

Health Systems in Transition

Vol. 9 No. 4 2007

Mongolia

Health system review

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Health Systems in Transition

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Mongolia: Health System Review

2007



The European Observatory on Health Systems and Policies is a partnership between the World Health Organization Regional Office for Europe, the Governments of Belgium, Finland, Greece, Norway, Slovenia, Spain and Sweden, the Veneto Region of Italy, the European Investment Bank, the Open Society Institute, the World Bank, the London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

Keywords:

DELIVERY OF HEALTH CARE

EVALUATION STUDIES

FINANCING, HEALTH

HEALTH CARE REFORM

HEALTH SYSTEM PLANS – organization and administration

MONGOLIA

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Printed and bound in the United Kingdom by TJ International, Padstow, Cornwall.

Suggested citation:

T. Bolormaa et al. Mongolia: Health system review. *Health Systems in Transition*, 2007; 9(4): 1–151.

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Preface

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each profile is produced by country experts in collaboration with the Observatory's research directors and staff. In order to facilitate comparisons between countries, the profiles are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a profile.

HiT profiles seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe. They are building blocks that can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to 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.

Compiling the profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including the World Health Organization (WHO) Regional Office for Europe European Health for All database, national statistical offices, Eurostat, the

Organisation for Economic Co-operation and Development (OECD) Health Data, the International Monetary Fund (IMF), the World Bank, and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

A standardized profile has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages, because it raises similar issues and questions. The HiT profiles can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals.

Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to: info@obs.euro.who.int.

HiT profiles and HiT summaries are available on the Observatory's web site at www.euro.who.int/observatory. A glossary of terms used in the profiles can be found at the following web page: www.euro.who.int/observatory/glossary/toppage.

Acknowledgements

The Health Systems in Transition (HiT) profile on Mongolia was written by T. Bolormaa (Ministry of Health, Mongolia) with Ts. Natsagdorj (Ministry of Health, Mongolia), B. Tumurbat (Ministry of Health, Mongolia), Ts. Bujin (Ministry of Health, Mongolia), B. Bulganchimeg (Ministry of Health, Mongolia), B. Soyoltuya (UNFPA, Mongolia), B. Enkhjin (UNFPA, Mongolia), S. Evlegsuren (Ministry of Health, Mongolia) and E. Richardson (European Observatory on Health Systems and Policies). The Mongolian HiT was edited by Erica Richardson (European Observatory on Health Systems and Policies). The research director for the Mongolian HiT was Martin McKee.

The authors gratefully acknowledge technical assistance from Dr. P. Ouyntsetseg at the Department of Information, Evaluation and Monitoring, Ministry of Health, Mongolia and are particularly grateful to B. Mashbadrakh of the Association of Mongolian Public Health Professionals (MPHPA), Robert Hagan, Salik Govind and the rest of the WHO office in Ulaanbaatar for their continuous support in the preparation of this report.

The European Observatory on Health Systems and Policies is grateful to Professor P. Nymadawa (Mongolian Academy of Sciences), Professor Don Hindle (University of New South Wales), Dr Reijo Salmela (WHO Western Pacific Region Office) and Dr B. Batsreedene (State Secretary, Ministry of Health, Mongolia) for reviewing the HiT.

The current series of HiT profiles has been prepared by the research directors and staff of the European Observatory on Health Systems and Policies. The European Observatory on Health Systems and Policies is a partnership between the WHO Regional Office for Europe, the Governments of Belgium, Finland, Greece, Norway, Slovenia, Spain and Sweden, the Veneto Region of Italy, the European Investment Bank, the Open Society Institute, the World Bank, the

London School of Economics and Political Science, and the London School of Hygiene & Tropical Medicine.

The Observatory team working on the HiT profiles is led by Josep Figueras, Director, and Elias Mossialos, Co-Director, and by Reinhard Busse, Martin McKee, Richard Saltman, heads of the research hubs. Technical coordination is led by Susanne Grosse-Tebbe.

Giovanna Ceroni and Jonathan North managed the production and copy-editing, with the support of Shirley and Johannes Frederiksen (layout), Nicole Satterley (copy-editing) and Aki Hedigan (proofreading). Administrative support for preparing the HiT on Mongolia was undertaken by Caroline White.

Special thanks are extended to the WHO Regional Office for Europe European Health for All database, from which comparative data on health services were extracted. Thanks are also due to national statistical offices that have provided data.

The HiT reflects data available in June 2006.

List of abbreviations

ADB	Asian Development Bank
ADRA	Adventist Development and Relief Agency
CIS	Commonwealth of Independent States
CT	Computerized tomography
DDA	Direct development aid
DMFT	Decayed, missing or filled teeth
DMS	Directorate of Medical Services
DOTS	Directly Observed Treatment Short-course
DRG	Diagnosis-related groups
DTP	Diphtheria, tetanus, pertussis
EGSPRS	Economic Growth Support and Poverty Reduction Strategy
EPI	Expanded Programme on Immunization
EU	European Union
FGP	Family group practice
GDP	Gross domestic product
GMP	Good Manufacturing Practice Regulations
GP	General Practitioner
GTZ	German Technical Cooperation Agency
HIF	Health Insurance Fund
HISC	Health Insurance Sub-Council
HMIS	Health Management Information System
HSDP-I	Health Sector Development Programme – I
HSDP-II	Health Sector Development Programme – II
HSMP	Health Sector (Strategic) Master Plan
HSUM	Health Sciences University of Mongolia
HTA	Health technology assessment
IAEA	International Atomic Energy Agency
I(C)T	Information (and communication) technology
IEC	Information education and communication
IMCI	Integrated Management of Childhood Illness
IMED	Information, Monitoring and Evaluation Department
IMF	International Monetary Fund
JICA	Japan International Cooperation Agency
JICWELS	Japan International Corporation for Welfare Services
MDGs	Millennium Development Goals

MECS	Ministry of Education, Culture and Science
MoF	Ministry of Finance
MoH	Ministry of Health
MoSWL	Ministry of Social Welfare and Labour
MPCA	Mongolian Palliative Care Association
MPH	Master's Degree in Public Health
MPHPA	Association of Mongolian Public Health Professionals
MPRP	Mongolian People's Revolutionary Party
MRI	Magnetic resonance imaging
NCCD	National Centre for Communicable Diseases
NCHD	National Centre for Health Development
NGO	Nongovernmental organization
OECD	Organisation for Economic Co-operation and Development
ODA	Official development assistance
OTC	Over-the-counter
PET	Positron emission tomography
PHC	Primary health care
PIU	Project implementation unit
PPP	Purchasing Power Parity
PSMFL	Public Sector Management and Finance Law
RDTC	Regional Diagnostic and Treatment Centre
SEG	Socioeconomic guidelines
SINC	Social Insurance National Council
SPIA	State Professional Inspection Agency
SPPH	State Policy on Public Health
SSIGO	State Social Insurance General Office
STI	Sexually transmitted infection
SWAP	Sector-Wide Approach
TB	Tuberculosis
TRIPS	Trade Related Aspects of Intellectual Property Rights
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VAT	Value-added tax
WHO	World Health Organization
WTO	World Trade Organization

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Glossary of Mongolian words

aimag	largest subnational administrative–territorial unit
bagh	smallest rural subnational administrative–territorial unit
Chinggis Khan	Mongolia’s first ruler, more commonly known as Genghis Khan in Europe
emchy	specialist in traditional Mongolian medicine
feldsher	medically trained primary health care workers, usually in more remote rural regions (bagh feldsher)
ger	felt tent – traditional dwelling used by herders
Ikh Khural	National parliament
intersoum	something which caters for the population of two or more soums
kheseg	primary health care units in the communist health care system
Khural	local government body
negdel	herders cooperative
otoch	specialist in traditional Mongolian medicine
soum	medium-sized subnational administrative–territorial unit
Tugrik (Tug)	national currency of Mongolia
zhuud	especially harsh winter which leads to the loss of much livestock

Abstract

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of policy initiatives in progress or under development. HiTs examine different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems; describe the institutional framework, process, content and implementation of health and health care policies; and highlight challenges and areas that require more in-depth analysis.

Since independence, the inherited Semashko system in Mongolia has evolved into a health system with a mix of revenue sources, private sector service delivery and a plurality of actors. At the beginning of the 1990s, the abrupt end of assistance to the health sector from the Soviet Union brought about extreme difficulties in financing health care. The deteriorating socioeconomic situation and public-funding shortfall for the health sector exacerbated problems with access and service quality. Official user fees and social health insurance have been gradually introduced in order to mobilize additional financial resources and reduce the Government's burden in financing health care.

In line with the Government's commitment to providing equitable and good-quality health services to all citizens, recent reforms have focused on promoting equity through institutional changes and improvements in quality and efficiency. From early 2000, the reform focus has brought in more programmatic and organizational changes promoting allocative and technical efficiency, equity and quality improvement based on the achievements and lessons learned from earlier reforms. An appropriate response to the double burden of noncommunicable and communicable diseases and the health disparities between socioeconomic groups that the country faces demands a stronger health system to maintain and build on the gains in population health status achieved since the early 1990s.

Executive summary

Modern Mongolia is a post-communist state that was formerly allied to the Soviet Union; it is a landlocked central Asian country bordered by the Russian Federation to the north and the People's Republic of China to the south. It has a relatively small population (about 2.5 million) living in a large geographical territory – average population density is just 1.5 per km². A third of the population now live in the capital city, Ulaanbaatar, but of the 40% who live in rural areas, most work as nomadic livestock herders and live in traditional *gers* (felt tents).

Following the Peaceful Revolution in 1990, Mongolia embarked on political transition from a one-party system and economic transition from a centrally planned command economy. The country now has a stable democratic parliamentary system, but during the transition period, the Mongolian economy has experienced deep crises and a high level of inflation. There are clear differences in the level of economic resources, industrial capacity, as well as capital and human resources between urban and rural areas, and this has contributed to a high level of internal migration. This has, in turn, led to a rapid ad hoc urbanization, as formerly nomadic households try to improve their prospects by settling around urban centres, particularly Ulaanbaatar, and creating *ger* districts.

Organizational structure

From the 1940s until the 1990s, Mongolia had a Semashko-style centralized and hierarchical system that was developed rapidly with support from the Soviet Union. Health services were fully financed and delivered by the Government. While the Semashko system aimed to ensure equity and broad access to health services, it also had a strong orientation towards curative services that relied

heavily on hospital-based physicians and an authoritarian management style with strong central control system. These legacies have proved the most challenging in reforming the health system in the new socioeconomic environment.

The health system in Mongolia is one statutory system organized according to the administrative division: the capital city (Ulaanbaatar), *aimags*, *soums* and *baghs*. There are 21 *aimags*, each of which is split into smaller districts (*soums*), which are further divided into three to four smaller units (*baghs*), depending on the size of their population. Decentralization of the health system was initiated in the mid-1990s in response to the reduction of central government funding. However, this attempt to decentralize and transfer the planning, monitoring, evaluation, financial and administrative functions within the health sector to local governments did not lead to a meaningful increase in the level of primary stakeholder participation or to an improvement in the performance of health services. Health managers at both the central and local levels lacked capacity, and no clear guidelines or procedures have been put in place for systematically implementing decentralization, even though the basic elements of the legal framework for decentralization and structural reform are present.

Financing

After 1990, it became evident that in a new market economy, free health care services with state financing alone were unsustainable and, in response, multiple sources of revenue have evolved and developed. Most health expenditure has traditionally been financed from the state budget, and it is officially directed towards population health protection and ensuring health for all; however, in practice, most health expenditure goes to inefficient and expensive hospital services rather than public health strategies. With the economic transition, state expenditure for the social sector as a whole fell, and the quality of health care decreased dramatically as the health system could not maintain itself. During this transition period, international aid and donors' assistance poured into Mongolia, which helped to compensate for the withdrawal of Soviet financial and social assistance. The resource gap that opened up in the health sector budget in the early 1990s was filled by the ad hoc introduction of user fees and, in 1994, by the introduction of compulsory health insurance. The system is now financed primarily through the state budget for fixed costs, while variable costs are covered by the Health Insurance Fund (HIF).

Since 1993, there has been a series of attempts to develop a package of "essential" and "complementary" health care services. Defining the package of health services that would be covered by social health insurance became necessary in order to determine the costing for and the financing of health services. The "essential" package of services is provided free of charge, whether

or not a patient is covered by health insurance. This includes medical emergency and ambulance services; treatment for certain diseases such as tuberculosis (TB), cancer, mental illness and some other diseases which require long-term care; disinfection and outbreak management of infectious diseases; medical services for pregnant women; and, from 2006, primary care services. All other services, generally curative and diagnostic, are included in the “complementary” package, which is financed by the HIF.

Despite the mandating of output-based budgeting in 2003, the health sector government budget is still driven by historical line-item budgeting, as it was in the Semashko system. Hospital managers are not allowed to re-allocate resources for some line items such as wages and capital investment, while for other line items it is possible with the permission of higher bodies. Hospital managers are not encouraged to produce budget savings and are not allowed to overspend. New health financing reforms are focusing on changing the regulatory role of the State in health sector financing from a bureaucratic “command-and-control” to a “steer-and-channel” role, which is more performance- and market-conscious.

Planning and regulation

At the central level, the Ministry of Health (MoH) sets the health policy agenda and prepares the health sector long- and medium-term plan and budget proposal while monitoring their implementation and the implementation of health legislation at the central, *aimag* and capital city levels. The MoH develops, approves and monitors the implementation of rules, procedures, and standards on health protection and promotion through Ministerial Orders and provides supervision, professional support and information. The Ministry of Finance (MoF) decides the total budget to be allocated to the health sector. Decisions on financial allocations are made primarily on the basis of historical expenditure, norms and standards in the sector, and government resolutions, decrees and national health programmes related to the priority areas identified. The HIF is regulated through the State Social Insurance General Office (SSIGO), and while there are organizational structures and formal mechanisms for the coordination of policies between MoH and SSIGO, there is de facto little (or no) coordination of service purchasing policies between the health insurance scheme and the MoH.

Physical and human resources

Mongolia has spent 70 years developing its health care infrastructure to reach the population in all of its *aimags* and *soums*. There is no *soum* that does not have a health facility, although staffing in rural areas is problematic. Each *soum*

hospital is equipped with most basic equipment, consumables and drugs. Since 1990, the Government has not been able to invest much in physical resources, so most has come through international partners for the renovation of buildings in primary care. Some donor assistance has also been offered in the form of refurbished equipment to hospitals in some of the rural areas and to a few tertiary-level hospitals in Ulaanbaatar.

Under the Semashko system, government policies to improve access to health services centred on increasing the number of service providers. As a result, more and more physicians were trained every year for several decades, and the health system capacity was continuously expanded. The MoH is now implementing a policy to reduce the number of beds in health facilities; however, the number has not significantly decreased because the payment mechanism for services at hospitals is based on the number of inpatient beds and their occupancy rate, rather than the services provided. The number of physicians has been steadily decreasing, and this trend should continue as current human resource policies aim to improve quality and fairer distribution rather than quantity. The distribution of medical professionals across the country is not even, and there are approximately 15–20 *soum* hospitals in any given year that have no doctors.

Provision of services

Primary health care (PHC) services are delivered by family group practices (FGPs), *soum* doctors and *bagh feldshers*, who are medically trained PHC workers in the smallest administrative units. *Feldshers* report to *soum* hospitals through regular meetings and visits, and in case of emergencies refer patients to *soum* or *intersoum* hospitals. *Intersoum* hospitals are larger centres with an adequate workforce and the resources to render health services to the population of two or more *soums*. In the Ulaanbaatar and the *aimag* centres there are district hospitals and FGPs which operate under the administration of the city and the *Aimag* Health Departments. FGPs are required to deliver primary care for the listed population in their catchment area.

Specialized care is delivered by *aimag* and urban district hospitals which cover all major clinical specialties and have an approximate 200–300 bed capacity for delivering inpatient services. The next level of specialized care is provided through the state clinical hospitals and specialized health centres, located mainly in Ulaanbaatar, but also through the three Regional Diagnostic and Treatment Centres (RDTCs). However, currently the RDTCs fail to provide intended specialized high-level care owing to the lack of adequate staff, funds, equipment and medical supplies.

Principal health care reforms

In the early 1990s, health sector reforms relied mainly on the strategy of mobilizing additional financial resources and reducing the government burden in order to tackle the sudden drastic decline in the health budget as a result of economic transition. In line with the Government's commitment to providing equitable and good-quality health services to all citizens, in the late 1990s the reform focus was characterized by a shift in priorities towards systemic-level changes and promoting equity through institutional changes and improvements in quality and efficiency. From early 2000 onwards, the reform focus has brought in more programmatic and organizational changes promoting allocative and technical efficiency, equity and quality improvement based on the achievements and lessons learned from earlier reforms.

Over the transition period, the inherited Semashko system has evolved into a health system with a mix of revenue sources, private sector service delivery and a plurality of actors. At the beginning of the 1990s, the abrupt end of assistance to the health sector from the Soviet Union brought about extreme difficulties in financing the system that was in place. Official user fees and social health insurance have been gradually introduced in order to plug the funding gap, along with significant contributions from international donors for health care delivery. Problems with access and quality have been exacerbated by the deteriorating socioeconomic situation and public funding shortfall for the health sector.

The health indicators have improved since the early 1990s as a result of the implementation of concerted measures to protect the population through the health system. However, the country is still challenged by the double burden of noncommunicable and communicable diseases and health disparities between its socioeconomic groups. An appropriate response to these health issues demands a stronger health system.

1 Introduction

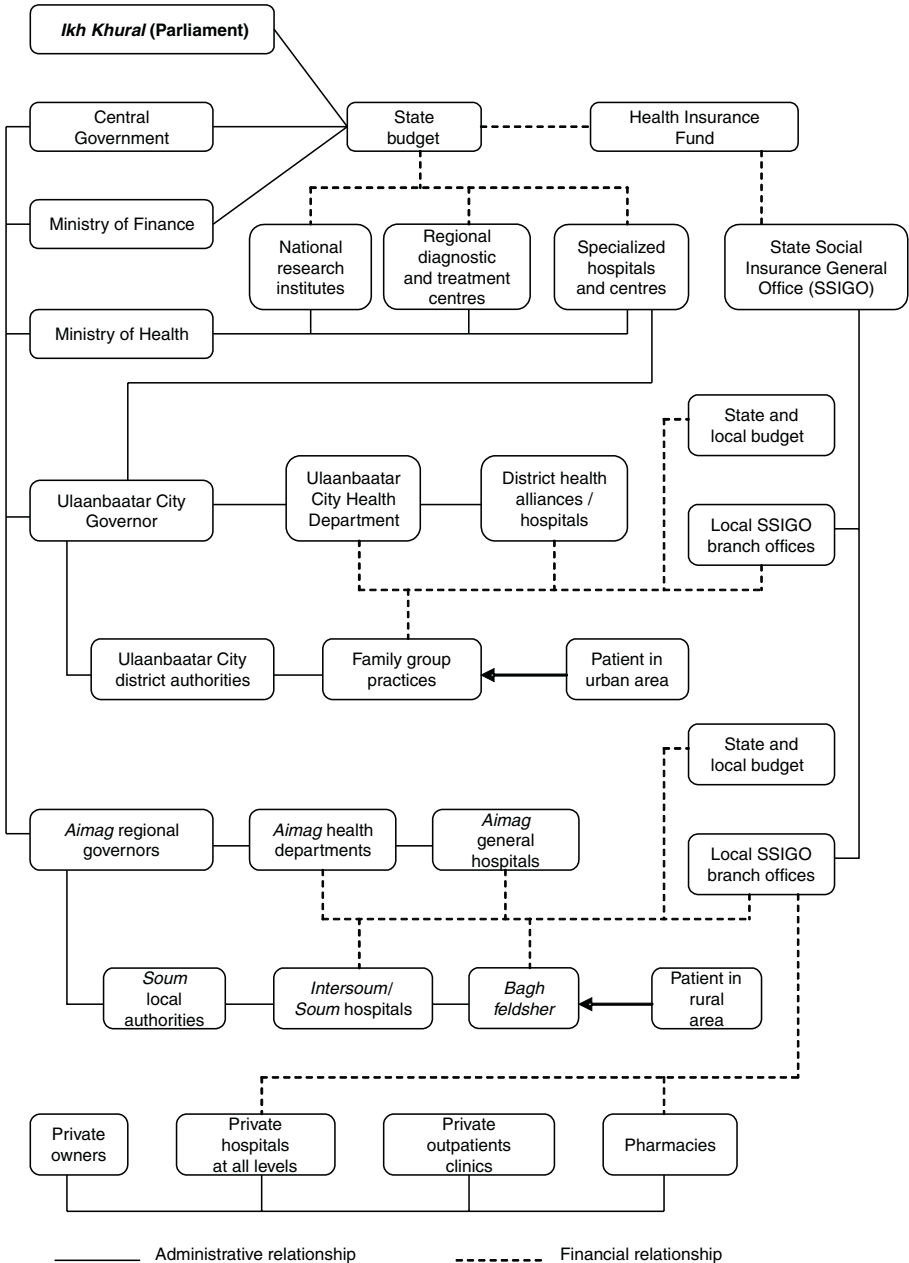
1.1 Overview of the health system

Mongolia's current health system has been evolving for more than 70 years. During the socialist period, a publicly funded Semashko system was put in place, and health care provision expanded rapidly. The system had many remarkable achievements, including the establishment of western-type hospitals, the training of a national medical workforce and rapid improvements in basic health indicators for the population. However, the health care monopoly was also characterized by overcentralized management, bureaucratic planning mechanisms and gross inefficiencies. Functional and structural reforms were only initiated after 1990, when Mongolia became a multiparty democratic state and the process of dismantling the administrative-command economy began. At that time, it soon became clear that the expensive and inefficient hospital-based health system could not meet the growing needs of the population in the transition period.

Since then, there have been major changes in the Mongolian health system. Social health insurance has been introduced as an alternative to the state budget for financing health services, and private practice has been allowed to develop. There have also been serious attempts at reorienting the system from being hospital based to being more primary care focused, and new primary care facilities (family group practices (FGPs)) have been built. A number of laws and major policy documents have also been approved in order to support further development of the system and regulate health services.

The *Ikh Khural* (Parliament) is the main law-making body (see Fig. 1.1). The Ministry of Health (MoH) is a government body responsible for the proposal of policy initiatives and the regulation, monitoring and implementation of health

Fig. 1.1 Overview chart of the health system



policies at all levels of the system. The system is financed primarily through the state budget for fixed costs, whereas variable costs are covered by the Health Insurance Fund (HIF). Revenues for the HIF are raised through compulsory payroll contributions, with the state budget funding contributions for especially vulnerable groups. Patients also pay official, and sometimes unofficial, co-payments or have the opportunity to pay out of pocket for private services. Patients can also opt to be treated in a private hospital under their social health insurance cover.

All hospitals at the tertiary level of care are administered by the MoH; most of these hospitals are located in Ulaanbaatar, the capital city, except for three Regional Diagnostic and Treatment Centres (RDTCs). Health facilities at the secondary and primary care levels are organized according to state administrative units: the capital city, *aimags*, *soums* and *baghs*. There are 21 *aimags*, each of which is split into smaller districts called *soums*. Every *soum* is further divided into three to four smaller units (*baghs*), depending on the size of its population. On average, each *aimag* has a population of 50,000–100,000, and each *soum* has a population of 2000–3000 (National Statistical Office 2001).

There are some significant differences between the provision of primary and secondary care services in urban and rural areas in terms of the organizational structure, the range of services available and funding mechanisms used. Every *soum* has a small hospital with 15–30 beds, which delivers a narrow range of clinical services and ambulatory care services. The *soum* hospitals are also required to provide primary care services. Undiagnosed and emergency cases are referred to the *aimag* general hospital. *Soum* hospitals also have three or four *bagh feldshers* attached to them, who work in remote health posts. The *bagh feldshers* cover the health needs of the nomadic herders who may be based far from the centre of the *soum* (MoH and IMED 2003). In Ulaanbaatar and the *aimag* centres there are district hospitals and FGPs, which operate under the administration of the city and the *Aimag* Health Departments. FGPs are required to deliver primary care for the listed population in their catchment area.

1.2 Geography and sociodemography

Mongolia is a landlocked central Asian country, bordered by the Russian Federation to the north and the People's Republic of China to the south (see Fig. 1.2). The country is the fifth largest in Asia, but it has a relatively small population (about 2.5 million), living in a large geographical territory of 1 566 460 km² – average population density is just 1.5 per km². The distribution of the population has changed since the end of communist rule owing to internal

migration to urbanized areas, especially to the capital city of Ulaanbaatar where 32% of the population now lives (National Statistical Office 2002). Western and northern Mongolia are mountainous, while the eastern part is broad grassy steppe, and the south is dominated by the Gobi Desert. Mongolia has an extreme continental climate with temperatures dropping to minus 40°C in winter and reaching plus 30–35°C in summer. The average altitude is 1580 m above sea level and average rainfall is just 203 mm per year. In recent years, Mongolia has been hit by a number of droughts and especially harsh winters (*zhuuds*), which have caused serious problems for the agricultural sector and the rural population, who are primarily nomadic herders practising animal husbandry.

Nomadic tribes have been using the steppes to the north of the Gobi Desert for thousands of years. Mongolia gets its name from one of these tribes, the Mongols. In the 12th century the region was an unstable mix of many khanates, all vying for power and influence over east–west trade routes. However, these khanates were united through a mixture of shrewd political leadership and military prowess by Genghis [Chinggis] Khan at the beginning of the 13th

Fig. 1.2 Map of Mongolia



Source: United Nations Cartographic Section, 2007.

century. Genghis Khan was the founder of the Mongol Empire which, at its peak in the mid-13th century, stretched from Hungary in the west to the Korean Peninsula in the east. However, by the 14th century the Mongol Empire was in serious decline with internecine warfare and invasions from a resurgent China. In the late 17th century the territory came under Manchu Imperial control and became known as Outer Mongolia; Inner Mongolia remains a part of the People's Republic of China to this day (Soucek 2000).

Modern Mongolia is a post-communist state, which was formerly allied to the Soviet Union. In 1921 the national liberation movement brought an end to foreign occupation by Chinese and other forces, and the movement culminated in the first *Ikh Khural* in 1924, which approved the first constitution. Although the success of the national liberation movement in 1921 leaned on the support of the Soviet Union, the ruling political force (the Mongolian People's Revolutionary Party (MPRP)) did not as yet adhere to the ideology of Marxism–Leninism; this was imposed in the late 1920s. Mongolia was the Soviet Union's first satellite state, and the MPRP remained in power until popular pressure brought about the Peaceful Revolution in 1990.

Mongolia's population is ethnically quite homogeneous: the dominant group is Khalk, comprising 81.5% of the entire population. Mongolian is the universal language, and most Mongolians are Buddhist. The only significant minority group are Sunni Muslim Kazakhs living in the western border region of Bayan-Ölgiy, comprising 4.3% of the population. However, emigration to Kazakhstan has reduced their numbers since 1990 (National Statistical Office 2002). Since the late 1930s, the population has been growing rapidly: between 1969 and 2000 the population doubled (see Table 1.1). However, the speed of population growth has steadily decreased since the 1980s. Greater use of contraception among women, a relaxation of the law on abortion in 1990, longer intervals between births and delayed marriage are the main factors in the sharp decline in population growth through the 1990s, combined with the worsening of living standards experienced during economic transition (MoH 2002a).

All these geographic and sociodemographic characteristics have had a significant impact on the provision of health services. The provision of accessible and high-quality health services to rural populations, which are scattered over such a vast area, is a particular challenge for the system – a challenge that has been complicated by the difficult economic conditions during the transition period.

Table 1.1 Population/demographic indicators, 1970, 1980, 1990, 2000 and 2004

Indicators	1970 ^a	1980 ^a	1990 ^a	2000 ^a	2004 ^b
Total population	1 230 500	1 639 700	2 099 100	2 373 500	2 533 120
Population female (% of total)	50.1 (1969)	49.9 (1979)	50.1 (1989)	50.4	50.4
Population ages 0–14 (% of total)	44.5 (1969)	44.3 (1979)	41.9 (1989)	35.7	32.6
Population ages 65 and above (% of total)	6.0 (1969)	5.0 (1979)	4.0 (1989)	3.5	3.5
Population growth (annual %)	27.9	28.7	27.7	15.6	11.6
Population density (people per km ²)	0.8 (1969)	1.0 (1979)	1.3 (1989)	1.5	–
Fertility rate, total (births per woman)	–	6.4	4.5	2.2	2.0
Birth rate, crude (per 1000 people)	40.2	39.2	34.4	20.4	18.1
Death rate crude (per 1000 people)	12.3	10.4	8.3	6.5	6.5
Age dependency ratio	–	96.0 (1979)	84.0 (1989)	65.0	–
Proportion of urban and rural population (rural/urban, %)	56.0/44.0 (1969)	48.8/51.2 (1979)	42.9/57.1 (1989)	43.4/56.6	40.9/59.1
Proportion of single person's households (%)	8.7 (1969)	8.09 (1979)	8.61 (1989)	6.54	–
Literacy rate (%)	82.0 (1969)	93.3 (1979)	97.0 (1989)	95.4	–

Sources: ^a National Statistical Office, 2003b; ^b National Statistical Office, 2005.

1.3 Economic context

During the transition period, the Mongolian economy experienced deep crises and a high level of inflation. In the early 1990s, gross domestic product (GDP) growth was negative and fell to minus 9.5% in 1992. Since 1994, GDP has fluctuated, but growth has remained positive, peaking at 10.6% in 2004. However, growth was rather weak until 2004, ranging between just 1.0 and 6.3% (see Table 1.2) (National Statistical Office 2004; National Statistical Office 2005). There have been major shifts in the composition of GDP in the transition period. The agricultural and industrial share of GDP has declined, and the share from the commercial sector, dominated by wholesale and retail trade, transport and communication, rose to 50%. In 1995, agriculture accounted for 38% of GDP but in 2004 it declined to 21.3%. This sharp reduction was the result of extremely harsh winters (*zhuuds*) when so many cattle perished. In 2004, construction and the industrial sector, which is dominated by mining and manufacturing, accounted for 24% of GDP, half of which came from mining. In

2005, economic growth was estimated at 6.2%. Economic growth accelerated in 2004 and 2005 owing to favourable weather conditions, increases in livestock, higher commodity prices on the world market, expansion of transportation and telecommunications, and greater capital inflows (World Bank 2006).

Mongolia's main exports are gold, copper, animal raw materials, skins, furs, woven and knitted items. Therefore, the economic condition of the country is vulnerable to price fluctuations for these raw materials on the world market, especially for copper and cashmere. In 2004, the prices of copper, gold and

Table 1.2 Macroeconomic indicators, 1994–2004

Indicators	1994 ^b	1995 ^b	1996 ^b	1997 ^b	1998 ^b	1999 ^b	2000 ^b	2001 ^b	2002 ^b	2003 ^a	2004 ^a
GDP (mln US\$)	792	1 231	1 182	1 053	976	865	945	1 016	1 117	1 281	1 526
GDP per capita (US\$)	360	551	521	458	419	367	396	419	454	515	605
GDP per capita PPP (US\$)	–	1.267 ^d	–	–	1.356 ^d	1.707 ^d	1.838 ^d	1.968 ^d	2.125 ^d	–	–
GDP growth (annual %)	2.3	6.3	2.4	4.0	3.5	3.2	1.1	1.0	4.0	5.6	10.6
Short-term loan (mln US\$)	–	–	–	–	–	–	–	-13.9	-22.7	-16.5	-26.5
Value added in agriculture (% of GDP)	32.3	38.0	43.8	35.9	37.5	37.0	29.1	24.9	20.7	20.1	21.3
Value added in industry (% of GDP)	28.4	27.6	21.3	26.2	20.8	20.6	21.9	22.1	22.5	25.4	28.2
Value added in services (% of GDP)	39.3	34.4	34.9	37.9	41.7	42.4	48.2	53.0	56.8	54.5	50.5
Overall budget balance, including grants (mln US\$)	-32.9	-19.0	-304.4	-95.5	-139.3	-99.8	-72.8	-45.9	-64.8	-54.2	-13.8
Economically active population (000s)	834.7	812.7	825.0	828.8	842.4	853.4	847.6	872.6	901.7	959.8	986.1
Labour force participation rate (%)	71.6	68.5	68.0	67.4	67.0	66.7	62.9	62.2	62.7	62.2	62.1
Unemployment rate (%)	9.0	5.5	6.7	7.7	5.9	4.7	4.6	4.6	3.4	3.5	3.6
Inflation rate (%)	66.3	53.1	44.6	20.5	6.0	10.0	8.1	8.0	1.6	4.7	11.0
Annual average exchange rate 1 US\$=tug	410 ^c	447 ^c	547 ^c	791 ^c	837 ^c	1 070 ^c	1 078 ^d	1 098 ^d	1 110 ^d	1 147 ^d	1 185 ^d
Gini coefficient	–	0.31 ^d	–	–	0.35 ^d	–	–	–	–	–	0.3 ^a
Headcount index of poverty (%)	–	36.3 ^a	–	–	35.6 ^a	–	–	–	36.1 ^a	–	–

Sources: ^a National Statistical Office, 2005; ^b National Statistical Office, 2004; ^c UNDP, 2000; ^d UNDP, 2003.

Notes: GPP: Gross domestic product; PPP: Purchasing power parity.

cashmere went up, and as a result, the growth rate of exports was higher than imports by 13.7 percentage points, and the foreign trade deficit fell by 33.7 million US\$ (UNDP 2003; National Statistical Office 2005).

In 1992, Mongolia experienced hyperinflation, and the inflation rate reached 325.8%. Since then, the overall inflation rate has fallen and stabilized. Inflationary pressure, which emerged in 2004 (estimated at 11%), was contained to a single-digit level of 9.5% in 2005. This inflation rate was the result of increased fuel prices, which caused price rises for foodstuffs and household purchases. As a result of macroeconomic stabilization, the privatization of state enterprises, legal changes and other public sector reforms, the private sector has developed rapidly. In 2004, the private sector share of GDP rose to 76.0%, 23 times higher than the private sector share in 1989 (National Statistical Office 2003b; UNDP 2003; National Statistical Office 2005).

Unemployment and poverty levels have not improved since the 1990s. The number of officially registered unemployed reached its peak in 1997 at 7.7% and since then it has fallen steadily. However, it is estimated that there is a significant level of “hidden” unemployment not included in the number of officially registered unemployed, and data from the 2000 census showed the unemployment rate to be over 20% (National Statistical Office 2002). More women than men are unemployed, and the unemployment rate is higher in urban than it is in rural areas (National Statistical Office 2005). Owing to low wages, income poverty has developed in the country since 1990 with the depth and severity of poverty worsening between 1995 and 1998 (UNDP 2003). There is also a growing rural–urban divide, as well as growing disparity between rich and poor (UNDP 2003; National Statistical Office 2005). For example, in 2000 more than half of Mongolia’s economic entities were located in Ulaanbaatar and they produced 51.6% of the country’s GDP. There are clear differences in the level of economic resources, industrial capacity, as well as capital and human resources between urban and rural areas (National Statistical Office 2003a). The huge differences in socioeconomic development and living standards for people living in rural and urban areas have contributed to the high level of internal migration, which has also led to a rapid ad hoc urbanization as formerly nomadic households try to improve their prospects by settling around urban centres, particularly Ulaanbaatar, and creating *ger* districts.

1.4 Political context

Modern Mongolia has a stable democratic parliamentary system, which is currently headed by the National Unity Government. The new Constitutional

Law was amended in 1992 and divided the centralized governmental structure into three major parts: the executive branch, which is the Government chaired by the Prime Minister; the legislative branch, represented at the national level by the *Ikh Khural*; and the judicial branch, led by the Supreme Court. The President of Mongolia is a figurehead for the country and is directly elected for a 4-year term. Although most political power is held by the Prime Minister and the *Ikh Khural*, the President of Mongolia is commander-in-chief of the armed forces and heads the National Security Council, as well as appointing all the judges, the prosecutor general, the deputy prosecutor general and ambassadors. The President can also exercise a power of veto on decisions of the *Ikh Khural*.

Mongolia has two main political parties: the Democratic Party and the former-communist MPRP. The ruling party has been overturned three times since 1996 in free and fair elections, and these peaceful transfers of power are strong evidence of how far Mongolia has come in the process of democratization. The Democratic Party currently holds 34 seats in the 76-seat *Ikh Khural*, and the MPRP holds 38 seats. The MPRP invited other parties who have seats in the *Ikh Khural* to join in the establishment of a new coalition: the National Unity Government. The Democratic Party and the Civil Will Republican Party decided not to join the MPRP and to become a strong opposition instead. The National Unity Government was established in January 2006 following a cooperation agreement between the MPRP and the smaller parties, including the Republican Party, the Motherland Party, the National Reform Party and the People's Party. The current political situation has inevitably led to rule by negotiation and consensus in order to establish a functioning government, and negotiations can severely delay the policy-making process.

At the local level, Ulaanbaatar city and individual city districts, as well as all the *aimags* and *soums* have local *Khurals* of Citizens' Representatives; and their members are also elected for four years. The main role of these local *Khurals* is to represent the citizens' voice in the local governance of health care, education, local budget expenditure, the environment and infrastructure. They have the right to propose candidates for *aimag* governors, so the *Khurals* of Citizens' Representatives monitor the implementation of the local plans and the activities of *aimag* governors. At the local level they could theoretically do much in terms of health services, such as allocating extra resources from the local budget to local hospitals, public health actions, or strengthening the capacity of human resources, but this rarely happens in practice.

