EMRO

HEALTH SYSTEM PROFILE

ISLAMIC REPUBLIC OF IRAN

Regional Health Systems Observatory
World Health Organization

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FOREWORD

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

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

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

One of the principal instruments for achieving the above objective is the development of health system profile of each of the member states. The EMRO Health Systems Profiles are country-based reports that provide a description and analysis of the health system and of reform initiatives in the respective countries. The profiles seek to provide comparative information to support policy-makers and analysts in the development of health systems in EMR. The profiles can be used to learn about various approaches to the organization, financing and delivery of health services; describe the process, content, and implementation of health care reform programs; highlight challenges and areas that require more in-depth analysis; and provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between 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

With an area of 1,648,000 square kilometers, Iran ranks sixteenth in size among the countries of the world. Iran is one of the world's most mountainous countries. Its mountains have helped to shape both the political and the economic history of the country for several centuries. The eight-year Iraq-Iran war (1980-1988) led to heavy human and material losses. Economic infrastructure, especially oil production and exportation facilities were greatly damaged. The country's oil revenues were cut to a third as compared with 1977. This drop in oil income caused Iran's GDP in 1982 to drop below the figure for 1976. Right after the termination of the war, the government focused on socio-economic development. The most prominent target of the first five-year socio-economic development plan (1980-1984) was to revive an economy badly damaged by war. The plan led to some major achievements such as a 7-8 percent economic growth rate. The second five-year plan was launched in 1995, which achieved some relative successes. One of the significant features of the Iranian economy over the past two decades has been an upsurge in the intervention of government in economic affairs. Iran has a unique structure of government with elections held regularly.

The health indicators of Iran show a consistent improvement and now are near those for developed countries. The pattern of the burden of disease shows a definite shift towards non communicable diseases and is evidence that Iran has completed the epidemiological transition. However the burden of Road Traffic injuries is very high which indicates the need for a program addressing road traffic injuries. The IRI adopted a policy of encouraging population growth in the first post-revolutionary era. But the family planning law, passed by the Parliament in 1992, not only inhibited the motives and rewards allocated to multi-children families, but also laid the ground, in terms of clear-cut legal foundations, for the implementation of birth control policies. The increase in life expectancy and decrease in fertility rate have had observable impacts on the nation's population. At present, a major percentage of the nation's old citizens, especially old women, are illiterate. Illiteracy, unemployment, lack of income, especially among old men, and the slow, yet continuing growth among them, pose particular challenges in welfare, social, economic, treatment and health realms and ignoring them would prove detrimental

The UN estimates that Iran's population stood at some 68.1m at mid-2001. The fertility rate was below two births per woman in 2002, a marked fall from the 1980 estimate of 6.7. Life expectancy at birth in 2000 was 68.9 years, compared with 53.9 years in 1970-75. Local estimates suggest that 50% of the population is under the age of 20. Iran's overwhelmingly young demographic profile has led to marked growth in the workforce, which stood at 19.8m according to estimates in fiscal 2002 and that some 600,000 new job-seekers enter the market each year. Urbanization has been accelerating in Iran since the early 1960s. According to Bank Markazi, 65% of the population lived in towns or cities in 2002, compared with just 31% in the late 1950s. A small percentage of the population is nomadic. The emigration of young and skilled Iranians continues to pose a major problem: by unofficial estimates more than 200,000 young Iranians leave the country each year to seek better employment opportunities in Europe and North America.

The Iranian health system is based on the model of public provision of services with subsidies coming through different organizations. At the national level, MOH and ME is exercising the governance, policy-making, planning, financing and steering the

programs. At the provincial level, the Universities of Medical Sciences and Health Services are responsible to provide health services and environmental health. At the township and rural level, a District Health Network, comprised of a district health center, urban and rural health centers, health posts and health houses are charged with this responsibility. Besides the universities of medical sciences, part of the services are provided by insurance companies and the Social Welfare Organization's provincial and district units. The peripheral units (health houses/rural health centers) offer health services free of charge. In other units, the patients avail themselves of the services they need by paying a minimal amount. For the services provided by the State Welfare Organization, characterized by a specific complexity and variation the costs are calculated in the basis of existing tariffs and paid by the patients. Iran has a very large network of community based health workers (Behrvaz). Iran has completed the epidemiologic transition and the burden of disease indicates that the share of communicable disease is very low although injuries cause a high loss of DALYs. The country has also completed the demographic transition and replacement level fertility has been achieved. The Ministry of Health and Medical Education is the main policy making body in the country it has a directorate responsible for preventive programs and its performance has been very good in the recent years.

Islamic Republic of Iran has a well developed and active private health sector; primarily concentrated in urban areas and playing a major role in the provision of secondary and tertiary care. It also controls almost the whole of pharmaceutical industry and drug distribution system and accounts for a large share of laboratory and diagnostic facilities. In the year 2002 it controlled 7.4% of health care centers, 10.2% of hospital beds, 37.8% of medical laboratories, 27.5% of rehabilitation facilities and 90.6% of drugstores. The NHA report gives an estimate that the private sector accounts for only 10% of hospital beds, but account for almost 20% of total health expenditure. The sector is overseen and regulated through both professional bodies (e.g. the Iranian Medical Association) and the MOHME. It enjoys a good deal of prestige and attracts more than its numerical share of the health market. Despite occasional conflicts over pricing, the private sector works in close cooperation with the MOHME and other government agencies involved in the health sector. There are many non-government organizations (NGOs) and charities, but there are also NGOs funded and operated by the government. Although, the NGO movement in its modern sense is relatively new to Iran and most of the active NGOs are closely associated with the government, there is a long tradition of voluntary participation in financing, organization and provision of health services as charitable acts. The recent NGO movement has received a greater attention from the UN agencies over the past few years; and most of such support has come from UNFPA, UNICEF, and UNDCP.

While the primary health care is almost the sole responsibility of the MoH & MoE, a number of other ministries and organizations provide secondary and tertiary care, mainly to their employees and their families. These include the armed forces, major banks, oil companies, railways, municipalities, and government run not for profit organizations. Like the overall government system, the health system of Iran is highly centralized. Almost all decisions regarding general goals, policies and allocation of resources are made at the central level by the Ministry of Health and Medical Education (MOHME). The Ministry has the legal authority to oversee, license, and regulate the activities of the private health sector. Health needs are usually estimated on the basis of nationwide surveys or conclusions made through data collected on a routine basis. The supervising system is traditional and old-fashioned and is mostly concentrated on drab regulations concerning working hours, payments or regular and medical leaves of absence. In spite

of extensive trainings and a vast number of employees who have been exposed to issues related to quality and processes, qualitative aspects do not comprise a segment of disciplinary and regulatory instruments in running the affairs as yet.

The information system mainly covers the primary health care network and is based on the data gathered from defined populations both in rural and urban areas. However, the expansion in PHC network did not keep pace with the growing urban population. That is cities and towns with a population more than 20,000 people are not covered. This factor has led to the information system catering for about 40% of the population. The hospitals are not connected to the system. Therefore the data generated in hospitals is collected through ad-hoc means. Further periodic surveys are held to gather data related to coverage, household effects, and outcomes of health programs. Special software has been developed to process data obtained from the health network. The data generated at the health houses and health posts for a defined population is transferred on monthly basis to the district health centers through rural and urban health centers, where it is entered into computer and then sent to the provincial health centre on diskettes. It is then transferred to the PHC Department in MoH&ME.

The MoH&ME finances and delivers the primary health care while secondary and tertiary care is financed through insurance schemes. Iran spends 6% of GDP or US$ 432 per capita on health that is higher than many countries in the Middle East and North African Regions. The sources of funds to finance health care services are multiple including out-of-pocket payment, government funds, general taxation, health insurance, and individuals donations. The government provides strong support to different health financing schemes to ensure that these are viable and able to provide a good level of coverage to the people. Between 1980 and 2001 the government spent between 10 and 12% of its annual national budget on health which is between 26 and 50% of the overall health spending of the country. Public hospitals have two funding sources; annual budget from government, and the payment of fee-for-service and per-diem by SSO and MSIO. In addition, patients have to pay 10%co-payment which is collected as special income of the hospitals. There are four government-controlled health insurance schemes. All come under the jurisdiction of the High Council for Health Insurance, made up of Ministers from seven ministries and headed by the Minister of Health. The High council is responsible for making changes to the social insurance provisions of each scheme, and sets the fee schedule for payment of providers. All health insurance schemes use the same fee schedule. The statutory public Health Insurance Scheme established by the public Health Insurance Law, is actually non-compulsory, and only employed persons and military personnel are covered by quasi-mandatory health insurance. Private insurance schemes are relatively underdeveloped in Iran and are usually used by foreign expatriates and their families but locals may purchase it as a supplementary plan.

High out-of-pocket expenditure is one of the major problems of health financing in Iran. From 1980 to 2001, oop expenditure has soared from 48% to 58% of the total health expenditure. As a result, according to other estimates, 2% of households face catastrophic health care spending. The widely practiced balance billing and informal payment contribute to the high out-of-pocket expenditure. According to the Third Evaluation Report of Strategies on Health For All by the year 2000, published in 1997, the total volume of international bodies' credits (except the World Bank assistance which is in the form of loans), has not exceeded 0.9 percent of the current budget of the Iranian health sector.

Deputy Minister for Medical Education deals with undergraduate and postgraduate training of medical and paramedical staff, while office of the Deputy Minister for Logistics and Management Development deals with issues surrounding human resource development. There are 41 Universities of Medical Education and Health Services – at least one in each of the 32 provinces. Some of these universities also have the schools for paramedical and nursing education. In addition to the universities of medical sciences and health services which provide pre-service training, there are regional centers with some in-service training facilities. The Behvarz Training Centres provide pre-service as well as in-service training to Behvarz. Furthermore, a Directorate General for Management Development in the office of Deputy Minister for Logistics and Management Development is responsible for in-service training of health managers. However, there is no system or establishment to undertake human resource planning. The needs are assessed on ad-hoc basis. In many cases this has resulted in the over production and unemployment of different professionals. The unemployment rate, which had fallen significantly from 14.2% to 9.1% during 1986-1996, had jumped back to 14.6% in 2001.

Iran's health care delivery system can be defined in terms of three levels: the first two of which are encompassed in the PHC network.

The basic PHC level includes: 1) rural health houses with a catchment population of 1,500 staffed by behvarzes (front line allied health workers); 2) rural health centers containing a physician and other health workers (e.g., nurse, midwives, dental technician, environmental health workers) supervising a number of health houses with a population base of 9,000; 3) urban health posts; and 4) urban health centers. The second level of the system is the district health center, which is responsible for the planning, supervision, and support of the PHC network and district hospitals. The third level of the system consists of the provincial and specialty hospitals.

- Almost 85 percent of all deliveries take place in health facilities and almost 90 percent of babies are delivered by trained health attendants.
- Iran has 15,400 health houses, 25,000 behvarzes, 2,200 rural health centers, 300 health posts, and 1,900 urban health centers.
- Iran has 98,000 hospital beds, 1.6 per thousand population. 76 percent of beds are in State hospitals, 6 percent in SSO, 10 percent in the private sector, and the remainder in charity and NGO hospitals. There are few data on utilization, but hospital occupancy rates are believed to be below 60 percent in state and SSO hospitals.
- Iran has 0.8 physicians, 0.5 midwives and 2.3 nurses per thousand population. Iran is turning out 4,000-5,000 new physicians each year. Doctors must provide 3-5 years of service to the MOHME after graduation before they can go into private practice. 95 percent of the country's local drug needs are met through local production.

Up to 90% of rural population has access to PHC services delivered in Health Houses and Rural Health centers. Urban coverage, although is less in percentage but is well compensated by private outlets. The main concerns with primary health care services include: despite of well expansion of PHC networks, still some are are not fully covered and further expansion does not seem be supportable; PHC networks, which were considered ideal to deal with communicable diseases, are not prepared enough to contribute in controlling of NCDS; The behvarzes' morale is apparently reduced because of different reasons and they are not that much enthusiastic that they were before. The organization of the health care system is dominated by hospital-based curative services. Low bed occupancy is a key issue, especially in view of plans to expand the number of

hospital beds. The continued separation of PHC and hospital planning and management is a key obstacle to the development of cost effective and coherent health strategies.

Almost a self-sufficiency and production of generic pharmaceuticals is a major achievement of the IRI. The government has however maintained overall control in the area of pricing and quality assurance. The distribution system which has traditionally consisted of individually owned facilities has remained intact over the years. However, the pharmaceutical industry is restricted by the price control strategy imposed by the MOH&ME to keep the cost of pharmaceutical low and affordable. The substantially low prices of locally produced generic drugs encourage irrational use and smuggling to the neighboring countries. The national drug list includes 1549 items which are at the disposal of the medical community through the Health Ministry's and the Medical Association's internet site. Iran manufactures almost 65% of vaccine required in its two units: Razi and Pasteur. The major reforms in the pharmaceutical sector include the privatization, observance of the generic scheme, and designing of drugs list for various levels of care.

There have been several attempts at reforming the health system in the Iran, but an organized effort has been made since 2002. A number of initiatives and studies to develop tools for improving health system performance, hitherto organized using different sources including WHO were consolidated and a health sector reform project was designed that has been funded by the World Bank. The objectives of reforms include: Designing and testing a universal basic minimum health services package and strengthening patient referral system, ensuring a better quality health services that are responsive to the needs of the communities; Assuring stewardship and good governance in the public sector health system guaranteeing the pro-poor policies; Improving health planning and management including decentralization; introducing measures to assure fair financing, eliminating inefficiencies and bringing equity; and making organizational arrangements for conceptualizing, formulating and implementing health sector reforms.

The assumption on which the proposed reforms are based is that the Iranian health sector, despite being well elaborated has not kept pace with the changing epidemiological and demographic characteristics of the population. The coverage, particularly in peri-urban areas, where rural migrants tend to settle, is low. The out of pocket expenditure is high (56%) and fair financial contribution index is 83%. Further, it has not acquired the technological developments that have been taking place in health. In order to address these issues, the proposed reforms were defined as the sustained, purposeful, fundamental and positive changes to improve the equity and effectiveness of the health sector. The strategies identified to introduce reforms included: health planning and management; good governance and stewardship; health financing; better quality health services by strengthening referral system; and an overarching strategy of capacity building and documentation. To implement these strategies different initiatives, categorized into three levels of work, with the overarching establishment of a health sector reform organization, broader involvement of stakeholders, capacity building of those involved and documentation of the process, include: influencing the policy level by creating the evidence; designing and testing interventions to address policy option; and implementing the interventions.

2 SOCIO ECONOMIC GEOPOLITICAL MAPPING

2.1 Socio-cultural Factors

Table 2-1 Socio-cultural indicators

Indicators	1990	1995	2000	2002	2003
Human Development Index:	0.7111	0.759	0.721	0.732	0.736
Literacy Total:	62.9	71.3	76.1	77.1	-
Female Literacy:	52.5	63.8	69.1	70.4	-
Women % of Workforce	-	-	36	38	-
Primary School enrollment	122.1	122.2	102.5	103.1	107.9
Primary education, pupils (% female)	46.6	47.1	47.6	47.8	47.9
Urban Population (%)	55.9	60.4	64	64.7	-

Sources: National Human Development Report. Management & Planning Organization. Iran, 1999
Human development reports 2000, 2002, 2003, 2004
Population & Health Profile. Ministry of Health & Medical Education. 2000
Fourth Five-Year Development Plan Act. Majlis Publications. 2001
Ministry of Education: Statistical Data. Planning Unit, Office of Primary Education. 2001.

Key socio-cultural factors relevant to the health system

Some Constitutional laws (such as Principles 29 and 31) have obligated the government to spend part of its public revenues on providing services and financial supports required for social security including retirement, unemployment, old age, disability, lack of guardians, being stranded in places other than one's domicile, accidents, medical services as well as securing the access of all people to free public education up to the secondary level. To provide the necessary means and facilities to fulfill such tasks, the government had an extensive enlargement in the first post-revolution decade. Yet, given the hardships it later faced in the national economy the government failed to fulfill its commitments. An unchecked population growth and drops in the oil revenues fanned such hardships.

