makers and analysts in the development of health systems in EMR. The profiles can be used to learn about various approaches to the organization, financing and delivery of health services; describe the process, content, and implementation of health care reform programs; highlight challenges and areas that require more in-depth analysis; and provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policymakers and analysts in different countries. These profiles have been produced by country public health experts in collaboration with the Division of Health Systems & Services Development, WHO, EMRO based on standardized templates, comprehensive guidelines and a glossary of terms developed to help compile the profiles.

A real challenge in the development of these health system profiles has been the wide variation in the availability of data on all aspects of health systems. The profiles are based on the most authentic sources of information available, which have been cited for ease of reference. For maintaining consistency and comparability in the sources of information, efforts have been made to use as a first source, the information published

and available from a national source such as Ministries of Health, Finance, Labor, Welfare; National Statistics Organizations or reports of national surveys. In case information is not available from these sources then unpublished information from official sources or information published in unofficial sources are used. As a last resort, country-specific information published by international agencies and research papers published in international and local journals are used. Since health systems are dynamic and ever changing, any additional information is welcome, which after proper verification, can be put up on the website of the Regional Observatory as this is an ongoing initiative and these profiles will be updated on regular intervals. The profiles along with summaries, template, guidelines and glossary of terms are available on the EMRO HSO website at [www.who.int.healthobservatory](http://www.who.int.healthobservatory)

It is hoped the member states, international agencies, academia and other stakeholders would use the information available in these profiles and actively participate to make this initiative a success. I would like to acknowledge the efforts undertaken by the Division of Health Systems and Services Development to help countries of the region in better analyzing health system performance and in improving it.

Regional Director

Eastern Mediterranean Region  
World Health Organization

# 1 EXECUTIVE SUMMARY

## **Socio Economic Geopolitical Mapping:**

The Kingdom of Bahrain is an island group located off the central southern shores of the Arabian Gulf. The total land area is about 735.8 square km. The Bahrain climate can be generally describes as mild winters with sparse rainfall and hot summers with high humidity. The education system in Bahrain has lead to almost universal primary education with literacy rate among adult of 87.7. Women are well represented in the workforce, comprising twenty five to thirty per cent of the total. The first women minister in Bahrain was appointed in 2003 for the Ministry of Health. The economic base of Bahrain includes oil and petrochemicals, manufacturing such as aluminum, dry dock for supertankers, banking, financial, and commercial services. With its highly developed communication and transport facilities, Bahrain is home to numerous multinational firms with business in the Gulf, its central location have also made it a favorable transit spot for many airlines to numerous Western and Eastern destinations

The Kingdom of Bahrain's government is a constitutional hereditary monarchy, with an independent legal and judicial system, an elected municipal councils and a new National Assembly with a bicameral party of both elected Chamber of Deputies (40 member), and appointed Consultative Council (40 members). The elected Chamber of Deputies has the power to propose and modify laws, but promulgation requires the approval of the appointed Consultative Council. Bahrain is an overall Muslim society, Arabic is the official language, although English is widely spoken and is the accepted commercial language. The county became a member of the United Nations and the Arab League in 1971 a member of the Gulf Cooperation Council (GCC) since 1981, and has a Free Trade Agreement (FTA) with the United States. This was signed in September 2004.

## **Health Status and demographics**

Health status indicators in Bahrain are comparable to those of developed countries. This is manifested by life expectancy of 74.8 and infant mortality of 7.6 rate/1000live birth. Over the years, Bahrain has managed to control communicable diseases, and reach 100% coverage of basic vaccine. Similar to those developed countries, however, Bahrain have witness a continued rise in chronic non communicable diseases such as cancer, cardiovascular and diabetes, these currently represent leading causes of death in the country. In 2006 the figure is estimated at 742,562 as compared to 561,872 in 1994. Among those 38.2% are non-Bahrainis. Based on the estimates of 2001& 1991 census, the total annual change is 2.7. Bahrain is relatively young population with two third of its resident in the age group of 15-64, a noticeable increase in this category have been in the working age group of non-Bahrainis. This will represent a demographic challenge in the future. Population growth for the age group of 65 and older has been maintained at a low proportion of 2.5% in 2003 as compared to 2.2% in 1993.

## **Health System Organization**

Comprehensive health care is provided to all population. Wide range of preventive, promotive, curative and rehabilitative services are available to all population free of charge to Bahrainis and heavily subsidized to non-Bahrainis. Primary health care is the cornerstone of the public health services. Through a network of twenty one primary health care centers and two clinics scattered throughout the five governorate of the kingdom. Secondary care is represented by the Salmaniya Medical Complex (910 Beds)

offers wide range of highly advanced specialized medical services, the psychiatric hospital (201 beds), geriatric hospital (101 beds) and four maternity hospitals (total of 241). Public health care service is also provided by the Bahrain Defense Force Hospital (BDF) under the umbrella of the Ministry of Defense. BDF has 349 beds its services are offered to members of the Bahrain defense force and their families as well as emergency care to the public and cardiac care services to the whole population. Public health services accounts for approximately 90% of health services in Bahrain. The Ministry of Health is responsible for planning, policy making, provision and regulation of health services. All related major functions such public health services, licensing, and drug control are part of the Ministry of Health structure.

Private health care has been growing in an unregulated fashion, its contribution currently to the overall health services is limited but the sector is growing very rapidly, the aspiration is that it will take a major role in the future as the main provider of health services while the role of public sectors will emphasize more regulation and policy making. The relationship and the interaction of public to private are not well established. Efforts and studies for future reforms are all signifying the importance of such an interaction and emphasizing a partnership approach of public with private.

### **Governance/Oversight**

As mentioned, the Ministry of Health is responsible for planning, policy making and provision and regulation of health services. A new directorate for health planning was established in 2006 to assure the responsibilities of planning and follow up on plans implementations. National independent authority that exercise a supervisory role does not exist, thus regulation is one area that the ministry is striving to develop. The Office of Licensure and Registration at the ministry grants license for private health care facilities and human resources, currently the office is undergoing a restructuring process to be able to conduct more vigorous licensing and re-licensing process, inspection and monitoring. The Drug Control Directorate has formulated a national drug policy that will have a valuable impact on drug control and regulation. Currently there are thirteen laws related to health care sector, the last of which is the compulsory premarital examination law issued in 2004.

"Bahrain health Strategy – Framework for action 2002-2010 highlights twelve strategic goals for the health system. The goals do not address issues pertaining to a division or department in isolation, but provide a platform for focusing and integrating various efforts with the overall goal of organizational development. The 12 Goals are as follows: Health gain, Quality-clinical excellence and performance improvement, Primary care development; Service development, New investment, Partnership working, Community Involvement, Organization and Management, Human resources, Education, Research and development, Financial management, Information and communication Technology. Priorities are set around the above mentioned goals and as per the minister directives. For examples priority areas for 2006 as specified by the minister include; improvements of Accident and Emergency and ICU services, improvement of quality of health services and expansion of patient choices, looking for opportunities of outsourcing of some non-medical services, completion of laws and regulation, working towards implementation of health insurance schemes and formulation of drug policy.

As for stating priority in the future, a new system that links priority to performance and budgeting will be applied. The system is introduced by the Ministry of Finance and will be applied after piloting it in the ministries of health and Education to all government. The system is a Program Performance Budgeting System (PPBS), emphasizes cascading of the 12 strategic goals listed above through out the organization, formulating goals

and objectives at different levels, specifying key performance indicators, transferring of goals and objectives into programs and projects and budgeting and financing accordingly. Given the fact that the government is the dominant player in the health care provision, and the relative small size of the country, decentralization has not been viewed as immediate necessity. Decentralization is included in Bahrain Health Strategy as one of the programs that are related to organization and management. Pilot projects do exist. Major limitation has been the overall centralization of finance and human resources functions at high government level.

The health information system of Bahrain appears to be well developed. The mortality reports are based on the ICD 10 classification and there are detailed statistics available for primary and secondary care utilization. The Health Information directorate at the Ministry publishes the annual health statistic document, available on line. A more integrated Health information System is under consideration. Health system research is not an institutionalized function in the health system, and currently there are no mechanisms for compiling and recording the number of publications or health system research conducted per year. A central health system research committee was recently formulated; some funds will be attached to it. In general however, there is no specific or regular funding mechanism available or allocated for health system research, the aspiration is that health system research once developed will feed into national policy.

### **Health Care Finance and Expenditure**

Comprehensive care is provided free of charge to Bahraini and heavily subsidized to non-Bahrainis. Thus the health financing and coverage in Bahrain is less complex than in most other countries. Health care is financed mainly through central government general revenue. Bahrain spends a modest 4% of its GDP on health. Nevertheless, the health sector has seen a rapid escalation in cost and spending over the last decade.

Private expenditure on health was estimated in 2004 to accounts for 35% of the total health care spending in that year. Furthermore, there was a substantial amount of private spending out of pocket. This took the form of payments for private medical care, dental care and treatment abroad. A mini survey conducted during 2005 suggests that the actual out-of-pocket (OOP) expenditure is much higher than the estimated figure in real terms. In 2006, around 60% of the Ministry of Health budget was devoted to secondary health care, 24% primary care, and 15% administration and support services. In 2004, the Ministry of health expenditure on oversees treatment was BD 3 million of the recurrent expenditure.

Private medical insurance market represents a small percentage of the total insurance market around 3% to 4%. A social insurance scheme is implemented by the Government Organization for Social Insurance (GOSI). GOSI presently charges 3% of private sector employees wage bill (provide by the employer) for occupational accident and disease, sick pay, disability and death. In addition, every company, with 50 or more, if it does not have its own health care facility (which is the case for several large companies) should pay a fixed rate of annual levy in order to access medical care for its own employees.

The external source of finance to the health system in Bahrain accounts on average for less than 2% of the total health expenditure based on several estimates, mainly from local rich families and large establishments. Some indirect contributions come from the neighboring countries within the overall contribution to Bahrain government. As for the provider payments, in the public sector, the current payment system for inpatient care based on previous year's allocation. Private hospitals set fee schedules for out-of pocket



payments and negotiate with insurers, using mostly cost-plus or fee schedule approaches. All health care personnel employed by the Ministry of Health facilities are salaried employees of the Government of Bahrain and are subjected to rules and regulation of the Civil Service Bureau. In 2004 the salary scales for medical staff has been upgraded incorporating increase in salary and additional benefits. Provider salaries are supplemented by LPP and PPP (limited private Practice), which is essentially fee for service, the fee is shared between the provider and the ministry of health in order to cover for the operation cost since the provider is using the ministry of health facilities. Since 1992, Ministry of Health Bahraini physician have been granted permission to establish part-time private practice (entitled to hire expatriate physicians as an employee). The physician sets his own fee, subject to supply and demand of the market. Efforts are being made to explore alternative ways of financing and health insurance is under consideration.

### **Human Resources**

Human resources at the Ministry of Health represent 90% of human resources working for health in Bahrain. Since the establishment of health services in its modern form, attention has been paid to preparation of highly qualified human resources. Currently the dependence on expatriate health workers is much less in Bahrain than it is in neighboring countries in the Gulf. Bahrainization has been a government policy over the years and almost 100% Bahrainization have been achieved in many areas such as Dentistry, Pharmacy, and Laboratory. There is noticeable shortage however of Bahraini nurses and of doctors in certain specializations and sub-specializations. Women have the freedom to practice any health profession; females employed are almost equal to male in all most all categories.

Human resources development takes place at local and overseas levels. Locally the College of Health Sciences which was established in April 1976, offers educational programs for nursing and allied health professionals. Medical School at the Arabian Gulf University established in 1979, is located in Bahrain but owned by the six gulf countries. Recently private higher educational institutions granted permission to offer program in health fields, Medical University of Bahrain is governed by Royal College of Surgeons in Ireland offers programs for medical and nursing education. In the area of Allied Health Ahlia University, the first private university in Bahrain offers specialty at B.Sc. level in Physiotherapy. Like all other educational institutions in Bahrain, educational institutions for health are accredited by Ministry of Education. Considerable number of Bahrainis seeks professional education in health areas overseas. Continuing professional development takes different forms. The Directorate of Training at the Ministry of Health facilitates both local and overseas training and development opportunities for all the Ministry staff. Training opportunities varies from English language and computer training to post basic specialization and preparation for board exams in various specialties.

### **Health services delivery**

Full package of comprehensive health services is provided for all population, no service is deliberately excluded. Universal coverage has been achieved through the availability of free services and well established network of health centers scattered throughout the country. The average number of population in the catchments area is 35,000. Bahrain is a small country and it is hard to draw sharp borders between urban and rural area, thus there is no geographical differences in distribution of primary care centers. Most areas could be relatively speaking considered urban. Access to secondary care is granted

through referral from primary care. Some patients get direct access through accident and emergency. Referral process is well structured. However, feedback mechanism from secondary care is impaired.

Primary care team is composed of family physicians, nurses including community and specialty nurses (e.g. diabetic nurses), allied health staff, social workers and health educators. Health centers are managed by health center council headed by medical doctor, and includes representative from the concerned community. At present there is preparation to add three more health centers, and the plan is to have one health center per 20000 populations by end of 2020. Consultation rate in primary care is 3-4 visits per year per individual. This has been the trends for many years. Among the most important concerns is the short consultation time and quality of services, these issues are the essence of the comprehensive improvement plan for the period of 2007-2012 approved recently. To increase consultation time and provide more accessibility, an initiative taken in 2006 that all health centers extended its operation to afternoon shifts in addition to the morning one.

There is a considerable utilization of private general clinics scattered in the kingdom, however statistics that estimate such utilization is not accurately available. The range of basic services provided by private sector is almost similar to those of public sector. Preventive care is also supported by several initiatives such as Pre-marital counseling which is implemented through a law that make the premarital counseling a compulsory demand, Periodic women screening program, Breast self-examination program, Breast cancer screening campaign has started 2005.

The Public Commission for the protection of marine, environment and Wild life is responsible for control of marine, air and land pollutions while Public health Directorate within the Ministry of Health is responsible for all other issues that are related to the effect of environment on health. With industrialization, increase in intensity of immigrant workers, the occupational health section is expanded and policies are formulated to protect the health of the workers. Formal mechanisms and intersectoral collaboration are available with relevant bodies.

Wide ranges of services are provided through secondary care facilities, mainly at Salmania Medical Complex (SMC). Major development in the last ten years include a fully equipped oncology department with radiotherapy and chemotherapy treatments and a new nephrology block to treat patients with renal problems including dialysis and kidney transplant. An ongoing concern has been the excessive length of stay, of average 6 days and efficiency in beds utilization, in addition to the fact that considerable amount of patients visiting secondary could be easily treated at primary care. The SMC is a huge organization of 910 beds; its management has been a continuous challenge. A Plans for building of a new secondary hospital of 310 beds is underway, the King Hamad Hospital in Muharraq. The current thinking is to outsource the management the hospital. Long-term care is provided through the geriatric hospital of 101 beds (to be expanded to 159 beds). Currently, some elderly patients are forced to occupy SMC hospital beds which represent a challenge to effective and efficient utilization. A new donated Community Center, with 50 beds for long stay will be open shortly.