As the main legislative organization, the *Ikh Khural* approves all laws after having debated them at national and government levels. The President, members of *Ikh Khural* and the Government all have the right to initiate new laws or amendments to existing laws. The Government or ministers approve other legal documents, such as decrees or orders, which are developed to support

the implementation of the laws and regulation procedures. In recent years, the involvement of health organization, international partners, nongovernmental organizations (NGOs) and civil society in the discussion of health-related laws and other policy documents has increased. For example, the Law on Health was amended at the beginning of 2006 following a discussion procedure commencing at the end of 2004, and the draft amendment was discussed within the health sector broadly not just by ministers. The draft amendment was posted on the government web site (www.open-government.mn, see 10.2 “Useful web sites”) to facilitate national-level discussion.

Mongolia was admitted to the United Nations in 1961. The country has ratified about 140 international treaties and conventions, including the World Health Organization (WHO) Constitution, the Agreement on the Establishment of the International Vaccine Institute, the International Convention of Human Rights, the Convention on the Rights of the Child and the Framework Convention on Tobacco Control. The World Trade Organization (WTO) admitted Mongolia as a member country in 1997. Therefore, Mongolia maintains multilateral trading within equal legal regulation with other WTO member countries and must avoid undertaking any activities that would not be compliant with WTO policy. Transparent and open foreign policy, consistent democratic development and the cooperative approach of Mongolia to the world community have provided an encouraging environment for the further development of international ties.

Since the collapse of the communist regime, Mongolia has had a good human rights record and an open, democratic society. Human rights are taken seriously, as are citizens’ constitutional rights. However, corruption is acknowledged as a significant problem for the operation of government and future economic development. Transparency International rated Mongolia at 3.0 on the Corruption Perception Index, where 10 would be the least corrupt rating and 0 the most corrupt rating. This places Mongolia on a par with countries such as Romania and Armenia, and the score has not improved in recent years (Transparency International 2006).

1.5 Health status

Since the early 1980s, the MoH has paid great attention to the standardization of the health statistics database, including registration forms, data collection and processing. Consequently, with support from WHO, the Health Statistics Office of the National Centre for Health Development (NCHD) was established and introduced changes in line with all WHO standard tools and estimation of indicators, for example, application of the ICD-10 in 1996, and revision of the

definition of maternal mortality and live birth in 1997 and 2003, respectively. Thus, Mongolian health data quality is fairly compatible with international standards.

Overall, there have been continuous improvements in the main health indicators in Mongolia since the 1920s, and life expectancy at birth has been relatively stable since the 1980s (see Table 1.3). Considerable progress has been made in reducing vaccine-preventable diseases, the infant mortality rate, the under-5 mortality rate and the maternal mortality rate. Although Mongolia is still classified as a country with a relatively high level of maternal mortality, since 1992 the maternal mortality rate fell to its lowest level of 98.8 per 100 000 live births in 2004 (see Table 1.3). The sustained reduction in maternal mortality has been achieved through the implementation of a national reproductive health programme and the Strategy on Reducing Maternal Mortality, as well as the operation of maternity rest homes for women living in remote rural areas. The increase in early antenatal care and greater use of contraceptives (the contraceptive prevalence rate was 51.5% in 2004) have also been significant. However, data from 2004 show that more than one third of maternal mortality occurred in *soum* hospitals, and 38.6% of the mothers who died were herders. This exemplifies the existence of health and health care inequalities between women living in urban and rural areas (MoH 2002a; MoH and NCHD 2005a; Hill, Dodd et al. 2006).

Since 1995, perinatal mortality had decreased gradually and reached the level of about 20 deaths per 1000 births in 2004 (see Table 1.3). Moreover, since 1990, the infant and the under-5 mortality rates decreased by 64% and 67%, respectively. This reduction in infant and under-5 mortality is thought to be the result of the high level of immunization coverage for all six Expanded Programme on Immunization (EPI) vaccines (tuberculosis (TB), diphtheria, neonatal tetanus, pertussis, poliomyelitis and measles) and hepatitis B, the effective implementation of programmes to reduce mortality for diarrhoeal diseases and respiratory infections, as well as the extended implementation of Integrated Management of Childhood Illness (IMCI) Programmes (MoH 2002a). In 2002, the Government approved the National Programme on Communicable Diseases which will run until 2010. This programme is focused on common infectious diseases, but especially TB, sexually transmitted infections (STIs) and vaccine-preventable diseases (MoH and NCHD 2005a).

Mongolia is experiencing both a demographic transition as the birth rate falls and the population starts to age, and an epidemiological transition as the number of deaths from communicable diseases falls and the number of deaths from noncommunicable diseases increases. The three main causes of mortality in Mongolia are currently cardiovascular diseases, neoplasms and injuries and poisonings (see Table 1.4). For many years, cardiovascular diseases remained

Table 1.3 Mortality and health indicators, 1980–2004 (selected years)

Indicators	1980	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Life expectancy at birth, (1979)												
total	63.29	63.74	63.78	63.08	64.25	65.11	–	63.18	63.36	63.51	63.63	64.58
Male	60.29	60.31	62.10	59.80	61.07	62.69	62.00	60.43	60.66	60.75	60.79	61.64
Female	66.14	67.59	65.43	66.61	67.67	67.61	66.30	66.13	66.26	66.74	66.50	67.77
Mortality rate, adult, male (per 1000 male adults)	–	9.1	10.3	11.3	10.0	9.4	9.3	9.3	9.8	9.5	10.3	10.7
Mortality rate, adult, female (per 1000 female adults)	–	7.0	8.1	8.3	8.7	7.9	8.0	7.0	7.0	7.0	6.8	6.8
Mortality rate, infant (per 1000 live births)	78.90	63.42	44.57	40.52	40.80	35.38	36.07	31.23	30.22	30.42	23.50	22.80
Mortality rate, under 5 (per 1000 live births)	–	87.48	62.02	56.35	55.58	47.78	49.03	42.44	40.79	38.65	31.33	29.11

Sources: MoH, 2002a; MoH and NCHD, 2004; MoH and NCHD, 2005b.

the third most prominent cause of death, but they became the leading cause of mortality in 1990 and have been increasing ever since. Similarly, neoplasms, which were the fifth most common cause of death in 1989, became the second most common in 1994 and has remained there ever since. The increase in cancer-related deaths is thought to be the result of lifestyle changes, but also deficiencies in prevention activities and early detection. For example, 65–70% of all cancer patients are diagnosed in the late stages of the disease (MoH and NCHD 2005a).

The only gender difference in the leading causes of mortality is for injuries and poisoning, which affect men to a much greater degree than women. For men, injuries and poisoning are the second most common cause of death, while for women it is the third (see Table 1.4). However, there are significant differences between the leading causes of mortality and morbidity in rural and urban areas. In urban areas, injuries and poisoning are the leading cause of morbidity, while diseases of the respiratory system are the most common cause of morbidity in the countryside. There is also strong variation in the most common causes of mortality between different regions and individual *aimags*. For example, in the central region the leading cause of mortality are diseases of the circulatory system, especially in the Khuvsgul *aimag*. Whereas in the Sukhbaatar *aimag*, most deaths are due to neoplasms. These differences have been attributed to the level of urbanization, as well as climate and geographical conditions (MoH and NCHD 2005a). The increase in noncommunicable diseases, especially cardiovascular diseases, has led the MoH to integrate separate national programmes on cardiovascular disease, injuries, cancer and other noncommunicable diseases. In 2005, the National Programme on Noncommunicable Diseases, which included both aspects of prevention and control, was developed and approved.

Table 1.4 Main causes of death per 10 000 population, 1990–2004 (selected years)

Indicators per 10 000 population	1990	1996	1998	2000	2002	2003	2004
Communicable diseases	1.82	1.15	0.70	2.10	1.70	1.40	1.50
Tuberculosis	0.48	0.47	0.50	0.32	0.29	0.30	0.38
Circulatory diseases	12.70	19.51	19.78	20.40	22.30	24.40	23.10
Malignant neoplasms	12.70	13.00	12.85	12.70	13.00	12.20	12.20
Trachea/bronchus/lung cancers	1.85	0.70	0.80	1.20	1.70	1.50	1.30
Mental and behavioural disorders	0.50	0.40	0.20	0.10	0.30	0.20	0.10
Respiratory diseases	22.80	8.71	6.74	5.80	4.40	3.40	3.00
Digestive diseases	10.20	5.04	4.76	4.70	4.80	4.90	4.80
External causes	3.70	5.03	6.01	7.60	8.00	8.40	10.30

Sources: MoH, 2002a; MoH and NCHD, 2004; MoH and NCHD, 2005b.

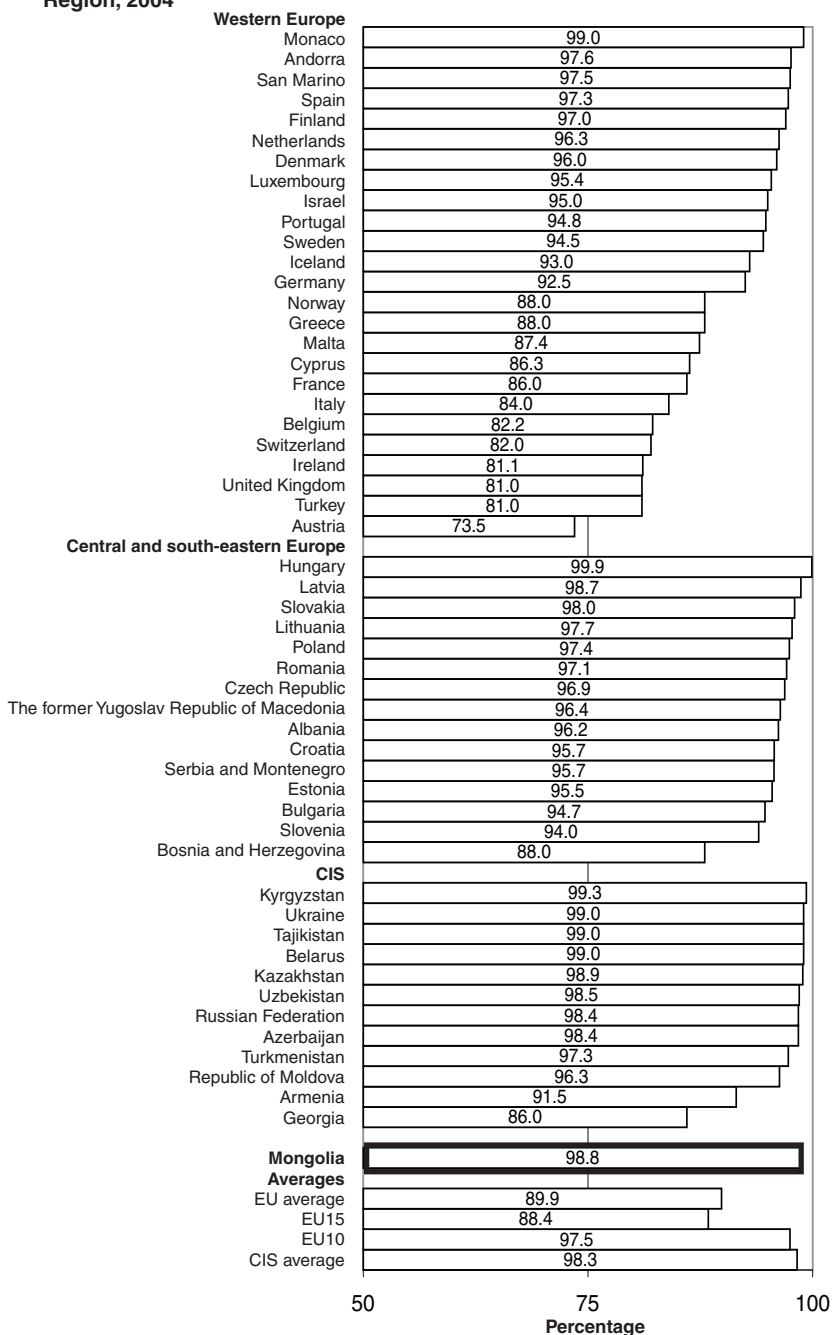
The reduction of childhood diseases since the 1960s was the result of the successful application of extensive immunization programmes for some diseases. For instance, vaccination against poliomyelitis was initiated in 1962, using inactivated vaccine manufactured in the Soviet Union. However, following epidemics in 1982, oral polio vaccine has been used. No cases of the disease have been registered since 1993, and the circulation of wild strains of the poliovirus has ceased. Polio eradication in Mongolia was confirmed in 2000. Diphtheria, pertussis, tetanus (DPT) vaccination started in 1969, and measles vaccination was introduced in 1974, with the two-dose scheme introduced in 1986. Immunization coverage for these diseases has reached almost 100% (see Fig 1.3). The high level of immunization coverage has been achieved through the active implementation of the National Programme on Immunization with the support of international partners. Immunization using six EPI vaccines and vaccination against hepatitis B are available for every child on the scheduled scheme. A supplementary period of vaccination is organized twice a year in order to cover those children who missed the vaccination schedule (MoH 2002a).

Viral hepatitis, TB and STIs are still the most common infectious diseases. Although compared to 1960s the incidence of viral hepatitis has decreased, largely owing to the commencement of hepatitis B vaccination programmes in 1991, viral hepatitis continues to be one of the most common infections in terms of the number of people affected. In 2004, viral hepatitis accounted for approximately 19.7% of all registered communicable diseases. Potential explanations for this include: problems with compromised hepatitis B vaccine effectiveness in rural regions (Edstam, Dulmaa et al. 2004); the fact that hepatitis A vaccination is still voluntary; and unsafe injecting practices leading to nosocomial infections (Logez, Soyolgerel et al. 2004).

In 2004, TB and STIs comprised 14% and 43.6% of the total infectious disease burden respectively. Since 1994, the Directly Observed Treatment Short-course (DOTS) has been adopted within the framework of the National Programme on Tuberculosis. The first years of DOTS implementation led to a marked increase in TB incidence owing to improved case finding, and the identification of previously unregistered cases among prisoners and homeless people. However, the decline in TB prevalence and the new-case fatality rate and the improved cure rate demonstrate the effectiveness of the DOTS programme in Mongolia (MoH 2002a; MoH and NCHD 2005a).

Since 2000, the spread of STIs has increased among the general adult population and not just vulnerable groups, and this trend shows no signs of abating (see Table 1.5). In 2004, trichomoniasis, gonorrhoea and syphilis accounted for 45.2, 41.8 and 12.9% of reported STIs respectively (MoH 2002a; MoH and NCHD 2005a). The first case of HIV was officially registered in August 1992. Although until 2005 the annual number of newly registered HIV

Fig. 1.3 Levels of immunization for measles in Mongolia and the WHO European Region, 2004



Sources: WHO Regional Office for Europe, June 2006; MoH and NCHD, 2005b.

Notes: CIS: Commonwealth of Independent States; EU: European Union.

cases was zero or one, in 2005 there was a sharp rise in the number of newly infected cases to 11. Most of the recorded cases were imported or occurred in particularly vulnerable groups, but two cases were found in the general population. Therefore, it is possible that HIV prevalence in Mongolia could be much larger than currently reported (NCCD 2005). This is especially worrying, given that a rapid assessment of injecting practices revealed that unsafe injecting practices in health care settings in Mongolia are a source of HIV infection and a major mode of hepatitis B and hepatitis C transmission (Logez, Soyolgerel et al. 2004).

A recent study on male infertility showed that STIs were the main factor in explaining infertility among Mongolian men (Bayasgalan, Naranbat et al. 2005). About 44% of the study participants had STIs, and it has been asserted that STIs increase the risk of becoming infertile by 5.6–7.6 times (Bayasgalan, Naranbat et al. 2005). Although there is only one specialized department on fertility in the country, the high prevalence of STIs in the population and the poor quality of treatments available are cause for concern about the rise of secondary infertility.

The Government of Mongolia has been active in population health education campaigning, but health behaviours have remained largely unchanged. For example, the adolescent pregnancy rate has fluctuated, but fallen significantly since 2000 (see Table 1.5), and drinking and smoking rates are high. Recent survey results showed that 49% of the respondents knew about the impact of alcohol consumption on health, and 73.9% of them stated that they drink alcohol. This survey included people from both urban and rural areas aged 20 or over (MoH and DMS 2004). Similarly, 68% of the respondents were smokers, and 57% of them were aware of the negative health consequences. A similar survey conducted in 1999 found that 72.2% of the respondents drank alcohol, and 64.8% smoked (Tungalag 1999). It could be argued that the high levels of alcohol consumption and smoking are closely related to the socioeconomic problems of the transitional period, including poverty and unemployment. In the 2004 survey, 11.9% of the respondents said they smoked and 4.8% said they drank in order to cope with stress (MoH and DMS 2004). However, the number of national alcohol manufacturers has increased, and the industry contributes a significant amount to the state budget through excise duties, and despite efforts to curb the advertising of alcohol and tobacco products, the population of Mongolia has experienced the aggressive marketing of these products.

The Government passed and implemented the National Programme on Oral Health between 1999 and 2004. The programme aimed to improve the oral health of the population through increasing public health activities. The most important success of the programme was the sustainable provision of

Table 1.5 Maternal and child health indicators, 1990–2004 (selected years)

Indicators	1990	1992	1994	1996	1998	2000	2002	2003	2004
Adolescent pregnancy rate (per 1000 births)	–	–	–	–	–	9.3	6.2	6.1	7.0
Perinatal mortality (per 1000 births)	22.0	18.2	23.8	21.8	22.6	19.6	21.9	21.2	21.7
Maternal mortality rate (per 10 000 live births)	118.0	205.2	214.0	176.0	158.9	158.5	124	116.0	98.6
Sexually transmitted diseases (per 10 000 population)	13.3 ^a	10.5 ^a	17.4 ^a	17.3 ^a	42.6	64.5	62.8	48.0	54.3

Sources: MoH and NCHD, 2001; MoH and NCHD, 2002; NCHD, 2002; MoH and NCHD, 2003; MoH and NCHD, 2004; MoH and NCHD, 2005b.

Note: ^a Trichomoniasis is excluded.

oral health information education and communication (IEC) activities through primary care settings. The different kinds of IEC materials, including books and brochures, were developed and distributed throughout the country. Oral health issues were included in the curriculum of kindergartens and secondary schools. As a result of the National Programme on Oral Health, the average number of decayed, missing or filled teeth (DMFT) was reduced by 1.9 times, from 5.8 to 3.05 between 2000 and 2004. The level of caries decreased from 96% to 71.56% for the last four years of the period. However, the oral health of the population still needs to be improved, and the MoH intends to extend the programme on oral health (MoH and IMED 2005).

Safe water provision and usage are different for people living in western-style buildings and *gers* – traditional tents made from wood and felt, which are the most convenient accommodation for the nomadic herders. *Ger* residents use less water and pay more for water than people living in apartments. The results of a study on water access and sanitation at selected sites showed that only 17.3% of rural households had access to improved water supply, while 44.6% had access in urbanized areas (UNDP 2004). The latest available statistics show that in Ulaanbaatar, as well as in the western and Khangai regions, the number of households using distributed water, rather than mains water supply, increased in 2004 compared to 2003, while it decreased in the eastern and southern regions (National Statistical Office 2005). For these households access to improved sanitation is also an issue. The quality of water also varies throughout the country. For example, 13.4% of the rural population use water which contains higher levels of minerals (>200–400 mg/litre), and this might cause kidney stones. In the Gobi the mineralization of the water has reached 34 mg-eqi/litre, where 4.1–7.0 mg eqi/litre is considered the normal range (UNDP 2004).

2 Organizational structure

2.1 Historical background

Medical practice in Mongolia has evolved from traditional medicine, which was later strongly influenced by Tibetan medicine and Buddhism. The traditional medicine practised by specialists (*emchy* or *otoch*) was the only care available to the wider population until the advent of socialist rule in the 1930s. Western medicine was available through a handful of doctors stationed in the consulates in the capital city, and a few Swedish medical missionaries cared for Mongolians in some rural areas (Rossabi 2005). With the development of the socialist system, new health care reforms were initiated by the socialist government with administrative and financial assistance from the Soviet Union. During these times, Soviet medical care, research and health development expeditions supported the establishment of modern health care structures in Mongolia (Neupert 1995). The first hospital was built in 1926, with help from the Soviet Union, and staffed by Soviet physicians, who trained Mongolian doctors. By 1940, Mongolia had 10 hospitals and 108 qualified physicians; by 1963 the system had expanded so greatly that the country had 90 hospitals and 1140 doctors (Rossabi 2005). The intensive penetration of European medical knowledge and formation of the National Health Service System thus occurred between 1921 and 1940 (Nymadawa, Bold et al. 2006).

Mongolia built up a Semashko-style centralized and hierarchical health system where health care services were fully financed and delivered by the Government. Most medical facilities were found in the capital and other urban centres, but the system did furnish basic services throughout the country. In rural regions health care was organized via the *negdel* or herders cooperative. *Negdel* centres often developed into small towns, which facilitated the development of universal health care, free at the point of access. These small towns had

polyclinics and some secondary care, but medical personnel could travel to encampments in distant locations in case of emergency (Rossabi 2005). Smaller towns also had maternity rest homes financed by the *negdels*, where women could stay for the last few weeks before giving birth, thus ensuring medically trained personnel were on hand for most births (Rossabi 2005). Such provisions not only underscored the State's pro-natalist policies but also helped to reduce both the infant mortality rate from 109 per 1000 live births in 1960 to 57.4 in 1990 and maternal mortality by about 25% over the same period (Rossabi 2005). The maternity rest homes were abolished with the privatization of the *negdels* in 1991–1992. While the Semashko system aimed to ensure equity and broad access to health services, it also had a strong orientation towards curative services which relied heavily on hospital-based physicians and an authoritarian management style with strong central control system.

In the late 1980s and early 1990s, with the collapse of the Soviet Union and democratic changes in Mongolia, it became evident that in the new market economy free health care services with state financing alone were unsustainable. During the initial process of socioeconomic change following the collapse of the socialist system, state expenditure for the social sector as a whole fell, but the level of government health spending as a proportion of GDP also decreased significantly – from 6.7% in 1990 to 4% in 1992 – and the quality of health care fell dramatically, as the health system could not maintain itself (Bayarsaikhan, Kwon et al. 2005). During this transition period, international aid and donors' assistance poured into Mongolia, which helped to compensate for the withdrawal of the Soviet financial and social assistance. The heightened socioeconomic vulnerability of the country during this particular period gave future leverage to the international development organizations, in particular to those that brought in the most aid (Rossabi 2005).

The resource gap which opened up in the health sector budget in the early 1990s was filled by the ad hoc introduction of user fees. Patients were routinely asked to pay for medicines, X-ray films, dressings and medical goods that were still supposedly free of charge in the state-owned health facilities. These user fees were a particular burden for rural nomads, as they were also charged for emergency calls and transportation by ambulances (Bayarsaikhan, Kwon et al. 2005). Such informal user fees played a certain role in maintaining the health system, as they had done in many other post-socialist countries, but the purchasing power of the population continuously deteriorated owing to high inflation, loss of income and rising unemployment, as many of the state-owned enterprises and agricultural cooperatives were closed down (Bayarsaikhan, Kwon et al. 2005). It was clear that there was a need to reform the system and find a new way of financing health care without imposing an excessive financial burden on individual households and while protecting low-income and

vulnerable population groups. In these circumstances, social health insurance based on the concept of social solidarity through risk-sharing and fund-pooling principles was seen as the most attractive option (Bayarsaikhan, Kwon et al. 2005).

The health care financing reform that was initiated with the development and adoption of the Health Insurance Law in 1993 introduced social health insurance as part of a larger social security framework (Bayarsaikhan 2005). However, the legislation around social welfare and social insurance passed in 1993–1995 created two parallel systems of social security programmes: one operating on social insurance and serving employees who have paid their contributions, and the other based on a social assistance programme serving people needing state support. The Social Security Strategy Paper adopted by the Government in November 2003 states that the long-term policy framework for the sector is improved quality and access to social services and a reduction in the vulnerability of the population to poverty. However, persisting socioeconomic problems, such as high poverty levels, unemployment, inequitable income distribution, poor infrastructure and communications, combined with low population density present further challenges in responding to the needs of the population. The social welfare system is under the management and administration of the Ministry of Social Welfare and Labour (MoSWL), which is responsible for distributing benefits and for the protection of the most vulnerable segments of the population, such as the elderly, the disabled and very poor people.¹ Among the short-term benefits provided under social insurance are maternity leave benefits, infant care benefits and benefits for mothers with five children or more.

Other key reforms that have had a significant impact on the development of Mongolia's health system include those to develop primary care services and those relating to privatization in the health sector. In the late 1990s, with the assistance of international development organizations (particularly the Asian Development Bank (ADB)), comprehensive support was provided for strengthening primary health care (PHC) as a national policy. As a result of this change, FGPs were initiated. From 2002, PHC in urban areas was fully transferred to the FGP system, and it is estimated that by 2004 more than half of the total population was covered by the services of 230 FGPs established in all districts of Ulaanbaatar and in the *aimag* centres. The establishment of FGPs has been perceived as an innovative intervention, which has been successful in shifting government attention towards a PHC approach (MoH

¹ A "very poor person" is a person with income less than 40% of the minimum subsistence level, i.e. the poverty line. In 2005, the poverty line in Mongolia was approximately US\$ 20 per person per month.

2004). The Government issued resolutions to pilot health sector privatization in 1997, and social sector privatization guidelines were passed by the *Ikh Khural* in 2001. By 2003, there were over 840 private health facilities registered in Mongolia, mainly private pharmacies. However, the legislative environment needs to be further improved if the emerging private sector is to make a more meaningful contribution to the provision of equitable services to the population (MoH 2005c).

2.2 Organizational overview

The health system in Mongolia is one statutory system organized according to administrative divisions, i.e. *bagh*, *soum*, *aimag*, etc. It is represented by a two-tier system: primary care and specialized care, including secondary and tertiary care. PHC services are delivered by FGPs, *soum* doctors and *bagh feldshers*, who are medically trained PHC workers at the smallest administrative unit. *Bagh feldshers* live in close proximity to rural households and families, and interact closely with them for the delivery of essential health services. *Feldshers* report to *soum* hospitals through regular meetings and visits, and in case of emergencies refer clients to *soum* or *intersoum* hospitals. These are larger centres with an adequate workforce and the resources to render health services to the population of two or more *soums* (see “Primary/ambulatory care” in Chapter 6).

Specialized care – the secondary and tertiary tiers of the current system – is delivered by *aimag* (regional) centre and urban district hospitals, which have 11–16 departments representing all major clinical specialties and have a capacity of approximately 200–300 beds for delivering inpatient services. The next level of specialized care is provided through the state clinical hospitals and specialized health centres, located mainly in the capital city of Ulaanbaatar, but also through the three RDTCs located in three regional centres – western region (Khovd), eastern region (Dornod) and Khangai region (Uvurkhangai). The RDTCs were established by the MoH to provide specialized care at regional level, in response to the Regional Development Concept approved by the *Ikh Khural* in 2001. However, currently the RDTCs fail to provide the intended specialized high-level care owing to the lack of adequate staff, funds, equipment and medical supplies. As of 2005, there are 17 clinical and tertiary-level hospitals, 3 RDTCs, 22 regional hospitals and other service delivery points (see “Specialized ambulatory/inpatient care” in Chapter 6).

The main actors in the Mongolian health system include the MoH, the Ministry of Finance (MoF), the MoSWL, the Ministry of Education, Culture

and Science (MECS), the State Professional Inspection Agency (SPIA), the NCHD, various donor organizations and some NGOs.

Ministry of Health

The MoH is the Government's central administrative body responsible for health policy formulation, planning, regulation and supervision and ensuring the implementation of health-related activities and standards by its implementing institutions and agencies (MoH 2004). The MoH's functions at the national level are defined as follows (Government of Mongolia 2004):

- public health policy development to safeguard and promote the health of the people;
- developing policy to ensure the continued supply of drugs, pharmaceuticals, and medical equipment;
- quality of services and hygiene;
- fitness and physical development;
- public health policy and professional guidance to promote health.

In addition, the MoH also develops human resource policies for the health sector and health financing policies, as well as coordinating, monitoring and evaluation and the overall supervision of tertiary care. However, the MoH continues to be heavily involved in the implementation of donor-funded projects and initiatives rather than the planning and policy-setting functions stated above. Currently, the MoH delegates its health promotion role to its implementing agencies. The National Public Health Council (headed by the Prime Minister and represented by all line ministries) has been established; however, this important mechanism for initiating and nurturing intersectoral collaboration for public health is almost inactive, despite public health being a major part of the Ministry's remit. On the other hand, a policy shift from curative to preventive health care has been affirmed through the adoption of the 2001 Public Health Policy, although it needs to be significantly refined to ensure its full realization.

The *Aimag* Health Department is an implementing agency of the MoH, and one operates in each of the 21 *aimags*. The *Aimag* Health Departments are in charge of implementing public health and medical care policies, the organization and management of health care institutions in the *aimag* and the efficient allocation and management of financial and other resources. The health care institutions in Ulaanbaatar districts are supervised and managed by the Ulaanbaatar City Health Department.

Ministry of Finance

The MoF bears responsibility for overall fiscal planning and monitoring functions at the national level, including:

- investigating socioeconomic guidelines on an annual basis and state budget planning;
- monitoring state budget expenditure;
- state investment policy;
- the integrated registration system;
- the integrated policy on loans and grant assistance;
- customs and tax policy;
- insurance policy.

The ongoing debates about a national planning mechanism and the planning capacity of the Government highlight the need for significant support in this area. Ever since the centralized planning of the socialist period was abandoned, no strong alternative has been put in place, and as of 2006 Mongolia, through its MoF, relies on annual planning or socioeconomic guidelines (SEG) that are approved by the *Ikh Khural* and are supposed to be the basis of the annual budget. A recent study on the link between the annual SEG, including priorities in the health system, and budgeting revealed that the intended link between the two is actually missing, so that identified priorities do not necessarily receive budgetary support (MoF and UNDP 2005). Currently, efforts are under way to improve the overall planning and budgeting process, which has been identified as a weak area within overall government function.

Ministry of Social Welfare and Labour

The MoSWL is the state administrative body responsible for social security issues at the central level. The main mission of the MoSWL is to create conditions for efficient and productive job opportunities and well-being for all and improve the social security services to be provided to them (MoSWL 2003). Four government implementing agencies operate under this Ministry's jurisdiction, including the State Social Insurance General Office (SSIGO). It has a vertical organizational structure with representatives at all levels, i.e. State Insurance Departments at *aimag* and Ulaanbaatar district levels and State Insurance Units at the *soum* level, which are based in the local governor's office. The Health Insurance Department of the SSIGO manages different aspects of the health insurance system. The SSIGO is in charge of the implementation of social insurance legislation and the operation of the social insurance fund. It ensures the timely payment of benefits and pensions and conducts research

to strengthen and improve services. Based on this research and study findings, the SSIGO has been empowered to act upon recommendations or channel resources to appropriate authorities as indicated. The Social Insurance National Council (SINC) is appointed by the *Ikh Khural* and oversees the operation of the SSIGO.

Parallel health systems

There are three line ministries – the Ministry of Defence, the Ministry of Justice and Home Affairs and the Ministry of Infrastructure – that manage and supervise the organization and administration of the military hospital; the civil service and prison hospitals; and the railway hospital and railway health centres respectively. Although the budget and administration are provided by the respective ministries, professional guidance is still rendered by the MoH. However, having such parallel systems in the management and operation of health care delivery centres creates some difficulties in ensuring the timely and coherent implementation of health policy changes.

State Professional Inspection Agency

The SPIA is the government agency in charge of monitoring the implementation of state regulations and standards, including those relating to the health system. It has the power to impose sanctions and plays an important role in ensuring that health facilities adhere to the established standards and policies for quality of care.

Ministry of Education, Culture and Science

The pre-service training of health care professionals at the Health Science University of Mongolia and medical colleges is under the jurisdiction of the MECS. Consequently, reforms of pre-service training for medical personnel have to be agreed and endorsed not only by the MoH but also by the MECS, which sometimes create complications and unnecessary delays in the health sector reform process. The MECS is also responsible for health education programmes in secondary schools.

National Centre for Health Development

The NCHD is a professional agency affiliated to the MoH which provides support for policy formulation and technical capacity strengthening in the

areas of health management and information, licensing and accreditation, and continuing medical education and health promotion.

In 2002, the NCHD was restructured as a government implementing agency – the Directorate of Medical Services (DMS) – which was mandated to professionally guide health care institutions to ensure better quality of health care services. Unfortunately, with the appointment of the new government in 2004, this restructuring was reversed and, currently, the NCHD is the main implementing agency for health promotion, the licensing and accreditation of health centres and health management through its health statistics department and health management unit. The only TV studio for filming health education videos also operates under the NCHD.

Nongovernmental organizations and civil society organizations

NGOs in health sector are emerging, and over 140 NGOs and other civil society organizations have been officially registered with the Ministry of Justice and Home Affairs (Soros Foundation 2003). Professional associations and groups are still in their nascent stages and the proactiveness of different associations varies. Consequently, their contribution to strengthening the capacity of health care professionals is still limited. On the other hand, there are numerous public health NGOs that are very active in the areas of health promotion and awareness-raising in HIV/AIDS, domestic violence, drug and alcohol problems, among other issues. However, these NGOs need to strengthen further their capacity for advocacy, as well as better coordination, cohesion and effectiveness when addressing pressing issues, especially in their “watchdog” role of monitoring current government policies and programmes for population health.

International partners

Ever since the commencement of major health sector reforms in the early 1990s, donors and international development organizations have not only provided critically needed assistance for the social sector, but also influenced certain policies and programmes, which have shaped the health policy agenda. As of 2005, 13% of health expenditure is supported through international development aid (MoH 2005d). Some of the key achievements in the health sector have occurred where international partners have provided strong long-term support, working closely with the Government. These include child health (with support of the United Nations Children’s Fund (UNICEF), World Vision, etc.), reproductive health (with strong support from United Nations Population Fund (UNFPA)) and introduction of FGPs with the support of the ADB. However, such considerable financial support and the continued influence

of international donors on existing health policies and programmes since the mid-1990s have undermined the Government's leadership role, resulting in donors driving current health care reforms. Major partners in health include WHO, UNFPA, UNICEF, Global Fund, World Vision, German Technical Co-operation Agency (GTZ), the ADB, the World Bank, the Government of Japan and Save the Children United Kingdom.

2.3 Decentralization and centralization

The authoritarian style of management and central command system introduced as part of the Semashko system laid the foundation for centralized management in health care, as in all other sectors. Decentralization in Mongolia was considered a key part of the national development strategy, and has been attempted through a series of government efforts to adopt legislation and policy frameworks since the mid-1990s. Decentralization of the health system was initiated in the mid-1990s in response to the reduction of central government funding for the system. Financial responsibility for the operation of local-level health facilities was transferred to local governments, but local governments lacked the capacity to implement decentralization (O'Rourke, Tungalag et al. 2003). There was confusion over the various roles and responsibilities of different agencies at different levels, and great resistance to changing management practices (O'Rourke, Tungalag et al. 2003). Thus far, attempts to decentralize the planning, monitoring, evaluation, financial and administrative functions within the health sector to local governments have not led to a meaningful increase in the level of primary stakeholder participation or to an improvement in the performance of health services (MoH 2005c). Health managers at both the central and local levels lack capacity, and there are no clear guidelines or procedures for systematically implementing decentralization, even though the basic elements of the legal framework for decentralization and structural reform are in place. There is also a tendency for structural and organizational changes to be guided by the assumption that function should follow structure and not vice versa (MoH 2005c).

The 1992 legislation on self-governance, the Regional Development Concept of 2001 and the new Public Sector Management and Finance Law (PSMFL) of 2003 are just a few examples of the serious attempts made by different governments to promote decentralization (see "Regulation and governance of providers" in Chapter 4). Within the recently approved "medium-term civil service reform strategy of Mongolia" of 2004, the capacity-building and leadership role of general managers who will be given the authority and

flexibility to manage the output-based performance of civil servants has also been cited as an important strategic objective. However, the lack of professional staff, the capacity limits of existing personnel, budgetary constraints and an inadequate information management system are among the major challenges that have hindered the success of decentralization efforts.

Another very concrete mechanism established to promote the greater involvement of local citizens in decision-making was through the Local Citizens' Representative *Khural*, including budget allocation for priority issues in the relevant *soum* or *aimag*. However, with the enactment of the PSMFL in 2003, the Local Citizens' Representative *Khural* only formally endorses decisions made at the centre, according to budget allocations decided by the *Ikh Khural*. Therefore, although the Local Citizens' Representative *Khural* does retain some political functions, such as nominating the *soum/aimag* governor, it no longer has the power to influence decisions taken at the centre so can no longer represent local citizens' participation in decision-making.

2.4 Patient empowerment

Under the Health Act of 1998, patients do have certain rights. These include the rights to access to health care, to choose service providers and health institutions, to information concerning health status and the health care available, to refuse diagnostic and treatment procedures and to complain about an institution, service providers or citizens engaged in activities harmful to people's health. However, patients' rights are not specifically articulated and put into practice from a patient's perspective and therefore not upheld by the medical establishment and the Government beyond some prominent cases of malpractice (MoH 2005c). Patient-oriented services are a new concept and a new challenge for health workers after the reform of the Semashko system, besides the other tasks with which they also have to cope. Therefore, respecting patients' rights and providing patient-centred services are sometimes seen as an extra burden by medical staff. However, there have been some efforts and small-scale pilots since the mid-1990s to raise awareness and enforce patients' rights, particularly among service providers.

