Health Systems in Transition
Vol. 3 No.2 2013

Mongolia Health System Review

Asia Pacific Observatory
on Health Systems and Policies

Mongolia Health System Review

Written by:
Tsolmongerel Tsilaajav, Ministry of Health
Evlegsuren Ser-Od, Ministry of Health
Bulganchimeg Baasai, Asian Development Bank, Health Sector Development Project 3 & 4, Mongolia
Ganbat Byambaa, German International Cooperation Agency, Mongolia
Oyunbileg Shagdarsuren, EPOS Health Management, MCA-Mongolia Health Project, Mongolia

Edited by:
Soonman Kwon, Seoul National University
Erica Richardson, London School of Hygiene and Tropical Medicine

WHO Library Cataloguing in Publication Data

Mongolia health system review (Health Systems in Transition, Vol. 3 No. 2 2013)

1. Delivery of healthcare. 2. Health care economics and organization. 3. Health care reform. 4. Health systems plans – organization and administration. 5. Mongolia. I. Asia Pacific Observatory on Health Systems and Policies. II. World Health Organization Regional Office for the Western Pacific.

ISBN 978 92 9061 609 2 (NLM Classification: : WA 540)

Contents

List of Tables

List of Figures

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 an international editor. 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. They 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 programs;
- 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 between policymakers and analysts in different countries implementing reform strategies; and
- to assist other researchers in more in-depth comparative health policy analysis.

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) Western Pacific Country Health Information Profiles, national statistical offices, 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 differs 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 apobservatory@wpro.who.int. HiT profiles and HiT summaries are available on the Asia Pacific Observatory's web site at www.wpro.who.int/asia_pacific_observatory.

Acknowledgements

The team is grateful to the HIT editors Professor Soonman Kwon (Dean, School of Public Health, Seoul National University) and Dr Erica Richardson (London School of Hygiene and Tropical Medicine), and to the WHO Regional Office for the Western Pacific, in particular, to Dr Dale Huntington, Dr Ayesha De Lorenzo, Dr Rebecca Dodd and Martina Pellny (Secretariat, Asia Pacific Observatory on Health Systems and Policies) for providing continuous support throughout the project. Thanks are due also to Ms Therese Maria Reginaldo, of the WHO Regional Office for the Western Pacific, for providing cross-country graphs and tables.

The Asia Pacific Observatory on Health Systems and Policies would like to thank Dr N.Udval (Minister of Health, Mongolia), Dr Wiwat Rojanapithayakorn, E. Erdenehcimeg, Dr Salik Govind, Dr Soe Nyunt-U and the rest of the WHO office staff in Mongolia for their support and help.

Peer Reviewers on behalf of the Asia Pacific Observatory on Health Systems and Policies:

D. Bayarsaikhan (Health Economist, World Health Organization), Dr S. Sonin (President of Mongolian Association of Family Medicine Specialists), Professor P. Nyamadawa (Advisor to the National Centre for Communicable Diseases) and Dr Alex Herrin (Research Advisory Group, Asia Pacific Observatory on Health Systems and Policies)

List of abbreviations

ADB	Asian Development Bank
BCG	Bacillus Calmette–Guérin
CHI	Citizen's Health Insurance
DALE	Disability-Adjusted Life Expectancy
DALY	Disability-Adjusted Life Year
DMFT	Decayed/Missing/Filled Teeth
DOH	Department of Health
DOTS	Directly Observed Treatment, Short-course
DRGs	Diagnostic Related Groups
DTP	Diphtheria-Tetanus-Pertussis
EEG	Electroencephalogram
ENT	Ear-Nose-Throat
EPOS	EPOS Health Management
FGP	Family Group Practices
FHSDP	Fourth Health Sector Development Project
GDP	Gross Domestic Product
GIZ	German Agency for International Cooperation
GVG THSDP	Third Health Sector Development Project
HALE	Health-Adjusted Life Expectancy
HBV	Hepatitis B Vaccine
HD	Human Development
HIF	Health Insurance Fund
HISC	Health Insurance Sub-Council
HMIS	Health Management Information System
HSDP	Health Sector Development Programme
HSSMP	Health Sector Strategic Master Plan
HSUM	Health Sciences, University of Mongolia
HTA	Health Technology Assessment
IT	Information Technology
IAEA	International Atomic Energy Agency

IEC	Information, Education and Communication
IMED	Information, Monitoring and Evaluation Department
LCU	Local Currency Unit
MDGs	Millennium Development Goals
MECS	Ministry of Education, Culture and Science
M&E	Monitoring and Evaluation
MMR	Maternal Mortality Ratio
MOF	Ministry of Finance
MOH	Ministry of Health
MOHDSW	Ministry of Human Development and Social Welfare
MOSWL	Ministry of Social Welfare and Labour
MPCA	Mongolian Palliative Care Association
MRI	Magnetic Resonance Imaging
NCD	Noncommunicable Diseases
NCHD	National Centre for Health Development
NGOs	Nongovernmental Organizations
NHA	National Health Accounts
NSO	National Statistics Office
OOPs	Out-Of-Pocket payments
OTC	Over-The-Counter
PET	Positron Emmission Tomography
PHI	Public Health Institute
PHC	Primary Health Care
PPP	Purchasing Power Parity
PSMFL	Public Sector Management and Finance Law
RDTC	Regional Diagnostic and Treatment Centre
RH	Reproductive Health
SHI	Social Health Insurance
SIGO	Social Insurance General Office
SINC	Social Insurance National Council
SPIA	State Professional Inspection Agency
SPPH	State Policy on Public Health
STEPS	WHO STEPwise approach to Surveillance
STI	Sexually Transmitted Infections
TB	Tuberculosis
THE	Total Health Expenditure

UB	Ulaanbaatar
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VAT	Value Added Tax
VHI	Voluntary Health Insurance
WB	World Bank
WHO	World Health Organization

Executive Summary

This Health System Review provides an overview of the health system in Mongolia, a country undergoing rapid economic growth and political changes. These changes can be seen in the rapidly changing picture of the health system as well. Chapter 1 introduces the country and its people, and describes its transition from socialism to a market economy. Since the beginning of the new millennium, the country has seen strong economic growth driven largely by a boom in the mining sector but still remains dependent on herding and agriculture. The changes in Mongolia are reflected in the burden of diseases moving from communicable to noncommunicable diseases (NCDs). Leading causes of mortality are now circulatory system disorders and cancers. In addition, service delivery is hampered by the extremely low population density in an expansive country.

Chapter 2 describes the governance and organization of the health system. With the fall of the Soviet Union in the 1990s, the health system of Mongolia began its transition from the centralized, Semashko model to a more decentralized one. Unfortunately, the move towards decentralization has seen more administrative success than financial. The new 2011 fiscal budget, however, takes concrete steps towards financial decentralization, such as transferring the primary health care budget to the local governor's office.

As before, services are provided at three types of facilities (primary, secondary and tertiary) and over two administrative divisions (the capital and the provinces or the aimags). Efforts have been made to strengthen the management of the Ministry of Health (MOH) and health departments at aimag levels, and a number of new primary health-care facilities have been established. The Health Act of 2011 further laid out the structure and functions of these various health-care facilities at different levels and also established a governing board of the state central hospitals, specialized centres, and regional diagnostic and treatment centres (RDTCs) that aim to provide organizational autonomy in decision-making.

The planning process for the MOH is based on the government's Health Sector Strategic Master Plan (HSSMP) for 2006-2015. Recently, the government has also strengthened the intersectoral approach with international partners to support coordination on collaborative activities and planning. The involvement of the private sector has also seen significant increases over the past few years, but the regulatory framework for private health-care providers needs to be strengthened.

Chapter 3 summarizes the financing of health care in Mongolia. The 2008 financial crisis saw a drop in the total government health expenditure, in percentage of spending, from 10.7% to 8.6% where it has stayed since. Total health expenditure, in percentage of gross domestic product (GDP), also fluctuated since 1995 but has been at 5.7% since 2008.

Like many other countries with a Semashko health system, the Mongolian health system is heavily hospital-based. Major parts of both total (53.5% in 2005) and general government expenditure on health (54.8% in 2009) in Mongolia were allocated to inpatient care. However, the expenditure allocated for primary care and public health are underestimated because many of the services of primary health-care facilities are delivered through hospitals.

Newly released WHO data on out-of-pocket payments (OOPs) as a share of the total health expenditure (THE) show a sharp increase from 14.5% in 1995 to 41.4% in 2010. However, these numbers should be treated with caution: they may have risen from a change in methodology used to calculate OOP as well as an actual increase in the OOP. Further analysis is needed. Social Health Insurance (SHI) was implemented in 1994 and has become a stable source of health financing. Population coverage has fluctuated from a low of 82.6% in 2012 when students and herders were not subsidized by the state, to 98.6% in 2011 when a one-time subsidy from mining revenues bumped coverage back up. This initiative is unlikely to be sustainable in the long term. SHI faces many institutional and governance challenges which have prevented it from acting as a strong purchaser. National discussions to move to a pooled purchaser of health services under the social insurance scheme have been dominating the main health-care financing reform agenda in the past few years.

Chapter 4 describes the physical and human resources of the health system. Primary health- care services are delivered at 546 facilities, including family health centre, soum health centres and intersoum

hospitals, and village hospitals. Referrals are sent to 36 secondary care general hospitals owned by local governments. There are 17 tertiary general hospitals and specialized centres, all located in the capital city. Funding allocated for capital investment, which is budgeted separately from recurrent expenditures, has been increasing and the share of the total health expenditure spent on physical infrastructure has increased from 4% in 2006 to 15.4% in 2010. This funding includes investment for medical equipment. The major challenge with medical equipment remains its maintenance at the rural level facilities. Advances in health technology and budgetary pressures have helped shift the focus from hospital-based curative services to outpatient diagnostic services and treatment.

The MOH employs around 41 000 people in the public health workforce, and along with the education sector, accounts for 60% of all civil servants. The health system is overly dependent on doctors with too few allied health staff, especially nurses, making it expensive and inefficient. The MOH is trying to increase the number and quality of nurses but further policy and budgetary changes are needed for any impact. The MOH is also taking numerous steps to improve working conditions of allied health staff and introduce incentives to work in rural areas. In terms of coverage, there are fewer primary care physicians per 1000 population in Ulaanbaatar than in the rural areas, due mostly to the heavy rural-urban migration. This is reversed when talking about secondary care doctors; all tertiary care doctors are in Ulaanbaatar.

Chapter 5 describes the delivery of services. It describes the three main packages of services described in the Health Sector Strategic Master Plan: essential health care, complementary/secondary services, and other/tertiary health services. These services are provided at three different levels.

- Primary health care is delivered by family health centres, soum health centres and intersoum hospitals.
- Secondary health care is provided by district and aimag general hospitals, rural general hospitals and private clinics.
- Tertiary health care is delivered by multispecialty central hospitals and specialized centres in Ulaanbaatar.

There is a mismatch between the planned activities of national public health programmes and the financial resources dedicated to them, which has led to shortcomings in their realization and discrepancies in

programme implementation between urban and rural areas as well as between different aimags.

Chapter 6 describes the principal health reforms in the country. The reforms started in the early 1990s, with the collapse of the Soviet Union. In the 1990s, the government introduced Social Health Insurance, a public health care (PHC) concept, public and private partnership, assurance of equity, and quality and efficiency of improvements. Reforms have focused on strengthening the health regulatory framework, setting strategic objectives, and sustaining previous reforms.

Health care reforms in Mongolia have been notable for their slow speed of implementation, inconsistency and the contradictory nature of processes. The frequent changes in the governmental or ministerial leadership have impeded the progress of policy reforms, and as a result, some of the desired policy reforms have not been achieved.

Chapter 7 provides an overall assessment of the health system. The Mongolian government has been committed to ensuring sustainable funding to the health sector and providing accessible and equitable quality health care to all citizens. As a result of prioritized and targeted efforts, health outcomes and indicators are improving. However, there are still significant problems associated with poor quality of care, inefficiency, and inadequate implementation of reforms and institutional improvements. The main dimensions of health inequity in Mongolia are geographical (urban versus rural), income-related and demographic (nomads versus settled population).

The hospital-oriented system inherited from the socialist period has been the most significant barrier to improving efficiency of the health system in Mongolia even though the legislative environment and policy directions have changed substantially during transition. NCDs and injuries are becoming serious health issues requiring integrated multisectoral coordination, advanced preventive approaches, and adequate management. Some positive actions and regulations are in place due to government initiatives and commitment. However, the lack of accountability and transparency are evident across the government, including the health sector. Comprehensive and committed actions are, therefore, needed to be taken.