The Kingdom of Bahrain imports all its drug requirements. Manufacturer of medicines and vaccines does not exist. . The per capita consumption of drug is \$134. Medical equipment & health care devices at the ministry of health worth more than BD. 25 Million (approx. US\$ 66 millions) and maintains present value of spare parts in stock worth BD. 400,000. (US\$ 1 million), comprehensive medical equipment management is conducted by the Medical Equipment Directorate the ministry. Within the Ministry of

Health the control of acquisition of medical equipment is governed by the geographical location of the health care premises and the level of health service provided in the premises. No mechanism for collaboration with private sector in this regards.

### **Health System Reform**

Major strategic reforms over the past ten years have been extremely conservative. Reforms, however, seem inevitable in order to deal with the many problems associated with the free health care system such as concern for efficiency, service quality, over utilization, continually rising public expectation for more services and demand for high quality along with latest technology. Since AlMata declaration, Bahrain has been emphasizing primary care as the cornerstone of health service. Over the years continuous efforts have been directed toward strengthening the position of primary care. This is manifested by the expansion of the network of primary health centers and encouragement of personal responsibility for health. Two recent laws suggest that orientation, the new smoking law and the premarital counseling law.

Since the nineties several studies have been conducted to explore the possibilities of introducing an alternative ways of financing. Several health insurance approaches have been proposed. Given the large expatriate population in Bahrain, the initial attention has been to develop a system of health insurance for expatriate with the aspirations to expand the system to cover the whole population in the long term. Several interest groups such as health care providers and some major political parties have been advocates in this regard. The complexities of finding the appropriate scheme that will alleviate the burden on the government without jeopardizing the health status of the population have been the major challenge. A law of health insurance is under consideration by the parliament. Steps for implementation will follow; it is predicted that health insurance will contribute to the enhancement of the efficiency and quality of services provided.

In parallel, a larger scale health sector improvement project is ongoing, the project under the title of "Improving service quality and increasing patient choices", will introduce major reforms and will have considerable impact on financing. Other initiatives include outsourcing which is currently under serious consideration. Non-clinical services such as cleaning, security and transportation are outsourced (2006). Kitchen services will follow. Role of government is a serious matter for reform. Currently, the government is responsible for planning, policy making, provision and regulation of free health services for all population. Reform studies are all calling for strengthening the regulator and policy maker roles of the ministry and encouraging privatization so that private sector takes a major role in the provision of health care services in the Kingdom of Bahrain.

## 2 SOCIO ECONOMIC GEOPOLITICAL MAPPING

### 2.1 Socio-cultural Factors

**Table 2-1 Socio-cultural indicators**

Indicators	1995	2000	2003	2006
Human Development Index (HDI):	0.825	0.835	-	-
HDI rank	-	37	43	34
Literacy Total:	87.52	88.50	87.7*	87.7*
Female Literacy	79.30	82.57	83.9*	83*
Women as % of Workforce	19.00	20.80	23.5**	-
Primary School enrollment	98.78	91.28	104.1	-
% Female Primary school pupils	48.87	48.85	-	-
% Urban Population	88.92	89.60	100	100

*Source:* Source: Health Statistics; Ministry of Health, Health Information Directorate 2006

\*Census data 2001

\*\*Bahraini Women only, Census data 2001

#### Commentary: key socio-cultural factors relevant to the health system

The education system in Bahrain has led to almost universal primary education. Attention has been paid to preparation of technically competent indigenous people in all sectors of development, thus Bahrain dependence on technical competent expatriates is much less than other Gulf states. For several consecutive years Bahrain ranked number one on the Human Development Index among Arab countries. The Human Development Report 2004 Classified Bahrain among the high human development group, ranked 40 out of 174 countries.

Women in Bahrain have always played a prominent role in society. The first girl school in the Arabian Gulf was established in Bahrain in 1928. Women's associations were in place since the 1950s, contributing to the creation of a civil society. Today, more women graduate from the country's universities than men and women are now well represented in the workforce, comprising twenty five to thirty per cent of the total. However, Bahrain ranked 66 on women empowerment in Human Development Report of 2004. The recent political reform process initiated in 2002 in Bahrain served to further promote the position of women in the society. With the reform, the Supreme council for women was created; the secretary general of the council holds a minister status. The first women minister in Bahrain was appointed in 2003 for the Ministry of Health. Women are also represented by 15% of the Shura Council of Bahrain National Assembly.

Bahrain is an overall Muslim society and the traditions and culture of the Muslim religion are apparent in the society. There are also Christians, Jews, Hindus and Zoroastrians. There are also places of worship for different faiths. Arabic is the official language, although English is widely spoken and is the accepted commercial language.

## Social determinants of health

The high literacy rate, women development efforts as well as the excellent infrastructure in all areas relevant to health has lead to an excellent health status reflected by major international health status indicators. The education system in Bahrain has lead to almost universal primary education and currently the focus is on production of technically competent indigenous people to fill the positions and decrease reliance on expatriate workers in all sectors. The role of women is improving and the appointment of the first female health minister indicates the progress being made on this front. Population in general has access to resources and has increasing high expectations from the government. The expatriate population however is increasing, 38% of the population, comprised mostly of low income people; although by law expatriate are living under good condition, Continuously increasing expatriate population might represent a demographic challenge in the future.

## 2.2 Economy

**Table 2-2 Economic Indicators**

Indicators	1995	2000	2003	2006
GNI per Capita (Atlas method) current US\$	10.140	10.770	-	-
GNI per capita (PPP) Current International	13.350	15.480	-	-
Real GDP Growth (%)	-	-	-	-
Real GDP per Capita (\$)	-	12,501	14,069	-
Unemployment % (estimates)	6.5	18	5.5*	5.5*

Source: Source: Health Statistics; Ministry of Health, Health Information Directorate 2006

\* Census data 2001

**Table 2-3 Major Imports and Exports**

<b>Major Exports:</b>	Petroleum and petroleum products, aluminum, textiles
<b>Major Imports</b>	Crude oil, machinery, chemicals

### Key economic trends, policies and reforms

With the discovery of oil in the early 1930, Bahrain economy was transformed and wealth and prosperity was brought to the nation. However, Bahrain cannot continue to depend totally on oil. Oil refinery which is the first and foremost of the industries in Bahrain, process local oil as well as oil from neighboring country; kingdom of Saudi Arabia transported through pipe lines. Incomes from this refinery is already more important than the country's own oil production. Petroleum production and refining account for about 60% of exports, it also represents 60% of government revenues and 30% of GDP.

To facilitate sustainable development in the long term and with the depletion of oil production, the government took early steps to diversify the economy. Today, the economic base of Bahrain includes oil and petrochemicals, manufacturing such as aluminum, dry dock for supertankers, banking, financial, and commercial and services. With its highly developed communication and transport facilities, Bahrain is home to numerous multinational firms with business in the Gulf, its central location have also made it a favorable transit spot for many airlines to numerous Western and Eastern destinations.

According to the Ministry of Finance, the provisional data of national account in 2003 indicates economic growth of 6.8% compared with 5.2% in 2002. Where as DDP at constant price increased to BD 3058.5 Million from 2864.3 Million in 2002. Growth is ascribed to the improvement in most of the non-oil economic activities. On the other hand, GDP at constant price increased by 13.7% in 2003 as a result of rise in the world oil price and improvement in the performance of the finance sectors in Bahrain. Bahrain has a Free Trade Agreement (FTA) with the United States. This was signed in September 2004.

## 2.3 Geography and Climate

The Kingdom of Bahrain is an island group located off the central southern shores of the Arabian Gulf between latitude 25° 32" and 26° 20" North and longitude 050° 20" and 050° 50" East. The state comprises some 36 islands, with a total land area of about 706 square km. The state takes its name from the largest island Bahrain, which is 586.5 square kilometers. There are numerous other tiny islands but they are mainly uninhabited and are best known for the variety of migrating birds which pass through in spring and autumn. The largest of these is Bahrain Island where the capital city, Manama, is situated.

Map of Bahrain



Bahrain is low  
roughly cent  
climate can b  
with high hu

towards the  
the Bahrain  
hot summers

**Current issues:** desertification resulting from the degradation of limited arable land, periods of drought, and dust storms; coastal degradation (damage to coastlines, coral reefs, and sea vegetation) resulting from oil spills and other discharges from large tankers, oil refineries, and distribution stations; no natural fresh water resources so that groundwater and sea water are the only sources for all water needs. Some concern being raised by environmental activist that the increasing sea reclamation and man made islands for uprising buildings might affect and threaten the marine life.

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## 2.4 Political/ Administrative Structure

### Basic political /administrative structure and any recent reforms

Bahrain is a constitutional monarchy and the Head of State is His Majesty King Hamad Bin Isa Bin Sulman Al-Khalifa. The government is administered by a cabinet, headed by the Prime Minister who is a member of the ruling Al-Khalifa family and all the appointed Ministers. There is a bicameral Parliament consisting of Shura Council (40 members appointed by the King) and House of Deputies (40 members directly elected to serve four-year terms). Bahrain has an independent legal and judicial system with a framework of commercial laws and, on this strength and its well developed infrastructure, has become an international and Gulf Co-operation Council (GCC) arbitration center.

Bahrain became a member of the United Nations and the Arab League in 1971. In 1981 it joined its five neighbors- Saudi Arabia, Oman, Kuwait, the United Arab Emirates and Qatar – to form the strategic alliance called the Gulf Co-operation Council (GCC). One of the GCC plans is to have a common market similar to that of the European community countries. One of the strong productive relationships with GCC countries is the area of health. The executive office for Ministers of health in GCC was established before the establishment of the Gulf Cooperation Council.

### Key political events/reforms

The Kingdom of Bahrain's government is a constitutional hereditary monarchy under the rule of the Al -Kalifa family. In 1973, a new constitution was enacted, setting up an experimental parliamentary system and protecting individual liberties. Two years later, in August 1975, the National Assembly was disbanded. In January 1993, thirty members Consultative Council was appointed to contribute "advice and opinion" on legislation proposed by the cabinet and, in certain cases, suggest new laws on its own. In June 1995, the first Bahraini cabinet change in twenty years took place. In 1996, the membership of the Consultative Council was increased to 40 and expanded its power. The first session of the new Council began October 1, 1996.

February 2002 had witnesses major reform process, the political system was revised towards a more democratic process through the National Charters, which was approved in a referendum in February 2001. The new charter revitalized Bahrain constitution that was suspended in 1975. With the National Charter an elected municipal councils and a new National Assembly evolved with a bicameral party of both elected Chamber of Deputies, and appointed consultative Council. The elected Chamber of Deputies will have the power to propose and modify laws, but promulgation requires the approval of the appointed Consultative Council. Revised constitution calls for a partially elected legislature, a constitutional monarchy, and an independent judiciary.

## 3 HEALTH STATUS AND DEMOGRAPHICS

### 3.1 Health Status Indicators

**Table 3-1 Indicators of Health status**

Indicators	1995	2000	2003	2006
Life Expectancy at Birth:	72.9	73.8	73.8	74.8
HALE:	-	62.2	-	-
Neonatal mortality rate	5.8	5.3	5.0	3.7
Infant Mortality Rate:	9.7	8.6	7.3	7.6
Under five mortality rate	12.1	11.4	9.5	10.1
Maternal Mortality Ratio:	46	14.78	20.6	0
Percent Normal birth weight babies:	92.6	90.1	90.0	92.4
Prevalence of stunting/wasting:	-	8.2	-	-

*Source: Source: Health Statistics; Ministry of Health, Health Information Directorate 2006*

**Table 3-2 Indicators of Health status by Gender and by urban rural**

Indicators	Urban	Rural*	Male	Female
Life Expectancy at Birth:	74.8	NA	73.1	77.3
HALE:	-	NA	64.2	64.4
Neonatal mortality rate	3.7	NA	3.7	3.8
Infant Mortality Rate:	7.6	NA	7.9	7.4
Under five mortality rate:	10.1	NA	10.1	10.1
Maternal Mortality Ratio:	13.3	NA	NA	13.3
Percent Normal birth weight babies:	92.1	NA	92.8	91.4
Prevalence of stunting/wasting:	8.1**	NA	-	-

*Source: Health Statistics; Ministry of Health, Health Information Directorate 2006*

\*Almost all areas can be considered urban

\*\* Multiple Indicators Cluster Survey 2000, 2004 figure



**Table 3-3 Top 10 causes of Mortality/Morbidity**

<b>Rank</b>	<b>Mortality</b>	<b>Morbidity/Disability</b>
1.	Disease of circulatory system	Complication of Pregnancy
2.	Signs & ill-defined conditions	childbirth and the Puerperium
3.	Endocrine, nutritional, metabolic & immunity disorders	Spontaneous abortion
4.	External Causes	Hereditary anemia
5.	Neoplasm	Neoplasm
6.	Respiratory system	Ischemic heart diseases
7.	Certain conditions originating in the prenatal period	Diabetes
8.	Genitourinary system	Asthma
9.	Digestive system	Acute respiratory infections
10.	Certain conditions originating in the prenatal period	

Based on discharge from two major government hospitals in Bahrain

*Source:* Health Statistics; Ministry of Health, Health Information Directorate 2006

### **Commentary on health indicators**

Over the years, Bahrain has managed to control communicable diseases and reach almost 100% in its immunization coverage of basic vaccines. With good infrastructure for health, high public awareness due to the high population literacy rate, health indicators reflect an excellent health status that is comparable to that of developed countries. This manifested by life expectancy of 73 and 9.5 of infant mortality reate/1000live birth. However and similar to those developed countries, Bahrain have witness a continued rise in the chronic non communicable diseases such as cancer, cardiovascular and diabetes. These now are the major causes of death in the country. Life style factors are associated with this trend.

## **3.2 Demography**

### **Demographic patterns and trends**

A full census is conducted every 10 years. The last was in 2001. The estimated 2004 population was 707,106 as compared to 561,872 in 1994. Among those 38% are non-Bahrainis. The total annual change is estimated at 2.7. The continuously growing expatriate population might represent a demographic challenge in the future. Similar to other Gulf countries, Bahrain is relatively young population with two third of its resident in the age group of 15-64, a noticeable increase in this category have been in the working age group of non-Bahrainis. Population growth for the age group of 65 and older has been maintained at a low proportion of 2.5% in 2003 as compared to 2.2% in 1993.

A very important fact is the distortion in the rates created by the large expatriate population. The table below illustrate that the crude Birth ad death rated are affected by this, considering the Bahraini population the true rates are higher.

