EMRO

HEALTH SYSTEM PROFILE

I R A Q

Regional Health Systems Observatory
World Health Organization

2006

Contents

List of Tables

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 policy-makers 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

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

Iraq's economy is dominated by the oil sector, which has traditionally provided about 95% of foreign exchange earnings. Three decades of inappropriate policies, Iraq's seizure of Kuwait in August 1990 and subsequent Gulf war and economic sanctions, have drastically have reduced Iraq economy. The per capita gross domestic product (GDP) is reported to have been at US$ 3,510 in 1989 dropping to $ 866 in 2001 (MOPDC – Figures and Indicators 2004). The 2003 estimated real growth rate of -21.8%. The per capita: purchasing power parity is estimated at $1,500. The inflation rate is estimated at 29.3% and the external debt is $93.95 billion (2003).

Income poverty varies according to the definition of the poverty line and reliable data is very scarce. United Nations Economics and social Commissions for Western Asia (ESCWA) reports in a study prepared in 1996 that absolute poverty affected 3.2% of urban populations and 8.3% in rural areas in 1988 and that the rates increased sharply to 21% in urban and 22% in rural populations in 1993 (ESCWA: Poverty in Iraq before and After the Gulf War). Recent data is lacking but the rates are expected to be considerably higher now.(Health In Iraq, HE 2004) Absolute poverty increased from 25% in urban areas and 33% in rural areas in 1988 to 72% and 66% in urban and rural areas respectively in 1993. This means that almost three quarters of the Iraqi population became poor despite the food rationing system, which was established in 1991.

The public food distribution system, which provides monthly food rations to the entire population at a heavily subsided price, was put in place in 1991 to provide a form of a blanket budgetary assistance to Iraqi households. It however represents a considerable burden on Iraqi finances, consuming 26% of planned public expenditure in 2004. Child labor is a problem. Regional sample surveys indicate rising numbers of working children and those who live or work on the streets. There is concern about the rising incidence of substance abuse and violence. Household poverty has prompted children to leave schools and seek jobs to support their families. Expenditure on food was about 62% of total expenditure in 1993. It declined to 44% in 2002 (Family Expenditure Survey 2002). According to the Human development report 2000, the per capita calorie availability was 1178, 1120, and 2030 in 1990, 1995, and 1997 respectively. The per capital protein availability decreased from 25.5 g. in 1990 to 24 g. in 1997, the per capita food availability was 70.7 g. in 1990 and 74.3 g. in 1997.

Iraq witnessed spectacular social and economic development, followed by a dramatic decline. During the same period, health care reached approximately 97% of the urban and 79% of rural population. The Health care system in Iraq was based on an extensive and expanding network of health facilities linked up by reliable modes of transport and communications. The rise in male infant deaths exceeded females and the rural death rate rose about 30% higher than the urban.

The history of the health system in Iraq began in the early twenties of the 20th century. During the 1970s and early 1980s, Iraq experienced improvements in several critical health outcomes. The per capita spending on health was extremely low; indeed, current analysis by the Ministry of Health suggests that during the 1990s the funds available for health were reduced by 90 percent. At the same time, many health professionals left the country. The health care system became increasingly politicized, centrally controlled, and poorly suited to respond to changing population health needs. The result was that health indicators, at least in the center and south of Iraq,18 fell to levels comparable to some of the least developed countries.

The health care system—a hospital-oriented, capital-intensive model that requires large-scale imports of medicines, medical equipment and even health workers—is inefficient and access is inequitable. Although the system ran fairly effectively, little health service data was collected. This led to a lack of cost-effective public health interventions, and services only partially matched population health needs. To this day, the levels and distribution, of available human resources for health is inadequate.

Widespread looting in April 2003, the subsequent unpredictability of electricity and water supply further weakened the functional capacity of health care services, and the general insecurity created an extremely inhospitable working environment for health personnel, particularly women. About one year after the fall of the political regime in Baghdad, MoH is in the process of reforming the health systems and is adopting a new organizational structure

The Private Health sector is strong powerful and has the capacity to supplement the weakness of the public sector especially in curative services. A high number of private clinics are distributed nationwide. The principal funding of the above private facilities are purely private. Almost all owners of private hospitals are medical specialists and the same is true to private clinics too. Providers of health care at public sector are allowed by law to practice their profession in the private sector beyond the working hours at the public sector; but there exists no institutional private practice at public facilities by law.

Due to the recent restructuring of the ministry of health and the rethinking of the service provision model, the private sector may be asked to perform a larger role in health care provision, however the situation will only be clear after the remodeling of the health system is completed. The Dept. of inspection of non governmental health facilities of the Directorate general of Inspection at MoH is responsible on supervision and monitoring the health care provided at all types of private facilities; medical, dental pharmacies, drug houses and hospitals.

MoH is the main body responsible for the provision of health care to the people everywhere in the country. Soon after the war in 2003 and the destruction of the army, thousands of medical and health staff was transferred to MoH and most of military health facilities are being connected to MoH which started to provide health care services to the people and became fully integrated into the Public health system of MoH. There are no other ministries, so far, that are involved in the provision of Health care. Doctors and health personnel providing health care to these categories are seconded from MoH. There is no insurance organization working in Iraq. Voluntary bodies with responsibilities in the health system don't exist in Iraq.

There is no formal and institutionalized structure to monitor and regulate and promote research although large-scale surveys are being conducted to assess the health care needs of the country and the health system they are primarily one off attempts to establish some information about the health system. M.O.H since its establishment in 1958 adopted the policy of central financing system & free medical services in all health facilities (PHC, hospital, preventive & curative activities). In the same year minister of health authorized charging from indoor patients in government hospitals private wards & nursing. Due to sanctions in 1990, the health financing system was severely affected due to limited budget allocation, thus in 1997 a new financing policy was adopted as pilot in 7 specialized hospital called “self–financing” system in which the cost of care was shifted to the patients. This system was extended to all hospitals in 1999 and PHC centers in 2001. The auto-financing system meant that the funds obtained came from user charges at the health facilities. All PHC services like immunization, antenatal care, health education, etc are provided free of charge at the PHC centers.

Before 2003 the health care system was based on a hospital-oriented, capital-intensive model of care that required large-scale imports of medicines, medical equipment, and even health workers. Although the system ran fairly well, little health service data, crucial to effective decision-making, was collected and the services provided, only partially matched population health needs. The present Primary Health Care system consists of 110 health districts serving on average around 200,000-300,000 people. The system was supported also by 146 warehouses, 14 research centers and 10 drug production plants. Health professionals were employed by the Government of Iraq with medicines, medical supplies, equipment and spare parts obtained through the Oil-for-Food. Indeed since the 80s the health care system had suffered from under investments. Sanctions further deteriorated the hospital based health system that became increasingly politicized and even more centrally controlled, and ultimately poorly suited to respond to health needs of population. Since the 90s many qualified health specialists and professionals left the country.

The main health services are being provided by the public sector where a wide network of health facilities are scattered all over the country providing all types of curative and preventive services. The private sector includes private pharmacies (3358), private hospitals (65) and medical/dental clinics, whereas semi public sector is made of Public Clinics and Health Insurance Clinics, Pharmacies for chronic diseases and Pharmacies for rare drugs. Preventive and promotive care is mainly provided by public sector facilities which are PHC Centers and sub health centers attached to their respective PHCs. Limited Funds are allocated for the PHC system in each governorate but budgetary decisions and expenditures are made by the governorate Directorate General of Health. (MoH situation analysis) There are 1,285 primary health care centers (PHCs) in Iraq. The rest are staffed by trained health workers (nurses and medical assistants). Health professionals are unevenly distributed. There is no system of general or family practice. Patients can visit any health center or hospital without referrals. The health care system is currently inefficient and does not provide free and equitable access to basic services. There is lack of cost-effective public health interventions, and services only partially matched population health needs. The levels and distribution of available human resources for health is inadequate. Anecdotal evidence suggests that around 50% of health care service is provided by the private sector.

Medical records do not exist in health centers or hospital outpatients; they are inadequate and poorly maintained in hospital in-patient departments. Quality assurance programs in hospitals and health centers are non-existent. The consultation time reflects the level of responsiveness of the health care system. The health care system is currently inefficient and does not provide free and equitable access to basic services, there is lack of cost-effective public health interventions, and services only partially matched population health needs. The levels and distribution of available human resources for health is inadequate. Health center and hospital care are not coordinated / district health systems

Currently the health care delivery system is undergoing several changes addressing its scope its organization and its quality. While reconstructing the health infrastructure and investing in manpower, the MOH has developed policies to prioritize the development of a public health and a decentralized primary care system countrywide and the strengthening the DTPS approach. Furthermore 31 military hospitals and their staffs, including about 12,000 nurses, were to be integrated into the public health care system. The adopted primary health care approach -especially its maternal care, emergency obstetric care, family planning, immunization coverage, improved nutrition components and its integrated approach to child health- will result in substantial reduction of

morbidity and mortality among women of child-bearing age and children that altogether represent a large disadvantaged segment of the Iraqi population. The envisaged Primary Health Care (PHC) system will address the disease burden faced by the Iraqi people, the lack of access to essential health care services and ultimately improve the overall health conditions of the population.

The newly established Ministry of Environment is responsible for all environmental issues including environmental health, while the Ministry of Municipalities and Public Works is the responsible ministry for water supply and sanitation at governorate levels including rural areas, the Municipality of Baghdad is responsible for water and sanitation for Baghdad. However, in terms of food safety it is the responsibility of Ministry of Health. The directorate of Health Education in the Ministry of Health has the responsibility for health education materials and training programs and it functions through health education units established in PHC centers and sub centers.

The National Board for the selection of Drugs (NBSD) which was established in the early 1980s reviewed all pharmaceutical products marketed in Iraq and produced the National list of drugs in 1986. The list contained about 1,500 drug products and dosage forms. Also lists of drugs for use in Primary Health Care Center with doctor (list A) and without doctor (List B) were produced. The drug registration and licensing regulations exist in the MOH and are part of the Public Health Law. Until present the drug post marketing surveillance was the responsibility of Kimadia, the state company for medicines and medical appliances in coordination with the MOH anti poison Center. The medical supply management system used in Iraq is based on a centralized model. From March 2003 at present, data on expenditures for pharmaceuticals are sketchy and no consistent procurement system was practiced and the existing medical supply management system was not functional. Until recently, fees to be paid by patients for drugs and medical supplies supplied in the public sector as well in the private and semi-public settings was centrally determined by MOH/Kimadia.

2 SOCIO ECONOMIC GEOPOLITICAL MAPPING

2.1 Socio-cultural Factors

Table 2-1 Socio-cultural indicators

Indicators	1990	1995	2000	2002	2004
Human Development Index:	0.577	0.608	-	0.653	-
Literacy Total:	71/54	-	-	53.7	75%
Female Literacy:	54%	-	46%	-	66%
Women % of Workforce	18%	19.7%	20.1%	18%	16.6%
Primary School enrollment (Gross)	111%	85%	-	91% §	102%
Primary education, pupils (% female)	44%	45%	-	-	48%
Urban Population (%)	69.7	68.8	67.8	67.4	65%

Sources: HDR 2004
World Development Indicators Online, World Bank
State of the world children UNICEF 1998
Iraq Living Conditions Survey 2004

Iraq's economy is dominated by the oil sector, which has traditionally provided about 95% of foreign exchange earnings. Three decades of inappropriate policies, Iraq's seizure of Kuwait in August 1990 and subsequent Gulf war and economic sanctions, have drastically have reduced Iraq economy. The per capita gross domestic product (GDP) is reported to have been at US$ 3,510 in 1989 dropping to $ 866 in 2001. The 2003 estimated real growth rate of -21.8%. The per capita: purchasing power parity is estimated at $1,500. The inflation rate is estimated at 29.3% and external debt is $93.95 billion (2003 est.).

Income poverty varies according to the definition of the poverty line and reliable data is very scarce. United Nations Economics and social Commissions for Western Asia (ESCWA) reports in a study prepared in 1996 that absolute poverty affected 3.2% of urban populations and 8.3% in rural areas in 1988 and that the rates increased sharply to 21% in urban and 22% in rural populations in 1993. Recent data is lacking but the rates are expected to be considerably higher now. Absolute poverty increased from 25% in urban areas and 33% in rural areas in 1988 to 72% and 66% in urban and rural areas respectively in 1993. This means that almost three quarters of the Iraqi population became poor despite the food rationing system which was established in 1991. The public food distribution system, which provides monthly food rations to the entire population at a heavily subsided price, was put in place in 1991 to provide a form of a blanket budgetary assistance to Iraqi households. It however represents a considerable burden on Iraqi finances, consuming 26% of planned public expenditure in 2004.

Child labor is a problem. Regional sample surveys indicate rising numbers of working children and those who live or work on the streets. There is concern about the rising incidence of substance abuse and violence. Household poverty has prompted children to leave schools and seek jobs to support their families. Expenditure on food was

about 62% of total expenditure in 1993. It declined to 44% in 2002 (Family Expenditure Survey 2002). According to the Human development report 2000, the per capita calorie availability was 1178, 1120, and 2030 in 1990, 1995, and 1997 respectively. The per capital protein availability decreased from 25.5 g. in 1990 to 24 g. in 1997, the per capita food availability was 70.7 g. in 1990 and 74.3 g. in 1997.