Chapter 8 presents an overall assessment of the Mongolian health system. It highlights key gains and achievements, like the declining infant, child and maternal mortality, and high health insurance population coverage. However, it also highlights the challenges that still linger, including the need for the system to evolve from its Semashko model and implement reform in a transparent and accountable manner. The health system needs to be able to adapt to the changing needs of the population as NCDs become more pervasive and more problematic. The government is already aware of these issues. Many reforms, already in process, warrant careful monitoring over the next few years.

Chapter 1. Introduction

1. Summary

Mongolia, a land-locked country located in East Asia, is the 19th largest country in the world. With a population of just 2.75 million, it is one of the most sparsely populated countries in the world. Ethnically, Mongolia is relatively homogenous with 82.4% of the population being Khalkha Mongols, and with 86% of the population identifying as Buddhist.

In the 1990s, after 70 years of socialist system, the country transitioned to a market economy, seeing rapid economic changes. Many sectors, including health, education, and social security were hit with drastic drops in funding. The rapid transition also had devastating impact on the lives of Mongolians. However, Mongolia began to see partial recovery after 1994 and since 2000 has experienced steady economic growth, with promising opportunities for future economic development, especially with the boom in its mining sector. In addition to mining, the country is still reliant on herding and agriculture. Despite stable growth, poverty and unemployment still remain big challenges for Mongolia.

The political and economic transitions in the country are clearly reflected in the epidemiological changes as well. Infectious diseases have given way to noncommunicable diseases as the leading causes of morbidity and mortality. Top causes of mortality are diseases of the circulatory system and cancers.

1.1 Geography and Socio-Demography

Mongolia is a landlocked country in East Asia bordered by the Russian Federation to the north and the People's Republic of China to the south, west and east (see Fig 1.1). With a territory of 1 566 460 square kilometres it is ranked as the 19th largest country and the 2nd largest landlocked country in the world.

Figure 1-1 Map of Mongolia

The country's terrain is combination of large area of steppes to the east, mountains to the west and north and Gobi Desert to the south. Situated at an average altitude of 1500 m above the sea level and surrounded by high mountain chains, Mongolia has an extreme continental climate with temperatures dropping to minus 30°-40°C in winter and reaching plus 30°-35°C in summer. Annual mean precipitation varies between 300-400 mm in the mountain areas in the North West, 150 and 200 mm in the steppe and less than 100 mm in the Gobi Desert. Mongolia is divided into 21 aimags (provinces), which are in turn divided into 329 soums (districts). The capital Ulaanbaatar is administrated separately as a capital city (municipality) with provincial status.

According to the 2010 census, the population of Mongolia reached 2.75 million (National Statistics Office, 2011). Due to the large territory and the relatively small population, Mongolia is considered to be the most sparsely populated country in the world with an estimated average population density of 1.7 per square kilometre.

Due to a decline in the crude birth rate since 1990, the percentage of children under 14 has been steadily declining over the last two decades (from 44.3 in 1990 to 27.3 in 2010) and yet the proportion of the aged-above-65 is still below 5%. This has resulted in a much lower age dependency ratio (Table 1-1).

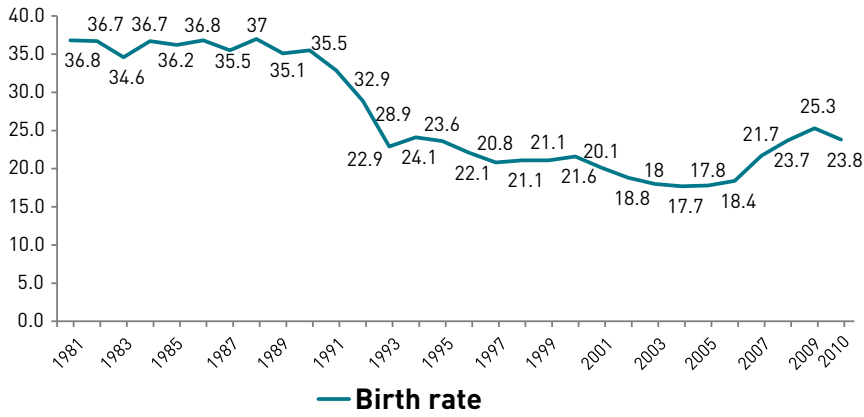
Table 1-1 Population/demographic indicators, selected years

Indicator	1980	1990	2000	2005	2010
Total population (in thousands)[a]	1640	2099	2373	2562	2755
Female (% of total)[a]	50.1	49.9	50.4	50.4	51.4
Aged 0–14 (% of total)[a]	44.5	44.3	35.7	32.6	27.3
Aged 65 and above (% of total)[a]	5.0	4.1	3.5	3.5	3.8
Population density (people per sq km)	1.0	1.3	1.5	1.6	1.7
Fertility rate, total (births per woman)[a]	6.4	4.5	2.2	1.9	2.3
Birth rate, crude (per 1000 people)[a]	39.2	35.3	21.5	17.8	23.8
Death rate, crude (per 1000 people)[a]	10.4	8.3	6.5	6.1	6.3
Population growth (average annual%)[a]	8.7	2.7	1.5	1.2	1.7
Age dependency ratio[b]	96.0	84.0	64.6	56.2	45.0
Distribution of population (rural %)[b]	48.8	42.9	43.4	39.8	32.1
Proportion of single-person households (%)[b]	-*	-	-	-	10.6
Adult literacy rate (%)[b]	93.3	97.0	97.8	97.6	98.3

Source:
a Official Health Statistic Database
b Mongolian Statistical Yearbooks 1998-2010, National Statistics Office
* Until the census in 2010, data were collected only for estimating the proportion of female-headed households, which had been increasing over the years from 8.1% in 1980 to 11.5% in 2005.

Population of Mongolia is projected to experience one of the largest demographic windows in Asia with a very high proportion of working age population (Spoorenberg 2008). The window of opportunity for economic growth could be extended by instituting a sensible population policy that supports fertility. If the birth rate continues rising as it has been for the last five years (Figure 1.2), a brighter future appears to be on the horizon. National Statistics Office (NSO), however, has estimated that the "demographic window period" will be closed in 15-20 years (NBS 2011).

Figure 1-2 Trend in birth rate, 1981-2010

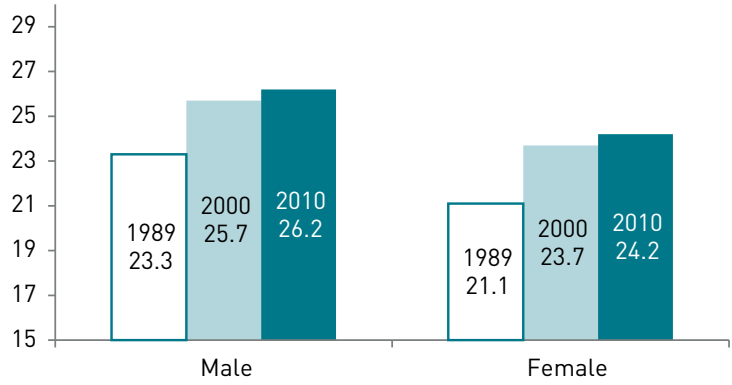


Source: Official health statistics database, DOH

Since 1990s the country has experienced a great internal migration from rural to urban settings. Within the last decade, the proportion of people living in the capital city Ulaanbaatar has increased from 32% to 41%. Accordingly, the percentage of people living in rural areas has dropped from almost half of the population to only one-third (Table 1-1). The decrease in total population has been observed in most aimags (provinces) except for the ones such as Darkhan-Uul and Orkhon where the major cities are located. The population of Umnogobi aimag has also considerably increased with the increase in employment opportunities at mining sites (Table 1-2).

As of 2010, there are 713 780 households registered in Mongolia, 10.6% of which are headed by single-persons. The average age of first marriage is gradually increasing for both men and women (Figure 1.3) but the average number of household members has slightly decreased from 4.3 in 2000 to 3.6 in 2010.

Figure 1-3 Average age of first marriage, by gender, selected years



Source: Adapted from Results of the Population and Housing Census, National Statistics Office, 2010, available at: http://www.nso.mn/v3/

Ethnically, Mongolia is relatively homogeneous with 82.4% of the population being Khalkha Mongols. The rest of the population represent more than 20 other ethnic groups and subgroups. Kazakhs, the second largest group, account for 3.9% of the population followed by Durbets (2.8%), Byads (2.2%) and Buriads (1.7%). Western Mongolia is home to many ethnic groups and is considered to be the most ethnically diverse region.

Mongolian is the official language of the country which is spoken by the 90% of the population. According to the 2010 national population and housing census, 61.4% of the population aged 15 and above consider themselves religious, and 86% of believers are Buddhists.

One of the greatest gains of the socialist era was the high level of education coverage which has resulted in a population literacy rate as high as 96% (UNDP 2000). Although there was a marked decline during the first years of the transition period, Mongolia has maintained a high level of primary and secondary school enrolment and literacy rate. The latest data show that the literacy rate of population aged 15 or above is 98.3% (NBS 2011).

1.2 Economic context

The transition from a socialist system to a market economy in the early 1990s involved rapid economic changes which are, cumulatively, referred to as the "shock therapy". The early years were characterized by high inflation which reached over 300%, a dramatic drop in government revenues due to the sudden withdrawal of Soviet aid, severe cuts in social services, banking crisis, and other inevitable consequences of these changes (Government of Mongolia & UNDP, 2000). Health and other social sectors such as education and social security were hit by the "shock" severely. Continuing budget tightening has resulted in a significant reduction of government spending on health (see Section 3.1 Health expenditure).

Establishing the basis of a market economy required liberalization of prices, establishing a new financial and banking system, privatization of enterprises, and implementation of tight monetary policy. These actions have had devastating effects on the lives of Mongolians: many lost their jobs and average household incomes fell dramatically. However, after 1994 Mongolia began to experience a partial recovery (Table 1-2). Economic growth had been positive although it stabilized after 2000. Overall, the economic transition has taken much longer than the political one.

Table 1-2 Macroeconomic indicators, selected years

Indicator	1980	1990	2000	2005	2010
GDP (current, billion LCU)a	12.8	651.4	1224.1	3041.4	8255.1
GDP per capitab	1168	630	471	991	2207
GDP per capita, PPP (USD)d	1640	1267	1783	2408	3619
GDP average annual growth rate (%)a	-2.5	6.3	1.1	7.3	6.1
Public expenditure (% of GDP)c	61.9	26.1	34.5	25.1	37.3
Tax revenue (% of GDP) b	-	19.2	-	30.5	32.4
Total revenue as percentage of GDP c	-	26.3	33.6	37.0	37.3
Total expenditure as percentage of GDP c	-	27.1	41.1	33.7	37.3
Cash surplus/deficit (% of GDP) d	-	2.4	0.2	2.9	0.0
Central government debt, total (% of GDP) b	-	37.1	78.4	95.703	59.5
Value added in industry (% of GDP)b	42	35	25	36	37
Value added in agriculture (% of GDP)b	13	34	31	22	18
Value added in services (% of GDP)b	45	31	44	42	45
Labour force (total, thousand) c	-	812.7	847.6	1001.2	1147.1
Unemployment, total (% of labour force)d	-	5.4	4.7	3.3	9.9*
Poverty rate (headcount index, %)b	14.5	36.3	35.698	61.102	35.208
Income or wealth inequality (Gini coefficient)d	-	0.31	0.3398	0.33	0.3708
Real interest rateb	-	46.2	22.3	8.7	1.7
Annual average exchange rate (USD=Tughrik)	4.3	447	1078	1205	1358

Source:

a National statistics online database, National Statistics Office

b World Development Indicators, World Bank http://data.worldbank.org/indicator

c Mongolian Statistical Yearbook 1998-2010

d Mongolia Human Development Report 2011: from Vulnerability to Sustainability: Environment and Human Development

* Data from labour force surveys; rates for 1995, 2000 and 2005 data are based on the registered unemployed seeking work (self-referred)

The National Human Development Report published in 2007 highlighted that Mongolia had entered a new era of development (Government of Mongolia & UNDP). The statement was justified by reduced gap in the human development index between aimags, considerable success in reaching national MDG targets, and promising opportunities for further economic development.

Indeed, since the beginning of the new millennium Mongolia experienced a steady economic growth except for a sudden drop in 2009 (Figure 1.5), which is mainly due to the fall in commodity prices induced by the 2008 global financial crisis. The inflation rate has been kept stable and the government has maintained a budget surplus. Despite this stable growth and positive changes in the development index, poverty and unemployment remain the biggest challenges. The poverty rate has

remained persistently high. Trends for the Gini coefficient show a greater proportion of benefit from economic growth goes to those who are already wealthier than others without reducing the overall poverty level (Table 1-4).