The central government faced great economic problems in the first post-revolutionary years, such as the eight-year-long war with Iraq, inexperienced management in many nationalized industries, sectarian inclinations in selecting directors which undermined the government's management standing and which led to the assignment of management to passionate and not necessarily experienced young people, a high rate of brain drain and exit of human resources from the country, economic sanctions, the freezing of Iranian assets in the USA and the stoppage of any sort of foreign investment in the country. (UNFPA, 1998)

2.2 Economy

Table 2-2 Economic Indicators

Indicators	1990	1995	2000	2002	2003
GNI per Capita (Atlas method) current US$	2,590	1,220	1650	1710	2000
GNI per capita(PPP) Current International	3,740	4,870	5,940	6340	7,190
GDP per Capita: (constant 1995 US$)	3,683	4,149	5,884	6,690	6,984
GDP per Capita annual growth %	3.7	4.2	5.02	7.35	6.6
Unemployment % (estimates)	11.1	9.1	14.25	14.2	-
External Debt as % of GDP	5.3	21.6	7.6(3)	1.3	-
Trade deficit:	3.2	11.4	-	4.1	-

Sources: Human Development Reports, 2004, 2002
National Human Development Report. Management & Planning Organization. Iran. 1999
Economic Report & Performance Monitoring (2nd Year; 3rd Five-Year Development Plan). Volume 1. Management & Planning Organization. 2001
World Development Reports 2002, 2004, 2005

Table 2-3 Major Imports and Exports

Major Exports:	petroleum 80%, chemical and petrochemical products, fruits and nuts, carpets
Major Imports	industrial raw materials and intermediate goods, capital goods, foodstuffs and other consumer goods, technical services, military supplies

Source: http://www.cia.gov/cia/publications/factbook/geos/ir.html#Econ

Key economic trends, policies and reforms

The eight-year Iraq-Iran war (1980-1988) led to heavy human and material losses. Economic infrastructure, especially oil production and exportation facilities were greatly damaged. The country's major ports for exporting oil and other commodities were destroyed and as such, the nation's oil revenues were cut to a third as compared with 1977. This drop in oil income caused Iran's GDP in 1982 to drop below the figure for 1976.

Right after the termination of the war, the government put on its agenda the reconstruction of war torn areas and focusing on socio-economic development. The most prominent target of the first five-year socio-economic development plan (1980-1984) was to revive an economy badly damaged by war. The plan led to some major achievements such as a 7-8 percent economic growth rate. The continuing downward trend of oil prices in the global market and lack of foreign capital resources for manufacturing investments finally compelled the government to cut its imports to half in order to enable itself to pay its debts and strengthen its hard currency reserves. (PBO, 19981) The second five-year plan was launched in 1995; the second plan did not achieve all its objectives but achieved some relative successes.

One of the significant features of the Iranian economy over the past two decades has been an upsurge in the intervention of government in economic affairs. The phenomenon has had a specific justification or cause in various periods. In the first post-

revolutionary years the nation's special conditions brought about the first wave of governmentalization of economic units. In the course of the war the necessity of devising regulations and policies and allocation of local and foreign currency resources, and during the first and second development plans, reconstruction programs and the lack of an efficient and powerful private sector were offered as excuses for such an intervention. (MPO, 2000).

2.3 Geography and Climate

With an area of 1,648,000 square kilometers, Iran ranks sixteenth in size among the countries of the world. Iran is one of the world's most mountainous countries. Its mountains have helped to shape both the political and the economic history of the country for several centuries. The mountains enclose several broad basins, or plateaus, on which major agricultural and urban settlements are located. The main mountain chain is the Zagros Mountains, rimming the Caspian Sea littoral is another chain of mountains, the narrow but high Alborz Mountains. The center of Iran consists of several closed basins that collectively are referred to as the Central Plateau. The eastern part of the plateau is covered by two salt deserts, the Dasht-e Kavir and the Dasht-e Lut. Except for some scattered oases, these deserts are uninhabited.

Map of I.R. Iran

Iran has only two expanses of lowlands: the Khuzestan plain in the southwest and the Caspian Sea coastal plain in the north. The Persian Gulf coast south of Khuzestan and the Gulf of Oman coast have no real plains because the Zagros in these areas come right down to the shore. There are no major rivers in the country, of the small rivers and streams; the only one that is navigable is the Karun. There is a permanent salt lake, Lake Urmia in the northwest. There are also several connected salt lakes along the Iran-Afghanistan border in the province of Baluchestan va Sistan. Iran has a variable climate. In the northwest, winters are cold with heavy snowfall and subfreezing temperatures during December and January. Spring and fall are relatively mild, while summers are dry

and hot. In the south, winters are mild and the summers are very hot, having average daily temperatures in July exceeding 38° C.

In general, Iran has an arid climate in which most of the relatively scant annual precipitation falls from October through April. In most of the country, yearly precipitation averages 25 centimeters or less. The major exceptions are the higher mountain valleys of the Zagros and the Caspian coastal plain, where precipitation averages at least 50 centimeters annually. In the western part of the Caspian, rainfall exceeds 100 centimeters annually and is distributed relatively evenly throughout the year. This contrasts with some basins of the Central Plateau that receive ten centimeters or less of precipitation annually[2].

2.4 Political/ Administrative Structure

Basic political /administrative structure and any recent reforms

Iran has a dual power structure, with a supreme religious leader (the vali-e faqih) and a president. Ayatollah Seyyed Ali Khamenei, who came to power in 1989 after the death of the founder of the Islamic Republic of Iran, Ayatollah Ruhollah Khomeini, holds the highest religious office. Seyyed Mohammed Khatami was re-elected president for a second four-year term in June 2001. The most recent election for the Iranian parliament (Majlis) was held in February 2004. Political parties, banned since 1985, are now permitted to present candidates at elections, although they remain loose organizations.

The legal system of Iran is based on the constitution of 1979, which was amended in 1989. The executive branch's officials and the people's representatives in the legislative branch are all elected by popular vote, while the judiciary is an independent power. This combination is completed by local council election. The legislature is the Majlis-e-Shuray-e Islami (National Assembly) of 290 members. All candidates for the Majlis must be approved by an Islamic screening committee. All Majlis legislation must be approved by the 12-member Guardian Council, six of whom are appointed by the *rahbar* and six by the Majlis. The Expediency Council mediates between the Majlis and the Guardian Council

President is elected by universal suffrage for a four-year term for a maximum of two terms. Mohammed Khatami was elected in May 1997 and re-elected in June 2001, starting his second term on August 8th. The post of prime minister was abolished in 1989. A new cabinet was approved by the Majlis in August 2001.

Key political events/reforms

Amid disqualifications of reformist candidates, the conservative Abadgaran bloc wins about 195 of the 290 seats in parliament. The main plank of Abadgaran"s campaign is to raise living standards, but it does not articulate specific measures to achieve this.

3 HEALTH STATUS AND DEMOGRAPHICS

3.1 Health Status Indicators

Table 3-1 Indicators of Health status

Indicators	1990	1995	2000	2002	2003
Life Expectancy at Birth:	62.9	67	69.8	69.8	72.8
HALE:	-	-	56.5	57.6	-
Infant Mortality Rate:	45	38	28.6	24.5	24
Probability of dying before 5th birthday/1000:	56	45	36	29.1	29
Maternal Mortality Rate:	91	40	37.4	-	28.2
Percent Normal birth weight babies:	-	-	10	-	9.8
Prevalence of stunting:	-	19%	15.4%	14.8%	-
Prevalence of wasting:	-	7%	4.9%	5.4%	-

Sources: National Human Development Report. Management & Planning Organization. Iran.1999
Population & Health Profile. Ministry of Health & Medical Education. 2000
The World Health Report. 2002, 2004
Iran's Statistical Center. 2002
Maternal Mortality Surveillance System. Office of Population & Family Health. Ministry of Health & Medical Education. 2003
A Study of Micronutrients in Iran. Ministry of Health & Medical Education. 2002
Status of Children & Adolescents in Iran. UNICEF. 1998
The State of World's Children. UNICEF. 2000
Mohsen Naghavi, Robabeh Sheikholeslam. Incidence Analysis of Premature Labors and Low-Birth-Weight Neonates in Iran. Ministry of Health & Medical Education. 2004

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

Indicators	Urban	Rural	Male	Female
Life Expectancy at Birth:	-	-	71	75
HALE:	-	-	56.1	59.1
Infant Mortality Rate:	27.7	30.2	32.7	24.4
Probability of dying before 5th birthday/1000:	36.8	34.6	37.6	34.6
Maternal Mortality Rate:	24.3	54.5	-	37.4
Percent Normal birth weight babies:	8.3	11	8.5	10.3
Prevalence of stunting:	11	21.8	16.8	13.9
Prevalence of wasting:	5.6	4.8	5.1	4.7

Sources: Mohsen Naghavi. Mortality Pattern in 23 Provinces. Ministry of Health & Medical Education. 2003
The World Health Report. WHO. 2002
Population & Health Profile. Ministry of Health & Medical Education. 2000
Mohsen Naghavi. A Study on Maternal Death Using the RAMOS Method. Ministry of Health & Medical Education. ۱۹۹۷
Mohsen Naghavi, Robabeh Sheikholeslam. Incidence Analysis of Premature Labors and Low-Birth-Weight Neonates in Iran. Ministry of Health & Medical Education. 2004
Children's Nutrition Pattern in Iran. Ministry of Health & Medical Education. 1998

Table 3-3 Top 10 causes of Mortality/Morbidity

Disease and external causes								
	Mortality				Morbidity		Mortality & Morbidity	
	Ranked by incidence rate per 100,000		Ranked by incidence YLL rate per 100,000		Ranked by percents of YLDs		Ranked by percents of DALYs	
1	Ischemic Heart Diseases	108.5	Disasters (with BAM earthquake)	1858	Traffic injuries	18.9	Traffic injuries	17.1
2	Disasters (with BAM earthquake)	61.3	Traffic injuries	1247	Depressive disorders	11.3	Ischemic Heart Diseases	8.7
3	Traffic injuries	47.8	Ischemic Heart Diseases	929	Osteoarthritis	8.9	Depressive disorders	6.1
4	Cerebrovascular events	45.0	Cerebrovascular events	335	Falls	5.8	Osteoarthritis	4.5
5	Cerebrovascular events	16.6	Prematurity and low birth weight	247	Substance abuse	5.5	Diabetes mellitus	4.2
6	Other cardiac diseases	15.6	Other cardiac diseases	163	Infertility	5.4	Cerebrovascular events	3.8
7	Other cardiovascular diseases	15.1	Burns	157	Psychotic disorders	4.4	Falls	3.6
8	Stomach cancers	11.5	Other cardiovascular diseases	153	Rheumatoid arthritis	4.4	LBW	3.5
9	Prematurity and low birth weight	7.5	Respiratory and vesicle disorders (neonatal)	117	Cataract	3.9	Substance abuse	3.1
10	Diabetes mellitus	7.4	Hypertension and it's disorders	116	Diabetes mellitus	3.3	Other unintentional injuries	3.0

Sources: Mohsen Naghavi. Mortality Pattern in 23 Provinces. Ministry of Health & Medical Education. 2003
Mohsen Naghavi. Study of Burden of Disease in 3 Provinces. Ministry of Health & Medical Education. 2001

The health indicators of Iran show a consistent improvement and now are near those for developed countries. The pattern of the burden of disease shows a definite shift towards non communicable diseases and is evidence that Iran has completed the epidemiological transition. However the burden of Road Traffic injuries is very high which indicates the need for a program addressing road traffic injuries.

3.2 Demography

Table 3-4 Demographic indicators

Indicators	1990	1995	2000	2002	2003
Crude Birth Rate:	35.5	22.5	16.3	15.8	16.3
Crude Death Rate:	9	6	4.1	4.41	5.01
Population Growth Rate:	25	15	12	12	12
Dependency Ratio:	92	81	73.1	64.4	61.4
%population <15 years	44.3	39.5	32.1	32.9	31.6
Total Fertility Rate:	5.5	3.4	2	1.9	2

Sources: National Human Development Report. Management & Planning Organization. Iran. 1999
Population Indicators (1956 – 1996). Iran Statistical Center. 1998
Population & Health Profile. Ministry of Health & Medical Education. 2000
Mohsen Naghavi. Mortality Pattern in 10 Provinces. Ministry of Health & Medical Education. 2000
Vital Horoscope for Rural Areas (Under Coverage of Health Houses). Center for Network Development & Health Promotion. Ministry of Health & Medical Education. 2003
Mohsen Naghavi. Mortality Pattern in 23 Provinces. Ministry of Health & Medical Education. 2003

Table 3-5 Demographic indicators by Gender and Urban rural

Indicators	Urban	Rural	Male	Female
Crude Birth Rate:	15.2	18.4	17.32	16.7
Crude Death Rate:	5.04	4.96	5.63	4.31
Population Growth Rate:	11.1	14.5	11.7	10.39
Dependency Ratio:	54.3	73	61.5	58.9
% population <15 years	30.1	35.9	32.4	31.8
Total Fertility Rate:	1.8	2.4	-	2

Sources: Population & Health Profile. Ministry of Health & Medical Education. 2000
Mohsen Naghavi. Mortality Pattern in 10 Provinces. Ministry of Health & Medical Education. 2000

Demographic patterns and trends

The IRI adopted a policy of encouraging population growth in the first post-revolutionary era. But the family planning law, passed by the Parliament in 1992, not only inhibited the motives and rewards allocated to multi-children families, but also laid the ground, in terms of clear-cut legal foundations, for the implementation of birth control policies.

The increase in life expectancy and decrease in fertility rate have had observable impacts on the nation's population. The percentage of the people aged 65 and above, which was 3.04 in 1986 rose to 4.4 in 1995 and the figure is expected to rise to 4.7 in

2010 and 6.55 in 2020. As such, Iran will face two important phenomena: ageing (increase of the society's median age) and the elder lies (increase in the percentage of older people in the age pyramid). (MOH, 2000c). At present, a major percentage of the nation's old citizens, especially old women, are illiterate. Illiteracy, unemployment, lack of income, especially among old men, and the slow, yet continuing growth among them, pose particular challenges in welfare, social, economic, treatment and health realms and ignoring them would prove detrimental

The UN estimates that Iran's population stood at some 68.1m at mid-2001. The fertility rate, according to World Bank estimates, was below two births per woman in 2002, a marked fall from the 1980 estimate of 6.7. Life expectancy at birth in 2000 was 68.9 years according to the UN's Human Development Report, compared with 53.9 years in 1970-75. The UN estimated that 37.4% of the population was under 15 years at the start of 2000, and 3.4% over age 60. Local estimates suggest that 50% of the population is under the age of 20. Iran's overwhelmingly young demographic profile has led to marked growth in the workforce, which stood at 19.8m according to Bank Markazi (the central bank) estimates in fiscal 2002 (year starting March 21st), and that some 600,000 new job-seekers enter the market each year.

Urbanization has been accelerating in Iran since the early 1960s. According to Bank Markazi, 65% of the population lived in towns or cities in 2002, compared with just 31% in the late 1950s. A small percentage of the population is nomadic. The emigration of young and skilled Iranians continues to pose a major problem: by unofficial estimates more than 200,000 young Iranians leave the country each year to seek better employment opportunities in Europe and North America.

Iran is ethnically diverse, although the country can claim homogeneity based on the shared literary, oral and artistic traditions of Iran, the iraniyat. Persian is spoken by the majority of Iranians as their first language and operates as a lingua franca for minority groups. Iran is predominantly Shia Muslim, but it has a significant number of religious minority groups. The largest of these is the Sunni community, composed mainly of Kurds in the north-west and Baluchi tribes in the south-east. Religious freedom is guaranteed under the 1979 constitution and is widely respected.

4 HEALTH SYSTEM ORGANIZATION

4.1 Brief History of the Health Care System

Iran's health care system has gone through many major changes over the past four decades. A semi-independent organization named Health Directorate General was established along the MOH, mostly to deal with preventive issues. The body made quite an achievement in immunization programs, controlling communicable diseases (including small pox) etc. Yet, over time, the necessity of its integration into the general health system proved to be a real problem.

At another juncture, when the private sector's representatives ran the MOH, increasing the number of hospital beds and strengthening the private sector through soft loans became a policy target without the impact of such investments on public health being verifiable. In addition, at some point in the history of Iran's health system, the senior directors of the system ushered in a new management order into the health system, which led to the establishment of Regional Health Organizations in provinces and an inclination towards privatization.

A group assigned to study and change the structure of the health system listed many problems of the current system of health in its 2000 report. The results of the said study led to some changes in the structure and organization of the Ministry of Health, and Medical Education at the national level only, and the developments have not yet trickled down to provincial, and district levels.