**Table 3-4 Demographic indicators**

<b>Indicators</b>	<b>1995</b>	<b>2000</b>	<b>2003</b>	<b>2006</b>
Total population	586,110	690,819	689,418	742,562
Crude Birth Rate	22.2	19.6	21.1	20.2
Crude Death Rate	3.0	3.0	3.1	3.1
Population Growth Rate:	2.7	2.5	2.7*	2.7*
Dependency Ratio %:	51	49	43.1	42.5
% Population <15 years	30.8	30.7	27.6	27.3
Total Fertility Rate:	3.5	2.6	2.6	3

*Source:* Health Statistics; Ministry of Health, Health Information Directorate 2006

\*Census data 2001

**Table 3-5 Demographic indicators by Gender and Urban rural - Year**

<b>Indicators</b>	<b>Urban*</b>	<b>Rural</b>	<b>Male</b>	<b>Female</b>
Population (%)	742,562		427,164	315,397
Crude Birth Rate:	20.2	NA	17.8	23.5
Crude Death Rate:	3.1	NA	3.2	3
Population Growth Rate:	2.7**	NA	-	-
Dependency Ratio:	42.5	NA	-	-
% Population <15 years	27.3	NA	24.2	31.4
Total Fertility Rate:	2.5	NA	NA	2.5

*Source:* : Health Statistics; Ministry of Health, Health Information Directorate 2006

\*Almost all areas can be considered urban

\*\*Census data 2001

## 4 HEALTH SYSTEM ORGANIZATION

### 4.1 Brief History of the Health Care System

#### Outline of the evolution of the Health Care System

The health services in the Kingdom of Bahrain goes back to the early nineteenth century when the American Mission Hospital was established in 1903 with a 21 bed capacity treated Bahrainis as well as many other patients who traveled from neighboring countries for treatment. Two years later, the memorial Victoria hospital was opened with 12 bed capacity, the hospital was staffed by general practitioner appointed British Government in India. The government services started in 1925 with a small clinic opened in a small shop and staffed by an Indian doctor appointed by the government to treat injured pearl divers. It was in the same year that a preventive care directorate, the Public Health Directorate was established.

A small hospital was established in 1936 for the Bahrain Government Police Force. The facility was converted into isolation wards in 1937. The Police Hospital remained open until 1941. The discovery of oil in Bahrain in 1932 and the subsequent construction of a refinery led to the first planned medical provision when Bahrain Petroleum Company (BAPCO) built a private hospital for its staff – Awali hospital with 37 beds. In a letter to the British Political Agent in 1934, Al Naim Hospital was the first formal government hospital, the work on Al-Naim hospital was started in 1938 and the hospital was inaugurated in intervals from 1940 to 1942.

As a result of dramatic increases in population and continual extension of Bahrain's economic sector, the development of a large modern Hospital became necessary. Salmaniya Hospital constructed in 1957. It was renovated during 1978 and further developed to function as a teaching hospital for Arabian Gulf University during 1984. In 1997 the expanded Salmaniya Medical Complex was inaugurated. Currently, the Salmaniya Medical Complex (SMC) is the main secondary and tertiary care facility in Bahrain, It provides wide range of services including extensive out patient services.

The first census was carried out in Bahrain in 1941. At that time, the total population of Bahrain was 89,970 residents, including 74,040 Bahrainis and 15,930 expatriate residents. By the time of the 1959 census, the population had grown to 143,135 persons, a growth of 59.1% in under 20 years. This growth can be attributed in good part to the health services in Bahrain, which helped to alleviate the spread of contagious diseases and to improve the general health of the population. Bahrain Joined the World Health Organization in May 1967. Since that time, it has played a major role in implementing the resolutions of this international organization.

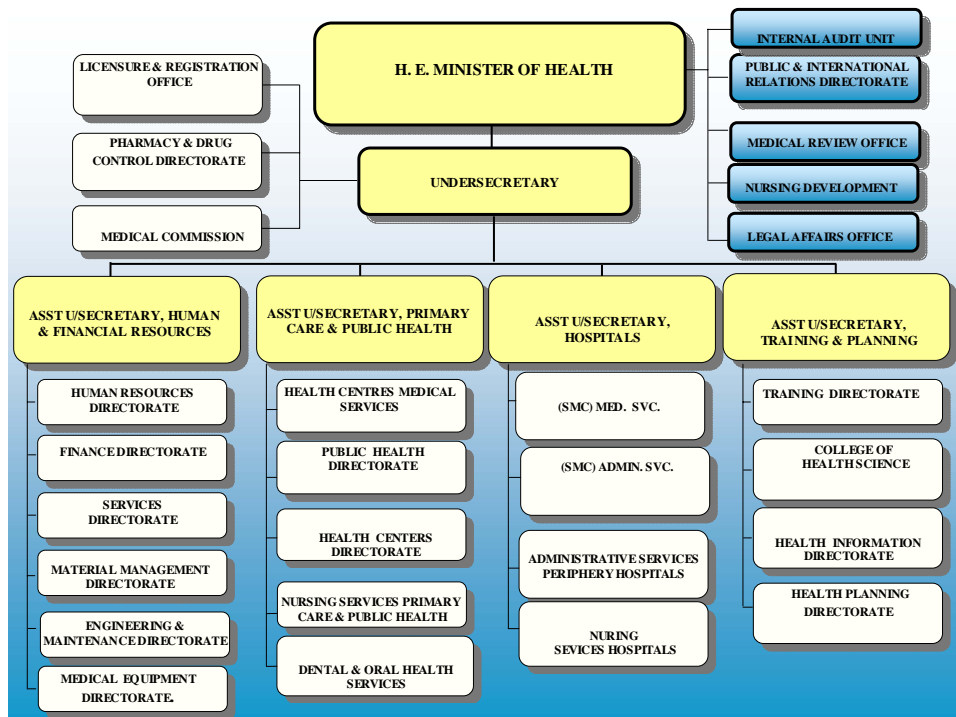
## 4.2 Public Health Care System

### Organizational structure of public system

Given the fact that the Ministry of Health is the main dominant player in the public health care system, its structure, given below represents the organizational structure of public health care system. The Ministry of Health is responsible for planning and providing health services for all population with very limited but growing participation from the private sectors.

The Minister of Health is a member of the Council of Ministers chaired by the Prime Minister. The national public health system is represented by the Ministry of Health and other ministries who influence the performance of the health system and whom services affect the health status of the population. Those ministries also report to the cabinet and include Ministry of Finance which is responsible for provision of biannual budget, approving and financing all projects related to health, Ministry of Labor, Ministry of Defense that manage the Bahrain Defense Force hospital, ministry of labor and Ministry of Education. Many projects are conducted in coordination and collaboration with these ministries.

### Ministry of Health organizational structure



The Minister of Health is assisted by the Undersecretary and four assistant Undersecretaries. The Assistant Under-Secretaries are administratively responsible for Human Resources and Finance, Training and Planning, Hospitals, and primary and public health care services. Four important sections report directly to the Minister of Health, these include; Internal audit Unit, Public and International Relation Directorate, Quality management section, Nursing Development Unit and Legal affairs sections.

Sections under the direct supervision of the Undersecretary include; Medical review office, Licensure and registration; Pharmacy and Drug control directorate as well as Medical commission which takes the responsibility of overseas treatments.

## **Health Care provision**

Comprehensive health services are provided to the whole population in line with the World Health Organization global objectives. Most health care is provided by the Ministry of Health. Primary health care is the cornerstone of the public health services. Through a network of twenty one primary health care centers and two clinics scattered throughout the five governorate of the kingdom, primary health care is provided to all citizen. Secondary care is represented by the Salmaniya Medical Complex, the psychiatric hospital, geriatric hospital and four maternity hospitals. Public health care service is also provided by the Bahrain Defense Force Hospital (BDF) under the umbrella of the Ministry of Defense. BDF services are offered to members of the Bahrain defense force and their families as well as emergency care to the public and cardiac care services to the whole population. A new government hospitals of 300 beds-King Hamad hospital is under construction.

## **Primary health care**

Since the inception of primary health care in Bahrain, attempts have been made to address the issues facing the development of primary health care in line with the declaration of Alma Ata in 1978. Primary care services are based on family and community health care approach and include a wide scope of curative services such as chronic disease patients, first line management of emergency cases and preventive services such as maternal and child health, immunization, workers health, social workers were introduced to explore and properly handle social problems that in capitates the health status.and health education. Health centers are staffed by family physicians who have undergone appropriate intensive training to provide a high quality of preventive and curative care to all members of the family within the context of the community. They are empowered with a team of allied medical and technical staff providing a wide range of services such as nursing, pharmaceutical, laboratory, radiological, clerical and medical record services. Physiotherapy services have been introduced at some health centers and will be soon expanded to establish a unit in each of the five governorates of Bahrain. Also dental curative and preventive services are provided in addition to the specialized services like orthodontic, pediatric dental clinics and others. In addition to school health services which is provided by a qualified nurses in the schools. Based on the Bahrain Health Strategy 2002-2010, the primary health care continued to be the cornerstone of public health services. It also continue to focus on improving services in the context of two major dimensions, quality and equality, and based on that the primary care plans were drawn, where the strategy is to improve current services and in introduce other services.

In 2006 primary health care initiatives has been initiated aiming at improving quality and accessibility to primary health care services through four components; encourage telephone pre-booking of appointments, opening health centers in the after noon, patient segmentation by qualified nurse and quality sustainability.

## **Public health services**

The Health education section is one of the backbones of the Primary Health Care services. The current Health Education section have a limited capacity, thus it will be restructured to a health promotion directorate. Public health directorate plays a major role in raising the standard of sanitation in Bahrain, control and eradication of infectious and communicable diseases through the following sections:

- Communicable diseases;
- Environmental health
- Food Control Section
- Occupational health
- Public health laboratory
- Health education section
- Vital statistics
- Nutrition

With industrialization, increase in intensity of immigrant workers the Occupational Health Section is expanded and policies are formulated to protect the health of the workers.

### **Secondary Health Care:**

The Salmaniya Medical Complex is the main secondary and tertiary care facility in Bahrain. It has 870 beds (excluding Special Care Baby Unit) and extensive outpatient services. Specialties include medicine, surgery, orthopedics, plastic surgery/ burns, pediatrics, obstetrics/gynecology, ear, nose and throat surgery, ophthalmology, oral surgery and intensive care. In addition there is a psychiatric hospital with 201 beds accommodating 933 admissions with an average length of stay of 77.9 days in 2000, four satellites maternity hospitals with 241 beds and 61 neonatal costs, and a geriatric hospital provide 101 beds.

Bahrain Defense Force Hospital is managed by the Ministry of Defense. The hospital provides services to a large variety of the population, including members of the Bahrain Defense Force and their families. A number of highly specialized services are offered and the Shaikh Mohammed Al-Khalifa Cardiac Centre provides advanced cardiac care services to the population in Bahrain. The hospital has 349 beds, with almost 24,000 admissions, 123,000 outpatient attendances at consultant clinics and over 80,000 attendances at the accident and emergency department.

Financing of health care in Bahrain is mainly the responsibility of Bahrain government. Through the Ministry of Finance regular biannual budget is allocated to the Ministry of Health. Directorate of Finance within the ministry of health liaises with the ministry of finance in this regards. All residents, citizens and non citizens in the country enjoy the right to comprehensive health care. The government provides free primary, secondary and tertiary health care to all citizens of Bahrain. Non-citizens pay only nominal fees. Planning is the responsibility of the ministry of health; the formal structure is the strategic planning unit. Major strategic plans are subjects to approval of the cabinet and the national assembly.

Regulation is a role that the ministry of health aspires to develop further. A national independent health authority is currently lacking. The office of Licensure and Registration is responsible for licensing of private health care facilities and human resources it reports directly to the office of the undersecretary. The office is currently under restructure to a full directorate that will assume the responsibility of regulation, licensing and re-licensing, inspection and monitoring, accreditation and other issues related to regulation. Drug control directorates, report also directly to the undersecretary, its is responsible for regulation of drug entry and registration. It is currently working toward developing a national drug policy that will have a valuable impact on drug control and regulation.

The public health system in Bahrain has distinguished relationships with other public health systems of the Gulf region. Relationships exist through the Technical Office of the Ministers of Health Council for the Arabian Gulf countries which is a regional specialized organization under the umbrella of the Gulf Cooperation Council (GCC). The Council was established in 1976 with the purpose of integration and complementation of services and activities between the countries of the GCC. Membership is limited to the Minister of Health in each country including Bahrain, Kuwait, Oman, Saudi Arabia, United Arab Emirates and Qatar. Recently, Yemen joined the council. Many of the WHO policies are implemented collectively; coordination is with the Gulf countries through the council. Collaboration is exercised through regional technical joint committees in the following areas: Scientific research, Control and prevention of non-communicable diseases, control and prevention of diabetes, Cancer registration, patient safety, Ethics of health professions, Smoking prevention, Blood transfusion services, Organ transplantation, Mental health, Health system Performance, Nursing services, prevention of blindness (Vision 2020), Expatriate Labor force, Health education and health media, Unified purchasing of drugs and equipments, Drug control and registration, and School health.

### **Key organizational changes over last 5 years in the public system, and consequences**

Over the last five years attention has been made to improve the performance of the system. However, there are no major changes in the public system at the national level. Some of the internal changes within the Ministry of Health include; strengthening of planning function through transferring of the Office of Plans and Programs addition of a quality management section and strengthening the Licensure and Registration office as well as creation of the health promotion council.

### **Planned organizational reforms**

Several studies and reports have been conducted to explore the possibility of reform toward more involvement of private sector and increasing the Ministry of Health role in regulation and policy making. Efforts are being made in order to move toward this direction. An independent regulatory is under way. It is supposed to function independently with only oversight from the minister of Health. Currently, the Ministry of Health is engaged in a major project related to improving service quality and increasing patient choices. This will introduce some major reforms. Also the possibility of outsourcing of some non-medical services has been under serious considerations. Cleaning services has been outsourced already. Outsourcing of the transport services started in 2007. Discussion and negotiation started for outsourcing of kitchen services soon. Hospital autonomy is an area that is currently being explored. Introducing an alternative way of financing in the form of health insurance scheme has taken some steps toward implementation. A law is expected to be issued in this regard within the coming two years. It is anticipated that these efforts will lead to more services quality, accessibility, as well as more efficiency in resources utilization.

## 4.3 Private Health Care System

### Modern, for-profit

The private sector in Bahrain has been growing very rapidly in the last five years. It is however still not represent more than 10% of health cares services in Bahrain. In addition to many clinic and poly clinics, there are currently eleven private hospitals. The first three and well established private hospitals are:

- Bahrain International Hospital –100 beds, including maternity facilities and in vitro fertilization centre;
- American Mission Hospital –40 beds and an extensive dental service;
- Awali Hospital – providing medical, surgical, obstetrics, gynecology and dental services to employees of the Bahrain National Oil Company and their families. It has a total capacity of 37 beds.