According to official statistics, which count the registered unemployed, the number of unemployed as a percentage of the economically-active population seems to be gradually decreasing (Table 1-4). However, the unemployment rate estimated from the 2009 and 2010 labour force surveys (11.5% and 9.9%, respectively) were much higher than the NSO data as these surveys count all those actively seeking employment even if they are not officially registered as unemployed (Government of Mongolia & UNDP, 2010).

Unemployment may be one of the major factors influencing the poverty level. However, the quality of available jobs is another critical issue. Surveys have shown that more than half of poor households are headed by people who are working. Hence reducing poverty requires not only making more jobs available but also creating better jobs that bring higher income (Government of Mongolia & UNDP, 2007).

The economy of Mongolia has been and still is significantly reliant on herding, agriculture and mining. Due to the booming mining sector, the economy of Mongolia is experiencing a commodity boom: with resultant higher revenues, lower public debt and fiscal surplus. Thus, nowadays Mongolia is seen as one of the countries with "emerging markets". In 2011, Citigroup analysts included Mongolia on the list of 11 countries with the most promising growth prospects for 2010-2050, so called 3G or "global growth generators" (Buiter & Rahbari, 2011). However, if the government continues increasing expenditures on wages/salaries and poorly-targeted social transfers, the country may not fully benefit from the expected economy expansion (WB, 2009). International experts recommended establishing fiscal framework that enforces saving during the boom years, sets limits on expenditure growth and debt, and ensures transparency to the public (Boyreau, Dore et al. 2009).

1.3 Political context

Mongolia is a democratic state with a parliamentary system. Until 1990 (when the first organized opposition group, the Mongolian Democratic Union, led the democratic revolution), the country had been ruled by

a single pro-communist party for 70 years. Mongolia was one of the countries in the socialist block.

Mongolia's very first multiparty elections for a State Great Khural were held in July 1990. Later in 1992 a new constitution, which declared Mongolia a democratic republic, entered into force. As of 2010, there are 17 political parties registered to the Supreme Court (Chuluunbaatar, Dorjsuren et al. 2010).

The new Constitution of 1992 restructured the government into three main branches: legislative, executive and judiciary. The State Great Khural is a unicameral parliament, consisting of 76 seats, and the members are elected for a term of four years. The Prime Minister is appointed by the State Great Khural and heads the executive branch. Like many other parliamentary democracies there is a fusion of powers where political power is vested both in the government and the parliament. However, the executive branch which consists of the Prime Minister and the cabinet is entitled to make most of the important decisions about structure, organization, financing mechanisms and other important aspects of each sector including the health system.

As a result of the last parliamentary election held on June 28, 2012, the Democratic Party won 35.3% of the total votes and became the political force that controls most of the parliamentary seats. Mongolian People's Party, which won 31.3% of the votes, controlling 25 seats in the Parliament becoming the official opposition. The new Cabinet is headed by Prime Minister N. Altankhuyag (Leader of the Democratic Party) and consists of 18 ministers who are appointed for a four-year term.

The judicial branch of the government is separate from the legislative and executive branches and is led by the Supreme Court. The Supreme Court consists of a Chief Judge who is appointed by the President of Mongolia for a term of six years and 12 subordinate judges.

The President of Mongolia is constitutionally considered the head of the state and possesses limited, mostly symbolic, political power. The President is commander-in-chief of the national armed forces and the head of the National Security Council. The Constitution empowers the president to nominate a prime minister, call for the government's dissolution in consultation with the speaker of the parliament, initiate legislation, veto all or parts of legislation (the parliament can override the

veto with a two-thirds majority), and issue decrees, which become effective with the prime minister's signature. The President is directly elected by the people of Mongolia for a four-year term.

Mongolia experienced three different governments between 2004 and 2008, and the health system itself has seen four different ministers in those four years. This political instability might have affected the continuity and sustainability of policy in this sector.

Administratively, Mongolia is divided into 21 aimags (provinces) and the Capital City - Ulaanbaatar. The capital city is further divided to nine districts and these into 132 sub-districts or khoroos. The 21 aimags are divided into 338 soums and these further into 1682 baghs (NSO, 2009). At each level, local authority is comprised of Khural of Citizens' Representatives, the Governor and governor's office, which has the responsibility of preparing plans and implementing policies adopted by Khural of Citizens' Representatives. Khurals make decisions related to public sector expenditure, allocation of local budget, and hold responsibility for the development of the infrastructure and protection of the environment. Bagh, khoroo and soum governors are nominated by khurals and appointed by the governor at the upper level. The Prime Minister appoints aimag governors nominated by aimag khurals.

The constitution provides for self-governance at all levels, supporting decentralization. However, local governments have limited financial autonomy, and a low tax base leads to limited revenue collection. Most of their revenue consists of subsidy from the government. There are also concerns regarding organizational capacity, human resources and skills. Because of the limited opportunity to exploit economies of scale, due to the vastness of the territories covered and the small populations, unit costs of administrative services are high (UNDP 2011).

Since the adoption of the Regional Development Policy by the Government in 2001, most information, statistics and data are now segregated and presented according to four regions although there is no political institution at the regional level: Eastern, Central, Khangai, and Western. The Regional Development Policy is reflected in most sectors' agenda and as part of implementation of the policy in health sector, hospitals of five aimags located in five different regions, which are strategically significant in terms of geographical location and level of infrastructure development, have been upgraded into regional diagnostic and treatment centres (RDTCs).

The Government of Mongolia's commitment to the values of democratic governance is reflected in its decision to set a 9th Millennium Development Goal (to "Strengthen Human Rights and Foster Democratic Governance"), in addition to the existing eight set by the UN.

1.4 Health status

Life expectancy at birth was estimated to be 68.1 years in 2010, indicating longevity has increased approximately by five years over the last 20 years. Gender difference in life expectancy at birth has also expanded reaching 7.4 years in 2010 (Table 1-3).

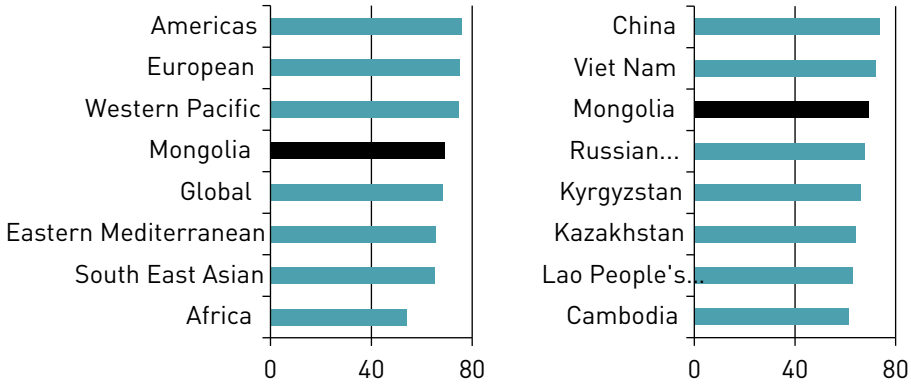
Table 1-3 Mortality and health indicators, selected years

Indicator	1980	1990	1995	2000	2005	2010
Life expectancy at birth, total	63.3	63.7	63.8	63.2	65.2	68.1
Life expectancy at birth, male	60.3	60.3	62.1	60.4	62.1	64.9
Life expectancy at birth, female	66.1	67.6	65.4	66.1	68.6	72.3
Total mortality rate, male		9.1	10.3	7.3	7.9	
Total mortality rate, adult, male (15–64 years)				4.4	5.2	
Total mortality rate, adult, female		7.0	8.1	5.6	5.0	
Total mortality rate, adult, female (15–64 years)				2.6	2.5	

Source: Official health statistics database, DOH

According to WHO statistics, Mongolia moved up from number 130 in 2000 among the 193 member countries for its life expectancy measure to number 116 in 2009, leaving behind some countries that used to share a number of common characteristics, such as a Semashko health system (Figure 1-4) (See Section 2.2 Historical Background). . Assessment of health information system of Mongolia, conducted under WHO's Health Metrics Network, concluded that vital statistics collected through the system was highly adequate in terms of content, coverage, quality, dissemination, integration and use. The report indicates the system covers almost 95% of all deaths (Tugsdelger, Oyuntsetseg et al. 2008).

Figure 1-4 Life expectancy at birth, comparison across regions and some selected countries, 2009



Source: World Health Statistics 2011, WHO, available at http://www.who.int/healthinfo/statistics/mortality_life_tables/en/

However, it must be noted that some summary measures of population health (HALE, DALE and DALY, for example) are not routinely estimated for Mongolia. Morbidity data, collected mostly through passive surveillance system, are not well-integrated with data from population-based surveillance. Therefore, it captures acute illnesses better than chronic conditions with no clearly-defined onset. The records are based on hospital/clinic visits rather than by individuals. International classification of functioning disability and health is not used in the country.

According to WHO estimates (Mathers, Sadana et al. 2000), DALE at birth in Mongolia was 53.8 years on average (51.3 for men, 58.9 for women). On average, Mongolian men lose 7.7 years and women lose 8.1 healthy years due to disability (Table 1-4). The World Health Report for 2004 reported 55.6 years of healthy life expectancy for Mongolia (Table 1-5).

Table 1-4 DALE estimates, 1999

	Male				Female			
Total	At birth	Uncertainty range	Expected years lost to disability	% of total life expectancy lost to disability	At birth	Uncertainty range	Expected years lost to disability	% of total life expectancy lost to disability
53.8	51.3	49.7 - 52.7	7.7	13.0	56.3	54.7 - 57.7	8.5	13.1

Source: Mathers, C. D., R. Sadana, et al. (2000). Estimates of DALE for 191 countries: Methods and results. Global Programme on Evidence for Health Policy Working Paper No.16. WHO

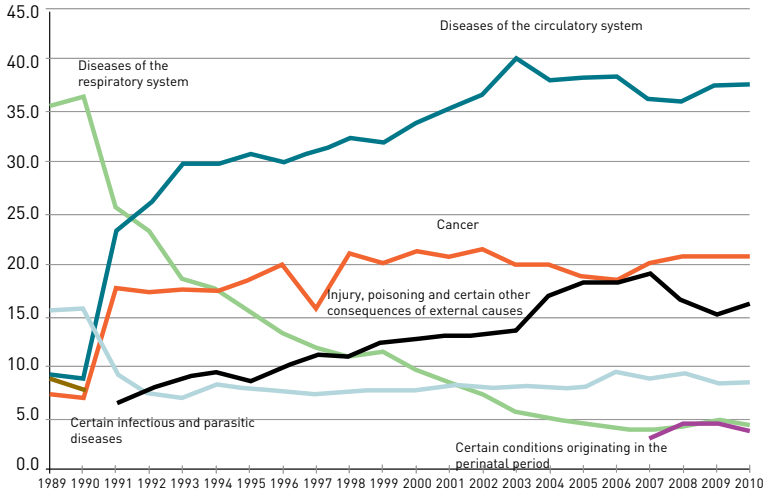
Table 1-5 HALE estimates, 2002

Male					Female			
Total	At birth	Uncertainty range	Expected years lost to disability	% of total life expectancy lost to disability	At birth	Uncertainty range	Expected years lost to disability	% of total life expectancy lost to disability
55.6	53.3	52.4 - 54.4	6.8	11.3	58.0	57.1 - 58.9	8.0	12.1

Source: WHO. World Health Report 2004: Changing History. Geneva.

Trends in the leading causes of disease clearly demonstrate the epidemiological transition the country has experienced. As a result of high immunization coverage and implementation of national programmes, infectious disease is no longer among the leading five causes of death since 1990. Instead, lifestyle- and behaviour-dependent diseases, such as circulatory system diseases, cancer and injuries, have become the leading causes of morbidity and mortality. Diseases of the circulatory system have been the leading cause of deaths for the last 20 years (Figure 1-5). The gender-specific mortality rates for cardiovascular diseases are 24.19 per 10 000 for males and 18.76 per 10 000 for females.

Figure 1-5 Leading causes of death, as percentage of total deaths, 1989-2010



Source: Compiled by using Health Indicators 2000-2010, DOH

Respiratory system disease which was the number one killer in 1990 has now fallen to fifth, in contrast to a sharp increase in numbers of deaths from injury and cancer. Mortality rate of respiratory system diseases has declined from more than 5.77 per 1000 population in 2000 to 2.72 in 2010 by more than twofold. (Table 1-6).