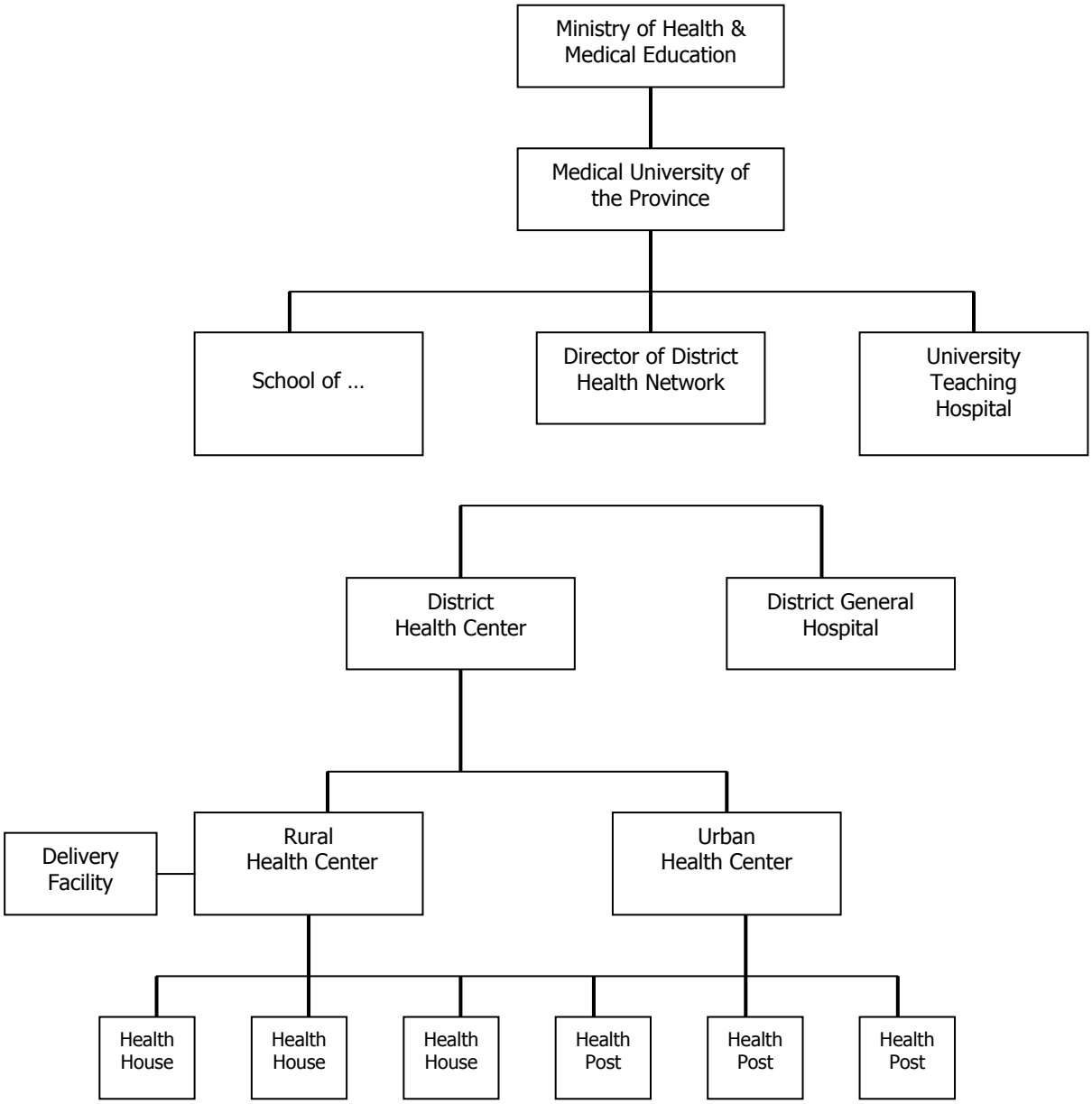
4.2 Public Health Care System

Organizational structure of public system

At the national level, MOH and ME is exercising the governance, policy-making, planning, financing and steering the programs. At the provincial level, the Universities of Medical Sciences and Health Services (UMSHS) are the most significant government institute to provide people with health services and meeting their demands in the domain of individual, collective and environmental health. At the township and rural level, a District Health Network, comprised of a district health center, urban and rural health centers, health posts and health houses are charged with this responsibility. Besides the universities of medical sciences, part of the services are provided by insurance companies and the Social Welfare Organization's provincial and district units. Insurance companies provide part of the related service besides the universities.

The peripheral units (health houses/rural health centers) in the premises of medical sciences universities offer health services free of charge. In other units, the patients avail themselves of the services they need by paying a minimal amount. For the services provided by the State Welfare Organization, characterized by a specific complexity and variation the costs are calculated in the basis of existing tariffs and paid by the patients.

Organizational structure



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

Regarding development of health systems3, recently, more attention has been given to the following: reduction of population growth by use of family planning; control of diarrhoeal, respiratory and iodine deficiency diseases; integration of mental health, tuberculosis, leprosy, diabetes, and malaria programs into the primary health network system; community-oriented medical education; considerable increase of immunization coverage; reduction of maternal and infant mortality; increase of community participation; increase of basic environmental sanitation and adequate safe water in rural communities; and expansion of health networks, including the construction of district hospitals where needed. There is also the new policy of vaccination of women, which

requires that all women of childbearing age, not only pregnant women, be immunized against tetanus.

All of the above activities were supported by allocation of the required budget in the respective five-year development plans. The health budget doubled in 1991 compared with 1982-87. The declared policies have been made known to the different levels of government and nongovernmental sectors through the mass media as well as through publications and brochures.

Since April 1985, the expansion of health networks based on primary health care has been rapid. In both towns and villages, the first point of contact between the public and the health system is the health center. However, in the villages, the health center performs its functions with the help of a large number of health houses, which effectively become the first point of contact. The responsibility of the rural health center is to supervise, support and accept referrals from the health houses.

District hospitals in towns offer services to referred cases from rural as well as urban health centers. District hospitals are responsible for specialized, hospitalized and outpatient curative services. The activities of the district health centers, as well as those of the district hospitals, are coordinated by the manager of the health network. Although, formally, this referral follow-up chain exists, it is somewhat weak, especially at the level of the rural health center upwards.

There is more efficient use of human resources through the policy of local recruitment of staff for health centers. Although resources allocated to the health sector have doubled in recent years, the fact that the district health centers have become completely autonomous units, both administratively and financially, has also resulted in more efficient use of resources.

Planned organizational reforms in the public system

Given the demographic and epidemiological transition the country has gone through and the technological developments in the health care, there is a general realization that the existing primary health care network designed and developed about quarter of a century ago requires rehashing. The government has therefore introduced family physicians (FPs)to strengthen primary health care, starting from the rural areas.

Each FP will cover a population of about 3000 to 3500. FPs intending to join the scheme will be given a choice to indicate their preference for a solo or a joint team practice. Final appointment, nonetheless, will be made by the district health centre. Once such a contract had been signed and practice established, incumbent FPs will be allowed one chance to change their location within first three months of joining the scheme. Any subsequent change or transfer will be after three years, except where the district health centre would deem it necessary with however stated reasons.

4.3 Private Health Care System

Although a Large private sector exists in Iran, there is very limited data available. The NHA report gives an estimate that the private sector accounts for only 10% of hospital beds, but account for almost 20% of total health expenditure.

Modern, for-profit

The private sector is mostly concentrated in the modern or allopathic system of medicine. As indicated above, there is no data available, but it is generally believed that the private sector owns 10% of the total beds. In addition, there are outpatient clinics of varying size, where clinicians do a solo or joint practice for a varying number of clinical disciplines. Many clinicians who work in the public sector also practice in the private sector. Overall, it is believed that private sector contributes 10-20% to the health care delivery system.

Modern, not-for-profit

In Iran there are many non-government organizations (NGOs) and charities, although it is hard to retrieve data about their number and the type of services these offer. But, there are also NGOs funded and operated by the government. Imam Khomeini Relief Committee (IKRF) or Committee Emdad is the largest Government Organization working for the relief and welfare of people in need. It was founded in 1963, but got the real thrust in its operation after the Islamic Revolution in Iran on 5th March 1979 through a decree of the Late Imam Khomeini. With its headquarters in Tehran, it has branches in all cities and in some foreign countries. It works under the direct supervision of the Supreme Leader.

Although, as noted above, the NGO movement in its modern sense is relatively new to Iran and most of the active NGOs are closely associated with the government, there is a long tradition of voluntary participation in financing, organization and provision of health services as charitable acts. In fact many of the famous hospitals and health centers established early in the century owe their existence to such charitable organizations predating the creation of the MoH&ME. Currently too there are a large number of health facilities, ranging from outpatient clinics to hospitals and institutions run by the charitable community groups.

Among the more modern NGOs created over the past few years a considerable number are concerned with health problems related to specific groups like Thalasaemic children. The Family Planning Association of Iran is probably the largest while numerous smal NGOs are active in the area of drug prevention and supporting people with HIV/AIDS. The semi-military youth organization of Basij affiliated with the Revolutionary Guards Army is also am important health-related NGO because of its enormous contribution to the periodic mass mobilization in support of public health interventions like immunization campaigns. Likewise, although not organized as an NGO, the enormous corps of the Women Health Volunteers may also be viewed as an NGO. Due to the supportive stance on NGOs and other forms of civil society participation of the President Khatami, NGO movement has received a greater attention from the UN agencies over the past few years; and most of such support has come from UNFPA, UNICEF, and UNDCP.

Traditional

The traditional medicine, mostly herbal medicine is practiced in the private sector. In addition, homeopathy and certain procedures, e.g. cupping, leeching are also practiced. There is a directorate in the office of the Deputy Minister for Food and Drugs which is responsible for dealing with issues related to herbal medicine. The Iranian National Formulary lists a number of herbal medicines. There is also an Institute of Medicinal Herbs as a part of School of Pharmacy, Tehran University of Medical Sciences.

Key changes in private sector organization

The private sector is developing both in terms of the clinical disciplines it provides services and the population it serves. Till recently it was mainly centered in cities, but now it is extending to the rural areas as well. The over production of doctors has been the major factor. Iranian Medical Association is responsible to grant or cancel the license to practice. The MoH&ME is responsible for accreditation of private clinics and hospitals. While there is a general feeling that systems to regulate private sector are quite weak, efforts to develop and install such systems are in their initial stages.

Public/private interactions (Institutional)

As indicated above, section 192 of the 3rd Development Plan, replicated as Article 136 of the 4th Development Plan provides a framework for an organized state sponsored public-private interaction. This law required the MOHME through the Provinces to transfer the management (but not the assets) of health facilities to the private sector, be these cooperatives, private persons/ companies or NGOs. This process was initially conducted in seven Provinces and then expanded in the country to about 40 hospitals. The contracts have been used chiefly in urban areas and for urban health centers and some wards and clinics of district hospitals. A lesser number are to be found in rural health centers.

The expansion of these transfers in the country has been accompanied by a reduction in the above noted central control over the transfer process. Article 192 also allows public employees working in a newly transferred service to remain as public employees but to work for the new private managers. Article 192 requires at least 20% of existing staff to work for the new privately managed service, while other public employees displaced will be transferred within the public sector. Table 4 indicates the number of contracted management instances during 2002, 2003 and 2004 according to areas of operation.

Table 4.1: Contracted Management to Privates Sector According to Areas of Operation

Areas of operation	2002	2003	2004
Urban Health Centers	83	120	11
Health Posts	19	86	172
Rural Health Centers	8	14	24
Radiology	10	23	15
Laboratory services	6	14	10
Pharmacy and other preclinical areas	4	11	14
Hospital wards	5	57	271
Emergency services	6	35	51
Total	141	360	568

Public/private interactions (Individual)

The government is limiting its direct role as employer. This has led to a large number of employees being on a short term contracts.

Planned changes to private sector organization

As indicated in section 4.3.4 the private sector is expanding rapidly and the government is generally supportive. It has been encouraging the subordinate organizations, like universities of medical sciences to outsource support services and purchase different service from the private sector. However, such initiatives are still in their pilot phase and efforts are being made to consolidate the results and improve the process.

4.4 Overall Health Care System

Organization of health care structures

For delivering the PHC an elaborate network of facilities has been established. That is, Health Houses, which constitute the basic building blocks for health network, are the first point of contact by health system with the community in rural areas. Each of this facility is ideally run by a male and a female community health worker – Behvarz. Male Behvarz is responsible for vaccination and environmental health promotion, while female Behvarz provides maternal and child health care (MCH) and family planning services in the target communities. This network of health houses is supported by Rural Health Centers (2361 in total) staffed by technicians and administrative personnel working under a physician. In urban areas, the Urban Health Centers provide ambulatory care. Health posts, which are static health facilities, provide vaccination and MCH services. The role of Behvarz, as outreach workers in rural areas is assumed by Women Health Volunteers in urban areas. However, their function is mainly limited to the provision of health education and advocacy for family planning.

This network of urban and rural PHC facilities is supported for referrals by District Hospitals. These general hospitals located in cities have specialties: physician, general surgeon, pediatrician and gynecologist, although many of these hospitals have more specialties. In big cities, which are also district headquarters, provincial hospitals provide tertiary care. The PHC network is administered by District Health Centers (DHC) – one in each district, and affiliated to this is a Behvarz Training Centre. The Universities of Medical Sciences, at least one in each province, play an important role both in medical education and provision of health services. That is, the Chancellor of the University, as Executive Director of provincial health services is in charge of all DHCs and hospitals. They in turn report to the MoH&ME.

Table 4.2: Estimated Number of Health Care Facilities in Iran (2002)

Type of service	Types of Facilities	Estimated Number
Out-patient/ Primary Health Care Services	Health Houses	17,300
	Health Posts	300
	Rural Health Centers	2,400
	Urban Health Centers	1,900
	Private Solo GPs	25,000
	Private Polyclinics	900
In-patient Care	Government and Social Security Organization Hospitals	600

Support Services	Pharmacies	6,200
	Radiology Centers	1,100
	Laboratories	1,700

Source: Iran National Health Account Report, 2002

Table 4.3: Distributions of Hospital Beds in Iran (2001)

Ownership	**Number of Beds**	**%**
Ministry of Health and Medical Education	76,167	69.8
Social Security Organization	11,663	10.7
Other Government Hospitals	4,149	3.8
Private Hospitals (Non-Profit)	3.544	3.2
Private Hospitals (For-Profit)	12,619	11.6
Private Teaching Hospitals	1,010	0.9
Total	**109,152**	**100%**

Source: Iran National Health Account Report, 2002

Brief description of current overall structure

While the primary health care is almost the sole responsibility of the MoH & MoE, a number of other ministries and organizations provide secondary and tertiary care, mainly to their employees and their families. These include the armed forces, major banks, oil companies, railways, municipalities, and government run not for profit organizations.

5 GOVERNANCE/OVERSIGHT

5.1 Process of Policy, Planning and management

National health policy, and trends in stated priorities

In the past, institutions of various names such as "Projects and Planning," or, "Policy Committee" shouldered the task of determining the policies and means of achieving the goals. At present, there is no center for devising policies and strategic planning within the MOH. Neither are there any specific organizations for policy making or planning, or a particular method or order for assessing health needs or the performance of the system. The methods used for evaluation of the performance of personnel are old and unscientific.

In the health sector, a management and planning organization has replaced an intra-sectoral office of policies' analysis and planning. Every five years and at the threshold of compiling the nation's five-year socio-economic plan, the State Management and Planning Organization gather experts to compile strategies and determine policies. After winning the Majlis approval, the policies become the criteria for planning and resource allocation.

Formal policy and planning structures, and scope of responsibilities

Like the overall government system, the health system of Iran is highly centralized. Almost all decisions regarding general goals, policies and allocation of resources are made at the central level by the Ministry of Health and Medical Education (MOHME). The Ministry has the legal authority to oversee, license, and regulate the activities of the private health sector[4].

Analysis of plans

Health needs are usually estimated on the basis of nationwide surveys or conclusions made through data collected on a routine basis. Performance assessment still lacks an organized and regulated structure. Amid all this, a regular and a close range assessment of performance of peripheral units of service delivery (i.e., health houses) and the performance of education sectors of universities of medical sciences have had a more organized situation.

Recently, the Family Health and population Directorate General has embarked on the compilation of an integrated procedure including objectives, working methods and standards for assessing the performance of its affiliated units in a more systematic way.

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

The supervising system is traditional and old-fashioned and is mostly concentrated on drab regulations concerning working hours, payments or regular and medical leaves of absence. In spite of extensive trainings and a vast number of employees who have been exposed to issues related to quality and processes, qualitative aspects do not comprise a segment of disciplinary and regulatory instruments in running the affairs as yet.