Anomalies in legislation relating to patients' rights may also be regarded as problematic. For example, on the one hand, the citizen's right to choose a physician, hospital and health institution is laid down in the Health Act of 1998. On the other hand, the Mongolian health sector has a referral system where FGPs should play a gatekeeping role, while providing PHC services to a certain number of people in a defined catchment area. This means that patients

officially have only limited choice in terms of their individual service provider. However, people do still have a choice of a hospital, either public or private, by making direct self-referral and paying out of pocket.

Traditional patient complaint modes, such as phone calls and letters, still predominate in the health sector, as in any other public organization, although there is some increase in the use of other means of making complaints via the Internet and e-mail, as modern technology develops. Officially, patients can complain to doctors, service providers, hospitals, the local administration and the MoH. Complaints received by the MoH in 2004 were mainly concerned with communication skills and attitudes, the professional qualification of health workers, and the organizational structure and management of hospitals. The Ethics Committee at the MoH, and the branch committees at each *aimag* and at health facilities are the decision-making bodies who deal with potential breaches of ethics by health personnel. In addition, the State Professional Inspectorate and the National Police Department can be involved when necessary.

Community participation in the planning, implementation, monitoring and evaluation of health services is very limited (MoH 2005c). The legal and policy framework that would protect the rights and health of patients and providers is still evolving (MoH 2005c). Patient participation is missing at almost all levels of health services, but especially at the higher referral levels. The service-mix currently provided at health facilities does not include patient participation in its frame of reference. This is partly due to the orientation of providers, partly because of the way social sector policies are implemented and the exclusive provider focus of pre-service education. However, the most significant factor appears to be community attitudes in post-communist countries where the role of the community, traditionally, has been a passive one in almost all aspects of social, administrative and cultural life (MoH 2005c). This prevailing attitude has had a significant impact on how existing patient participation mechanisms (health volunteers, hospital boards, ethical committees and interest groups) have, thus far, failed to evolve despite concerted efforts to support them. Efforts to encourage patient and community participation have been strongly influenced by the argument that such participatory processes can support the democratization process (O'Rourke, Hindle et al. 2003).

Nevertheless, health service providers have recognized the use and importance of patient satisfaction surveys during the transition period. Patient and staff satisfaction surveys have been used in the Mongolian health sector since the late 1990s. Patient complaints as well as the findings of patient and staff satisfaction surveys have been used in performance monitoring and the evaluation of health institutions. The use of findings from patient satisfaction surveys is already reflected in performance assessment regulations and guidelines in most hospitals and health institutions starting from the MoH.

One study revealed that about 70% of the patients were satisfied with the services provided but complained of long waiting times for services and beds (MoH 2004). Similarly, a survey of adolescent-friendly services revealed that respondents were satisfied with the services provided, but they were particularly dissatisfied with the quality of basic amenities at clinics (Sovd, Mmari et al. 2006). A study of staff satisfaction carried out by the NCHD in 2003 showed that among the doctors and mid-level health workers of 15 organizations under the MoH, 80% were satisfied with their jobs and 66.2% were satisfied with their headquarters and organizations (MoH 2004). However, questionnaires used for both patient and staff satisfaction surveys have been changed year on year, which makes it difficult to compare the findings and analyse trends. The results of these surveys are also not fully analysed, so the findings from patient and satisfaction surveys have been underutilized so far.

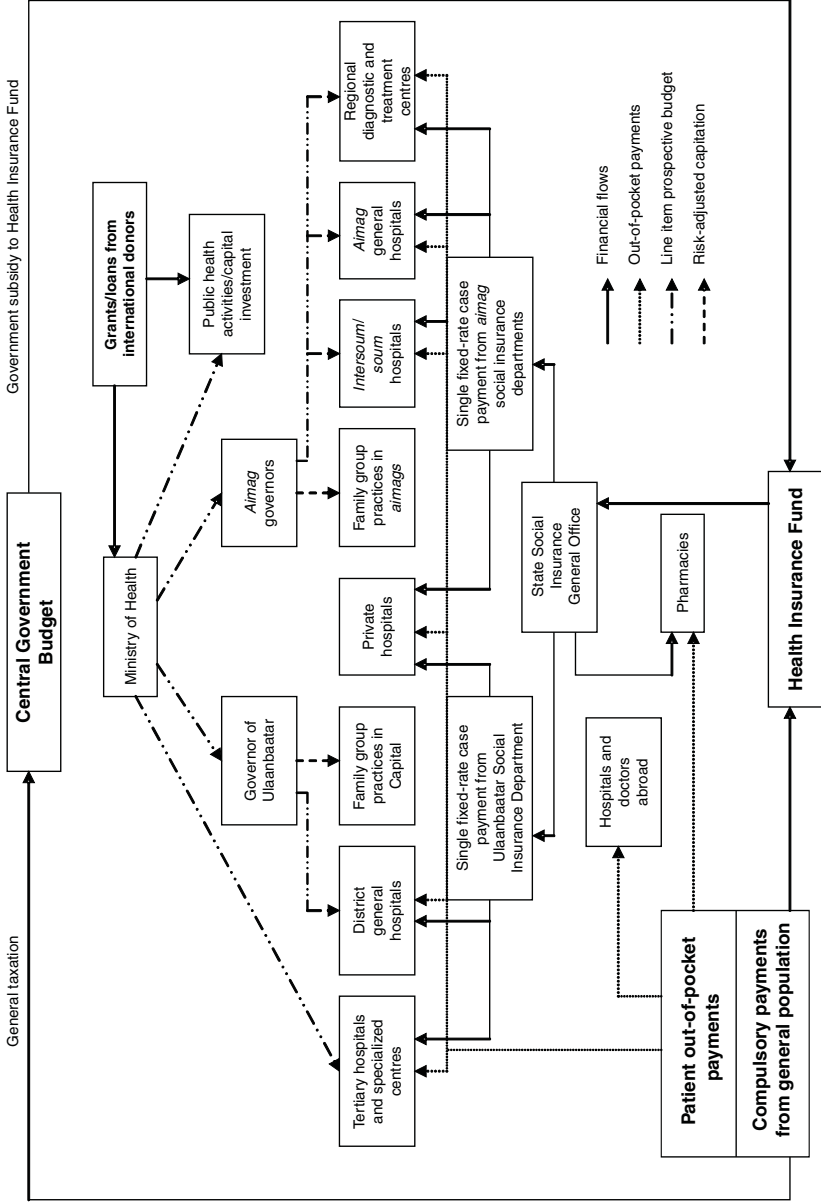
3 Financing

Since 1990, the Mongolian economy has been moving from centrally planned administrative-command system to a market-oriented system. This transition has negatively influenced health financing, due to the macroeconomic recession that followed “shock therapy” market reforms, and this recession also happened at the same time as financial assistance from the Soviet Union ceased. Soviet aid to Mongolia had reached up to 30% of Mongolian GDP, and its withdrawal reduced the overall government budget and lowered allocations to the health sector (Bayarsaikhan, Kwon et al. 2005). Before 1990, Mongolia had a Semashko health system where services were fully financed and delivered by the Government via the administrative-command system and, theoretically, free health care at the point of delivery was guaranteed to all Mongolian citizens. Early in transition, the new economic conditions meant it became impossible to maintain free health care, as the administrative-command system collapsed and Soviet aid ceased. High inflation and the sharp fall in budgetary revenue meant that public resources only met 60–70% of the previous year’s health budget in real terms (Bayarsaikhan, Kwon et al. 2005). Consequently, in 1994, a health insurance system was introduced as an integral part of the health care financing system, in order to provide an extra funding channel for health. Significant changes in all spheres of socioeconomic life in Mongolia have necessitated the revision of health policy and structural reforms of the sector in order to reorientate it to the new conditions.

3.1 Health expenditure

Revenue sources for health are: the state budget, health insurance, out-of-pocket payments and international grants and loans (see Fig. 3.1). Most health

Fig. 3.1 Financial flows in the health sector



expenditure has traditionally been financed from the state budget, although decentralizing reforms in the 1990s meant that public sector health expenditure was financed from both central and regional budgets (MoH 2005c). Health expenditure in Mongolia is officially directed towards population health protection and ensuring health for all, and multiple sources of revenue have evolved and developed in line with the socioeconomic situation in society. However, in practice, most health expenditure goes to inefficient and expensive hospital care services, rather than public health and health promotion strategies, even though these have been declared to be the main focus of health system in the Government Policy on Public Health (see Table 3.1). The high utilization of resources for inpatient services can mainly be explained by the way services are funded (based on bed capacity) and traditional health expenditure planning.

State health expenditure cannot meet the rapidly changing health needs of the population, and there is an urgent need for resource mobilization and reallocation of funds away from inpatient services. However, while health expenditure in monetary terms is increasing year on year, government expenditure on health as a percentage of GDP has dropped gradually from 4.9% in 2001 to 4.3% in 2005 (see Table 3.2 and Fig. 3.2). There is also considerable geographical inequity in expenditure, which cannot be explained by factors such as population density, age and sex distributions or household income, and this inequity has been prolonged by expenditure-based payments from the state budget (Hindle and Khulan 2006).

The state health budget allocated through the MoH covers the fixed costs and some of recurrent costs of health facilities based on the historical allocations and clinical capacities of organizations (hospital beds, doctors, clinics and staff). Health insurance funds are used for the recurrent costs of health service provision. Health care costs in Mongolia are relatively high owing to the low population density and high dependency on imported pharmaceuticals, medical equipment and supplies. Costs not related to service provision, such as heating, electricity and building maintenance, especially during the cold winter season, absorb 23–25% of the total national health budget (Bayarsaikhan, Kwon et al. 2005). The sparse location of health facilities and traditional budgeting of health expenditure also contribute to high health costs. A breakdown of 2004 government health expenditure shows that 95% of it was used for covering recurrent (fixed) expenditures and 5% was allocated for investment purposes – 4.5% to be used for construction and buildings maintenance, with the remainder allocated to the purchase of vehicles and equipment (MoH 2005c).

Health expenditure as a share (%) of GDP is rather stable at around 4%, but the recent trend shows that the share is falling, which is consistent with health expenditure per capita (see Fig. 3.2 and Table 3.2). In international comparison, health expenditure as a share of GDP in Mongolia is relatively low, and similar

to that of many countries of the former Soviet Union, such as Tajikistan, Georgia and the Russian Federation (see Fig. 3.2 and Fig. 3.3).

Table 3.1 Percentage of total health expenditure by services, 1999, 2000–2002

	1999	2000	2001	2002
Curative care including some outpatient services	71	62	60	68
Outpatient care	13	11	10	13
FGP	0	0	0	4
Dental care	1	1	1	1
Rehabilitation	1	1	1	1
Long-term nursing care	0.3	0.3	0.2	0.2
Ancillary services	1	1	1	1
Maintenance	4	7	10	11
Preventive and public health care including foreign aid	6.7	6.2	5.2	4.7
Health administration and health insurance	12	9	9	8
Capital investment including foreign aid	4	13	13	6
Others	1	1	2	2

Source: MoH and World Bank, 2005.

Note: FGP: Family group practice.

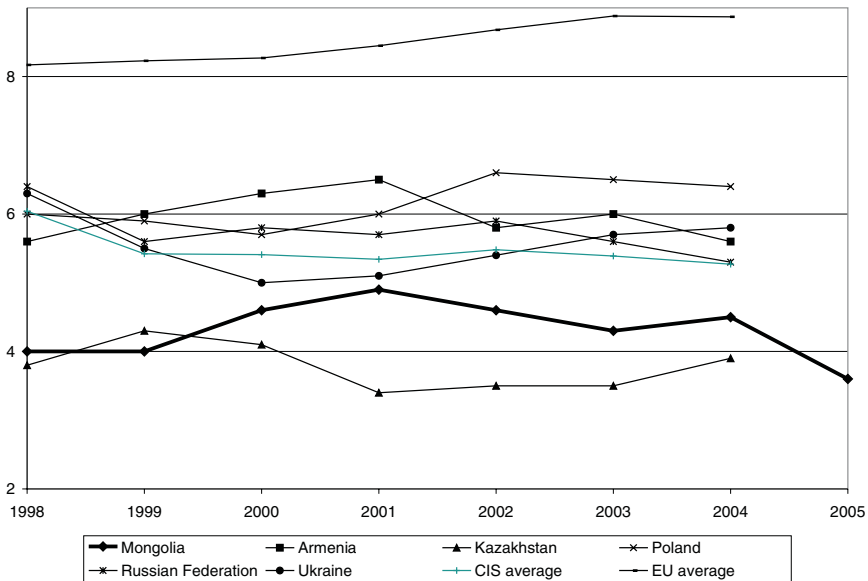
Table 3.2 Trends in health expenditure, 1995–2002 (selected years)

	1995	1999	2000	2001	2002
Health expenditure per capita (US\$)	–	20.0	27.0	31.0	30.0
GDP per capita at 1995 constant price (US\$)	519.9	247.7	241.2	239.1	240.3

Source: MoH and World Bank, 2005.

Note: GDP: Gross domestic product.

Fig. 3.2 Trends in health expenditure as a percentage of GDP, 1998–2005



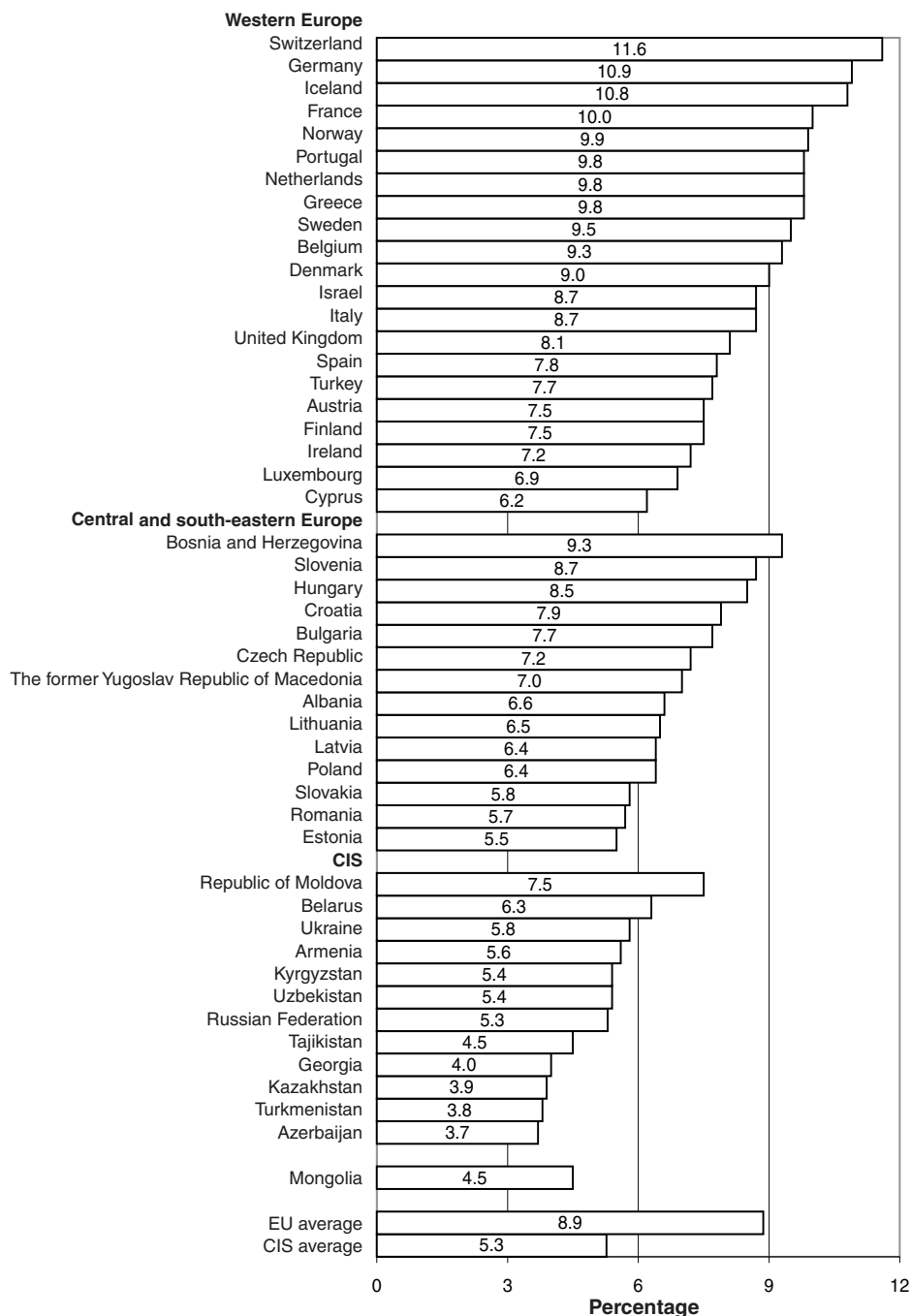
Sources: Samyshkin, 2004; MoH and World Bank, 2005; WHO Regional Office for Europe, June 2006.

3.2 Population coverage and basis for entitlement

Before 1990, the health system in Mongolia was organized according to the Semashko model and the government-dominated system provided free health care for everyone. Virtually all health care providers were employees of government facilities, which were funded almost wholly from government general revenue. The Constitution of Mongolia of 1992 dictates that all citizens have the right to the protection of health and health care, although the procedure and conditions of free medical aid shall be defined by law (Government of Mongolia 1992). The Mongolian Citizen’s Health Insurance Law was adopted by the *Ikh Khural* in 1993, and is based on the principles of social solidarity. The implementation of the social health insurance law began on 1 January 1994.

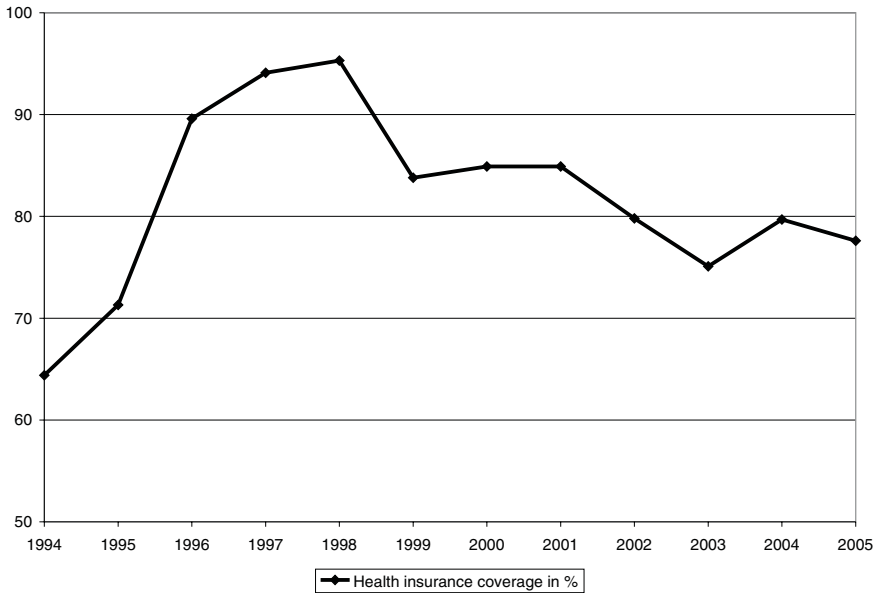
The Government’s commitment to supporting low-income and vulnerable populations meant that about 95% of the population was covered by health insurance within the first three years of health insurance being introduced, largely owing to a high level of government subsidy for vulnerable population groups, including students and the self-employed (Bayarsaikhan, Kwon et al. 2005). From 1 January 1999, students and the self-employed have had

Fig. 3.3 Health expenditure as a percentage of GDP, 2004



Sources: Samyshkin, 2004; WHO Regional Office for Europe, June 2006.

Notes: CIS: Commonwealth of Independent States; EU: European Union.

Fig. 3.4 Health insurance coverage (percentage), 1994–2005

Source: SSIGO, 2006.

to pay their own health insurance premiums; this includes herders, as they have been officially self-employed since the *negdel* cooperative system was dismantled and agriculture was privatized (Rossabi 2005). Consequently, health insurance coverage has fallen from a high of 95.3% in 1998 to 77.6% in 2005 (see Fig. 3.4).

The coverage trend since 1999 was relatively stable at a level of about 80% of the total population of Mongolia (see Fig. 3.4), but this fell from 2001 (Samyshkin 2004). Uninsured persons usually could not receive PHC because, until the amendment to the Health Act of January 2006, FGPs were financed through risk-adjusted capitation payments, based on the number of registered insured persons in their catchment area. In 2004, at least 12.2% of the population failed to receive PHC due to the lack of health insurance coverage (Samyshkin 2004). Similarly, in 2004, 22.7% of mothers who died in childbirth in Ulaanbaatar were not registered for health care and had received no antenatal care (Hill, Dodd et al. 2006). Factors affecting coverage rates include: the limited capacity of the SSIGO offices to process information on the insured; the bureaucratic management style which is not conducive to patient-oriented arrangements in the collection of premiums; difficulties in reaching

those employed in the informal sector; the inability or unwillingness to pay insurance contributions by certain groups of population such as the very poor and the very rich; the high levels of internal migration; and poor quality of health services which caused a lack of appreciation by people of the importance of being insured. Mongolia introduced compulsory universal coverage in the 2002 revision of the Health Insurance Law. The purpose of this revision was to eliminate the potential effects of adverse selection in health insurance and to increase financial protection for all.

“Essential” and “complementary” packages of services

Since 1993, there has been a series of attempts to develop a package of “essential” and “complementary” services in the Mongolian health sector. The first attempt was made after the implementation of the Health Insurance Law of 1993, when defining the package of health services that would be covered by health insurance became necessary in order to determine the costing for and the financing of health services. In 1997, the Minister of Health and Social Welfare approved Order A/330, which required the development and piloting of an “essential services package on health promotion and prevention” on selected sites. However, this package did not clearly define activities or package components, and nor did it reflect patient needs. Instead, it was derived mainly from the activities of the national programmes and the implementation of services; it was also restricted to just the *aimag* and district hospitals.

According to the Health Act of 1998 all citizens have the right to receive medical care from doctors and health organizations (Article 47). Some medical assistance is provided free of charge, whether or not a person is covered by health insurance. This includes: medical emergency and ambulance services; treatment for certain diseases such as TB, cancer, mental illness and some other diseases which require long-term care; disinfection and outbreak management of infectious diseases; and medical services for pregnant women (Article 28). In the Health Act of 1998 the MoH has the authority to issue regulations on the provision of treatment free of charge and to update the list of diseases for which treatment is free of charge. The Health Act was amended in January 2006 so that PHC services could also be provided to all citizens, regardless of whether a person is insured. This has been achieved by shifting the responsibility for funding FGPs from the HIF to the state budget. Extending the benefits of the package of essential services to include FGPs has been seen as a progressive policy step towards providing financial and legislative guarantees for all citizens in Mongolia to receive basic health care services fairly and equitably (MoH 2005c).

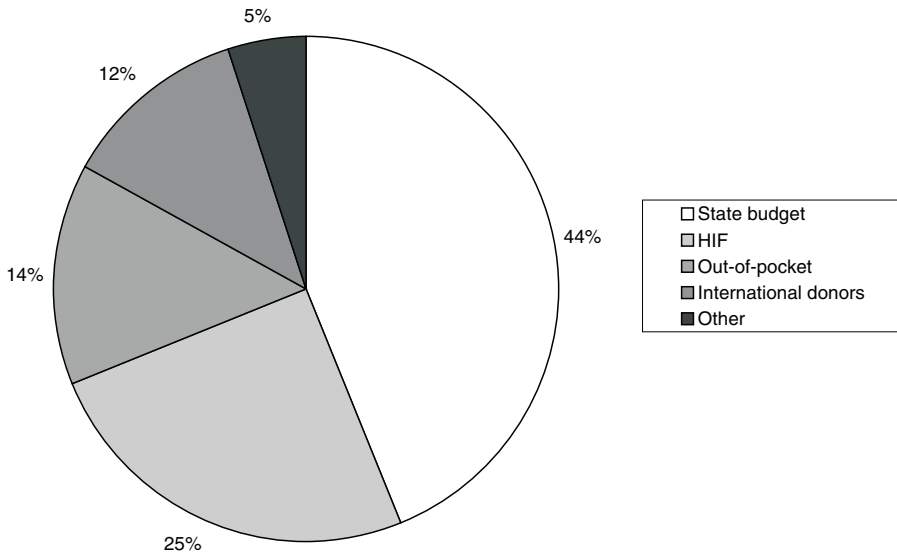
Until recently, the system of packages was inadequate in defining which health services would be financed from the HIF. The HIF has covered payments for inpatient services, outpatient services and the Essential Drugs List. However, health insurance payments may not fully cover costs, and the fixed costs of service provision have been covered by budgetary transfers to facilities or by direct funding from the budget. Through the revision of the Health Insurance Law, the package of benefits is formulated more clearly as services or diseases. Also, neither the “essential” nor the “complementary” packages of services reflect the existing health needs of the population. There appears to be a significant mismatch between the current service-mix and the management support systems to respond to the changing epidemiological profile and increasing expectations and needs of the people (MoH 2005c).

The aim of the January 2006 amendments to the Health Act is to have an integrated system whereby a core package of essential services is funded directly through the state budget, with other health services covered under social health insurance, out-of-pocket payments and donor funds. The package of essential services includes public health components such as vaccination, the prevention of HIV/AIDS and other STIs, adolescent health, social health programmes and health education, as well as primary care services (FGPs). The curative care component covers *soum* hospitals, infectious disease control structures and ambulance services. The complementary package of services is more at the secondary and tertiary level of care, and this package is covered mainly by the HIF supplemented by higher co-payments and user charges. In 2005, the MoH carried out a costing of the Mongolian essential health care package with support from the ADB. According to the study, it was estimated that 75.8 billion Tugrik (US\$ 6.9 million) would be needed in 2005 and 244.7 billion Tugrik (US\$ 22.25 million) in 2015 (MoH 2005c) to fund services.

3.3 Revenue collection/sources of funding

The health system in Mongolia is financed from four main sources: state taxation, social health insurance, out-of-pocket payments and international donor contributions. According to the Mongolian National Health Accounts (MoH and World Bank 2005), in 2002 total health expenditure was 82.6 billion Tugrik or the equivalent of 6.7% of GDP. Forty-four percent (44%) of total health expenditure (37.1 billion Tugrik) were financed from the state budget, 25% (20.6 billion Tugrik) from health insurance, 14% (11.6 billion Tugrik) from the household budget (direct payments, excluding payments for health services sought abroad), 12% (9.9 billion Tugrik) came from foreign loans and

Fig. 3.5 Percentage of total expenditure on health by source of revenue, 2002



Source: MoH and World Bank, 2002.

Note: HIF: Health Insurance Fund.

aids, and 5% (4.1 billion Tugrik) came from other sources such as community financing, the social welfare fund, private enterprises and income generated by health providers themselves (see Fig. 3.5). However, out-of-pocket payments must be significantly higher when the costs of health services sought abroad are taken into account, as these payments are not included in the 2002 National Health Accounts, and private expenditure overseas is hard to determine. Also, there is significant discrepancy on out-of-pocket spending estimates in different sources, for example, the Household Income Expenditure/Living Standard Measurement Survey 2002–2003 gives household out-of-pocket spending on health as about 60 billion Tugrik – four times the estimates given in the National Health Accounts (National Statistical Office, World Bank et al. 2004; MoH and World Bank 2005).

Compulsory sources of finance

State budget

Revenue for the state budget is raised through general taxation, and all taxes are collected through the general taxation office. At the national level, the main

sources of tax revenue are: enterprise tax, income tax, customs duties, value-added tax (VAT), special tax, fuel tax, raw material usage tax, and non-regular self-employment tax. There are also 15 kinds of taxes at the local level. The *Ikh Khural* sets tax rates at the national level and local Citizens' Representative *Khurals* determine some tax rates at the local level; for other local taxes the *Ikh Khural* caps the rate at which they can be set. However, tax evasion has proven to be a persistent problem that has a significant impact on budgetary revenue.

According to a planning and budgeting process approved by the MoF, the MoH prepares the health sector budget. The health sector budget is discussed within the MoH, and then at the MoF and the MoSWL, finally it is approved by the *Ikh Khural*. In 2004, the state budget accounted for 70% of total health expenditure. The state budget usually covers the fixed costs of health facilities, capital investment and maternal and child care costs through the relevant local governor's office treasury. Several services are subsidized by the state budget under provisions of the Health Law through the package of essential services (see "Population coverage and basis for entitlement" in Chapter 3). The state budget also pays the minimum health insurance contribution for low-income and vulnerable groups. The accounting system for state budget resources must follow over 30 budget line items and funds cannot be transferred within them without the budget director's approval. This is a hangover from the Semashko system. Usually, any unspent funds at the end of the financial year are transferred back to the Treasury.

Social health insurance

Social health insurance in Mongolia is called Citizens' Health Insurance and was introduced in 1994 in order to ensure sustainable funding for the health system, because direct funding from the state budget for all services channelled insufficient funds. While the package of essential services is funded directly from the state budget, the HIF finances the complementary package of services, which includes nearly all kinds of hospital care, except for the treatment of specific chronic and infectious diseases, which is funded directly from the state budget (as mentioned earlier). The HIF covers payments for inpatient services, outpatient services, some sanatoria and pharmaceuticals included in the Essential Drugs List. However, HIF payments do not cover the full costs of treatment. The fixed costs for service provision are covered by budgetary transfers to facilities or by direct funding from the budget. FGPs are paid on the basis of risk-adjusted capitation. The payments were initially made by the HIF, but following changes to the Health Law early in 2006, all primary care services were due to be funded from the state budget from July 2006.

When social health insurance was first introduced, Mongol Daatgal was approved by the *Ikh Khural* to conduct the health insurance administrative functions, including registration, collection of premiums, claim processing and payments to service providers. Mongol Daatgal was an existing state commercial insurance company that provided all types of commercial and private asset insurance services (Bayarsaikhan 2005). As Mongol Daatgal had secured initial financial reserves, the insured members had immediate access to health insurance benefits from the moment of premium payment. In 1996 the social security system was reorganized and the administrative functions of health insurance were transferred to the SSIGO under the MoSWL (Bayarsaikhan, Kwon et al. 2005).

The SSIGO has a nationwide network of offices and is now responsible for collecting social health insurance contributions. The administrative costs of the SSIGO are 2.5% of total health insurance revenue. However, ownership of the HIF is now split between the MoH and the MoSWL, and while there is an organizational structure and formal mechanisms for the coordination of policies between the MoH and the SSIGO, there is little coordination and shared responsibility for service purchasing and the quality of services. The Government sets the premium rate for health insurance for the formal sector, while the SINC sets the rate for other population groups, except owners of business entities and the self-employed, as specified in Article 6.1.2 of the Health Insurance Law. The SSIGO sets the premium rate for this group based on income reported by them to the taxation office. Most HIF revenue comes in the form of tax and budgetary transfers from working individuals (see Table 3.3). Local funds are managed by the SSIGO local offices.

Revenue collection for the HIF is based on earmarked contributions from income earning groups (proportionate to income). Employees and employers together pay a contribution of 6% of the payroll (3% each). A financial plan for the collection of contributions from registered employers/companies is

Table 3.3 Health insurance revenue (percentage), 1994–2003

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Working individuals	45.0	55.8	58.0	62.2	53.5	62.2	66.3	69.8	72.2	75.9
State-subsidized groups	51.4	38.4	36.8	34.2	42.9	33.6	26.7	24.4	21.8	19.8
Voluntary insured	3.5	4.0	5.3	3.7	3.5	4.2	3.1	2.4	2.2	0.0
Other revenues	0.1	1.8	–	–	–	–	0.2	0.6	1.1	1.0
Students	–	–	–	–	–	–	0.3	0.3	0.3	0.4
Herders	–	–	–	–	–	–	3.3	2.5	2.3	3.0

Source: Samyshkin, 2004.

set up annually. The self-employed (including herders), as well as students and the unemployed are now responsible for their own contributions and should pay a flat rate of 500 Tugrik per month. The Government is responsible for the transfer of contributions (a flat rate contribution of 300 Tugrik per month) from general tax revenue for certain vulnerable groups (e.g. children under 16, pensioners, registered disabled), as well as prisoners and military personnel. Initially, contributions from the self-employed and students as well as vulnerable groups were wholly subsidized by the Government and 70% of the total population fell into the low-income and vulnerable categories, most of whom were children under 16 years of age (Bayarsaikhan, Kwon et al. 2005). Foreign residents can pay 1800 Tugrik per month for voluntary membership. The Government determines the health insurance contribution rates annually, but rates are not linked to the actual costs of services covered. A significant proportion of the population is involved in the informal economy or casual employment and for these groups there is a problem of compliance with the health insurance programme. These categories do not pay premiums to the health insurance scheme, so these people remain uninsured. Operationally, health insurance coverage means two things: the registration of beneficiaries with health insurance services, and the payment of health insurance contributions. Voluntary membership is open only to foreign residents and persons without citizenship.

According to the SSIGO, the balance between revenue and expenditure has been positive over a number of recent years, with about 20% surplus resources (Samyshkin 2004). The revised Health Insurance Law created the requisite legal environment to spend this surplus to improve health care quality, access and coverage.

Voluntary health insurance

Although voluntary private medical insurance is permitted by law, it is not common in Mongolia. There have been attempts to create private medical insurance, but the focus has been on patients seeking health care abroad. However, some private medical insurance companies are currently planning to establish an advanced health care centre in Mongolia, providing high-quality expensive health services to those who can afford them.

Out-of-pocket payments

User fees have been permitted officially since the early 1990s. In Mongolia official out-of-pocket payments include direct payments to private health care facilities, official co-payments and user fees in public health facilities, and the direct payment and wider costs of seeking medical services abroad. There are also several forms of informal fees in the health system. These include paying out of pocket for drugs and medical supplies in hospitals (where they are meant to be free), paying unofficial doctor's fees for examinations and treatment, direct payments or giving gifts to doctors and other health care staff for services provided, and payments in order to secure particular positions in a health facility.

Co-payments are paid in cash by the patient to the health facility finance office cashier upon admission. User fees are also usually paid in cash by the patient to the health facility finance office cashier. Although some charges (such as room fees and other service charges) are paid to the service provider at the City Health Department level, these fees are not reimbursed. All co-payments and most user fees are supposed to be recorded as revenue to the health facility and reported as revenue under the "income from main activities" item line to the Treasury Office, but it is highly likely that user charges are underreported and are used at the point of generation (MoH 2005c). User fees and co-payments are utilized as part of government spending as it is considered government revenue. Therefore, all reported revenue generated at the local level leads to a corresponding reduction from the HIF in the case of co-payments and from the state budget in the case of user fees and other auxiliary or secondary income generating activities (MoH 2005c). The HIF only pays the balance of the reimbursement of co-payments to hospitals, which provides the hospitals with an incentive to ensure that co-payments are collected as the monies can be used locally by the health facility. Unofficial out-of-pocket payments are private transactions between patients and individual health providers which are not reported and are used at the personal level by the providers themselves. Such unofficial charges can be levied at any level of the system (MoH 2005c).

Co-payments approved under the Health Insurance Law amount to 10% of the secondary care-level hospital insurance fee and 15% of tertiary care-level hospital insurance fee, and are charged to inpatients. However, certain categories are exempt from having to pay co-payments, namely children under 16 years, general secondary school students under 18 years, citizens living on their pension with no other income, mothers of children under the age of 2 (or twins under the age of 3), persons on regular military service and some others. The revised Health Act of 2006 allows hospitals to charge for elective services, which will be defined by the Minister of Health.

The objective of introducing co-payments was to reduce inappropriate demand, to encourage consumer responsibility and to support preventive care. However, while co-payments have not influenced these factors, they have negatively affected access to specialized care for poor and vulnerable groups. Co-payments, user charges and unofficial out-of-pocket payments all act as a major barrier to accessing health services for the poor, the vulnerable and rural populations as all such payments – official and unofficial – need to be paid prior to the service being provided. There are numerous user charges that cover drugs, diagnostic investigations, room charges and other incidental costs. Also, in order to raise revenue, patients are often subjected to unnecessary investigations and services, and those who cannot afford to pay the user fees are excluded from care (MoH 2005c).

The PSMFL states that revenue is retained in public hospitals. However, MoF regulations do not allow hospitals to spend income from user fees. This does not promote efficiency or provide decentralized management to health organizations.

There is a growing private sector in the Mongolian health system which is profit-making and wholly self-financed, raising income from user charges and fees for service, but the private sector is not closely regulated and is only available to those few who can afford the high prices charged for clinical investigations and care. The rapidly growing private sector does not promote or substitute public services substantially, despite its attempts to introduce progressive technologies which are of limited scale and scope, but it increases medical costs and the inefficiency of health services where these private health services are financed from the HIF (see “Specialized ambulatory/inpatient care” in Chapter 6). However, the private sector does play a significant role in pharmaceutical services, as drug supply in Mongolia is almost entirely private. Private sector health facilities with beds also charge insured patients out-of-pocket fees over and above co-payments. More often, however, those who can afford to, choose to go abroad for treatment (MoH 2005c).

According to the Health Budget Expenditure Survey Report, out-of-pocket payments were only 3.7% of health expenditure in 2004 (MoH 2005b). However, the Mongolian National Health Accounts survey findings of 2002 showed that there was substantial informal payment within the health sector, which was estimated as accounting for 14% of total health care expenditure (MoH and World Bank 2005). In addition, findings from the Household Livelihood Measurement Survey and Household Income and Expenditure Survey have shown a steady increase in the amount of private sector expenditure as a percentage of total health expenditure (National Statistical Office, World Bank et al. 2004). From 2001 to 2004 the share of private expenditure has increased from US\$ 8.6 million (10.6% of total health spending) to US\$ 23.0 million

(24%). If overseas medical treatment costs are also taken into account, then private out-of-pocket expenses would amount to US\$ 60.0 million (33% of total health spending). In other words, per capita health expenditure would then rise to US\$ 53.0 million, indicating that Mongolia's per capita health expenditure is higher than in some upper middle-income countries (MoH 2005c). The scale of overseas medical costs are estimated using a proxy approach based on the number of Mongolians that travel abroad for medical treatment and multiplying this by a minimum cost per episode for overseas medical treatment, including travel, accommodation and other costs (MoH 2005c).