As of 2010, the leading causes of morbidity per 10 000 population were diseases of the respiratory (1027.7), digestive (900.5), genitourinary (756.3) and circulatory (679.4) systems, and injuries and poisoning (416.9). The rates have been increasing steadily, resulting in one and a half- to twofold increase in 2009, compared to 2000. When the incidence of the five leading causes of population morbidity are stratified by place of residence, overall morbidity for respiratory, digestive and genitourinary diseases is higher in rural settings, while the incidence rates for injuries and cardiovascular diseases are higher in urban areas (MOH, 2010). Respiratory and gastrointestinal diseases still dominate the morbidity pattern although occurrences of infectious diseases related to behaviour and lifestyle as well as living conditions, like HIV/AIDS, STI, TB, viral hepatitis and zoonotic diseases, are increasing.

Table 1-6 Main causes of death, per 10 000 population, selected years

Causes of death (ICD 10 classification)	2000	2002	2004	2006	2008	2010
Diseases of the circulatory system	20.37	22.3	23.06	22.88	20.54	23.60
Cancer	12.73	13.02	12.16	11.03	11.80	13.02
Injury, poisoning and certain other consequences of external causes	7.64	8.01	10.34	10.95	9.33	10.11
Diseases of the digestive system	4.68	4.77	4.82	5.67	5.27	5.30
Diseases of the respiratory system	5.77	4.43	3.03	2.37	2.40	2.72
Certain infectious and parasitic diseases	2.11	1.7	1.50	1.61	1.27	2.36
Certain conditions originating in the perinatal period	1.85	1.93	1.87	1.84	2.42	1.34
Diseases of the genitourinary system	1.48	1.39	1.35	1.26	1.07	1.15
Diseases of the nervous system and sense organs	1.09	1.06	0.88	0.94	0.95	1.03
Congenital malformations, deformations and chromosomal abnormalities	0.38	0.58	0.55	0.62	0.83	0.78
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	0.64	0.38	0.39	0.40	0.12	0.44
Endocrine, nutritional and metabolic diseases	0.16	0.24	0.26	0.39	0.36	0.40
Mental and behavioural disorders	0.14	0.29	0.10	0.12	0.12	0.10
Pregnancy, childbirth and the puerperium	0.18	0.17	0.12	0.08	0.07	0.09
Diseases of blood and blood forming organs and certain disorders involving the immune mechanisms	0.33	0.15	0.09	0.07	0.09	0.07
Diseases of the musculoskeletal system and connective tissues	0.21	0.13	0.16	0.01	0.14	0.07
Diseases of the skin and subcutaneous tissues	0.11	0.14	0.04	0.02	0.04	0.00

Sources: Health Indicators 2000, 2002, 2004, 2006, 2008 and 2010, DOH

Liver cancer stands out as one of the most common causes of mortality which requires special attention. Hepatitis B and C viruses are the main causes of chronic liver disease and hepatocellular carcinoma in the country. The high intake of alcohol accelerates the course of processes caused by these viruses, leading to the development of chronic hepatitis and liver cancer at a much younger age than in other countries. Although mortality rate due to infectious diseases has dramatically decreased, it continues to be a challenging public health issue as incidence rate of total infectious diseases has not been contained yet.

In the last few years, an increasing number of deaths have been caused by suicide, homicide and traffic accidents. The suicide rate is four times higher among men than in women. The homicide rate is 4.4 times higher in men, and men are 3.8 times more likely than women to die as a result of traffic accidents.

STIs accounted for 35% of all registered infectious diseases, indicating a high risk of HIV/AIDS. The HIV epidemic in Mongolia is classified by WHO as low-prevalence. Although HIV/AIDS prevalence is low, the country is at high risk of an epidemic due to its relatively young population, the steady increase in cases of STI in recent years, increased population migration, and growing HIV/AIDS epidemics in neighbouring countries. The first HIV infection was reported in 1992, and by 2009, 62 HIV/AIDS cases had been reported, of which 13 were registered in 2009. A national committee on HIV/AIDS prevention, chaired by the Deputy Prime Minister, has been established and will contribute to MDG achievements by ensuring integrated coordination and management of HIV/AIDS prevention measures and facilitating intersectoral collaboration.

Mongolia is among the seven countries in the WHO Western Pacific Region with the highest tuberculosis (TB) incidence. The TB incidence rate per 100 000 population increased by 1.5 times in 2000 and by 2-2.3 times in 2004-2006 compared with the rate (79) in 1990. The rate fell to 159 in 2008 and has remained stable ever since. New TB cases, which comprise 10.8% of all reported communicable diseases, reached 15.9 per 10 000 population in 2009, the same level as of 2008. The country has succeeded in reducing the TB case fatality rate as a result of the directly observed treatment, short-course (DOTS) implementation in the 1990s. The proportion of TB cases cured under DOTS increased from 80.0% in 2000 to 84.2% in 2009.

According to the second STEPwise Surveillance (STEPS) of noncommunicable disease risk factors, one in five (26.4%) Mongolian adults and one in two (53.8%) adults of 45-64 years of age have three or more common modifiable NCD risk factors (WHO 2010). One quarter of young men aged 15-44 have three or more risk factors, twice those affecting women of the same age (26.0% vs. 12.4%).

The survey results showed that in Mongolia 27.6% of the population smoke (48.0% of men and 6.9% of women). Nearly half the population (42.9%) was exposed to second-hand smoking at home. Current drinking or consumption of alcohol in the past 30 days was reported by 38.6% of respondents. The prevalence of binge drinking (more than five drinks on one occasion for men, or more than four drinks for women) was 39.7% in men and 15.1% in women. Results of the comparative study (STEPS 2005 vs. 2009) indicated that the prevalence of smoking in the adult population has stayed about the same, although, women now start smoking at a younger age. With regards to alcohol consumption, the percentage of respondents drinking alcohol in the past 12 months has decreased. The same survey found that 39.8% of the population was overweighed and 12.5% was obese. Prevalence of overweight and obesity tended to increase with age, and the proportion of overweight or obese women in all age groups was higher than for men. During 2005-2009, the mean body mass index of the adult population increased as well as the prevalence of obesity (by 2.7%), and overweight (by 8.3%).

Cervical cancer screening coverage was very low with only 5.2% of female respondents reporting visual inspection with acetic acid (VIA) and 11.4% Pap smear testing. Women aged 35-54 had the highest cervical cancer screening coverage, which was consistent with the fact that cervical cancer incidence is highest in this age group. Breast cancer screening was also insufficient with one in three surveyed women reporting breast self-examination, and only 3.2% and 1.7% undergoing clinical breast examination and mammography, respectively.

Prevalence of road traffic injury in the survey population was 4.0%. One in four traffic injuries was due to speeding, and nearly 1 in 10 due to drunk driving. 83.6% of the drivers and passengers reported not using a seatbelt regularly.

Table 1-7 Maternal, child and adolescent health indicators, selected years

	1980	1990	1995	2000	2005	2010
Adolescent pregnancy rate (15–19 years)				9.3		
Adolescent birth rate	-	-	-	10	13	6.0
Termination of pregnancy (abortion) rate*	70.4	399.0	339.4	231.6	200.7	189.6
Perinatal mortality rate per 1000 live births	22.6	22.0	23.5	19.6		
Postneonatal mortality rate per 1000 live births						1.9
Infant mortality rate per 1000 live births	78.9	63.4	44.6	31.2	20.8	19.4
Under-five mortality rate per 1000 live births		87.5	62.0	40.8	26.1	24.6
Maternal mortality rate per 1000 live births	160.0	205.2	186.9	158.5	93.0	45.5
Syphilis incidence rate	10.1	3.2	3.0	6.9	9.5	14.4
Gonococcal infection incidence rate	4.1	9.8	13.9	23.1	25.3	21.0

* Officially registered cases only
Source: Health Indicators 2000-2010, MOH and DOH

The national maternal mortality ratio (MMR) per 100 000 live births for 1990-2000 was considered high, compared to regional average and the average of the developed countries (170 per 100 000 in 1996). However, for the last decade, MMR decreased in Mongolia significantly from 158 in 2000 down to 45.5 in 2010.

The under-five mortality rate per 1000 live births fell from 87.5 in 1990 to 24.6 in 2010. In addition, the infant mortality rate per 1000 live births fell to 19.4 in 2000 from 63.4 in 1990 (see Table 1-7). According to 2007 short programme review of child health, the proportion of child deaths due to acute respiratory infection and diarrhoea has fallen, while the proportions due to neonatal causes and injuries have increased. Neonatal deaths represent 62% of infant deaths, and 80% of newborn deaths occurring in the first week of life. Prevalence of wasting, underweight and stunting have generally fallen since 2000; stunting rates have decreased less rapidly, with 26.2% of children still stunted in 2004. Prevalence of iodine and iron deficiency has fallen in the last two to three years, but remains a problem, with 22% of children under five years of age being anaemic.

Chapter 2: Organization and governance

2. Chapter summary

The Mongolian health system is based on a two tier model that provides health services at primary and secondary levels. The system was inherited from the former centralized Semashko system and has undergone modifications over time. Since 1991, piecemeal attempts were made to strengthen the management of MOH and health departments at aimag levels. Regional diagnostic and treatment centres (RDTCs) were established at the regional level, and secondary level general hospitals were split into inpatient and outpatient sections in Ulaanbaatar.

The second round of structural reforms were enacted with new Health Act of 2011. The Health Act reorganized health care organizations in terms of function and structure in different levels of the system. For instance, Family group practices and soum hospitals restructured into family/soum health centres which will focus more on public health intervention rather than former curative services. The health centres are private health facilities and deliver government funded public health services through contracts with the State. In Ulaanbaatar, district outpatient clinics and hospitals were reorganized into district public health centres and district general hospitals and its medical service expanded from the existing two disciplines (internal and neurological medical services) to seven major medical services including internal medicine, paediatrics, surgery, obstetrics and gynaecology, neurology, infectious diseases and dental care. Moreover, the new Health act also brought changes in clinical governance; governing board of the state central hospitals, specialized centres and RDTCs are newly established to provide elements of health care organizational autonomy in decision-making.

The planning process for the MOH is based on the government's action plan and priority process despite the Health sector strategic master plan (HSSMP for 2006-2015) developed and endorsed by the government

through extensive discussions with relevant stakeholders. Recently, the government has also strengthened the intersectoral approach with international partners to support coordination on collaborative activities and planning. But, the planning process is still top-down and limited by the state budget and political situation.

The private sector participation has been intensified over the last few years moving from basic services to more sophisticated tertiary-level services with investments from national as well as foreign companies. Despite significant increases in reimbursements from the social health insurance plan, the regulatory framework for private health care providers needs to be strengthened.

2.1 Overview of the health system

The Mongolian health system is one statutory system divided in principle according to two main administrative divisions: aimags and capital city. Aimags are further divided into soums, and soums into baghs. The capital city is divided into districts, and districts into khoroos. These administrative divisions are represented by a two-tier health system: primary care and specialized care, including secondary and tertiary care (see Table 2-1).

Previously, the health system addressed three levels of service delivery (primary, secondary and tertiary) but did not detail the types of health facilities at each level. The Health Act (2011) laid out in detail the different types of facilities to be available at each level, and their designation. These are shown in Figure 2-1, and include family health centres, soum and village health centres, intersoum hospitals, clinics, maternity hospitals, public health centres, general hospitals, sanatoria, emergency centres, RDTC, national central hospitals, and specialized centres.

The delivery of health services is challenged by the country's extremely low population density over a large territory. At the primary level in Ulaanbaataar, primary health care (PHC) services are mainly provided by family group practices (FGPs or renamed as Family Health Centres as of 2011) in Ulaanbaatar; three village health centres also serve the outlying suburban areas. In the aimag or provincial level, primary health care is delivered by FGPs (one per aimag), and soum hospitals (one per soum). In addition, there are also intersoum hospitals that serve multiple soums. To reach rural populations that are too far from services, a particular

form of delivery is organized through bagh feldshers, who undergo a four-year medical training schedule. They report to the soum health centre and refer people to the soum doctors. FGPs provide general professional care in accordance with the essential package of services and focus on health promotion, preventive care, clinical and follow-up care and, if necessary, they refer a patient to the next higher-level facility for more specialized care. An intersoum hospital with a reasonably large population and in a suitable location is used for primary referral services for the neighbouring soums. Despite mainly providing a primary outpatient care, soum health centres and intersoum hospitals both have a limited number of beds to provide rehabilitation and emergency health services.

The secondary level of care is delivered by district general hospitals and public health centres in Ulaanbaatar, and by general hospitals in aimag centres. They provide inpatient and outpatient services. The tertiary level of care is provided through state clinical hospitals and specialized medical centres located mainly in the capital city, but also through the four RDTCs located in four regional centres – western region (Khovd), eastern region (Dornod) Khangai region (Uvurkhangai) and Erdenet (Orkhon). RDTCs were established by the MOH in response to the Regional Development Concept approved by the State Great Khural in 2001 in order to improve access to fast and efficient tertiary medical services at the regional level. RDTCs also provide secondary level of health services for their own aimag population.