Regarding the regulation of medical issues, the granting of permits to physicians to open clinics, polyclinics, hospitals, laboratory, radiology units, etc., and the supervision of environmental health in public places, there exists a well-justified and exact body of regulations. The execution of such regulations is largely handled UMSc and, in rural areas, by primary health care networks. In case of violations, a legal support system is in place.

5.2 Decentralization: Key characteristics of principal types

Within the MOH

After careful literature review and collecting all possible experiences what has been done so far is mostly focused on privatization, which is mostly compatible with the codes of 192 and 88 of the third five year socio-economic development plan. In this respect the following were carried out:

- Delegation of health care provision and managerial issues to the provincial level;
- An experimental model of hospital autonomy is being tested in one of the teaching hospitals in Tehran;
- To study the mechanisms to delegate some of health services to municipalities in urban areas.

The main obstacles on the way to have more decentralized health care system were announced to be as follow:

- Limitation of tangible experiences, if any, applicable to our own situation;
- Shortage in legislative supports;
- Lack of expertise in human power, as well as
- Managerial capacity to use of delegated power; and
- Shortage of financial resources to support the decentralization process. (Farzadfar, 2003)

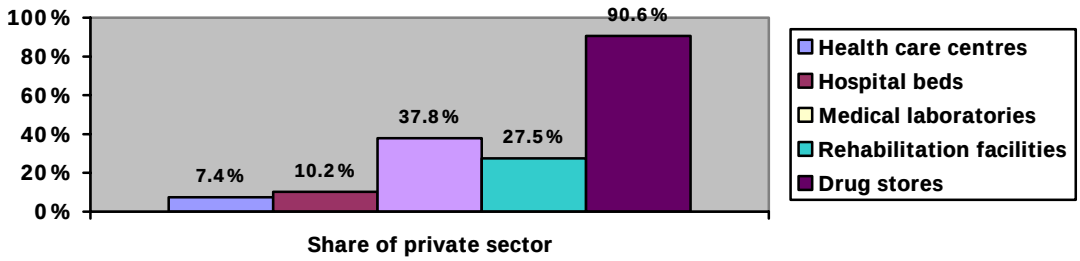
Greater public hospital autonomy

Under article 192 of 3rd Development Plan a process of autonomy was introduced for hospitals. The autonomy granted however was basically a shift from financing hospitals through budget allocations to one of financing through payments under the social health insurance schemes. The autonomy was accompanied in 1995 by a policy of universalizing social health insurance in the country. The failure of the latter meant that users were denied access to the hospitals, leading to the resistance among community members, Parliament members and health managers. The result was a repeal of the policy on hospital policy.

The primary policy change at this time was an attempt to change hospital financing mechanisms and to make hospitals reliant on user charges and insurance fees. But given the untoward effect and that the whole initiative has to be repealed, the recent attempts at granting autonomy to hospitals has faced resistance. There are concerns that the autonomy, as conceived, was a step towards the eventual privatization of the hospitals; and given the policies of new government are state centered, generally it is against the concept.

Private Service providers, through contracts

Islamic Republic of Iran has a well developed and active private health sector; primarily concentrated in urban areas and playing a major role in the provision of secondary and tertiary care. It also controls almost the whole of pharmaceutical industry and drug distribution system and accounts for a large share of laboratory and diagnostic facilities. In the year 2002 it controlled 7.4% of health care centers, 10.2% of hospital beds, 37.8% of medical laboratories, 27.5% of rehabilitation facilities and 90.6% of drugstores.



The sector is overseen and regulated through both professional bodies (e.g. the Iranian Medical Association) and the MOHME. It enjoys a good deal of prestige and attracts more than its numerical share of the health market. Despite occasional conflicts over pricing, the private sector works in close cooperation with the MOHME and other government agencies involved in the health sector.

Article 88 of the 3rd Development Plan sets out provisions for the outsourcing of mainly support areas of the public services. From 2002 the expansion of outsourcing in government health facilities has been rapid. Typical services for out sourcing have been transport, equipment maintenance, postal service, IT services, catering, security and cleaning. An evaluation of 41 pilot hospitals – one in each of the universities of medical sciences - in the country indicated that within a two year period, 88%, 81%, 73%, 66% and 37% of the pilot hospitals had outsourced cleaning, catering, gardening, laundry, and central sterilization room respectively. Further, within MoH & ME services like, heating, cooling, air conditioning; coping and publishing; transport; cleansing; typing and secretarial services; post; catering; equipment maintenance were outsourced. As a result, according to an estimate, during 18 months the employed manpower was reduced by 167 persons, saving about US$ 750,000.

In 2000 in accordance with the 3rd Development Plan, article 192 required the MOHME through the Provinces to transfer the management (but not the assets) of health facilities to the private sector, be these cooperatives, private persons/ companies or NGOs. The idea was for the Provinces to use other sectors for service provision. Initial concerns over the capacity of the provinces to conduct this process led to the introduction of a process whereby Provinces presented proposals for management transfers to the private sector. These proposals covered issues such as financing, content of service packages and process of monitoring. Contracts were elaborated for the transfer and it was required that these be approved by the relevant legal authority in the provincial universities. It is understood that all contracted providers were required to respect MOHME regulations and standards relating to service provision.

These transfer contracts have been used chiefly in urban areas and for urban health centers and some wards and clinics of district hospitals. A lesser number are to be found in rural health centers, although it is understood that the rural Health Houses are

excluded from these transfers. The expansion of these transfers in the country has been accompanied by a reduction in the above noted central control over the transfer process. Article 192 also allows public employees working in a newly transferred service to remain as public employees but to work for the new private managers. Article 192 actually requires at least 20% of the existing staff to work for the new privately managed service. All other public employees displaced by the process will be transferred within the public sector. Article 136 of the 4th Development Plan has basically continued the provisions of article 192 of 3rd Development Plan.

Main problems and benefits to date

Often this initiative, 'outsourcing' or 'contracting out' is referred and expressed as decentralization, while academics have raised concerns for such references, as in their view it leads to policy confusion. Nevertheless, the initial impressions are that outsourcing of support services has been quite successful; and the MoH & ME is committed to decentralization and expand the initiative both in terms of variety of support services and the number of institutions. This is due, in view of the proponents of this initiative, to the savings in staff, money and vehicles that have been calculated and announced and there is talk about much better service quality.

But there have been certain constraints, mainly the paucity of technical capacity and other resources required to build the capacity of the management in the peripheral units to implement and monitor the process. Also, the private companies lack expertise in providing such services, e.g. hospital cleaning as opposed to cleaning in general and the absence of a strong competitive private sector to be able to participate in the outsourcing.

Integration of Services

Various health services are integrated, except where a program is initiated on a pilot basis. But, such services once developed are integrated into the mainstream health services. Further, Iran has a unique system, where the Universities of Medical Sciences, at least one in each province, play an important role both in medical education and the provision of health services. That is, the Chancellor of the University, as the Executive Director of provincial health services is also the in charge of all District Health Centers and hospitals. These Chancellors, in turn, report to the MoH & ME.

The development of this system in 1985 required drastic change in the mandate and organization of the MoH, taking over medical schools (previously run by the Ministry of Higher Education) and to turn them into autonomous medical universities which combine the medical training and research responsibilities of medical schools with those of the public health administration and provision of community level services. However, this integration has not always been endorsed by many. Repeatedly efforts have been made both in public and in the parliament to de-integrate the health services and medical education. The arguments for the integration of medical education and service delivery being advantageous and disadvantageous are summarized below (Collins, 2005):

Possible advantages

1. It has an impact on the education of students giving them a real feel for the health services at different levels.
2. It improves human resource planning for health and indeed allowed for the development of human resources for the PHC approach.

3. An important point is that the key role of the university offers a space for the development of intersectoral collaboration at the provincial level5.
4. Under the old system, the university hospitals focused on educating the students. Under the new integrated system they now have a greater patient focus.

Possible disadvantages

1. It is an expression of the power of physicians within the MOHME who seek to control both the delivery of health care and the education of human resources - it creates both jobs and authority for the physicians.
2. It places too much pressure on the MOHME leading to problems of ministerial inefficiency.
3. It is an overload for the Chancellors of the medical universities.
4. The Ministry of Education would be better for developing the quality of the educational process in the universities.

The medical education and medical technology could not improve under the integrated arrangement.

In the international terms, such functional integration is far from being common. The medical universities are usually under a formal relationship with the Ministry of Education, enjoying a special relationship with government health services. However, an in-depth review of this arrangement brings out four issues:

1. To what extent is the organizational integration actually real? Clearly the key strategic posts and units within the organizational chart, such as the Minister, Councils, Chancellors, and University Board of Trustees, operate dual responsibility in both areas of service delivery and medical education. However, the organizational division of labor soon takes over and the two functions are placed in different organizational parts. At the national level the separation takes place at the Deputy Minister level and in the Medical University the separation takes placed at the Deputy Chancellor level. But, often the two arms of the organization do not work together.
2. What has been the impact of the integration on the educational process? It is generally felt that apart from the presence of university students in primary care service delivery – thus enhancing the educational process – the actual teaching process has not changed. For example, there is a reliance on the old traditional texts of medicine while faculty members do not show enthusiasm for being in the primary care units, as is required of the students during their education.
3. What has been the impact of the integration on service delivery? It is viewed that while this should have led to an increase in new medical graduates and an increase in those working in the poorer and rural areas. But, whereas the number of doctors has increased, it has led to medical unemployment with new graduates still unwilling to work in the poorer and rural areas. Another interesting issue is whether the recent autonomy given to the provincial level universities to allocate resources within the province will lead to changes in the priorities of service delivery between, for example, the university hospitals and the primary care facilities. The concern is that the many of the Chancellors tend to be more interested in the medical education side of their work as opposed to service delivery. This could negatively impact on the resources allocated to service delivery.

5.3 Health Information Systems

The information system mainly covers the primary health care network and is based on the data gathered from defined populations both in rural and urban areas. However, the expansion in PHC network did not keep pace with the growing urban population. That is cities and towns with a population more than 20,000 people are not covered. This factor has led to the information system catering for about 40% of the population. The hospitals are not connected to the system. Therefore the data generated in hospitals is collected through ad-hoc means. Further periodic surveys are held to gather data related to coverage, household effects, and outcomes of health programs (see more below).

Organization, reporting relationships, timeliness

For gathering data a household folder comprising a number of forms is used. The household folder provides health-related information, including name, sex, age, literacy status of each member; the mother's condition during previous pregnancies; health status of the children; history of major diseases; patients requiring long-term care; births and deaths; and sanitary condition of the house.

A wall chart, called vital horoscope is displayed in each health facility, giving an updated account of births, deaths, and family planning activities in the catchment area. This chart has colored and segmented circles, from center outwards, the concentric rings represent live births and mortality among infants, children aged 1–5, and people over 5 years of age. Each circle is divided into twelve segments representing months of the year.

In addition, the horoscope chart has six tables showing the aggregated results of the current year's census, live births (including birth weight, type of birth attendant, sex, mother's age at delivery); maternal mortality; all deaths by age and sex; under-5 deaths by cause; and data on family planning activities. All health facilities in a district health network prepare monthly reports and submit the same as manual data to the district health centre, where it is entered into computer. The district health centers in turn submit this data to the provincial health centers, from where it is transmitted to the national level.

Special software has been developed to process data obtained from the health network. The data generated at the health houses and health posts for a defined population is transferred on monthly basis to the district health centers through rural and urban health centers, where it is entered into computer and then sent to the provincial health centre on diskettes. It is then transferred to the PHC Department in MoH&ME.

Currently efforts are being made for computerizing the vital horoscope and extending the computer based data entry to the health houses and health posts. Also, the MoH&ME is working to computerize the household folder, but it is still in the pilot phase. Software, namely D-Tahr has been installed, which caters for the information about health personal, equipment and financial resources at the primary health care network.

Another development is the development and installation of a death registry system. The data obtained from district hospital; health houses (rural areas); health volunteers (urban areas); forensic medicine department (legal concerns); and authorized cemeteries is recorded, along with cause of death using ICD, both 17- and 103-group classifications. However, there have been concerns about the allocation of right code, particularly by the health workers in health houses and health posts and by health volunteers.

Data availability and access

Demographic and epidemiological data on health and population indicators is freely available on the internet, although it is often not updated. Specialized data and updates are however quite difficult to access and retrieve. The Statistical Centre of Iran which is a subordinate body of the powerful Planning and Management Organization keeps record of data and socioeconomic indicators. It is charged to print and also post periodic reports on the internet which can be accessed easily. However, specialized data, e.g. health accounts is quite difficult to retrieve.

Sources of information

In addition to the information system associated with primary health care network, a surveillance system for special groups of diseases is in place. This system uses the following main sources for data collection:

- Compulsory reporting of certain diseases. These include malaria, poliomyelitis, measles, tuberculosis, diphtheria, HIV/AIDS, neonatal tetanus, cholera, major thalassemia, and meningococcemia.
- Surveys to determine the incidence and prevalence of childhood illnesses, like diarrheal diseases, acute respiratory infections, and nutritional disorders. The prevalence of major disabilities in all age groups and diabetes has also been measured in this manner.
- Data gathered during the implementation phase of certain health programs, e.g. to control diabetes, hypertension, brucellosis, kala-azar, and severe mental disorders. The data so gathered from the study areas is then extrapolated to the country level.
- Medical records of hospitals and outpatient clinics affiliated with universities use ICD codes for disease classification. Depending on the requirements for a particular program the information from hospitals is collected.

5.4 Health Systems Research

As explained elsewhere, the Minster for Health and Medical Education is supported by seven Deputy Ministers, and one of them deals with research affairs. In addition, office of each Deputy Ministers has a section, called 'Centre for Action Research' responsible to undertake research on issues arising from the health services. But, another initiative launched by the Deputy Minister for Research Affairs is the population laboratory project, which is a partnership among the students, academics and community who collaborate in research aiming to solve community problems and bring effective social change. The major objectives of the project are to:

1. Enable the students, faculty and community to establish partnership for collaboration to address the community needs;
2. Improve the individual and collective skills to create impact of the living conditions and the wellbeing of the people; and
3. Enable the society for harnessing further cooperation.

The following methodology is followed in establishing the population laboratories:

1. Selection of universities depending on their commitment and willingness to get involved in the intervention;

2. Identification and selection of population for intervention which should be around 35,000 or about 7,000 households with minimum possibility of migration;
3. Constitution of a board comprising the academics, community leaders and officials of local government, health care authorities and civil society including NGOs;
4. Constitution of the specialized subcommittees;
5. Drawing the priorities' list based on needs and the standard criteria; and
6. Designing the interventions and implementing and evaluating the same.

The progress has been made that 13 universities are involved in the intervention, and each of these has developed a pilot project. The project is likely to be expanded to more universities. A website has also been designed to display the process and the outcomes of the research projects.

In addition, the Universities of Medical Science and Health Services are also involved in conducting research on various health system issues. Furthermore Iran is the recipient of the majority of research grants from EMRO. However, the general observation is that there exists a weak capacity for undertaking the health systems research in the country.

5.5 Accountability Mechanisms

The issue is viewed from two aspects; financial and administrative accountability. Iran has an inventory of health related rules and regulations, numbering over 650. These are often followed quite religiously. The financial accountability is enforced by Audit Department of the Economic Ministry. It has a representative, called Financial Controller, in different offices expending the budget. Till recently the budget authorized to the universities of medical sciences would also be controlled by the Financial Controller, but with the promulgation of Article 49 of the 4th Development Plan the universities are out of their control and should have internal audit. The financial audit is considered very serious business. But there is no system for auditing the performance in order to determine the efficiency and effectiveness of an institution.

The administrative accountability is ensured through hierarchical arrangements. That is, the officer in charge is responsible for the subordinates and there are quite tough rules for hiring and firing. Further, given that many services are being outsourced and private sector is being involved, the hitherto governance of individuals in the public sector is being transferred to regulating and implementing the contractual partners from the private sector. In addition to the hierarchical regulation there are board structures operating at various levels. For example, in the Ministry of Health there is a Council of Deputies and each Deputy Minister has Council of Directors/Director General, while in each university there is a Council of Deputy Chancellors to discuss and make decisions. Also these forums act as watchdogs for different sections of the Ministry.