2.2 Economy

Table 2-2 Economic Indicators

Indicators	1990	1995	2000	2002
GNI per Capita (Atlas method) current US$ (estimate)	2170	-	-	766-3035
GNI per capita (PPP) Current International	-	-	-	-
GDP per Capita	-	3197 (98)	1083	866
GDP per Capita annual growth %	-	11%	4%	-6.5 %
Unemployment % (estimates)	-	-	8%	10.4%
External debt as % of GDP Debt/ GDP	-	-	-	350%

Sources: Economist: GDP % real change in year 2003 is -21.4%
HDR 2004
Ministry Of Planning And Development
Iraq Living Conditions Survey 2004

Key economic trends, policies and reforms

The Iraqi economy was previously a state enterprise and little encouragement for private enterprises to flourish. Iraq's economic situation is currently difficult after two wars, more than 13 years of severe sanctions and three decades of inappropriate policies. The invasion of Kuwait had its known devastating effects on the economy and society in Iraq. The imposition of UN sanctions, has had serious consequences, not only by limiting Iraq's oil exports to quantities specified by the UN and allocating the revenue to the purchase of essentials such as food and medicines in accordance with the oil for food UN Resolution, but created very serious economic and environmental problems. The rate of exchange of the Iraqi Dinar was, prior to the Gulf Crisis, $3 to each Dinar. Now it is 2,000 Dinars to the Dollar

Iraq assumed a heavy debt burden during the Saddam Hussein years, around $100 billion of debts to Gulf States and Russia are counted, and even more if $250 billion in reparations payment claims stemming from Iraq's 1990 invasion of Kuwait are included. Discussions among negotiators from the 19-strong Paris Club group took place in Berlin on the sidelines of the G20 summit of rich and developing nations. Iraq's debts will be cancelled in three stages - 30% immediately, another 30% in 2005 and 20% in 2008. The deal, however, depends on Baghdad's successful completion of an International Monetary Fund economic program. Iraq's debts to the Paris Club countries fall to $7.8bn but it is still left with foreign debts of about $80bn to other nations, including Saudi Arabia and Kuwait.

Under optimal conditions, Iraq's oil export infrastructure could handle more than 6 million bbl/d. However, Iraq's export facilities (pipelines, ports, pumping stations, etc.)

were seriously disrupted by the Iran-Iraq War (1980-1988), the 1990/1991 Gulf War, the most recent war in March/April 2003, and periodic looting and sabotage since then. Currently, Iraq has export capacity as high as 2.5 million bbl/d. Iraq has 110 trillion cubic feet (Tcf) of proven natural gas reserves, along with roughly 150 Tcf in probable reserves. About 70% of Iraq's natural gas reserves are associated (i.e., natural gas produced in conjunction with oil), with the rest made up of non-associated gas (20%) and dome gas (10%). Until 1990, all of Iraq's natural gas production was from associated fields. In 2002, Iraq produced 83 billion cubic feet (Bcf) of natural gas, down sharply from 215 Bcf in 1989. Since most of Iraq's natural gas is associated with oil, progress on increasing the country's oil output will directly affect the gas sector as well. Significant volumes of gas also are used for power generation and re-injection for enhanced oil recovery efforts.

Table 2-3 Major Imports and Exports

Major Exports:	Crude oil, refined petroleum products, natural gas, chemical fertilizers, and dates were major commodities.
Major Imports	Food, medicine, consumer goods, machinery

2.3 Geography and Climate

Area of Iraq variously cited as between 433,970 (excluding Iraqi half of Iraq-Saudi Arabia Neutral Zone shared with Saudi Arabia, consisting of 3,522 square kilometers) and 437,393 square kilometers. Iraq's official statistical reports give the total land area as 438,446 square kilometers.

Map of Iraq

The Country is divided into four major regions: desert in west and southwest; rolling upland between upper Euphrates and Tigris rivers; highlands in north and northeast; and alluvial plain in central and southeast sections through which the Tigris and Euphrates flow. Roughly 90 percent of the annual rainfall occurs between November and April. The remaining six months, particularly the hottest ones of June, July, and August, are dry. Mean minimum temperatures in the winter range from near freezing to -3°C.

They rise to maximum of about 15°C. In the summers temperatures range from 22° to maximum 43.3°C. The combination of rain shortage and extreme heat makes much of Iraq a desert. Because of very high rates of evaporation, soil and plants rapidly lose the little moisture obtained from the rain, and vegetation could not survive without extensive irrigation.

2.4 Political/ Administrative Structure

The Iraqi Law: The 1958 revolution, which overthrew the monarchy, abrogated Iraq's 1925 constitution. Since then, the country has had five interim constitutions. A sixth constitution was put forward by the Baath Party in 1990, but was never ratified in the aftermath of the Gulf War. The constitution that was promulgated in 1970 gave ultimate authority to the Baath Party. Since 1991, the Revolutionary Command Council, the highest legislative authority, issued 1,500 resolutions annually, creating a legal jumble. Currently the formulation of a new constitution is underway after elections held to a transition legislature in 2004.

Administrative Divisions: In 1988 eighteen governorates or provinces, each divided into districts (110) and sub districts. Limited self-rule was granted to Kurds in three northern governorates officially known as Autonomous Region and popularly known as Kurdistan (land of the Kurds).

Judicial law: The British established and staffed Iraq's modern, post-Ottoman judicial system. As a consequence, the judiciary had a tradition of independence from the executive that continued after the Iraqi revolution of 1958. During the period before the Baath Party came to power, the courts made a number of important decisions against the government. After 1968, the new Baathist constitution marginalized the judiciary by ending the separation of powers, making civilian courts subservient to the military court system, and creating special courts outside the regular judicial system. Iraq's civilian court system is composed of a high court, civil courts, and criminal courts and the criminal prosecutorial system. Judges are appointed by the Justice Council, which is chaired by the Minister of Justice.

Key political events/reforms

The Coalition forces launched a war on 20 March 2003. Following the post conflict period an interim government was given “full authority and responsibility” to rule Iraq under UN Security Council Resolution 1546. On January 30, 2005, the Iraqi people went to the polls for the national election, the 18 provincial elections, and the Kurdistan Regional government election. A 275-member Transitional National Assembly (TNA) was elected with the goal of having at least 25 percent female representation. The TNA will:

- Serve as Iraq’s national legislature for a transition period.
- Named a Presidency Council, consisting of a President and two Vice Presidents. The Presidency Council will, by unanimous agreement, appoint a Prime Minister and approve the selection of cabinet ministers.
- Draft Iraq’s new constitution, which will be presented to the Iraqi people for their approval in a national referendum in October 2005. Elections based on this constitution are then to be held in December 2005 to choose a constitutional Iraqi government.

3 HEALTH STATUS AND DEMOGRAPHICS

3.1 Health Status Indicators

Table 3-1 Indicators of Health status

Indicators	1990	1995	2000	2002
Life Expectancy at Birth	61.28	58.76	61.06	62.62
HALE:	-	-	50.4	-
Infant Mortality Rate*	40	100	102	102
Probability of dying before 5th birthday/1000*	50	122	125	125
Maternal Mortality Rate:	160	-	291	-
Percent Normal birth weight babies:	5%	-	24%	-
Prevalence of stunting	18.7%	32.0%		30.0%
malnutrition	9%	23.4%	-	19.5%
wasting:	3%	11.0%		7.8%

Source: World Development Indicators online World Bank
World Health Organization country estimates
ICMMS 1999,MoH & UNICEF.
CSO, Multiple indicator Cluster survey, 2000.
UNICEF, The State of Arab Child Middle East and North Africa: 2002

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

Indicators	Urban	Rural	Male	Female
Life Expectancy at Birth:	-	-	61.4	63.9
HALE:	-	-	47.7	53.3
Infant Mortality Rate:	94.7	110.1	104.8	96.4
Probability of dying before 5th birthday/1000:	112.4	136.6	126.1	117.1
Maternal Mortality Rate: 1999	286	306	-	-
Percent Normal birth weight babies:	-	-	-	-
Prevalence of stunting/wasting:	-	-	-	-

Source: ICMMS 1999,MoH & UNICEF

Table 3-3 Top causes of Mortality/Morbidity

Rank	Mortality	Morbidity
	For 5 years and over	
1.	Cardio Vascular Diseases	Hypertension
2.	Malignant neoplasm	Diabetes
3.	Renal diseases	Cancer
4.	Respiratory diseases, Pulmonary Tuberculosis, Asthma	Mental disorders
5.	Diabetes Mellitus	Disabilities
6.	Cardio Vascular Diseases	Hypertension
7.	Accidents	Infectious diseases
	For children < 5	
1.	Acute Diarrheal diseases	Diarrheal diseases
2.	Acute Respiratory infections	Acute Respiratory infections
3.	Malnutrition	Communicable diseases (Measles, Mumps, Whooping cough, Diphtheria, typhoid and Leishmanisis)
4.	Congenital anomalies	
5.	Septicemia	
	Maternal Causes	
1.	Bleeding	Hypertension
2.	Acute pulmonary Embolism	Diabetes
3.	Hypertension	Depression
4.	Irreversible shock	Fistula
5.	Amniotic fluid embolism	Sexually Transmitted Diseases and Reproductive Tract Infections

Source: Health In Iraq, Ala'din Alwan, Minister Of Health, December 2004
ICMMS(1999) ,UNICEF

Over the last 25 years, Iraq has undergone profound social, economic and political changes. Iraq witnessed spectacular social and economic development, followed by a dramatic decline. Prior to 1991, much progress was made in building roads and infrastructure as well as improving human skills by expansion of education and advanced training. During the same period, health care reached approximately 97% of the urban and 79% of rural population. The Health care system in Iraq was based on an extensive and expanding network of health facilities linked up by reliable modes of transport and communications. The country had a well-developed water and sanitation system and 90% of the population was estimated to have access to safe drinking water

Registration of deaths is not universal and death certification by cause is not accurate. A major reduction in childhood mortality from 1960 to 1990 is well documented. Infant mortality declined from 71 deaths per 100 live births in 1965 to 29 in 1989. During the same period, under-five mortality also declined from 111 deaths to 44 deaths per 100 live births. These gains however, were halted with the start of the gulf conflict.

In the 8-month period following the 1991 war, mortality among children under five years of age, rose from around 52/1000 live birth to about 128.8/1000 live birth. The International Study Team (IST) survey conducted in 1991 estimated excess mortality rates at 1.8 deaths per 1000 during the first month of life, 4.3 deaths per 1000 for the 2-11 months of life, and 5.2 deaths per 1000 for 1-4 years age group. The main causes of deaths were due to diarrhea and acute respiratory infections. The rise in male infant deaths exceeded females and the rural death rate rose about 30% higher than the urban. Geographical distribution shows differences in rates, as based on the figures given for the 1999 cross-sectional household survey: childhood mortality was reported to be lower in the North of Iraq as compared to the Center and South.

The prevalence of Malnutrition has shown a sharp increase since 1991 and has remained at an unacceptably high level since 1996. The MICS 2000 revealed that the prevalence of underweight children is 19.6 per cent, which mean that one in five Iraqi children is underweight. Malnutrition amongst mothers led to an increase in the number of low birth weight babies from 4.5% in 1990 to 23.8% in 1998. In 2002, UNICEF reported improvement in malnutrition. According to the UNICEF report, rates that were higher in 1996 than the Arab country average had declined to a level similar to Arab countries in 2000, though the rates are still higher than neighboring countries.

Maternal Mortality is a critical measure of the adequacy of the health system and of people's ability to access these activities. The maternal mortality ratio was 249 per 100,000 live births for the south/center of Iraq - more than as twice as high as in the northern governorates during the last 10 years preceding the survey, which roughly correspond to the Gulf Conflict and the start of the UN sanctions. Therefore, the MOH supported by WHO planned for the in-depth analysis on childhood and maternal mortality data available from the 1999 Iraq Child and Maternal Mortality survey (ICMMS 1999) to obtain a National figure for Iraq.

3.2 Demography

Table 3-4 Demographic indicators

Indicator	1990	1995	2000	2002
Crude Birth Rate	38.4	34.7	30.8	29.3
Crude Death Rate	9.2	10.4	8.8	7.8
Population Growth Rate	3.2	2.4	1.8	2.0
Dependency Ratio	0.9	0.8	0.7	0.7
% Population <15 years	44.2	42.8	41.6	40.2
Total Fertility Rate	5.8	5.1	4.3	4.0

Source: World Development Indicators Online World Bank

Table 3-5 Demographic indicators by Gender and Urban rural

Indicator	Urban	Rural	Male	Female
Crude Birth Rate:	-	-	40.5	38.4
Crude Death Rate:	-	-	10.7	10.5
Population Growth Rate:	-	-	-	-
Dependency Ratio:	-	-	-	-
%population <15 years	37%	45%	-	-
Total Fertility Rate:	-	-	-	-

Source: Iraq Living Conditions Survey 2004

Demographic patterns and trends:

The total population of Iraq is estimated to be 27.1 million. The population was about 12 million people according to the 1977 census and increased to 16.3 millions in 1987 and almost doubled in 20 years (22 millions in 1997). The overall population growth has been around 3% annually during the period 1987-1997. The national report issued as a follow-up to the World Summit for Children, noted that the total population had reached 23.9 Million by the year 2000 with an estimated growth rate at 2.94.

Males constitute 50.2 % of population, those below 5 years of age constitute about 17% of population, children under 15 are almost 40.5%, while those within adolescent age (10-19 years) form about 23% of population. Women at childbearing age constitute about 22 % of the population. Those who are 60 years and 65 years of age and above form 3.8 % and 2.8% of the total population respectively. This is a high dependency rate on income –earners. The rate of urbanization was high between 1957 and 1980, but stabilized thereafter.

More than 24% of the population lives in Baghdad, 9.5% in Mosul, 6.6% in Basrah, 5.2% in Erbil, and 6.3% in Sulaimaniya. Two thirds of the population (67.1%) lives in urban areas and one third in rural areas. Iraq has experienced population movements caused by the policies of the previous regime and two decades of wars. Iraq has also been experiencing a long-term population shift from urban to rural areas. Life expectancy at birth is estimated, according to the UNDP Human Development Report 2001 to be 59.2 years for males and 62.3 years for females. However, the only set of figures available at the Ministry of Planning and Development Cooperation (MOPDC) are for the year 1997 and they are 58 years for males and 59 for females.