External sources of funds

External sources of funds are usually international partners, and funds come in the form of official development assistance grants (non-repayable development grants, technical assistance and other instruments) and as soft loans (repayable funds or assets). Depending on the type of international partner organization, the sources of funds are categorized as bilateral cooperation, multilateral cooperation or NGO cooperation (MoH 2005c). According to findings of the MoH International Cooperation Department, during the last few years donors and international partners have provided approximately US\$ 6.5 million annually to the health sector, although donor funding has been decreasing steadily over the same period (see Table 3.4). However, until 2004 it still accounted for 8.7% of total health expenditure (MoH 2005c). Grant aid has dominated donor funding, accounting for 78% of the donor funding provided to the health sector between 1999 and 2002.

Table 3.4 shows external funding to the health sector from international partners since 1990 and, combined with the data from the International Cooperation Department, it clearly illustrates the need for ongoing international partner assistance in the health sector especially during the Health Sector (Strategic) Master Plan (HSMP) period. There are many challenges which need to be addressed by the Government in order to fulfil Millennium Development Goals (MDGs) and to overcome other problems that require an immediate response. These include a substantial reduction of maternal and child mortality, improvement in the quality and accessibility of basic health services for the population, strengthening rural health services, reducing the incidence of communicable diseases and strengthening the financial capabilities of health organizations. The assistance of donor organizations will continue to be of great importance in tackling these issues in the near future (MoH and IMED 2003).

Table 3.4 Contributions to the health sector from international partners, 1991–2003
(US\$ millions)

Partners	Total	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Japan	22.64	–	–	–	4.84	–	–	–	6.75	–	11.06	–	–	–
UNFPA	10.59	–	–	0.79	–	0.76	–	0.59	0.96	2.76	1.63	0.45	2.07	0.57
WHO	8.12	–	–	0.63	–	1.70	–	1.23	0.81	0.05	2.30	1.21	0.19	–
Germany	7.34	–	0.73	0.70	1.36	0.89	0.77	0.76	0.79	0.69	0.67	–	–	–
UNICEF	5.04	0.09	0.09	0.90	0.09	0.52	0.28	0.78	0.76	0.84	0.41	0.29	–	–
Australia	3.03	–	–	–	–	–	–	0.08	–	–	0.01	2.75	0.19	–
Netherlands	2.95	1.20	0.87	–	–	0.88	–	–	–	–	–	–	–	–
EU	2.59	–	–	–	1.20	–	–	–	0.06	0.43	0.46	0.40	0.04	–
Denmark	2.54	0.04	0.30	–	1.99	–	–	–	–	–	–	0.21	–	–
South Korea	1.85	–	–	–	–	–	–	0.22	–	–	0.41	0.94	0.28	–
ADB	1.74	–	–	–	–	0.18	0.69	0.20	–	–	–	–	0.67	–
IAEA	1.23	0.06	0.05	0.04	0.04	0.20	0.20	0.18	0.18	0.18	0.10	–	–	–
Others	1.94	–	0.17	0.17	0.17	0.11	0.06	0.05	0.21	0.26	0.11	0.04	0.37	0.21
Total grants	71.60	1.39	2.21	3.23	9.69	5.24	2.00	4.10	10.52	5.21	17.15	6.29	3.80	0.78
Loans	142.14	59.08	10.38	8.61	15.73	22.09	8.62	7.46	7.63	0.91	0.06	–	1.56	–
Total DDA	213.73	60.47	12.59	11.84	25.42	27.34	10.62	11.56	18.15	6.11	17.21	6.29	5.36	0.78

Source: MoH, 2005c.

Notes: UNFPA: United Nations Population Fund; WHO: World Health Organization; UNICEF: United Nations Children's Fund; EU: European Union; ADB: Asian Development Bank; IAEA: International Atomic Energy Agency; DDA: Direct development aid.

Approximately one third of donor-supported projects are implemented at the policy-making level or countrywide, while around 40% of them are implemented in selected *aimags* or districts in Ulaanbaatar in service delivery and infrastructure. Slightly less than 30% of all donor projects in the health sector are granted to individual organizations such as hospitals, training centres or professional associations (MoH 2005c). Very little donor financing is spent on purchasing health care and services; most funding is capital investment, human resource development and planning and policy development. A number of the National Programmes are also supported by external funds (MoH 2005c).

Within the MoH, partner inputs are managed by project teams and project implementation units (PIUs) and are overseen by steering committees that have some common members in order to facilitate collaboration and coordination between projects. However, such informal coordination does not seem to happen in practice (MoH 2005c). These PIUs and offices disburse the project funds and are managed by the contractors or the international partner's technical or programme managers. The project funds are disbursed activity by activity directly to the point of operation and so often bypass MoH accounting processes. Therefore, it is difficult to control financing, accountability and transparency in the utilization and reporting of these funds (MoH 2005c). The amount of grant aid also varies considerably year on year, which can negatively impact on planning decisions (MoH 2005c). Planning is also difficult for the MoH as decisions about the allocation and use of such funds are made outside the Ministry's current coordination mechanisms and often outside Mongolia (MoH 2005c).

The current mechanisms to coordinate the allocation and utilization of donor assistance are through the Department of International Cooperation within the MoH, occasional round table meetings with partners involved in the health sector, the United Nations-led meeting of international partners and the numerous steering committees. Coordination is also enabled at the ministerial level with the support of the Ministers Council and beyond the MoH by the Aid Coordination Council, which is under the direction of the MoF and the Cabinet (MoH 2005c). There is a law on foreign investments and loans that provides the legal framework for such programmes, but its implementation is poor at present. The current financial management systems of the MoH and the Government in general do not inspire confidence in terms of effective tracking of the use of partner funding. This has prompted international partners to set up parallel project management mechanisms to ensure proper utilization of the funding and technical assistance provided (MoH 2005c).

In the absence of an overarching coordination framework, there is a strong tendency for donors, who plan over the medium to long term, to impose their interests and agendas on the MoH. This has led to various projects and

activities overlapping or even duplicating, thus resulting in the inefficient use of valuable resources. Often the partners themselves do not effectively coordinate their inputs owing to issues of attribution and for other political and protocol reasons. In such circumstances, donors end up coercively instigating projects and activities, which a resource-starved MoH is unable to refuse, even if they do not conform to the priorities and health needs and may be unsustainable beyond the end of the fiscal lifetime of the project (MoH 2005c). The lack of coordination has also often led to a situation where different departments within the MoH present different perspectives that further encourage the partners to support similar and multiple projects with parallel management and monitoring systems, compounding duplication and consequently misusing scarce resources (MoH 2005c).

Therefore, although the coordination of external resources and international partners is better in the MoH than in other sectors, it is still fragmented and occurs without the involvement of different levels of the MoH, the stakeholders, NGOs or beneficiaries with the international partners (MoH 2005c). There is no routine system for collating and analysing partner funding in the health sector, although the MoH, biannually and annually, submits reports to the MoF of all partner funds that have been disbursed to the MoH or any of its agencies at any level or expended on its behalf in the health sector. Nevertheless, in recent years there has been considerable interest in improving the harmonization and utilization, and reducing duplication and overlap in external funding. In an effort to address these emerging concerns, the MoH mapped financing to the health sector from loan and grant aid (MoH and WHO 2002). In the mapping exercise, the funding was described in terms of total amount provided, who received these funds and the relationship of these loans and grant aid to achieving the MDGs and health goals of Mongolia. The consistency of the allocation of these loans and grant aid to the priorities and needs of the sector and the MoH, its rural and urban distribution, major gaps in funding for priority areas and areas of special need were also examined. The mapping exercise highlighted the need for increasing donor investment in the health sector but without addressing partner investment trends over time.

3.4 Pooling of funds

Mongolia has two major pools of funds, the government health budget and the HIF, which funded 70% of total health expenditure (see “Revenue collection/sources of funding” in Chapter 3). Together with loans and aid from international partners as well as other sources, 84% of total health expenditure is from prepaid

sources. Excluding health services sought abroad, households pay about 14% of total expenditure out of pocket (MoH and World Bank 2005). Official user fees and co-payments accumulate to the Treasury Office through the cashier system in public hospitals.

It is important to note that the major prepaid sources are pooled at the national level. For example, the government health budget is funded from the central budget, which is a national-level budget raised from general taxation revenue. The HIF is a single national fund with 80% of the population insured, and the Budget Law considers the HIF to be a part of the state budget. Despite this high degree of pooling, a detailed study of state cross-subsidy between poor and non-poor or sick and healthy within the pool has never been conducted. Since 2002, it is likely that the number of people seeking health services abroad has increased, and so has out-of-pocket expenditure, and people are more exposed to financial risk. Consequently, an up-to-date, detailed and rigorous study of out-of-pocket expenditure and informal payments is needed.

The MoH is a third-party payer for health services to be funded from the central government budget. According to the Health Act, the central government budget pays for primary care, emergency care, specialized facilities (such as those for TB, cancer and mental health), national public health programmes and capital investment. The MoH allocates resources to city and *aimag* governors, who are the purchasers of health services at the secondary and primary levels. The allocations to local governments are prospective budgets calculated on an historical line-item precedent, and the inflation rate used for adjustment is only estimated. The level of official user fees and co-payments is calculated as part of the general budget of public health facilities, and it is earmarked for development and human resource incentives. However, owing to MoF regulations, these funds can only be used at the end of the financial year, which makes it difficult to utilize them in the way intended.

The SSIGO, a government agency under the MoSWL, operates the HIF. HIF is a single national fund that uses its local branches to collect revenue and pay for insured care. There is no resource allocation in the HIF. Loans and aid from international partners are usually discussed by the coordinating committee and utilized according to the plan of action.

The health sector budgeting process has been re-centralized since 2003. Mongolia has three levels of government budget: central, *aimag* (regional) and *soum* (local) levels. However, health care is funded from the general revenue from the central-level budget. The health sector government budget integrates both general revenue and social health insurance. The health care government budget at the national and regional levels is agreed by the MoF and MoH and approved by the *Ikh Khural*. Before 2003, the regional and local health care

budgets were set and approved at the regional level, but constrained by the subsidy from the central Government. There are no substantial differences in budget allocations between *aimags* on the basis of geography, poverty or health indicators.

Despite the enactment of the PSMFL in 2003, which mandated output-based budgeting, the health sector government budget is still driven by historical line-item budgeting as it was in the Semashko system. In theory, it is within the capacity of the MoH to allocate the health government budget, including the social health insurance budget, by different sectors of health services and different administrative regions within the macro-budget approved by the *Ikh Khural*. This is despite the fact that social health insurance is a subsection of the Social Insurance Fund (which includes pension and social welfare funds) and is managed by the SSIGO. Also, according to the PSMFL, hospital managers are given considerable autonomy in terms of financial (with the exception of capital investment opportunities) and human resource management. However, in practice, the decision to allocate the health sector budget by health service sectors, regions or even by hospitals is made jointly by the MoF and MoLSW. Hospital managers are not allowed to reallocate resources for some line items such as wages and capital investment, while for other line items it is possible with the permission of higher bodies. Hospital managers are not encouraged to produce budget savings and are not allowed to overspend.

New health financing reforms are focusing on changing the regulatory role of the State in health sector financing from a bureaucratic “command-and-control” to a “steer-and-channel” role, which is more performance- and market-conscious (Saltman, Busse et al. 2002). These reforms are expected to invigorate compliance to public finance laws in practice and to change current health care budgeting and resource allocation structure in Mongolia.

3.5 Purchasing and purchaser–provider relations

Health sector financing in Mongolia is in the middle of a transition from an integrated to a contracting model with a purchaser–provider relationship. The legislation that mandates output contracting (PSMFL) was enacted in 2003. However, in practice, the public purchaser–provider relationship is integrated, and contracting is a mere formality. Health service provision is still dominated by public providers whose activities are controlled through hierarchical management. It is difficult to divide responsibility for poor performance between the hospital managers or MoH officials owing to the limited decision-making

powers granted to hospitals and the strength of MoH influence on hospital management. Only public hospitals receive funding from the government budget. The MoF is in charge of developing an output contract form to be signed between budget organizations and their respective higher authorities.

The HIF interacts with providers on a contractual basis. The Council of Health Insurance, which consists of health policy-makers, insurers, employers and employee representatives and is chaired by State Secretary of Health, approves the health insurance contract form. The local branches of the SSIGO sign health insurance contracts with hospitals in their respective catchment areas. The contracts are made on an annual basis. Public hospitals sign separate contracts with the two major payers, MoH and the SSIGO. Until January 2007, only those private hospitals which were accredited were eligible to provide care to an insured patient and receive reimbursement from the SSIGO. Currently, local authorities decide which hospitals are suitable for reimbursement from the SSIGO. Purchasers do not practise selective contracting because insured patients are free to choose any selected private hospital for treatment and public hospitals are fully dependent on government funds.

In theory, the output contracts should specify the cost, volume and quality indicators for each output. However, in practice, most output contracts only specify total cost. Some contracts specify quality indicators, but they are not taken seriously. The implementation of an output contract is just one of many indicators at the end of the year. The output contracts do not specify “true” costs and volumes by each output because budgets are set by line item. Despite a number of training schemes and capacity building efforts, the output costing process is still in its nascent stages.

3.6 Payment mechanisms

There are currently six main provider payment mechanisms operating in the Mongolian health system: budget line items from the state budget; provider-based case payment from the HIF; capitation funds through the FGPs; patient co-payments; user charges; and unofficial payments such as gifts and compensations (MoH 2005c).

Paying for health services

Most public hospitals receive funding from both the government budget and the HIF. However, the payment mechanism for health services differs between these sources. The government budget is set by line items and paid

prospectively according to an agreed schedule. The MoH, a purchaser of health services provided at the tertiary level, pays a prospectively agreed line-item budget to public hospitals. The prospective government budget is set by historical incrementalism. In practice, there is no agreed volume or price for the health services funded from the government budget, despite active legislation mandating output-based budgeting. City and *aimag* governors are the purchasers of primary and secondary care provided in public hospitals and use the same payment method as the MoH, although in some cities and *aimags*, governors devolve their purchasing rights to district and *soum* governors. Local authorities have the right to divert a significant portion of funding for health care to other sectors (Hindle and Khulan 2006).

At the hospital level, there are no separate budgets set for outpatient care or inpatient care or by type of health service. Government funds are given, based on expenditure line items. FGPs are paid by risk-adjusted capitation for their respective catchment areas. From 1999, FGPs received funding based on 16 different per capita rates specified by eight age classifications – each age classification was divided into a poor and non-poor per capita rate. From January 2004, the number of per capita rates was cut to two: per capita rates for people with incomes below the minimum living standard and those with incomes above the minimum living standard. However, for calculation purposes, this division can be approximated by looking at the percentage of the population living in *ger* districts and the percentage living in apartments – those living in *ger* districts are generally living on incomes below the minimum living standard. The payment methods defined in the Health Insurance Law prior to the 2006 reforms had been creating a poor relationship between health policy and health financing, as well as inflexibility in financing. However, the 2006 revision has meant that payment methods are defined by orders from the MoH.

The government budget pays for the fixed costs of all public hospitals, while the HIF pays only for the variable costs of insured services. All capital investment to public hospitals is also funded from the government budget. The list of hospitals to receive funding for a new building is approved by the Government Cabinet. The list of hospitals to receive funding for capital renovation or for new medical equipment is approved by the MoH.

The SSIGO, a purchaser of health services funded from the HIF, pays a single fixed-rate case payment for all inpatient services; the rate varies by facility depending on the level of care and ownership. The payment rate is set jointly by MoH, MoSWL and MoF. The SSIGO sets a prospective budget for each hospital. The prospective budget is calculated as the amount of money to be given to a hospital if all the beds to be used for insured inpatient services, which is set by MoH, are used at full capacity. This means the SSIGO calculates a maximum number of inpatient treatments and multiplies it by a single payment

rate to establish their prospective budget. However, a hospital will only receive funding for actual treatments. Central- and *aimag*-level SSIGOs disburse funds directly to the health facilities through their bank accounts. HIF payments are retrospective (beyond the first quarter) and paid quarterly on submission of the required reports and financial statements. These quarterly financial reports are sent to the local SSIGOs and the MoH, following which the next instalment is released. Any discrepancies in the requests and payments are negotiated directly by the health facilities with the local SSIGOs (MoH 2005c).

The health insurance budget-setting process has led to perverse incentives for hospitals, such as an interest in increasing the number of approved beds and accepting unnecessary admissions if beds are unoccupied. The payment method has led to other perverse incentives, such as the avoidance of intensive care or high-cost cases, unofficial payments for medical accessories and drugs, among others. For example, in 2004, according to a survey conducted in tertiary hospitals by the DMS (an agency under the MoH), 40% of patients had made unofficial payments (DMS 2004). Outpatient services at hospitals are paid according to the number of insured patients, rather than the number of visits. It was assumed that, on average, each patient makes four outpatient visits. So the budget setting for outpatient services is based on an historical number of visits, dividing it by four and multiplying it by the outpatient fee per insured person. The outpatient fee is much lower than the costs actually incurred. For example, an outpatient visit at a private hospital costs 8–10 times more than the outpatient fee per insured person paid by the SSIGO.

Where private health facilities were suitably accredited by the NCHD or, from January 2007, approved by local authorities, they can be reimbursed for diagnosis and treatment services from the HIF. The payment method that the SSIGO uses for private hospitals is the same as for all public hospitals, but the payment rate was different for the private hospitals; historically, it was lower than to public hospitals. However, this payment rate difference was erased early in 2005. Because public hospitals received fixed costs from the government budget and private hospitals received only variable costs from the HIF, private hospitals charge additional fees from insured patients, describing it as a payment for fixed costs. In the health sector there have been initiatives to outsource nonclinical services to private companies, after the MoF issued an order allowing and encouraging such outsourcing in order to bring greater cost-efficiency in the public sector. However, it is not clear whether these initiatives have achieved the desired effect.

The amendments to the Health Act of January 2006 (effective from 1 July 2006) have introduced some significant changes to health financing. First, in terms of funding, FGPs and *soum* hospitals, as the providers of primary care, will be funded only from the government budget. In recent years, both have

been receiving funding from the HIF, in addition to the government budget. The major impetus to shift to full government funding for PHC over health insurance came from the problem of actual lower-than-expected health insurance coverage. The SSIGO insisted on only paying for the insured population. Even though, by the end of 2004, 80% of population nationwide were insured (SSIGO 2006), in the course of a year at some FGPs this number was much lower. For example, because of the uninsured in their catchment population, some FGPs received only 60% of their agreed budget. This was also incompatible with the Health Act, which states that every person, irrespective of ability to pay, has the right to receive primary care services. Second, there will no longer be a division between fixed and variable costs by sources of funding. The government budget and HIF will be responsible for the full cost of their respective health services. This will certainly require a detailed costing process to set prices and budgets for services by each source.

In terms of purchasing, according to the amendments to the Health Act of January 2006, the MoH has retained its right to approve the package of health services by each source. In addition, the MoH alone will set a payment fee and payment method for health services. Prior to the amendments, payment methods and fees were set jointly by MoH, MoF and MoSWL. However, the Government Cabinet will issue a resolution about which facilities will provide the health services funded from the government budget and the HIF. The MoH is expected to build and operate appropriate capacity to cope with these new responsibilities.

In the Spring of 2006, a new amendment to the Health Insurance Law was approved by the *Ikh Khural*. While previous amendments focused mostly on the sustainability of health sector financing, the new amendment focuses on strengthening the organizational and purchasing aspects of the HIF, on improving the responsibility of actors and the package of benefits, on protecting insurers' rights and on spending surpluses.

Paying health care personnel

Health care personnel at public hospitals are considered government service officials and are salaried. The Government Cabinet approves the government service official salary scheme, which sets the minimum salary. The minimum salary is set along two variables: years of work and the level of job position. Salaries for health personnel do not vary by the level (primary, secondary, tertiary) of health care facility. There are also a number of benefits for government officials to supplement their salary. For example, there are education

and job skill bonuses. In 2003, with the approval of the PSFML, performance-based bonuses were introduced for government service officials. A government service official is eligible for a performance bonus if he/she obtains a satisfactory assessment on his/her output-contract implementation. However, salaries and bonuses are still relatively low, and do not guarantee an adequate standard of living, therefore they are not an adequate incentive to drive the behaviour and motivation of doctors and nurses. Nonetheless, one of the most appreciated benefits for being a government service official has been a full tuition fee allowance for one child from the time of entry until graduation at any domestic university. There are also some nonfinancial benefits for being a government official, for example, government- or donor-subsidized training programmes and trips abroad, or power through having the capacity to influence access to health services at public hospitals by being an insider.

The MoF and MoH initiative to outsource nonclinical services to the private sector with the purpose of improving cost-effectiveness at public hospitals was mentioned above. As a result of this initiative, a number of employees at public hospitals have become contract workers, mostly nonclinical staff such as cleaners and/or maintenance people. This means that they are no longer government service officials. At this moment, there is no evaluation of this initiative or evidence that it is achieving its purpose. The salary system for all staff at public hospitals certainly lacks due regard for certain objectives which a hospital or health system currently aspires to achieve; instead it is a fixed and constrained system driven by many regulations and legal acts which were designed to address the general public sector issues of the country.

Doctors and nurses at public hospitals are allowed to engage in private practice out of working hours. This includes private practice at both public and private hospitals. Doctors can use facilities at public hospitals at weekends or after hours to see patients. Doctors usually charge fee-for-service for private practice. Currently there are no regulations regarding private practice by public hospital-based doctors. There is no price regulation or guidelines in place to prevent perverse incentives. Therefore, it is very likely that doctors refer patients in the public health system to their own private practice and charge patients as much as they see fit.

Unofficial payments are assumed to be high in Mongolia. The payments to public hospitals are not based on actual costs, but are limited by historical budgets and do not take into account volume or real cost changes. Underfunded hospitals have to charge patients, or their families, illegally in order to obtain drugs or medical supplies. On the other hand, to assuage the negative consequences rooted in the low salaries of doctors and nurses, families pay medical staff under-the-table informal payments as a guarantee that doctors will try their best in treating their loved ones. With poor gatekeeping and poor

purchasing, tertiary-level hospitals are facing a high demand for admission. Given limited capacity, this also creates room for informal payments for someone to secure admission.

FGPs are paid by capitation, as discussed in detail above. Given a prospective capitation payment, a FGP signs a contract with a purchaser of health services, which specifies certain fiscal incentives for the FGPs to provide an adequate quality services to its population. However, there is no government regulation of how money should be allocated between FGP doctors and nurses. Each FGP has about four-to-five doctors and three-to-four nurses. FGPs are considered private profit-making cooperatives, and according to cooperative legislation, it is up to the members to decide how to allocate their income. However, there have been complaints from FGPs and debates at government and MoH level, about paying taxes from government money, or whether FGPs should be profit-making or non-profit-making. There is no clause about the legal status of FGPs in any law in Mongolia, therefore, their legal status is currently unclear.

The low salaries of doctors working in public hospitals are one of the most debated and high agenda issues at the moment. The most-talked-about options for solving this issue include an increase in the payment rate to hospitals from the HIF, an increase in official out-of-pocket payments and the privatization of public facilities. However, it is still unclear which path the MoH will choose.

4 Planning and regulation

As described in Chapter 2, the MoH, MoSWL, NCHD, SPIA and the SSIGO all play significant roles in the planning, management and regulation of the Mongolian health sector.

4.1 Regulation

The MoH plays a stewardship role in the health sector at the national level through the main functions listed in “Organizational overview” in Chapter 2. At the central level, the MoH sets the health policy agenda and prepares the health sector’s long- and medium-term plan and budget proposal, while monitoring their implementation, and the implementation of the legislation on health at the central, *aimag* and capital city levels. The MoH develops, approves and monitors the implementation of rules, procedures and standards on health protection and promotion through Ministerial Orders, as well as providing supervision, professional support and information. The NCHD plays an implementation role in the areas of health management short-term training, the accreditation of health facilities and licensing of health professionals, as well as health education and promotion in accordance with MoH decisions.

The MoF decides the total budget to be allocated to the health sector, including the funding for health facilities that belong to the Ministries of Defence, Education and Justice. Decisions on financial allocations are made primarily on the basis of historical expenditure, norms and standards in the sector plus government resolutions, decrees and national health programmes related to the priority areas identified. From 2003, the MoF has allocated budgets to line ministries based on their 3-year Strategic Business Plan as required by the PSMFL (see “Regulation and governance of the purchasing process” in Chapter

4). In turn, line ministries and all *aimags* are supposed to provide output delivery reports along with financial statements.

The MoSWL is mainly responsible for the formulation, implementation, monitoring and evaluation of policies and programmes related to employment, labour relations, poverty reduction, social welfare, social insurance and coordination of the labour market, among others. The SSIGO is one of implementing agencies of the MoSWL and the HIF operates under the management of the SSIGO. This creates one of the major coordination issues for the financial management of the health sector because the MoH has had no direct control over the HIF since 2000 (see “Social health insurance” in Chapter 3).

The SSIGO has a nationwide network of offices (31 local offices in *aimags* and in districts of Ulaanbaatar). It is mainly responsible for the implementation of the health insurance scheme in Mongolia and in its current role and functions still has a limited capacity to be an informed purchaser of health care on behalf of the insured population. Currently, the organization’s capacity covers the collection of premiums and making recurrent payments for hospital admissions and, more recently, for other types of services (Samyshkin 2004).

In accordance with the Health Act of 1998, the SPIA conducts the professional health inspection for hygiene, epidemiology, drugs, biopreparations, the quality assurance of medical services and the internal inspection of health facilities, as well as other professional inspections such as finance, education and social welfare.

At the *aimag* and capital city levels, *Aimag* and City Health Departments play an important role in implementing, coordinating and monitoring health policies and plans, as defined by the MoH. *Aimag* and City Health Departments also supervise health facilities, provide professional guidance and coordinate the private health sector. In the case of Ulaanbaatar, there is a district health alliance in each district, the role and responsibilities of which are quite similar to those of the *Aimag* Health Departments.

Regulation and governance of purchasers

The MoH and MoSWL are involved in the purchasing of and resource allocation in health care. The public budget is run by the MoH, and the MoSWL and SSIGO manage the HIF. There are organizational structures and formal mechanisms for the coordination of policies between the MoH and the SSIGO, however there is little (or no) coordination of the service purchasing policies between the health insurance scheme and the MoH (Samyshkin 2004). In fact, the HIF is not a third-party payer in its classical sense.

The HIF is administered through the SSIGO under the MoSWL (as described in “Organizational overview” in Chapter 2). However, the responsibilities for health insurance matters are divided between the MoH and MoSWL. From 1993 to 1996, Mongol Daatgal Company administered the HIF. In 1996, with the establishment of the SSIGO, the management of the whole social insurance programme was integrated, including health insurance. One of the main responsibilities of the SSIGO is to collect premiums and distribute funds to *aimags* and hospitals in accordance with the provisions of the Health Insurance Law and other related decrees and orders. Since 1994, administrative costs of the SSIGO have been set at 2% of contribution revenue. From 2005, the MoH has been responsible for setting the ceiling for administrative costs of the HIF. The SSIGO has its own nationwide vertical structure: the Health Insurance Division at the central level; the health insurance branch offices at Ulaanbaatar District level; *aimag* social insurance branch offices at the regional level; health insurance inspectors working at the district level; and *soum* social insurance branch offices at the local level.

Health insurance design is the responsibility of the Health Insurance Sub-Council (HISC) chaired by the State Secretary for Health. A tripartite body that represents the interests of consumers, employers and the Government governs the HISC. The HISC has the authority to monitor the use of the HIF, and to make proposals and recommendations on issues related to health insurance, including legislation, to approve procedures on payment methods and insurance activities. HISC is also one of the branch councils of the SINC, which runs for six years and is accountable to the *Ikh Khural*. The SINC is also a tripartite body but headed by the Deputy Minister of Social Welfare and Labour. However, the lack of autonomy and decision-making power of the HISC means that the social health insurance scheme cannot reflect health sector policy and be a policy tool for improvements in quality, outcomes, access, efficiency or effectiveness.

At the level of the health system (MoH) or the health insurance implementing agency (SSIGO), there is not yet systematic monitoring of the success or performance of the health system or health insurance scheme, apart from operational details such as revenue collection, payment of insurance benefits to providers, and crude coverage figures. There is no information on the impact of health insurance on quality, outcomes, access, efficiency or effectiveness. There is almost no regulation at present of private insurance companies, since they are only just developing. It is not yet clear which agency will be responsible for the regulation of the potential private health insurance market.

Regulation and governance of providers

The MoH is a key stakeholder in regulation and governance of service providers at the national level. At the same time, *Aimag* and City Health Departments play a major role at the local level. In recent years, a major achievement in improving health care quality has been the introduction of licensing for health practitioners and the accreditation of health care organizations. The main regulatory body is the Medical Licensing Board within the MoH, which has the power to authorize a health worker's right to practise.

The quality assurance system in the HIF is very basic. There is an undoubted need for a quality and performance assessment framework to monitor and evaluate the effects of purchasing arrangements on services. Until January 2007, health care providers were required to have licences and accreditation in order for them to receive payment from the HIF. In addition, a team of clinical experts from the SSIGO has periodically carried out selective reviews of patients' records in hospitals. Clinical experts check patients' records to make sure that they comply with clinical guidelines. In most cases, however, health insurance inspectors do not have enough time or clinical competence to judge whether inappropriate or ineffective clinical practices have been followed.

Since 1998 there have been quality managers appointed in all secondary- and tertiary-level hospitals, and in 2000 this was upgraded through the establishment of quality units in these facilities. Quality units are technically supported and supervised by the Officer for Quality of Medical Care in the MoH (MoH 2005c).

Regulation and governance of the purchasing process

The PSMFL, introduced in 2003, marked a new era in the manner in which public resources are to be managed. The thrust of this law was that portfolio ministries would be given more autonomy in the choice of inputs required to meet their stated objectives but would also be held more accountable for the value added for the funds actually expended. Accountability and performance assessment were to underpin a modern human resource regime, which in turn was to include a merit-based, non-partisan professional public service.

Prior to the PSMFL, the MoH and the *Aimag* Health Departments had virtually no involvement in the development and allocation of public budgets, even though they provide all of the professional support and guidance. It should be emphasized that the PSMFL gave the MoH the opportunity to take control over health expenditure and for linking health expenditure with activities to be implemented according to the priorities set. PSMFL requires each budget entity, including public hospitals, to formulate a strategic business plan as the

basis for the preparation and approval of its budget. The plan should contain strategic objectives for the forthcoming three years; the outputs to be delivered during the next financial year, specified by category, quantity, quality and costs; and forecast financial statements prepared on the basis of the same indicators as used in the annual report.

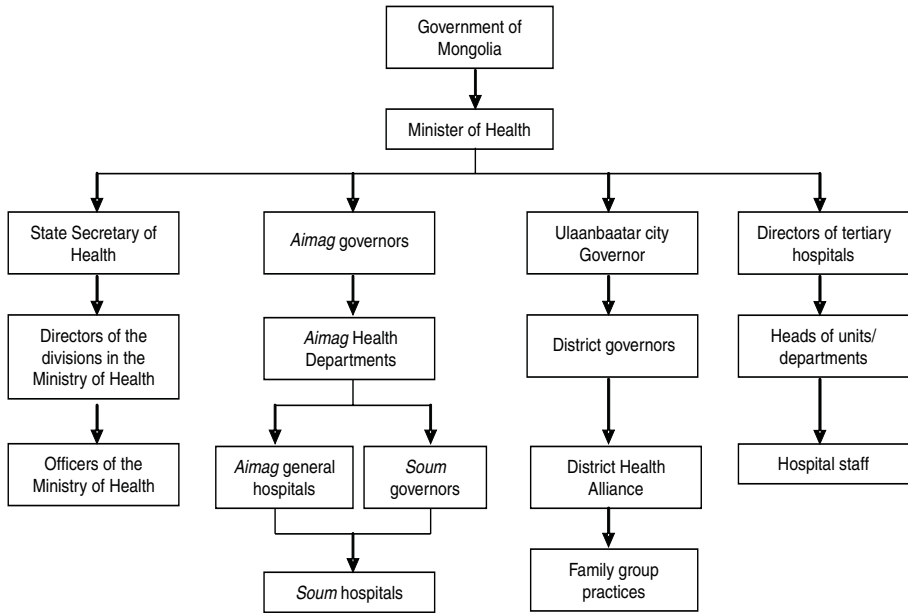
In theory, performance contracts are the main documents for budget allocation as well as for performance assessment in accordance with the PSMFL (see Fig. 4.1). Contracts should be based on the medium-term strategic plan and output-based budget of health facilities with clear definitions of the quantity, quality and cost of outputs to be delivered during the contract period. The MoH concludes the Output Delivery and Financing Contract with the Prime Minister of Mongolia, and the same contract is made between the Minister and local governors. Consequently, local governors sign a general manager's performance agreement with each director of a public hospital in the respective *aimag*, city or district. Within an individual hospital, performance agreements for managers and employees should be concluded with the same logic.

While much has been accomplished over the past two years in implementing the PSMFL, much more progress will be required over the medium term if the potential benefits associated with the full implementation of this new law are to materialize. It took about five years for Mongolia to pass the PSMFL, but once it was passed, the Government wanted to implement it within a year. Many papers and instructions being issued to the ministries, agencies and *aimags* are actually bogging down the implementation of the PSMFL. Everyone is trying to follow the letter of the law, while ignoring the real spirit of the law, which is about better management of the health sector.

However, a shift from input to output accounting is well under way, which is consistent with PSMFL. Some progress has been made in moving from a regime where the focus was on controlling inputs to a system based on outputs and results. The focus, however, continues to be on micromanagement from the centre. There is a need for further training and capacity building at all levels of health care including all aspects of the mandated planning and budgetary system.

One of the key factors in the introduction of the PSMFL was the need to improve financial regulation in the public sector following a series of corruption scandals. However, the PSMFL is not yet uniformly implemented across different health facilities and levels. The PSMFL has introduced a totally new concept in approaching, planning, budgeting and managing public resources. Consequently, there was also resistance to change, and a lack of understanding and training among health and finance managers, as well as health personnel.

Fig 4.1 Overview of Public Sector Management and Finance Law



At the same time, there are also some contradictions in the rules and regulations that should have ensured the smooth implementation of the PSMFL.

4.2 Planning and health information management

A “top-down process” of planning rooted in the centrally planned economy is still very much dominant in Mongolia. A medium-term health plan is usually based on state policies, the government action plan, national health programmes and other related laws. Priority areas are selected subjectively owing to a lack of health research and evidence for policy-making. Instead, the selection of priority issues has been dominated by current concerns and by political and, to a certain extent, financial issues. During the transition period, priority setting in the health sector has also been widely influenced by international donor organizations. Many new laws have been enacted, and some have been further updated, over the past few years. Again, a “top-down” process, starting with the formulation of new laws, then followed by implementation down through

the government hierarchy, has been the standard approach to launching and enacting reforms.

Annual operational plans are the predominant form of plan used in practice, rather than long- or medium-term plans. Unfortunately, these incremental annual operational plans are developed at every level and generally do not reflect the targets and objectives for the year advocated by the MoH and are not linked to the annual budget. While these plans may reflect the priorities on paper, implementation tends to follow the previous year's activities (MoH 2005c). However, since 2002, medium-term output-based planning and budgeting have been introduced in the public sector under the PSMFL.

For the first time, the Government of Mongolia has also developed and endorsed the HSMP for 2006–2015 with technical and financial assistance from Japanese International Corporation for Welfare Services (JICWELS). The HSMP is intended to provide a long-term vision that can be implemented whatever the Government's ideology or political mandate happens to be. It is a comprehensive and technically detailed document that is based on MDGs and Economic Growth Support and Poverty Reduction Strategies (EGSPRS) (MoH 2005c). The HSMP emphasizes PHC and health promotion, and stresses the importance of pro-poor interventions. The MoH has adopted 24 strategies of seven key areas defined in the document. These strategies are intended to be the focus for action by the MoH and all health sector partners over the next 10 years (MoH 2005c).

All the health reforms since 1990, but particularly the introduction of health insurance, have necessitated the collection of better financial data in the health care sector. These have been collected systematically through the health statistics system only since 2002. Although a large amount of data are routinely collected, owing to the pre-existing planning approach, planning is historical rather than being more needs based, and information on population health status and data on morbidity and mortality patterns are used less in the planning process.

Previously, the use of health information was restricted to reporting the past situation and achievements to authorities. However, the role of health information has been expanding to become a tool for estimating the results of activities, rational planning and rational resource allocation. The successful implementation of results-based management and evidence-based decision-making in the health sector can be seen in the main policy documents and national programmes approved in the last five years. However, data analysis and presentation skills at the institutional level need to be addressed for health information to be used more widely by health managers for planning and decision-making purposes.