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 (international $)	-	260	315	350
Total health expenditure as % of GDP	4.5	5.6	5.5	4.4
Investment Expenditure on Health				
Public sector % of total health expenditure	-	45.3	41.6	47.8

Source: Annual Budget Data. Office for Budget & Health Economics. Ministry of Health & Medical Education. 2003
The World Health Report. WHO. 2005
Health for All: Annual Report. Ministry of Health & Medical Education. 2000

Table 6-2 Sources of finance, by percent

Source	1990	1995	2000	2002
General Government %total)	44.4(1)	45.3(3)	41.6(4)	47.8(4)
Central (%General Government)	-	-	65.1(2)	-
State/Provincial	-	-	-	-
Local	-	-	-	-
Social Security (%General Government)		40.2(3)	35(2)	37(4)
Private (%total)	55.4(1)	54.6(3)	58.3(4)	54.1(4)
Private Social Insurance (% total)	-	-	-	-
Other Private Insurance (%total)	0.2(1)	2.2(3)	3(4)	1.1(4)
Out of Pocket (%total)	55.1(1)	52.4(3)	52.3(4)	53(4)
Non profit Institutions (%total)	-	-	3(2)	-
Private firms and corporations	-	-	-	-
External sources	0.1(1)	0.1(3)	0.1(4)	0.1(4)

Sources: 1. Annual Budget Data. Office for Budget & Health Economics. Ministry of Health & Medical Education. 2003
2. National Health Accounts. Iran's Statistical Center. 2003
3. The World Health Report. WHO. 2001
4. The World Health Report. WHO. 2004

Table 6.2. Iran's Investment in Health in 2001 (in US$)

Indicators	Values
Per capita GDP in international dollars	6,673
Total expenditure on health as % of GDP	6.3
Per capita expenditure on health at average exchange rate	350
Per capita expenditure on health in international dollars	422
General Government expenditure on health as % of total expenditure on health	43.5
General Government expenditure on health as % of total general government expenditure	12.0
Per capita government expenditure on health at average exchange rate	152
Per capita government expenditure on health in international dollars	183
Social security expenditure on health as % of general government expenditure on health	40.8
External resources for health as % of total expenditure on health	0.1
Private expenditure on health as % of total expenditure on health	56.5
Prepaid plans as % of private expenditure on health	2.6
Out-of-pocket expenditure on health as % of private expenditure on health	94.20

Trends in financing sources

The MoH&ME finances and delivers the primary health care while secondary and tertiary care is financed through insurance schemes. Iran spends 6% of GDP or US$ 432 per capita on health that is higher than many countries in the Middle East and North African Regions (World Health Report, 2005). The high level of spending compared to some other lower middle income countries in the world is one of the strengths of the Iranian health financing. The sources of funds to finance health care services are multiple including out-of-pocket payment, government funds mainly out of the income from oil and gas, general taxation, health insurance, and individuals donations.

The government provides strong support to different health financing schemes to ensure that these are viable and able to provide a good level of coverage to the people. Between 1980 and 2001 the government spent between 10 and 12% of its annual national budget on health which is between 26 and 50% of the overall health spending of the country. In addition, the government pays the whole premium of MSIO for the poor and rural populations and part of the premium for the SSO scheme. Public hospitals have two funding sources; annual budget from government, and the payment of fee-for-service and per-diem by SSO and MSIO. In addition, patients have to pay 10%co-payment which is collected as special income of the hospitals.

Health expenditures by category

Table 6-3 Health Expenditures by Category

(Iranian Rials)	1993	1995	1998	1999	2000
Total expenditure: (Public)	-	-	-	-	-
% capital expenditure	25.7	11.4	9.1	8.9	7.6
% by type of service					
Curative	-	-	-	-	-
Preventive	-	-	-	-	-
Primary/MCH	-	-	-	2329.7	3786.7
FP	-	-	-	-	-
Administration	-	-	-	-	-
% by item					
Staff costs	2931	3014	5351	6777	8321
Drugs and supplies	2458	2528	4488	5684	6979
Other	-	-	-	-	-

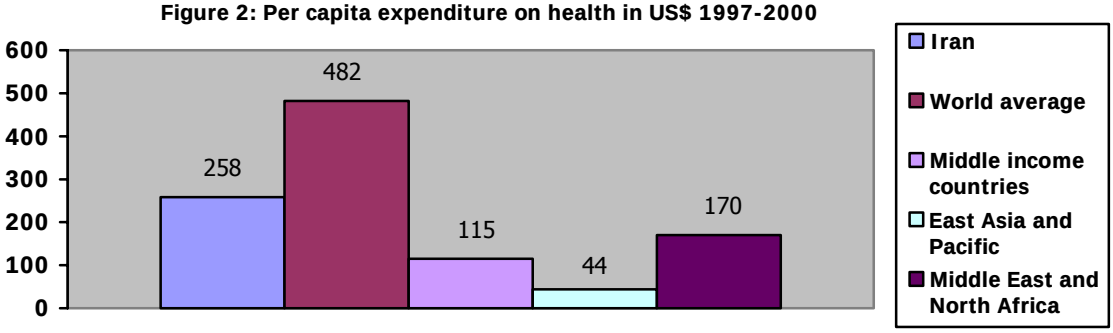
Indicators	93	94	95	96	97	98	99	2000
Allocated to MOH & ME from total government budget (%)	9	6	6	6	6	5	5	5
MOH & ME expenditure: As % of GDP			2/8	2/7	2/85	2/8	2/7	2/75
National health expenditure As % of GNP			5/6	5/4	5/7	5/6	5/4	5/5
National health expenditure devoted to local health care	NA.							
Annual budget of MOH & ME (per capita)US$			128	138	146	144	143	156
National expenditure on health (per capita)US $			260	281	295	293	290	315
% of capital expenditure	25.7	16.4	11.4	11.9	16.4	9.1	8.9	7.6
Health expenditure by type of services Primary Billion rials	NA.						2329.7	3786.7
Health expenditure by items Staff (Billion rials) Drugs and supplies	2931 2458	2643 2458	3014 2528	4324 3626	4957 4157	5351 4488	6777 5684	8321 6979

Trends in health expenditures by category

During the period from 1971 to 1999, relative share of government expenditure on health has varied from 1.66% (in 1971) to above 5% of GDP (in 1980, 1981, 1993 and 1997). It accounted for less than 3% of the GDP during 1971-1977 but has not fallen

below 4.2% since 1980. Its median value for the past ten years was about 4.8%6. According to the World Bank, in the year 2000 the share of health of the GDP was 5.5%, of which 2.5% was paid by the public sector and 3% by the private sector. While table 2 provides details of Iran's investment in health against different variables7, the total per capita expenditure on health during 1997-2000 of Iran compared to the world average and other regions is seen in figure 2.

Figure 2: Per capita expenditure on health in US$ 1997-2000



6.2 Tax-based Financing

In 1996, Iran spent an estimated 5.7 percent of its GDP on health, some US$101 per capita in exchange rate-based dollars (US$305 in purchasing power parity-adjusted dollars).

- Health spending accounts for some 10 percent of Government spending and 5.3 percent of household spending.
- The public share is estimated to be 2.4 percent of GDP or some 42 percent of total health spending. (We assumed that expenditures by "Non Profit Institutions Serving Households" (NPISH) are public. If NPISH expenditures were counted as private expenditures the public share would only be about 1.8 percent of GDP or 32 percent of total health spending).
- An estimated 85 percent of public spending on health is for recurrent costs.
- PHC (fully financed through Government budget) accounts for 30-35 percent of Government health expenditures.
- SSO contributions are earnings related and account for 30 percent of earnings for a wide range of social security and health benefits. Seven percentage points of the contributions are paid by employees, 20 percentage points by employers, and 3 percentage points by government. Health accounts for some 9 percentage points of the 30.
- The Government budget covers MSIO deficits.
- The monthly premium for MSIO (suggested by the MSIO High Council and approved by the Cabinet) is currently Rials 7,920 for the following funds:

Government employees, rural households and "others". Self-employed pay Rials 10,000. The actual share of the premium paid by the individual depends on which fund the individual is covered through:

Government employees: They pay 30 percent of the premium and the Government the remaining 70 percent.

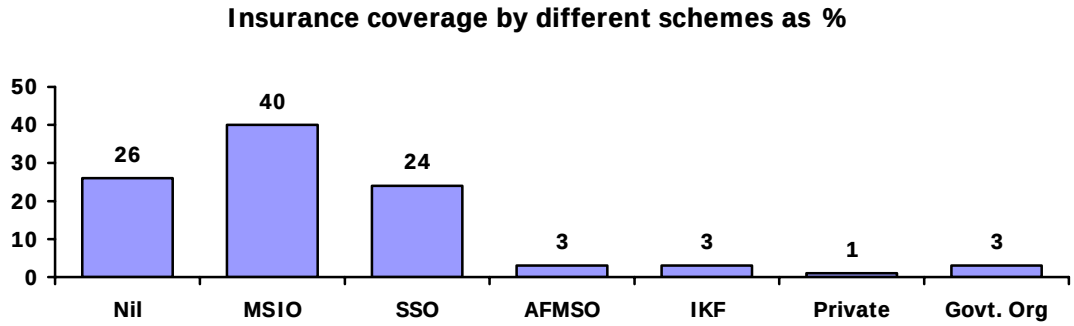
Rural households: The Government pays the total amount of the premium.

"Others" (e.g., students, clergies, etc.): They pay between 20 and 30 percent of the premium. The remaining 70 to 80 percent is paid by the relevant institution the individual is a member of.

Self-employed: They pay the full amount of their premium[8].

Levels of contribution, trends, population coverage, entitlement

Government claims 90% of the population is covered, but some studies suggest that the coverage is 80%. The differences are due to double and sometime triple coverage, i.e. one having coverage by more than one insurance scheme. The largest health care financier is Medical Services Insurance Organization (MSIO), which was established in 1996 and provided coverage for some 37 million people in 2002. The beneficiaries of MSIO are civil servants, self-employed, rural populations and special groups such as students, clergymen and patients suffering from specific illnesses such as Thallasemia and chronic renal failure. The Social Security Organization (SSO) provides coverage for 27 million people, mainly private sector workers. Further, in addition to Armed Forces Medical Services Organization (AFMSO) that covers 3.5 million people and Imam Khomeni Foundations (IKF) which provides health insurance coverage for the poor, estimating about 4 million, there are over 30 smaller health financing schemes organized by specific groups such as government ministries, municipalities, banks and cooperatives, providing coverage to the workers and their families in these organizations.



Iranian health financing schemes provide generous benefit packages encompassing inpatient and outpatient services and surgical procedures that include laboratory and radiology investigations, drugs, rehabilitation services, prosthesis and in certain cases even dental services. Another strong point of the health financing schemes is that they provide coverage for services in public and private health sector. This arrangement gives participants a wider choice and increases access to health care services. Currently the total contribution to SSO is 30% of an employee's salary where the employees contribute 7%, employers 20% and the other 3% is paid by the government. The contribution to MSIO varies between the groups.

Key issues and concerns

While the coverage is not universal the benefit packages offered by different schemes vary. For example, MSIO provides coverage to the rural population only for in-patient care. This provision of different benefit packages depends mainly on the financial strengths and not necessarily the health care needs of the population under their coverage by different schemes.

Pooling of risk among various groups within the population is limited by the existence of multiple funding schemes. The effect is aggravated further lack of pooling within the funds, e.g. in MSIO there are four different funds pooled inadequately, as being managed separately. Such a lack of fund pooling between and within different schemes and weak coordination between funds will lead to duplication of coverage, as indicated above. All health financing schemes provide coverage mainly for curative care, excluding the preventive and promotive services from their package. However, with the increasing prevalence of chronic illnesses, importance of screening and identifying such disease at an early stage grows, as provision of early treatment which can prevent long term complications would help reduce the cost and payment.

The contribution paid by the participants of different schemes does not reflect their ability to pay. Instead, the premium level is set based on the coverage and previous spending by different schemes. Coupled with the high co-payment level, mechanisms to generate resource are therefore potentially regressive and might negatively affect lower income groups. In addition, there are issues surrounding provider payment mechanisms; and is discussed in the relevant section.

Planned changes

The government has been working to unify different funds. Hitherto these funds were operating as separate identities within the MoH&ME; and a High Council for Insurance would regulate these. A Ministry of Welfare and Social Security has been established, bringing these funds under its umbrella. Likewise, there is a move to universalize the insurance coverage and define a uniform benefit package.

6.3 Insurance

Table 6-4 Population coverage by source

Source of Coverage	1998(1)	2002(2)
Medical services insurance organization	45.17	40
Government employees fund	9.96	
Rural fund	32.84	
Self employed	1.09	
Outer fund	1.26	
Social security organization	**39.14**	**24**
Imam Khomeni foundation	7.5	3
Armed forces	-	3
Ministry of oil	0.98	3
Banking system	1.05	
Radio and television	0.13	
Uninsured/Uncovered	**6.19**	**26**

1. National Health Accounts. Iran's Statistical Center. 2003
2. Hamidreza Jamshidi, Mohsen Naghavi. Utilization of Healthcare Services in Iran in Year 2002. Ministry of Health & Medical Education. 2005

Trends in insurance coverage

There are four government-controlled health insurance schemes. Public Health Insurance Scheme-Social Health Insurance Scheme Military Health Insurance Scheme. All come under the jurisdiction of the High Council for Health Insurance, made up of Ministers from seven ministries and headed by the Minister of Health. The High council is responsible for making changes to the social insurance provisions of each scheme, and sets the fee schedule for payment of providers. All health insurance schemes use the same fee schedule.

Medical Services Insurance Organization (MSIO)

The Public Health Insurance Law of 1995 attempted to correct the imbalance in coverage of the population, and made provisions for government employees (excluding the military), villagers or the rural population, the self – employed and low income groups. Persons in these groups are eligible to join the funds, though participation is not compulsory. Villagers are automatically insured and their premiums are paid by the Government. This leads to a large government subsidies to finance the deficit of the Public Health Insurance Scheme.

The MSIO provides coverage of all those services not covered by the primary Health care network i.e. diagnostic services and treatment of illness and disease either at ambulatory level or hospital level. Patients are eligible for benefits immediately after joining the scheme. However these services are not, as a rule, provided free of charge for persons with this type of insurance. (Razavi, 2003)

Social Security Organization (SSO)

The social security organization was established by the social security law of 1975 to provide health care benefits as well as a range of financing benefits to its insured. It is compulsory for all those in employment, with the exception of government employees and the military (for whom there exist separate schemes). It has 26 million beneficiaries. Wives of employees are automatically covered (though if the wife is employed and the husband is not, the husband does not have coverage). The first three children also have coverage; any further children are not entitled to coverage (not even through payment of further contributions).

The SSO Scheme, in addition to health care benefits, provides for retirement pensions, disability, survivors, work-injury, marriage grant, unemployment maternity, and other benefits, under the 1989 Health Care Obligation Law, the Social security organization is required to provide its own health care facilities. It now owns 27 hospitals with 10000 beds and more than 260 clinics, polyclinics and day facilities. These facilities provide about one-third of health care services to its beneficiaries, with the remaining two-thirds being provided through contracts with hospitals in the State's curative sector. Care which is offered in the organization's own facilities is free of charge to the patient; care offered in the State's health network through a contractual arrangement requires a patient contribution of 10% for inpatient care and 20% for a clinic visit. An insured patient using a private hospital which does not have a contractual agreement with the organization must meet all costs but can subsequently claim reimbursement of a portion of the fees. (Hasanzadeh, 2003)

Voluntary insurance programs:

The statutory public Health Insurance Scheme established by the public Health Insurance Law, is actually non-compulsory, and only employed persons and military personnel are covered by quasi-mandatory health insurance. This voluntary character of

statutory insurance has been questioned as it places those who cannot afford to pay at a disadvantage; it makes evasion easier; it allows cream skimming; and it compromises the solidarity of the system as it offers persons the option not to join any statutory health insurance scheme. To respond to this shortcoming and pay more attention to deprived segments of population, the government pays all the premium of villagers and made them all eligible.