4 HEALTH SYSTEM ORGANIZATION

4.1 Brief History of the Health Care System

The history of the health system in Iraq began in the early twenties of the 20th century. The first government in Iraq at that time saw the establishment of the Ministry of Health which, after a couple of years was part of the Ministry of Interior until 1939 where it was merged with the Ministry of Social Affairs. This existed till 1952, when a new Ministry of Health was reestablished and continues today. Since the early decades of the last century, the MOH went through different organizational structures. The newest structure was adopted after the war and the fall of the last regime in 2003, which has recently seen other modifications.

During the 1970s and early 1980s, Iraq experienced improvements in several critical health outcomes. Infant mortality rates decreased from 80 per 1,000 live births in 1979 to 40 in 1989. In the same period, under-five mortality rates fell from 120 to 60. However, the capacity and performance started to deteriorate during the 1980s—the decline was exacerbated as a result both of wars and of political and economic sanctions. During this period, health policy choices were inappropriate, especially in relation to health care financing. The per capita spending on health was extremely low; indeed, current analysis by the Ministry of Health suggests that during the 1990s the funds available for health were reduced by 90 percent. One significant consequence of all these factors was a serious decline in indicators of population health outcome. At the same time, many health professionals left the country. The health care system became increasingly politicized, centrally controlled, and poorly suited to respond to changing population health needs. The result was that health indicators, at least in the center and south of Iraq, 18 fell to levels comparable to some of the least developed countries. From 1990 to 1996, infant, child, and maternal mortality rates more than doubled.

Burden of Disease: Health outcomes are now among the poorest in the region. Maternal and infant mortality and malnutrition are high; certain communicable diseases have reemerged to join non-communicable conditions in a double burden of disease. Malaria, cholera, and Leishmanisis are endemic in several parts of the country. The registered number of cases of HIV/AIDS is relatively low; however, all risk factors are present for increased rates of transmission. In the aftermath of conflict, general insecurity and gender violence have prevented women from seeking health care for themselves and their children. During the 1990s, there was a trend of increasing vulnerabilities for women and maternal mortality grew close to three-fold in that period. It is estimated that 30 percent of women gave birth without a qualified health worker in attendance.

Health System and Services: The health care system—a hospital-oriented, capital-intensive model that requires large-scale imports of medicines, medical equipment and even health workers—is inefficient and access is inequitable. Although the system ran fairly effectively, little health service data was collected. This led to a lack of cost-effective public health interventions, and services only partially matched population health needs. To this day, the levels and distribution, of available human resources for health is inadequate.

Health Infrastructure: The physical infrastructure has deteriorated as a result of over twenty years of under-investment, poor management, and conflict. Widespread looting

in April 2003, the subsequent unpredictability of electricity and water supply further weakened the functional capacity of health care services, and the general insecurity created an extremely inhospitable working environment for health personnel, particularly women. Although NGOs and UN agencies started rehabilitating some health facilities in the late 1990s, by early 2003, most of the health infrastructure continues to be in poor condition.

There is no reported history of existence of social health insurance system. There have been some limited opportunities in some industrial factories and state companies where health insurance funds were established to cover the cost of curative services of their workers; but these funds were not able to sustain after few years of their establishment. Since the early decades of the last century, Ministry of Health has witnessed many trials of reform in its structure mainly after its re-establishment in 1952. There were comprehensive reforms that have taken place in 1983 and 1990. The newest structure was adopted after the war and the fall of the last regime in 2003.

4.2 Public Health Care System

Organizational structure of public system

The structure and functions of the Ministry of Health are in a state of flux and organizational and structural changes are being conducted, therefore the precise structure and organization will only emerge after the process of reconstruction has been completed. The structure health system before the reform process (initiated in 2003) is given in annex 1.

The public health system is handled almost entirely by the MOH. There are many Directorate Generals at MOH/HQ, each with many Depts. and Sections that deal with different technical topics as seen in the above diagram. There are 16 Departments of Health (DoH) in 15 provinces in the center and south of Iraq (2 in Baghdad), each in the center of each province. The 3 DoHs in the Northern provinces are directly connected to the 2 MoHs in Erbil and Suleimaniyah. The Directorate Generals of the MOH are technically responsible for the following functions:

- The DG of Public Health and PHC is responsible for the preventive health and some promotive health programs; in addition to its responsibility in managing policies on PHCs
- The DG of Planning and human resources is responsible for the planning of budgetary needs of MOH and for planning the needs human resources including nursing programs.
- The DG of Admin, Finance And Legal Affairs is responsible for the issuance of all legislations, admin and financial instructions for the implementations by the DoHs of Health at governorates and specialist departments.
- The DG of Engineering is looking after the engineering projects of health facilities including constructions, rehabilitation and renovation.
- The DG of Technical Affairs is responsible for the management of curative care, Dental and oral care, Pharmacy and medical Labs.
- The DG of Operation And Specialist Services is the one, which looks after emergencies, ambulance care and Preparedness and response actions.
- Kimadia: Is the company that imports and distributes drugs and medical appliances to health facilities and to the private sector to less extent.

- The DG of Public Clinics: Is a semiofficial and Independent Dept. that deals with curative care in a wide network of clinics at subsidized prices. In addition it is responsible for delivering the drugs for chronic diseases to the patients on monthly basis.
- The DG of Medical City is the biggest body that provides secondary and tertiary medical care in all medical and surgical disciplines.
- The DGs of the Departments of Health in Baghdad (Two in Baghdad namely Kerkh and Rasafa) and one each of the other 17 governorates. They are responsible for the provision of Health care in the form of PHCs, hospitals and preventive health to the people.

In December 2003 a change in financing system took place from self-financing to a centralized one. This led to rejoining tertiary centers to health directorates instead of their independency. There was re-designing the organizational structure of Ministry of health Center directorates and the development of new directorates such as Medical Operations directorate. Military Health services (Military medical staff and military facilities) were transferred under the umbrella of MOH after the events of 2003.

Financing in general and since the fall of the last regime in 2003 is financed through Ministry of Finance except for some limited number of bed in nursing homes mainly in the Baghdad and some few governorates, where patients are being charged for admissions and medical interventions. The annual estimated budget is prepared by MoH (Directorate General of Planning and human resources) and presented to Mo Finance before the end of the fiscal year. Mo Finance discusses it with Mo Health and agrees on some figures that are necessary to run health care in the minimum status to cover all recurrent costs and staff salaries. The DG of Planning and human resources of MOH issues the necessary instructions to all DoHs on expenditures of allocated amounts. The legal dept. of MoH is responsible on issuance of the necessary legislations and regulates the legal instructions that are proposed by the technical depts. of MOH/HQ.

The public health system extends form the central level till the grass root level. PHC is provided everywhere. Secondary care is provided at central, provincial and district levels. Tertiary care mainly exists in the center and in some regions. There exists no national insurance system or a system based on sickness funds.

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

About one year after the fall of the political regime in Baghdad, MoH is in the process of reforming the health systems and is adopting a new organizational structure

Planned organizational reforms in the public system

The health sector is undergoing modifications as part of the overall strategy of the government which includes, the liberalization of external trade aimed at integrating the Iraqi economy with the global economy, removing distortions in the local prices of commodities and services, increasing competitiveness, and enhancing performance efficiency of the Iraqi economy. This process was initiated immediately after the fall of the previous regime. Restrictions on trade were cancelled and imports were subjected to a uniform custom tax of 5%. Food and medicine were exempted. The liberalization of trade will help Iraq's current efforts to join the WTO.

The strategy is aimed at shrinking the size of government in comparison to the rest of the economy decreasing it over the next three years. Government, however, will

continue to play a dominant role in economic activity over this period, and will play a key role as provider of public goods thereafter. The structure of government will be reconsidered, with the intent to eliminate government departments that compete with the private sector in economic and service activities and to reduce the overall size of the government. The state will come to rely on the private sector for some purposes, rather than attempting to internalize these functions by enlarging its departments.

4.3 Private Health Care System

Modern, for-profit

The Private Health sector is strong powerful and has the capacity to supplement the weakness of the public sector especially in curative services. A high number of private clinics are distributed nationwide. In addition there are private hospitals run by specialists mostly located in Baghdad and to a lesser extent in the centers of provinces. Those clinics, in addition to its curative duties, handle a system of distribution of drugs to patients with a long list of chronic diseases through subsidized prices.

The organizational model of private hospitals is primarily individual or group practices owned primarily by physicians and entrepreneurs. This sector therefore caters mainly to surgical and/or Obstetrics and Gynecological beds, operative and labor theatres, support services as Medical labs and X-ray units.

The principal funding of the above private facilities are purely private. Almost all owners of private hospitals are medical specialists and the same is true to private clinics too.

Modern, not-for-profit

There is very limited experience in the provision of health care by NGOs. There is one hospital in Baghdad run by the Iraqi Red Crescent Society(IRCS) which is almost an entirely independent for-profit hospital but provide some medical and surgical care at a relatively low prices in comparison to private sector.

Traditional

No detailed data are available on traditional medicine due to the non-licensing of such types of health practices, but there are many traditional healers illegally providing their services on a for-profit basis, but not information is scarce. There are limited number of traditional healers that deal with the management of fractures and sciatica. In addition, there are big numbers of shops that provide a long list of herbs as part herbal medicine practices.

There are no legislations or formal accreditation of traditional practices in general, Moreover, there are no clear relation between one category of traditional healers and other. All of them are working for-profit objective, but can advise their clients to consult private or public facilities. There is no training program or schools for traditional healers and they learn the trade mostly from apprenticeship or inherit the family practice.

Key changes in private sector organization

There have not been any major changes in the organization and functioning of the private practice over the last 10 years; but generally speaking and due to the economic sanctions imposed on Iraq foe 13 years since 1990 and the limited financial resources available in the hands of the previous government, the private sector has seen an uncontrolled expansion in its activities that lead to a remarkable elevation in the cost of

services provided that has rendered millions of people financially unprotected health catastrophes

The role of the private sector in the near future will enhance as a result of government policies to encourage trade liberalization and the WTO. A national committee already has been established to design a rules-based, transparent and stable foreign trade regime, and domestic regulations and policies, which are WTO compatible. The process of joining the WTO and the international commitments arising from it will act as a "lock-in mechanism" and guide for domestic economic reforms. The committee will also assess the social and economic impact of Iraq's WTO accession and determine remedial measures.

A set of government policies have been issued removing all restrictions on foreign investing encouraging open economy or and attracting foreign investment. Iraq has a sound legal framework for the formation and registration of foreign-, Iraqi-, and jointly-owned companies under the investment law of 19 September 2003. Foreign, legal, and natural persons have the right to be an investor or partner in, or a founder of, companies in Iraq by virtue of company law number 21 of 1997, as amended. Further objectives in the area of foreign investment include:

a. Continue to remove all kinds of restrictions on foreign investors and to encourage the flow of direct or indirect foreign investment in all sectors (except strategic areas) in a manner that ensures the flow of foreign capital, modern technology and management expertise.
b. Encourage partnerships between foreign and Iraqi investors in the Iraqi private sector.
c. Simplify the procedures for foreign investors through a single-window approach for all proceedings related to foreign investors that would draw together all Iraqi government officials concerned in one place.
d. Create a specialized authority to provide facilities to investors and offer investment opportunities in the country.
e. Conclude foreign investment agreements with developed and developing countries, and to ratify investment guaranty agreements with groups such as the MIGA and the U.S. OPIC.

The regional development strategy aims at eliminating dual territorial development in Iraq reflected in the clear economic and social differences between the various Iraqi governorates on one hand, and between urban and rural areas on the other hand. The strategy also seeks to utilize the relative advantages in the various regions and to consolidate the development efforts. In addition, the strategy intends to promote development, as well as administrative and regulatory capabilities of the various governorates, local departments and municipalities, and to guarantee efficiency and equality in development throughout Iraq.

Public/private interactions (Institutional)

There are no official and formal mechanisms for public–private collaboration and partnership that refer to the presence of an officially accepted and clear policy or guidelines or system that governs the interaction between the public and private health institutions and/or any interactions between the NGOs and MoH. The only area of interaction is in the referral of patients from the private to the public sector where they are accepted for admissions and management, still the way of referral is not properly described and practiced. The Dept. of inspection of non governmental health facilities of

the Directorate general of Inspection at MoH is responsible on supervision and monitoring the health care provided at all types of private facilities; medical, dental pharmacies, drug houses and hospitals. Although there is no evidence that the system of checks and balances is working.

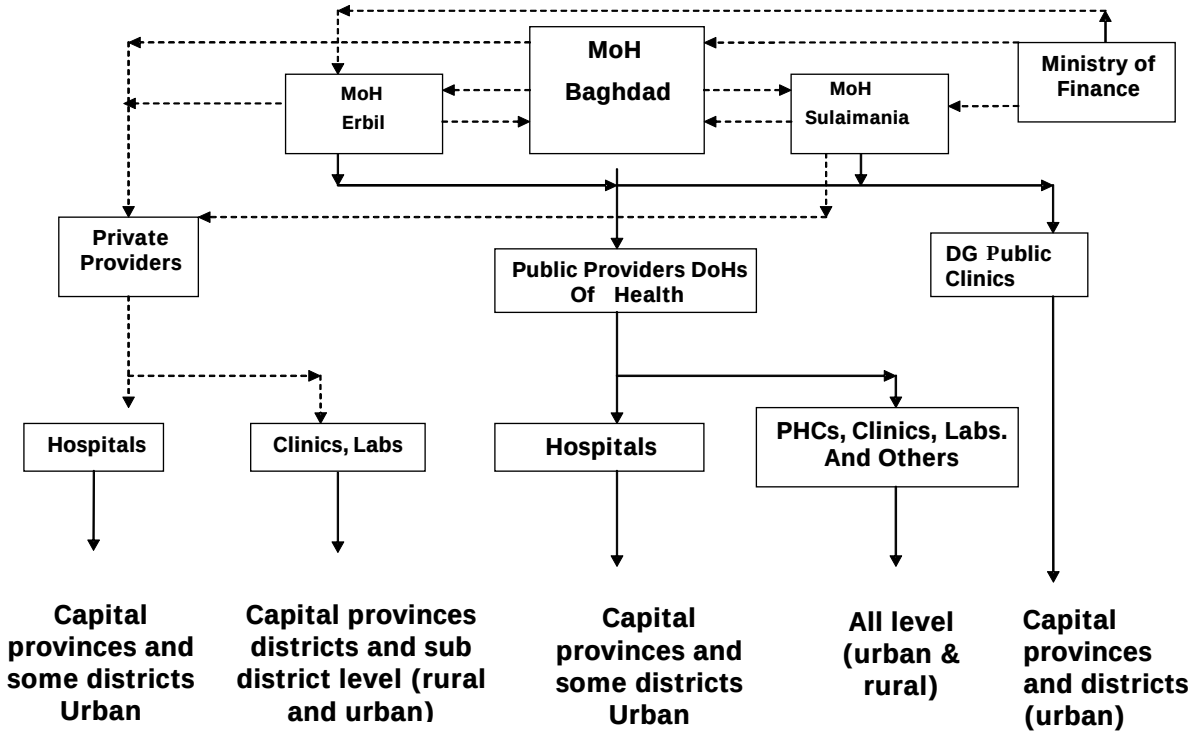
Public/private interactions (Individual)

Providers of health care at public sector are allowed by low to practice their profession in the private sector beyond the working hours at the public sector; but there exists no institutional private practice at public facilities by law. The physicians in the private sector can work in the "Public clinics" which operate in the PHC centers in the evenings and some are also engaged in private practice during the evening times.