According to the office of licensing, there are currently (11) general practice hospitals, (1) dental hospitals, (24) medial centers, (81) poly clinics and (11) 24-hours clinics. Number of allied health facilities such as X-rays centerand laboratories is also on the rise including (61) Optics, (10) Physiotherapy centers, (3) x-ray, (8) lab centers, (11) dental lab and (12) company clinics.

The private facilities that granted license to open but have not done yet include (2) hospitals, (2) medical centers and (4) clinics. Another (16) hospitals have applied. Until October 2007 there were (666) Physicians and (157) dentists working in private clinics.

### Modern, not-for-profit

American Mission Hospital came into being over a hundred years ago when missionaries began itinerant medical work in 1893. The hospital was completed in 1902, and dedicated on 26th January, 1903. The hospital is a private, not-for-profit institution, and offers high-quality service at a reasonable price. Charity is also extended to many deserving individuals. Some major employers have their own clinics which operate on non for profit bases; however their services are limited to their employees.

### Traditional

Traditional medicines exist in the country; however it is of limited nature. No statistics available on the utilization of traditional medicines or the magnitude of traditional health services. There are currently (7) alternative and homeopathy clinics, and there are more (5) clinics applied to grant license but have not done yet .Such a trend is on the rise.



## **Key changes in private sector organization**

There is no specific organization for private sector in Bahrain. Private sector has been growing in an unregulated fashion for many years. Private health facilities and manpower grant permission through the Office of Licensure and Registration at the Ministry of Health, Re-licensing however is currently subject to fee payment. For many years, private sector constituted mainly of general and specialized clinics. Recently however, more secondary care facilities – hospitals have come into place and the number is continued to rise. The ministry of Health is currently working toward increasing its regulatory role, with this move, re-licensing will be linked to new standard, monitoring and regular inspection. Private sector manpower includes some of the medical staff working in the public system. Since 1992, the Ministry of Health has allowed its Bahraini doctors to manage and operate private clinics under license after regular working hours

### **Public/private interactions (Institutional)**

Private clinics refer their patients to public facilities if a case demands more intensive diagnosis or treatment. No written protocols are available yet for more formal interaction. Outsourcing of non-clinical services has begun example include transport and cleaning.

### **Public/private interactions (Individual)**

Since public sector offers comprehensive health care services free of charge, many patients use public services, considerable numbers of those patients, however, visit also private clinics for confirmation or for getting faster services. As mention in the modern for profit item (4.3.2), Since 1992, the Ministry of Health has allowed its Bahraini doctors to manage and operate private clinics under license after regular working hours, that leads to different kinds of interactions between public and private through individual patients visiting both sectors. In some cases visiting the same medial staffs who is working in both sectors. Statistics on the magnitude for such an interaction is not currently available.

### **Planned changes to private sector organization**

There is no plan for changing the organization of the private sector. However with the establishment of the independent regulator authority, under discussion at the parliament, more strict standards will be enforced. Monitoring inspection and re-inspection will be strengthened. More over, with the introduction of the health insurance system, also under discussion some changes will have to be planned. Currently however the plans are not finalized or approved.

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## 4.4 Overall Health Care System

### Organization of health care structures

Given the fact that the public sector is responsible for planning, policy making, provision and regulation of health services and the fact that more than 90% of services are provided by public sector, the organizational structure of the ministry of health, relatively speaking, can reflect the organization of health sector in Bahrain. Relationship to private sector is limited to licensing of private facilities and manpower.

### Brief description of current overall structure

The kingdom of Bahrain currently provides comprehensive health services to the whole population in line with the World Health Organization global objectives and toward achieving millennium goals. Most health care is provided by the Ministry of Health public facilities. Those facilities include twenty one primary health care centers and two clinics scattered throughout the five governorate of the kingdom of Bahrain. Secondary and tertiary care is provided through Salmaniya Medical Complex which is the main hospital in the country, the psychiatric hospital, geriatric hospital and four maternity hospitals. Health care is also provided by the Bahrain Defense Force hospital (BDF). Bahrain Defense Force Hospital is managed by the Ministry of Defense. The hospital provides services to members of the Bahrain defense force and their families as well as emergency care to the public and cardiac care services to the whole population. A number of highly specialized services are offered and the Shaikh Mohammed Al-Khalifa Cardiac Centre provides advanced cardiac care services to the population in Bahrain. The hospital has 349 beds, with almost 24,000 admissions, 123,000 outpatient attendances at consultant clinics and over 80,000 attendances at the accident and emergency department. There are 8397 employees working for the ministry of health (Bahrain Health Statistics, 2006) that represent 90% of human resources working for health in Bahrain.

Private sector is currently limited relative to public center however it is growing very rapidly, the aspiration is that it will take a major role in the future as the main provider of health services while the role of public sectors will emphasize more regulation and policy making. Currently the relationship and the interaction of public to private are not as required or desired.

## 5 GOVERNANCE/OVERSIGHT

### 5.1 Process of Policy, Planning and management

#### National health policy, and trends in stated priorities

The first formal Ministry of Health plan was introduced in 1989 and emphasized facility requirements, specifically the number of hospital beds. The second one was the National Health Plan, "Better Health for All 2000" covering the period 1993-2000, focusing on the following 10 priority areas: - cancer, circulatory & cardiovascular diseases, dental health, interaction and emphasizing a partnership approach of public with diabetes, hereditary diseases, injury prevention, respiratory illness, maternal & child health, mental & emotional health and physical & learning disability.

In 2000 a new document "Bahrain health Strategy – Framework for action was formulated highlighting 12 strategic goals for the health system to achieve in the period of 2002-2010. The goals do not address issues pertaining to a division or department in isolation, but provide a platform for focusing and integrating various efforts with the overall goal of organizational development.

The 12 Goals are as follows: Health gain, Quality-clinical excellence and performance improvement, Primary care development; Service development, New investment, Partnership working, Community Involvement, Organization and Management, Human resources, Education, Research and development, Financial management, Information and communication Technology.

In addition to working toward achievement of the above strategic goals, the minister of health identify specific priority areas. Priority areas for 2006 continue to include; improvements of accident and emergency and ICU services, improvement of quality of health services and expansion of patient choices, looking for more opportunities of outsourcing and implementing, expanding the involvement of the private sector in providing health services and regulation of those services, completion of laws and regulation, working towards implementation of health insurance schemes.

Currently preparation is being made to formulate a new plan for the coming 6 year. The period of 6 year is aligned with the new government proposed approach for planning and linking budgeting cycles to approved plans.

Starting 2008 a system that links priority to performance to budgeting will be applied. The system is introduced by the Ministry of Finance and will be applied to all government. It was piloted in two ministries that are Health and Education. Bahrain Health Strategy 2002-2010 is the starting point for that project (The Ministry of Health has a head start because of the availability of such a document). The system is a Program Performance Budgeting System (PPBS), it emphasizes cascading strategic goals listed above through out the organization, formulating goals and objectives at different levels, specifying key performance indicators, transferring of goals and objectives into programs and projects and budgeting and financing accordingly.

## **Formal policy and planning structures, and scope of responsibilities**

In 2006 approval was granted from the Civil Service Bureau to restructure the planning unit which was of limited capacity into a full directorate; the Directorate of Health planning. It will reports to the Assistant Undersecretary Secretary of Planning and Training. This was done upon adopting the recommendation of a WHO consultative report in 2005.

The new directorate will be responsible for leading planning initiatives and coordinating plans implementation. It will also evolve to be an advisory body to decision makers though producing evidences for top authority to be able to make informed decisions. Major challenge for the new structure is to establish and strengthen health policy function.

## **Analysis of plans**

The development of current Bahrain Health Strategy started with a review of previous health plans, review of stated goals and targets as well as achievements made during previous plans period. Analysis revealed that the previous orientation towards facilities and disease should be changed toward organizational development and improvements. The aim is to improve the overall health system performance in the country. Thus the new document which represents the Bahrain heath strategy for the period of 2002-2010 was designed as a framework for action toward organizational development. Analytical process was used in the development of Bahrain Health strategy. Activities included analysis of relevant documents, interviews with key stakeholders and consultative workshops.

With the new capacity for the directorate of planning it is aimed that scientific and systematic analytical tools will be adopted and utilized for evidence based planning and decision making.

## **Key legal and other regulatory instruments and bodies: operation and any recent changes**

The Ministry of Health has a legal affairs office that reports directly to the Minister. The office looks after the initiation, revision, and Development of laws and policies relevant to health care system at the national level. It is also responsible for all the legal issues relevant to health whether it is within or outside the Ministry of Health.

Regulation role of the Ministry of Health is yet to be developed. The office of Licensure and Registrations provides license for new health establishment, private sector's physician, nurses, and other Allied health professionals. A plan has been developed to strengthen the role of the office to assume its full responsibility including more regulation more vigorous licensing and re-licensing process, inspection, monitoring as well as dealing with public complaints. The work is directed toward establishing an independent regulatory authority that will act independently but with oversight from the Minister of Health.

Since the establishment of the health care system in its modern form, attention has been paid to laws to regulate and discipline the system. Currently there are several laws related to heath care sector. These include; Laws of Death and Birth Registration, Drug Control, Public Health Law, Prevention of Communicable Diseases, Monitoring of Imported Food Stuff, Private Hospitals Law, Licensing of Pharmacy and Allied Health

Professions, Licensing of Medical Profession and Dentistry, Smoking Prevention, Monitoring of the Use, Marketing, and Promotion of Breast Feeding Milk Substitute, Organizations of Pharmacy Profession and Pharmacies, Organ Transplantations, and finally in 2004 the Law of Premarital Medical Examination. Some of these have been revised recently, some other are under revision, and few new laws are in the process of being added such as law of alternative medicine. In addition, a new national drug policy is was formulated and completed with the assistance of the WHO . Generally, these laws provide guidelines for minimum standards and accountability mechanisms.

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## **5.2 Decentralization: Key characteristics of principal types**

### **Within the MOH:**

Decentralization is one of the areas that the ministry is aspiring to develop. Several pilot projects were conducted to explore the possibilities and the impact of decentralization. Examples include decentralization trials in some health centers such as Sitra and A'Ali health centers. Experiences in the two centers showed some potential benefits. Major limitation is the overall centralization of finance and human resources functions at the government level. Finance and human resources affairs are dealt with by the Ministry of Finance and Civil Service Bureau respectively. The complexities attached to these issues offer major obstacles toward decentralization within the ministry of Health. Further more the with the small size of the country and the excellent communications and transport services available, decentralization does not seem as critical as it is in the case of other bigger countries.

### **State or local governments**

As mentioned above major functions of finance and human resources are centralized at the state level through the Ministry of Finance and the Civil Service Bureau respectively. Bahrain is classified into five governorates; however, those are decentralized in relation to municipality issues and some programs and activities. Still major functions are centralized at the government level.

### **Greater public hospital autonomy**

Public hospital autonomy does not exist yet in Bahrain, However, a project to provide autonomy to the Salmania Medical Complex (SMC), which is the main hospital in the country (910 beds), was initiated in 2006. Studies will continue toward exploring the best possible option to introduce hospital autonomy for SMC. Another project is targeting the possibility of outsourcing the management of the new upcoming hospital; king Hamad hospital (300 beds). The outsourcing of management will grant the hospital the decentralization from the over all management of the Ministry of Health.

### **Private Service providers, through contracts**

Efforts and trials are being made to establish contracting agreements with private providers for certain services. The area is to be developed in the future with the increasing maturity of the private sector.

### **Main problems and benefits to date: commentary**

Given the fact that the government is the dominant player in the health care provision, and the relative small size of the country, decentralization has not been viewed as immediate necessity. Decentralization is included in Bahrain Health Strategy as one of the programs that are related to organization and management. However, complexities mentioned above limited its implementation.

Decentralization remains an area that yet to be developed. Major problems are the lack of experience in this area within Bahrain, in addition to the fact that the two areas that influence decentralization, namely finance and human resources are centralized function at the government level (Ministry of Finance and the Civil services bureau). That centrality at this high level represents complexity that limit the success of a decentralization process.

### **Integration of Services**

Integration of services has been always encouraged. Within the ministry, referral system between primary and secondary care is developed and mechanisms and guidelines for referral and feed back are well established. Implementation however is strong from primary to secondary care, feedback from secondary care to primary care, is an area that needs to be strengthens and developed.

The Ministry of Health continually tries to integrate services at all levels. Almost all national health activities are conducted with multidisciplinary representation from all stakeholders. A lot of coordination has been achieved with private, NGO, and other relevant government agencies especially in the area of preventive and promotive activities such as health education and school health. More integration is expected to be achieved through the health promotion council established recently.

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## **5.3 Health Information Systems**

### **Organization, reporting relationships, timeliness**

In pursuit of the development of a Health Information System, the Ministry of Health explored several possible approaches during the 1980's. This lead in 1989 to the formation of a Committee for the Implementation of Bahrain Health Information Systems which sought to establish a budget for the procurement of necessary hardware and software; then undertook a selection project from a range of available package solutions; and finally negotiated a contract with the selected vendor.

The outcome of this selection process was the choice of the core health management modules (the PAS modules) of the HOMER package from McDonnell Information Systems (MDIS – formerly McDonnell Douglas Information Systems). MDIS has a proprietary database called (Realty X) and a programmer language called Data Basic working on a UNIX platform. The contract was signed during 1990 and the first of the PAS modules were implemented at the beginning of 1992, following installation of the necessary network infrastructure and hardware; training of users; and customization of

the software, including enabling of Arabic capability. In 1993, phase two of the project was commenced with the procurement of additional health modules to support Radiology, Pathology, Pharmacy and Order Communications.

The Ministry of Health Information Systems Project (MHIS) was initiated in June 2000 to define the ministry's strategies and systems, and identify a partner that would re-engineer and modernize the current environment to a knowledge managed health system. On the mean time the Information and Communication Technology (ICT) strategy was completed to select the best information system for Ministry of Health considering investment in the private sector through outsourcing, and minimizing duplication of IT investment between ministries.

### **Organization, reporting relationships, timeliness**

Health Information Directorate (HID) is a directorate within the Ministry of Health located in Salmaniya Medical Complex (SMC) reporting directly to the Assistant Undersecretary for Planning and Training. It has 50 employees with at least BS degree in computer science or computer engineering. In addition to the Advisory & Project Office, it has three major units namely Technical Support (TSU), Decision Support Unit (DSU) and Application Development Unit (ADU).