The following specialized centres and tertiary-level central hospitals belong to the MOH in Ulaanbaatar: National First Central Hospital, National Second Central Hospital, National Third Central Hospital, National Centre for Infectious Diseases, National Cancer Centre of Mongolia, National Centre of Traumatology and Orthopaedics, National Centre for Mental Health, National Centre for Mother and Child, National Centre for Dermatology, National Centre for Zoonotic Diseases, National Centre for Gerontology, National Centre for Pathology, National Centre for Blood Infusion, Central Sanatorium for Children, Traditional Medicine, Technology and Production Corporation of Mongolia (MOH 2012).

Table 2-1 Hospital service facilities by level of care

Type of health facilities	Number
Secondary health care organizations	
Aimag general hospitals	17
District general hospitals, public health centres in Ulaanbaatar	12
Maternity hospitals (under Ulaanbaatar Health Department)	3
Tertiary health care organizations	
Regional treatment and diagnostic centres (in rural areas)	4
Specialized centres and central hospitals (all in Ulaanbaatar)	17
Other health organizations (not under MOH, belonging to corporations like Ulaanbaatar Railway, Erdenet Mining Corporation, etc., other ministries like the Ministries of Justice and Defence, and to foreign companies like MedSoS)	55
Private health facilities (specialized outpatient clinics including dental	1184
Total	**1292**

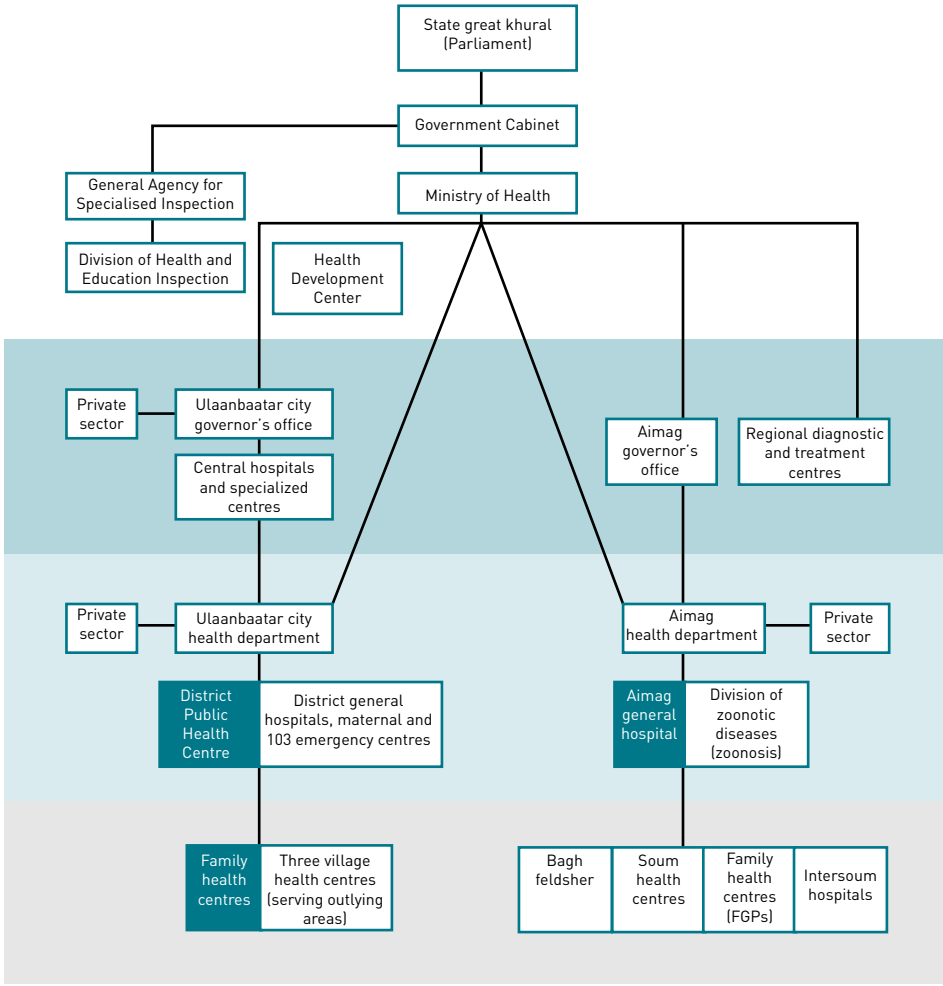
Source: MOH and DOH, 2010

Private health sector has become a strong competitor to government hospitals in terms of human resource capacity, user-friendly care, and equipment. They provide mainly secondary level of specialty services. At present, the private sector dominates in the areas of dentistry, internal medicine, obstetrics and gynaecological care, traditional medicine, and high-tech laboratory services. The regulatory framework and financial resources for the private sector have improved since 2010 and created an environment where the private sector has been able to develop and be more competent. But there is a strong curative focus in the private facilities with little or no health education and prevention.

Due to decentralization, decision-making is fragmented. MOH is the main regulatory body as indicated in the Health Act. Other institutions, such as Department of Health, General Agency for Specialised Inspection, Ministry of Finance, Social Insurance General Office, and local governments, have decision-making powers in terms of administration, regulation and budget. Some health facilities, including hospitals and training institutions, administratively belong to other ministries like the Ministry of Education Culture and Sciences, the Ministry of Justice and Internal Affairs, and the Ministry of Defence.

There are also hospitals and some health institutions belonging to big corporations like Ulaanbaatar Railway and Erdenet Mining Corporation.

Figure 2-1 Health system's organizational hierarchy



* It used to be an implementing agency of the Ministry of Health; however, it has been reorganized from September 2012.

2.2 Historical background

Modern health services in Mongolia have been developed since 1921. From 1941 to 1990, the health system and infrastructure had expanded rapidly throughout the country under the influence of the Soviet Union and modelled on a strong centrally-planned Semashko healthcare system. It was a centralized and hierarchical health system where health-care services were fully financed by general government revenues. Health care was free of charge at the point of delivery but the system, mostly reliant on curative services, was very resource-intensive and based on large

numbers of beds and medical personnel. Despite many achievements, including improved equity and access to health care and control of communicable diseases, there were weaknesses, including low efficiency and a lack of responsiveness to patients' rights.

In the early 1990s, with the collapse of the Soviet Union and democratic changes in Mongolia, it became evident that with the significant falls in GDP, the Semashko health system with funding from the state budget was not self-sustaining. During this transitional period, the government continued to fund administrative health expenditures but international aid and donors' assistance played an important role in helping the government to maintain a functional health system. The health care financing reform with the adoption of the Health Insurance Law in 1993 introduced social health insurance as part of a larger social security scheme. Since the law on social health insurance was endorsed almost 20 years ago, it has been amended five times (in 1997, 1998, 2003, 2006 and 2007). By 2011, there were 98.6% of the population covered by social health insurance (see Chapter 3 for more details).

Other key reforms that have had an impact on the development of the Mongolian health system include the reorganization of primary care services in urban settings. In the late 1990s, with the assistance of international development organizations, particularly ADB, comprehensive support was provided for strengthening primary health care (PHC) as a national policy. From 2002, PHC in urban areas was fully transferred to the family group practices (FGP) system, and it was estimated that by 2008 more than half of the total population was covered by the services of 228 FGPs established in all districts of Ulaanbaatar and 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-based approach (Bolormaa et al 2007).

The government issued resolutions to pilot health sector privatization in 1997, and social sector privatization guidelines were passed by the State Great Khural in 2001. By 2003, there were over 840 private health facilities registered in Mongolia, mainly private pharmacies, and the number increased to 1184 private health facilities with 3069 hospital beds and 519 private pharmacies (MOH 2011). In 2011, the public-private partnership strategy was approved. Moreover, the funding from social health insurance was significantly increased to private health care providers. However, the regulatory 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.

2.3 Organization

The main actors in the Mongolian health system are the Ministry of Health (MOH), the Ministry of Finance (MOF), the Ministry of Human Development and Social Welfare (MOHDSW), the Ministry of Education, Culture and Science (MOECS), the regulating agency General Agency for Specialised Inspection (GASI), Health Development Centre (HDC), and former government implementing agencies such as the Department of Health (DOH), the Department of Physical Culture and Sport (DOPS), and the city/aimag health departments.

Ministry of Health

The MOH is the Government of Mongolia's central administrative body responsible for health policy formulation, planning, regulation and supervision, and ensures the implementation of health-related activities and standards by its institutions and agencies (MOH 2009). The current organizational structure consists of four departments and eight divisions, namely: Department of Policy and Planning; Department of Public Administration and Management; Department of Policy Implementation Coordination; and Department of Monitoring, Evaluation and Internal Audit. Division of Finance and Investment; Division of Pharmaceutical and Medical Devices; Division of Medical Services; Division of Diagnostics and Treatment Technology; Division of Public Health; Division of Organisation Management and Development; Division of Human Resource Development; and Division of International Cooperation (MOH 2012).

Ministry of Finance

The MOF bears responsibility for overall fiscal planning and monitoring functions at the national level including the health sector. It looks after the following: 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; and insurance policy (Bolormaa et al 2007). According to new government structures established by the election of 2012, some functions related to economic development policy and strategy including state investment policy, the integrated policy and coordination on the investment and

loans from international organizations, donors and private sectors were transferred to the Ministry of Economic Development.

Ministry of Human Development and Social Welfare (MOHDSW)

The MOHDSW is the state administrative body responsible for social security issues at the central level. This Ministry is in charge of health care for specific population (see Section 5.14). The most important government implementing agency operating under this Ministry's jurisdiction is the Social Insurance General Office (SIGO). The SIGO is in charge of the implementation of social insurance legislation and the operation of the social insurance funds. The Health Insurance Department of the SIGO manages pooling and purchasing activities of the health insurance system.

Ministry of Education, Culture and Science (MOECS)

The MOECS is the main government administrative body that regulates and coordinates all levels of educational and research policy and its implementation, including undergraduate, graduate and postgraduate medical education in Mongolia. The schools and training institutions of medicine, nursing, pharmacy, medical technicians, public health, biomedicine and traditional medicine prepare health-care professionals through the diploma, bachelor's, master's and doctoral level trainings under the jurisdiction of the MOECS. Consequently, the research institutions and centres of health sciences are also working with Mongolian Academy of Science (MAS) and Science Technology Foundation (STF) belong to the MOECS. The short-term advanced training courses and long-term specialized courses for health professionals including residency trainings are regulated by the MOH with active participation of MOECS.

General Agency for Specialised Inspection (GASI)

The GASI is the government regulating agency in charge of monitoring the implementation of state regulations and standards, including those related 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.

Implementing agencies and their interrelations:

The Health Development Centre (HDC) or former Implementing Agency of the Government - Department of Health

The Health Development Centre (HDC) is a professional organization affiliated with the MOH, which provides support for policy formulation and technical capacity strengthening in the areas of health management and information, continuing medical education, telemedicine and emergency care. In 2002, the HDC 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. But, with a change of government in 2004, this restructuring was reversed and the DMS was renamed National Centre for Health Development (NCHD). In 2008, NCHD was restructured once again as the Government Implementing Agency - Department of Health (DOH). Due to new structure of the government of 2012, the Health Development Centre (HDC) is just newly established on the basis of the former Government Implementing Agency--Department of Health and some functions including licensing\accreditation, pharmaceuticals\ medicine registration and health promotion were transferred to the MOH.

Implementing Agency of the Government - Department of Physical Culture and Sport (DOPS) is responsible for implementation of Mongolian physical culture and sport legislation, to provide nationwide physical culture and sport activities with technical and professional methodology. The DOPS is also responsible for policy planning, implementation and coordination of Mongolian physical culture and sport; and aims to provide sustainable action for people's physical culture and sport services (DOPS 2012). Since September 2012, the agency has moved to the Ministry of Culture, Sports and Tourism due restructuring.

The City/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 facilities in the aimag, and the efficient allocation and management of financial and other resources. The health-care facilities in Ulaanbaatar districts are supervised and managed by the Ulaanbaatar City Health Department, under the control of City Mayor's Office (Bolormaa et al 2007).

The Public Health Institute (PHI) is the organizational structure for the research functions under the supervision of the MOH. It is responsible for public health research activities at the national level and implements joint research projects and programmes with domestic and international institutions. PHI receives funding from the MOECS and the MOH (MOH 2011).

The Traditional Medical Science, Technology and Production Corporation of Mongolia 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 for using deer products in traditional medicine, and a plantation for the cultivation of medicinal plants. It is designated as a public sector tertiary-level facility (MOH 2004) (See 5.12).