Planned changes to private sector organization

Due to the recent restructuring of the ministry of health and the rethinking of the service provision model, the private sector may be asked to perform a larger role in health care provision, however the situation will only be clear after the remodeling of the health system is completed.

4.4 Overall Health Care System



MoH is the main body responsible for the provision of health care to the people everywhere in the country. Following the war in 2003 onwards, MoH started to receive its total funding from Ministry of Finance, but these funds are hardly enough to cover the salaries of their staff members with some minor funds to cover other recurrent expenses. This has lead MoH to rely more and more on UN agencies and International NGOs.

Soon after the war in 2003 and the destruction of the army, thousands of medical and health staff was transferred to MoH and most of military health facilities are being connected to MoH which started to provide health care services to the people and became fully integrated into the Public health system of MoH. There is nothing clear now and onwards on the future of military health care after the completion of the re establishment of the new Iraqi Army.

There are no other ministries, so far, that are involved in the provision of Health care. Ministry of Labor and social affairs are responsible for the provision of social care to Handicapped and elderly within a network of institutions in most of governorates. Doctors and health personnel providing health care to these categories are seconded from MoH.

There is a specialist directorate in MoH under the name of Public Clinics that provide curative care to the public at subsidized prices beyond the working official hours of public facilities for a period of 3 hours a day in the afternoon. For the provision of these services, the Directorate of Public Clinics is making use of the buildings of many PHCs to provide their services. These clinics play a great role in the delivery of drugs to patients with chronic diseases through a drug card carried by the patients on monthly basis. These clinics are completely independent facilities and cover all its expenses and payments through patients' capitation fees. Some of its profits might be forwarded to Mo Finance. The clinics recruit its staff independently either from MoH staff or retired or private practitioners.

Private hospitals are being licensed and monitored by MoH. Private clinics and Pharmacies are supposed to be licensed by Medical syndicates, but there are some kind of uncertainty and unclear guidelines on the issue of their monitoring by the syndicates. MoH lists these clinics under its supervision and mentoring activities. Financing of private facilities are entirely private one.

In 1992, where the three Kurdish northern governorates of Suleiamniyah, Erbil and Dohuk had been placed beyond the control of the central Government of Baghdad, two Ministries of Health were established; one placed in Erbil and the second in Suleimaniyah. These 2 ministries were relying on local financial resources to fund their activities, but following the war, it seems that the central MO Financing of Baghdad started to support them at least to cover the salaries of their staff members.

There are no insurance organizations working in Iraq. Voluntary bodies with responsibilities in the health system don't exist in Iraq.

The above structure of health don't differ that much from that existing few years ago, except, as mentioned above, that during the years of international embargo, the limited financial resources and through the interim system of self financing, resources were being generated from the direct payment by the clients of health facilities against providing health services to be used to run health care over there.

5 GOVERNANCE/OVERSIGHT

5.1 Process of Policy, Planning and Management

National health policy, and trends in stated priorities

MoH mission is to improve access to quality health care irrespective of ethnicity religion or geographic origin or socioeconomic status and to improve management of the health sector. A clear vision is needed to translate objectives of the new health system into concrete policies and strategies. The MoH established to this purpose ten working groups and a steering committee, which operated from October 2003 till January 2004. The groups proposed a consolidated vision, which describes the desired features of the future health system in Iraq

It describes a system that is people centered giving the people a choice and main them responsible for their health. Seven core elements were identified: Population, empowerment, community involvement, integrated health services with emphasis on primary health care, financial risk protection (equity), health provider management autonomy, quality improvement and human resource development.

Although the vision provides a basis for wider in-depth discussions on the long term strategies and the future shape of the Iraqi Health system, there is a pressing need to focus on the current needs and to adopt concrete strategies which address the enormous challenges currently facing the health sector in the reconstruction phase. These challenges highlight the need for change to more efficient, goal oriented health services which improve the responsiveness of the health sector to the needs of the population.

The overall challenge facing health development in Iraq is to strengthen the national health system, in order to achieve overall goals: good health, responsiveness to the expectations of the population, and fairness of financial contribution. Strengthening the health system is also closely linked to priority strategic directions that comprise of:

a. Reducing the excess mortality of poor and marginalized populations.

b. Dealing effectively with the leading risk factors.

c. Placing health at the center of the broader development agenda.

The cabinet reviewed the proposed policies, which were shared with a larger forum (private sector, Directorates related to other line ministries if appropriate) and then finalized by the Minister's office and released as a policy. The MoH situation analysis and the strategic document released in July 2004 was initiated in October 2003 in a high policy seminar which was lead by the Iraqi Minister of Health and was held in Amman The initial draft was prepared by the Prevention Directorate in close collaboration with other Directorates based on information from different departments, the seminar was attended by different MoH senior officials (heads of directorates) and senior officials from the Ministry of planning and finance and the donor community and some International NGOs with technical assistance and support from WHO. The document was further reviewed by the Minister's office and then released as an MoH strategy in July 2004.

Formal policy and planning structures, and scope of responsibilities

As seen in the previous diagram the policy formulation starts at the central level where several structures have different responsibilities in the review and the formulation of policy. There was a directorate responsible for planning and budgeting for the health system in the MoH but the exact situation is not clear at present as to how this function is being conducted, the directorates however are involved in preparation of plans for their specific areas:

1. The directorate of planning is concerned with manpower, finance, training construction and statistical departments and ensure that proper planning is adhered to by providing a macro level picture of the needs in the different areas and make future plans to bridge these gaps
2. Kimadia company this is the state company responsible for procuring all medicines and medical supplies it is an independent body that does its own planning and procuring for the whole year

The different Directorates would provide plans for a more strategic direction, which would be incorporated in MoH strategy, this entails that the different Directorates need to work together in order to come up with a strategy that achieves the organization goals and vision. Each Directorate have specific role and there is a no overlap between them. So the prevention Directorate would work closely with the Planning and technical affairs directorate to prevent duplication and overlapping during the implementation of different programs, Moreover it would be also in close contact with the administration and legal affairs directorate to ensure that legalities are adhered to according to Iraq Legal construct.

Analysis of plans

Based on a situation analysis of the health sector the following represent the major challenges:

- Reconstructing the deteriorating infrastructure and improving the function of the health system
- Responding to the severe shortages in pharmaceuticals and other basic supplies
- Addressing the demographic changes represented by an increase in population and higher life expectancy
- Upgrading the currently inefficient management of the health sector; institutionalizing evidence-based planning and decision making, performance-driven evaluation, decentralized management and overcoming corruption
- Establishing an effective health information system and focusing on surveillance of health determinants, major risks, disease morbidity and mortality
- Addressing the major changes in lifestyles favoring the development of determinants and risk factors for chronic diseases, accidents, injuries, and substance abuse.
- Responding effectively to the re-emergence and increasing magnitude of certain communicable diseases and developing effective policies to address the double burden of disease.
- Responding to the inefficiencies observed in the provision and financing of health services.
- Addressing the negative impact of poverty on accessibility to quality health care

- Addressing the rapid advances in technology and rising health care costs.
- Improving the coordination between the public sector and the increasingly significant private sector and establishing effective systems for monitoring and auditing clinical practice.
- Developing and implementing a multi-sectoral plan for improving access to safe drinking water and sanitation, strengthening food safety and addressing other emerging environmental health issues.

Key legal and other regulatory instruments and bodies:

Currently the lack of accreditation and licensing systems constitutes a major constraint. There is no continuing education program and no significant attempts to upgrade the knowledge and skills of health workers. Irrational drug use is common. The legal statutory body that overlooks the whole health system is The Administrative and Legal Directorate, any policy or regulation or any legal issue will have to be approved by the legal directorate.

5.2 Decentralization: Key characteristics of principal types

Within the MOH:

For decades, Iraq remained a centrally governed state with very little devolution of authority to the local administration. Most national and international experts and research indicate that Iraqi local administration and municipalities are unable to provide some of the basic services to the population. Local administrations require rebuilding and do not have the institutional and human resource capacity necessary to perform their tasks.

The process of devolution of authority had been endorsed by the MoH to delegate some limited responsibility to the DOH level as a pilot this included limited authority and responsibility, it was noticed that there is a need for capacity building at DoH level, strengthening management and methods to enhance multi-sectoral collaboration. Moreover this pilot study did not work properly since they had the responsibility but did not have the means to implement (funds). All ministries had received clear instructions form the Ministry of planning on delegation of some authority, while decentralization means being involved in planning, monitoring and evaluation. At the moment the Ministry of planning has no plans to decentralize the system. The authority to recruit staff is retained at the HRD department at the MoH level none have this power especially for professional staff general. Directors at the Governorate level might have the flexibility to recruit support staff but this is at a limited scale.

State or local governments

Northern MOH is still funded through transfers from the Northern Ministry of Finance. In the post-conflict period, the northern regions of Iraq are treated as regional governments, with revenues flowing into the central Treasury consolidated revenue account and expenditures centrally funded by tied grants.

The Local government plays the role of a financer and a manager to the health services provided, so it makes sure that adequate resources are available to cover the needs of the population served and that they are spent in the most economical manner in order to enhance social welfare. The Local government in the North has a finance minister and an independent budget, which they get from the Ministry of finance in Baghdad. The

planning and management is done at the local level but the practice is that they usually are affiliated with Baghdad and are usually updated on the new procedures and guidelines established.

Greater public hospital autonomy

All hospitals have limited financial power they might be able to cover the shortage of some of the items by doing local procurement, but all the planning and budgeting and resource allocation is done at the central level, the hospital manager is able to plan his routine daily work but strategic planning for the hospital as to decide what services the hospital is to provide, or to close a ward or open it is a decision taken at central level. All the statistical data are compiled at central level and then the planning for the distribution of health services is also centrally done so the Hospitals have little influence in responding independently to the Burden of disease in catchment area

Private Service providers, through contracts

Private sector is not engaged in service provision through contracting by the public sector.

Main problems and benefits to date

In many post-conflict countries decentralization of services to local governments has been tried. However, when poorly designed, decentralization can exacerbate regional and political pressures leading to inequality and instability. Decentralization in Iraq at this stage is risky and dangerous: 1) local administrations require rebuilding and do not have absorptive capacity; and 2) nation-building implies rebuilding trust in central institutions and the political process; 3) there are already forces at work that could lead to the possible partition of Iraq. Decentralization would be facilitating a break process.

Some delegation of responsibility has taken place recently in the MoH, all Director Generals in the MoH have Financial (limited) and management power, they also have the authority to plan/ allocate / budget their resources. Moreover, The Director Generals at DoH/ governorate levels also have the same privileges. The authority of the teaching hospital manager is the same as the director of a small hospital (7 billion ID) so to get the authorization the process requires permission of the minister and due to the security problems implementation levels are low. Each Manager prepared their 2005 plans for financing and budgeting but allocations did not meet the projected requirements.

Integration of Services

Iraq is currently working on integration of basic health services at the PHC level, this includes the establishment of family medicine, IMCI, Community based initiative were TB was also introduced to the program, integration of AIDS and TB programs together. The program is being implemented as a pilot project with the technical assistance of WHO through the UN cluster fund.

5.3 Health Information Systems

Organization, reporting relationships, timeliness

The health information system, which was mainly based on the filling of paper forms and a very limited and centralized use of hardware and software, was also affected by the events. The system is still based on out-dated paper forms that are filled by statistical

clerks with little insight on the value of timeliness and completeness of reporting. The lack of computerization makes data analysis and flow from the peripheral to the central level slow and inefficient.

The current reporting system is from the PHCs to the Directorate of Health at the governorate level to the related Directorates at the central level in the MoH , data concerning communicable diseases Mortality morbidity data is collected on monthly basis, and then is sent to the MoH to the related directorate and the CSO in the MoH were this data is analyzed and then released as national figures. On year basis analytical statistical data is released to cover the whole country the only gap was the data for the 3 Northern Governorates that were not always available due to the tension between the previous regime government at central level in Baghdad and the Government in the North. (MoH SA)

Information is collected at a lower level (department- and different DoHs at governorate levels), compiled analyzed at the Directorate level and further explored in search for linkages, patterns, themes which are interpreted into draft policies to be considered at the higher hierarchical level. Moreover the departments are responsible that all data collected should be valid reliable. At the Directorate level were they would have the macro level perspective they would compare data received from different department look for patterns, themes, linkages and inconsistencies, this would ensure that policies are built on reliable valid data. Public and private sectors are subjected to the same requirement of health data. The health statistics is a comprehensive national system. The data are available periodically (every month) on both national and sub-national levels.