HID is responsible for the planning, development, implementation, management and support of the Ministry of Health Information System. It serves as the primary expert for IT for more than 8000 employees working in the Ministry, as well as the management of information including data and statistics exchange and publications within the ministry of Health. It took the responsibility of undertaking statistical analysis and reporting of health data in the country. HID primary function is comprehensive, covering all business areas in primary and secondary healthcare and support services such as: MOH Information System infrastructure support, Information System operation & support production, application selection, application testing and integration, and Health Information publication. Moreover, it provides management and support services to facilitate day-to-day operational activities such as: helpdesk, project management, IS planning, quality assurance and contract management.

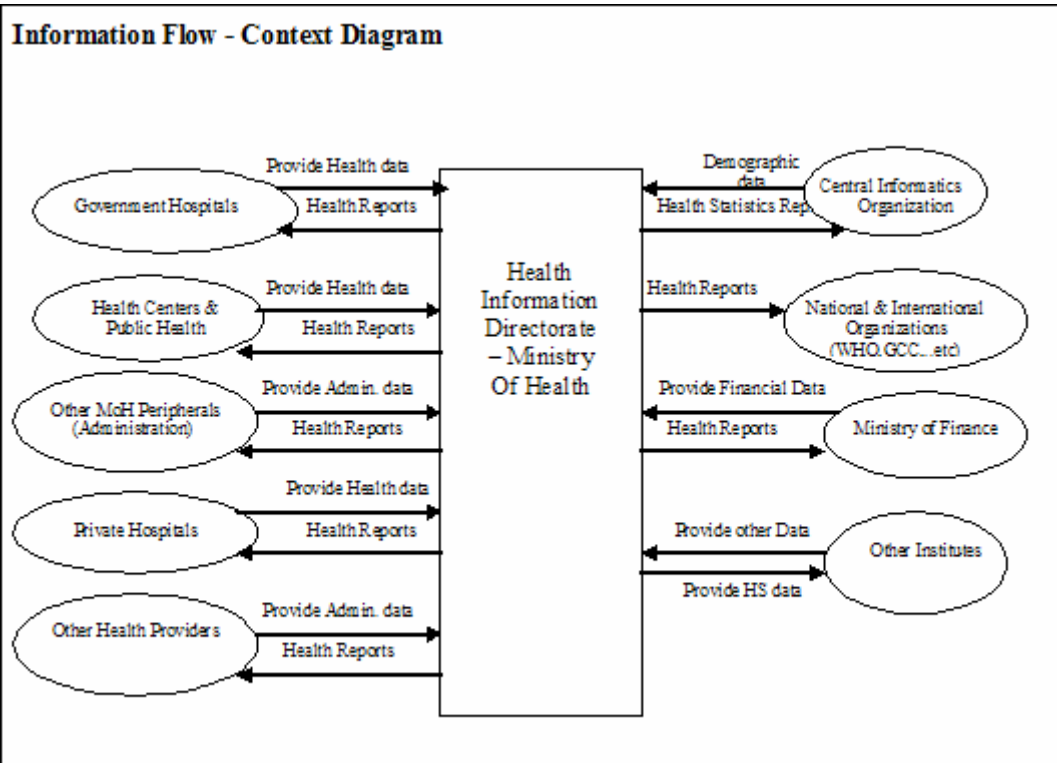
HID mission is "To provide the right information to the right people at the right time that will facilitate improvement to Ministry of Health staff and services to produce the best health results at reasonable cost."

### **Data availability and access**

The health information system of Bahrain appears to be well developed. The mortality and morbidity reports are based on the ICD 10 classification and there are detailed statistics available for primary and secondary care utilization. The current software packages are mainly covering the basic functions such as Admission-Transfer and Discharge, Financials, Radiology, Lab, Pharmacy, and Logistic services. Most of the applications are handling data and are connected by point to point interfaces.

The application architecture consists of Health core applications like Admission, Transfer Discharge, Laboratory Management, Radiology, Accident & Emergency, Outpatients, Birth Registration, Blood Bank, Morbidity Coding, Waiting List and Pharmacy systems. In addition, Health support applications exist for Primary Healthcare, Catering, Mother & Child, Licensure & Registration and Road Traffic Accident. Other applications exist for administrative & support namely Finance System, Time & Attendance System,

Manpower Management System, Online Inventory Management, Limited Private Practice, Daily Revenue Reporting System, Health Equipment Control System, and Financial Management System & Help Desk Support System.



### Sources of information

- The demographic data of the population in Bahrain is located on the mainframe owned by the Central Statistical Organization (CIO). CIO is a governmental organization that is responsible for coordinating between different Ministries in term of their IT plans and projects. On the other hand, CIO is the owner of the demographic data of the population in the Kingdom of Bahrain.
- The Ministry health information system is located on the Health Information Directorate (HID) system which is part of Ministry of Health. All the data In HID system is owned and managed by HID.
- Other government and private health institutes send their data manually to the Ministry to be included in the Annual Health Statistical report.

## 5.4 Health Systems Research

Health system research is not an institutionalized function in the health system. It is however well recognized that this is an area that needs to be developed and



strengthened. There are some researches and publications but through individual efforts and contributions, and currently there are no mechanism for compiling and recording the number of publications or health system research conducted per year.

Since the function is not institutionalized, it is difficult to know those active researchers in the filed. However, recognizing the criticality of the issues a central health system research committee was recently formulated. The committee reports directly to the undersecretary. In contrary to previous research committees within the ministry, some funds will be attached to the current committee. In general however, there is no specific or regular funding mechanism available or allocated for health system research, the aspiration is that health system research once developed will feed into national policy. The plan is to establish a health System research Unit within the newly created Health Planning Directorate.

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## **5.5 Accountability Mechanisms**

The Ministry of Health is striving to strengthen its role as a regulator, at this point of time however such a role requires further understanding and development. Due to the fact that public health care accounts for 90% of health care services in the country, and that health services are offered free of charge accountability has not been developed as required.

Internal mechanisms within the Ministry of Health are under ongoing development. Examples include the establishment of the patient complains office in 2004 within the Salmania Medical Complex which is the major hospital in Bahrain. With the continuous growth of the private sector, accountability will receive a greater attention, the office of Licensing and Registration which is undergoing a strengthening process is moving into the direction of introducing more standards as well more accountability mechanisms. The effort to establish a new independent oversight body is in progress.

## 6 HEALTH CARE FINANCE AND EXPENDITURE

### 6.1 Health Expenditure Data and Trends

**Table 6-1 Health Expenditure**

Indicators	1995	2000	2003	2006
Total health expenditure/capita,	463	450	593	-
Total health expenditure as % of GDP	4.8	3.9	3.5	-
Investment Expenditure on Health	8.5	1.8	-	-
Public sector expenditure as % of total health expenditure	8.8	7.7	-	7.5

*Source:* Health Statistics, Ministry of health

**Table 6-2 Sources of finance, by percent**

Source	1995	2000	2003	2006
<b>General Government</b>				
Central Ministry of Finance	70.0	66.9	-	-
State/Provincial Public Firms Funds	-	-	-	-
Local	-	-	-	-
Social Security	0.3	0.4	0.3	0.6
<b>Private</b>				
Private Social Insurance	-	-	-	-
Other Private Insurance	23.9	25.4	-	12.8
Out of Pocket	72.6	68.7	-	69.3
Non profit Institutions	-	2.3	-	-
Private firms and corporations	3.3	3.6	-	12.9
External sources (donors)	<b>0.004</b>	<b>0.008</b>	-	<b>1.7</b>

*Source:* Health statistics, Ministry of Health 2006  
Directorate of Finance, ministry of Health 2006

#### Trends in financing sources (Commentary)

Detailed information on the trends is not available, however, the information from five years 1999-2004 suggests that the share of the central government is decreasing, from 8.7 in 1997 to 7.5 in 2006. however the private financing is increasing. Even then the government puts in more than two thirds of the financing to run the system. However, the recent exploration of private sector contracting gives an indication that as the complexity of services increases, the financing pattern will be changed in the near future. Bahrain spends a modest 4% of its GDP on health. Nevertheless, the health

sector has seen a rapid escalation in spending over the last decade. Spending increases for health in the last ten years have out stripe and the increase in the growth of BDP (7.0 vs. 5.4 on average per year).

According to an intensive World Bank report in 2002, although health spending has increased over the last decades, expenditure remains relatively low by international comparison with countries of similar income level. Never the less, the nation's health indicators reveals that its health situation as becoming comparable with many industrialized countries.

The main system of health finance and coverage in Bahrain is less complex than in most other countries. The health care is financed mainly through central government general revenue. In addition to general government revenue funding, there was an estimated BD 54.9 million of private expenditure on health care in 2004 accounting for 35% of the total health care spending in that year.

There also a few large employers with health facilities, covering outpatient visits for their employees, free of charges. The contribution of this source accounts for 9% of the total health expenditure in 2004. Furthermore, there was a substantial amount of private spending out of pocket (estimated at BD 38.7 million). This took the form of payments for private medical care, payment for treatment abroad and payment for hermetical to dental care.

### Health expenditures by category

**Table 6-3 Health Expenditures by Category**

Health Expenditure	1995	2000	2003	2006
<b>Total expenditure*:</b> (Only Ministry of health)	55.000	61,044	80.557	118.007
<b>% capital expenditure</b>	15.45	2.94	2.61	7.00
<b>% By type of service:</b>				
Curative Care	54.27	59.48	58.80	3.86
Rehabilitative Care	-	-	-	-
Preventive Care-Public health	4.13	3.90	4.01	3.86
Primary/MCH	16.91	16.99	18.54	20.36
Family Planning				
Administration-include training	24.69	19.63	18.6	15.56
<b>% By item</b>				
Staff costs	71.41	70.69	71.41	72.62
Drugs and supplies-includes drugs, surgical materials, laboratory ,X-Ray materials	15.12	18.10	16.46	18.18
Investments	-	-	-	-
Grants Transfer	0.01	0.01	0.01	0.01
Other	13.49	11.20	12.12	9.19

Source Ministry of Health, Directorate of Finance, 2006

\* Total expenditure includes both Recurrent and Project Expenditure.

\*\*The Percentages given for each type of expenditure are only recurrent Expenditure

### **Trends in health expenditures by category: (Commentary)**

The government dominates the health care provision in Bahrain, around 90% of primary care services and 80% of secondary care services. In 2006, around 60% of the Ministry of Health budget was devoted to secondary health care. The Ministry of Health expenditure on primary care and public health has been almost constant over the past two years accounting for 24.4% of the Ministry's recurrent expenditure. Human resource development and training expenditure represent almost 6% and administration and support services accounts for 10% of the total Ministry of Health expenditure. In 2006, the Ministry of health expenditure on overseas treatment was BD 2.1 million of the recurrent expenditure.

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## **6.2 Tax-based Financing**

### **Levels of contribution, trends, population coverage, entitlement**

Since 1960, government provided health care has been comprehensive and is free to all Bahraini citizens and is heavily subsidized for non-Bahrainis. Sources of revenues are multiple to provide this coverage for all inhabitants, but primarily rely on general revenues and limited cost sharing by non-Bahraini patients at the point of service. General revenues depend on income from oil (around 70%), costumes duties and cost recovery mechanisms on goods and services provided to the public, there is no income tax.

The Ministry of Health is the major provider of health services and is considered as a major source of health financing. The expenditures of the Ministry of health was BD 118.007 million in 2004, which was 7.5% of the total government expenditure. In that year, the ministry recurrent expenditures was BD. 109.7 million with annual growth rate of 9.6 %, where as in 1999 the ministry's recurrent expenditures was BD 57.4 million. The Ministry of Health average per capita has increased from BD 174 (equivalent to US \$ 458 per person) in 1995 to BD 159 (equivalent to US \$ 420) in 2006.

### **Key issues and concerns**

Some of the main drawbacks of a general tax (general revenue) based system finance that the low degree of transparency, long waiting list and lack of accountability.

In addition, with growing population, health care budgets are coming under mounting strain as the country strives to maintain and improve its services. Financial allocation for medical care has risen substantially in recent years. But still they are not sufficient for the demand placed up on them. The major challenge that the Ministry faces is to maintain current health services and strive for health for all. With the continuous increase in the provision of health care services, the Ministry requires a mechanism that brings additional financial resources in order to sustain the best quality of health services.

### Planned changes, if any

Bahrain situation in regard to macroeconomic restructuring and health policy reform issues can be labeled "conservative", changes in health strategies has not been drastic up to date. However, Two major health care financing projects are underway. Several studies, consultative reports, study tours and committees have worked on health insurance as an alternative way of financing since 1994. Due to the complexities of the issue, it has not yet been implemented. The aim is to establish a system that alleviates the financial burden on public spending without jeopardizing the level of population health achieved. The aspiration is that it will contribute to the enhancement of the efficiency and quality of services provided. To start with the proposed scheme will be targeted toward the non-Bahraini population which represents almost 38% of the total population in Bahrain with the ultimate aim to extend it to all population in the future.

In parallel a larger scale health sector improvement and financing project is ongoing. The ultimate goal of the financing aspect of the project is the introduction prepayment schemes and enhancing the sustainability of the financing system. It is too early to make any speculation as to the direction or the choice of the future health system financing for Bahrain.

## 6.3 Insurance

**Table 6-4 Population coverage by source**

Source of Coverage	1995	2000	2003	2006
Social Insurance				
Other Private Insurance				
Out of Pocket				
Private firms and corporations				
Government	100%	100%	100%	100%
Uninsured/Uncovered				

*Sources:* Ministry of Health, Directorate of Finance, 2006

### Trends in insurance coverage

There are two health insurance arrangements in operation in Bahrain that are used to collect and pool funds for health system financing. In term of social health insurance style model; there are the annual levy of large employers to the Ministry of Health and the 3% contribution of private sector employers to Government Organization for Social Insurance (GOSI) for employee's occupational accidents and disease. Private medical insurance market represents a small percentage of the total insurance market. Based on 2004 data, there are twelve local and international insurance companies offering private health insurance in Bahrain.

### **Social insurance programs: trends, eligibility, benefits, contributions**

There is a clear ground, in Bahrain for social health insurance, as several social insurance schemes in the Kingdom are already being implemented by the Government Organization for Social Insurance (GOSI). GOSI presently charges 3% of private sector employees wage bill (provided by the employer) for occupational accident and disease, sick pay, disability and death.