Social insurance programs: trends, eligibility, benefits, contributions

Organization	Coverage	Principal Financing Source	Provider-Payer Relationship
Social Security Organization, (**SSO**)	Mandatory Coverage of all formal Sector workers and their dependents.	30% of workers wage and benefit. 7% paid by workers, 20% by employers, and 3% by government. Also 5 to 15 percent of all contracts (e.g. construction, research, …) are paid to SSO by contractors. About 33% of SSO revenue is allocated for a comprehensive curative heath insurance service.	Direct care is provided through SSO owned and operated 48 hospitals, 224 clinics, 8 daycare's. Indirect care is provided through member providers in private sector. Indirect care is based on fee-for- Service. Fees are set by Insurance High Council and approved by the Cabinet every year. There is no co payment in direct care. 10% and 30% co payment for inpatient and outpatient care respectively in indirect care.
Medical Services Insurance Organization **(MSIO).**	Four Separate Funds: 1- Government Employers Fund. Compulsory coverage of all formal government employees and their dependents. 2- Rural Household Fund. Free inpatient coverage for all rural sectors households. 3- Self- employed Fund voluntary coverage for all households. (three month waiting period for inpatient care). 4- Others Fund (Students, clerics)	Individual premium is suggested by Insurance High Council and approved by the Cabinet every year. 1- Government employers pay 30% and government pays 70% of the premiums. 2- Government pays the entire premium for rural households. 3-Households pay 100% of the premium. 4- On average 30% of premium is paid by individuals and the rest is paid by government.	Fee- for- services. Fees are set by Insurance High Council and approved by the Cabinet every year. There is a 10% and 30% co payment for inpatient and outpatient care respectively. DRGS are set for 40 categories of illnesses and may expand in the future.
Emam Khomeini Relief Foundation.	Some individuals are covered by law (e.g family of prisoners, rural household over age 60…). Others are covered based on their financial situation.	Government public budget and small amount of charitable contribution by households.	Through a referral system with a network of contracting providers. Copaynment for inpatient care is zero and for outpatient care varies between zero and thirty percent depending on financial situation of patients.
Ministry of Oil (MO)	All MO employees and their dependent are	10% of salary and benefits are paid directly by MO. No	Free comprehensive curative services are provided through

	covered.	contribution by employers.	MO health services network.
Banking Systems (7 major banks)	All employees and their dependent are Covered.	Employees pay1000 Rails every month for each individual covered .The banks pay 12% of salary and benefits.	Comprehensive curative services are provided through own facilities and contracting providers. The copayment for outpatient care varies between zero to 20 percent and for inpatient care varies between zero and thirty five percent based on fees set by the banks.
Armed Forces Medical Service Organization.	All members of armed forces and their dependent are covered.	Government	Armed Forces Health care network

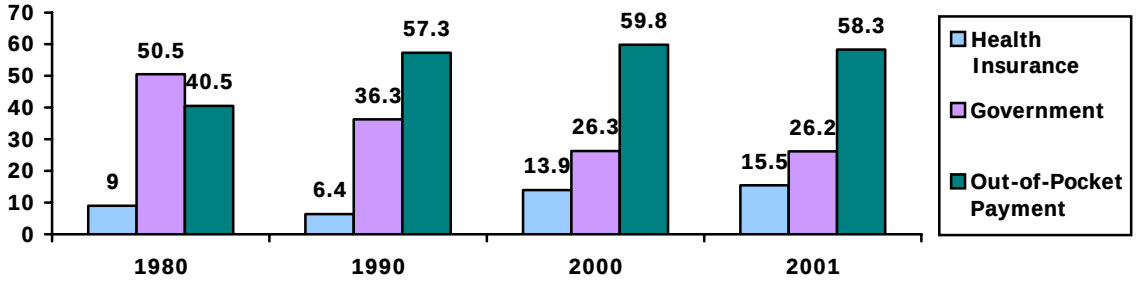
Private insurance programs: trends, eligibility, benefits, contributions

Private insurance schemes are relatively underdeveloped in Iran given the high coverage provided by the social insurance schemes. Private insurance schemes are usually used by foreign expatriates and their families but locals may purchase it as a supplementary plan.

6.4 Out-of-Pocket Payments

High out-of-pocket (oop) expenditure that puts financial burden on the households is one of the major problems of health financing in Iran. As seen in figure below from 1980 to 2001, oop expenditure has soared from 48% to 58% of the total health expenditure. As a result, according to other estimates, 2% of households face catastrophic health care spending (National Health Account Study, 2002).

Source of funding for health financing (1980-2001)



The widely practiced balance billing and informal payment contribute to the high out-of-pocket expenditure. The informal or under the table payment is due primarily to the public sector doctors owning and running private practices (not accurate). Sometime patients have to pay to the doctors to obtain consultancies and surgeries in public facilities. The high co-payment for services is another reason for high oop expenditure. Further, retrospective payment mechanisms, especially fee-for-service have since incentives to induce demand for health care which leads to increased co-payment adding to oop expenses.

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

Private hospitals and private physicians are paid on fee-for-service, per diem and case-payment basis when they treat patients from health insurance agencies. Here in these private sector facilities, as in public hospitals, patients have to pay 10% co-payment. But, as indicated elsewhere it is common for the physicians to charge higher fees than the national tariffs - patients have to pay the difference between the bill size and the amount reimbursable by the insurance schemes – a phenomenon called balance billing.

Cost Sharing

The system for financing services through MSIO, SSO, AFMSO and IKF include the hospitalization, undertaking diagnostic tests and provision of pharmaceuticals at varying system of cost sharing. That is, for example,

- Beneficiaries face no cost sharing in the SSO owned facilities, but share 30% cost of outpatient and 10% for inpatient care in non-SSO facilities. For care in private non-contractually related facilities coinsurance amount equal to the difference between the facility charge and SSO's normal payment level.
- Under MSIO cost sharing is set at 30% for outpatient and 10% for inpatient care for all except for the rural population who face a co-payment of 25% for inpatient care.

6.5 External Sources of Finance

Levels, forms, channels, use and trends

according to the Third Evaluation Report of Strategies on Health For All by the year 2000, published in 1997, the total volume of international bodies' credits (except the World Bank assistance which is in the form of loans), has not exceeded 0.9 percent of the current budget of the Iranian health sector. In 1998, the World Health Organization's bi-annual assistance was 3 million dollars, the UN's Population Fund, around 2 million dollars annually, UNICEF'S Fund, about 1.7 million dollars and that of the UN's High Commissioner for Refugees, around 1.5 million dollars plus 400 million rials. The activities of the UN Development Program are based on the framework of the requirements of the development and economic sectors of the country. (WHO/MOH, 1997). From the beginning of 1994, the government has benefited from the World Bank resources for financing some of its projects. Consequently, the provision of foreign finances in the budget rose from 58 billion rials in 1994 to about 300 billion rials in 1995.

The share of external financing in health

		Periods	Amounts (US $)	
UNFPA(1)		1995-1999		2809043
		2000-2004		4394730
UNICEF(2)		2000		About 700000
		2001		About 1500000
		2002		About 500000
		2003		About 470000
WHO(3)	**1998-99**	Regular budget	3080264	3151350
		Extra budget	71086	
	2000-01	Regular budget	2508415	2509050

		Extra budget	635	
	2002-03	Regular budget	2323718	2539228
		Extra budget	215510	

Sources: (1) UNFPA, Tehran, 2003
(2) Unicef, Tehran, 2003
(3) WHO, Tehran, 2003

6.6 Provider Payment Mechanisms

- Government health sector employees are salaried and Government facilities are reimbursed based on budgets and/or fee for service payments from Government, MSIO and SSO.
- Private providers are paid on a fee-for-service basis.
- MSIO, the Imam Khomeini Foundation, and SSO reimburse providers on a fee-for-service basis with no overall budget caps or other cost control mechanisms.
- Fees are established by the High Council composed of a number of Ministers and Managing Directors, and these fees apply to MSIO, the Imam Khomeini Foundation, and SSO. (Health financing reform in Iran)

Hospital payment: methods, recent changes; consequences and current key issues/concerns

The provider payment mechanism is complex, dominated by retrospective payment, such as fee for service, per-diem payments and itemized billing with weak mechanisms for cost-control, especially for private providers. Salary is used in public facilities. Likewise, for out-patient services, physicians are paid salary in public facilities, while private sector physicians and specialists are reimbursed based on fee-for-service. Tariffs for different services are set by the High Council for Health Insurance and approved by the Cabinet.

Two drugs lists; national drugs list and insurance drugs list are used by the financiers. MSIO and SSO patients do not have to pay co-payment for drugs prescribed from the insurance lists, but will have to pay co-payment level of 30% for national drugs list. However, if prescribed drugs are outside both these lists, patients have to pay the whole cost, while the pharmacists are reimbursed on a fee-for-service basis. For the laboratory and radiology services the providers are reimbursed based on fee-for-service with 30% co-payment by patients.

7 HUMAN RESOURCES

7.1 Human resources availability and creation

In the Ministry of Health and Medical Education office of the Deputy Minister for Medical Education deals with undergraduate and postgraduate training of medical and paramedical staff, while office of the Deputy Minister for Logistics and Management Development deals with issues surrounding human resource development. There are 41 Universities of Medical Education and Health Services – at least one in each of the 32 provinces. Some of these universities also have the schools for paramedical and nursing education. The availability of different categories of human resource and capacity of different types of training institutions is given in table below:

Table 7-1 Health care personnel

Personnel per 100,000 population	1990	1995	2000	2001
Physicians[1]	52	76	106	111
Dentists[1]	10	13	19	21
Pharmacists[1]	7	10	14	15
Paramedical staff[2]	-	-	259	241
Nurses and Midwives[3]	-	-		161
Behvarz (rural area)[4]	-	-	-	143
Women health volunteers (urban area)[4]	-	-	-	136

Sources:

1. Iranian Medical Association. 2003
2. EMRO. Demographic and Health Indicators for Countries of the Eastern Mediterranean. 2001/2003
3. EMRO. Demographic and Health Indicators for Countries of the Eastern Mediterranean. 2004
4. Center for Network Development & Health Promotion. Ministry of Health & Medical Education. 2003

Table 7-2 Human Resource Training Institutions for Health (2002)

Type of Institution	Current		Planned		
	§Capacity	Number	Number	Capacity	Target Year
Postgraduate training Institution	1315				
Medical Schools	5504	36			
Schools of Dentistry		15			
Schools of Pharmacy		9			

Type of Institution	Current		Planned		
	§Capacity	Number	Number	Capacity	Target Year
Nursing Schools Midwifery Schools Paramedical Training	20157	67			
Institutes Schools of Public Health		22			

§Capacity is the annual number of graduates from these institutions.
Source:

1. Office for Coordination on Data Collection & Statistics. Publication #412. Ministry of Health & Medical Education. 2004

In addition to the universities of medical sciences and health services which provide pre-service training in Isfahan, Mashad, Shiraz and Ahwaz there are regional centers with some in-service training facilities. The Behvarz Training Centres provide pre-service as well as in-service training to Behvarz. Furthermore, a Directorate General for Management Development in the office of Deputy Minister for Logistics and Management Development is responsible for in-service training of health managers. Another Directorate General of Human Resource Management arranges in-service training of other staff. However, there has not been any organized effort for the in-service training of health managers. To fill up this gap, through a World Bank loan (3584-IRN), a National Public Health Management Training Centre was established in Tabriz. But, these are just infrastructure and physical facilities, capacity for training different aspects of health planning and management is weak.

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

The skill mix can be considered at two levels, in the ministry of health, and universities of medical sciences and their affiliated institutions. Discussion with a key informant in the Directorate General of Human Resource Management revealed that while the skill mix was fixed and according to a yard stick for various institutions and facilities, the availability of different staff was a problem. Particularly the problem is in the peripheral facilities and more so in the under-privileged provinces like Sistan Balochistan, Boushehr, Hormozgan the turnover is quite high and staff availability is quite poor. In big cities, however, the availability of staff poses no problem.

There is no system or establishment to undertake human resource planning. The needs are assessed on ad-hoc basis and implementation is done. In many cases this has resulted in the over production and unemployment of different professionals. The unemployment rate, which had fallen significantly from 14.2% to 9.1% during 1986-1996, had jumped back to 14.6% in 20019,10. The health sector is not immune from the effect - for the first time in the recent history of Iran high unemployment rate of medical doctors, nurses and technicians has become a matter of national issue and debate. In response to these concerns, the MOH&ME has established a special bureau for dealing with the problem. Solutions proposed range from a reduction in the admission of new students to finding employment opportunities abroad. Both of these options are open to question and may take a long time to have any noticeable impact.

The recruitment and selection of different categories of staff is made at the Ministry of Health by the Directorate General of Human Resource Management and in the

universities which are autonomous by the Deputy of Logistics and Management. But, since in this selection general issues dominate technical matters, there is a general feeling that good candidates often do not get recruited. Further, career development is based on a yearly subjective assessment of incumbents by their supervisors and years of service, the actual performance is rarely considered for promotion. This factor combined lack of performance audit contributes to weak health system.

Accreditation, Registration Mechanisms for HR Institutions

Within the office of Deputy Minister for Medical Education, two Director Generals – one heading the council for medical education and the other for basic sciences and paramedic education are responsible for accreditation of human resource institutions. The Iranian Medical Association, which has branches in all provinces registers the successful graduates after they had completed compulsory government service. This registration is renewed after every five years subject to accumulating certain credits by attending continuing education sessions.

7.2 Human resources policy and reforms over last 10 years

In the past, the responsibility for compiling manpower policies and the related coordination was scattered among a few MOH–affiliated units. However, after the change in the health systems structure at the national level, this function was relegated to Manpower Resources Management Office, attached to the Deputy Minister's Office for Resources Management and Development. This office has launched the following activities since then:

- Pilot studies on manpower education and development;
- Study on quantitative planning and distribution of manpower;
- Study about management based on employees' performance;
- Planning for establishing performance-based management in hospitals;
- Study on reforming the [payment system and means of establishing a wage system;
- Establishing links between performance-based management with issues of the day such as assigning the affairs to non-governmental sector, responding to the needs of clients and performance evaluation system. (MOH & ME, 2002e)

7.3 Planned reforms

8 HEALTH SERVICE DELIVERY

8.1 Service Delivery Data for Health services

Table 8-1 Service Delivery Data and Trends

TOTAL (percentages)	1990	1997	2000	2002
Population with access to health services (1)	80	90	92	94
Married women (15-49) using contraceptives modern method	-	51(3)	57.6(4)	-
Pregnant women attended by trained personnel	-	23.5(2)	91.1(4)	-
Deliveries attended by trained personnel	-	13.9(2)	89.6(4)	-
Infants attended by trained personnel	-	96	-	-
Infants immunized with BCG	-	98.6(2)	-	-
Infants immunized with DPT3	-	96.9(2)	-	-
Infants immunized with Hepatitis B3	-	90(2)	-	-
Infants fully immunized (measles)	-	95.9(2)	-	-
Population with access to safe drinking water	-	94.5(2)	93(4)	-
Population with adequate excreta disposal facilities	-	64.3(2)	72.8(4)	-

URBAN (percentages)	1990	1997	2000	2002
Population with access to health services (1)	100	100	100	100
Married women (15-49) using contraceptives modern method	-	47(3)	55.2(4)	-
Pregnant women attended by trained personnel	-	21.1(2)	92.9(4)	-
Deliveries attended by trained personnel	-	4.7(2)	95.5(4)	-
Infants attended by trained personnel	-	95	-	-
Infants immunized with BCG	-	98.8(2)	-	-
Infants immunized with DPT3	-	97.1(2)	-	-
Infants immunized with Hepatitis B3	-	90.6(2)	-	-
Infants fully immunized (measles)	-	95.4(2)	-	-
Population with access to safe drinking water	-	99.2(2)	96.8(4)	-
Population with adequate excreta disposal facilities	-	78.6(2)	87(4)	-

RURAL (percentages)	1990	1997	2000	2002
Population with access to health services(1)	60	80	84	86
Married women (15-49) using contraceptives modern method	-	58(3)	57.3(4)	65.5(5)
Pregnant women attended by trained personnel	-	27.6(2)	87.9(4)	-
Deliveries attended by trained personnel	-	30.4(2)	79(4)	89.365.5(5)
Infants attended by trained personnel	-	96	-	-
Infants immunized with BCG	-	98.6(2)	-	-
Infants immunized with DPT3	-	96.9(2)	-	-
Infants immunized with Hepatitis B3	-	89.2(2)	-	-
Infants fully immunized (measles)	-	96.5(2)	-	-
Population with access to safe drinking water	-	86(2)	86.1(4)	-
Population with adequate excreta disposal facilities	-	37(2)	47.1(4)	-

Sources:

1. Center for Network Development & Health Promotion. Ministry of Health & Medical Education. 2003
2. Health & Development Pattern of the Provinces. Ministry of Health & Medical Education. 1997
3. Family Health Survey. Ministry of Health & Medical Education. 1997
4. Population & Health Profile. Ministry of Health & Medical Education. 2000
5. Vital Horoscope for Rural Areas (Under Coverage of Health Houses). Center for Network Development & Health Promotion. Ministry of Health & Medical Education. 2003

Iran's health care delivery system can be defined in terms of three levels: the first two of which are encompassed in the PHC network.