Data availability and access

Currently data is being collected nationwide, preventive measures are being applied to the whole country but still due to difficulty in communication, road block and deterioration in security situation the information might not be available on time. The national figures are usually released to the public on yearly basis, but on monthly basis these are being analyzed routinely and actions are taken as soon as a problem is detected.

Good quality information must be developed on the country's epidemiological profile through special studies and the development of a management-oriented health monitoring system. The most updated data obtained regularly is the epidemiological data, which is collected on monthly basis by the CSO and collated, and national reports generated. Concerning cancer, the established registry in 1976 provides some incomplete data. There is no information on :

1- Non communicable diseases
2- Human resources
3- Health financing/ Costing of services/Unit costs
4- Data on reproductive health is scarce and inconsistent. Forty-five per cent of births occur outside of health institutions
5- The data available on the magnitude of blindness and low vision is based on surveys conducted in 1994 and 1997.
6- Precise information on other sexually transmitted diseases is not available.

Currently WHO through the PHC UNDG ITF program is working with the MoH to improve the Health information system by the inception of a network that will connect the central

governorate and district levels by an electronic network, which will facilitate the speedy transfer of information and improve connectivity.

Sources of information,

Different sources are to be consulted. Routine report is monthly and annually generated by the system that covers morbidity, mortality, inpatients, outpatients & a wide cover of preventive activities, in addition to the human resources. Hospital morbidity data provided by the Vital and Health Statistics Department in the MoH indicate a 65% increase in hospital admissions due to CHD and more than a five-fold increase in outpatient visits with the same diagnosis between 1989 and 1999 (MoH SA). Several surveys have been undertaken by WHO/MoH to asses the PHCs in the 19 districts, the WFP Baseline and food security analysis, and UNDP survey. Other sources for information could be the International non-governmental Organizations and the international partners and UN agencies.

The Gulf Child Health Survey (GCHS) conducted in Iraq in 1989 and the survey on Immunization, Maternal and Childhood Mortality carried out by the Ministry of Health in collaboration with UN agencies in 1990 provide reliable information on mortality. Information is also available from the International Study Team (IST) survey conducted in 1991 and the 1999 Morbidity and Mortality Survey but the accuracy of data reported during the sanction years may need to be questioned. However the general trend indicates that mortality continued to decline until 1990 when it began to rise progressively (MoH SA)

5.4 Health Systems Research

There is no formal and institutionalized structure to monitor and regulate and promote research although large scale surveys are being conducted to assess the health care needs of the country and the health system they are primarily one off attempts to establish some information about the health system.

5.5 Accountability Mechanisms

An immediate need is for Iraqi institutions to strengthen systems of accountability. This will both improve the efficient use of Iraqi resources and facilitate the flow of donor funds. This is particularly important to allow Iraq to absorb a large degree of donor assistance using its own existing administrative and implementation structures without creating parallel systems. The government is also called upon to provide services to the citizens in a transparent, respectful, efficient and dedicated manner, free of corruption. This will require improved management to increase the efficiency of most government departments, and attracting and training competent young people.

A general civil service reform framework including aspects of human resource management but focused on fiscal sustainability. Additional accountability and setting priorities in public spending, improved public procurement and stronger financial management Direct subsidies constitute more than I.D. 9.9 billion, its share in GDP is estimated more that 31% these should target the vulnerable groups in order to increase economic efficiency.

6 HEALTH CARE FINANCE AND EXPENDITURE

6.1 Health Expenditure Data and Trends

Table 6-1 Health Expenditure

Indicators	1990	1995	2000	2002
Total health expenditure/capita,	-	110 r (97)	0.2 $	-
Total health expenditure as % of GDP *	3.72%	0.9%	0.81%	-
Investment Expenditure on Health	-	-	-	-
Public sector % of total health expenditure	-	58.9%	-	-

Source: MoH situation analysis

Table 6-2 Sources of finance, by percent

Source	1990	1997	2000	2002
General Government				
Central	-	58.9%	-	-
State/Provincial	-	-	-	-
Local	-	-	-	-
Social Security	-	-	-	-
Private				
Private Social Insurance	-	-	-	-
Other Private Insurance	-	-	-	-
Out of Pocket	-	41.1%	-	-
Non profit Institutions	-	-	-	-
Private firms and corporations	-	-	-	-
External sources	-	-	-	-

Source: HDR 2002

Trends in financing sources:

M.O.H since its establishment at 1958 adopted the policy of central financing system & free medical services in all health facilities (PHC, hospital, preventive & curative activities). In 1972 outpatient clinic examination fees of 25 fills were initiated at governmental hospitals for curative care while examination for PHC was free. In 1982 the examination fees increased to (100 fills) and in 1983 (100 fills) drug fees were added on with exemptions to different categories. In the same year minister of health

authorized charging from indoor patients in government hospitals private wards & nursing. In 1984 patient charges were instituted for public clinic & cardiovascular hospitals, in addition foreigners & non-resident Arab people were also included in the schedule of charges.

Due to sanctions in 1990, the health financing system was severely affected due to limited budget allocation, thus in 1997 a new financing policy was adopted as pilot in 7 specialized hospital called "self–financing" system in which the cost of care was shifted to the patients. This system was extended to all hospitals in 1999 and PHC centers in 2001. Psychiatric and Fever hospitals were excluded from the Auto-financing scheme

In the pre-conflict period, Iraq's budget framework was characterized by a dichotomy between public entities that are 'on-budget' (all Ministries and their agencies that perform a public function) and 'off-budget' entities (also known as 'self-financing' entities), which included almost all health provision facilities. All revenues of 'on-budget' entities are required to be put into consolidated revenue, controlled by the Ministry of Finance. Expenses of 'on-budget' entities are made against Budget appropriation lines.

Further, the vast bulk of public expenditure under the previous regime was 'off-budget', reflecting goods received under the Oil-for-Food program. In 2003 the system reverted to the old method of charging for curative care and medicines with free diagnostics and free examinations for PHC services.

Health expenditures by category

Table 6-3 Health Expenditures by Category (Millions Iraqi Dinar)

Health expenditure	2000	2002
Total expenditure:	13,124.226	11,430.962
% Capital expenditure	-	-
% by type of service	**-**	**-**
Curative Care	-	-
Rehabilitative Care	459.246 (3.5%)	1,379.990 (12%)
Preventive Care	1,285.775 (9.8%)	857.237 (7.5%)
Primary/MCH	-	-
Family Planning	-	-
Administration	-	-
% by item		
Staff costs	2,961.584 (22.5%)	2,033.858 (17.5%)
Drugs and supplies	8,096.403 (61.8%)	5,025.448 (43.8%)
Other	-	-

Trends in health expenditures by category:

Within the last decade per capita spending on health fell dramatically. Analysis by the Ministry of Health suggests that during the 1990s funds available for health were

reduced by 90%. According to the Human development Report 2000, health expenditure was 3.72% of GDP 1990, reduced to 0.9% in 1995 and 0.81% in 1997.

In 2003, staff from the military medical services was absorbed into the MOH system. The majority of funding now comes from the MOF, which covers all salaries, operating expenditures, and pharmaceuticals. There has been marked and significant increase in the level of overall spending on health. This increase is mostly the result of increased public spending on health, which was in the form of much higher salaries for civil servants, spending on pharmaceuticals and implementation of specific special needs' programs. In addition to the increase in operating expenditures on health, the "Supplemental Project" provided huge investments in infrastructure and capital development

The increase in spending has influenced the utilization of health care. It would be fair to say that some improvement in quality took place. Considering the severe under-funding and the derelict conditions of MOH facilities, it is expected that at least regarding the "structure" dimension of quality, some improvement did take place

6.2 Tax-based Financing

Levels of contribution, trends, population coverage, entitlement

Health care expenditure for the public sector is financed through the budget and all Iraqi citizens are entitled to health care at the public facilities. There is no charge for diagnostics (xray, lab tests) while a minimum charge is levied for curative care and drugs. The current taxation structure in Iraq is as follows:

- Individual Income Tax – applied to public and private sector employees, graduated rates from 3% to a maximum rate of 15% for amounts over ID 1,000,000
- Corporate Income Tax – 15% on private sector companies, foreign and domestic
- Real Estate Rental Taxes – 10% of annual revenue
- Reconstruction Levy – 5% levy on imported goods with certain exemptions such as food, medical equipment and medicines
- Social Security Contributions – applied to private sector workers wages. Employee pays 5% for pensions, employer pays 12% for: Health Security including medical treatments and sickness benefits (1%), Injuries Security (2%), Pensions (9%); For oil companies tax is 25% of wages, of which 3% is for Health Security.
- State Pension Scheme -- Contributions for state employees are income-related and vary between 1 – 10%. Employees of SOEs pay the same rate, but the SOE is required to contribute two times the contribution of their employee. The State Pension Scheme covers sickness pay but not health benefits, which are covered by the MOH system.
- Other Taxes: Excise Taxes on petrol, and alcohol and cigarettes; car sale fee, tax on hotels and restaurants, tax on transfer of real property.

Key issues and concerns

The pre-conflict situation of service provision was inequitable (except for the northern region) since health care was mostly financed through private out-of-pocket household expenditures. The health system in the post-conflict addresses this point as one of its main focuses by increasing public financing to the MOH and significantly reducing the burden on patients

Planned changes

Currently the ministry of health took a decision based on the Health care financing option workshop held in Amman – Jordan that they would leave the situation as it is until the situation changes especially with the current poor economic and social indicators

6.3 Insurance

Table 6-4 Population coverage by source

Source of Coverage	1990	1995	2000	2002
Social Insurance	-	-	None	-
Other Private Insurance	-	-	None	-
Out of Pocket	-	-	Yes	-
Private firms and corporations	-	-	None	-
Government	-	-	Yes	-
Uninsured/Uncovered	-	-	-	-

Trends in insurance coverage

In Iraq there is no social or private insurance system currently functioning, the public system is tax based and funds are from general revenue, moreover there is out of pocket expenditure from well off individuals.

6.4 Out-of-Pocket Payments

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

During the 1990s, an “auto-financing system” was introduced and implemented until 2003 when it was discontinued. The auto-financing system meant that the funds obtained came from user charges at the health facilities. Most of the revenue was retained at the facility level and used to pay salary incentives for staff. Income generated from drugs co-payment was used to purchase medicines from the State Company for Drug Marketing (KIMADIA) and for incentives to pharmacists.

Available information suggests that in 2002, out of the $ 50 million operating expenditures more than $ 41 million came from the auto financing system and only 9 from the Ministry of Finance. About one half of the MOH operating expenditures went for salaries and incentives to staff, The funds used for operating expenditures including pharmaceuticals (outside the OFFP) were too small to cover any significant maintenance or operating function.

Currently there is a user charge at the public facilities (both hospitals and PHC centers) of $ 0.35 (Iraqi Dinar 500) half of which is for examination and half for drugs. X-rays, laboratory tests are included in this charge. In the evening, “Public Clinics” operate from the same facilities and they charge $0.70 (Iraqi Dinar 1000). All PHC services like immunization, antenatal care, health education, etc are provided free of charge at the PHC centers.

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

Anecdotal evidence suggests that private sector charges $2-7 for consultation depending on the level and expertise of the care provider. As an estimated 50% of the population utilizes the private sector as a first choice this is a high cost. The number of private hospitals is 65 of which about two thirds are in Baghdad. There are 172 governmental hospitals in all 18 governorates, providing about 30,000 hospital beds. About 23% of hospitals are in Baghdad.

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

information available

Cost Sharing

The MOH provides services through its network of facilities. Almost all services provided by PHCs and hospitals are free except for consultations at “public” clinics or “insurance” clinics, which operate in the afternoons at low costs. Iraq does not have any social health insurance system. There are isolated very small health insurance programs for employees of specific companies. At present, there is no reimbursement system of pharmaceuticals in the country. However, medicines and other pharmaceutical products distributed in the public health system through Kimadia, the state company for drugs and medical appliances, are heavily subsidized by the government. The patient pays a nominal fee and the fee level of each drug is centrally fixed by the Ministry of Health.

Before March 2003, the private (private pharmacies) and semi private (Health Clinics and Health Insurance Clinics) health sector used to receive the medicines through Kimadia with the same level of subsidies. Patient fees were a slightly higher than those paid in the public sector but much less than the actual costs.

6.5 External Sources of Finance

Currently there are two sources for external financing:

- UNDG Iraq Trust fund were the UN agencies are grouped into clusters and they are funded on that basis
- Bilateral funding (although limited)
- Non governmental organizations

6.6 Provider Payment Mechanisms

Government hospitals are mainly run on budget from MoF which is allocated centrally. Government hospitals and PHC centers employ staff on a salary basis, whereas the private sector runs on a primarily fee for service model. There is also the issue of multiple job holdings as the evening “Public or Insurance” clinics employ staff from the Public system or from private sector and the providers are also free to engage in private practice.

7 HUMAN RESOURCES

7.1 Human resources availability and creation

Table 7-1 Health care personnel

Personnel per 100,000 population	1990	1995	2000	2002
Physicians	55	50	51	50
Dentists	9	10	10	9
Pharmacists	9	9	9	7
Nurses	77.6	66	55.7	56.4
Paramedical staff	128.5	102.9	99	94.8
Midwives	-	-	-	-
Community Health Workers	26	14.6	10,2	11
Others	55	50	51	50

Before 2003 the health care system was based on a hospital-oriented, capital-intensive model of care that required large-scale imports of medicines, medical equipment, and even health workers. Although the system ran fairly well, little health service data, crucial to effective decision-making, was collected and the services provided, only partially matched population health needs. Many hospitals and health centers were damaged in the bombings and civil unrest during March/April 2003. The unpredictability of electricity and water supply, and the general insecurity have created an extremely inhospitable working environment for all health personnel, particularly women. (MoH SA)

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

The complexity of the health care delivery system and the increasing role of the private sector require careful planning and management of human resources in order to achieve equitable provision of health care. While there are no absolute ideal ratios, the physician to population ratio is high. However, the nurse to physician ratio is low which may have implications for the cost and quality of care.