The Medical Research Institute (MRI) is the organizational structure for the research functions under the supervision of the MOH. It is responsible for medical research activities at the national level and implements joint research projects and programs with domestic and international institutions. PHI receives funding from the MOES and the MOH (MOH 2011).

Private health facilities

Since the private ownership of health facilities was permitted at the end of the 1990s, the number of private health institutions/organizations has increased dramatically. The vast majority of these hospitals are located in Ulaanbaatar. In 2010, the number of private beds reached 2527, accounting for 14.2% of total hospital beds (MOH and DOH 2010). Private hospitals are regulated by the accreditation and licensing system, which requires minimum standards for medical practice, facility and equipment. In order to strengthen the regulation of the private health sector, the Mongolian government endorsed the regulation No. 172 on the selection of health providers funded by the state budget and social health insurance in 2008. As a result, in 2009, all private hospitals were evaluated, and those that passed (89%) have a right to be funded by social health insurance and the reimbursement rate was also increased.

Nongovernmental organizations

NGOs in health sector are emerging and according to the Ministry of Health officials 201 health NGOs have been officially registered in 2010

(MOH 2011). 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 which are very active in the areas of health promotion and public awareness in HIV/AIDS, domestic violence, drug and alcohol problems and other health issues (Bolormaa et al 2007).

International partners

Since the inception of the major health sector reforms in the early 1990s, donors and international development organizations have not only provided assistance for the social sector, but also influenced certain policies and programmes, which have shaped the health policy agenda (See 3.6 for more information).

2.4 Decentralization and centralization

Since 1990, the Mongolian health system has been undergoing a major structural change with the transition from a centralized Semashko model to a market–oriented system. Decentralization was the most important part of the reform, and it has been attempted through a series of government efforts to adopt legislation and policy frameworks in the mid-1990s. The 1992 legislation on self-governance, "Public Service Law" of 1994, and the Regional Development Concept of 2001 are examples of the most prominent reforms made by different governments to promote decentralization.

The decentralization process was based on transferring financial responsibility for local level health facilities to local governments (O'Rourke et al, 2003). However, the decentralization process went very slow due to a lack of clear guidelines or procedures on the systematic approach towards decentralization, even though the basic elements of the legal framework for decentralization and structural reform were in place (MOH 2005). 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. Administrative decentralization was more successful than financial decentralization.

In 2001, in an apparent reversal to previous decentralization efforts, a reform to the General Tax Law reduced local budgets significantly. In

2002, the Consolidated Budget Law mandated that personal income tax be centralized in the central budget. Similarly, in 2003 the Public Sector Financial Management Law established that all spending on the health sector must form part of the minister's portfolio, rather than be allocated to local governments (Yadamsuren 2005).

Despite these centralizing measures, the administrative decentralization was still maintained and the increased participation of primary stakeholders improved the performance of health services (MOH 2008). Additionally, the decentralization agenda still has a lot of support, in particular from civil society and international development organizations. The Local Citizens' Representative Khural promotes the involvement of the local citizens in decision-making, including budget allocation for priority issues in the relevant soum or aimag. However, with the enactment of the PSMFL in 2003, the power of the local Khural has been reduced to formally endorsing budget allocation decisions made by central authorities. Therefore, although the Local Citizens' Representative Khural retains some political functions, such as nominating the soum/aimag governor, its real power is limited (Bolormaa et al 2007). Overall, the process of decentralization in Mongolia has been centrally driven, implemented slowly, and is so far incomplete due to the lack of institutional, managerial and technical capacity.

Recently, however, due to the new fiscal budget law of 2011, there have been some new decentralization trends such as the shifting of primary health care budget from the minister's portfolio to the local governors; the introduction of public-private partnerships on the basis of concession law and agreement. The PSFML is expected to be invalidated from 1 January 2013 (Fiscal Budget Law 2011; PSFML 2011). But there is currently no evidence for the successful implementation of the new fiscal budget law at the local level. The most important factor should be capacity building of local government.

2.5 Planning

The government action plan, the Health Sector Strategic Master Plan 2006-2015 (HSSMP), is the main document to set out strategic directions for the health sector. Within the framework of this document, the Ministry of Health (MOH) develops its national health strategic plans including major health priorities and programmes. The HSSMP is intended to provide a long-term vision that can be implemented whatever the

government's ideology or political mandate happens to be. But rapid and constant political changes influence negatively the continuity of policy implementation and planning, which means that short-term planning still dominates.

At the time of writing this report (2012), eleven national health programmes and twelve health strategies have been implemented by the MOH since 2006 (Table 2-2). Due to governance structure, health departments of aimags and the capital city also develop their own territorial health strategic plans based on the national health policy documents and local government action plans.

Table 2-2 National health programmes and strategies implemented by MOH, 2011

	Type of health facilities	Implementation term
	National health programmes	
1	National Reproductive Health (Third) Programme	2007–2011
2	National Environmental Health Programme	2006–2015
3	National Communicable Disease Control Programme	
4	National Oral Health Programme	2006-2015
5	National Sport Development Programme	2007-2012
6	National Cancer Control Sub-Programme	2008-2013
7	National Noncommunicable Disease Control Programme	2006-2013
8	National Injury and Violence Prevention Programme	2010-2016
9	National Mental Health (Second) Programme	2010-2019
10	National Traditional Medicine Development Programme	2010-2018
11	National Programme to Combat Cardiovascular Illnesses	2010-2021
	Health strategies	
1	National Strategy on Maternal and Newborn Health	2011-2015
2	National Strategy on HIV/AIDS Prevention	2010-2015
3	National Strategy on Healthy Lifestyle and IEC	2010-2016
4	National Strategy on TB Prevention and Fight	2010-2015
5	National Strategy on Healthy Food and Physical Activity	2010-2021
6	National Blindness and Poor Hearing Prevention and Control Programme	2010-2019
7	National Strategy on Medical Waste Management	2009-2013
8	National Strategy on Health Education	2010-2015
9	National Strategy Against Viral Hepatitis	2010-2015
10	National Strategy on Congenital Syphilis	2011-2015
11	National Strategy on Provision of RH Drugs and Devices	
12	E-Health Strategy	2010-2014

Source: Public Health Situational Analysis 2000-2010, MOH 2011

Planning is still driven by facility standards (inputs) instead of being output-based. There is no clear planning of how to match health service provision in terms of facility and equipment with population health needs in Mongolia. Budget planning in the health sector is predominantly based on the previous year's expenditure. The Ministry of Finance (MOF) decides the total budget level to be allocated to the health sector. This includes Social Health Insurance as well. This top-down budget planning is affected by the government budget and political situation.

The Human Resources for Health policy of 2006 led to the establishment of an intersectoral coordinating committee of health human resource in 2007. This committee is chaired by the Prime Minister and consists of five ministries that collaborate with each other over planning of human resources. This is an effort to involve other sectors in human resource planning. By 2012, the committee has been transferred to the Ministry of Health.

2.6 Intersectorality

The move towards a broader view and intersectorality was reinforced by the adoption of the national 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.

In 2002, the National Public Health Council was established and in 2011, after the new Health Act was approved, it became the National Committee for Health. It supports the implementation of the SPPH at national and local levels through the coordination of multisectoral activities, such as the development and implementation of the public health training curricula and conducting research and educational activities in collaboration with other institutions. The Prime Minister chaired the National Public Health Council, while branch councils set up locally are headed by aimag governors. 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 Ulaanbaataar City Government (Bolormaa et al 2007). In 2008, the National Council was suspended however expected to be reestablished with the new government.

The MOH is working with other relevant ministries on the National Program on Environmental Health. There is a major intersectoral collaboration for air pollution, and environmental health being implemented by the Ministries of Health and Environment & Tourism, Ulaanbaatar city and local government offices, health inspection department of the GASI, Public Health Institute, Environmental Health Research Centre, and other professional associations and NGOs.

2.7 Health information management

2.7.1 Information system

The Department of Information, Monitoring and Evaluation of the MOH is responsible for coordinating and regulating the activities of the health information system, and for developing and refining health information technology policy. 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 (Bolormaa et al 2007). Also, the health statistical section of the Department of Health is responsible for health statistics and data collection, and analysis and dissemination including morbidity and mortality through health care organizations. This agency also attempts to collect data on health financing and is responsible for NHA. However, most public and donor financial data are generated by the Ministry of Finance for other users including the MOH.

In response to the need for a strategic plan to refine the content and structure of the health and management information system (HMIS), to identify appropriate mechanisms for the utilization of information and communications technology (ICT) advances, and to coordinate HMIS initiatives, the MOH developed an HMIS strategic plan for 2006-2010 with technical and financial assistance from the WHO and ADB. In this strategy paper, a number of subsystems were targeted to be developed including a public health management information system, a financial management information system, a supportive management information system, an hospital service management information system, and private health sector information system, etc. An integrated HMIS is needed to support the effective use of information in decision-making about planning, financial management, resource allocation, and implementation of policies and laws.

The second Health Management Information System Development Strategy for 2011–2015 and e-Health Strategy (2010-2014), approved by the MOH in 2010, include plans for a broadband network that connects all aimags and soums. Further, 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. In 2010, fifteen specialized centres and hospitals were entered into a unified information system in order to improve hospital management, simplify the procedure on patient data, and evaluate existing system for better planning and resource allocation.

The government started to implement the E-Mongolia Programme to provide the population with access to the Internet and other information technology by reducing the price of computers and Internet connection fees and expanding access to broadband Internet connectivity in rural areas. The programme intended to use ICT and develop it in the health sector as a patient-centred service regardless of time or location. It plans to do so through the establishment of an "integrated electronic database system of medical records", the application of ICT to enhance public health education, and the use of telemedicine tools for treatment, diagnosis, and monitoring in less accessible rural areas (ICT4D project, 2008).

2.7.2 Health technology assessment

Officially, health technology assessment (HTA) is one of the responsibilities of the Technical Evaluation Committee, established by the MOH. The Government of Mongolia approved the National Programme to Improve Health Technology in 2002. The programme included objectives related to HTA, such as introducing the most effective and affordable technologies that are suitable to the level of care provided, and selecting and adopting appropriate technologies to reduce leading causes of mortality and morbidity. A review done by the Information, Monitoring and Evaluation Division of the MOH 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 poor (Bolormaa et al 2007).

Due to shortages of finances during years of economic hardship, medical equipment in hospitals is old and inappropriately used in many circumstances. However, in recent years, the Ministry of Health has

invested substantial financial resources in purchasing new and modern equipment for tertiary-level hospitals and specialized centres (MOH 2010). Without a clear development plan, permanent investment strategy, and retraining of health workers, the distribution and variety of the equipment can be described as uneven. Also, the development of the private sector led to important investments in new technologies and modern medical equipment. Private facilities are now becoming important alternatives to what were once considered "top" or specialized centres and hospitals in the public sector. So, regulation requiring a certificate of need for facilities to procure and operate high technology and high-risk medical technologies would greatly help to improve health services quality and technology efficiency and effectiveness (GVG THSDP 2010).

2.8 Regulation

The MOH plays a stewardship role in the regulation of the health sector at the national level.

2.8.1 Regulation and governance of third-party payers

The MOH and MOHDSW are the third-party payers involved in purchasing and resource allocation in health care. The government budget is run by the MOH, and SIGO (under the MOHDSW) manages the Health Insurance Fund. The fund for social health insurance is a single national insurance fund that uses its local branches to collect revenue and pay for insured care. In addition to having a government agency status, the SIGO is also overseen by the Social Insurance National Council (SINC) appointed by the State Great Khural. The Social Insurance National Council is comprised of three party representations: employers, insured and government. The SINC endorses social insurance budget for all social insurance schemes which is then approved by the State Great Khural as legislation. SINC also appoints the members of Health Insurance sub-Council (HIsC), which is chaired by the MOH State Secretary. The HiSC has some decision-making power although can be overruled by the SINC. As such the governance of social health insurance system in Mongolia is blurred between state institutions.

2.8.2 Regulation and governance of providers

The MOH is the main agency to regulate and govern service providers at the national, especially tertiary-care level, hospitals. The Health Act (2011) enacted the governing board for tertiary-level hospital care providers

to ensure hospital autonomy in some degrees. However, the board members are appointed by the Minister of Health. At secondary care level hospitals, the responsibility belongs to local governments, the City Health Department in Ulaanbaatar, and the Aimag Health Department at the aimag level. In recent years, a major achievement in improving health care quality and regulatory functions has been the introduction of licensing for health practitioners and the accreditation of health care organizations. The main regulatory body related to providers is the Medical Accreditation and Licensing Board within the MOH, which has the power to regulate practice of both medical organizations and health professionals (Bolormaa et al 2007).