Rapid advances in information and communication technology (ICT) have also had a profound effect on the health sector. Recently, a number of specialized centres and hospitals have outsourced the development of automated hospital information systems in order to improve hospital management and resource allocation. While it is encouraging that health managers acknowledge the role and importance of information systems in improving hospital management, it is also crucial to note that the uncoordinated and non-standardized introduction of ICT offers more problems than solutions. For instance, the incompatibility of different software packages used in individual health institutions would hinder communication and the exchange of information, and could potentially require the creation of a new database for the purposes of collective reporting. Therefore, for a country like Mongolia, which has a small population, it would be most effective to use common software for each level of health care services.

Technical and financial support from international donor organizations is vital for the improvement of the information systems in Mongolia. The Health Management Information System (HMIS) is a top priority for donor support, as it contributes significantly to the improvement of health sector performance and effectiveness. Currently, a number of projects on enhancing different aspects of the health information systems are being implemented.

Health technology assessment

In this era of rapid technological advancement and increasing cost pressures, the critical role of a health system in any country is to improve the health of the population at the minimum possible cost. Thus, it is essential to control and coordinate the adoption and use of technology in a health system based on the principle of selecting the most affordable available interventions that are also the most effective technologies in terms of clinical outcome. However, the proliferation of new health technology in health services in Mongolia is not being well managed or coordinated according to the health needs of the population and the overall capacity of the health system.

Officially, health technology assessment (HTA) is one of the responsibilities of the MoH. The Government of Mongolia approved the “National Programme to Improve Health Technology” in 2002. The programme includes objectives related to HTA, such as introducing the most effective and affordable technologies that are suitable to the level of care provided, and also selecting and adopting appropriate technologies to reduce leading causes of mortality and morbidity. However, Programme Implementation Reports show that the standardization of existing technologies and the introduction of new technologies including information technology (IT) have been the main focus of the programme for the past three years (Government of Mongolia 2002).

The evaluation of health and economic impacts of the technologies that have already penetrated clinical practices, and their prioritization according to their effectiveness, cost and acceptability has been relatively neglected. A review developed by the Information, Monitoring and Evaluation Department was one of the first attempts to introduce HTA. The review was significant in that it revealed common misconceptions about technology selection and a poor understanding of HTA principles among health professionals. The review also showed that the capacity to critically appraise available evidence on technology usage was generally low. Therefore, to initiate the process of HTA in the health sector, the MoH announced a call for project proposals in 2005, and made a contract with a local NGO, selected through an open bidding process, to develop standards and guidelines for HTA based on internationally accepted principles that are applicable to the situation in Mongolia. The project was scheduled to begin in March 2006 and be financed by the State Fund of Science and Technology. It is hoped that outputs from the project will include the development of generic guidelines for conducting HTA, the application of these guidelines in 2–3 technology assessments, the training of staff and the development of practical recommendations.

Information systems

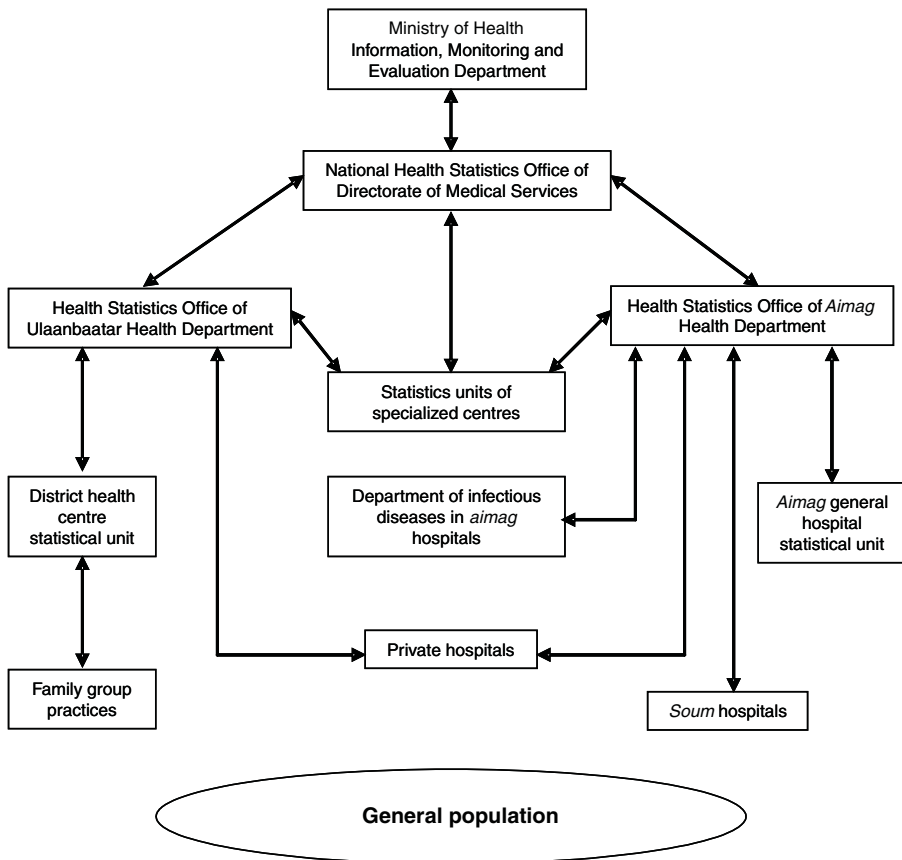
The HMIS has evolved into a sector-wide system for the timely provision of health information to the general public, as well as policy and decision-makers (see Fig. 4.2). This is a significant growth since 1930 when the Health Protection Ministry was first established with just one officer in charge of information and reporting. As of 2005, the HMIS was staffed by more than 80 information officers and over 400 data assistant information personnel. Although the social and political changes of 70 years have naturally shaped the development of HMIS, an ever-increasing demand for health information is calling for further improvements in the system.

From the 1960s there has been a rapid development of results-based management and evidence-based decision-making in the health sector, which has necessitated considerable changes in the quality, content and scope of health information. For instance, in recent years, as a result of health management reform, the share of information regarding population mortality, nutritional status, and health service coverage, availability and equity has significantly increased. Additionally, there have been considerable changes in data collection methods with the increased use of active surveillance, household surveys and modelling (National Statistical Office, World Bank et al. 2004). However, although the Mongolian health sector is undergoing rapid changes, the health

information system overall remains quite conventional in terms of content and data collection methods.

The MoH Information, Monitoring and Evaluation Department is responsible for coordinating and regulating the activities of the health information system, and for developing and refining health information technology policy in accordance with modern trends. The National Health Statistics Office is responsible for pooling and processing health data and statistics at the national level; estimating and issuing the main health indicators; and providing affiliated services with professional and methodological guidance (see Fig. 4.2). The data and information collected include indicators for the health status of the population, births, deaths, in- and outpatient morbidity, the number of health care facilities, information about personnel resources in the health system, some of

Fig. 4.2 Organizational structure of the Health Management Information System



Source: Adapted from MoH, 2002b.

the functional and qualitative indicators for financial and health care activities, and information about services at the PHC level and public health services.

Data on births, deaths, inpatient morbidity, the number of health care facilities and their personnel are considered to be more reliable, more inclusive and of relatively high quality. However, full data on outpatient morbidity or the actual morbidity of the population are not fully covered. This can be attributed to the common shortcomings of official statistics based on passive surveillance. The present system of registering outpatient morbidity is based on the number of visits to a doctor and not on the number of cases, which indicates there is potential overlap in the registering of diagnoses and patients. On the other hand morbidity in the part of population which does not seek medical attention cannot be included. Also, outpatient examinations are not reported on in full, especially data on STIs, gynaecological diseases and abortions. Therefore, these data need to be used in conjunction with additional surveys aimed at evaluating the morbidity of the population, which is not covered by official statistics system.

In response to the need for a Strategic Plan to refine the content and structure of HMIS, to identify appropriate mechanisms for the utilization of ICT advances, and to coordinate HMIS initiatives, the MoH has recently developed a strategic plan to develop HMIS in 2006–2010 with financial and technical assistance from the ADB and WHO.

5 Physical and human resources

The non-financial inputs into the health system in Mongolia include physical infrastructure, human resources and some IT resources. Owing to the economic situation in the country, some of these non-financial inputs may be insufficient to meet the current needs of the country, or the requirements of modern health care techniques and technologies.

5.1 Physical resources

Mongolia has spent 70 years developing its health care infrastructure to reach the population in all of its *aimags* and *soums*. There is no *soum* that does not have a health facility, although there are approximately 20 *soums* with no doctors available in those health facilities (see “Human resources” in Chapter 5). Each *soum* hospital is equipped with most basic equipment, consumables and drugs; however, not all have consistent access to basic infrastructure, such as running water, adequate sewerage or electricity. Since 1990, the Government has not been able to invest much in physical resources, so most has come through international partners for the renovation of buildings in primary care. Some donor assistance has also come in the form of refurbished equipment to hospitals in some of the rural areas, and to a few tertiary-level hospitals in Ulaanbaatar.

Buildings and capital infrastructure

The MoH, *Aimags* Health Departments and the Ulaanbaatar City Health Department are responsible for planning investment in the health system in Mongolia. However, they have no influence on investments made in the private

sector. The planning starts at the *aimag* level, but the final decision on capital investments is made at the central level. The MoH decides where to allocate capital investment funds based on certain criteria, such as the age of the building and/or equipment, the number of years since the last reconstruction/refurbishment, etc. There is an annually updated database at the MoH that keeps track of all the equipment, including vehicles, at all levels, from *soum*-to tertiary-level hospitals. This information is also used in decision-making regarding the disbursement of capital investment. The final official decision is made by the *Ikh Khural* during its approval of the government budget for the fiscal year.

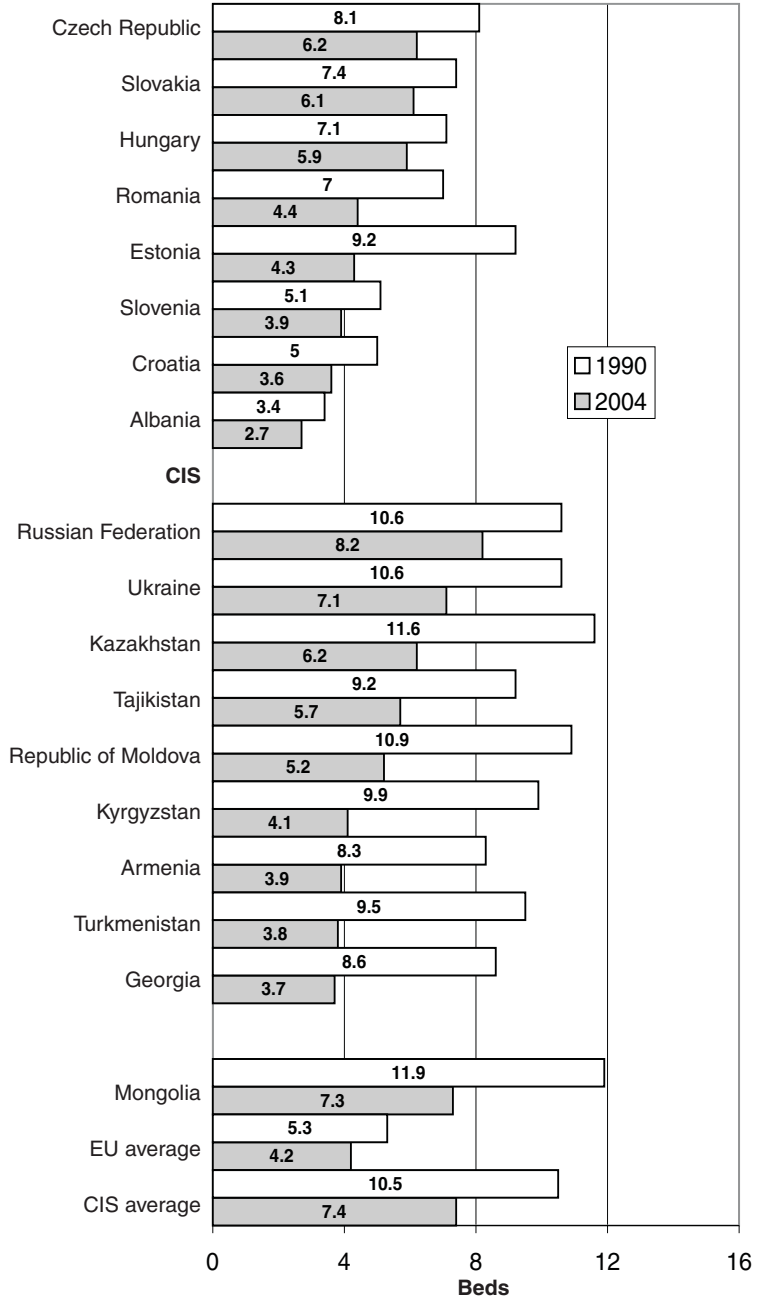
The number of hospital beds per capita in Mongolia at the end of 2004 was similar to the average for countries in the Commonwealth of Independent States (CIS) (see Fig. 5.1). The Government has also been planning to reduce the number of state-owned hospitals through the privatization of large tertiary-level hospitals. Some of these hospitals were scheduled to be privatized in 2006. However, although the MoH is implementing a policy to reduce the number of beds in health facilities, the number has not changed much because the payment for services at hospitals is based on the number of inpatient beds and their occupancy rate, rather than the services provided (see “Paying for health services” in Chapter 3). Early in 2006, an amendment was made to the Health Act, which should change the way health providers are paid based on diagnosis-related groups (DRGs). The new payment system was due to be implemented from 1 July 2006. It is expected that this type of financing will automatically cause a reduction in the number of beds. In addition, the MoH had developed and approved health facility standards, according to which the number of hospital beds must be much lower than it is now. The routine statistics collected by the MoH do not differentiate the number of hospital beds in acute care and long-term care institutions. Therefore, the data given in Table 5.1 include all hospital beds.

The amount of funds allocated for capital investment in the health sector has been increasing year on year and in 2006 reached 2.6 billion Tugrik (approximately 2.3 million US\$). It is expected that this amount will be further increased in the future. Capital investment in the public health sector is mostly funded by the Government from the national budget or by multilateral and bilateral partners providing grant or loan aid. The current level of capital investment in the private health sector is still relatively low, and is carried out on a purely commercial basis. There are no public–private partnerships for investment in capital facilities. Capital investment is fully separate from reimbursement for service delivery.

Capital investment in the health sector is controlled by several different mechanisms. The construction of new public hospitals and reconstruction of

Fig. 5.1 Acute hospital beds per 1000 population, 1990 and 2004

Central and south-eastern Europe



Sources: MoH and NCHD, 2005b; WHO Regional Office for Europe, June 2006.

Notes: CIS: Commonwealth of Independent States; EU: European Union.

Table 5.1 Number of hospital beds by facility, 2004

	Number of hospital beds	
	Actual number	Per 100 000 population
Primary health care facilities	4 579	183
<i>Soum</i> hospitals	3 866	154
<i>Intersoum</i> hospitals	713	28
Secondary health care facilities	4 644	186
Rural general hospitals	282	11
<i>Aimag</i> general hospitals	3 089	123
District general hospitals	1 273	51
Tertiary health care facilities	5 815	232
Regional diagnostic and treatment centres	1 635	65
General and specialized hospitals and centres	4 180	167
Private hospitals	1 839	73
Other hospitals	1 494	60
Total	18 371	734

Sources: MoH and NCHD, 2005a, 2005b.

existing facilities have similar control mechanisms. The building plans are approved by the SPIA, and a tendering process selects the best contractor at the best possible price. The tendering is performed by the MoH, local authorities and/or hospitals themselves. A special unit is created under the MoH to perform the routine monitoring and evaluation of the construction and reconstruction sites to ensure the adherence to the approved plans, and the terms and regulations of the contracts.

The distribution of capital is based on the needs of the population at different geographic locations. Annual needs assessments are performed by the MoH in collaboration with the local health departments. The needs assessments involve all of the *soums* in the country, and collect very detailed information. This provides the MoH with an overall picture of the situation in all of the state-owned hospitals in terms of their needs for capital investment and upgrades in infrastructure. However, because of the funding gaps, the construction of new health facilities is carried out mostly at the primary level of health care, which is financed by international partners.

Information technology

IT has been rapidly entering all spheres of life in Mongolia, and 1995 was officially recognized as the year when the Internet was first provided as a service to the public. Since then, within 10 years, the total number of Internet

subscribers rose to 18 000, and the estimated number of Internet users rose to 230 000 by 2005 (National Statistical Office 2005). The Government started to implement the E-Mongolia Programme in 2004, the main objective of which was to provide the population with access to the Internet and IT by reducing the price of computers and Internet connection fees and expanding access to broadband Internet connections in rural areas. As of 2004, nine *aimag* centres have been connected to a fibre-optics backbone transmission network that has broadband Internet capacity; all other *aimag* centres are connected through digital and/or analogue microwave relay transmission systems with lower traffic capacities. There are very few rural *soums* with access to the Internet. Eight Internet service providers serve the population in Ulaanbaatar city, *aimag* centres and some large *soum* centres. Data on the number of people accessing the Internet for health information are not available, although some web sites do record statistics of the average number of hits that their section on health have received during a month.

The use of IT at the PHC level is limited to basic word-processing and making spreadsheets for routine paper-based reporting. Access to the Internet is extremely limited in rural areas and on the outskirts of Ulaanbaatar, partly due to the lack of connections but also because of the high cost of accessing the Internet. The situation is slightly better at secondary- and tertiary-level health facilities, where there are computer labs and internal networks, which often have Internet access. Some pilot projects using telemedicine have shown the great potential for IT in increasing access to quality and timely health services at low cost to rural communities. However, the country needs to have a broadband network that connects all of the *aimags* and *soums* for widespread telemedicine to be a reality. Current developments give some hope of improvements in Mongolia's IT infrastructure in coming years.

There are plans to establish a new real-time health database and network using Internet technology and outsourcing some of the advanced IT services to foreign companies in order to improve the surveillance of diseases and thus assist in making informed and timely decisions. These plans are specifically mentioned in the Health Management Information System Development Strategy (2006–2010) developed by the MoH with support from the ADB and WHO.

The IT systems in larger health facilities are purchased by the individual health facilities without coordination from central or local authorities. Therefore, the issue of the compatibility of IT systems in health facilities across the country is cause for concern. However, the number of health facilities with extensively used IT systems is actually very limited. Therefore, it is not yet too late to start coordinating the introduction of IT systems into the health sector to ensure the uniformity of formats for databases and system compatibility. Some of the

existing IT systems already have electronic medical records. The MoH plans to introduce the concept of paperless medical records into secondary and tertiary health care facilities across the country, and to ensure that physicians have access to such records at the primary care level.

Medical equipment, devices and aids

In collaboration with the local health departments, the MoH performs annual needs assessments throughout the country. The study involves all of the *soums* and districts in the country, and detailed information is collected on the existing medical equipment and devices, their capacity, functionality, condition, etc. Using the database developed from the reports of this needs assessment, the MoH has an overall picture of the situation in all of the state-owned hospitals in terms of their needs for new equipment, repair of old equipment, replacement of certain parts, etc.

The local health departments submit their requests for procurement of new equipment. The Technical Committee of the MoH evaluates these requests using the needs assessment reports and creates a list of medical equipment and/or devices that should be procured and/or repaired during the next fiscal year. The list is submitted to the MoF in order for it to be included in the national budget. When the *Ikh Khural* approves the government budget for the next fiscal year, it also approves the list of equipment and their end users. After the approval of the government budget, the MoH conducts a tendering process, during which it selects the best supplier for the medical equipment. The procurement of medical equipment and devices for the public sector is performed strictly within the provisions of the Law on Public Procurement. Procurement of medical equipment is controlled by the licensing of imported equipment and medical devices. A ministerial order on the general guidelines for procurement of health products (Ministerial Order No. 317, 24 December 2001) regulates the procurement of health products using national budget and donor funds. Private hospitals are free to buy anything anywhere, and there is no regulation of technologies in the private sector, except the calibration of medical equipment and external quality assurance and control activities.

From 1999 to 2003, a rather small percentage of the state health budget was used for the procurement and maintenance of medical and other related equipment; of the 20.2 billion Tugrik (approximately US\$ 18.4 million) invested in medical and related equipment in this period, 96% came from international partner funds and only 4% from the state budget (MoH 2005c). Medical equipment and appliances are also provided directly by international aid organizations. This is mostly second-hand equipment, which has usually been refurbished.

The MoH works to ensure the equitable distribution of equipment between state-owned health facilities. In addition, a “list of essential medical equipment” has been developed to regulate the required number and types of medical equipment at all levels of health care, and the funds needed for its procurement and maintenance. The reason for such regulation is linked to the tendency of public sector health providers to have more equipment than they can use. The list of essential medical equipment sets the minimum and maximum numbers for medical equipment for each level in the health care delivery system. It does not have any impact on taxation and costs; but if a state-owned health facility does not have the equipment listed on the list, it is more likely to have it purchased through capital investment planned in the government annual budget. A similar list exists for medical devices.

Primary care facilities are not designed to have high-end equipment and technologies. Patients requiring more detailed diagnostic services are referred to higher-level health facilities. As of 2006, there are no magnetic resonance imaging (MRI) or positron emission tomography (PET) scan units in Mongolia. There are seven computerized tomography (CT) scanners operating in public and private hospitals in Ulaanbaatar city, and there are three more in Orkhon and Darkhan-Uul *aimags* (NCCD, 2005). All of the CT scanners are functioning. The central Government controls the acquisition of big-ticket technologies, such as MRI and CT scanners, for the public sector. In 2006, the Government planned to procure the first MRI scanner in Mongolia, and it was included in the annual budget, which was approved by the *Ikh Khural*.

Medical equipment and technology in Mongolia are often outdated and in a poor state of repair. The lack of a regular supply and maintenance system for medical equipment and laboratory technology weakens diagnostic capacity in the system, which is further aggravated by problems related to budget constraints, maintenance procedures and the availability of spare parts (MoH 2005c). Lack of reliable modern diagnostic equipment and technology has led to failures in providing accurate diagnoses, and this harms patient trust in public health services. This, in turn, causes an increased number of citizens to seek health services abroad. It is estimated that, including only treatment expenses of those travelling by train and car, and excluding expenses related to transportation and accompanying persons as well as patients travelling by airplane, more than US\$ 20.8 million in cash flows out of the country annually, purely as a result of health services sought abroad (Bank of Mongolia 2005).

Pharmaceuticals

The *Aimags* Health Departments are responsible for the procurement of health products for all the *soum* hospitals in the *aimag* and the *aimag* general hospital.

The state-run tertiary- and some secondary-level health facilities may conduct their own procurement. The procurement of all health products for the state-run health facilities is regulated by the Law on Public Procurement and Guidelines approved by the MoH. The purchase of drugs costing 10 million Tugrik (US\$ 9000) or less can be carried out using a simple price comparison method based on comparing the quotes from at least three different suppliers. Any purchase exceeding 10 million Tugrik must undergo open or selected competitive bidding (tendering) processes. Tertiary-level health facilities and *Aimags* Health Departments have their own tendering committees. The MoH has two separate tender committees – one for the procurement of medical equipment and the other for the procurement of drugs and medicines. The Tender Committee for Medical Equipment is created on a per-procurement basis, meaning that whatever item is requested for procurement, a tender committee is created specifically for that purpose. The Technical Evaluation Committee is also created on a per-tender basis to assist the tender committee in obtaining the lowest and most advantageous offer. The Tender Committee for Pharmaceuticals is handled by MongolEmImpex, a state-owned agency, and the MoH is just the coordinator for their procurement.

In order to ensure the availability of the most essential medicines at all levels, the Government has adopted a Essential Drugs List, which is broadly similar to that recommended by WHO. The ceiling price for these drugs has been set and is closely monitored by the Government. In urban settings the availability of essential drugs is very close to 100%. However, there are gaps in rural areas. The MoH has introduced community revolving drug funds in almost all *aimags* with assistance from UNICEF and the Government of Japan. The idea was to create funds that would be owned and run by local communities. However, the legal basis for ownership has not yet been established, as “the community” is not a legal entity. The funds are run in *soums* by a variety of people and organizations, including the *soum* governor’s offices, *soum* pharmacies and *soum* hospitals. In some *soums* the revolving drug funds have been successful – the amount of money revolved is increasing and the percentage of available essential drugs is high. However, in some *soums* the funds have already disappeared owing to management failures. On average, *soums* with revolving drug funds have about 70% of the essential drugs, while those without the revolving drug funds have around 20% (Munkhdelger 2004).

The private pharmaceutical sector is not regulated beyond quality assurance and the registration and licensing of pharmaceutical products. There is no difference between state-owned and private pharmacies in terms of their licensing, registration processes, storage guidelines, etc. In 2004, there were 90 wholesalers and 807 retail pharmacies, including branches, in Mongolia (MoH and NCHD 2005b). There are very few state-run pharmacies, most of which

are run by the public hospitals as hospital pharmacy departments or as *soum* pharmacies. There is also MongolEmImpex, a state-owned enterprise that has a nationwide distribution network with wholesale and retail branches in all of the *aimags* and the capital city. Until the Peaceful Revolution, MongolEmImpex was the sole importer, exporter and distributor of pharmaceuticals in Mongolia.

In 2004, there were 29 local drug manufacturers, some of whom act as both wholesalers and retailers at once. An example of the latter is the Monos Pharma Trade with its import and export department, manufacturing facilities and a network of pharmacies across the country. As the Mongolian pharmaceutical industry is not big enough to produce all of the drugs needed for the health care of the population, 85% of drugs are imported from other countries (Munkhdelger 2004). The cumulative mark-up on locally produced pharmaceuticals is a minimum of a 32.25% increase in their price, while for imported pharmaceuticals it is almost a 100% increase (see Table 5.2 and Table 5.3). Data for the additional retail mark-up are not available.

Prices for drugs on the Essential Drugs List are controlled. The list includes both over-the-counter (OTC) and prescription drugs, as per the Law on Medicine and Medical Devices of 2006, but only those OTC drugs included in the list have price controls. There are no specific price control mechanisms for generic drugs.

Table 5.2 Composition of consumer prices of locally produced medicines, 2004

Type of charge	Percentage charged	Cumulative % mark-up
Cost of production	–	–
Wholesale mark-up	15	15
VAT	15	32.25

Source: Munkhdelger, 2004.

Table 5.3 Composition of consumer prices of imported medicines, 2004

Type of charge	Percentage charged	Cumulative mark-up (%)
Cost of production, insurance, freight	–	0
Customs	5	5
Stamp duty	1	6.05
Wholesale mark-up	25	32.56
Retail mark-up	30	72.33
VAT	15	98.18

Source: Munkhdelger, 2004.

The price limits for drugs on the Essential Drugs List are set at levels that are acceptable to the market, so most pharmacies comply with these price controls. Strong competition between drug retailers has been one of the factors that have kept the price of drugs at a relatively affordable level, at least in urban areas.

There are some 127 products on the list of pharmaceuticals that can be reimbursed from the HIF where the prescription has been signed by a family doctor. However, a quota has been established for each *soum* and district for the maximum number of prescriptions that can be claimed; this has resulted in many patients not being reimbursed. In most cases of hospitalization, all the drugs needed for treatment should be covered by health insurance, but patients are frequently asked by the health providers to bring some of the necessary drugs from outside the hospital, claiming that the hospital does not have those drugs in stock. Most patients do bring the drugs from outside and very few are reimbursed for drugs bought by their family. Indeed the majority of the population does not know the procedures for reimbursement and never even applies for it.

Biologically active substances, which are classified as food supplements, and/or locally produced traditional medicines have to go through the same procedures as other pharmaceuticals for registration, licensing and quality assurance, however, with lower criteria and in a shorter time frame. According to the Law on Medicine and Medical Devices of 2006, only registered OTC drugs can be advertised directly to the consumer, and the advertisement cannot have messages about promotional incentives or price reductions. The Government has established a rapid alert system for the detection of counterfeit drugs in order to remove them from the market. The SPIA at the central level and in *aimags* responds to reports of counterfeit drugs and destroys them. If offences in the supply of counterfeit drugs are not of a criminal nature, then offenders are fined and their licences are revoked.

5.2 Human resources

Trends in health care personnel

Similar to other countries which had Semashko systems, Mongolia has a relatively large number of physicians. However, the distribution of medical professionals across the country is not even. There are 15 *soum* hospitals, or 5.2% of the total of 323 *soum* and *intersoum* hospitals, which had no doctors as of 2005 (MoH and NCHD 2006a). In 2003, there were 2.7 doctors per 1000 population in Mongolia, compared with 2.3 per 1000 in Poland, 4.2 in the

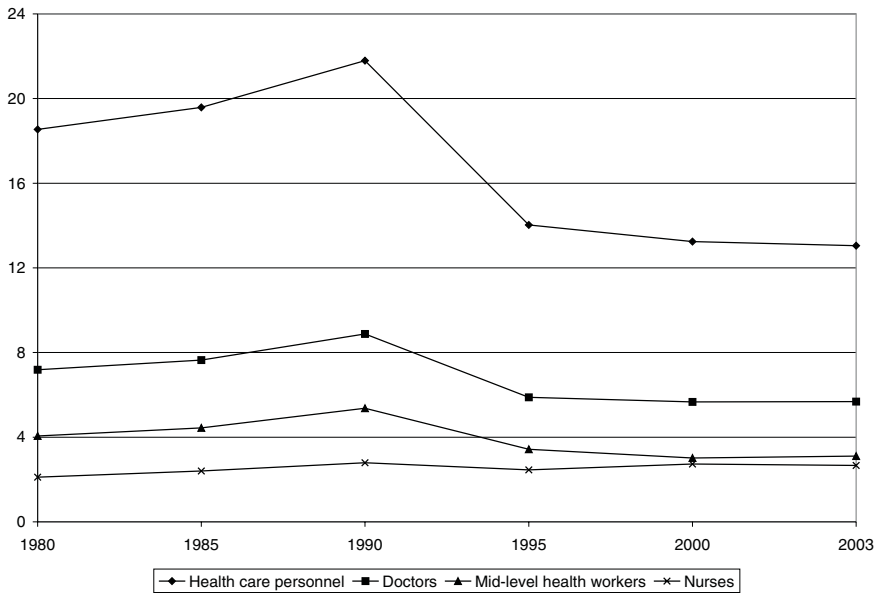
Russian Federation, and 3.5 in the EU (MoH and NCHD 2004; WHO Regional Office for Europe 2006). As of 2004, there were some 33 478 professionals employed in the health sector, of which 6590 were doctors. However, despite large numbers, the geographical distribution of doctors is inadequate. In 2004, there were 4.4 doctors per 1000 population in Ulaanbaatar, while there were on average only 1.7 doctors per 1000 population in the *aimags*. There are financial incentives for doctors working in rural hospitals, such as the Government paying the tuition fees for postgraduate training courses after three or more years working in a rural hospital, with monetary incentives equal to six months' salary for every five years spent working in rural hospitals, but these incentives are currently insufficient to motivate enough doctors to move to rural areas.

The Government also wants to have more doctors working in primary care services but the FGPs in urban areas are oversubscribed, while *soum* and *intersoum* hospitals are undersubscribed. In order to increase the number of physicians working in the *soums*, amendments to the Health Act in January 2006 have resulted in final-year undergraduates in medical schools, from July 2006, being required to work under the supervision of *soum* and *intersoum* doctors for at least two years prior to completing their formal medical training and obtaining their diplomas. Only once they have completed their formal training and received their licences are they allowed to specialize more narrowly.

According to data from the NCHD, the number of full-time health personnel reached its peak in 1990 (see Fig. 5.2). Since the end of the centrally planned economy, the number of all health workers had fallen from 217.9 per 10 000 population in 1990 to 130.5 in 2003. Although this downward trend has been slowing in recent years, the current levels of health workers, with the exception of nurses, are still too high. In 2004, there were 7915 nurses working in Mongolia, and the doctor-to-nurse ratio was 1.16. It has been estimated that 2.5 times as many nurses are needed, but numbers have been falling since the start of transition: in 1990 there were 11 296 nurses, and the doctor-to-nurse ratio was 1.92 (MoH 2003). There are some 913 pharmacologists, 1698 pharmacists, 697 laboratory technicians, 152 radiology technicians and 14 395 other mid-level health professionals in Mongolia. There are some 400 active dentists throughout the country. Most of them are providing primary oral health care. Some 115 dental technicians work in public and private dental clinics.

Planning of health care personnel

Under the Semashko model of health service provision, government policies to improve access to health services centred on increasing the number of service providers. As a result, more and more physicians were trained every year for several decades; the peak number of physicians working in Mongolia was in

Fig. 5.2 Health care personnel per 1000 population, 1980–2003

Sources: MoH and NCHD, 1981; MoH and NCHD, 1986; NCHD, 2002; MoH and NCHD, 2004.

1990. With the end of the communist regime, the country has revised most of its policies and principles, including health sector development policies. Nevertheless, the number of physicians has remained quite stable since the early 1990s (see Fig 5.2), although it is hoped that the numbers working in the state system will fall, and current human resource policies aim to improve quality and fairer distribution of personnel, rather than the quantity.

The training of human resources in the health sector is not linked to policies and planning in the health sector more widely (MoH 2005c). Workforce planning is at best ad hoc both at the macro and micro levels, with a short time frame, and it does not include regular analyses and assessments. It is not linked to factors such as population growth, the current and projected epidemiological profile of the population and the current reform agendas of privatization, rationalization and modernization of health services (MoH 2005c). However, the MoH is not able to control the supply side of human resources as medical schools are controlled and funded by the MECS. These schools depend on revenue from tuition fees in order to continue operating, so they enrol as many students as they can, despite MoH policy regarding the oversupply of medical doctors and the shortage of nurses and other mid-level health professionals in Mongolia. A disproportionate number of students are studying to become doctors compared with the number of students studying to become nurses.

There are three state-owned medical colleges in *aimags*, but only one nursing school, which is located in Ulaanbaatar, in addition to the Health Sciences University of Mongolia (HSUM), the oldest and largest medical school in the country. There are also a number of smaller private medical schools, such as the Achlal, Monos, Otoch-Maaramba, among others.

Those students who can afford to pay their tuition fees are not interested in nursing. Therefore, all of the medical schools that used to train nurses and mid-level health personnel are now training medical doctors as well. The MoH is able to control the supply of human resources only by limiting the number of licensed health workers; this is achieved by increasing the criteria for licensing and accreditation. As a result of amendments to the Health Act in 2005, the legal environment is now enabling the MoH to have the state medical schools transferred to their authority from the authority of MECS.

Training of health care personnel

The training programme for medical doctors in any of the 10 medical schools is six years. Students may enter medical schools after completion of their secondary education on a competitive basis by examination. The NCHD is responsible for continuing professional education. Professional committees of the MoH set the standards and the curriculum for postgraduate and in-service training courses. The HSUM has established a School of Public Health that offers undergraduate and postgraduate degree programmes in public health (see “Public health” in Chapter 6). Family practitioners are trained in medical schools and on in-service training courses.

Medical training and mid-level pre-service training have gradually started to move away from a specialist to a more general practitioner (GP) focus (MoH 2005c). Most of the current family doctors have completed additional in-service training courses that were supported by the Health Sector Development Programme (HSDP), which was financed through an ADB loan. There is also a recognized need for better training in interpersonal communications skills for health care workers in order to ensure services are more patient-friendly. As part of the *Soum* Hospital Development Programme, to improve access to and the quality of medical care for rural populations, there have been special in-service training and continuing education in clinical and management areas for *soum*-level staff to improve their diagnostic, treatment and management skills (MoH 2005c). However, outside this programme, continuing professional development and training of health care personnel are rare, and there is a strong overemphasis on specialization.

The medical schools have been constantly changing their curricula over the past 15 years. As a result, it has been difficult to assess the quality of their training programmes. The oversupply of medical doctors in urban areas has led to problems with unemployment for medical schools graduates. Most employment is secured through social networks, rather than open competition and transparent recruitment procedures. In addition, there is no financial incentive for the continuous professional development of health workers. All this has led to a weakening of the professional capacity of health staff at all levels.

Because of low salaries, almost all of the doctors in state health facilities must also have a private practice in order to provide sufficient income for their families. Doctors and nurses have low public standing in urban communities on account of their small income; however, in rural communities they are valued and appreciated for their knowledge and lifesaving skills.

Nurses and midwives are trained in a specialized nursing school in Ulaanbaatar city and medical colleges in *aimags*. Students may choose between doing a professional diploma in three years, or a Bachelor's Degree in four years. Nurses who graduated before 1999 with no degree will have to complete an additional two years of training in order to qualify for a Bachelor's Degree. Nurses with Bachelor's Degrees are eligible to enrol in a 2-year Master's Degree programme, and after that in a 3-year doctoral degree programme. The nurses who have work experience of five years or more can become "advanced" nurses and have a salary rise of 10–15%. An additional five years' experience enables them to become "senior" nurses with a 40% rise in salary.

The nursing school and medical colleges train nurses, midwives, nurses for traditional medicine, laboratory technicians, dental technicians, radiology technicians and pharmacy technicians. In addition to nurses and technicians, the medical colleges in *aimags* train *bagh feldshers* on a 3-year programme. *Feldshers* are paramedics ranked lower than doctors and slightly higher than nurses and midwives because of their special privileges and skills, such as the right to prescribe drugs and treatment. Some of the *bagh feldshers* are retired doctors with MD diplomas.

There are no special management training courses for health sector managers. The hospital managers are usually physicians who are skilled in one specialization or more, and have gained recognition as a good physician. Becoming a hospital manager is part of a standard career path for medical doctors. The total number of doctors, pharmacists and mid-level health staff in 2002 was 21 442; and the total number of managerial staff was 1097, thus making the management-to-clinical staff ratio in the country 1:19.5 (0.05) in 2002 (MoH 2004).

Registration/licensing

The Accreditation Department of the NCHD is the statutory body that registers qualified medical practitioners. The accreditation is renewed every five years, and health practitioners need to have a certain number of professional education credits in order to be re-accredited.