About one quarter of the physicians in the south and center are specialists. The reported distribution of physicians in 2003 varies from 3.1 in Nassiriya to 6.7 in Basra and 9.3 in Baghdad per 10,000 populations (national average of 6.5). There are 2182 dentists of which 151 are specialists. The reported number of pharmacists is 1634.

The number of MOH nurses was 12,533 in 2003 (except Kurdistan). More than two thirds are males. The average nurse/population ratio is 11 per 10,000. The rates for nurses range between 7 in Salahedine and Baghdad to 20 per 10,000 populations in Dewaniya.

Among different groups of health professionals, physicians are generally well represented, though the physician to population ratio in Iraq is below the regional average. There were 5.3 doctors per 10,000 populations in 2002. Although the

geographic distribution of physicians is satisfactory, there is an overall excess of specialists and insufficient physicians focusing on primary health care. A specialty of primary care or family medicine should be developed, with general practitioners having an equivalent status to hospital specialists. Problems within the nursing workforce are even greater. There is about one nursing staff per physician against the 3-6 nursing personnel per physician in most countries of the region. Less than a third of the nursing professionals have received further education – beyond high school. New allied health training programs in epidemiology, management, finance and planning are needed, as well as new models for health care delivery. Nursing specialties of community health, rehabilitation medicine, health education and promotion are in short supply and should be developed.

There are 17 medical schools, seven colleges for Pharmacy, six for Dentistry and three Nursing colleges. In addition, there are three colleges that offer a 4-years training program in Health Technology, and there are seven High Institutes for Laboratory. The nursing colleges graduate about 250 annually, and the 30 nursing technical institutes graduate about 900 nurses every year. In addition there are 24 female and 43 nursing secondary schools graduating about 640 nurses. Midwifery schools are 9. There is no licensure procedure.

The quality of training for medical and other health science students needs to be upgraded and a National School of Public Health should be established. Major changes in curriculum and teaching methods that take advantage of new technologies for distance learning and self-directed learning are needed. Post-graduate education, study tours, and training for Iraqis in other countries should be encouraged. Professional associations of health workers should be strengthened.

Table 7-2 Human Resource Training Institutions for Health

	Current		Planned		
Type of Institution	**Number of Institutions**	**Capacity**	**Number of Institutions**	**Capacity**	**Target Year**
Medical Schools	10	1250	-	-	-
Postgraduate training Institutions	21	-	-	-	-
Schools of Dentistry	3	450	-	-	-
Schools of Pharmacy	4	435	-	-	-
Nursing Schools	53	5790	-	-	-
Midwifery Schools	8	122	18	750	2010
Paramedical Training Institutes	13	2600	-	-	-
Schools of Public Health	-	-	-	-	-

Capacity is the annual number of graduates from these institutions.

Accreditation, Registration Mechanisms for HR Institutions

Information not available

7.2 Human resources policy and reforms over last 10 years

- Law no. six for the year 2000
- Distribution of specialist doctors according to the needs of health directorates.
- Depending on standard staffing in determining the needs for medical and paramedical staff.

7.3 Planned reforms

The following are planned reforms as mentioned in the Iraqi national development strategy

- Develop Human Resources: The state must use its considerable financial resources to play a vital role in developing human resources as an investment in the present as well as the future. Social services such as health, education and vocational training must be enhanced. Vulnerable groups in Iraqi society expanded due to war and sanctions, with their resultant destruction and poverty. A comprehensive social aid network to protect these vulnerable groups must be put in place.
- Promote The Capacity Of Governmental Institutions And Enhance Their Performance

8 HEALTH SERVICE DELIVERY

8.1 Service Delivery Data for Health services

Table 8-1 Service Delivery Data and Trends

TOTAL (percentages)	1990	1995	2000	2002
Population with access to health services	93	95	96.5	95
Married women (15-49) using contraceptives	-	-	-	-
Pregnant women attended by trained personnel	91	84	80	67
Deliveries attended by trained personnel	47.2	59.5	47.4	61.5
Infants attended by trained personnel	85	94	76	76
Infants immunized with BCG	96	95	93	69
Infants immunized with DPT3	83	73	87	73
Infants immunized with Hepatitis B3	-	57	67	70
Infants fully immunized (measles)	83	95	93	79
Population with access to safe drinking water	77	77	80	88
Population with adequate excreta disposal facilities	-	-	-	-

URBAN (percentages)	1990	1995	2000	2002
Population with access to health services	-	-	-	-
Married women (15-49) using contraceptives	-	-	-	-
Pregnant women attended by trained personnel	-	-	-	-
Deliveries attended by trained personnel	-	-	-	-
Infants attended by trained personnel	-	-	-	-
Infants immunized with BCG	-	-	-	-
Infants immunized with DPT3	-	-	-	-
Infants immunized with Hepatitis B3	-	-	-	-
Infants fully immunized (measles)	-	-	-	-
Population with access to safe drinking water	-	96.8	-	-
Population with adequate excreta disposal facilities	-	-	-	-

RURAL (percentages)	1990	1995	2000	2002
Population with access to health services	-	-	-	-
Married women (15-49) using contraceptives	-	-	-	-
Pregnant women attended by trained personnel	-	-	-	-
Deliveries attended by trained personnel	-	-	-	-
Infants attended by trained personnel	-	-	-	-
Infants immunized with BCG	-	-	-	-
Infants immunized with DPT3	-	-	-	-
Infants immunized with Hepatitis B3	-	-	-	-
Infants fully immunized (measles)	-	-	-	-
Population with access to safe drinking water	-	37,6 (1997)	-	-
Population with adequate excreta disposal facilities	-	-	-	-

Access and coverage:

Access to primary care:

The distribution of PHCs is inequitable. In the marshes, the Primary Health care Directorate indicate that primary health care services are rudimentary or completely lacking in up to 37 districts (with almost 150,000 inhabitants) shared by 4 governorates. There is a severe shortage in pharmacists and nurses (particularly females) in almost all governorates.

Access to secondary and tertiary care:

Quality of care has progressively deteriorated over the last two decades. The deterioration has been particularly severe during the last 13 years. In addition to the lack of maintenance, shortages of supplies, drugs and equipment, inadequate training of staff, there has also been a continuing depletion of experienced professionals at all levels. A large number of highly trained physicians, technicians and nurses have left the country to work abroad. Hospitals have to operate with severely limited budget in an environment of extreme bureaucracy and centralization.

8.2 Package of Services for Health Care

Packages of health services to be delivered at PHC do exist in Iraq but these need to be updated there is a need to improve the services provided (quality and quantity) to restore patient's satisfaction /perception and faith in quality of services delivered at the PHC centers the current system is centrally/hospital based and currently the vision is to shift the system into an integrated PHC system

8.3 Primary Health Care

Infrastructure for Primary Health Care

The present Primary Health Care system consists of 110 health districts serving on average around 200,000-300,000 people. In each district there are on average 5-10 PHC centers. The district is managed by a district Director, assisted by PHC unit, Pharmacy unit, dentistry unit, DOTs coordinator, health audit, administration and finance unit. There is minimal co-ordination between the district hospital and the primary health team apart from communicable disease surveillance.

The system was supported also by 146 warehouses, 14 research centers and 10 drug production plants. Health professionals were employed by the Government of Iraq with medicines, medical supplies, equipment and spare parts obtained through the Oil-for-Food. Most of the existing medical and utility equipment are obsolete or malfunctioning having been installed since 1980's. Indeed since the 80s the health care system had suffered from under investments. Sanctions further deteriorated the hospital based health system that became increasingly politicized and even more centrally controlled, and ultimately poorly suited to respond to health needs of population. Since the 90s many qualified health specialists and professionals left the country.

Public/private, modern/traditional balance of provision

Public-private ownership mix;

The main health services are being provided by the public sector where a wide network of health facilities are scattered all over the country providing all types of curative and preventive services. The latter are exclusively provided by the public sector, while curative services are provided, too, by private sector particularly at the centers of Provinces and Districts.

The private sector is organized jointly by the MoH and the medical syndicate legislations are in place but the incentive to enforce them are not in place.

The private sector includes private pharmacies (3358), private hospitals (65) and medical/dental clinics, whereas semi public sector is made of Public Clinics and Health Insurance Clinics, Pharmacies for chronic diseases and Pharmacies for rare drugs (Bilat Al Shuhada).

Public Sector:

Preventive and promotive care is mainly provided by public sector facilities, which are PHC Centers and sub health centers attached to their respective PHCs.

Limited Funds are allocated for the PHC system in each governorate but budgetary decisions and expenditures are made by the governorate Directorate General of Health. Centers do not manage their own budget and they have no financial flexibility or authority but still they might need to have a local finance system to record all their income and expenditures. Because working hours finish at 2.00 pm, the centers are used in the afternoons as public or health insurance clinics for a regulated fee. The revenue of these clinics partly goes to the government and partly to the staff.

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

The delivery of preventive and promotive care was highly fragmented and implemented through a variety of programs. Currently a pilot project of establishing a model PHC system in 19 districts one in each governorate in the country is being implemented with technical support from WHO and funding through UNDG cluster for health.

There are 1,285 primary health care centers (PHCs) in Iraq. About 55% (713) are staffed with at least one medical doctor. The rest are staffed by trained health workers (nurses and medical assistants). On average, each center is responsible for providing primary care to a population of about 35,000.

Health professionals are unevenly distributed. In Baghdad, for example, there are 925 physicians in 142 PHC centers compared to an actual need of 656 according to the MOH. In contrast, there are 74 physicians assigned to PHC centers in Nasiriya Governorate where the real needs according to MOH standards are 147. Examples of governorates with shortage of PHC physicians include Najaf, Maysan, Wasit, Anbar, Babil and Arbil while Kirkuk, Suleimaniya, Dohuk, and Salahedine are considered comparatively overstaffed. Staffing of PHCs is variable. On average, a PHC with doctors has about 4 medical doctors, 11 nurses, and 1.5 dentists. In the catchment area of rural PHCs, the number of doctors, nurses and dentists were reported by the IHSS survey to be 0.16, 0.6, and 0.06 per 1000 population respectively. In the urban areas the figures were not very much different: 0.16, 0.5, and 0.05 respectively. Among the total number of 6,400 staff members of the 214 PHCs, 18% were medical assistants, 16% nurses, 11% general practitioners and 10% laboratory assistants. There were 64 specialists and only 2 family doctors. About 26% of staff belonged to other categories like security guards and cleaners.

Public sector: Package of Services at PHC facilities

Currently at the PHC level non communicable disease and mental health services are not provided , WHO is currently working with the MoH in order to integrate the these services together with IMCI and others at PHC in order to minimize cost waste from the use of tertiary care to treat basic health problems.

Private sector: range of services, trends

Private sector mainly provides curative care for the population, this comprises of outpatient consultations at small clinics and indoor facilities at large hospitals and these are mostly concentrated in the large urban centers.

Referral systems and their performance

The referral system is either rudimentary or practically non-existent. There is no system of general or family practice. Patients can visit any health center or hospital without referrals. They may receive different prescriptions from several doctors. Currently the MoH is working on establishment / development of an effective referral system with incentives to the population to use PHC instead of tertiary care , this includes monetary incentives, improvement of quality and quantity of services provided at PHC level

Utilization: patterns and trends

The health care system is currently inefficient and does not provide free and equitable access to basic services. There is lack of cost-effective public health interventions, and services only partially matched population health needs. The levels and distribution of available human resources for health is inadequate. Anecdotal evidence suggests that around 50% of health care service is provided by the private sector.

Current issues/concerns with primary care services

Medical records do not exist in health centers or hospital outpatients; they are inadequate and poorly maintained in hospital in-patient departments. There are generally no guidelines or standards for the management of common conditions. If they exist, they are usually not adequately disseminated nor followed. Quality assurance programs in hospitals and health centers are non-existent.

The consultation time is unacceptably short in primary care. Because services are over utilized, doctors are forced to see a large number of patients per hour. At health centers, most doctors work for 3 hours (9.00 -12.00) during which they could see between 30-100 patients. As a result, the consultation time is 2-6 minutes. The consultation time reflects the level of responsiveness of the health care system. If the time is too short, the risk of misdiagnosis and mistreatment will increase. In the IHSS survey, which covered a sample of PHCs staffed by doctors, the average time spent by doctors with patients was 7 minutes and the time spent in suburban PHCs was the shorter (5.7 minutes). Compared to industrialized countries, the patient-doctor encounter is too short – only about one third of the time as in the United States and one half of the time as in the United Kingdom.

The health care system is currently inefficient and does not provide free and equitable access to basic services, There is lack of cost-effective public health interventions, and services only partially matched population health needs. The levels and distribution of available human resources for health is inadequate.

- Health center and hospital care are not coordinated / district health systems
- Not enough family physicians
- Not enough properly qualified nursing staff
- Limited involvement in critical health related areas such as environment

Planned reforms to delivery of primary care services

Integration of psychosocial issues, mental health promotion at individual and community level, integration of mental health into primary care (via training, guidelines, support, data collection, effective medicines) and in the general health sector reform plan, the package of essential health interventions, and the essential medicines list.

Community empowerment and population targeted system shifting from a hospital oriented to a primary heath care oriented system and strengthening of district Health System

Managerial Reforms: Currently the health care delivery system is undergoing several changes addressing its scope its organization and its quality. While reconstructing the health infrastructure and investing in manpower, the MOH has developed policies to prioritize the development of a public health and a decentralized primary care system countrywide and the strengthening the DTPS approach. Furthermore 31 military

hospitals and their staffs, including about 12,000 nurses, were to be integrated into the public health care system.

The adopted primary health care approach -especially its maternal care, emergency obstetric care, family planning, immunization coverage, improved nutrition components and its integrated approach to child health- will result in substantial reduction of morbidity and mortality among women of child-bearing age and children that altogether represent a large disadvantaged segment of the Iraqi population. The envisaged Primary Health Care (PHC) system will address the disease burden faced by the Iraqi people, the lack of access to essential health care services and ultimately improve the overall health conditions of the population.