There are the annual levy of large employers to the Ministry of Health. Article 95 of the labor law in the private sector (issued by the Amiri Decree No. 23 for the year 1976 started that:

"Each establishment working in the private sector must provide primary health care services to its employees once they exceed fifty workers. This should be according to the resolutions issued by the Minister of health in agreement with the Minister of Labor and Social Affairs in this issue". Based on this article the Ministry of Health has issued the Ministerial Order No. 1 for the year 1977 on organizing the primary health care scheme. Hence every company, with 50 or more staff should have its own health care facility (which is the case for several large companies) in order to provide the suitable medical care for its own employees. Otherwise, it is mandatory that private companies register with Ministry of Health and pay a fix rate per employee. Since 1977 and over 30 years the monthly per head fee was BD 30 for each non-Bahraini and BD 18 for each Bahraini employee. In 2006 an increment was introduced and currently the monthly per head fee is set at BD.18 for each Bahrain employee and BD.54 for each of the non-Bahraini employees of these companies, they are still entitled for health services in as assigned health center with zero co-payment. However, expatriate employees will be charged BD.3 as a co payment made they choose to utilize different primary care health center. As for Bahraini they are restricted to the health center assigned in relation to their area of residence.

### **Private insurance programs: trends, eligibility, benefits, contributions**

The market of private insurers selling health care coverage is estimated at 12 companies. The market of private health insurance account for about 3% to 4% of the total private insurance market. Private insurance covers co-pays and provides amenities (e.g. private rooms) and preferred providers for both Bahraini and expatriates. Packages vary from supplemental to comprehensive; some insurer sell health coverage as a part of a broader portfolio of life and casualty insurance. Health can be viewed as a loss leader. For a few other companies health coverage is the main line of business and coverage. Private insurer cover both Bahraini and expatriates, and among the 12 insurance companies 3 account for more than 50% of the insurance market in Bahrain. However each has relatively small portfolio of insured with a medical insurance portion. The largest among them covers less than 8000 lives. Premiums range from BD.110 and BD.250 depending upon the benefit package, deductible (e.g. from BD.2-10) and stop loss ceilings (e.g. BD.25,000 – 30,000).

At the end of 2004, there were around 31,511 medically insured individuals in Bahrain. The non-Bahraini population estimated at around 400,000 in 2004. The estimated number of non-Bahrainis insured is around 10,000 which represent less than 4% of the total non-Bahraini population, mostly high income earners in large companies. As for the Bahraini population less than 4% are insured.

## 6.4 Out-of-Pocket Payments

### **(Direct Payments) Public sector formal user fees: scope, scale, issues and concerns**

There is no detailed information pertaining to the direct payments in both public health care sector. All published figures are based on estimates conducted by different agencies. There is a discrepancy between different agency's estimations as to the out-of-pocket expenditure. At the level of primary health care centers, Bahrainis used to be charged 200 Bahraini fills per each afternoon visit. In addition, Bahrainis referred to government secondary care facilities for specific procedures from private providers (as private patients) are charged based on fee-for-service. The last category of user fees paid by Bahrainis is with regard to government facilities are the so called hotel servicing such as private rooms. The charges range from BD14 to 90. A mini survey conducted during 2005 suggests that the actual out-of-pocket (OOP) expenditure is much higher than the estimated figure in real terms. Furthermore, it suggest that the low income Bahrainis are paying a higher portion of their income as OOP compared to middle and higher income classes (around 20 to 25%). The main concern is that while the aspiration of Bahrain health system financing is universal coverage and free access at the point of delivery, reality appears to indicate otherwise, and that Bahrainis are facing a higher financial burden from healthcare than planned.

Non-Bahrainis are charged a fix rate of BD 3 per visit to the primary care center and BD 3 per visit for non-emergency visit to the Emergency department in the Salmaniya Medical Complex (SMC). Expatriates are also charged for hospitalization between BD 50-150 for different procedures and surgeries. Normal delivery will cost a non-Bahraini BD 100.

In 2004, the total out-of-pocket expenditure estimated is BD 38.7 million representing almost 70% of the total private health expenditure and 30% of the total health expenditure. This took the form of payments for private medical care, payment for treatment abroad and payment for hermetical to dental care. These figures however are estimates as no major national health account procedure was used.

### **(Direct Payments) Private sector user fees: scope, scale, type of provider involved, issues and concerns**

There is no detailed information pertaining to the direct payments private health care sector. All published figures are based on estimates conducted by different agencies. There is a discrepancy between different agency's estimations as to the out-of-pocket expenditure. A mini survey conducted during 2005 suggests that the actual out-of-pocket (OOP) expenditure is much higher than the estimated figure in real terms. Furthermore, it suggest that the low income Bahrainis are paying a higher portion of their income as OOP compared to middle and higher income classes (around 20 to 25%). The main concern is that while the aspiration of Bahrain health system financing is universal coverage and free access at the point of delivery, reality appears to indicate otherwise, and that Bahrainis are facing a higher financial burden from healthcare than planned.

In 2004, the total out-of-pocket expenditure estimated is BD 38.7 million representing almost 70% of the total private health expenditure and 30% of the total health

expenditure. That goes to private sector. This took the form of payments for private medical care, payment for treatment abroad and payment for hermetical to dental care. These figures however are estimates as no major national health account procedure was used. Private providers set their own fees. It is hoped that the upcoming regulatory authority will introduce some regulation in this regards.

### **Public sector informal payments: scope, scale, issues and concerns**

No data available.

### **Cost Sharing**

Cost sharing form non-Bahrainis can take several forms. Non-Bahraini pays BD.3 for a visit to the district health center. The out patient Limited Private Practice(LPP) services – evening sessions in the public hospital – require a fee of BD.10 per visit.

Non-Bahraini pays BD.3 for non-emergency treatment at the accident and emergency department at the main public hospital. Surgical procedures (non-emergency) are charged between BD.50 – BD.150 for expatriates; normal deliveries cost non-Bahraini BD.100. rates are set based on both individual cost analysis but also access equity considerations. Private hospital room rate sum form BD.18 – BD.90.

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## **6.5 External Sources of Finance**

### **Commentary on levels, forms, channels, use and trends**

It is difficult to estimate the proportion of total health expenditure accounted for by external donations, grants, and borrowings, both from bilateral and multi lateral agencies and financial institutes. Generally, it is safe to state that the contribution of external financing for the health system is trivial. Some indirect contribution comes from neighboring countries within the over all contribution to Bahraini government. Most of health centers in Bahrain are being built by Kuwaiti governments.

The external source of finance to the health system in Bahrain accounted on average for less than 2% of the total health expenditure based on several estimates (Mainly from local rich families and establishments).



## 6.6 Provider Payment Mechanisms

### **Hospital payment: methods and any recent changes; consequences and current key issues/concerns**

In the public sector, the current payment system for inpatient care is basically 7 input chapters that are based on last year's allocation. A large scale investigation is underway pertaining to the implementation of performance based financing and the introduction of case based payment system in the Ministry of Health hospitals. Private hospitals set fee schedules for out-of pocket payments and negotiate with insurers, using mostly cost-plus or fee schedule approaches.

Private insurers pay on the basis of indemnity contracts or directly to the provider. The latter approach appears to be gaining greater currency in Bahrain now. Insurers use a variety of fee-for-service payment mechanisms from cost-plus to fee schedules. One insurer, however, are developing a simple DRG like case-mix system and planning to implement output capitation contracts to gatekeeper physicians for all out patient care.

### **Payment to health care personnel: methods and any recent changes; consequences and current issues/concerns**

All health care personnel employed by the Ministry of Health facilities are salaried employees of the Government of Bahrain and are subjected to rules and regulation of the Civil Service Bureau. Salaries are based on grades and categories which are universal for all government workers irrespective of their careers or backgrounds. However there are certain allowances for health care workers in order to compensate for their round –the clock and shift services. The salary scales for medical staff has been upgraded incorporating increase in salary and additional benefits.

The public sector does not utilize incentive in the way it pays for services. As mentioned earlier, physicians and other personnel in the public system receive salaries, based on government grades but adjusted for seniority, specialty, academic work, as well as shift schedule and other criteria. The Government's health budget shows that over 70% of budget goes to salaries. Provider salaries are supplemented by LPP and PPP, which is essentially fee for service, For LPP visits, Bahraini physicians receive 75% of the co-pay fee (80% of LPP services provided by Bahraini Physicians), non-Bahraini receive 55% of the fee. The Ministry of Health utilize the reminder of the fee to cover operating costs, including salaries of support staff paid on an hourly basis (based on Ministry of Health studies these payments do not fully cover current costs of care incurred by the Ministry of Health facility). Physicians are estimated to add to basic salaries from 25 – 100% from LPP income, depend upon volume of patients. Estimates of increases for public physicians, from PPP services, range from 100-400 percent of their basic salary. These physicians receive fee set by them, and additionally can negotiate with insurers for reimbursement of care provided under insurance packages.

In 1977 the Ministry of Health introduced a system that allowed physicians at consultant level to perform a maximum of four weekly sessions of limited private practice based on fee for services. The policy objectives was to improve the income of health care personnel particularly the medical staff to better retain them, to enhance patient choice and increase the cost sharing by patients receiving the services.

In 1992, the Ministry of Health took a major step in its drive to encourage private practice, improve income of its medical staff, and further reduce the work load on its output facilities.

Ministry of Health physician have been granted permission to establish part-time private practice. Only Bahraini consultants are granted this privilege (entitled to hire expatriate physicians as an employee). The physician sets his own fee, subject to supply and demand of the market. This system however have created several conflict of interest problems as patients see the same physician working in public facility in the morning shift and in the physician clinic in the after noon shift. To alleviate the impact of this problem a new physician cader was approved in 2006 that will grant the consultant who does not choose to operate a private a clinic around 7% of his/her basic salary.

## 7 HUMAN RESOURCES

### 7.1 Human resources availability and creation

**Table 7-1 Health care personnel**

Personnel (per 100,000 pop)	1995	2000	2003	2006
Physicians	0.0	151.3	188	276
Dentists	0.0	19.8	27	41
Pharmacists	-	-	-	83
Nurses	0.0	376.8	458	550
Paramedical staff	0.0	121.6	-	212
Midwives	-	-	-	124*
Community Health Workers	-	-	-	1
Others	-	-	-	-

*Source:* Eastern Mediterranean Regional Office Database; reports from member states  
Health Statistics, Ministry of Health

\* including Midwives and Community Health Workers

\*\* 1990, MoH figures only, other years are national wide

**Table 7-2 Health care personnel by rural/urban and public/private (latest year)**

Health Personnel*	Public	Private	Rural	Urban
Physicians	1,215	833	NA	2,048
Dentists	118	187	NA	308
Pharmacists	218	399	NA	617
Nurses	3,144	943	NA	4,087
Paramedical staff	39	-	NA	39
Midwives	232	-	NA	232
Community Health Workers	4	-	NA	4
Others	-	-	NA	-

*Source:* Health Statistics, Ministry of Health

\*Only Ministry of Health-more than 90% of human resources are Ministry of Health employees.

Since the establishment of health services in its modern form, attention has been paid to preparation of highly qualified human resources. Human resources at the Ministry of Health represent 90% of human resources working for health in Bahrain.

Bahrain's Health Workers consist of nationals as well as expatriates. Unlike those in other Gulf Cooperation Council (GCC) countries, Bahrainization has been a government policy over the years and 100% Bahrainization has been achieved in many areas such as Dentistry, Pharmacy, and Laboratory. There is noticeable shortage however of Bahraini nurses and of doctors in certain specializations and sub-specializations. In general the percentage of national staff is much higher than foreigners, except in certain categories like Nursing. Even in this category, the number of expatriates is reducing every year, College of Health Sciences and the newly established Bahrain Medical University turns out a number of nursing graduates every year. Women have the freedom to practice any health profession; females employed are almost equal to male in all most all categories.

The Ministry of Health is the major employer for the staff in the public sector and in Bahrain in general. All staffs are government employee under the umbrella of the Civil Service Bureau. Staffs are fairly distributed to service all areas in Bahrain.

Although human resources in general are available in a manner that have contributed to good health status as manifested by health status indicators which are comparable to those of developed countries, qualitative analysis to determine what specialties are critically needed so that investment satisfy the need of the future is lacking. The only criteria used for calculating staff needs are trend analysis. This is done at the department or section levels but not centralized at a national level.

Staff retention/turnover is relatively very low and negligible in some categories such as dentists and paramedics. Major fact is that almost 90% of human resources for health are government employees, the newly revised medical, nursing and paramedic's cadres have contributed greatly in this regard. Generally public health sector staff receive better pay, benefits and security compare to those in the private sector. More over medical staff in particular supplement their income through participation in the extended hour program were consultants are being paid a good percentage of their wages if they participate instead of working in the private sector or open their own clinics. Further many of the consultant are involves in teaching activities at the medical institution and that general some additional income.

In general the human resources for health are well trained. Locally the College of Health Sciences was established in April 1976 operated by highly qualified and skilled faculty members. In 1979 Arabian Gulf University has been established. The ownership of the university belongs to the six gulf countries. The University has three colleges: Medicine & Medical Sciences, Applied Sciences, and Education. The College of Medicine and Medical Sciences has adopted an innovative approach to medical education, recently initiated in Australia, Canada and Holland.

Continuing professional development takes different forms. The Directorate of Training at the Ministry of Health facilitates both local and overseas training and development opportunities for all the Ministry staff. Training opportunities varies from English language and computer training to post basic specialization and preparation for board exams in various specialties.

Productivity and performance are assessed through individual supervision, variation naturally exist from one supervisor to another, the general mechanism for assessing performance is the annual performance appraisal of the civil service bureau.

Performance management exists as a function within the ministry of health however is not practiced as intended.

### **Trends in skill mix, turnover and distribution and key current human resource issues and concerns**

Health Workers in Kingdom of Bahrain consist of several categories of staff such as

- Doctors and Dentists
- Nurses/Midwives
- Professionals & Technicians in various Allied Health fields such as Physiotherapy, Occupational Therapy, Pharmacy, Laboratory, Radiology, Radiation Therapy, Speech Therapy, Audiology, Clinical Psychology, etc.)

While Doctors and Nurses work in teams in all clinical areas, allied health professionals provide diagnostic and support services to the patients under the guidance of Doctors. Multidisciplinary health care concept does not exist. In general and quantitatively human resources for health are adequate. But qualitatively there is some distribution problems in relation to availability of certain medical specialties and sub specialties. Similar to all parts of the world shortage exist in nursing.

Women in Bahrain have been given full freedom to practice any health profession, which is evident from the percentage of female staff employed in each category, which is almost equal to male in almost all the categories.

Some of the Major projects that place high demands for development large number of human resources are: the new hospital, (King Hamad General Hospital in Muharraq) to be opened soon, and the project of opening all Primary Care Health Centers, in the afternoons shifts. Thus unemployment in the professional categories, currently, almost does not exist.

#### **Key Current Human resources Issues and Concerns:**

Human resources for health is one of the major strength of the health system in Bahrain. However one of the most important challenges to human resources availability and creation is the lack of a national human resource policy.