According to the records of the NCHD, by the end of 2005 some 31 000 medical licences had been issued to qualified health personnel. Some health staff may have two or three licences. Therefore the number of health staff may actually be much lower than the number of licences – for example, a physician could have one licence for the general medical practice, one for gynaecology and another one for specializing in STIs. In July 2006 the licensing process was changed so that one person can hold only one licence to practise – for medicine, for pharmacology, for nursing, etc. with no licences for specializations, these having been replaced by professional diplomas.

6 Provision of services

6.1 Public health

Similar to other post-communist countries, Mongolia's public health system is primarily based on a network of sanitary-epidemiological stations, carrying out traditional roles such as monitoring hygiene standards, environmental health and epidemiological monitoring. The notion of public health in its contemporary broader sense was introduced to Mongolia in the 1990s. Since then, the Government of Mongolia and the MoH have been asserting that public health and preventive medicine are the primary focus of the health sector. The development of and improvements in public health have mainly been based on a project and programme approach.

A range of National Health Programmes have been implemented centrally in order to coordinate efforts at all different levels of the health system. A National Health Programme is a package of activities organized to address priority health needs, and it usually has its own management structure, which may be grafted onto an existing health organization. These programmes have their own budgets and time frames and involve a range of stakeholders – often including international partners – although the activities are carried out within the overall supervisory framework of the MoH. The National Health Programmes usually form part of the overall framework of the delivery of health care services, but they are sometimes stand-alone vertical programmes, or they are integrated with other programmes or routine health care activities. In 2006, 19 National Health Programmes were implemented in the health sector. These included programmes on reproductive health, communicable diseases, mental health, injury prevention, health education, oral health and cancer control, among others (see “National Health Programmes, 2006” in Chapter 10). Local health departments usually develop subprogrammes based on the National Health Programmes. Local

Health Departments may also develop public health programmes locally, if it is deemed necessary, although this has happened only rarely.

The move towards a broader view of public health was reinforced by the adoption of the State Policy on Public Health (SPPH) in 2002. The policy aimed to improve the health status and quality of life of the population by focusing on the following priority areas: PHC services; health education and promoting healthy lifestyles; environmental health; and public health administration and organization. This policy aims to serve as a key document to determine trends in public health development in the next 10–15 years. In 2002, the National Public Health Council was established to support the implementation of the SPPH at national and local levels through the coordination of multisectoral activities. The Prime Minister of Mongolia chairs the National Public Health Council, while Branch Councils set up locally are headed by the *aimag* governors in their respective *aimags*. The National Council consists of representatives from eight line ministries (health, education, justice, infrastructure, food and agriculture, environment, foreign affairs and defence), the National Statistical Office, the HSUM and the Ulaanbaatar City Government. The Public Health Professionals Council was established at ministerial level to coordinate national public health programmes.

Apart from the Public Health Council, the main actors involved in public health are the MoH, the NCHD, the Public Health Institute, the National Centre for Communicable Diseases (NCCD), the National Cancer Centre, the SPIA, the HSUM and international organizations. However, it is acknowledged that public health issues cannot be solved by the health sector alone, so the Ministry of Nature and the Environment, MECS, and the MoSWL, among others, are also involved.

The MoH is responsible for public health policy formulation, planning, regulation, supervision and the implementation of health-related activities and standards in the country (see “Organizational overview” in Chapter 2). The NCHD is mainly involved in health promotion and health education activities within the country, as well as offering short term in-service training on health management. The Public Health Institute is currently the leading scientific and research centre in Mongolia in the area of public health and preventive medicine. It has three main areas of emphasis: research, training and services. The current focus of the Public Health Institute is on environmental health, nutrition, biotechnology production and upgrading the standard of scientific research to international levels.

The Health Inspectorate Department within the SPIA has evolved out of the sanitary-epidemiological network and has the responsibility for monitoring compliance with sanitary-hygiene norms and standards, and preventing the

importation and spread of various infectious diseases. The department is also responsible for environmental health services such as the inspection of water quality, food hygiene, occupational health and work safety and the quality assurance of drugs.

The President of the HSUM is a member of the National Public Health Council and is responsible for the development and implementation of the public health training curricula and conducting research and educational activities in collaboration with other institutions. The School of Public Health is one of the branch schools of HSUM and is the only institution in Mongolia which offers undergraduate and postgraduate training in public health. With the changing health and epidemiological situation in the country, the training curricula at the School of Public Health have undergone reviews and revisions, shifting the focus towards the “new” public health, health protection and health promotion agenda.

The Environmental Health Research Centre of the Public Health Institute is responsible for research and postgraduate training in the field of environmental health. The centre works closely with the Health Promotion Unit of the NCHD. Environmental health control and monitoring are conducted by the Environmental Inspection Department (Environmental Hygiene Control) of SPIA. There are a total of 32 environmental health inspectors working nationwide. They assess drinking water quality, soil pollution, chemical safety, consumer products and the hygienic condition of water supplies and sanitation utilities. The Environmental Inspection Department of SPIA is also responsible for ensuring the implementation of environment-related legislation. It has branches in all provinces and a nature and environment inspector in every *soum*. They assess and monitor urban air quality, water and natural resources. The Central Environmental Laboratory of the Ministry of Nature and Environment also conducts environmental monitoring.

Currently, some data related to environmental health are stored at the Ministry of Nature and Environment; some are collected through environmental inspection authorities and some through the MoH. The lack of a comprehensive and integrated information system means that activities directed at environmental health protection have been carried out separately by different institutions without strong coordination and cooperation. In 2005, the Government of Mongolia endorsed a National Environmental Health Programme for 2006–2015. The aim of this national programme is to create a safe living and working environment for the population by reducing the effects of hazardous factors, intensifying interventions targeted at improving environmental health and increasing intersectoral collaboration.

The National Communicable Disease Control Programme is one of the national programmes being implemented from 2002 to 2010. It has six subprogrammes on the control of vaccine-preventable diseases, TB, HIV/AIDS, STIs, gastrointestinal infections, communicable diseases with natural foci/zoonotic diseases and other infectious diseases. However, not all infectious disease rates are decreasing as rapidly as expected. This appears to be related to the weak socioeconomic situation, insufficient and poor-quality public health services and the relative inaccessibility of timely and appropriate health care (MoH 2004).

The MoH, the NCCD, the National Centre against Diseases with Natural Foci and the SPIA are the main actors involved in control and management of communicable diseases. The General Emergency Department, a non-portfolio ministry, is also involved during outbreaks and emergency situations caused, for example, by plague, foot and mouth disease or avian influenza. The MoH is responsible for policy formulation, as well as the coordination and provision of professional guidance on communicable diseases. The NCCD is responsible for the management and control of communicable diseases in the country and also provides specialized care with 600 inpatient beds. It also has a national reference laboratory that confirms all laboratory tests carried out in *aimag* general hospitals. The NCCD role has been expanded by offering postgraduate training and conducting research at the national level. It organizes interventions during communicable disease outbreaks.

Mongolia has natural reservoirs of bubonic plague in the territory of 130 *soums* in 17 *aimags*. Between 1996 and 2005, 72 incidents of bubonic plague were reported at 57 reservoirs, covering 29 *soums* in 10 *aimags* (MoH 2005c). Of all plague cases, 70.8% were transmitted during the slaughter and preparation of marmot meat, 16.6% were transmitted by fleas, and 12.5% were transmitted via the respiratory tract. 82% of all cases were primary bubonic (glandular) and 18% were pneumonic forms of bubonic plague. The National Centre against Diseases with Natural Foci is an affiliated agency under the MoH that is responsible for the monitoring and surveillance of natural reservoirs, training and education, and the liquidation of reservoirs, mainly during plague outbreaks.

The *Aimag* Health Departments are the bodies with the main responsibility for communicable disease control and management at local level. These departments work with branch offices of the National Centre against Diseases with Natural Foci in each *aimag* and have a 15–20 bed inpatient department within the *aimag* general hospitals for communicable diseases. At the PHC level in rural areas, *soum* hospitals usually have 3–5 beds designated to communicable diseases care.

Primarily, two types of surveillance exist at the NCCD for the notification and control of communicable diseases. The active surveillance system is designed for the notification by telephone of incidences of vaccine-preventable diseases on a weekly basis, while the passive surveillance system is meant to notify of other infectious diseases by reports on a monthly basis. Screening programmes in Mongolia are limited to just small-scale activities under the National Cancer Control Programme.

The National Immunization Programme is one of the subprogrammes under the National Communicable Disease Control Programme. One of the key achievements of the health sector in Mongolia over the socialist period was the sustained high immunization coverage of 0–1 year-olds and the dramatic decrease in the incidence of vaccine-preventable diseases. Through a national vaccination programme, Mongolia has also achieved polio-free status. Obligatory immunizations include BCG, polio, hepatitis B, DPT and measles. *Bagh feldshers*, *soum* and family doctors play an important role in providing immunization services. In 2005, five-in-one vaccines were introduced.

The National Programme on Reproductive Health (2001–2006) aimed to improve the reproductive health status of men and women in Mongolia, but particularly of adolescents and those living in remote rural areas. The priority areas for development were: quality of reproductive health services, family planning, maternal health, post-abortion care as well as STIs and HIV/AIDS.

In response to the epidemic of noncommunicable diseases, including cardiovascular disease, cancer and diabetes (see “Health status” in Chapter 1), several national programmes have been developed in Mongolia. Since 1993, the *Ikh Khural* of Mongolia has adopted more than 10 health and lifestyle-related laws, including: the Tobacco Control Law (1993, 2005); the Law against Alcoholism (1994, 2003); and the Law on Physical Culture and Sports (2003). At the same time, the Government has adopted more than 10 public health programmes including: the National Programme against Cancer (1997–2005); Health Education of the Population (1998–2005); the National Programme on Food Security, Food Safety and Nutrition (2001–2010); the Population Fitness Programme (2002–2007) and the National Programme on Alcohol Prevention and Control (2003–2013).

There have also been multiple developments in Mongolia in health promotion and healthy lifestyle campaigning. The main purpose of these initiatives has been to promote community knowledge, to alter attitudes and practices, and to facilitate the prevention of noncommunicable disease risk factors by promoting healthier lifestyles. In 2005, an integrated survey on noncommunicable disease risk factors was conducted in order to establish a suitable surveillance system. For this, the Government adopted the National Programme on Integrated

Noncommunicable Disease Prevention and Control (2006–2013) in 2005. The goal of this integrated programme is to improve the health and quality of life of Mongolian citizens by reducing noncommunicable disease risk factors and by providing effective control of cardiovascular disease, diabetes and cancer.

The National Health Education Programme (1998–2005) aimed to foster a health-promoting environment, which encourages a healthy lifestyle. Most national health programmes have components on health education and promotion interventions targeted at different population groups and usually supported by various international donor agencies. Therefore, the National Health Education Programme has also been designed to coordinate the health IEC activities managed by numerous projects and programmes, thus ensuring the efficient use of resources and improving the effectiveness of education campaigns. By 2003, there were six health promoting schools, 50 schools and industrial facilities, and five hospitals working to meet health promoting organization criteria. The MoH evaluations have shown that the main achievement of the programme has been the integration of IEC activities into primary care services, thus building a continuous and sustainable environment for delivering health education to the population. Health education has also been included in the schools' curriculum at all levels (Amindavaa, Kristensen et al. 2005).

The NCHD plays a key coordinating role in health education intervention and IEC campaigns in close collaboration with international donor organizations and international and national NGOs. Apart from the many international donors active in the Mongolian health sector (see “National Health Programmes, 2006” in Chapter 10), national NGOs such as the National AIDS Foundation, the National TB Foundation and the Mongolian Family Welfare Association are actively involved in health education interventions. International NGOs active in this field include World Vision and the Adventist Development and Relief Agency (ADRA), among others.

In the 1980s, practically all jobs were provided by the State, and occupational health was the responsibility of trade unions. From 2000, occupational health has been the joint responsibility of the MoSWL and the MoH. The main national institution that deals with occupational health issues is the Occupational Diseases Centre. It is an affiliated agency under the SSIGO. The Occupational Diseases Centre was established in 1967 and has provided a comprehensive service on the notification, identification and treatment of occupational diseases. As the private sector grew through the 1990s, owners of private businesses have become responsible for arranging and financing occupational health services for their workers. The major workplace hazards contributing to occupational diseases are dust, noise, chemical hazards and poor physical working conditions. Chronic bronchitis and pneumoconiosis account for over 50% of all occupational diseases (Government of Mongolia and WHO 1999).

Unfortunately, occupational health issues are a very low priority for the health sector currently, partly due to the fragmented structure of occupational health services.

Initiatives and activities to promote health outside the health sector are still weak. The social determinants of health have not yet been included in the health priorities of the government action plan. The main dimensions of health inequity in Mongolia are geographical (urban versus rural), income-related (poor versus non-poor) and demographic (migrants versus sedentary population) (Hindle 2002; World Bank 2004). There is a marked urban concentration of health facilities, human resources and material inputs (MoH 2004). Long distances, the scattered location of families and health facilities, and poor infrastructure in rural areas affect inequities in the health status of the population. As has been the case in other post-communist countries, the wealthy tend to have better access to health care while the poor, the uneducated and those most in need are often excluded. Many internal migrants living on the outskirts of the cities and the *ger* districts around Ulaanbaatar do not have access to the quality and the range of services available to the sedentary urban population.

Issues and challenges in public health

In Mongolia there is still a large gap between policy and practice in public health (MoH 2004). Thus far, improvements have been meagre compared to the long list of policies and programmes, and the reorientation of the health system away from an emphasis on curative services has been slow. In 2002, only 4.7% of total health expenditure was spent on prevention and public health services, and 77% of total expenditure on public health has been mobilized through international loan and grant aid (MoH and World Bank 2005).

Socioeconomic pressures since the mid-1990s have adversely affected people's opportunities to choose and enjoy healthier lifestyles and living conditions. Consequently, changes in lifestyle including behavioural patterns such as the consumption of alcohol and tobacco, and lack of exercise are increasingly important. On the other hand, despite successes in the reduction of vaccine-preventable infectious diseases, there has been an increase in the rates of infectious diseases related to poverty such as TB, STIs and brucellosis. Unemployment, poverty and the internal migration of rural populations to urban areas have led to the expansion of slum areas on the edges of towns (the *ger* districts) where infrastructure is poorly developed, so these areas are characterized by a lack of clean water supply and a proper waste system, and the resultant growing environmental pollution is adversely affecting population health.

Professionals engaged in public health activities

Very few health service managers are currently equipped to operate in the way required to manage a strategic public health framework. The physicians who have received epidemiological and/or health management training have often worked within public health services. They have usually been involved in community-based preventive services, including environmental health, care for the elderly, child and maternal health, and family planning, but have also branched out into health promotion, service planning and health service management. Family and *soum* doctors perform a number of these essential public health responsibilities. However, it has also become evident that public health programmes in the *aimag* and Ulaanbaatar City Health Departments have been assigned to officers without proper consideration of their professional background.

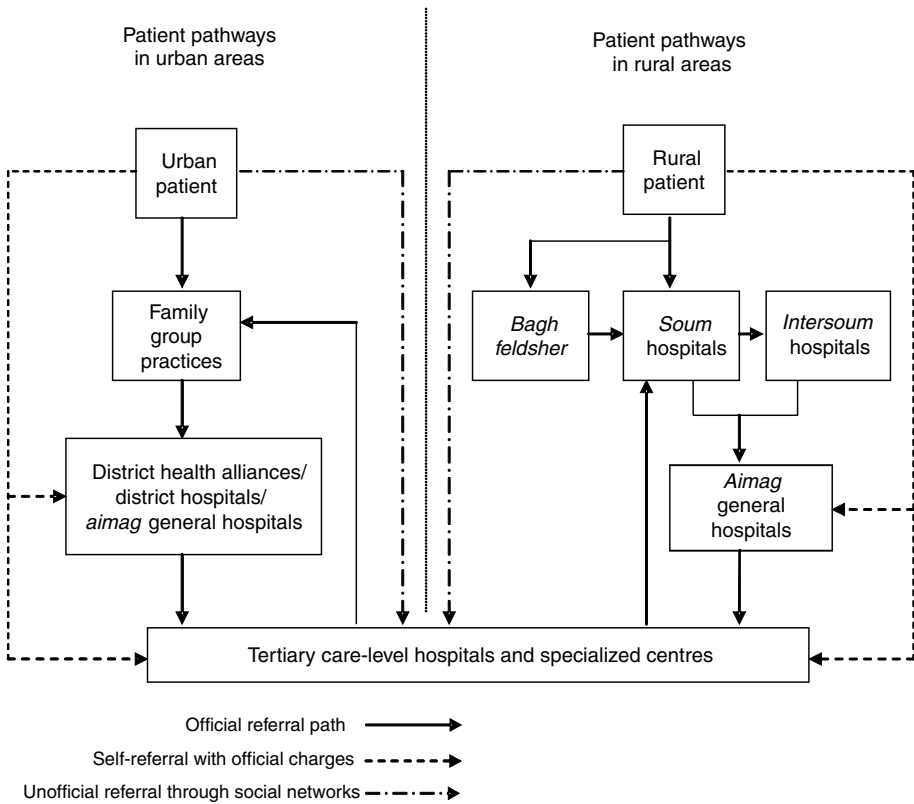
In the last decade, Mongolian public health professionals have started being trained in universities and schools of public health overseas. The number of trained public health professionals in the country has been increasing since the mid-1990s. They have either obtained a Master's degree in Public Health (MPH) from well-recognized schools of public health or were exposed to the new concept of public health during training in countries such as the United States, the United Kingdom, the Netherlands, Germany, Thailand, Australia, etc. Certainly, the number of public health professionals trained at the international level is increasing every year. The overwhelming majority of these trained public health professionals have a background in medicine. Almost one third of them have trained in epidemiology, while the others have specialized mainly in public health, health management and health economics, among others (Bolormaa, Bujin et al. 2004). However, as witnessed elsewhere, these new graduates might not be adequately prepared for working with bureaucracy and rigid systems, and they must be prepared to wait for change (sometimes over years of poorly paid, laborious everyday work), facing failures and professional depression (Varavikova 2002). Public health students need training in understanding the barriers to change, and the need for long-term commitment and the planning required for success in programme implementation (Varavikova 2002).

6.2 Patient pathways

There are strong differences between the patient pathways in rural and urban areas due to the different geographical circumstances. FGPs provide primary care services for the people who live in the capital city and the *aimag* centres,

while *bagh feldshers* or *soum* doctors provide a wider range of primary care services to the rural people (see Fig. 6.1).

Fig. 6.1 Patient pathways



For example, two Mongolian men – Bat living in a *soum* and Bold living in Ulaanbaatar – would follow different patient pathways at the primary care level:

- Upon getting ill, Bold goes to the FGP for his area and sees the family doctor. Previously, he would have to pay if he were uninsured, but now all PHC is covered in the package of essential services. If Bold’s illness cannot be managed by staff at the FGP, he is referred to the district health facilities for a more detailed diagnosis and specialist services.

- Once referred to the district hospital or district health alliance, Bold would receive all the required diagnostic services there, unless a specialist decides that a further referral to a tertiary hospital is required. If Bold needs to be admitted to the district hospital, he might be referred by the specialist, while waiting for a bed to become available. If it is an urgent case, he would be admitted directly.
- If Bold was referred to a tertiary-level hospital for more detailed diagnosis or intensive treatment, depending on his illness, he would be sent back to the district hospital or FGP for aftercare. Every insured patient should pay co-payments when he/she is admitted to district or specialized hospitals. The co-payments are higher for tertiary hospitals than for district ones. Official co-payments are charged for every night spent as an inpatient and at every referral stage. Official charges may also be levied for diagnostic tests or other “supplementary” services at any stage of the referral process. Unofficial charges can be levied in order to access care with a particular doctor or consultant or in order to ensure better quality nursing care as an in-patient. These steps are the official way in which insured patients move through the system, as set out in the Health Insurance Law. However, in reality there are a significant number of self-referrals to hospitals in urban areas as the gatekeeping function of primary care is not yet effective. In practice, Bold could go directly to the district or even specialized hospital and just pay the penalty fee for self-referral. It is possible that hospitals even encourage such self-referrals because the penalty charges provide more revenue than standard referrals. There is a lack of trust in FGP services so that even patients who have been discharged from the tertiary-level hospital and sent back to their FGPs for aftercare fail to complete their treatment because they prefer to pay the penalty charges and self-refer back to see the specialists again. In such cases, the family doctor has no knowledge of the patient’s treatment or even illness.
- Bat is a herder who has fallen ill. If he lives close to the *soum* hospital and can travel he can go there to see the *soum* doctor. If he is more remote, he can call the *bagh feldsher* who is based at the local health post. If the *bagh feldsher* cannot manage the case effectively, Bat is referred to either the *soum* or *intersoum* hospital depending on which is closer or depending on his needs.
- If the *soum* or *intersoum* hospital cannot manage the case effectively, Bat is referred on for more specialist services and diagnostics at the *aimag* general hospital or tertiary services in Ulaanbaatar.
- After treatment in the more specialized centres, Bat is discharged to the care of doctors at the *soum* hospital.

People from rural areas have fewer opportunities for self-referral than people living in urban areas, owing to the geographical barriers in getting directly to specialist care. However, people in rural areas still do self-refer to some extent, often using social networks and family links to access treatment.

The other aspect of health care that is far different in rural regions is antenatal and maternity care. Prior to the break-up of the *negdels*, Tuya (Bat's wife) would have stayed in a maternity rest home attached to the *soum* hospital for the later stage of pregnancy, and not just for the birth; since decollectivization this is not always the case (Hill, Dodd et al. 2006). The maternity rest homes were necessary because of the distances a woman in labour would need to travel. Without such facilities many rural women would not have their births attended by medically qualified personnel. If Tuya had complications, she would be referred to the *aimag* maternity rest home or the *aimag* general hospital.

6.3 Primary/ambulatory care

The general structure of primary care services has been inherited from the socialist era, and consists of a large network of primary care units located throughout the country in every administrative unit. There are some significant differences between the provision of primary care services in urban and rural areas, in terms of the setting, nature of providers, functions and funding. Therefore, the provision of primary care services in urban areas and the provision of care in rural contexts are described separately below. Primary care services are considered the core element of the package of essential services designed to address priority health problems.

Primary care services in urban areas

In the socialist era, urban primary care units were called *kheseq* and most of the services they provided related to maternal and child care. From the end of the 1990s, with assistance of ADB, the MoH implemented the HSDPs (see Chapter 7), which established FGPs on the basis of the *kheseq* and strengthened their capacity in terms of training family physicians and nurses, providing essential equipment, and building and refurbishing premises. As a part of the health sector reform process, the Government contracted out primary care services for urban residents to FGPs, which are independent organizations.

Within the framework of the HSDP, the capitation payment method and the contracting-out of health services were introduced and piloted in primary care service provision. The newly established FGPs were run by private providers and

received funding from the state budget and the HIF on a per capita basis for the number of insured people in their catchment area. The capitation rate differed according to the income level of the registered residents. However, as health insurance coverage has fallen and the numbers of internal migrants without proper documents have increased, FGPs in some areas have faced difficulties in covering their full costs from HIF transfers. By contrast, FGPs in more affluent areas have been easily able to fit into the new financial environment and even manage to make profit. These FGPs have their own offices, better capacity, improved quality of care and more satisfied patients (Orgil 2003). Amendments to the Health Law (in force from July 2006) mean that primary care services will be financed only from the state budget on the basis of the listed population in a catchment area. It is very much believed that this will eliminate the financial barrier to accessing primary care services and that the FGPs with high levels of internal migrants in their catchment areas will have their costs covered in full.

FGPs usually consist of three to six family doctors and one nurse per doctor, and they are placed in community settings, such as offices and health centres. In total there are 1987 family doctors and nurses and their services cover 1 524 800 residents, which is approximately half the total population. On average, 6375 residents are registered with each FGP and one family doctor serves 1200–1500 people (MoH and NCHD 2006b). There was an initiative to allow patients to choose their family doctor within an FGP in order to promote longevity of primary care provision. However, this has not had the desired result because of the poor relationship between performance assessment and patient satisfaction. Most FGPs are open regular office hours with some additional hours at weekends, but weekdays remain the busiest in terms of both clinic and home visits (Orgil, Hindle et al. 2002). According to a recent study, the workload of family doctors is not evenly distributed throughout the country (Orgil, Hindle et al. 2002; Orgil 2003). The MoH (Order No. 306, 2002) sets the standard package of services to be provided at *soum* hospitals and FGPs. The services provided at FGPs are not as extensive as those provided in the *soum* hospitals, due to the proximity of FGPs to tertiary- and secondary-level care services. For example, normal deliveries and inpatient services for a number of acute and chronic diseases are managed at *soum* hospitals while FGPs do not provide the same services. The services provided by FGPs include outpatient exams, primary diagnostic services, antenatal care, family planning, the prescription of essential drugs, counselling, reassessment check-ups, home visits, palliative care, referrals to district hospitals and health education and promotion. Basic emergency services are also provided for minor injuries.

Being the first point of contact with the health system, FGPs are comparatively accessible to their population as capitation payment rates were

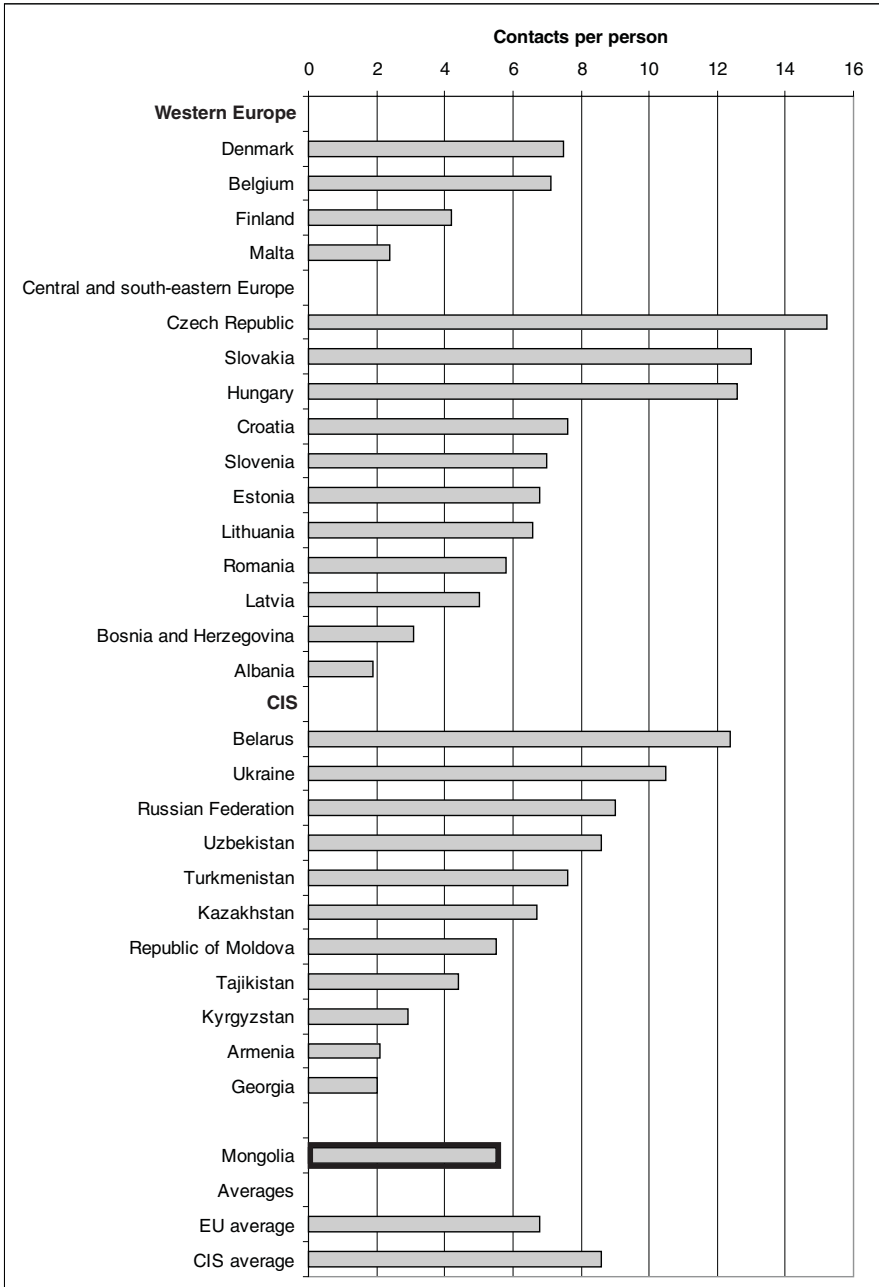
deliberately set higher for patients from poorer families, and this appears to have worked (Orgil, Hindle et al. 2002). The use of FGP services by the registered population has reached 71–82%, and this has been taken as evidence of FGPs' successful performance (Orgil 2003). However, in urban areas, primary care service utilization has not been maximized, despite the absence of financial, organizational and geographical barriers to access. The preponderance of oversized hospitals in the capital city and the poor capacity of FGPs are the most influential factors in the comparatively low level of service utilization and high levels of self-referral (see Fig. 6.2). Although the current capacity of human resources is appropriate for the FGPs, there is a critical need for improving graduate, postgraduate and in-service training for family doctors and other providers as gaps in service providers' skills and knowledge play a significant role in the reduction of service utilization.

In their short history, FGPs have achieved much: the concept of family medicine has been introduced, FGPs have been established, family doctors have been trained, people's attitudes towards family medicine have been changed and capitation payment has been successfully piloted. However, there is still plenty of room for the further strengthening of primary care provision in urban areas, including improving the quality of services, reducing the high level of self-referrals, sustaining continuity of care, and maintaining good management of chronic diseases.

Primary care services in rural areas

In rural areas primary care is provided through the *soum* hospital, which consists of *soum* doctors, nurses, midwives, *feldshers* and logistics people. A peculiarity of rural PHC in Mongolia is that the *soum* hospitals provide not only outpatient services but also inpatient services for the rural population. This is mostly because of the geographic and demographic features of Mongolia where the rural population is sparsely distributed over a huge area. Most of the *soum* hospitals have 15–30 beds and provide antenatal and postnatal care, minor surgery, normal deliveries, referral to an *aimag* hospital and prevention activities, such as immunization, provision of health education, etc. Attached to the relevant *soum* hospitals there is also a network of 635 *bagh feldsher* posts (11 have beds) which provides primary care services in more remote areas (MoH and NCHD 2006b). Where a rural hospital serves more than one *soum*, it is called an *intersoum* hospital. *Intersoum* hospitals also provide services covered in the complementary package, so patients from nearby *soums* can be referred there. As of 2005, there were 31 *intersoum* hospitals and 287 *soum* hospitals providing primary care services to the rural population (MoH and NCHD 2006b).

Fig. 6.2 Outpatient contacts per person, 2004



Sources: MoH and NCHD, 2005b; WHO Regional Office for Europe, June 2006.

Notes: CIS: Commonwealth of Independent States; EU: European Union.

The specific challenge of rural primary care is to meet the various health needs of the scattered and distant nomads. In 2005, *soum* hospitals had 153 583 admissions and provided 2 631 950 outpatient examinations, which are more than those provided by *aimag* general hospitals (MoH and NCHD 2006b). The most important service provided in *soum* hospitals is the maternity service, which includes deliveries. In 2005, 9599 mothers gave birth in *soum* hospitals, which accounts for almost one third of the total deliveries in the country (MoH and NCHD 2006b). Approximately 40% of all pregnant women who live in *soums* were referred to the *aimag* general hospital or specialized hospitals but more than half of the deliveries (60%) were conducted at *soum* hospitals. As a result of prioritizing maternal and child health and the implementation of a wide range of activities during the last 20 years, the maternal and child mortality rates have been decreasing steadily. However, the child and maternal health of rural population remains the subject of concern. The Maternal Mortality Reduction Strategy (2002–2006) promoted the referral of complicated deliveries from *soums* to *intersoum* or *aimag* hospitals so that only normal deliveries were dealt with at *soum* hospitals, but 40% of maternal mortality occurred at the *soum* level, although only 17% of the total population live in *soums* (MoH and NCHD 2006b). This potentially indicates that these mothers had not been referred in time or had not received adequate care during pregnancy and delivery.

Apart from the focus on maternal and child health, *soum* hospitals deal with common conditions such as acute appendicitis. For instance, surgical services were provided to 1.4% (1812) of total patients at *soum* hospitals, and the majority (79.3%) of these cases were acute appendicitis (MoH and IMED 2003). Pathologies requiring specialized services such as diseases of the ear, eye, neural system, endocrine pathologies and mental disorders constituted less than 5% of inpatients (MoH and IMED 2003). Other data show that 27.2% of the total number of patients admitted to *aimag* general hospitals have been referred from *soum* hospitals (MoH and NCHD 2006b). This shows that primary care units in rural areas are fulfilling their gatekeeping role, at least to some extent. However, *soum* hospitals need to improve the management of common and predominant diseases, including pneumonia (51.5% of the total number of admitted patients with respiratory pathologies), hepatitis A (51.5% of the total number of patients with infectious diseases), and glomerulonephritis (75.3% of the total number of patients with genitourinary pathologies) (MoH and IMED 2003).

All these primary care units in rural places are state-owned organizations and all staff are salaried. In recent years, the overall trend has been to increase funding for *soum* hospitals. However, *soum* hospitals still need to increase effective and efficient use of their finite resources by improving the management of common conditions, the overall quality of care and by reducing admissions

of chronic cases. In some places, where the *soum* hospital is located very close to an *aimag* general hospital, it is questionable whether these *soum* hospitals need to have any beds with the high hospital running costs they entail.

To maximize organizational accessibility, all *soum* hospitals are open for 24 hours a day and *feldshers* make home visits. No special study has yet been made on the utilization of services in rural areas, but empirical evidence suggests that they are often used because *soum* hospitals are the closest health care facility for rural nomads. However, some people may prefer to go directly to the *aimag* general hospital if access is easier for them. Owing to the extreme continental climate and the lack of direct transport routes to *soum* hospitals or *feldsher* health posts, access to primary care services is restricted considerably for rural nomads, who can be snowed in for long periods.

International evidence suggests that a long-term relationship with an individual practitioner gives better knowledge of individual patients' problems and needs, more accurate diagnosis, fewer and shorter spells of hospitalization, lower costs, better prevention and increased patient satisfaction (Starfield 1998). In rural areas of Mongolia, *soum* hospitals and *soum* doctors are generally the regular source of health care for the *soum* population, owing to their geographical isolation. Several *soum* doctors have worked in the same place for more than 25 years. They have had brilliant successes in improving the health of their *soum* populations, which would indicate the value of good longitudinal care with a regular individual physician in the same social context. However, primary care units in rural areas still face a shortage of health personnel, which has created great urban–rural inequity in service provision. The internal migration of health personnel has risen since the 1990s owing to the dramatic socioeconomic changes in the country. Currently, about 40% of all *soum* hospitals are understaffed and less than one third (27.9%) of all health professionals work in *soum* hospitals (MoH and NCHD 2005a). Understaffing means that *soum* doctors are often carrying out the duties of two or three people on their own.

In 2002, the Government of Mongolia approved the *Soum Hospital Development Programme* (Government Resolution No. 89), and this has become the main policy document for the development of *soum* hospitals and the provision of primary care services to the rural population. The programme is set to run from 2002 to 2008 and aims to increase the equity, accessibility and quality of primary care services for the rural population by improving the structure and performance of *soum* hospitals. Within the framework of this programme, activities for strengthening the infrastructure of *soum* hospitals are planned, including the construction of 82 new *soum* hospitals, the capital refurbishment of 364 hospital buildings, the renovation of heating systems in 285 *soum* hospitals, sustaining the revolving drug fund in every *soum* (see

“Pharmaceuticals” in Chapter 5) and ensuring the new hospital buildings have potable water and a suitable sewerage system. The programme also covers human resource development in order to eliminate understaffing in *soum* hospitals and improve the quality of services. Moreover, much attention has been paid to the continuity of training for health professionals and strengthening the management skills of managers working in rural health facilities.

Another area covered in the *Soum* Hospital Development Programme is the need to improve ambulance stock so that emergency services for the rural population are both accessible and reliable. Currently, approximately 70% of the vehicles used in *soum* hospitals are Russian-made UAZ (civilian four-wheel-drive jeeps) and only a few are equipped with specialized equipment for emergency care. Although UAZ are suitable for the field conditions of the country, as they have good trailing capacity and are easy to repair, they lack specialized equipment for emergency care and are inappropriate for transporting patients who cannot sit up.

It may be the case that the primary care sector in rural Mongolia has not been fulfilling the role of being the first point of contact, because in rural areas the geographical barriers and understaffed health facilities are making the access to and quality of health care services inequitable between urban and rural areas. It could be argued that in rural areas the health system has experienced a stronger shift away from its former hospital orientation towards a primary care focus. However, this process is still incomplete in the health sector as a whole, as the capacity of the oversized hospitals has not been reduced so that freed-up resources can be transferred into primary care in rural areas.

6.4 Specialized ambulatory/inpatient care

Specialized care is covered by the complementary package of services and, theoretically, access to these services is by referral from primary care. At the secondary level, specialized care is provided by the *aimag* and district hospitals as well as ambulatory, spa and private hospitals. Tertiary-level care is provided through the state specialized hospitals and centres which are located in Ulaanbaatar. There are also RDTCs which provide specialized tertiary-level referral, diagnostic and treatment services to the catchment population outside the capital. Specialized care services are delivered through the outpatient and inpatient departments of publicly and privately funded hospitals, as detailed in Table 6.1.