The basic PHC level includes:

(i) rural health houses with a catchment population of 1,500 staffed by behvarzes (front line allied health workers);

(ii) rural health centers containing a physician and other health workers (e.g., nurse, midwives, dental technician, environmental health workers) supervising a number of health houses with a population base of 9,000;

(iii) urban health posts; and

(iv) urban health centers.

The second level of the system is the district health center, which is responsible for the planning, supervision, and support of the PHC network and district hospitals.

The third level of the system consists of the provincial and specialty hospitals.

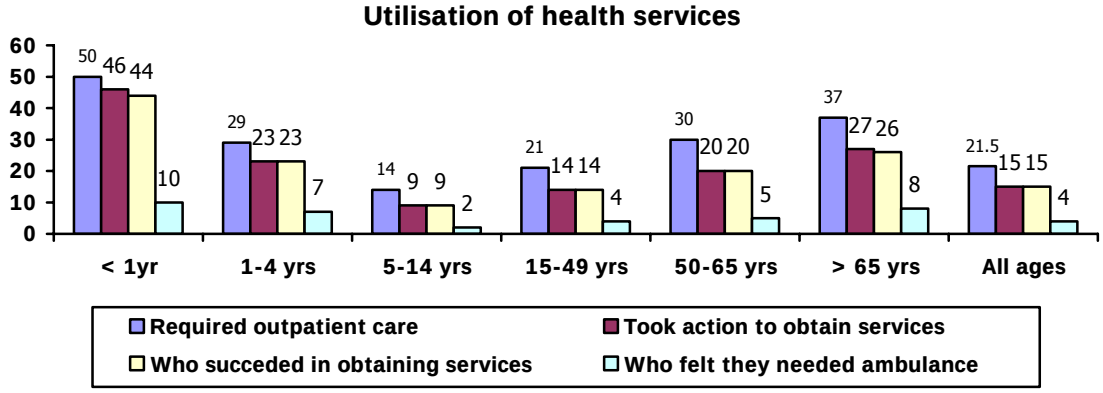
- Almost 85 percent of all deliveries take place in health facilities and almost 90 percent of babies are delivered by trained health attendants.

- Iran has 15,400 health houses, 25,000 behvarzes, 2,200 rural health centers, 300 health posts, and 1,900 urban health centers.
- Iran has 98,000 hospital beds, 1.6 per thousand population.
- 76 percent of beds are in State hospitals, 6 percent in SSO, 10 percent in the private sector, and the remainder in charity and NGO hospitals.
- There are few data on utilization, but hospital occupancy rates are believed to be below 60 percent in state and SSO hospitals.
- By the millennium, hospital beds are projected to increase by 14,000 including 8,000 private and 4,000 SSO beds.
- Iran has 0.8 physicians, 0.5 midwives and 2.3 nurses per thousand population.
- Training for health professionals is carried out at state universities, where education is free.
- Doctors must provide 3-5 years of service to the MOHME after graduation before they can go into private practice.
- Most doctors have private practices, in addition to part-time contracts in public hospitals.
- Iran is turning out 4,000-5,000 new physicians each year.
- 95 percent of the country's local drug needs are met through local production.
- Generic names are used for all the drugs manufactured and sold in Iran.

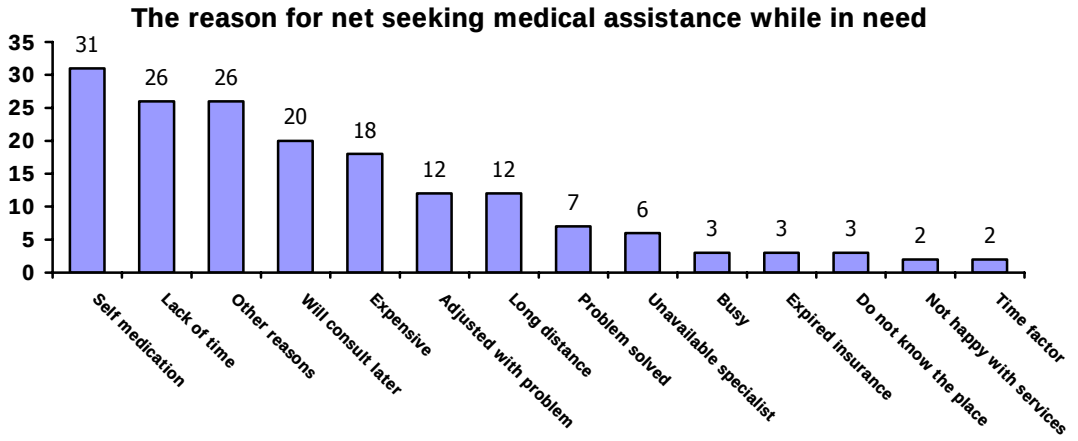
(Health Financing reform in Iran)

Access and coverage

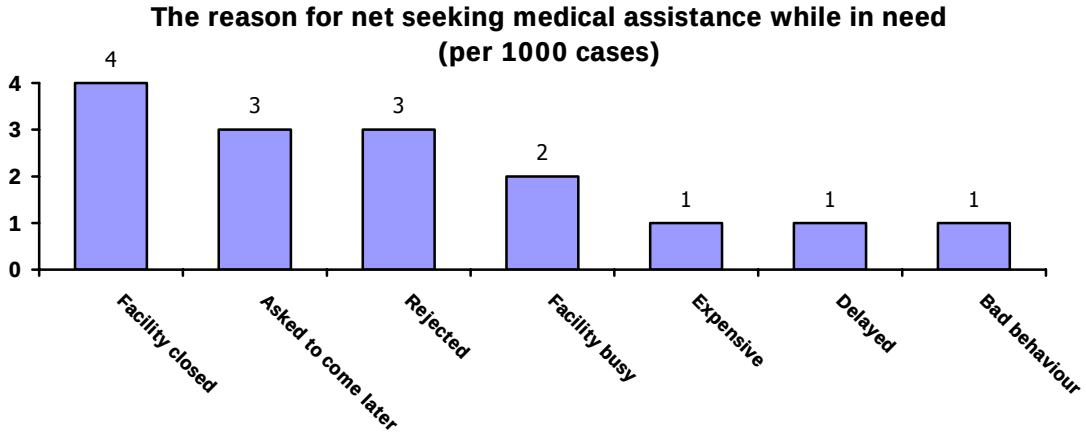
According to a health services utilization study conducted in 2003 the overall situation is shown in figure. The question was how many individuals of different age groups required medical attention during the past two weeks; how many took action to seek health services; how many could obtain the required services; and how many thought they need ambulance services.



In order to determine the reason for not taking action for securing medical attention the individuals were given a multiple choice. The response is as below. Accordingly, the non-availability of adequate funds followed by self medication was the main reason for not seeking medical assistance in case of need.



Those individuals who had problem and tried to seek medical attention, but could not, were given multiple choice to identify the reason. Following response emerged:



8.2 Package of Services for Health Care

Benefits provided through the PHC network include: immunizations for children and pregnant women; pre- and post-natal care; growth monitoring of children under 5; promotion of nutrition and breast-feeding; control of diarrhoeal diseases and acute respiratory infections; environmental health--water and sanitation; control of endemic diseases such as malaria; surveillance of communicable diseases; provision of basic curative services; and school health promotion.

- The services of the PHC network are fully paid through budget allocations (i.e., there is no cost-sharing, premium, etc.).
- MSIO, SSO, and the Military Insurance System provide a comprehensive set of curative care benefits including hospitalization, diagnostic tests, and pharmaceuticals.
- SSO beneficiaries face no cost-sharing for services provided in SSO facilities (where about one-third of SSO financed care is provided), but face cost-sharing of 10 percent for inpatient care and 20 percent for outpatient care for services provided in non-SSO contracted facilities.

- For care in private non-contractually-related facilities individuals face a coinsurance amount equal to the difference between the facilities charge and SSO's normal payment level.
- Under MSIO co-payments are set at 25 percent for outpatient and 10 percent for inpatient care services for all individuals except for the rural households. Rural households face a copayment of 25 percent for inpatient care.

8.3 Primary Health Care

Infrastructure for Primary Health Care

Up to 90% of rural population has access to PHC services delivered in Health Houses and Rural Health centers. Urban coverage, although is less in percentage but is well compensated by private outlets

Public / private, modern / traditional balance of provision

Public-private ownership mix; Public Sector:

In rural areas, the governmental health facilities are the only health delivery outlets. No other entities, whether modern or traditional, are providing such services

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

Primary care in Iran is taken to include the following: immunization, health education, essential drugs, maternal and child health, family planning and environmental health. These services are provided through the state primary health care (PHC) network, which was developed with assistance from the World Bank (in connection with construction of urban/rural health centers and provision of management guidance). Care delivery under the PHC network is very well organized, and is provided by health houses, rural health centers, and urban health centers, and health posts.

The delivery settings of the PHC network are as follows:

Health houses are the basic community facility, serving about 1500 people. Each health house covers more than one hour's walking distance from the facility. Health houses are staffed by behvarzes, of whom there are in rural areas covering health houses. About 75% of behvarzes are female. They undergo training for about two years acquiring skills that allow them to operate as multi-skilled health workers. Applicants are chosen from within their own geographical areas, and are based both within the health houses and the community, visiting people in their homes. A complete census of rural areas for the purposes of primary care development is carried out by the behvarzes annually.

The behvarzes undertake a range of activities; including advice on child health, family planning, breast feeding, nutrition, immunization, and treatment for minor illnesses. They can prescribe from a range of 40 pharmaceuticals which can be dispensed through the health house, and supplies of which are dept at the rural health centers. Services provided at the health house are free. When necessary, the behvarz will refer patients to the next level of care, the rural health centre. Information on the health of the local population is collected and recorded on the "vital horoscope", a system developed by Iran PHC system.

Rural health centers are village-based facilities, each of which supervise one to five health houses, and covers approximately 7500 persons. They are staffed by a doctor, family health technicians, a dental technician, a laboratory technician, environmental health workers and administrative staff. The team and especially the doctor supervise the work of the behvarzes and visit each health house at least once a week.

Almost one sixth of health centers have a delivery unit staffed by three qualified midwife. Midwives provide a normal range of ante and post natal care, and in addition perform PAP smears and insertion of IUDs on referral from the behvarzes. In case of complications during labor, an ambulance is available to take the mother to the nearest hospital.

The doctor of the rural health center is a medical school graduate most of these doctors are on their 2 year obligatory services. He/she is provided accommodation immediately beside the health centre, and is available during the day and on call every night.

Dental services include extractions, fillings, scaling and radiography. The services are provided by dental technicians. Dental technicians must work in a rural health center for five years, following which they can apply to undertake further studies to qualify as a dentist (at which point they will probable go into private practice). Rural areas additionally provide mobile units which take care of nomadic groups as well as villagers in remote areas.

The PHC network offers urban health centers in towns and cities. These cover a population of about 12000 and are staffed by teams similar to the rural health centers but offer a more sophisticated range of services. In addition, urban health centers also provide environmental health support and occupational health advice to firms and business, schools, as well as those involved in food preparation and distribution.

Urban health centers' similar to rural ones have health posts under their supervision, staffed by midwives and public health technicians.

District health centers are responsible for the planning, supervision and support of the PHC network, and for providing a range of services beyond those provided by the health centers. Such as laboratory diagnosis of water pollution TB laboratory examination and public health tests for those dealing with food stuff.

Public sector: Package of Services at PHC facilities

Following the revolution, a number of programs were introduced into the health care systems, including: children's care under six years of age; school health; prenatal care; family planning services. Since 1984, these services have been provided in an integrated manner to all families covered by PHC outlets in urban or rural areas. Since 1991, when the government adopted the policy of "Fertility Regulation" (due to concern over very high birth rates), increasing emphasis has been placed on family planning services. At the present time, almost 90% of the rural population and nearly the entire urban population have access to fertility/ family health services.

Before 1991, the family planning program aimed mainly at securing mother and child health, as well as on birth control before 18 and after 35, pregnancy interval scheduling (with an interval of at least three years between pregnancies), and decreasing the number of children. Following the introduction of the Fertility Regulation Programme, increasing emphasis was placed on contraception and new methods such as tubectomy, vasectomy, etc. were introduced.

Success of the program (population growth decreased from 3.2% in 1999 to 1.2% in 2000 has been attributed to comprehensive support by the government, the simultaneous implementation of the family planning program and the national economic, social and cultural development plans, increasing literacy rates among women, and the continuous expansion of the healthcare network throughout the country.

In addition to this program, a prevention project for early diagnosis of breast and cervical cancer is under way at all health centers.

Private sector: range of services, trends

Private health facilities are providing almost all types of services, from ambulatory to hospital care and from diagnostic to rehabilitation, but there is no documented data neither about their services nor the trend.

Referral systems and their performance

Interrelation of service-providing units in various levels of the UMSc & HS universities has been organizationally predicted. The assumption is that 80 percent of the needs of patients referring to health houses is covered by the houses' staff, and 20 percent of such needs is referred to higher levels such as rural health centers. Such a mechanism is well established. Those referred to rural health-treatment centers by health houses are admitted by the centers' physicians. But beyond this level, the "referral system" has proven problematic. The unconditional admittance to hospitals of the patients referred by rural health-treatment centers, and providing the referring bodies with the due feedback, is faced with serious shortages.

There is a substantial interrelation among the various levels of each of the mentioned institutes and yet the inter-organizational ties between the units from different institutes (for instance, PHC networks and social welfare units at the district level) are not organized. Nor has the relation between government and private sectors been formed in an organized manner. Over the recent years, efforts have been made to curb the expansion of the government networks in view of the potential facilities in the private sector. But no clear-cut policies have yet been adopted in support of such decisions, which are launched at the initiative of various provinces.

Current issues/concerns with primary care services

Main concerns with primary health care services can be summarized as follows:

a. In spite of well expansion of PHC networks, still some are as (like Sistan and Balouchestan) are not fully covered and further expansion does not seem be supportable.
b. PHC networks, which were considered ideal to deal with communicable diseases, are not prepared enough to contribute in controlling of NCDS.
c. The behvarzes' morale is apparently reduced because of different reasons and they are not that much enthusiastic that they were before.

Planned reforms to delivery of primary care services

In the framework of health sector reform, at the first run, all urban health centers and urban health posts will be included in reform program and part of , to strengthen the referral system, using family physicians.

8.4 Non personal Services: Preventive/Promotive Care

Organization of preventive care services for individuals

Preventive and health promotive care in Iran is virtually synonymous with primary care, which is taken to mean immunization, health education, essential drugs, maternal and child health, family planning and environmental health. These services have been designed and operated in an integrated approach so that all services including curative, preventive and promotive ones are delivered with no special or separate organization for preventive services.

Environmental health

The understanding of the significance of protecting the environment has led to the formation of the Environment Protection Organization headed by one of the presidential deputies. Before this body was established, an office named Environmental Health Directorate-General handled the tasks concerning environmental health and sanitation, especially in rural areas, in the past decades. In the past two decades, however, the Reconstruction Crusade Ministry (which, after merging with Ministry of Agriculture, changed its name to Ministry of Agricultural Crusade) has fulfilled some responsibilities in this regard, especially in supplying sanitary drinking water in small villages. At present, the division of responsibilities among municipalities and afore-mentioned organizations has led to some difficulties that have, at times, arisen from overlapping.

Health education/promotion, and key current themes

In recent years, the responsibility of planning and guiding health education and promotion activities has been appointed to an office. At the implementation levels, health education too is regarded as part of services integrated into the responsibilities of service-delivering units. The content of health education varies according to seasons and different parts of the country in proportion to varying needs and issues. In recent years health promotion has been more strongly recommended as one of the topics on health education.

Changes in delivery approaches over last 10 years

Over the past decade, no major event has taken place except greater interest towards privatization and a major explanation of vast potentials of the private sector. Meanwhile the inclination towards benefiting from private sector, in spite of all legal supports provided for it, has not yet led to tangible progress and achievements.

Current key issues and concerns

One of the recognized realities in the country's health system is the success of Primary Health Care Networks in confronting the past two decades problems such as the necessity of immunization, anti-communicable diseases campaign and extending care to vulnerable groups, especially mothers and children. It is said today's that the powerful networks and staff of yesterday, lack the ability to deal with new issues such as the non-communicable diseases. Undoubtedly, with a sound and thoughtful planning, the potential abilities of the networks may be harnessed in handling today's needs.