Long term human resources plan is highly needed. Though there are a high percentage of skilled health workers in Bahrain, there is a distribution problem in terms of number and quality of human resources required in some areas. There is noticeable shortage of Bahraini doctors in certain specializations and sub-specializations such as Gastroenterology, Cardiology, Neurology/Neurosurgery, Kidney Transplant Surgery, Oncology, Pathology, Radiology and Anesthesiology. The in-house training program (Specialty Residency Training Program –SRTP) is preparing our Bahraini doctors to take specialization exams of Arab Board of Medical Specializations. However, there is a need to train more of our Bahraini doctors in sub-specialty areas. Similar to the world wide trend, there is a considerable shortage in nursing.

Ministry of Health has been striving hard to Bahrainize Health Services. 100% Bahrization have been achieved in certain areas (e.g. Dentists, Pharmacy, Laboratory etc.), still high percentage of foreign workers are among doctors and Nurses.

**Table 7-3 Human Resource Training Institutions for Health**

Type of Institution*	Current		Planned		
	Number of Institutions	*Capacity	Number of Institutions	Capacity	Target Year
Medical Schools	3	110		-	
Schools of Dentistry	-	-		-	
Schools of Pharmacy	-	-		-	
Nursing Schools	2	170		-	
Midwifery Schools	1	10		-	
Paramedical Training Institutes	2**	60		-	
Schools of Public Health	-	-		-	

\*Capacity is the annual number of graduates from these institutions.

\*\* a private university has a physiotherapy BS.c. Program that produce an annual of 25 graduates.

Source: Ministry of Health, Human resources Directorate, 2006

The available training institutions for health

### Accreditation, Registration Mechanisms for HR Institutions

Like all other educational institutions in Kingdom of Bahrain, Health Training Institutions and programs offered by them are accredited by Ministry of Education. Each institute follows international standards for enrollment requirements and the curriculum. In 2006 a higher education council was established to set standards for higher educational institutions in Bahrain. Further, in 2007 the Economic Development Board has establish a an educational Quality Assurance body to follow up on adherence to standards in higher education.

Medical University of Bahrain is governed by Royal College of Surgeons in Ireland and hence the requirements for enrollment, registration and the curriculum are as per the standards set by Royal College.

## 7.2 Human resources policy and reforms over last 10 years

Over the last 10 years the Cadres of some of health workers categories have been revised and upgraded to include more incentives. These are:

- Medical/Dental Cadre
- Nursing Cadre
- Allied Health Professionals Cadre (Physiotherapists, Pharmacists, Laboratory Technologists, Radiology Technologists, etc....)
- Allied Health Technician Cadre (Refers to all technicians working in allied health areas)

More attention has been paid to training and development of human resources for health. In 2006 the ministry of health spent 5.3 % of its budget on training a total of around 6 million BD, this figure include the budget of the local College of Health Sciences which graduate nursing and allied health professionals. Until two years ago the college was as the only institution in Bahrain that provides educational programs for nursing and allied health professionals. Allied health education is being offered at AD level while nursing education at A.D. level as well as B.S. level.

post basic specialization includes; Specialty Training Residency Program in Medical Specializations (for Doctors) was introduced in 1999 which prepares Bahraini doctors to take Arab Board Certification exam in several medical and surgical specialties.

Similarly, the post-graduate dental training program started in 2000 prepares Bahraini Dentists to take Membership exam in General Dentistry and other similar exams.

Recently private higher educational institutions granted permission to offer program in health fields, for Example Medical University of Bahrain which is operated and managed by the Royal College of Surgeon in Ireland. It offers both medical and nursing programs Also In the area of Allied Health Ahlia University offers specially at BS. level in Physiotherapy.

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### **7.3 Planned reforms**

Over all there is no human resources policy for human resources for health in Bahrain. An over all human resources plan is required at the national level. Some efforts are being conducted to address the issue of how to rectify the shortage of staff in some specialty such as nursing and to assess the demands and distribution of human resources to meet current and future needs. Major reform in the way human resources recruited, employed and evaluated is not on the agenda, as all the ministry of health are government employees, subject to the over all government rules and regulation through the Civil Services Bureau.

Currently a Human Resources Observatory is being developed, The HR observatory will contribute more to the understanding of human resources for health issues and the trends and ultimately plans for reforms if needed.

## 8 HEALTH SERVICE DELIVERY

### 8.1 Service Delivery Data for Health services

**Table 8-1 Service Delivery Data and Trends**

<b>TOTAL (percentages)</b>	<b>1995</b>	<b>2000</b>	<b>2003</b>	<b>2006</b>
Population with access to health services	100	100	100	100
Married women (15-49) using contraceptives	62	53	...	53.4
Pregnant women attended by trained personnel	95	98	99	100
Deliveries attended by trained personnel	99.2	99.6	99.3	99.4
Infants attended by trained personnel	96	97	94.8	98.7
Infants immunized with BCG	-	-	-	83.2*
Infants immunized with DPT3	98	97	97.3	98.4
Infants immunized with Hepatitis B3	89	97	97.3	98.4
Infants fully immunized (measles)	95	98	100	100
Population with access to safe drinking water	100	100	100	100
Population with access to adequate excreta disposal facilities	100	100	100	100

*Source:* Family Health Survey, 1995

Multiple indicators Cluster Survey, 2000

Health Information Directorate, 2006

BCG vaccine is given only for infant of non-Bahraini mothers from endemic countries.

<b>URBAN (percentages)</b>	<b>1995</b>	<b>2000</b>	<b>2003</b>	<b>2006</b>
Population with access to health services	100	100	100	100
Married women (15-49) using contraceptives	62	53	53.4	53.4
Pregnant women attended by trained personnel	95	98	99	100
Deliveries attended by trained personnel	99.2	99.6	99.3	99.4
Infants attended by trained personnel	96	97	94.8	98.7
Infants immunized with BCG	-	-	-	-
Infants immunized with DPT3	98	97	97.3	98.4
Infants immunized with Hepatitis B3	89	97	97.3	98.4
Infants fully immunized (measles)	95	98	100	100
Population with access to safe drinking water	100	100	100	100



Population with adequate excreta disposal facilities	100	100	100	100
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*Source:* : Family Health Survey, 1995  
Multiple indicators Cluster Survey, 2000  
Health Information Directorate, 2006

<b>RURAL (percentages)*</b>	<b>1995</b>	<b>2000</b>	<b>2003</b>	<b>2006</b>
Population with access to health services	NA	NA	NA	NA
Married women (15-49) using contraceptives	NA	NA	NA	NA
Pregnant women attended by trained personnel	NA	NA	NA	NA
Deliveries attended by trained personnel	NA	NA	NA	NA
Infants attended by trained personnel	NA	NA	NA	NA
Infants immunized with BCG	NA	NA	NA	NA
Infants immunized with DPT3	NA	NA	NA	NA
Infants immunized with Hepatitis B3	NA	NA	NA	NA
Infants fully immunized (measles)	NA	NA	NA	NA
Population with access to safe drinking water	NA	NA	NA	NA
Population with adequate excreta disposal facilities	NA	NA	NA	NA

*\* No data available, in Bahrain, all areas can be considered Urban. There is no distinction between Urban and Rural*

**Table 8-2 Health infrastructure (latest available year)**

<b>Infrastructure</b>	<b>Number</b>		
	<b>Public</b>	<b>Private</b>	<b>Total</b>
Hospitals	9	11	20
Number of beds	1,714	323	2,037
Polyclinics	-	-	-
Health centers	21	-	21
Clinics	2	94	2
Maternity homes	7	7	14*
Pharmacies	218	399	617
Labs	23	12	35
Others (specify)	-	-	-

Sources: Health statistics, Ministry of Health

\*Hospitals provides maternity services

### **Access and coverage (commentary)**

Based on some surveys, some results about patients satisfaction in Primary care is indicated as follows:

#### **Results from the patients' satisfaction survey in all health centers (2002):**

- 59 % were not satisfied about telephone appointment service
- 69 % were not satisfied about the procedure for getting appointments to the doctors
- 47 % were not happy about waiting time before consultation

#### **Results from the patients' understanding and satisfaction about appointments system survey in all health centers (2004):**

- 77 % prefer treatment at morning period relating that to the presence of Appointment system, to the presence of family folder in 81.9 %, and to Presence of the supportive service in 80.2 %.
- 23.5 % of the patients stated that they get the line for telephone appointment at all times, 25.4 % get the line in most of the times, 24.1 % get the line sometimes, and 27 % rarely get the line.

#### **Results of staff satisfaction survey at facility 1(2004):**

In general, 62.8 % of staff in facility 1 agree and strongly agree that they are satisfied, while 13.95 % disagree and strongly disagree that they are satisfied, and 20.9 % had neutral response.

#### **Results of patients' satisfaction survey at facility 1 (2003):**

72 % were satisfied about consultation time, 57 % were satisfied about number of staff at the reception, 54 % were satisfied about availability of medications at the pharmacy.

66 % were not satisfied about the car parks, 55 % were not satisfied about nursing observation rooms, 41 % were not satisfied about appointment booking through reception, 63 % were not satisfied about number of doctors in the health centers.

#### **Results of staff satisfaction survey at facility 2 (2004):**

In general, 70.6 % of staff in facility 1 agree and strongly agree that they are satisfied, while 8.8 % disagree and strongly disagree that they are satisfied, and 20.6 % had neutral response.

#### **Results of patients' satisfaction survey at facility 3 (2003):**

The distribution of scores was as follows

25 % = 0-5

35 % = 6-10

30% = 11-15

10 % = 16-22

Since 15 and above means satisfaction, then percentage of satisfaction between staff is more than 10 % and less than 40 %.

#### **Results of patients' satisfaction survey at facility 3 (2003):**

The results of the survey were as follows

No answer = 10.7 %

Fair = 23.5 %

Good = 28.4 %

Very good = 24.5 %

Excellent = 12.7 %

Note: Facilities 1, 2, 3 represent different health centers

▪ **Access to primary care:**

Given the fact that health care is provided free of charge for Bahrainis and heavily subsidized to expatriate and through 21 health centers and two clinics distributed throughout the country coverage is universal and service is accessible to all population. In addition during 2006-2007 all health centers are operating in the after noon, also an improved format is offered through longer consultation time, issuing the family folders and providing laboratory and dental services.

▪ **Access to secondary care:**

Through referral from primary care, population gain access to all secondary care services. However some patients get direct access to the accident and emergency department where the patients are triaged.

The referral process is well structured through an appointment system utilizing referral forms, however feedback mechanism is impaired. The patients can choose the between the private hospitals, as there is only one main public hospital and the second one is military.

Kingdom of Bahrain is a small country and it is hard to draw sharp borders between urban and rural area, thus there is no geographical differences in distribution of Primary care centers.

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## 8.2 Package of Services for Health Care

Currently the Ministry of Health provide full package of services for health care. The range of services provided free of charge for Bahrainis and heavily subsidized to expatriate covers preventive, promotive, curative and rehabilitative services.

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## 8.3 Primary Health Care

### Infrastructure for Primary Health Care

Primary health care is the cornerstone of health care available in the Kingdom of Bahrain. Through the (21) health centers and the (1) clinic (with the second being the airport clinic), primary care represent first line of contact supported by good referral system which has been established with the secondary care. The average number of population in the catchments area is 3200, and it is expected to be 2600 next year after adding the proposed manpower.

A range of curative, preventive and promotive services are provided. The curative services include all variety of health problems, like the management of chronic diseases, acute illness, urgent care, minor surgeries, elderly care, sticklers clinics in three health centers, labors services, oral health services, and home visits.

Preventive services includes maternal and child health, like antenatal services, periodic children screening, immunization, postnatal services/Post-abortal, family planning services, periodic women services, premarital Services, and ultrasound examination for pregnant ladies. Preventive services also include oral health services like fissure sealant program, fluoride application, educational activities, maternal and child dental services. In addition to dental services to certain categories like diabetics dental services and elderly & clients with special needs.

Other supportive services like physiotherapy services, diagnostic services, pharmaceutical and social services are provided. Promotive services are provided through health education services in addition to community participation educational and promotive services.

All health centers are open for seven hours in the morning. One health center is covering the 24 hours, and five health centers are covering 15 hours (eight hours in the evening), and the remaining health centers are covering 4 hours in the evening with implementing improved format through extending the consultancy time and providing laboratory diagnostic facilities, improving continuity through bringing out files which where not the case previously.

The health centers are distributed in the Kingdom of Bahrain according to catchments areas in each of the five governorates. Each doctor in the health center is responsible for certain residency blocks in each catchments area.

- **Settings and models of provision:**

Primary care providers are directly employed by Ministry of Health.

The primary Care team is composed of the consultant family physicians, family physicians, general practitioners, staff nurses community health nurses, midwives, administrators, medical records staff, Laboratory staff, Pharmacy staff, radiology staff, physiotherapy staff, social services staff, health educators.

The doctors will provide various medical services, staff nurses will provide the nursing procedures, will observe the patients during their day care, and will support the doctors during minor procedures. The community health nurses will provide the nursing component of maternal and child health services and the home visits, and midwives will provide antenatal services for some visits. The functions of other staff is self-explanatory (administrators, medical records staff, Laboratory staff, Pharmacy staff, radiology staff, physiotherapy staff, social services staff, health educators).

Each kind of services is headed by a specialized professional. Heads represent health center council who oversee the overall administrative and management issues of the center. The council also includes representative from the concerned community.

Number of staff in each health center depends on the size of the catchments area

## **Public/private, modern/traditional balance of provision**

- **Public-private ownership mix;**

Majority of primary care services in the country is offered by public facilities in both urban and rural (line between urban and rural is blurred as most of Bahrain areas could be relatively speaking considered urban).

▪ **Public Sector:**

All the health centers are at the same level providing the same services indicated above, the clinic is smaller and provide the majority of the services. This clinic depend on the near by health centers to provide the remaining services. The second clinic is the air port clinic which provides services to the travelers and the airport staff.

There is a considerable utilization of private general clinics scattered in the kingdom, however statistics that estimate such utilization is not available. Cooperation between both parties is encouraged.

**Primary care delivery settings and principal providers of services; new models of provision over last 10 years**

The current model have been used and continually developed and strengthened over that last 10 years. Specialty nurses such as diabetic nurses are responsible for diabetic clinics with the health centers, sickler clinics have been initiated. Such a clinic is being run by doctor-nurse team.

Over the last 10 years the same model which considers primary care as the cornerstone of health services in Bahrain was emphasized and thus many of the health centers have been renovated. The staffing of the airport clinic has increased. The health education services are expanded by increasing the health educators to cover all the health centers. At present there is preparation to add three more health centers, and the plan is to have one health center per 20000 populations by end of 2020.

**Public sector: Package of Services at PHC facilities**

Services in primary care include preventive (maternal & child health services, antenatal, post natal, periodic women screening, child screening, immunization, premarital counseling), in addition to curative management of chronic illnesses, minor procedures. Primary care is also the first line of managing emergency & dealing with other common medical problems. No service is deliberately excluded.