The quality assurance system by the social health insurance system is very basic. At present it is limited to teams of clinical experts from SIGO, periodically carrying out selective reviews of patients' records in hospitals. These experts check patients' records to make sure that they comply with clinical guidelines. Since 1998, quality managers have been appointed in all secondary- and tertiary-level hospitals, and in 2000 this was upgraded through the establishment of quality units in these facilities. In 2010, the regulation of quality assurance activity and quality unit structure and function by the joint order of Ministry of Health and General Agency for Specialised Inspection was approved. The functions of the quality units have been technically supported and supervised by the Quality Assurance Unit of the Department of Health, which acts as a working unit of the National Committee for Quality Assurance. The committee is headed by the State Secretary of the MOH and consists of nine members drawn from the MOH, professional associations, hospitals, and the private sector (MOH 2011). However, this function still needs to focus more on patient-centred services and continuous quality improvement rather than traditional, inspection-based quality assurance approach. In addition, there is a lack of financial support for quality teams and quality improvement activities in hospitals. Since 2010, the professional exams for licensing have been transferred to the Medical Professional Societies (MPSs) and expected to have more involvement of MPSs after the dissolution of DOH.

2.8.3 Registration and planning of human resources

Registration/licensing

The Division of Licensing and Continuing Education of Health Professionals of the Department of Health is the statutory body that

registers qualified medical practitioners. The license is revalidated every five years, and health practitioners need to have a certain number of professional education credits in order to be relicensed. In July 2006, the licensing process was changed so that one person can hold only one license to practise – either for medicine, for pharmacy, or for nursing.

Planning of health-care workers

The number of doctors has remained fairly stable since 1990. Under the current policy, it was hoped that employee numbers in state hospitals would fall, and quality of health services and staff salaries would increase. In the Semashko model, government policy focused on increasing the number of service providers to improve access and provision of health services.

Workforce planning is still not determined by factors such as population growth, the current and projected epidemiological profile of the population, and the current reform agenda of privatization, rationalization and modernization of health services. The MOH is not able to control the supply side of human resources as medical schools are controlled and funded by the MECS. Medical schools depend on revenue from tuition fees, so they enrol as many students as they can. Consequently, a disproportionately large number of students become doctors relative to nurses (MOH 2010).

2.8.4 Regulation and governance of pharmaceuticals

Pharmaceuticals

The Department for Drug and Medical Devices of the MOH is responsible for the main function of pharmaceutical sector policy regulation and coordination. A National Drug Council, consisting of experts in the field and representatives of all relevant ministries, leads the pharmaceutical sector, particularly in the development of standards, guidelines and procedures, including drugs registration. The State Health Inspectorate of the General Department of Professional Inspection 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 (Bolormaa et al 2007).

The main law governing the management of the Mongolian pharmaceutical sector – the Drugs Act - was endorsed in 1998 and aimed to ensure a steady supply of good quality and effective drugs. Following the Drugs Act, the National Drug Policy was adopted in 2000. 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. In order to ensure the availability of the most essential medicines at all levels, the government has adopted an Essential Drugs List, developed on the basis of recommendations by WHO.

The procurement of all health products including medicines for government-run health facilities is regulated by the Law on Public Procurement and Guidelines approved by the MOH. According to the government resolution numbered 42 dated 21 January 2007, the purchase of goods (like drugs) with a value of USD 4000 or less can be carried out by consumers themselves. For prices between USD 4000 and USD 25 000, there is a simple price comparison method to compare quotes from at least three different suppliers. Any purchase exceeding about USD 25 000 must undergo open or selected competitive bidding processes. Tertiary-level health facilities and aimag health departments have their own tendering committees. Ulaanbaatar city carries out a tender for all its district hospitals.

The cumulative markup on locally-produced pharmaceuticals is a minimum of 5% of their wholesale price, while for imported pharmaceuticals it is almost 100%. Data for the additional retail markup are not available. Prices for drugs on the Essential Drugs List are controlled. The price limits for drugs on the Essential Drugs List are set by a subcommittee under MOH guidance. The list includes both over-the-counter (OTC) and prescription drugs, as per the Law on Medicine and Medical Devices of 2006, but only OTC drugs on the list are subject to price control. Because OTC drugs on the list are mostly donated by international organizations and donors, few are imported. There are no price control mechanisms specific to generic drugs.

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. 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 contain 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 GASI 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 licenses are revoked. The number of counterfeit drugs in circulation has decreased significantly, and the majority of drugs have been registered during past 10 years. However, purchasing nominally prescriptioin-only medicines directly from pharmacies without a prescription is still prevalent. According to the Law on Medicine and Medical Devices, all medicines should be registered in the State Medicine Registration and divided into two categories as medicines available with and without prescription.

Despite this, the inspection of quality is somewhat disconnected from the MOH. Although coordination mechanisms are in place, reports are not shared and the inspection policy is determined by GASI rather than by MOH. The inspection is inadequate and internationally recognized certificates cannot be issued. According to recent assessments by ADB (2011) current national standard needs an upgrade to reach the international GMP standard.

Mongolia is one of the very few countries without a nationwide regulatory agency for the control of medicinal products. As a result, regulatory capacity and functions for medicine control are getting weak and fragmented. Therefore, a new amendment of the Health Law in 2011 has focused on establishing a government regulatory agency for medicines.

2.8.5 Regulation of medical devices and aids

The major regulation of medical devices and aids in the state health sector is performed within the provisions of the Law on Public Procurement (2000, 2005, revised in 2011). Procurement is controlled by the licensing of imported 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.

It is almost impossible to purchase minor medical devices and unpredicted supplements within the hospital organization itself due to the line-item budgeting system (see 3.3.4 Purchasing and purchaser-provider relations). Hospital managers are not encouraged to produce budget savings and are not allowed to overspend.

2.8.6 Regulation of capital investment

According to the Budget Law of Mongolia, the State Great Khural approves the annual government budget and its adjustment for capital investment each year. The MOH plays a key role in capital investment as the minister for health is the cabinet member who is responsible for budget accountability and monitoring including capital investment budget. The MOH plans the acquisition of capital investments such as construction of new hospitals or purchase of expensive equipment for the state health sector. There is no major regulation of capital investment in the private health sector. However, the recent adoption of concession law (Public-Private Partnership) is expected to increase private investment in health sector, making all the more urgent the need for stronger regulation of the private sector.

The regulation and procurement of capital investment is a very complicated process in the state sector. Based on annual nationwide needs assessment through local health departments, the MOH has an overall picture of the situation in all of the state-owned hospitals in terms of their needs for the constructing or refurbishing of health facilities, new equipment, repair of old equipment, replacement of certain parts, etc. Based on local assessment, 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 to be included in the national budget. When the State Great 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 to select the best supplier.

The MOH works to ensure the equitable distribution of equipment between government health facilities. In this regard, for example, 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 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.

2.9 Patient empowerment

2.9.1 Patient information

Health education is low among the population. At present many NGOs, MOH, MOECS, television channels, community representatives are focusing on the improvement of health education. In general, popular opinion of the quality of health services is not positive especially for PHC and secondary health care. Information distribution channels for patients (hotlines, letters, and logbooks), patient complaint boxes, and patient satisfaction surveys are becoming more regular among hospitals, but the analysis of the information, feedback to patients, and further improvement activities are unsatisfactory (DOH 2011).

The newly approved National Strategy on Adaptation of Healthy Lifestyle and IEC (2010-2016) and the Strategy on Health Education (2010-2015) aim to foster a health-promoting environment which encourages a healthy lifestyle and health information distribution. The Health Promotion Unit of the Department of Health plays a key coordinating role in health education interventions 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, 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.

For the patient information system, there is a need to improve patient-centred communication and consultation skills of health-care providers. These will be the most influential tools to help patients make choices and use health services appropriately. There is also a need for such information outlets as TV health broadcasting/debate on health system,

journal articles, newspaper material, specialized websites, and pamphlets/brochures on health and medical services.

2.9.2 Patient choice

The citizen's right to choose a physician, hospital and health institution was laid down in the Health Act of 1998. But, according to new Health Act of 2011 sections 43.1 and 43.2, the citizen's right to choose a physician is limited by family doctor and the organization of primary health care and emergency care services. The Mongolian health sector has built 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. However, according to health insurance legislation, people do still have a choice of a hospital, either public or private, by making direct self-referral and paying out of pocket. But free choice of provider is practised where the higher density of providers and greater ability to pay allow it and it is more common in cities than in rural areas.

2.9.3 Patient rights

The Health Act of 2011 promulgates certain rights for patients. These include the rights to access to health care, to choose a family doctor, to access information concerning health status and the health care available, to refuse diagnostic and treatment procedures (with the exception of certain infectious diseases), to complain about an institution, service providers or citizens engaged in activities harmful to people's health and to request confidentiality of personal health status within the legal framework.

Patient-oriented services are a new concept and a new challenge for health workers after the reform of the Semashko model. 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. For example, Decree No.135 of 4 May 2006 of Minister of Health on Approval of the Code of Ethics for Medical Staff and the Charter of Ethics committee focused on respecting patient rights in health services. Other initiatives were also implemented, such as patient-centred quality management of health services in tertiary hospitals, routine patient satisfaction surveys in hospitals, cascade trainings for patient-centred communication and consultation skills for FGPs.

2.9.4 Complaints procedures (mediation, claims)

Officially, patients can lodge complaints to any government or private health facility directly to the authority of service providers, hospitals, the local administration and the MOH. Complaints received by the Department of Health are mainly concerned with quality of health services, out-of-pocket payment for health services, and communication skills and attitudes of health workers (DOH 2011). The Ethics Committee at the MOH and the branch committees at each aimag and health facilities are the decision-making bodies who deal with potential breaches of ethics by health personnel. The hospital will initiate an investigation before a decision is made. If the complaint is serious and related to professional error or malpractice with legal consequences, the State Professional Inspection Agency and the National Police Department can be involved.

2.9.5 Public participation

Community participation in the planning, implementation, monitoring and evaluation of health services was very limited but, thanks to local community representative or NGOs actions, their role is increasing (MOH 2009). There is a newly established Citizen's Board for Health, which organized the first national symposium among health NGOs in 2011. According to the rule of the Board, the mission is to increase public participation in health policy-making and decision-making through public-private partnership and active cooperation between government, citizens, scholars and member organizations (MOH 2011). The legal and policy framework that would protect the rights and health of patients and providers is still evolving (MOH 2010). But patient participation is still 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. The most significant factor appears to be community attitudes in post-communist countries, where the role of the community has been a passive one in almost all aspects of social, administrative and cultural life. This prevailing attitude has had a significant impact on how existing patient participation mechanisms (health volunteers, hospital boards, ethics committees and interest groups) have, thus far, failed to evolve despite concerted efforts to support them (Bolormaa et al 2007). 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).

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. However, although some patient satisfaction surveys have been conducted, the results are not fully utilized for further improving the quality of health services.

2.9.6 Patients and cross-border health care

There are 27 clinical diagnoses which are on the list of diseases that cannot be treated in the country. Social Health Insurance does not cover overseas health expenditure, but private health insurance covers domestic and international spending. Funds allocated by the MOH for cross-border health care are low, and a special committee defines who is entitled to receive treatment abroad.

The lack of modern diagnostic equipment and technology, inaccurate diagnoses, bureaucracy in the health care system, poor communication skills, and doubtful service quality have led to an increased number of citizens to seek health services abroad since 1990. The MOH has estimated that citizens seeking care abroad spend around 35 mln USD per year (Tungalag and Bultman, 2010).

Chapter 3: Financing

3. Chapter summary

Health care financing in Mongolia experiences the legacy of the Semashko health system and the impacts of reform attempts implemented after 1990. The total health expenditure increased since 2005 and remained stable over the last years and also has been largely dependent on government spending for health. As of 2010, the general government expenditure on health together with social health insurance was among the bottom part in WHO Western Pacific Region. WHO data on the share of OOPs in THE shows a sharp rise from 14.5% in 1995 to 41.4% in 2010. These numbers need to be treated with some caution. They may arise from both a change in the methodology used to calculate OOP as well as an actual increase in the OOP, and further analysis is needed.

Like many other countries, which had a Semashko health system, Mongolia has maintained a large hospital system; the major parts of both total (53.5% in 2005) and general government expenditure on health (54.8% in 2009) in Mongolia have been allocated to inpatient care. However, the expenditure allocated for primary care and public health are underestimated because many of the services of primary health-care facilities are delivered through hospitals.