8.4 Non personal Services: Preventive/Promotive Care

- **Availability and accessibility:**

Prior to the 1991 Gulf war, the population of Iraq enjoyed relatively high level of water and sanitation services. Urban access to drinking water supply was 95% in an average of 330 liters per person per day in Baghdad, and 250-300 liters per person per day in the other cities and towns. Rural water coverage was 75% with an average supply of 180 liters per person per day.

Access to sanitary means of excreta management and/or disposal ranged from 75% coverage in urban areas comprising of 25% having a connection to a sewerage treatment system and 50% having an on-site septic tank system. The remaining 25% of the urban population didn't have any form of sanitation. However, rural sanitation was low and estimated at 40%, mostly latrines.

- **Affordability:**

Before 1991, the average annual government budget for water and sanitation services in Iraq was approximately US$ 100 million. However, following the 1991 Gulf War, the average annual official fall to around US$ 8 million. Tariffs and collection mechanisms for water, sewage and solid waste are nebulous since only 10% of all buildings have water meters. This indicate that there are financial barriers to access water.

Organization of preventive care services for individuals

The Iraqi cancer registry was established in 1976. The number of cases registered remained almost the same in 1998 (9052) and 1999 (8939) but increased to 10,888 in the year 2000. Because cancer registration is incomplete, it is difficult to attribute the increase to a rise in incidence since it could have resulted from improved registration.

There is at present no comprehensive program to address preventive service for Non-communicable although this is being added in the Integrated PHC model which is currently being implemented as a pilot program.

Environmental health:

The newly established Ministry of Environment is responsible for all environmental issues including environmental health, while the Ministry of Municipalities and Public Works is the responsible ministry for water supply and sanitation at governorate levels including rural areas, the Municipality of Baghdad is responsible for water and sanitation for Baghdad. However, in terms of food safety it is the responsibility of Ministry of Health.

All the said ministries have a good cooperation and coordination of their activities, which usually have a positive impact on the health of the Iraqi's.

Health education/promotion and key current themes

There are no programs for patient education and possibilities for strengthening "self care" which is an essential component of diabetes management are limited because of inadequate patient education and lack of self-monitoring facilities.

The directorate of Health Education in the Ministry of Health has the responsibility for health education materials and training programs and it functions through health education units established in PHC centers and sub centers.

Current key issues and concerns

The country currently suffers from a double burden infectious to chronic and degenerative diseases. While the magnitude of non-communicable diseases continues to increase, the incidence of common communicable diseases, which are responsive to preventive measures and primary health services, has also increased during the last 14 years.

8.5 Secondary/Tertiary Care

Table 8-2 Inpatient use and performance

	1990	1995	2000	2002
Hospitals/1,000	1.7	1,5	1,3	1,2
Admissions/100	7,1	5,7	5,9	7,2
Average LOS (days)	3,8	4,2	3,4	2,8
Occupancy Rate (%)	43,5	44,3	42	50,1

Public/private distribution of hospital beds

There are 172 governmental hospitals in all 18 governorates, providing about 14,000 hospital beds. About 17% are pediatric beds, 14% internal medicine, 12% general surgery, 15% gynecology and obstetrics and 15% other specialties. About 23% of hospitals are in Baghdad. Average bed occupancy rate was 52.9% in 2003 but it ranges between just over 30% in Dewania to 55% in Baghdad and about 70% in Diyala. Average in-hospital stay was 2.9 days. High mortality has been reported. Case fatality rate is very high at 20.3% in 2003. The numbers of private hospitals are 70 of which 43 are in Baghdad.

Key issues and concerns in Secondary/Tertiary care

- Lack of proper delegation of authority
- Need to strengthen management capacity and governance
- Need for decentralization guided by strong supportive arrangement preparation of staff, and legislation.

8.6 Long-Term Care

Structure of provision, trends and reforms over last 10 years

Elderly: Number of elderly people in Iraq had been increase in the last decades. Previously the religious places were providing care for the old age people, in addition to the family care where high family relationship exists. But with the increase in life expectancy and the change of family life style, the government issued the law no.126 in 1980 the main focusing on the provision of support to the elderly by giving them a monthly salary to be spend on accommodation, food, transport, and daily requirement. In 1980 the year of issuing the social care law no.126, there were 9 facilities in Iraq includes 410 person, but the no. of these facilities had decreases between 1979 and 1999, from 9 to 5 facilities.

Tables 1 show the number of social care facility and number of beneficiary from these facilities In Iraq 1979-1999

Year	No. of facilities	No of beneficiaries		Total
		Male	Female	
1979	9	275	80	355
1987	4	86	42	128
1990	5	130	57	187
1999	5	202	83	285

Source: socio economic development/ Iraq 1999

Orphans: As the care of the old age in Iraq society with its religious culture to take care of the orphans, there are many Mosques and Churches, were used traditionally for settlement of poor people and take care of them, Rich families used to take care of the orphans and pay their costs. But with increase no. of orphans with unknown relatives due to the destruction of the Iraqi families especially during the Iraq-Iran war (1980-1990)and the Invasion of Kuwait followed by imposing the sanction on Iraq , all these lead to the death of thousands of civilian and military personnel , leaving thousands of orphans , although the government of Iraq at that time paid some Fund to the families of the war victims, in addition Ministry of Social welfare provide some care in special houses for orphans such as, houses for under 4 year, houses for 5-12 year age, and houses for 13-18 year age. These special houses continue till 1990, when it was exposed to disruption in its function due to the low support for these houses especially in: food, cloths, study requirements, per diem.

Year	No. of houses	No of beneficiaries		Total
		Male	Female	
1979	22	226	777	1003
1987	26	417	728	1145
1990	19	369	552	921
1999	19	222	320	542

Source: socio economic development/ Iraq 1999

Handicapped: 1979 -1999 Iraq had gained good experience in the field of handicapped care, through providing special services and special institutions, in addition that Ministry of Social welfare continue to help handicapped people according to the law no.126 issue in 1980, that is to support handicapped without work suffering from disease or disability, through support them with monthly salary.

Also the previous government issued a resolution no. 208 in 1980 to find and assess work for 30000 handicapped from 1980-1991, but later this activity stopped, with the decline in state financial and technical support, but during this period there were special institution for social and psychological care, as there was a center for diagnosis handicapped, others for physically handicapped, and others for psychological care, and the number for of special institute for deafness reach 22 institute 7 of them in Baghdad only,15 in the governorates, the program for these institutes consist of two phases :

- Nursery phase with the age 3-6 ye
- Primary school with the age 6-9 year

Year	No. of institutes	No of beneficiaries		Total
		Male	Female	
1979	11	1333	1887	554
1987	51	2918	4242	1324
1990	44	2690	3903	1213
1999	47	2177	3150	973

Source: socio economic development/ Iraq 1999

Current issues and concerns in provision of long-term care

Elderly:

The table shows that only 80% in 1999 benefited from these facilities, the reason for the decrease in no. of beneficiary, is due to the decrease in the technical and financial support to these facilities. This is one of the main reason for the increase of number of homeless elderly people using begging as their only means for survival after 1990 , at that time Ministry of labor and Social affair recognized this problem and started to support these old age facilities again with technical and financial aid .and developed its programs. The increase in the old age burden on their family is due mainly to the low pension per month (3000 ID = 2 US $ in 1999), recently increased to 70000 ID = 50 US $, but in the mean time Ministry of Social welfare decrease its obligation towards old age, the decline in these social welfare obligation had affected the physiological state of these groups and make them feel depressed.

Many of these old people have doubt to benefit from the social care facilities because they believe that these facilities will lock them up and limit their freedom , therefore many of them prefer to go for begging or depend on their relatives support or exercise a simple occupation such as selling cigarettes on the street.

Orphans

There is a decrease in no. of beneficiary especially in 1999, in spite that Ministry of Social affair provided more support to these houses in addition to the establishment of special programs on health, psychiatry, nutrition, and social welfare.

Due to the sanction period impose on Iraq 1990-2003 , there was a decrease in state support to these houses although some NGOs ,try to help them such the women federation union ,the youth organization, in addition that Ministry of Education ,started to help students in these houses ,in spite of that no. of beneficiary declined and some prefer to go for begging , as the family relationship is weak and can not prevent them.

Handicapped:

There is also a decline in the number of beneficiary from both sexes in spite of the increase in the number of handicapped due to the two wars in 1980 and 1990 , and the impose sanction on Iraq,1990-2003 ,

The above information pointed to the need for more specialized institutes for handicapped with all the required facilities such as in the field of : Medical, Psychological and social care.

8.7 Pharmaceuticals

Since March 2003, due to insufficient stock, private pharmacies have not been supplied with medicines through Kimadia as priority is given to the public and semi-public sector.

Essential drugs list: by level of care

The National Board for the selection of Drugs (NBSD), which was established in the early 1980s, reviewed all pharmaceutical products marketed in Iraq and produced the National list of drugs in 1986. The list contained about 1,500 drug products and dosage forms. Also lists of drugs for use in Primary Health Care Center with doctor (list A) and without doctor (List B) were produced. These lists were endorsed in a national conference held in 1987 with the support of WHO. The NBSD continued to act as the scientific and technical agency regulating drug selection and supervisions registration, drug information and post marketing surveillance. The first edition of the National Drug Guide (National Formulary) was prepared and published in 1990. However the role and the work of the NDSD become progressively weaker following the 1991 Gulf War and the subsequent sanctions.

During the Oil for Food Program period, the bulk procurement of medicines for the country was done based on master list comprising of over 6,000 different line medicines of various dosage forms. After the closure of Oil for Food Program, the Ministry and the Coalition Provisional Authority developed a list of essential drugs based on US model. However, the list was not used following the confusion created by a new MOH structure that removed the procurement function from Kimadia. Another committee to advise the Ministry on the essential medicines list has been formed and is working to review the existing lists.

Manufacture of Medicines and Vaccines

Prior to 1990, the local industry produced about 30 percent of medicines consumed. At present Iraq possesses the following pharmaceutical manufacturing plants:

1**. The Samara Drugs Industries (SDI):** Whose main plant and Headquarters is located in Samara, Salah-Al Din Governorate has five production sites as follows:

- **The SDI main Drug manufacturing Plant**: Located in Samara, built in 1970s and used to produce about 160 products in different dosages and forms until 1990. However, the production was severely decreased due to sanctions, the

production later increased due to installation of new equipment and raw materials inputs provided under the frame work of the Oil for Food Program.

- **The SDI Baghdad oxygen plant:** Originally designed to produce 1,750,000 liters of liquid oxygen per year, during the sanctions regime the production declined. During 2001, the production was estimated at 700,000 liters and the December 2001 output was 60,000 liters due to frequent interruptions for maintenance and breakdowns. This was far below the estimated countrywide hospital needs of oxygen of over eight million liters per year.
- **SDI Baghdad Scientific Glass Factory:** Located in the same compound as the Medical Gases Plant, this factory produces glass ampoules and all types of medical glassware such as flasks, test tubes, pipettes, etc. At full capacity, the factory could produce up to 100 million ampoules per year (1 ml and 2 ml). The lack of raw materials (basically class 1 boro-silicate) for the glass ampoules has reduced the production to about 30 percent of the capacity. In 2001, the annual production capacity of the plant was said to be about 30 million ampoules per year per functional production line.
- **The SDI Ninewah plant for IV Fluids:** The factory produced 19 different IV fluids in quantities, which were reportedly sufficient to cover about 40 percent of the national demand before the 1990 Gulf War. However, the production capacity was seriously reduced as result of lack of raw materials and frequent breakdowns. The factory is reported to have been severely damaged during the 2003 conglict and is currently in a beyond repair status.
- **The SDI Ninewa Drug Plant:** The plant is the most recent of the SDI drug manufacturing industries. the factory was producing before the March 2003 war 69 different products (14 in syrup formulations, 30 in tablet/capsule forms and 25 in ointments/suppositories).
- **The SDI Babylon Syringe Factory:** The factory was designated to produce up to 80 million of disposable syringes per year of 1, 2, 5 and 10 ml., it functioned until 1990 when it was destroyed during the 1990 Gulf War and was rebuilt in 2000. The March 2003 war occurred when the factory was in the production line testing phase.

2. **The Arab Company for Antibiotics Industries (ACAI):** Established in 1991, ACAI is a Pan-Arab Pharmaceutical Company that manufactures antibiotics. Before the 2003 war, ACAI was manufacturing 18 antibiotics of various dosage forms. The actual production started only in December 1997, however, until end of 2001 the production was very limited and mostly for testing machines as ACAI lacked raw materials due to sanctions regime. The actual industrial production started only in 2001 when raw materials imported under Oil for Food Program started to be delivered to the production site. During the war and in its aftermath, ACAI stopped its production, which has gradually resumed since 2004.

3. **Private small-scale productions:** During, the sanctions regime and in the aftermath of the 2003 conflict, small privately owned pharmaceutical factories have emerged. At present, there are about 25 of such national private factories. They produce a wide variety of pharmaceutical products including oxygen for medical use, solid pharmaceutical forms (tablets, capsule) and liquid forms (syrup and suspensions).

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

Drugs arriving in the private marked in this way are no longer quality tested by the National Center for Drug Control and Research. Only the certificate of analysis from the manufacturing company is being used as a proof that the drugs met the quality standards. The process of drug registration prior to their use in the country is no longer followed.

The drug registration and licensing regulations exist in the MOH and are part of the Public Health Law. According to the regulations, a pharmaceutical product cannot be marketed unless it is registered. In addition, the supplying company of any product is required to be registered as well. The registration process falls under the responsibility of the Technical Affairs Directorate/Registration Department. Full documentation is required for each product including bioavailability and bioequivalence studies except for Over the Counter (OTC) drugs for which reduced documentation is required. The registration is valid for 5 years and the re-registration is required thereafter.

Until present the drug post marketing surveillance was the responsibility of Kimadia, the state company for medicines and medical appliances in coordination with the MOH anti poison Center. However, in actual facts for over 15 years no serious post marketing surveillance studies were conducted. With regard to mail/internet orders, there are no regulations yet as the introduction of Internet as a means freely available is very recent (after March 2003 war).