Table 6.1 Health facilities by level of care, 2005

Type of health facilities	Number
Secondary health care organizations	
<i>Aimag</i> general hospitals	22
District health facilities in Ulaanbaatar	12
Maternity homes (under Ulaanbaatar Health Department)	3
Total	37
Tertiary health care organizations	
Regional treatment and diagnostic centres	3
Specialized centres and hospitals	17
Total	20
Other health organizations (not under MoH)	22
Private hospitals	160
Grand total	239

Source: MoH and NCHD, 2006b.

***Aimag* general hospitals**

Aimag general hospitals are state-owned organizations, and the staff are employed by the local government and salaried. These hospitals receive their funding from the centrally allocated state budget and the HIF (see “Paying for health services” in Chapter 3). *Aimag* hospitals currently have a total of 3811 inpatient beds. The structure of an *aimag* hospital varies depending on the grading of the hospital and its staffing and service mix, but generally an *aimag* general hospital can have from 105–405 beds, with an average bed occupancy rate of 78% (MoH and NCHD 2006b). *Aimag* general hospitals provide more services in terms of case-mix and number than district hospitals because of their distance from specialized centres. Services in *aimag* general hospitals are focused on nine main specialties, including internal medicine, surgery, obstetrics, gynaecology, paediatrics and 10 subspecialties. They also provide a diagnostic laboratory and basic X-ray and ultrasound facilities. However, as in the *soum* hospitals, *aimag*-level facilities are understaffed. Although 38% of the population live in the *soums* and *aimag* centres, only 14.1% of the total health workforce is assigned to the *aimag* level (MoH and NCHD 2006b).

70% of the medical equipment at all the *aimag* hospitals is also outdated. Most of the diagnostic-therapeutic equipment was supplied by the Soviet Union and former socialist countries and has been in use for many years (MoH 2003). Less than half (41.1%) of all hospital equipment at the *aimag* level meets minimum required standards (Otgonjargal 2005). Recently, there has been some supply of new medical equipment, but this has been provided mainly through international donors. Most of the hospital buildings are also

more than 20 years old. Some of these facilities still need to be renovated to modernize them, to make them more energy efficient, and to improve their water supply and sewerage systems. In this area, the application of structure and performance standards of health facilities and the accreditation process have put pressure on hospitals to mobilize their resources and make certain key infrastructural investments.

Ulaanbaatar district hospitals

There are a total of 12 district hospitals with 1173 beds in Ulaanbaatar. The size of district hospitals varies considerably, from 15 to 225 beds. District hospitals usually provide inpatient services for two or three of five main specialties: internal medicine, paediatrics, neurology, resuscitation and TB. The care for the remaining specialties is provided at other specialized centres, for example, maternity services are delivered by three Maternity Homes in the city (Ulaanbaatar Health Department 2005). Overall, the district hospital system in Ulaanbaatar could be described as consisting of many small hospitals with surplus bed capacity which provide services on a very narrow case-mix. Recent studies suggest that there is a significant level of inappropriate admissions in district hospitals (Bat-Ochir 2000; Byambaa, Tumurbat et al. 2005). One revealed that 36.7% of the city population suffer from chronic illnesses and 30.4% of admissions to district hospitals were chronic cases which did not require acute treatment. Another third of the cases were chronic diseases which had developed into acute conditions (Bat-Ochir 2000).

In the late 1990s, as a part of decentralization and privatization reforms, it was decided to pilot the contracting out of hospital services at Bayanzurkh district hospital in Ulaanbaatar. The aim was to make a contract between the Ulaanbaatar Health Department and a team of hospital managers so that they could improve the service quality and strengthen the capacity of the hospital. This pilot proved a useful learning experience both in terms of its successes and failures and it ended with the privatization of the Bayanzurkh district hospital. Based on the experience of this pilot project, the Government resolved to continue the contracting out of services to the managers of several other district hospitals, although this resolution has not yet been put into practice.

Tertiary-level hospitals and specialized centres

There are three RDTCs located in the *aimags* to serve regional populations, but the remaining specialized hospitals are located in Ulaanbaatar. They act as the second level of referral while providing highly specialized, high-technology curative and rehabilitative inpatient and outpatient care services. These tertiary-

level hospitals also often serve as centres of excellence for training health care personnel and the management of national programmes. These hospitals are state owned and the staff are employed by the central Government.

Statistically, tertiary hospitals account for 36% of total admissions. The number of inpatients referred from *aimag* general hospitals varies from 10.2% to 46.9% of total tertiary hospital admissions (MoH and NCHD 2005a). *Aimag* hospitals refer only the most complex and undiagnosed cases to tertiary hospitals. Additionally, tertiary hospitals deliver all the services not covered by the five specializations delivered by district hospitals. Therefore, specialized hospitals mostly provide services to the population of Ulaanbaatar. For example, all common surgical operations in Ulaanbaatar, such as acute appendicitis, are carried out at tertiary-level general hospitals. Outside the capital, such conditions are treated in *aimag* hospitals at much lower cost than at these national general hospitals (MoH 2003).

Private hospitals

Since the private ownership of health facilities has been permitted, the number of private hospitals has risen dramatically – from 0 to 160. The vast majority of these hospitals are located in Ulaanbaatar, but a quarter of them are in *aimag* centres, and there are a small number in *soum* centres (MoH and NCHD 2006b). *Aimags* have different patterns of private hospital capacity. In Darkhan-Uul, Selenge, Bayankhongor, Orkhon and Khuvsgul *aimags* the number of hospital beds per capita is very high, whereas Dornod and Gobisumber *aimags* have no private hospitals yet (MoH and NCHD 2006b). Gathering information and data on the activities of private health facilities without beds is one of the problems faced by the current health management information system because performance data for private health facilities without beds are usually not reported in full.

Private health facilities and individuals running medical practices are subject to licensing. The licensing regulation is designed to ensure that health care providers achieve minimum standards of competence and meet the function-specific requirements of the health facility (see “Registration/licensing” in Chapter 5). The accreditation of health facilities requires all hospitals and health facilities to fulfil the minimum quality requirements of approved standards. Until January 2007, based on their accreditation level, private hospitals could also request reimbursement from the HIF. Those hospitals that receive funding from the HIF become half publicly funded hospitals but with privately provided services. The fact that treatment in private hospitals can be paid for out of the HIF has contributed significantly to the expansion of the private health care sector. Funding the variable costs of accredited private hospitals from the HIF

has also encouraged private hospitals to provide services in the priority areas of the hospital system and so duplicate public service provision. The specialties that dominate the structure of the beds in private hospitals are internal medicine, traditional medicine and gynaecology.

Hospital rationalization

The Government of Mongolia has been trying to reduce the number of state-owned hospital beds. However, the number of total hospital beds had not decreased as expected due to the expansion of bed numbers in private hospitals, even though the number of state hospital beds has been reduced dramatically (see Fig. 6.3). This reduction in the number of hospital beds was achieved by decreasing the number of beds at every hospital, but international experience has shown that it is more effective to reduce the number of hospital beds by decreasing the number of hospitals through amalgamations, etc. (Healy and McKee 2002). Moreover, the hospital bed reduction process in Mongolia has not been based on the nature of the bed, such as acute or long term. Until recently there has not been any differentiation between types of hospital beds. Therefore, hospital beds were reduced evenly among hospitals irrespective of their bed types. Only in 2005, with the Health Minister's Order (No. 107), was an acute bed defined and did the numbers of acute and long-term beds begin to be counted separately. However, there is also a cultural belief which equates better services with more specialized care, which reinforces the current hospital structure and makes it hard to reduce the number of hospital beds (MoH 2005c).

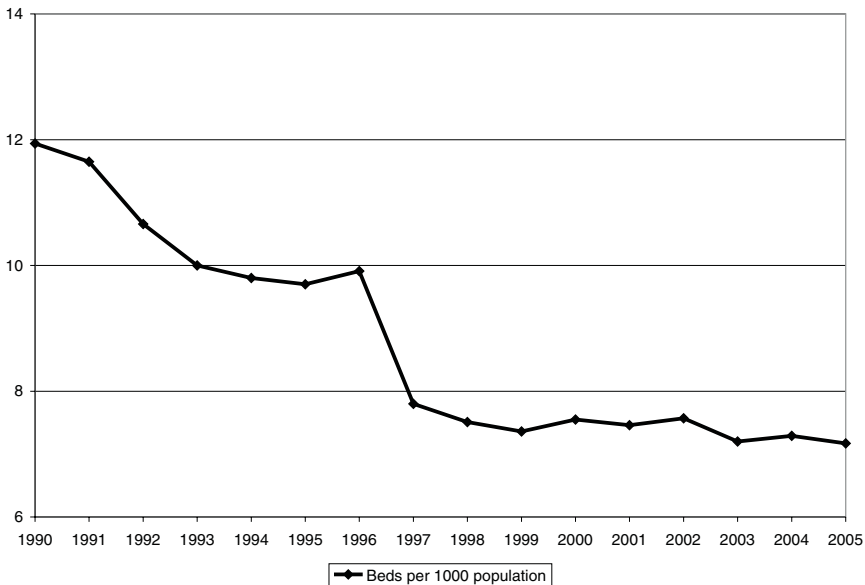
Within the framework of hospital restructuring, the average length of stay in hospitals has reduced noticeably from 12.3 days in 1990 to 9.5 in 2005 (NCHD 2002; MoH and NCHD 2006b). Shorter stays in hospital demonstrate better quality of care, the strength of the hospital's capacity and the cost-effective use of expensive hospital resources (Healy and McKee 2002). However, in Mongolia, the decrease in average length of stay was probably the result of financial incentives, as has been found in other transition countries (Healy and McKee 2002). Reimbursement from the HIF was structured according to a "standard length of stay" and this has encouraged hospital managers to increase bed turn-over by admitting easy cases for shorter periods.

Overall, the curative, hospital-based approach to health service provision contributes to the overcapacity of hospital beds at the secondary and tertiary levels, especially in Ulaanbaatar. Hospital services are not appropriate for the corresponding level of care, and costly and wasteful services predominate (MoH 2005c). District hospitals in Ulaanbaatar do not provide sufficient emergency and elective services in core acute medical specialties at the secondary care level with adequate quality of care. A radical hospital

restructuring policy is essential in Ulaanbaatar, since many small district hospitals with huge overcapacity are misusing the hospital system's resources through their inappropriate structure and capacity and a significant level of inappropriate admissions. Similarly, tertiary hospitals, but particularly the three general national hospitals in Ulaanbaatar, need to stop providing basic acute care services which would be better provided at the secondary level and respond appropriately to both the supply and demand side pressures for changes.

On a smaller scale, further policy directions needed for the sustained development of hospitals include improvements in service quality through the effective use of standards and clinical guidelines; changing ward organization by redefining the current role of nurses and doctors; reducing inappropriate admissions through the development of alternative treatment options such as day care and better triage procedures; and improving the capacity of hospitals in terms of human resources and logistics. Moreover, hospitals in Ulaanbaatar urgently need to develop high quality services in order to absorb the huge amount of money which is being spent on purchasing health care outside the country. One study showed that Mongolian citizens annually spend more than 20.8 million US\$ purchasing hospital services abroad (Bank of Mongolia

Fig. 6.3 Reduction in the number of hospital beds (per 1000 population) in the transition period



Sources: National Statistical Office, 2003b; MoH and NCHD, 2004, 2005b; MoH and NCHD, 2006a.

2005). The provision of hospital services in the transition period is still a major challenge for the whole health system in Mongolia.

6.5 Pharmaceutical care

The main law governing the management of the Mongolian pharmaceutical sector – the Drugs Act – was passed in 1998 and aimed to ensure a steady supply of good quality and effective drugs to support medical treatment and services to all people who require such assistance. Following the Drugs Act, the National Drug Policy was adopted in 2002, with the purpose of ensuring the availability of good quality, highly effective and safe drugs. The Policy regulates the procurement, manufacturing, financing, quality assurance, distribution and rational use of drugs. The Drugs Act and the National Drug Policy are the two main documents shaping the legislative environment in which pharmaceutical care is provided. According to the Policy, the import and local production of patented medicines are regulated by the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). The import, manufacturing and sale of narcotic drugs and psychotropic substances are regulated by a separate law adopted in 2002 – the Narcotic Drug and Psychotropic Substance Control Law – and related regulations. Additionally, Mongolia is a signatory to the 1971 Convention on Psychotropic Substances and the United Nations Conventions against the Illicit Traffic in Narcotic Drugs and Psychotropic Substances (Lkhagvadorj 2004).

Currently, a drug department, under the Division of Policy Coordination in the MoH, is tasked with guiding pharmaceutical sector policy development and coordination. A National Drug Council, consisting of experts in the field and representatives of all relevant ministries, professionally leads the pharmaceutical sector; particularly in the development of standards, guidelines and procedures, including drugs registration. The State Health Inspectorate ensures compliance with major laws and legislation as it relates to quality assurance and distribution inspection. In addition, a Special Permission Committee of the MoH is charged with inspecting the capacity of drug producers and granting licences for manufacturing, importing and selling drugs. Most of the imported drugs sold in Mongolia come from Russia and eastern European countries (see “Pharmaceuticals” in Chapter 5).

Drug supply companies and pharmacies should be accredited in order to undertake drug supply functions. With accelerating growth of the health care private sector, the drug supply business has proved to be one of the most profitable. As of 2004, there were over 900 pharmaceutical organizations,

with more than 800 accredited pharmacies operating in the capital city and in *aimag* centres (most of them private), 90 drug wholesale agencies and 29 drug manufacturers, the major one being Monos Pharma Trade (Lkhagvadorj 2004). It is interesting to note that Monos Pharma Trade has already been internationally recognized for a few effective pharmaceutical innovations, which were based on ingredients used in traditional Mongolian medicines, such as marmot fat.

The only state-owned drug supply organization – MongolEmImpex – is a joint stock company with 51% of its shares owned by the State. It has a network of branches in all 21 *aimags* and districts, and therefore has the capacity for nationwide drugs supply. This is the system currently used by the Government to provide health care delivery points with essential drugs and other supplies. There are two types of pharmacies operating in Mongolia: one type operates within clinical settings and provides services for in-patient health care, and the other type is for public use. Each of the two is required to have a professionally licensed pharmacist who should dispense drugs by prescriptions written by a medical doctor or *feldsher*. Pharmacists are trained at the HSUM, and there are four colleges in the country that train pharmacy assistants. As of 2004, there were 821 pharmacists and over 1500 pharmacy assistants working in state and private pharmacies around the country (Lkhagvadorj 2004).

A drug prescription is considered a legal document outlining the ethical and professional responsibility of a physician and a pharmacist. All drugs in current usage are classified into three groups: non-prescription or OTC drugs; those that can be issued only by prescription; and drugs to be used only under special/strict control. In theory, prescriptions should play a determining role in defining the major treatment tactic for a patient, but, in practice the misuse of drugs and self-treatment are still widespread, as many drugs, including antibiotics, are simply being sold over the counter.

All drugs used in the country should be registered once agreement and authorization by the National Drug Committee have been given. As of 2005, over 1230 products were registered, which is double the number in 1998 (Lkhagvadorj 2004). The SPIA is in charge of ensuring that only registered drugs enter the market for customer use. Locally manufactured drugs are given registration for two years, whereas imported drugs are given 4-year registration. Thus, it is prohibited by law to import, manufacture and use unregistered drugs and pharmaceuticals. The drugs should be of a good quality and compliant with Good Manufacturing Practice (GMP) regulations to qualify for registration for further use. Nevertheless, despite strict regulations, with the pharmacy business becoming more and more profitable, many unregistered drugs are being sold for public use and unfortunately, the system of control has not yet eliminated the sale of unregistered and unsafe drugs.

The Essential Drugs List was first developed in 1991 and was revised in 1993, 1996, 2001, with the fifth revision being completed in 2005. Generally, the Government promotes the use of generic drugs through existing legislation (MoH 2005e). There is also a list, updated annually, which gives the upper price level for certain drugs provided to insured inpatients and how much of their cost is to be covered by the HIF. If a prescribed drug is on the list of drugs that can be paid for from the HIF, a prescription is written on a special form by physicians with special permission to prescribe in such a way. However, despite these provisions, very frequently, such drugs are not available and patients or their families still have to pay out of pocket in private pharmacies to obtain the necessary medications required for a particular treatment, even though the patient is insured.

Some treatments included in pharmaceutical care are to be provided free of charge, and these include the treatment of TB, third and fourth stages of cancer (palliative care), mental illnesses and certain medical conditions requiring long-term care, such as diabetes, some hormonal disorders, post-transplantation care, brucellosis, glaucoma and HIV/AIDS. Reforms are under way as part of the ongoing health sector financing legislation development process to propose cost sharing in the treatment for some of the above conditions because, in the past, the Government has proved incapable of providing coverage for the full costs of the necessary treatment.

As part of the ongoing health care sector reforms, there are many issues facing pharmaceutical care, which have to be tackled in the near future. The uncontrolled sale of drugs persists as a major issue, and there are many opportunities for poor quality drugs to enter the market. The national quality control laboratory affiliated to the SPIA lacks sufficient technical and human capacity to offer a full service for testing all pharmaceuticals. To complicate the situation, recently there has been an increasing flow of counterfeit drugs from neighbouring countries and, given the insufficient regulatory measures and weak enforcement, no significant measures have been taken to stop the flow of counterfeit drugs. Thus, the system of control and registration has to be strengthened and carefully monitored.

The uncontrolled sale of drugs, including antibiotics, also means there is gross misuse of drugs, and too many are administered by injection. People often tend to ask for injections and other unnecessary treatments despite the heightened risk of contracting infections. According to WHO, Mongolia is one of the countries with the highest injection rates per person: 13 injections per person per year. This could be linked back to Soviet-influenced health care practices, where there was a preference for heavy medication and administering drugs by injection. Current efforts are aimed at promoting more rational use of drugs and avoiding unnecessary injections.

Shortages of essential drugs and supplies in rural areas are a persistent problem. To address this issue, revolving drug funds were established with the support of UNICEF, and these funds now operate in almost all *aimags* and *soums* (see “Pharmaceuticals” in Chapter 5). The Logistics Management Information System set up for the management of contraceptives supply is also being looked at as the model for a nationwide use management for all essential drugs (MoH 2005c). For the management of drug supply, a special challenge comes with the storage of pharmaceuticals, particularly those prepared for injection, due to the harsh cold weather and lack of adequate facilities to protect drugs and pharmaceuticals from freezing. This is an area which requires attention in promoting good storage practices, especially in rural areas.

6.6 Rehabilitation/intermediate care

There are few rehabilitation services supported by the Government or the social insurance scheme except for a national rehabilitation centre under the MoSWL and a rehabilitation clinic for Ulaanbaatar under the City Health Department. There are also some sanatoria and spas financed by the HIF. These facilities are mostly self-financing. Rehabilitation care was not included in the HSMP of 2005.

6.7 Long-term care

Long-term care for the elderly and people with disabilities is not well developed in Mongolia, as most long-term care is provided informally within the family (see “Services for informal carers” in Chapter 6). Long-term care for the disabled in particular is extremely difficult for families. For example, discrimination against the developmentally disabled still exists in the community, and these people face considerable social stigma. Most developmentally disabled people are still kept in the long-term care hospital in Ulaanbaatar or their homes. Therefore, this group does not have a high visibility on the streets of Ulaanbaatar or elsewhere. Children with developmental disabilities in particular are isolated from society and stay locked up at home. Children with moderate or severe learning disabilities have no access to mainstream schools, and there are no organizations providing home schooling for them. There is only the Elementary School for Children with Mental Disabilities, a primary school for about 250 pupils up to the age of 11. It is mostly children with mild learning disabilities who come to this school and learn skills for independent living.

Although these children could attend mainstream schools and continue their education, they still face discrimination and it is very hard for them to find a useful role in the community.

6.8 Services for informal carers

For the last decade, family bonds have been weakening and the size of families in Mongolia has been shrinking during the transition to a market-oriented economy, owing to the socioeconomic situation and unemployment. However, close family networks have been maintained, as has the tradition of providing informal care for the elderly, disabled and children within the family group. The strength of this tradition is potentially one of the reasons why day-care centres, short-term residential care centres and similar services in Mongolia remain undeveloped. However, having long-term terminally ill or disabled family members can make families much more vulnerable and poorer, because of the time commitment of caring and the extra expenses incurred in looking after their relatives. There is no organizational structure or official contribution to informal care; there are only benefits for the elderly or disabled relatives themselves. Other vulnerable groups who are eligible for such social security benefits are orphans, pregnant women, people with occupational injuries or diseases and registered unemployed.

6.9 Palliative care

Although some elements of palliative care were present in the health sector during the socialist period, it has only been developing rapidly and officially in the last few years. The National Health Programme against Cancer was approved by government resolution in 1997 and palliative care was incorporated in this programme, to be budgeted and financed by local health authorities. The 28th provision of the Health Law of 1998 guaranteed a state subsidy for the treatment of cancer, among other conditions (see “Population coverage and basis for entitlement” in Chapter 3), regardless of whether the patient is insured. Government Resolution No. 149 on the Generic Template of Family Group Practice Bylaw of 1999 stated that palliative care would be provided at FGPs and at home.

Since 2000, a palliative care ward has been open and providing specialized services at the National Cancer Centre with support from the Soros Foundation.

From 2005, this ward has been financed outside the state budget and a social worker and a physiotherapist have been working on the ward. The Mongolian Palliative Care Association (MPCA) was established in 2001. The MPCA has been involved in palliative care curriculum development; ensuring the palliative care curriculum is included in undergraduate and some postgraduate training; establishing a training centre and the development of textbooks; and training materials on palliative care.

Minister of Health Order No. 37 (2005) assured that up to five beds at *aimag* and district hospitals could be used for palliative care depending on local needs. To improve the quality of palliative care, the National Standard and Measurement Office approved the National Standard of Palliative Care Services and Standard of Palliative Care Facilities in 2005 and palliative care was included in the HSMP as an integral part of the package of essential and complementary services and as part of strategic action to respond to new and re-emerging public health problems. The revision of health care data collection and report forms in 2005 has meant that palliative care indicators have now been included in the forms.

Palliative care related legislation and resolutions have been developed extensively and some palliative home care outreach services have been established in Ulaanbaatar and three *aimag* centres with the support of religious and charity organizations, and fee-for-services. However, despite all the positive achievements in the development of palliative care, the government support for community and home care, and the implementation at primary and secondary levels, the provision of palliative care services is still insufficient. There are currently no dedicated hospices in Mongolia. Patients in need of long-term palliative care are looked after in tertiary-level specialized care services (MoH 2005c), or they are discharged as “incurable” cases to be cared for at home (Davaasuren 2002). Access to and the quality of community-based services are poor, palliative care is predominantly based on cancer care, but the supply of affordable oral morphine is insufficient and not well regulated, and coordination and community involvement in palliative care are still lacking. Consequently, it is hard for doctors trained in palliative care to put their training into practice; the lack of available analgesics and barriers to family doctors prescribing opiates are particularly problematic (Davaasuren 2002).

6.10 Mental health

Initial steps towards shifting from institutionalized mental care to a community-based approach have been made throughout the transition period. In 2000,

the Law on Mental Health was approved and this has been a major pillar in the provision of mental health care in Mongolia. The Law defined the state policy and direction for mental health care and the duties of public and private organizations as well as citizens in mental health protection and promotion. The Law also laid down the rights of mentally ill people, the duties of his/her legal representative, the scope of involuntary admission and the provisions of security and social welfare services. As impetus for reform in mental health care provision, the Law determined that community-based services and primary mental health care should be the main types of mental health services available in the country (Department of Policy Coordination 2003).

Following approval of the Law on Mental Health, the Government of Mongolia ratified the National Programme on Mental Health which was due to be implemented between 2002 and 2007. The programme aimed to create an environment that promotes mental health, to develop mental health services and improve their accessibility. In order to build a favourable environment for mental health, a number of activities including advocacy, IEC, public awareness and participation were planned, to be conducted with the support of international partners as well as through the mobilization of intersectoral and local resources within the framework of the programme. The most important step has been the inclusion of mental health care into the essential package of PHC services provided at FGPs and *soum* hospitals. The training of family doctors and the revision of undergraduate training to follow the community-based approach have been achieved (Department of Policy Coordination 2003).

There are psychiatric units with 5–15 beds in *aimag* general hospitals. In these hospitals, a total of thirty-two specialist doctors provide outpatient and inpatient mental health services. At the tertiary level of care, the Mental Health Hospital and the Centre for Mental Health and Narcology are responsible for specialist mental health services. In total, there are 714 psychiatric beds, which account for 3.9% of total hospital beds and equates to 2.8 beds per 10 000 population. Almost 60% of outpatient services were registered in Ulaanbaatar city alone, but this could be related to the demographic and environmental factors at play (MoH and NCHD 2005a). The availability of specialist professionals is quite diverse in terms of subspecialty. There are 3.3 psychiatrists, 4.4 psychiatric nurses, 6.0 psychologists and 3.0 social workers respectively per 10 000 population. However, most of the specialists lack the knowledge and skills necessary for implementing the community-based approach to mental health care provision, because about 90% of them were trained during the 1970s and 1980s when the main mode of care was through inpatient services (Byambasuren and Tsetsegdary 2005). It could be argued that a strong strategy for the development of human resources in mental health

needs to be implemented in order to eliminate the shortage of specialists with the requisite knowledge.

Although policy documents promote community care services and mental health care services provided by family or *soum* doctors at the primary care level, the reorientation process is only progressing slowly. However, as a result of in-service training, 40% of family doctors have improved their knowledge and skills in treating mental health problems and become capable of managing their patients as well as working with the community (Byambasuren and Tsetsegdary 2005). According to the latest figures, family doctors referred 47% of their mental health patients to higher-level organizations while 18% of the patients were transferred to community-based rehabilitation services (MoH and NCHD 2005a).

Nevertheless, the funding for community-based services has not been increased and most of the state budget for mental health is spent on institutional care. For instance, about 90% of the mental health budget was spent on hospital care including inpatient and outpatient services (Byambasuren and Tsetsegdary 2005). Moreover, the provision of community-based services is lacking active coordination and integration. At the tertiary level, inpatient and outpatient facilities are not integrated. The Mental Health Hospital provides inpatient services mostly for people living in Ulaanbaatar. Since the 1990s, the number of beds in the Mental Health Hospital has gradually been decreasing and its own department of community-based rehabilitation has been established. The Centre for Mental Health and Narcology provides outpatient services while patients are in remission and public health services. The centre's main focus is providing outpatient services. However, owing to the lack of financial and human resources, there is no organization dealing with the coordination of community-based services, activities on public awareness, and tackling discrimination, social exclusion and social stigma at the national level.

International partners as well as international and local NGOs provide much support for the development of community services. WHO, Open Society Institute/Soros Foundation and World Vision are strong backers of community-based rehabilitation services. They provide assistance on the sensitization of and advocacy for decision-makers on mental health issues, raising public awareness, tackling stigma and discrimination against people with mental health problems. Moreover, through their projects on mental health, they support the development of community-based rehabilitation by building very favourable environments for patients to improve their life skills (Byambasuren and Tsetsegdary 2005).

6.11 Dental health

Dental health care services in Mongolia are provided by both public and private facilities. Those who can afford it tend, overwhelmingly, to use private dental clinics and fees for services in the private dental clinics are not regulated. Costs for dental services at the public dental clinics and for the ambulatory services at district and tertiary hospitals are theoretically reimbursed from the HIF with partial cost sharing by patients for filling materials.

In 1994, the Government approved the National Health Programme for Oral Health, which aimed to develop an affordable public oral health system based on primary prevention oriented care to decrease the level of dental caries. The programme has been implemented through the dental departments of local hospitals and primary health service providers and it is currently being considered whether the programme should be prolonged until 2015.

6.12 Alternative/complementary medicine

Mongolian traditional medicine has a history of more than 2500 years. The concepts and practices of traditional medicine are deeply embedded in the Mongolian people's perceptions of beliefs about health and illness. The use of traditional medicine was largely ignored from the 1930s until the end of the 1980s; however, in the 1990s, there was renewed interest in traditional medicine and it has become more popular and accessible (MoH 2004). Traditional medicine includes treatment with herbs and medicinal plants, acupuncture, massage therapy, moxibustion, cupping treatments and diet-related therapies. There is considerable parallel use of modern medicines alongside traditional therapies (Bernstein, Stibich et al. 2002).

At present there are five traditional medical institutes in Mongolia that train traditional medical specialists. The recently reorganized School of Traditional Medicine at the HSUM has a 6-year programme, to which 25 students have been admitted every year since 1993. There are also two private traditional medicine institutes. One is affiliated with the Mamba Datsan Temple in Ulaanbaatar, and the other is the Traditional Medicine and Pharmacy Monos School. The Korea Mongolian Joint Centre also supplements training in traditional medicine with training in eastern medicine. In addition, the medical colleges in Darkhan-Uul and Ulaanbaatar also train nurses in traditional medicine. A total of 1538 doctors have been trained in Mongolian traditional medicine, of whom 558 have a Bachelor's Degree in traditional medicine.

Although there would seem to be a sufficient number of professionals trained in traditional medicine, not all end up practising it, and graduates from HSUM who have trained in both traditional medicine and western biomedicine have limited options for biomedical specialization, as their qualifications only allow certain choices. It is not clear why so few opt to practise traditional medicine, but it might be connected to the limited nature of the undergraduate training curriculum.

The Traditional Medical Science, Technology and Production Corporation of Mongolia (called the National Centre of Traditional Medicine until September 1998) includes a research department, a traditional medicine hospital (with 100 beds, and 40–50 outpatients daily), a small factory for producing herbal medicines, a musk-deer breeding centre and a plantation for the cultivation of medicinal plants. It is designated as a public sector tertiary-level facility (MoH 2004). There are three traditional medicine factories in the public sector and three in the private sector and they produce 220 types of traditional medicinal pharmaceutical products annually. The registration of imported traditional medicines is inadequate and only two products have been registered so far. Guidelines for the safe use of these medicines are not yet formulated. There are no treatment standards for the use of traditional medicines so their proper use is difficult to monitor and regulate.

Mongolian traditional medicine is already an integrated part of the Mongolian health system in parallel with western biomedicine. Each *aimag* hospital has a department of traditional medicine, and 21 *aimag* hospitals have inpatient beds. Most district- and national-level hospitals in Ulaanbaatar provide outpatient traditional medicine services. The number of public hospital beds specialized in Mongolian traditional medicine account for 3.7% of the total number of beds in public hospitals (MoH 2005c). There are 82 private traditional medicine clinics, 63 of them are located in Ulaanbaatar. There is a total capacity of 371 traditional medicine beds in public and private sector health facilities in Ulaanbaatar, of which only 31.2% are in the private sector. Hospital beds specialized in traditional medicine in both public and private hospitals are financed from the HIF and, depending on the level of care, patients make co-payments as per the Health Insurance Law and other health sector regulations. In 1999, a national policy to develop Mongolian traditional medicine was adopted. In 2003, this policy was revised and adopted by the *Ikh Khural*. Recently, research was carried out into around 100 different varieties of medicinal herbs and plants with the aim of initiating domestic production of traditional medicinal pharmaceuticals.

7 Principal health care reforms

7.1 Introduction

Reform rationale

Since the 1990 Peaceful Revolution, when Mongolia embarked on a swift transition to a market economy, the country has suffered the same economic crises as experienced in those other post-communist countries which followed the path of “shock therapy”. Government expenditure on social services declined by 49% in real terms between 1990 and 1996. The consequent chronic underfunding of health services has negatively impacted on the quality of health services, the maintenance of facilities, the supply of equipment and drugs, and the salaries of health professionals. Furthermore, scarce resources have been used inefficiently, so that people cannot access the services they need, and those services available do not meet their expectations. All of these problems, as well as the shift in considering the role of Government in service provision, and changes in the demographic and epidemiological profile of the country, have necessitated reforms in the health sector.

Reform objectives

The focus of reforms has evolved over time in relation to government attempts to secure an appropriate share of state revenue for health, so that the benefits of publicly funded health care are equitably distributed, resources are used efficiently, and services of good quality are delivered and are appropriate for the socioeconomic environment.

In the early 1990s, health sector reforms relied mainly on the strategy of mobilizing additional financial resources and reducing the government burden

in order to tackle the sudden drastic decline in the health budget, in line with the Government's commitment to providing equitable and good-quality health services to all citizens (see Box 7.1). In the late 1990s, the reform focus was characterized by a shift in priorities towards systemic-level changes and promoting equity through institutional changes and improvements in quality and efficiency (see Box 7.2). From early 2000 onwards, the reform focus has brought in more programmatic and organizational changes, promoting allocative and technical efficiency, equity and quality improvement based on the achievements and lessons learned from earlier reforms (see Box 7.3).

7.2 Content and process of reforms

Early transition period

The proportion of government health expenditure as a share of GDP dropped from 5.4% in 1990 to 3.5% in 1997. In addition, real GDP fell for several years from the beginning of the transition period, implying that reductions in real government health expenditure were occurring. As a result of this, in 1996, total government health expenditure was only 52% of the 1990 level (Government of Mongolia and WHO 1999). Consequently, early health care reforms were mainly concerned with securing resources to prevent further problems caused by the drastic reduction in the health budget (see Box 7.1). In order to generate additional revenue, health financing options were broadened with the introduction of health insurance in 1994, which increased access to inpatient services. The insurance scheme was mainly employer based with the Government paying premiums for vulnerable groups (see "Compulsory sources of finance" in Chapter 3).

Since 1994, the aim of implementing a health insurance system has been to achieve universal entitlement, maximizing actual coverage and premium collection. This clearly indicates that the health insurance system in Mongolia is evolving as social insurance, rather than a private health insurance system (Samyshkin 2004). In 2002, health insurance was made compulsory and the benefits package was extended to cover FGPs and some outpatient services. However, health insurance coverage is steadily declining, thus limiting access to services, especially for those poor and unregistered groups of the population, who have migrated from rural to urban areas. In addition, the poor capacity of the health insurance system, or the MoH, to act as a purchaser of services has meant that the quality of health services has deteriorated.

Box 7.1 Health sector reforms in the early transition period**Early transition period: Additional revenue generation and government burden reduction phase**

Year	Health reforms/policy changes	Impact
1994	Establishment of the Health Insurance System administered by a government-run business (Mongol Daatgal Company) Decentralization	Mobilization of additional funding stream for the health system Local governments became responsible for the administration, management and delivery of health services in order to provide services more responsive to local needs. The success varied in relation to the local capacity to handle the process
1996	Shift of the Health Insurance Fund to the State Social Insurance General Office	Evolution of health insurance into social health insurance
1997	Pilot health sector privatization programme	Management contracting introduced at district hospitals. Piloting at <i>soum</i> hospitals terminated due to the lack of actual competitors for contracts

Following the government approval of the Law on Territorial and Administrative Units and the Management Thereof and the Law on Central and Local Property in 1994 and 1996 respectively, decentralization has taken place within the health sector. This has led to a separation of the stewardship and governance functions which prevailed in the MoH, as the ownership of hospital facilities, except tertiary hospitals and specialized centres, has been transferred to local governments. It was expected that local governments would provide health services better tailored to local needs and would be more accountable to the local population. However, local governments have continued to be dependent on the centre, due to the lack of adjustment changes needed to build new capacity and the limits of real decision-making power at local level.

Encouraged by pro-private sector economic policies and restrictions on public sector expansion, the private health sector has been steadily growing since private health practice was first allowed in 1991. Dual employment permission for health professionals and the policy of reimbursement from the HIF for accredited private hospitals further accelerated the expansion of the private sector. As a result, the number of private clinics and hospitals has been increasing steadily while the Government has not yet determined a clear policy direction for the regulation of the private health sector.

In 1997, a pilot health sector privatization programme was launched by Government Resolutions No. 160 and 219. With support from the World Bank, management contracting was piloted at one of the district hospitals in Ulaanbaatar and in 47 *soum* hospitals in 16 *aimags*. The experiment at the

district hospital led to its reduced dependence on the state budget, greater staff satisfaction and an upgrade in the physical condition of the hospital, but without much improvement in access to and quality of health services. In the end, the hospital's assets were transferred to the contractor. The management contracting of *soum* hospitals was terminated in 2000 largely due to the absence of any potential competitors for contracts in rural areas.

To encourage private sector participation, the legal framework for private health activities such as the contracting out of nonclinical services and the leasing of hospital buildings has been developed. This has encouraged the development of private participation in the public sector. In 2002, Social Sector Restructuring and Privatization Guidelines were approved by the *Ikh Khural*, in which certain health organizations were listed (excluding those related to infectious diseases and health services quality control) for different types of privatization but without clearly defined health policy objectives. Since then, owing to political disagreements over the appropriateness of privatization for certain hospitals, the process has stalled.

Although total health expenditure has risen since the mid-1990s, public spending on health has not increased. The increase in total health expenditure is mainly related to increased private spending on health. The National Health Accounts data for 2002 revealed that private spending accounted for 15% of total health expenditure. However, the Living Standards Measurement Survey of 2002–2003 estimated that the total annual health spending of households was 56 billion Tugrik (approximately 50 million US\$), which is almost equal to public spending on health (National Statistical Office, World Bank et al. 2004). The early reforms aimed to generate additional revenue to cover the health budget deficit and to reduce the burden on the state budget, but these objectives have been only partially met through the increased participation of individuals in health care financing and assistance from international partners. The increased financial burden on the population is in the form of formal co-payments and user fees for certain services and informal payments in public hospitals; direct payments to private hospitals; and expenses related to seeking health care abroad. However, covering the health budget gap by increased private spending on health care has had a negative effect on equality of access to, and the utilization of, health care services in a country where one third of the population is living below the poverty line. Meanwhile, public spending on health is not negligible, given Mongolia's capacity, and consequently the efficient use of resources has been a growing concern since the second half of the 1990s.