**Private sector: range of services, trends**

Wide range of service is available; it is almost similar to public sector. Efforts are being made for the private sector to act as a partner to the public sector.

**Referral systems and their performance**

Infrastructure for referral system is established (line of referral, appointment system, referral forms). Primary to secondary referral is functioning properly, feedback referral, however, is yet to be developed and strengthened.

**Utilization: patterns and trends**

Consultation rate in primary care is 3-4 visits per year per individual. This has been the trends for many years.

**Current issues/concerns with primary care services**

The increasing demand on services causes disproportion between the load and number of doctors. This may cause some time shorter consultation time. Another may concern is the high prevalence of chronic diseases and the challenge to improve chronic disease since all population group in Bahrain are covered with primary care services.

**Planned reforms to delivery of primary care services**

A comprehensive plan for the period of 2007-2012 has been approved. It includes improvements of all the issues of concern such as consultation time and shortage of staff. The aspiration is toward increasing the consultation time to 10 minutes through the increase of manpower and through empowering the nurse role as well as the increase and expansion of primary care services.

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**8.4 Non personal Services: Preventive/Promotive Care****▪ Availability and accessibility:**

100% all population

**▪ Affordability:**

No barriers at all

**▪ Acceptability:**

Safe water is provided to all, sanitation facilities are in place, so there is no sanitation problem in the Kingdom of Bahrain. Standards are acceptable, client's attitudes and cultural characteristics are in line with the characteristics of the existing facilities and services provided.

**Organization of preventive care services for individuals**

Well established primary health care setting is available for preventive care for example:

- Pre-marital counseling which is implemented through a law that makes the marital counseling a compulsory demand.
- Periodic women screening program
- Breast self-examination program

*Breast cancer screening campaign has started 2005. No information is available yet on coverage. However, the extensive primary care network that is scattered all over Bahrain makes difficulties minimal*

## **Environmental health**

Public health Directorate within the Ministry of health is responsible for all issues related to prevention on health. Sections within the public health Directorate include:

- Communicable disease section
- Death and Birth Registration
- Environmental Health
- Food Control section
- Public health laboratory
- Nutrition section
- Occupational health section
- Health education section

All aspects related to imported water and food are handled by the food control sections, the environmental health section at the ministry of health handles the Rodent control, insect control and institutional health such as Beauty and barbers shops.

With industrialization, increase in intensity of immigrant workers, the occupational health section is expanded and policies are formulated to protect the health of the workers. Formal mechanisms and intersectoral collaboration are available with relevant bodies.

The disease control section with its four units is responsible for all preventive programs from diseases communicable, non-communicable or occupational diseases as well as prevention by vaccination.

## **Health education/promotion**

Health education section at the public health directorate within the Ministry of Health assumes responsibility for the health production/promotion. The section is currently under expansion to be a full directorate of health promotion. Several programs that are aimed at health promotion are being carried out, most of the activities in these programs are integrated in other major programs such as Immunization, non-communicable disease and life style, antismoking program, child abuse, Aids prevention, school health, elderly health.

Seasonal programs are also being delivered such as activities related to prevention of health problems in Hajj season, Ramadan, summer and winter seasons.

Joint activities are also conducted with relevant bodies such as antismoking society, family planning and Red Crescent societies.

## **Changes in delivery approaches over last 10 years**

Approaches over the last 10 years have considered more partnership and intersectoral collaboration in addition to adaptation of latest technology such website for health

education. as available especially in the areas of production of educational materials and delivery of health education programs. Recently HH Shaik Naser Bin Hamad Al Khalifa son of HM King Hamad Bin Essa Al Khalifa agreed to be Role Model for Health Promotion.

### Current key issues and concerns

The major current issues and concern is the non-communicable diseases and their related life style risk factors. Public health directorates in collaboration with primary care are responsible for carrying out the related programs.

### Planned changes

Changes in the provision of preventive services in Bahrain will be according to the new overall integrated primary health care plan for the period 2007-2012 described in the above sections.

## 8.5 Secondary/Tertiary Care

**Table 8-3 Inpatient use and performance**

	1995	2000	2003	2006
Hospital Beds/1,000	3.0	2.6	1.9	2.7
Admissions/1000	11.7	11.2	12.5	13.1
Average LOS (days)	7.0	6.0	6.2	5.2
Occupancy Rate (%)*	79.9	81.1	81.5	77.4

Source: SMC data

\*Based on discharge from Salmania Medical Complex, the man hospital in Bahrain

### Public/private distribution of hospital beds

Government hospital Beds: 1,694

Government – primary care beds: 23

Private Hospitals/clinics beds: 215

### Key issues and concerns in Secondary/Tertiary care

There are several concerns in secondary and tertiary cares among the most important ones are: escalating cost in providing free health care to all citizen of Bahrain, large numbers of patients using secondary care facilities relative to primary car, considerable



amount of patients visiting secondary could be easily treated at primary care facilities, excessive average length of stay and efficiency of utilization of hospital beds.

### **Reforms introduced over last 10 years, and effects**

No major reform however, improvement efforts at the public sector over the last 10 years lead to the expansion of the main and only secondary care government hospital, Salmaniya Medical Complex, the number of hospital beds went from 720 to 910 beds representing a major hospital administration challenge. Establishment of a fully equipped oncology Department with Radiotherapy and Chemotherapy treatments, was opened in 1997 and opening a new nephrology Block with all clinical facilities to treat patients with renal problems which include dialysis and kidney transplant. In addition a new pediatric oncology unit was opened.

### **Planned reforms**

Planned reform in secondary care will be part of the major plan related to improvement quality of services and increasing patient's choices. It will be also affected by the introduction of health insurance for non-Bahrainis. These projects are currently under serious consideration. Plans for building of King Hamad Hospital with the intension of outsourcing of the management of this new hospital will also hold several areas of reforms.

Specific planned improvement efforts in Salmaniya Medical Complex includes major improvement in accident and emergency, establishment of new ICU bloc with 21 beds, specialized units for genetic, infectious and chest diseases units with all the related facilities, improvement plans for day care and outpatients care facilities.

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## **8.6 Long-Term Care**

### **Structure of provision, trends and reforms over last 10 years**

Long-term care is provided through the geriatric hospital of 101 beds. Some of the secondary care beds are being occupied by geriatric patients. This represents a challenge to bed utilization especially in the absence of other related long term care facilities such as nursing homes in other countries.

### **Current issues and concerns in provision of long-term care**

The elderly population in Bahrain is increasing, societal values related to home care for elderly is changing, that represent a concern about the need of more beds allocated for this category. A mentioned earlier considerable number of elderly populations are forced to occupy some beds in secondary care health facilities.

## **Planned reforms in provision of long-term care**

There is a plan to open a new facility, Kanoo Community Center, with 50 beds for long stay. This facility will open shortly. The current geriatric hospital will be expanded to have additional 58 beds that will increase the current number to 159 beds.

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## **8.7 Pharmaceuticals**

### **Essential drugs list: by level of care**

Developed twenty years ago and updated every two years. It is done in consideration with the World Health Organization recommendation. It does not exist by level of care.

### **Manufacturers of Medicines and Vaccines**

The Kingdom of Bahrain imports all its drug requirements. Manufacturer of medicines and vaccines does not exist.

### **Regulatory Authority: Systems for Registration, Licensing, Surveillance, quality control, pricing**

All drug imports are governed by rules and regulations. Drug regulatory authorities control the registration of pharmaceutical manufacturers and their products. Good Manufacturing practice (GMP) standards are adhered to. Government imported drugs are analyzed to ensure quality and safety and a random pre and post marketing analysis done on products at the local market. Adverse drug reaction reporting is also regulated by drug regulatory authorities

### **Systems for procurement, supply, distribution**

The total drug consumption of Bahrain is 34 Million Bahraini Dinars per annum. The private sector imports 60% of this value, Ministry of Health constitute 30 % of importation while Bahraini Defense Force hospital imports 10% of the total drug imports. 50-60% of government imports are done through the Gulf Unified purchase. The per capita consumption is 51 Bahrain Dinars (\$134).

### **Reforms over the last 10 years**

Over the past 10 years, pharmaceutical issues became more organized. Registration became easier and according to established guideline. Drug Formulary was developed and published in 2001 by the Pharmacy and Drug Control Directorate at the Ministry of Health, and new edition will be issued within the coming months.

### **Current issues and concerns**

Currently the major issue and concern is the lack of national drug policy as well as laws that regulate the availability, distribution, entry and registration of drugs. Inappropriate

distribution of manpower and the inadequacy of training of manpower in both public and private sectors especially in relation to side effects are other major concerns.

## **Planned reforms**

The directorate of pharmacy and drug control prepared the final draft of National Drug Policy in collaboration with World Health Organization. Laws and regulation are major parts of the policy. The drug policy focus on all the concerns related to drug entry, purchasing, registration, distribution and utilization

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## **8.8 Technology**

Medical Equipment Directorate (MED) is responsible for comprehensive management of medical equipment & health care devices worth more than BD. 25 Million ( approx. US\$ 66 millions) and maintains present value of spare parts in stock worth BD. 400,000. (US\$ 1 million). Number of devices up-to-date is 12,500 devices among mechanical, imaging, laboratory and electronics devices.

The Medical Equipment Directorate has been established to continuously meet the bio-medical engineering technology requirements of repair and maintenance of medical and scientific equipment and associated service needs of its customers in the most logical, efficient and effective manner attained with high level of quality within its available resources. This includes technical training for medical and paramedical personnel within the Ministry of Health and outside the Ministry including the WHO candidates. As a specialized centre, MED provides high level consultation via WHO to other countries in the Region.

### **Trends in supply, and distribution of essential equipment**

Medical equipment are procured by tendering, evaluating the offers, selecting the most suitable offer, issuing purchase orders, receiving equipment, commissioning and installation. Funding is done from MOH budget and through donation. All medical equipment, devices and systems are maintained by the Medical Equipment Directorate. Over the years, there has been an increase in the types, number, and level of sophistication

### **Effectiveness of controls on new technology**

The main responsibility of medical equipment is to control of all sophisticated medical equipments by providing Comprehensive equipment management i.e. procurement, maintenance, proper utilization and eventual disposal. Relevant rules, guideline and procedure are well established and implemented. The acquisition of costly technologies is controlled through feasibility studies, committees, tasks and the hierarchy in the Ministry of Health. All new branches of technology are controlled especially aspects of safety and standards are taken seriously.

**Reforms in the last 10 years, and results**

Stream line activity; produce protocols for comprehensive equipment management. The result has been obvious in providing prompt, effective and high quality of services at the least possible cost.

**Current issues and concerns**

The control of acquisition of medical equipment is governed by the geographical location of the health care premises and the level of health service provided in the premises. Other challenges include preparation to cope with the continual increase of sophistication through training and staff orientation. With more awareness the public expectation cannot be underestimated, appropriate action is taken to balance public expectation of providing similar if not better equipments than what is available in the market with cost of these equipment

**Planned reforms**

Review of existing procedures and continues improvement to maintain balance and improve quality in accordance with MOH and government overall health care strategy and directories.

## 9 HEALTH SYSTEM REFORMS

### 9.1 Summary of Recent and planned reforms

#### Determinants and Objectives

Since Almata declaration, Bahrain have been emphasizing primary care as the cornerstone of the service provided. Changes and improvement efforts have been directed toward strengthening the position of primary care. This is manifested by the expansion of the network of primary health centers by opening of additional health centers as needed. No major reform process has been in place, however all health centers offers extended hours of operation since 2006. Major efforts are being made toward more health promotion and encouragement of personal responsibility for health. This is explicitly written in the statement of mission of the Ministry of Health in the document "Bahrain Health Strategy-Framework for Action 2002-2010. Two new laws suggest that orientation, the new smoking law and the premarital counseling law.

Since the early nineties efforts and studies have been directed toward introducing an alternative way of financing health care as a major reform process, these efforts have not been materialized yet. The main concern behind the initiation of plans for health system reform is the continually escalating cost of health care delivery. Moreover, the reform is called for to deal with the many problems associated with the free health care system such as concern for efficiency, service quality, and over utilization. Another concern is the continually rising public expectation for more services and demand for high quality with latest technology.

Thus the key aim for finding alternative ways of financing is to alleviate the burden on the government without jeopardizing the health status of the population achieved so far. Given the large expatriate population in Bahrain (38%), the initial attention has been to develop a system of health insurance for expatriate in Bahrain with the aspirations to expand the system to cover the whole population in the long term.

#### Chronology and main features of key reforms

Any desired reform is still at the stage of planning. Information on the main feature could be provided when any of the proposed reform schemes is approved and implemented.

#### Process of implementation: approaches, issues, concerns

Reform proposals are in the process of seeking approval, gradual approach will be utilized in any changes when introduced.

Currently interest groups such as health care providers, some major political parties have been advocating and demanding the move toward the health insurance for

expatriate in Bahrain. The Ministry of Health is working toward developing a process that protect, maintain and sustain the status of population health in the county.

### **Progress with implementation**

Not applicable

### **Process of monitoring and evaluation of reforms**

Not applicable

### **Future reforms**

Health insurance as an alternative way of financing will be implemented in the near future; the health insurance law is in the process of getting approval by the national assembly. The proposed scheme is still under consideration.

Studies are being conducted to emphasize the role of government. The orientation is toward strengthening the regulator and policy maker roles. Efforts toward establishment of an independent authority are in progress. Public hospital autonomy is proposed and is being explored. Privatization will be further encouraged so that private sector takes a major role in the provision of health care services in Bahrain.

### **Results/effects**

Not applicable, yet to be seen upon implementation.

## 10 REFERENCES

### Source documents

Most documents used are available at different sections at the Ministry of Health. Major documents such as Health Statistics published annually by the Ministry of Health and Bahrain health Strategy are available on line.

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- Multiple indicators Cluster Survey, 2000
- Patients' satisfaction survey in all health centers, 2002
- Staff satisfaction survey at health centers, 2004
- Patients' satisfaction survey at health centers, 2003
- Office of Licensure and Registration, 2006 data
- Directorate of Finance , 2006 data

## **11 ANNEXES**

### **Summary of annexes**

List of annex titles



The Regional Health Systems Observatory is an undertaking of the WHO Regional Office for the Eastern Mediterranean. The Observatory supports and promotes evidence-based health policy-making through comprehensive and rigorous analysis of the dynamics of health systems in the EMR. Its primary goal is to contribute to the improvement of health system performance and outcomes, in terms of better health, fair financing and responsiveness of health systems. The aim of this initiative is to provide relevant comparative information to support policy-makers and analysts in the development of health systems and to serve as repository of information on health systems.

This document is part of a series of in-depth health systems profiles, produced and updated by the Observatory using standardized approach that allows comparison across countries.

They provide facts, figures and analysis and highlight reform initiatives in progress.



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