Concerning alternative medicines, the pharmaceutical law recognizes herbal medicines and other alternative medicines such as acupuncture and related oriental therapies. However, in the actual facts, there are no such practices.

Systems for procurement, supply, distribution

The medical supply management system used in Iraq is based on a centralized model. Kimadia, the State Company for importation and distribution of drugs and medical appliances, is by law, the sole entity authorized to import, store and ensure distribution of all imported and locally produced pharmaceuticals, medical supplies and all kind of equipment (bio medical, lab equipment, etc) from central levels to governorates and to the end user facilities for the public, semi public and private sector.

Before 1990, Kimadia purchased drugs based on criteria set by the National Board for the Selection of Drugs (NBSD). Between 1986 and 1990, the drugs to procure for countrywide needs were selected from National List of Drugs developed in 1986 by the NSBSD. During that period it was estimated that the MOH annual expenditure for pharmaceuticals alone amounted about $500 million. However, between 1990 and 1996 , funding for drugs was drastically reduced to approximately an annual budget of US$ 40 millions. With the gradual arrival of the medicines and medical supplies imported under OFFP, the availability of pharmaceuticals improved gradually until the closure of the OFFP. For the thirteen phases of the program (six years and half years) it is estimated that about US$ 4,749 billion was allocated to the health sector included the three northern governorates half of which was allocated to medicines leading to an annual average expenditure of US$ 365 million for pharmaceuticals.

From March 2003 at present, data on expenditures for pharmaceuticals are sketchy and no consistent procurement system was practiced and the existing medical supply management system was not functional. Also, it should be noted that during this period,

pharmaceuticals were coming from various sources including international humanitarian assistance in response to the emergency created by the war and its aftermath.

Until recently, fees to be paid by patients for drugs and medical supplies supplied in the public sector as well in the private and semi-public settings was centrally determined by MOH/Kimadia. In principle, almost all services provided by PHC and Hospitals, including the dispensation of drugs are highly subsidized.

Kimadia no longer supplies the private pharmacies with drugs they need as it used to be the case before March 2003 war. Only the semi private sector comprising of Public Clinics (a merger of former Public Clinics and Health Insurance Clinics) receives drugs from Kimadia HQ using the same drug distribution channel as before (i.e. From Kimadia central warehouse No. 7 and warehouses No 5 to governorate warehouses for Public Clinics and then to individual Public Clinics). Drugs for chronic diseases are distributed to the patients with a chronic disease card, through the public clinics.

Current situation for the private sector (new)

Currently, there are several private drugstores importing drugs from various countries (India, Egypt, Jordan, etc,) or buying on wholesales basis directly from the local drug manufacturing market (SDI, ACAI and other private pharmaceutical plants).

Individual pharmacies usually buy drugs they need from the drugstores. However, as a matter of principle, any private pharmacy can import from abroad or buy drugs from the local market (including items manufactured by Samara Drugs Industries).

Situation with Samara Drug Industries (SDI)

Before the March 2003 conflict, SDI had a contract to sell only to the MOH its entire production. Hence, MOH was the sole client of SDI for all quantities of drugs manufactured. SDI items were hereafter distributed to different health facilities through the normal Kimadia drug distribution channel for public, semi private and private sectors. SDI is now acting as a separate entity with no direct link with the MOH. The contract between MOH and SDI was not renewed after March 2003.

At present, SDI does not keep active all the production lines it can handle in order to make all SDI products. For a certain period (i.e. one month or two) depending on the stock of raw materials available, SDI produces the same type of items (i.e. ointment). After that period, the line production is shut down for a certain period and replaced by another type of pharmaceutical form (tablet). Hence, not all products that SDI is capable of manufacturing are available in the country.

Reforms over the last 10 years

During the last 10 years and prior to the 2003 war, there have been no major reforms regarding the pharmaceutical sector. However, pharmacists who have worked for a certain number of years in the public sector were allowed to run private businesses after the official working hours.

More recently after the war, the Ministry has indicated that the reform of the pharmaceutical sector including restructuring Kimadia was one of the priorities. There have been discussions about reforming Kimadia but these reforms have not entered into practice as such.

Current issues and concerns

As mentioned above prior to the use of any drug in the country, it has to be registered and a registration department exists in the Ministry o Health. The existing pharmaceutical law and regulations stipulates that before any drug can be used in the country, it must undergo quality control procedures which is by law entrusted to the MOH/National Center for Drug Control and Research.

During the sanctions regime, including the period of oil for food Program and the aftermath of the 2003 war, drug shortages have been a recurrent feature at the central and end-user health facility level. However, it should be mentioned that the shortages were due to a combined series of factors from ordering process, improper drug assessment needs and quantification to insufficient funds for the procurement of quantities of drugs needed. WHO and other UN organizations as well as NGOs have been assisting the Ministry of Health to fill in the gaps. However, for longer term sustainability, WHO' assistance focus on supporting the MOH to build a more coherent, systematic and comprehensive medical supply management system based on the national medicines policy of essential drugs list which is yet to be developed.

Concerning, the state of spurious (fakes) drugs, it is difficult to make an informed judgment as to whether there is any evidence of availability of fake drugs in the market. While there is a specific department in Kimadia, which deals with post market drug surveillance, and drug rational use studies of drugs, there have been no serious follow up studies aimed at detecting circulation of spurious drugs.

Planned reforms

MOH has indicated that it will embark in a series of reforms of the pharmaceutical sector including the restructuring and re-definition of responsibilities and roles of Kimadia. MOH is also planning to review and update current strategy and policy texts regarding the pharmaceutical sector. Work has started with the development of the National Medicines Policy (NMP) which in its final stage. The concept of essential Medicines List is reaffirmed in the texts. At this stage, it is premature to indicate which directions the planned reform will take with regard to private sector versus public sector.

8.8 Technology

At present, there is no integrated IT (Information Technology) being used in any level of the health system. There are some attempts to develop IT in the area of Communicable diseases, which will link the central level to the governorates.

Before the 2003 war, there were also plans for Kimadia to improve its computerized medical supply management system (Microdrug) which was used at the main central medical warehouses in Kimadia and in each one of governorate Department of Health (DOH) warehouses. Each warehouse was using the system at the facility level. There was no networking or possibility of data transfer from one warehouse to the other. This was to be done through floppy disks.

Trends in supply, and distribution of essential equipment

The procurement and distribution of medical equipment follows the same procedures as for drugs. Kimadia has a section, which deals with medical equipment and medical supplies. The storage and distribution use the same Kimadia distribution network. Funds

to procure equipment are provided by the MOH as part of the general budget of the Ministry.

There are technical committees within MOH comprising of experts in different medical specialties, which review and decide what types of equipment are needed in different general hospitals and specialized hospitals and centers.

There is a central warehouse in Kimadia for medical equipment in which equipment is stored by medical specialty (cardiology, imaging, etc). There is also a technical department comprising of engineers who are tasked to assist the facilities in the installation, maintenance, repair and trouble shooting

Effectiveness of controls on new technology

During the oil for food era, some specialized hospitals have acquired through Kimadia, advanced technologies such as MRIs, CT Scans. It is not clear what are the control and coordination mechanisms currently in place for the acquisition of costly technologies, particularly after the 2003 war.

Reforms in the last 10 years, and results

No reform took place during the last 10 years in the field of medical technology

Current issues and concerns

At present, there is no plan guiding the acquisition of technology at macro-level. Iraq has been lagging behind during the sanctions regime and acquisition of advanced medical technology has been done on case by case base with no overall plan for public or private sector. Capacity building to develop needed expertise for maintenance of expensive equipment is going to be a serious challenge during the coming year.

Planned reforms

The modernization of blood bank services has been indicated as part of the priorities of the Ministry. With the reconstruction programs for Iraq, it is expected that there will be reforms in the field of technology. However, it is premature to have an indication on what these reforms will be.

9 HEALTH SYSTEM REFORMS

9.1 Summary of Recent and planned reforms

Determinants and Objectives

- Trends towards decentralization.
- Redesigning the financing system.
- Special emphasis on family medicine and referral system.

Chronology and main features of key reforms

- Fundamental requirements for family medicine project were established.
- Studies and discussions are currently carried on to reform the financing system.

Process of implementation: approaches, issues, and concerns

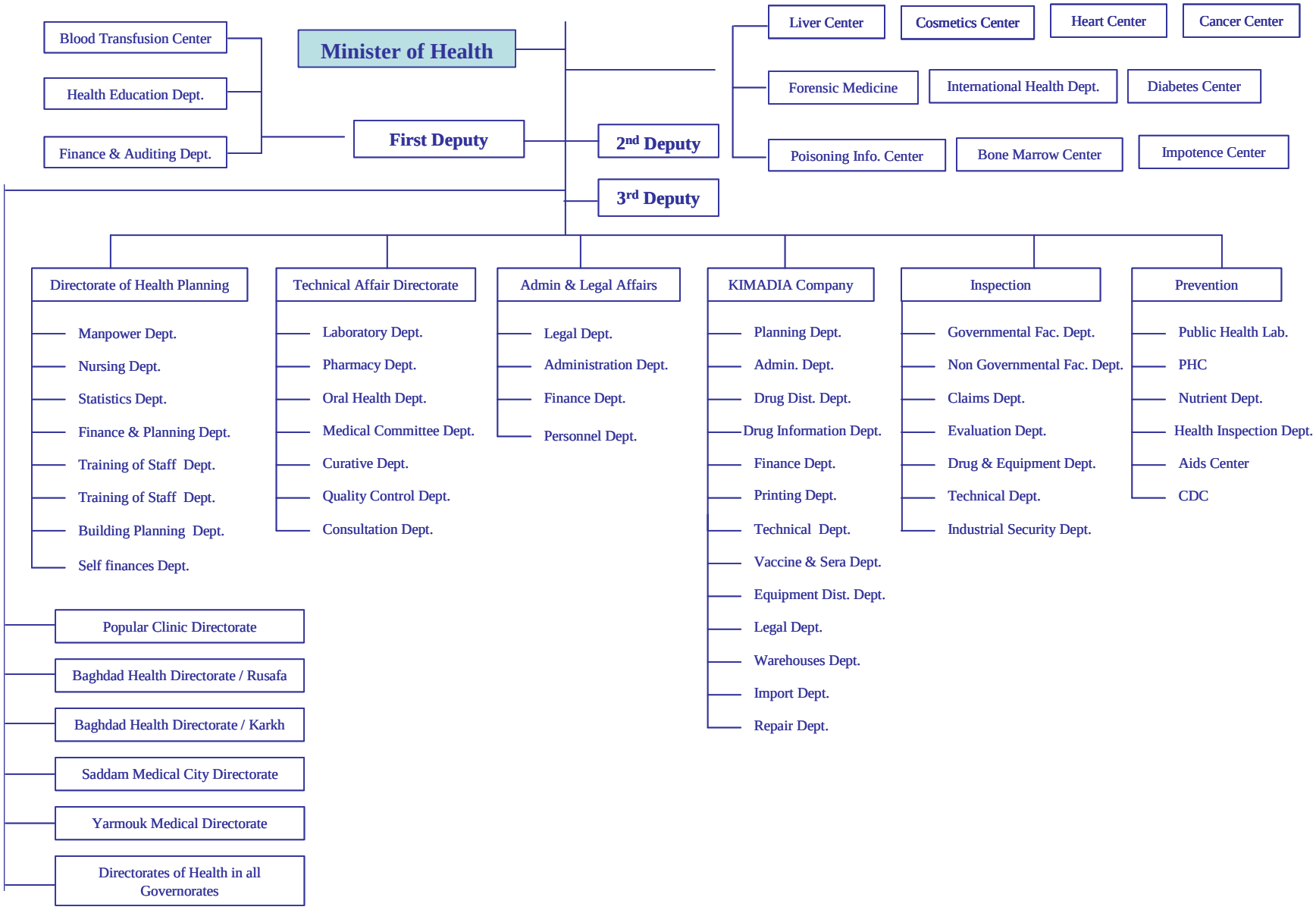
150 model PHCCs are planned to be established within two years these centers will work within family medicine approach and referral system.

10 REFERENCES

10.1 List of reference documents used

1. UNICEF, *The state of the world's Children 1997.New York*: UNICEF, 1997
2. The Economist, Iraq country profile, "The economist intelligence unit", London, UK, 1998.
3. UNICEF *SITUATION ANALYSIS* OF Children and women in Iraq 1998.Baghdad: UNICEF, 1998.
4. Hoskins E. public health and the Persian Gulf War. In War and public Health, B. evy and V. sidel (Eds). New York: Oxford University press, 1997.
5. Iraq Immunization, diarrheal Disease, maternal and childhood Mortality Survey. Evaluation Series No. 9 Amman: UNICEF Regional Office for the Middle East and North Africa, 1990.
6. Ministry of Health, Iraq. National Child Health survey. Preliminary Report 1989.
7. The Harvard Study Team. The effect of the Gulf Crisis on the children of Iraq.
8. *New England Journal of Medicine 1991; 325(13): 977-80*
9. CSO Ministry of Planning and development cooperation*, 2004*
10. Health in Iraq, Ala'din Alwan, Minister of Health.
11. Ali MM & Iqbal HS. Sanctions and Childhood Mortality.Lancet.Vol.355.2000
12. UNICEF, The situation of children in Iraq.
13. Iraq National Development Strategy
14. Iraq National drug policy
15. UN strategic document 2005
16. UN WB needs assessment and watching briefs October 2003
17. WFF Baseline survey
18. UNDP ADR reports
19. (MOPDC – Figures and Indicators 2004)

MOH Structure



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.

World Health Organization

Regional Office for the Eastern Mediterranean
Abdel Razek El Sanhouri Street,
PO Box 7608, Nasr City, Cairo 11371, Egypt
Phone: +202-6702535, Fax: +202-6702492
URL: www.emro.who.int