Mid-transition period

In 1997, the Government launched the “HSDP-I” project supported by a loan from the ADB. The reform agenda aimed to make the health system sustainable in the new market economy, to maintain universal access to health care services and to improve health service quality (see Box 7.2).

The HSDP-I led to the next phase of reforms which intended to bring about changes at the systemic level by shifting the emphasis away from hospital-based services to more cost-effective preventive services through cost cutting by the rationalization of health facilities and human resources, and by ensuring equal access to PHC services through the establishment of FGPs. In total, 238 independent FGPs have been established in all urban settings to provide free PHC services for all. Capitation payment was introduced to finance FGPs and an increase in the public funding of PHC has been achieved. However, most efforts were mobilized to achieve the physical establishment of FGPs and shortcomings have been addressed more in subsequent years in order to support improvements in the quality of services. Poor quality primary care services have resulted in a lack of public trust in FGPs and the continued tendency to seek health care at higher levels of the system in Ulaanbaatar.

As part of rationalization efforts, the number of beds in public hospitals were reduced from 97 to 73 per 10 000 population between 1995 and 2004. However, some substitution occurred, as there has been a parallel increase in the number of beds in private hospitals. Meanwhile, the number of physicians per 10 000 population increased from 22 to 27 and the number of nurses decreased slightly from 34 to 32 per 10 000 population between 1995 and 2004. This is evidence that the reduction of hospital beds was not followed by systematic reduction in the number of health professionals engaged in hospitals services. Thus, the main efficiency argument behind the rationalization of health facilities has been blurred. In order to rationalize health personnel, the appropriate staffing level and mix of health personnel for all categories as well as programmes for the continuous training of health professionals have been developed. Also, the appropriate annual intake of new students has been set for the HSUM. However, the weak institutional influence and linkage of the MoH over the HSUM has not allowed sweeping changes. To address the existing imbalance in the supply of health professionals in urban versus rural areas, extra support has been provided by contracting physicians to serve in remote rural areas.

In 2001, in light of the Government’s Regional Development Concept, the structural reorganization of health service delivery was accomplished through the establishment of RDTCs in three regional centres, with support from the Japan International Cooperation Agency (JICA). RDTCs were established to improve equity by carrying out and delivering some complex procedures and

Box 7.2 Health sector reforms in the mid-transition period**Mid-transition period: Systemic-level changes promoting equity through institutional changes, quality and efficiency improvement phase**

Year	Health reforms/policy changes	Impact
1998–2003	Health Sector Development Programme – I	
	Establishment of FGPs, introduction of capitation payment	More than half the population were covered by FGP services; the curriculum on PHC introduced in the Medical University's training programme; minor increase in the state funding of PHC.
	Encouragement of private sector participation	Established legal framework for private health activities such as contracting out of nonclinical services and leasing of hospital buildings.
	Licensing and accreditation	Standardization of human and physical resources in the public and private sectors through the establishment of a licensing and accreditation system.
	Rationalization of health facilities	Some reduction in the number of beds in public hospitals but an increase in the number of beds in private hospitals. Also the reduction of hospital beds not accompanied by a systematic reduction in number of health professionals.
	Rationalization of health personnel	Development of the appropriate staffing level and mix of health personnel for all categories and programmes for continuous training of health professionals. Physicians contracted to serve in remote rural areas with government support. More appropriate annual intake of new medical students proposed.
	Establishment of hospital boards	Not successful due to the lack of consistent regulatory adjustments to provide more autonomy to hospitals as well as poor understanding of their validity among the key stakeholders.
1998	Health Act	Defined the state policy for health and the main principles and regulations for the coordination of relations between health organizations, private entities and individuals in the light of citizens' rights to health protection and health services.
	Drugs Act	Promotion of the Essential Drugs List to encourage rational drug use and efforts to promote equity and improve access to and the efficiency of the system.
2001	Establishment of RDTCs	Aimed to improve rural population access to some high-quality specialized health services and play a gatekeeping role. RDTCs are yet to be strengthened enough to perform these roles fully.
	SPPH	A long-term framework for the development of public health defined to reorientate the health sector away from hospital care to an emphasis on public health.
2002	National Public Health Programmes	In addition to existing public health programmes, a number of new programmes were adopted to support the SPPH such as the <i>Soum</i> Health Development Programme, the National Mental Health Programme, the National Programme for the Control of Infectious Diseases, etc.

Notes: FGP: Family group practice; PHC: Primary health care; RDTC: Regional Diagnostic and Treatment Centre; SPPH: State Policy on Public Health.

services that could not be performed in *aimag* hospitals, and to provide health education and referral services to the population of the region. However, the full range of intended services is not yet being delivered as health professionals working in RDTCs lack the necessary skills, equipment and reagents to do such work.

The standardization of human and physical resources in the public and private sectors has been addressed through the establishment of a licensing and accreditation unit, and the development of a licensing system for health professionals and an accreditation framework for health facilities. This was a meaningful step forward in advancing the quality of health care services. The framework developed for the licensing of health professionals and the accreditation of health organizations under the HSDP-I was brought into the country's health regulations by the Health Act of 1998. In the same year, the National Licensing Board was established. The structure and performance standards for each level of hospital were developed and approved in 2002 to facilitate the accreditation process of health organizations. Of a total of 791 health facilities accredited between 2002 and 2005, 81% were public and 19% were private. Accreditation is a voluntary process, but as only accredited facilities were eligible for financing from the HIF there were strong incentives to become accredited. However, the link between accreditation and access to HIF financing was broken in changes to the Health Law enforced from January 2007. From January 2007, local authorities decide on the selection of hospitals which are to receive financing from the HIF irrespective of their accreditation status. Therefore, coupled with other variables, accreditation could serve as a tool for the regulation of hospital capacity in the near future. Treatment guidelines for common diseases were developed in 2002 and quality assurance programmes designed for continuous quality improvement have been implemented in all accredited hospitals. However, such efforts have not yet brought the expected quality improvement in hospital services, mainly due to the lack of consistent changes to link the performance of a hospital with its financing mechanisms. Establishing hospital boards was also less successful due to the lack of consistent regulatory adjustments to provide more autonomy to hospitals as well as the poor understanding of their validity among the key stakeholders.

In May 1998 the *Ikh Khural* passed the Drugs Act which aimed to promote a rational drug policy by introducing an Essential Drugs List, promoting equity, improving access to and the efficiency of the system and guaranteeing the rational use of drugs. Shortages of drugs have been reduced drastically; however, in rural areas access to drugs has continued to be limited. The irrational use of drugs, non-essential prescribing, self-medication and the availability of counterfeit drugs have also remained persistent issues.

Adopted in 2001, the SPPH set up a long-term framework for the development of public health. It defined actions for health sector restructuring and reorientation from a hospital-based to a public health-based sector and for shifting resources to community-based services, and for strengthening PHC and health promotion. The National Public Health Committee, headed by the Prime Minister, and Public Health Sub-Committees chaired by local governors were established in 2002 in order to coordinate the implementation of the SPPH at national and local levels and to ensure intersectoral collaboration in implementing public health policies, through the development of cooperation and partnerships between governmental organizations and NGOs, the private sector and international organizations. However, despite strong political commitment to public health care services in the country, the health system so far still relies heavily on hospital services, and the National Public Health Committee has not functioned properly since 2004.

Late transition period

The main focus of reforms in the late transition period has been in the form of programmatic and organizational changes to promote allocative and technical efficiency, to improve the quality of services and to ensure the pro-poor orientation of health care services (see Box 7.3).

The PSMFL was passed in 2002 and this meant all sectors had to introduce output-based budgeting and accept greater accountability. Overall, it should have encouraged public sector efficiency. To realize this and other reform changes, the Government has implemented several structural changes at central level. The structure and organization of the MoH have been changed so that a separate division is in charge of health financing, economic planning and management. In 2003, the NCHD was restructured into the DMS as an implementing agency which had delegated responsibilities for annual contracting with all public tertiary hospitals and specialized centres. Within the DMS, the Health Economics Department was established to provide cost estimates for hospitals in order to associate a hospital's budget with its outputs. However, with the new coalition government in 2004, the DMS was disbanded. Also, the MoF has been slow to set the appropriate output indicators for health (Hill, Dodd et al. 2006). Since the implementation of the PSMFL, the performance of hospitals has not improved as the organizational structure of hospitals has not been systematically adapted to correlate its performance with appropriate rewards and sanctions.

In 2004, the "HSDP-II" was launched to be implemented for the period 2004–2008. The main objectives of this project are: (1) to improve the quality and utilization of health services in the project *aimags*, particularly for the poor and vulnerable; and (2) to develop and strengthen the institutional capacity of

Box 7.3 Health sector reforms in the late transition period**Late transition period: Programmatic and organizational changes promoting allocative and technical efficiency, quality improvement and pro-poor orientation phase**

Year	Health reforms/policy changes	Impact
2002	Public Sector Management and Financing Law (PSMFL)	Promoted the introduction of output-based budgeting and greater accountability for all public services. Consequently, all health organizations have moved towards performance-based contracting arrangements. The rapid shift and limited preparation period at all levels means not all the benefits of such arrangements have been realized yet.
2003	Establishment of the Directorate of Medical Services (DMS)	The DMS achieved some capacity building in setting up linkages between a hospital's budget and its outputs. However, this agency was abolished following a change of government in 2006.
	Economic Growth Support and Poverty Reduction Strategy (EGSPRS)	Too early to assess the impact of the EGSPRS on ensuring macroeconomic and financial sustainability, supporting the development of the private sector and ensuring sustainable human development.
2004-2008	Health Sector Development Programme – II (HSDP-II)	Too early to assess the impact of the HSDP-II on improving the quality and utilization of health services in the project aimags for the poor and vulnerable or developing and strengthening the institutional capacity of the health sector in sector efficiency, effectiveness and sustainability.
2005	Health Sector (Strategic) Master Plan (HSMP)	It is the first comprehensive policy document defining directions for the short, medium and long-term development of the health sector for 2006–2015. The Implementation Framework of the HSMP is at the development stage.
	National Health Accounts	For the first time, the total health expenditure data (2002) was disaggregated by sources of financing, health facilities and health care functions.
	Mongolian Millennium Development Goals (MDGs)	The country-specific national targets within the MDGs were adopted, including goals relating to population health.
	Sector-Wide Approach (SWAP)	Reached consensus among major international partners to introduce the SWAP in the health sector for greater aid efficiency. Too early to assess impact.
2005	Amendments to the Health Act	Progressive changes have been introduced to improve access to quality health care services delivered in an efficient manner through greater state financing of primary health care (PHC) services and diagnosis-related group (DRG)-type remuneration for inpatient care. Enforced from 1 July 2006.
2006	Amendments in the Health Insurance Law	To conform with the recent amendments in the Health Act, amendments to the Health Insurance Law were developed to be implemented in the course of 2006.

the health sector for efficiency, effectiveness and sustainability based on the developments of the HSDP-I, for example, by piloting output budgeting in the project *aimags*.

Between 2003 and 2005, the MoH, with the support of the World Bank, implemented a project which aimed to establish a National Health Accounts system. The total health expenditure data was disaggregated by sources of financing, health facilities and health care functions for the first time in 2002; this was a meaningful step forward in evidence-based policy- and decision-making processes. Furthermore, the MoH has had to institutionalize the National Health Accounts in the health sector.

The Government's medium-term policy framework, the EGSPRS, was approved in 2003. The EGSPRS aims to maintain macroeconomic and financial stability through public sector reforms; support private sector-led economic growth; and ensure sustainable human development. The sustainable human development objective includes several health strategies to improve population health with the main focus on the provision of pro-poor health care services.

Together with other countries, in 2000 the Government pledged to achieve the MDGs by the year 2015. Accordingly, the Government adopted the country-specific MDGs targets in 2005. These targets have direct implications for the health sector to mobilize its efforts to achieve the health-related MDGs.

In 2005, the Government approved a long-term policy framework, the HSMP for 2006–2015 which was developed with support of JICWELS. The HSMP is in line with the above-mentioned overarching goals and strategies. In the HSMP, 7 key areas and 24 strategies have been incorporated to facilitate the delivery of socially responsive, equitable, accessible, and high-quality services to all. To elicit, prioritize and reflect the views of all stakeholders, the HSMP development process adopted an approach of openness and inclusion of all stakeholders through systematic consultation within and outside the health sector. The actual process of including representatives from all levels of health services in the revision and endorsement of the HSMP has been a unique experience which has made a significant contribution to capacity building as well as having an empowering effect on health planners and implementers. The overall outcomes to be achieved by 2015 include increased life expectancy; a reduction in the infant mortality rate; reduced child mortality rate; reduced maternal mortality rate; improved nutritional status, particularly micronutrient status among children and women; improved access to safe drinking water and basic sanitation; the prevention of HIV/AIDS; sustainable population growth; reduced household health expenditure, especially among the poor; a more effective, efficient and decentralized health system; and an increase in

the number of client-centred and user-friendly health facilities and institutions (MoH 2005c).

The draft Health Financing Policy was developed in 2005 and it determined the long-term goals and main principles of health care financing, defined the basis for the implementation framework of the HSMP and for the development of the health insurance system. The policy document promoted specific progressive measures, among others, to maintain a compulsory social health insurance scheme; to establish a single health service purchasing system; to separate the provision of health services from the purchasing of health services; and to clearly state financial sources for the package of essential services. The policy document has not yet been approved; its approval is not an easy process as it touches upon the interests of different stakeholders, namely the SSIGO and the MoF. Nevertheless, some of the directions from the health financing policy document have been reflected in the amendments to the Health Insurance Law made in early 2006.

Future developments

The Health Act was amended in 2005, so that the MoH now has the right to identify the package of services to be financed through different sources (state budget, HIF and out-of-pocket payments) and the payment mechanisms to be exercised within health facilities. With these amendments, PHC services are to be fully financed from the state budget on a risk-adjusted capitation basis and an opportunity for the introduction of DRG-type remuneration for inpatient care has been provided. These progressive changes ought to ensure equal access to PHC services as well as leading to improvements in the quality of services delivered in an efficient manner (Hindle and Khulan 2006). Public sector health facilities have been permitted to retain generated revenue from additional services to enhance social well-being as well as the working environment of health workers. The separation of special permission provision for health care services has also been introduced, along with the accreditation process of health facilities which had been carried out solely by MoH; this facilitates the development of a third-party accreditation system. To improve the supply of health professionals in rural areas and to reduce staff turnover, financial and nonfinancial incentives for rural health professionals were introduced through these changes to the Health Act. These and other changes were due to be enforced from 1 July 2006.

In compliance with the above-mentioned amendments to the Health Act, a working group, comprising representatives of the MoH, the SSIGO and the MoF, developed the necessary amendments to the Health Insurance Law. These amendments were passed through the *Ikh Khural* in May 2006.

The HSMP Implementation Framework is under development and the introduction of a Sector-Wide Approach (SWAP) is being considered for the realization of the HSMP. Meanwhile, to aid efficiency within the health sector, the MoH has brought SWAPs to the attention of its main international partners and a basic agreement to pilot SWAPs for better aid coordination and improved efficiency has been reached.

Reform context

Since 1990, the Mongolian Government has changed eight times. It is a political tradition in Mongolia that top civil servants, who play a key role in agenda setting, as well as the design and implementation of health policies, are politically appointed by the executive; therefore, they come and go with ministers. Since 1990, the Minister of Health has changed seven times. Consequently, the Government and specifically the MoH have lacked a core of top-level staff with the capacity to acquire an institutional memory and sufficient continuity to coordinate the health sector reform process in Mongolia. Competing political agendas at the national and international levels have also negatively impacted on the implementation of both national programmes and the health care reform process (Hill, Dodd et al. 2006).

The introduction of social health insurance and the decentralization process brought new organizations into the health sector creating a more pluralistic environment. Thus, the MoH has faced a new set of external incentives and pressures. In recent years, some health and medical professional associations have started to participate in the policy debate and express their views publicly. However, compared to other countries, medical associations have not yet emerged as a powerful force for influencing agenda setting and policy directions, although the number of professional associations in Mongolia has been increasing steadily. International donor agencies remain more significant players in the Mongolian health system.

8 Assessment of the health system

8.1 The stated objectives of the health system

In recently published strategic documents, the Mongolian MoH announced its mission as contributing to poverty alleviation and socioeconomic development by ensuring the delivery of high-quality, sector-wide health care which is equitable, user-friendly and evidence based, to improve the health status of all the people of Mongolia through the efficient targeting and management of resources, especially to the poor and to areas in greatest need (MoH 2005c). Recent trends in long- and medium-term planning by the current Government also demonstrate a willingness to ensure sustainable human development through improving health provision (Government of Mongolia 2003). In the reform process, much emphasis has been placed on developing services which are both “pro-poor” and prioritize high quality; however, it is not clear how far the reform process has been able to deliver on these priorities. The intentions are clear, but the reality shows the difficulties in actually implementing reform priorities.

8.2 Distribution of the health system’s costs and benefits across the population

The vast size of Mongolia combined with low population density and nomadic tradition pose particular problems in the provision of health care services, and there are real geographical barriers to accessing health care for rural nomadic populations. These problems of inequitable coverage and access are compounded by the poor quality of rural and remote health care facilities which

are inadequately staffed and not adequately responsive to the changing health needs of the populations they serve (MoH 2005c). The registration system also blocks access to health and social services for rural–urban migrants, as most living in the peri-urban *ger* districts are not formally registered as residents of the town (Hill, Dodd et al. 2006).

While little cost–benefit analysis research has been conducted in Mongolia, there is some evidence to show that those who are more in need of health services have worse access to health care than those who are less in need (Tungalag 2000). It was found that the poor made less use of all types of hospitals, and that the utilization rate of inpatient services by very poor household members was 2.5 times lower than that of the highest quintile (Tungalag 2000). Other research has found that health spending represents 5% of total household consumption. The richest 20% of the population have health expenditure almost seven times higher than the poorest 20% (National Statistical Office, World Bank et al. 2004). This is most likely due to wealthier citizens seeking health services abroad as well as informal payments at public hospitals.

The major barrier to accessing health care for poorer sections of Mongolian society is the level of out-of-pocket costs such as co-payments, user fees and informal payments. Spending on self-prescribed medicines represents almost half of the total household spending on health, and this rises to two thirds among the poor (National Statistical Office, World Bank et al. 2004). Informal payments surreptitiously conspire against poor people and lead to implicit discrimination against those who cannot pay, especially at the tertiary level. As the situation for medical staff worsens and wages fall in relative terms, so informal payments will continue to pose a problem. In addition to economic barriers, geographical barriers also play a significant role in the falling utilization level of health services by the rural population (Tungalag 2000).

One survey revealed that 5% of the sample of households reported real or anticipated impoverishment as a consequence of serious illness, and over 20% of households reported that they had failed to follow health care advice or delayed seeking care because of cost concerns which are disproportionately evident in the poorest socioeconomic groups (Janes 2002). The Mongolian health system thus fails on two of the more important equity criteria – distribution of resources according to need, and adequate pooling of risk to prevent impoverishment from catastrophic illness (Janes 2002). Improving access to health services should therefore be the highest priority for policy-makers.

8.3 Efficiency of resource allocation in health care

Health services are not geared towards the current epidemiological profile of Mongolia and the greater emphasis is on high-end expensive treatments (MoH 2005c). Resource allocation in the health system shows a real gap between the priorities on paper and the priorities in practice. In a trend played out around the world, although public health services and PHC are highlighted as being of utmost importance for improving the overall health of the population, most resources actually go to curative secondary and tertiary care services. Indeed, in Mongolia, public health services are almost entirely funded by international donors and very few resources are allocated by the Government to this sector.

The continued favouring of specialized ambulatory care in resource allocation is partly because the hospitals have not actually been rationalized or downsized despite commitment to rationalization and because the continuation of historical line-item budgeting inevitably preserves the status quo. Rationalization has not occurred despite the concerted efforts of international partners to get rationalization moving. With the MoF cautious about initiating change in this area, following the unsuccessful decentralization reforms in 1997, it is not clear how these budgeting mechanisms can be addressed to facilitate reform. The way in which secondary and tertiary care is organized has also resulted in much duplication, which can partially be explained by the previous absence of a defined package of essential and complementary services upon which to base secondary and tertiary care provision (MoH 2005c).

Each year, the Government has tried to increase the state budget share allocated to preventive as opposed to curative services, but these steps have been piecemeal. The trend is stable and more fundamental reform would be needed to have a profound impact.

8.4 Technical efficiency in the production of health care

Given the historical line-item budgeting mechanism and underfunding in the Mongolian health system, it is difficult to assess the extent to which the system is technically efficient. Although it is mandated in the PSMFL, in practice, it is almost impossible to assess the true cost of different services because budget allocations for facilities are not based on output classifications, but only on input

line items. This budgeting system thus reinforces existing patterns of resource allocation and provides little incentive to improve technical efficiency.

While there is anecdotal evidence about inefficiencies within the Mongolian hospital system, a costing study attempted to quantify some key cost and efficiency indicators (Nandakumar, Tsolmongerel et al. 2005). The picture that emerged was one where there is room for improvement in performance, and a probable need to improve the public hospital sector in the country. There is excess bed capacity mainly at the primary and secondary levels, staff productivity could be improved, inpatient lengths of stay tend to be long, and resource allocation is not tied to either population needs or performance of the facility. Large variations exist in the cost and efficiency indicators across facilities at different levels, between facilities at the same level, and across departments within a particular facility. Tertiary hospitals appear to perform better on key efficiency indicators compared to lower-level hospitals. Some hospitals reported occupancy rates in excess of 100% (Nandakumar, Tsolmongerel et al. 2005).

Managerial capacity needs improving and incentives for technical efficiency need to be built into the system. For example, any efficiency savings made should be kept in the hospital budget and not automatically returned to the government budget. Equally, there has to be some mechanism for penalizing overspending in the state sector, as currently any overspend is covered by the state budget. More technical efficiency in hospitals could also be achieved by improvements in training for clinicians as, in the absence of agreed clinical guidelines, care is not necessarily evidence based and often clinicians are inefficient in their prescribing and recommendations for diagnostic testing.

The FGPs have more incentives for technical efficiency because the capitation basis for their funding includes certain performance benchmarks (quality measures such as vaccination coverage) which need to be attained. However, the funding split led to the underfunding of FGPs, and health insurance funding actually became a burden for family doctors. As FGPs were only funded according to the number of insured people treated, the focus of their work was shifted and family doctors became health insurance premium collectors rather than reaching out to vulnerable groups. For this reason, changes to the Health Insurance Law in 2006 should mean that FGPs and all other primary care services will be funded directly out of the state budget on a capitation basis and population coverage will be part of the performance contract for FGPs.

8.5 Accountability of payers and providers

The lack of accountability and transparency not only in the health system, but also more widely in Mongolian society, is a big issue which deserves greater attention. There have been some attempts to remedy the situation, but none yet have yielded the desired results. The lack of accountability may be seen as systemic; there is no accountability at the top, so those in positions of real power are not held responsible for their shortcomings and at the bottom, doctors are not truly accountable to their patients. Corruption is a big problem, as evidenced in the endemic system of informal payments. The small size of the Mongolian population also means that patronage networks can easily take root; where everyone knows one another, responsibilities are much more easily evaded and meaningful regulation is much harder to enforce.

8.6 The contribution of the health system to health improvement

Through concerted policy efforts, the infant and maternal mortality rates in Mongolia have shown a continual decline, and this may be deemed one of the great contributions of the health system to health improvement in Mongolia. However, the rates are still high, and sustained action is needed in order to improve access to and the quality of maternal and child health-related services and so achieve the sustainable population growth the Government seeks.

In other areas of health, there have also been concerted efforts and programmes, and the general policy framework for action is in place, although there have been serious shortcomings at the implementation level for a number of reasons. Mongolia has had notable success in reducing communicable diseases by implementing the EPI, and vaccine-preventable communicable diseases including polio and neonatal tetanus have been eradicated. Despite these trends, an increase in HIV and STI rates as well as TB infections is occurring simultaneously due to the socioeconomic situation in the country. Through the implementation of the National Iodine Deficiency Disorder Control Programme, household consumption of iodized salt has been increased and goitre prevalence has been cut dramatically. Moreover, the implementation of public health programmes has led to better health education of the population, greater intersectoral collaboration and the participation of local authorities in the implementation of the national public health programmes. The assistance of international organizations has played a significant role in the successful implementation of these programmes.

However, the mismatch between the planned activities of the national programmes and the financial resources dedicated to them has led to shortcomings in their realization and discrepancies in programme implementation between urban and rural areas as well as between different *aimags*. For example, for this and other reasons, the Cancer Control Programme had little success in delivering its intended results, and the implementation of the Health Technology Programme has experienced severe setbacks. There are additional nonfinancial factors that also negatively affect the implementation of the national programmes, such as an absence of clarity in the defined benchmark indicators for some national programmes; the inefficient use of financial resources; insufficient programme coordination at both central and local levels; weak collaboration and coordination between different programmes; and weak intersectoral collaboration and community participation at the local level. In response to the situation, and to advance the implementation of the programmes, several public health programmes have been integrated for better coordination and greater efficiency.

Relative to the country's wealth, Mongolians have a higher health status than might be expected (Hindle and Khulan 2006). Some health indicators have improved since the early 1990s as a result of the implementation of concerted measures to protect the population through the health system. However, the country is still challenged by the double burden of noncommunicable plus communicable diseases and health disparities between its socioeconomic groups. An appropriate response to these health issues demands a stronger health system focused on PHC and health promotion.

9 Conclusions

Over the transition period, the inherited Semashko system in Mongolia has evolved into a health system with a mix of revenue sources, private sector service delivery and a plurality of actors. At the beginning of the 1990s, the abrupt end of assistance to the health sector from the Soviet Union brought about extreme difficulties in financing the system that was in place. Official user fees and social health insurance have been gradually introduced in order to cover the shortfall in state budget funding for services, along with significant contributions from international donors for health care delivery. Problems with access and quality were also exacerbated by the deteriorating socioeconomic situation and public funding shortfall for the health sector. However, the new socioeconomic conditions, new policy initiatives and changes in priority areas have all contributed to an environment which has allowed new actors in the health sector to emerge.

The new pluralistic Mongolian health sector has had great successes in reducing the infant mortality rate, the under-5 mortality rate, the maternal mortality rate and infections from vaccine-preventable diseases. These successes have been achieved through consistent policy efforts, although rates are still considered high by international standards. The leading cause of mortality is now noncommunicable diseases and health services have not yet adjusted sufficiently to the new burden of disease. Average life expectancy has not significantly improved since the mid-1990s.

Lessons learnt

Despite the reform efforts, there is growing public dissatisfaction with and distrust of existing health care services. Dissatisfaction with services is amply demonstrated by the increase in the number of Mongolians seeking health

services abroad. Those who cannot afford to travel for health care experience difficulties in accessing the necessary services and utilizing those services which are available. This has inspired political debate as to whether the involvement of the private sector in the provision of health services will improve quality and therefore also public satisfaction. The need to improve the quality of and access to health services is recognized broadly by the public and the health community, but the overwhelming majority of citizens remain in favour of the universal public provision of health care services.

The PSMFL of 2003 aimed to make public health organizations more efficient and responsive to population needs by introducing output-based budgeting and contracting. However, the introduction of the PSMFL has not achieved its desired results, as decision-making on finance and human resource management at the hospital level is still strongly influenced by the MoF and the MoH. Managers are constrained by many actors who have still not broken out of the Semashko model of centralized control, and more needs to be done to reform organizational culture. Also, public hospital management is still a part of the bureaucratic hierarchy and management positions have not always been allocated on the basis of merit.

It has also proved difficult to reorient the health system away from expensive hospital-based curative services in favour of preventive and more cost-effective services, despite official policy changes. Consequently, the health system in Mongolia still directs most of its financial resources to expensive hospital-based curative services, and preventive services remain underfunded unless supported by international aid. Although this is by no means unique to Mongolia, it does reflect policy shortcomings, in that the necessary structural adjustments to the system were not made at the same time as the policy directions were adopted.

During the transition period, Mongolia adopted health financing policies to shift responsibility and risk to health professionals and hospital management, usually by approving prospective line-item budgets without specifying volumes or by setting health insurance reimbursement rates below the actual cost level. Poorly paid and dissatisfied health professionals were thus made responsible for filling in the funding gaps when providing health services, and this served to shift the risk and responsibility from health professionals to patients. Patients had to cover the costs by paying informal out-of-pocket payments to doctors, by getting their families to buy expensive medicines, or by accepting poor-quality health services.

In private hospitals, additional out-of-pocket payments were charged to insured patients to cover fixed costs because their health insurance only paid for the variable costs of treatment and the government budget would not fund private

hospitals. The funding system provided mainly budget-constrained payments to providers, but this resulted in poor-quality services rather than capping costs. One of the most valuable lessons learnt has been the importance of coverage with the introduction of social health insurance and capitation payments to fund the primary care services provided by FGPs. As the Government had not agreed to pay for FGP services for the uninsured, equity and access to primary care for the vulnerable population was jeopardized and some FGPs were left seriously underfunded where there were low levels of health insurance coverage in their catchment areas. It is hoped that changes to the Health Insurance Law in 2006, designating all primary care to be funded from the state budget, will ensure universal access.

Future challenges

The delivery of health services is especially expensive in Mongolia due to the country's extremely low population density over a vast territory. The rural nomadic and peri-urban (*ger* district) households are those most likely to be living in poverty and they are the hardest to access. In recent years, there have been great successes in reaching out to households which are just above the poverty line and which have some education. However, given the less deprived status of these households, it was easier to achieve these positive results. At present, therefore, one of the biggest public health challenges faced in Mongolia is in reaching out to the more disadvantaged households which have a lower educational level and only limited access to health information. Achieving positive results with these hard-to-access households will demand greater efforts, more resources and positive results will take longer to achieve.

Advances in health financing and payment mechanisms as well as the rationalization of hospital services are also clear future challenges. Rationalization will be especially difficult because the legislative, historical and policy environments have created conditions where there is a broad acceptance of inpatient services by both patients and providers, irrespective of clinical necessity. A lack of funding for better PHC, perverse financing incentives for hospital inpatient care and the political limitations placed on user fees do not encourage patients to avoid costly hospital services, as these are popularly believed to be superior to primary care or outpatient services.

Another future challenge in health sector reform is the necessary reconsideration of health sector privatization directives. Privatization in the health sector must be managed so that it improves efficiency in the health sector rather than lining the pockets of a few hospital managers. The rationale for privatization policies should be rooted in the identified values of the health system; privatization does not fit with the socialistic/egalitarian basis of the

health system in Mongolia. The main challenge for health sector reform and development in Mongolia is therefore the need for consensus on the values of the system. Once this has been achieved, there is a need for clear priorities to be set, because current policy development is hindered by the desire to do too much all at once and the desire to shift priorities in line with political or donor demands. The financial pull of different donors can often tug in different directions, so the focus for Mongolia has to be on strengthening political capacity, the health community and civil society in order for the country to recognize and pursue its own priorities and needs.

10 Appendices

10.1 References

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10.2 Useful web sites

Mongolian state structures

Government of Mongolia: <http://www.pmis.gov.mn/indexeng.php>

The President of Mongolia: <http://www.president.mn/index.php>

Ikh Khural (Parliament): <http://www.parl.gov.mn/home.php>

Office of the Prime Minister: <http://www.open-government.mn/phpgov/>

Ministry of Health: <http://www.moh.mn/>

Ministry of Social Welfare and Labour: <http://www.mswl.pmis.gov.mn/>

Ministry of Foreign Affairs: <http://www.mongolia-foreign-policy.net/>

National Statistics Office: <http://www.nso.mn/>

Nongovernmental organizations

Network of NGOs: <http://www.owc.org.mn/index.php>

International agencies and donor organizations working in Mongolia

United Nations: <http://www.un-mongolia.mn/>

United Nations Population Fund (UNFPA): <http://www.un-mongolia.mn/unfpa/index.php>

United Nations Children's Fund (UNICEF): <http://www.unicef.org/mongolia/>

United Nations Development Programme (UNDP): <http://www.undp.mn/>

World Bank: <http://www.worldbank.org.mn>

World Health Organization (WHO): <http://www.un-mongolia.mn/who/>

Mongolian Foundation for Open Society: <http://www.soros.org.mn/>

Japan International Cooperation Agency (JICA): <http://www.jica.go.jp/english/index.html>

Asian Development Bank (ADB): <http://www.adb.org/Mongolia/default.asp>

The Global Fund to Fight AIDS, Tuberculosis and Malaria: <http://www.theglobalfund.org/EN/>

10.3 National Health Programmes, 2006

	National Health Programmes	Implementation term	Supporting organization
1.	National <i>Soum</i> Hospital Development Programme	2002–2008	ADB, WHO
2.	National Fitness Programme	2002–2008	WHO, UNICEF
3.	National Communicable Disease Control Programme	2002–2010	WHO, JICA, UNICEF, Global Fund
4.	National Injury Prevention Programme	2002–2008	WHO
5.	National Programme on Development of Spa Resort	2003–2010	WHO
6.	National Programme to Improve Health Technology	2003–2008	WHO
7.	National Cardiovascular Diseases Prevention Programme	2001–2020	WHO
8.	National Blindness Prevention Programme	2000–2010	WHO (WPRO)
9.	National Programme to Improve the Livelihood of the Disabled	1998–2004	
10.	National Programme on Food Supply, Safety and Nutrition	2001–2005	WHO, UNICEF, ADB
11.	National Programme on Elderly Health and Social Welfare	1999–2004	WHO
12.	National Cancer Control Programme	1997–2005	WHO
13.	National Programme to Improve Children's Development and Protection	2002–2010	UNICEF, UNFPA, WHO, ADB, JICA
14.	National Health Education Programme	1998–2005	UNICEF, UNFPA, WHO, ADB
15.	National Oral Health Programme	2000–2005	WHO
16.	National Reproductive Health Programme	2001–2006	UNFPA, UNICEF, WHO
17.	National Mental Health Programme	2002–2007	WHO
18.	National Iodine Deficiency Disorder Control Programme	2002–2006	UNICEF, ADB, JICA, WHO
19.	National Environmental Health Programme	2006–2015	WHO

Source: Adapted from MoH 2002b.

10.4 HiT methodology and production process

The Health Systems in Transition (HiT) profiles are produced by country experts in collaboration with the Observatory's research directors and staff. The profiles are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources, and examples needed to compile HiTs. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/observatory/Hits/20020525_1.

Authors draw on multiple data sources for the compilation of HiT profiles, ranging from national statistics, national and regional policy documents, and published literature. Furthermore, international data sources may be incorporated, such as those of the Organisation for Economic Co-operation and Development (OECD) and the World Bank. OECD Health Data contain over 1200 indicators for the 30 OECD countries. Data are drawn from information collected by national statistical bureaux and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All (HFA) database. The HFA database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health for All policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard HFA data have been officially approved by national governments. With its summer 2004 edition, the HFA database started to take account of the enlarged European Union (EU) of 25 Member States.

HiT authors are encouraged to discuss the data in the text in detail, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT profile consists of 10 chapters:

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.
2. Organizational structure: provides an overview of how the health system in a country is organized and outlines the main actors and their decision-making powers; discusses the historical background for the system; and

- describes the level of patient empowerment in the areas of information, rights, choice, complaints procedures, safety and involvement.
3. **Financing:** provides information on the level of expenditure, who is covered, what benefits are covered, the sources of health care finance, how resources are pooled and allocated, the main areas of expenditure, and how providers are paid.
 4. **Regulation and planning:** addresses the process of policy development, establishing goals and priorities; deals with questions about relationships between institutional actors, with specific emphasis on their role in regulation and what aspects are subject to regulation; and describes the process of health technology assessment (HTA) and research and development.
 5. **Physical and human resources:** deals with the planning and distribution of infrastructure and capital stock; the context in which information technology (IT) systems operate; and human resource input into the health system, including information on registration, training, trends and career paths.
 6. **Provision of services:** concentrates on patient flows, organization and delivery of services, addressing public health, primary and secondary health care, emergency and day care, rehabilitation, pharmaceutical care, long-term care, services for informal carers, palliative care, mental health care, dental care, complementary and alternative medicine, and health care for specific populations.
 7. **Principal health care reforms:** reviews reforms, policies and organizational changes that have had a substantial impact on health care.
 8. **Assessment of the health system:** provides an assessment based on the stated objectives of the health system, the distribution of costs and benefits across the population, efficiency of resource allocation, technical efficiency in health care production, quality of care, and contribution of health care to health improvement.
 9. **Conclusions:** highlights the lessons learned from health system changes; summarizes remaining challenges and future prospects.
 10. **Appendices:** includes references, useful web sites, legislation.

Producing a HiT is a complex process. It involves:

- writing and editing the report, often in multiple iterations;
- external review by (inter)national experts and the country's Ministry of Health – the authors are supposed to consider comments provided by the Ministry of Health, but not necessarily include them in the final version;

- external review by the editors and an international multidisciplinary editorial board;
- finalizing the profile, including the stages of copy-editing and typesetting;
- dissemination (hard copies, electronic publication, translations and launches).

The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

The Health Systems in Transition profiles

A series of the European Observatory on Health Systems and Policies

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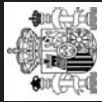
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Key

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- ^c French
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- ^e German
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- ^g Russian
- ^h Spanish
- ⁱ Turkish
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HITs are in-depth profiles of health systems and policies, produced using a standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.