8.5 Secondary/Tertiary Care

Table 8-2 Inpatient use and performance

	1990	1995	2000	2004
Hospital Beds/1,000	148(1)	163(1)	166(1)	168(1)
Admissions/100	-	-	100	-
Average LOS (days)	-	-	3.7(1)	-
Occupancy Rate (%)	-	-	57(1)	-

(*) Only for hospitals under the auspices of MOH & ME (: UMSc & HS)

1. Office for Coordination on Data Collection & Statistics. Publication #400. Ministry of Health & Medical Education. 2002

Public/private distribution of hospital beds

Table 8.3: Distributions of Hospital Beds in Iran (2001)

Ownership	Number of Beds	%
Ministry of Health and Medical Education	76,167	69.8
Social Security Organization	11,663	10.7
Other Government Hospitals	4,149	3.8
Private Hospitals (Non-Profit)	3.544	3.2
Private Hospitals (For-Profit)	12,619	11.6
Private Teaching Hospitals	1,010	0.9
Total	109,152	100%

Source: Iran National Health Account Report, 2002

Key issues and concerns in Secondary/Tertiary care

The organization of the health care system is dominated by hospital-based curative services. Low bed occupancy is a key issue, especially in view of plans to expand the number of hospital beds. The State and Social Insurance Organization hospital investment programme increases the number of beds in secondary and tertiary care at the same time that occupancy levels are falling and new types of treatment facilities are needed to make use of developing technologies permitting less invasive interventions and shorter lengths of stay.

The continued separation of PHC and hospital planning and management is a key obstacle to the development of cost effective and coherent health strategies.

The performance of the curative sector is assessed in terms of bed occupancy and average length of stay. This must be replaced by more relevant measures of performance.

8.6 Long-Term Care

8.7 Pharmaceuticals

Essential drugs list: by level of care

The national drug list includes 1549 items which are at the disposal of the medical community through the Health Ministry's and the Medical Association's internet site. This list is updated monthly. All people may avail themselves of these drugs.

The restriction of drug sources concerns those drugs which are supplied by hard currency at government rate (low rate). The government, however, has decided to gradually transfer the subsidies paid to producers, to insurance companies and enter the drugs production and imports into a competitive system. By so doing the most significant factor involved in sporadic shortages will be removed and production and importation of drugs shall be done using the floating rate of exchange and in a totally competitive manner. In some cases drug shortage results from global limitations concerning the supply of certain drugs and/or caused by reasons such as the US embargo against Iran, limitations of production sources, new indications for certain drugs, etc. (MOH & ME, 2003g)

Manufacture of Medicines and Vaccines

Almost a self-sufficiency and production of generic pharmaceuticals is a major achievement of the IRI. The government has however maintained overall control in the area of pricing and quality assurance. The distribution system which has traditionally consisted of individually owned facilities has remained intact over the years. However, the pharmaceutical industry is restricted by the price control strategy imposed by the MOH&ME to keep the cost of pharmaceutical low and affordable. The substantially low prices of locally produced generic drugs encourage irrational use and smuggling to the neighboring countries. The MOH&ME over the past few years has gradually withdrawn access of pharmaceutical industry to "subsidized hard currencies" and this has increased the price of pharmaceuticals. The pharmaceutical industry recently started joint projects with international companies for production of new drugs.

Iran manufactures almost 65% of vaccine required in two units: Razi and Pasteur. Razi Vaccine and Serum Research Institute, founded in 1925, is the oldest centre in Iran which started its operation by producing vaccine against Rinderpest. Under the administrative control of the Ministry of Agriculture Jehad, it has since progressed and is now producing every year 3.5 billion doses of 60 different biological items including a wide variety of medical, veterinary and poultry vaccines. It is the largest vaccine producing facility in the Middle East; and with more than 130 scientists and experts working, it has won repute as reference laboratory for the diagnosis of veterinary diseases.

Pasteur Institute of Iran, established in 1920 in commemoration of a son of French Ambassador who was bitten by a rabid dog, is the producer of BCG and Rabies vaccine. In addition, the institute is involved in conducting research on infectious diseases and

produces certain biological products needed for training. This institute is under the administrative control of MoH&ME and employs over 140 scientists and 18 technicians.

Both Razi and Pasteur Institutes have old structure and due to the continuing sanctions imposed on Iran, the equipment at both these facilities has not been adequately updated. Whereas both institutes are working to renovate their physical structure, the management is handicapped in acquiring the new equipment. Evaluation by WHO carried out in September 2002 highlighted issues in the functioning of NRA and NCL. A number of indicators were not being implemented at all, while others were partially implemented. To strengthen the capacity of NRA and NCL for meeting the WHO criteria for quality and certification a project is being implemented with the financial assistance of the Word Bank. WHO has been assisting the country for producing quality vaccines. However, to secure more resources for this purpose, it has signed an agreement with the MoH&ME to execute the Word Bank assisted Improving the Quality of Vaccine Production Project.

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

Drug pricing is done by the government. A few drugs are free (like those for AIDS, hemophilia, and thalassemia patients, and those who have undergone an organ transplant surgery). The rest of drugs in Iran, comprising a 1500-item list are in the 'insured list' and insuring companies pay 70 percent of their prices. In rural areas, all people are insured. As such, all the drugs, which are permitted to be dispensed by the community health workers in health houses, are given free. Patients, who are referred to health centers by a CHW, also receive their drugs free of charge. If the physician in these centers and in the course of monitoring his treatment activities prescribes drugs, the patient will have to pay for 30% of the drug price. Most of the urban health centers lack an in-built pharmacy and the patients will have to obtain the prescribed drugs in the city.(MOH & ME, 2003g)

Systems for procurement, supply, distribution

Six large distributing companies handle drug distribution in the country. The only places in which people may obtain their needed drugs are government or private pharmacies, which are licensed by the MOH&ME. The responsibility for every pharmacy is with a technical director (a pharmacist). For special patients (such as those suffering from hemophilia, thalassemia, cancer) or transplant patients, drugs are supplied in special and selective ways. This means that drugs for such patients are supplied and distributed in a controlled manner covered by double governmental subsidies and full insurance coverage benefiting from a low rate of foreign exchange.(MOH & ME, 2003g)

The drug distribution system at present is far from the ideal place in terms of a timely distribution of drugs to hospitals and pharmacies. Meanwhile a study has been launched to expedite the timely distribution and supply and ensure the quality of drugs.

Reforms over the last 10 years- pharmaceutical sector

The major reforms in the pharmaceutical sector include the privatization, observance of the generic scheme, and designing of drugs list for various levels of care. Following the revolution, almost all major drug companies in the private sector were nationalized. Since these companies were mostly connected with the international pharmaceutical industry, the takeover led to imposition of restrictions on the import of many products. To deal with this limitation as well as foreign exchange shortages, the government

developed a list of basic drugs to be produced locally. The list has been expanded and currently includes some 1550 items. New and infrequently prescribed drugs are separately imported or manufactured and offered through special drugstores affiliated with the Red Crescent Society, private sectors and/or voluntary associations formed to support people suffering from specific disorders.

Over the past few years, the privatization policy has been extended to the pharmaceutical industry and almost all of the drug companies are now privately owned and managed.

Current issues and concerns

The main drug-related issues and concerns could be summarized as follows:

- Inadequate number of trained and experienced experts in the headquarters of MOH&ME. Plans are underway to solve this problem.
- Limitation of drug-supply resources which causes periodical shortages.
- Paying subsidies for drug production and imports which decreases the drugs' market price and encourages drug smuggling to neighboring countries. Plans are being developed to shift government subsidies from goods to services.
- The necessity of reforming the country's drug distribution system. Planning has already been done to this end.
- The need for reviewing the drug pricing system and its adaptability with economic liberalization. Plans are underway in this regard.
- The absence of a cost-effective analysis that is necessary for deciding on drug import and preparing the essential drugs list.(MOH & ME, 2003g).

Planned reforms

Some countries, such as India and China, are the main sources of importing patent-protected pharmaceutical active ingredients to Iran. In the past, Iran has taken tremendous advantage of infringing international intellectual rights (as granted by TRIPS convention) by importing those low-cost pharmaceutical active ingredients. The so-called compliance period for these countries to become unconditional WTO members will terminate at January 1, 2005, and from that date all WTO members will have to fully comply with TRIPS convention's terms (including the 20 years of patent protection period on original dosage forms). It is anticipated that deprivation of Iran from access to some of the (currently) inexpensive active ingredient will have an impact on Iran's drug expenditure.

Decentralization, in terms of quality control, will be one of the main strategies of pharmaceutical sector authorities in coming years. The transition will be done through "contracting out" quality control activities to authorized and eligible academic, co-operative, and private centers.

The other proposed strategy is local production of pharmaceuticals under the supervision of reputable international manufacturers; this will both raise the quality standards of dosage forms consumed in Iran and facilitate the export of these pharmaceuticals to potential foreign markets.

Increasing the levels of competition is another key strategy: it is expected that a controlled open- doors policy toward the import of drugs manufactured abroad will put a high pressure on local producers to raise the quality of their products and also adjust themselves to compete on price.

8.8 Technology

Iran, for the last over 25 years, has been facing embargo for importing technology originating from the USA. Since then, however, Iran has developed its capacity for manufacturing and establishing services for after sale maintenance. In the Ministry of Health and Medical Education, there is a Directorate General of medical and dental equipment under the Deputy Minister for Health Affairs. This directorate determines the needs for procuring the equipment locally or from the international market. There is an office of the Advisor to the Minister for Health who then authorizes and imports the required equipment. Both these offices act as gatekeepers to the supply of equipment. However, given that the Ministry of Health is one player amongst many, the control mechanisms are varied and appear to hardly work.

Trends in supply, and distribution of essential equipment

The Ministry of Health and Medical Education has defined list of equipment for various levels of health care. But, while such lists are followed in the primary health care, in hospitals since these are not regularly updated these are hardly adhered to. Also, since there are no systems in place to control the type of equipment procured, one can see all sorts of equipment in the hospitals.

Effectiveness of controls on new technology

Iranian Standard Organization is instrumental in ensuring the quality of products. The system for accreditation of public and private practice further substantiates the efforts in maintaining the standards. But, generally it is felt that there are problems in following the standards for procuring and maintaining of the equipment. The efforts to establish a Health Technology Assessment Unit are still in their infancy. Although the government has laid down criteria for importing and installing high technology e.g. CT scan or IMR, given that there are multiple health providers, these restrictions are rarely followed. The high awareness amongst patients of the availability of technology adds to the loser controls over the introduction of new technology.

Current issues and concerns

While some elements of technology planning and management chain exist and function relatively well backed up by good level of technical expertise, others are missing or underdeveloped, and all together not linked into a cohesive whole with a number of isolated processes taking place. HTA concept and practice, though in principle known to those concerned, is not embedded into a decision-making process, and explicit HTA system doesn't exist to provide properly structured evidence for decisions on technology selection and utilization.

Analysis of the safety, clinical effectiveness, and economic feasibility is carried out in isolation by different entities, and results don’t necessarily meet at the point of decision-making. A full-scale HTA to ensure evidence-based technology choice is often substituted by a technical evaluation of brands, models or supplier contracts. Medical device regulatory system is weak and not properly established.

As indicated above, while control over the procurement of equipment is an issue, the maintenance and operation is a problem widespread in the health system. Often the maintenance and training of staff to operate and handle the equipment hardly appears in the budget books. The users approach the local market for repair and maintenance which is usually times taking and expensive.

Planned reforms

There are deficiencies in the current practice of selection and utilization of health technologies as one of the factors seriously hampering other system-wide efforts in achieving the objectives of the country's health sector reform process such as ensuring better quality and responsiveness of health services, eliminating inefficiencies in the health sector, and improving overall health planning and management.

To address this problem, it has been decided to undertake an assessment of the existing system, aimed at identifying a set of improvement measures for optimizing the process of technology planning and management, and designing a strategy for their sustainable implementation. For that purpose, a small national team has been set up in Shahid Beheshti University of Medical Sciences and Health Services. The broad areas of action for this team include:

1. undertaking a comprehensive country situation analysis on health technology assessment and management;
2. formulating and adopting a national health technology policy;
3. developing a strategy and master plan for health technology policy implementation;
4. establishing a permanent structure for health technology assessment;
5. strengthening systems, structures and mechanisms for healthcare technology/ equipment management;
6. building capacity for health technology assessment and healthcare technology/ equipment management; and
7. introducing into everyday practice health technology assessment, planning and management tools.

9 HEALTH SYSTEM REFORMS

9.1 Summary of Recent and planned reforms

There have been several attempts at reforming the health system in the Iran, but an organized effort has been made since 2002. A number of initiatives and studies to develop tools for improving health system performance, hitherto organized using different sources including WHO were consolidated and a health sector reform project was designed that has been funded by the World Bank. Drawing from the principle in Article 29 of the constitution of the Islamic Republic that all citizens have the right to health care, the objectives are the following:

1. Designing and testing a universal basic minimum health services package and strengthening patient referral system, ensuring a better quality health services that are responsive to the needs of the communities;
2. Assuring the stewardship and good governance in the public sector health system guaranteeing the pro-poor policies;
3. Improving health planning and management including decentralization in the health sector by delegating the administrative and financial authority;
4. Reviewing the existing health financing options for introducing measures to assure fair financing, eliminating inefficiencies and bringing equity; and
5. Making organizational arrangements for conceptualizing, formulating and implementing health sector reforms.

The assumption on which the proposed reforms are based is that the Iranian health sector, despite being well elaborated has not kept pace with the changing epidemiological and demographic characteristics of the population. The coverage, particularly in peri-urban areas, where rural migrants tend to settle, is low. The out of pocket expenditure is high (56%) and fair financial contribution index is 83%. Further, it has not acquired the technological developments that have been taking place in health.

In order to address the above issues, the proposed reforms were defined as the sustained, purposeful, fundamental and positive changes to improve the equity and effectiveness of the health sector. The strategies identified to introduce reforms included: health planning and management; good governance and stewardship; health financing; better quality health services by strengthening referral system; and an overarching strategy of capacity building and documentation. To implement these strategies different initiatives, categorized into three levels of work, with the overarching establishment of a health sector reform organization, broader involvement of stakeholders, capacity building of those involved and documentation of the process, include: influencing the policy level by creating the evidence; designing and testing interventions to address policy option; and implementing the interventions. Out of the several intervention, while introducing the family physician systems as gatekeepers to health system has been described elsewhere, a brief resume of deconcentration of powers to the provincial level is as below:

In 2005 article 49 of the 4th Development Plan was approved, allowing for the medical universities to receive global budgets from the Government (MPO) and to determine their own resource allocation within the respective Provinces. The Board of Deputy

Chancellors of the universities is authorized a measure of management autonomy in developing their own systems of financial and human resource management for the health services in the province. In this manner the Chancellors act as Ministers at the provincial level with significant authority, receiving their allocations directly from the MPO. It was, however, subsequently determined that the MOHME program allocations to the universities would continue. The Minister is still responsible for appointing Chancellor and heads (or his / her representative) the University Board. The Ministry also exercises a health policy guidance role and a monitoring function over the provincial level.
This change, albeit s structural change in the Ministry of Health and Medical Education is too early to assess. However, the following observations may be made (Collins, 2005):

1. Different to the two previous programs mentioned above, this reform is certainly a form of decentralization. It may be seen as a form of functional deconcentration within the MOHME together with an element of .integrated deconcentration given the fact that the provincial level is a recognized level of governance within the Iranian public sector and is expressed in the position of the Governor.
2. The policy change which it is understood emerged more from the MPO than from within the health system was even justified in the formal declaration of the article 49 as contributing to educational objectives (and provides an exemption to the universities from the forms of accounting that rule in other organizations). Although the MOHME did have some role in the policy's development, it does not appear to be grounded in an in-depth policy analysis of how decentralization would contribute to objectives of better health and health care. Also, it is not clear to extent to which policy-makers have undertaken such a process.
3. An important issue is the principal level to which decentralization is to be developed. This policy contrasts with other countries that have sought to develop district health systems basing decentralization policies on strengthening the capacity and autonomy of the district level. The district becomes key unit for the development of primary care services, the exercise of decentralized management and planning together with the development of community participation and inter-sectoral collaboration. But, the issue is complex given the size of provinces, some of which are the size of a district in other countries and that the size of district is determined by the Interior Ministry.
4. The sub-national levels have no authority to relate resources to needs. Despite the recent measures of provincial deconcentration, there is the lack of options to allocate resources at the provincial level. The MPO global budget went to pay for existing staff (in addition to some logistics and drugs) and left very little room for maneuver. The transfer is not needs based planning but on number of staff and service providers. The transfers from the MOHME are largely programme determined. Therefore, it is difficult to determine the extent to which the provincial universities will have autonomy for resource allocation.

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This document is part of a series of in-depth health systems profiles, produced and updated by the Observatory using standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.

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