Social Health Insurance was implemented in 1994 and ever since it has become a stable source of health financing. Coverage reached 95.3% in 1998 but fell to 82.6% in 2010 when students and herders ceased to be subsidized by the state. In 2011, in order to help the government achieve its political commitment, the Human Development Fund (a special stabilization fund from mining revenue) provided a one-time subsidy to the uninsured groups, increasing coverage to 98.6%. It is unlikely that these levels of coverage can be sustained. SHI covers predominantly inpatient care. Despite having a low share in total health expenditure it is the only health financing mechanism that exercises some elements of contracting and purchasing. However, SHI faces challenges mainly related to its institutional setup and governance, which has prevented

it from acting as a strong purchaser. The government is the dominant player in making SHI decisions therefore it is used as a substitute for the government budget. These systemic issues have led to falling satisfaction among the general public. Because of past socialist values and state commitment to maintain the access to health services through a high population coverage of public prepaid schemes, private health insurance has played minimal role in health financing, although there is an increasing interest in expanding its services and population coverage.

Although not finalized yet, discussions to move to a pooled purchaser of health services under the social insurance scheme have been dominating the main health care financing reform agenda since the previous HiT was published in 2007. Related to this, the issue of establishing an autonomous social health insurance institution has also gained support and has resulted in the proposal of a new law. At the time of writing, the new parliament (convened in July 2012) promises to declare some autonomy for social health insurance in Mongolia. In addition, there have been several changes in the hospital payment system.

3.1 Health expenditure

During the years of socioeconomic transition in Mongolia, total health expenditure (THE) as a share of GDP increased from 3.3% (1995) to 4.9% in 2000, dropped back to 3.9% (2005) and then rose again to 5.4% by 2010. These fluctuations were driven by changes in government health spending as a share of GDP (see Table 3-1). In 2008, at the height of the global financial crisis, government health spending fell to 8.6% of total government spending, the lowest level since 1995; the shortfall was partially covered by external sources which reached 4.8% of total health expenditure and also by increasing out-of-pocket payments (40% of THE in 2008).

Reliable national data on total health spending is fairly limited with the exception of the National Health Accounts (2005) produced in Mongolia. This first NHA estimated the Mongolian total health spending for period of 1999-2002. In terms of THE as a percentage of GDP and per capita US$PPP, Mongolia ranked among the lower middle to lower parts in comparison to countries in the WHO Western Pacific Region (Figure 3-1 and Figure 3-3). In 2010, the Western Pacific Region on average spent 7.2% of GDP for health and per capita USD 653PPP, which is three times higher than those in Mongolia.

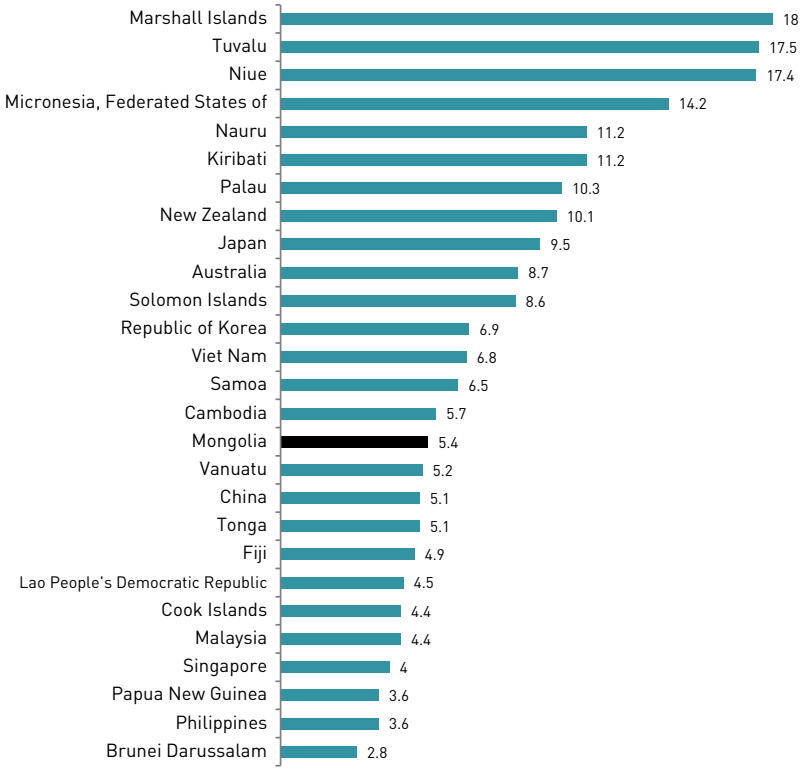
Table 3-1 Trends in health expenditure in country, 1995 to 2010 selected years

Expenditure	1995	2000	2005	2008	2009	2010
Total health expenditure in US$PPP per capita (1995 prices)	51	90	96	221	217	218
Total health expenditure as % of GDP	3.6	5.5	3.7	5.7	5.7	5.4
Mean annual real growth rate in GDP	2.4	1.1	7.3	8.9	-1.3	6.1
Public expenditure on health as % of total expenditure on health	79.5	81.9	78.9	56.6	54.8	55.1
Private expenditure on health as % of total expenditure on health	20.5	18.1	21.1	43.4	45.2	44.9
Government health spending as % of total government spending	10.7	10.7	10.6	8.6	8.8	8.0
Government health spending as % of GDP	2.9	4.5	2.9	3.2	3.1	3.0
OOP payments as % of total expenditure on health	14.5	12.1	15.8	40.0	41.6	41.4
OOP payments as % of private expenditure on health	70.6	66.9	74.8	92.1	92.1	92.1
VHI as % of total expenditure on health						
VHI as % of private expenditure on health						

Source: National Health Accounts data, http://www.who.int/nha/en/

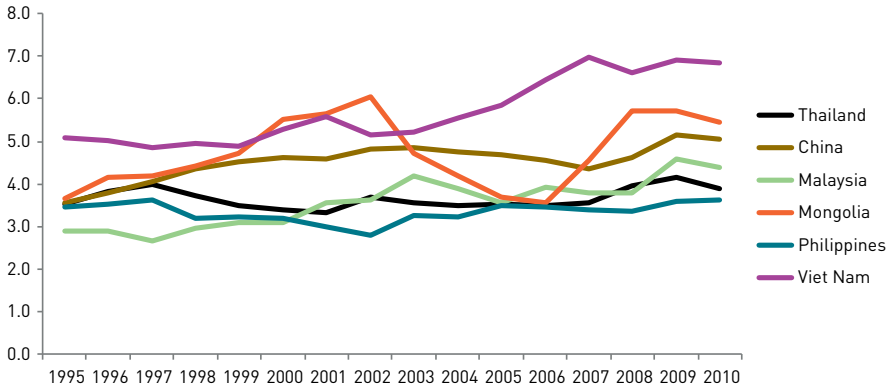
Moreover, the public expenditure on health or general government expenditure on health (GGHE) as a share of total health expenditure (THE) is among the bottom part in WHO Western Pacific Region. In 2010, the GGHE which also includes SHI fund (HIF) was 55.1% of THE, compared to the regional average of 68.8% (Figure 3-4).

Figure 3-1 Health expenditure as a share (%) of GDP in the WHO Western Pacific Region, 2010



Source: National Health Accounts data, http://www.who.int/nha/en/

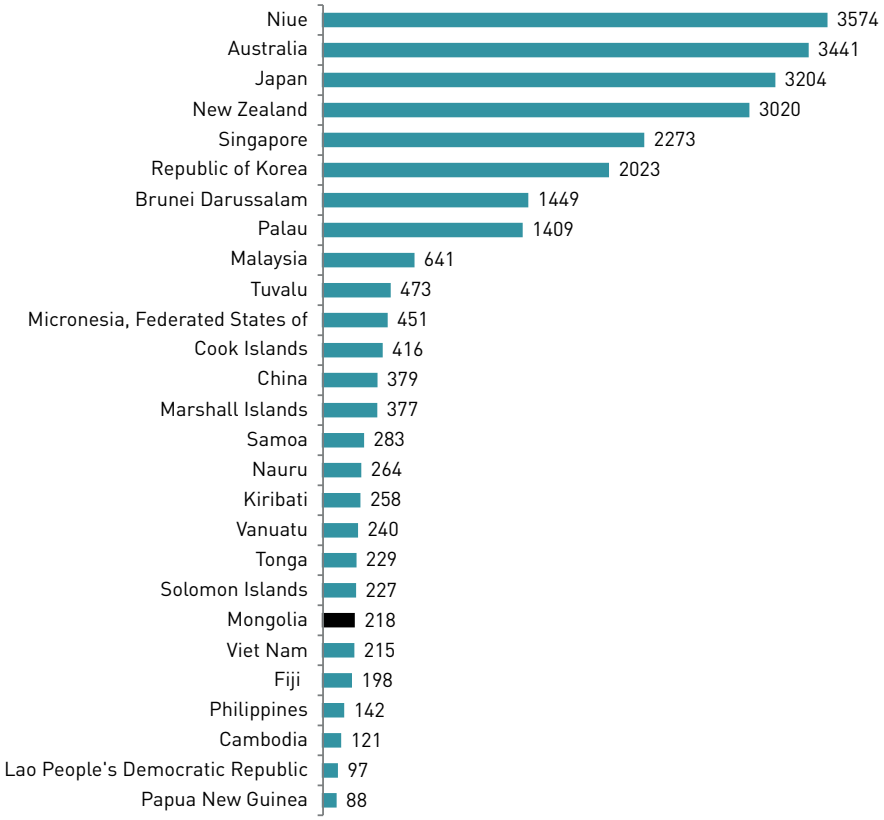
Figure 3-2 Trends in health expenditure as a share (%) of GDP in Mongolia and selected countries in the WHO Western Pacific Region, 1995 to 2010



Source: National Health Accounts data, http://www.who.int/nha/en/

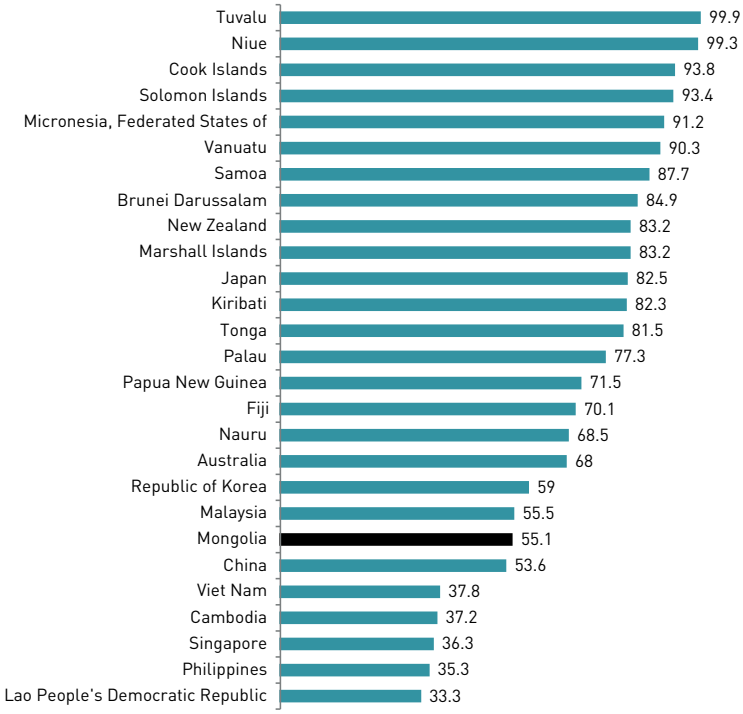
In comparison to selected countries in the WHO Western Pacific Region, Mongolia's health expenditure as a percentage of GDP has shown fluctuations over 1995-2010 (Figure 3-2). Viet Nam has shown the fastest growth and the Philippines the slowest. Mongolia spent 3.6 percentage of GDP for health in 1995, which was lower than only in Viet Nam (5.1% in 1995) and this situation was unchanged in 2010 to 5.4% in Mongolia and 6.8% in Viet Nam.

Figure 3-3 Health expenditure in USD PPP per capita in the WHO Western Pacific Region, 2011



Source: National Health Accounts data, http://www.who.int/nha/en/

Figure 3-4 General government expenditure on health as a share (%) of total health expenditure in the WHO Western Pacific Region, 2010



Source: National Health Accounts data, http://www.who.int/nha/en/

Table 3-2 General government expenditure on health by service programme, 2009

	% of public expenditure on health (2009)	% of total expenditure on health (2005)
Health administration and insurance	5.1	
Education and training		
Health research and development		
Public health and prevention	4.5	1.8
Medical services:	73.0	
– inpatient care	54.8	55.0
– outpatient/ambulatory physician services	18.3	
– outpatient/ambulatory dental services		
– ancillary services	0.8	
– home or domiciliary health services		
– mental health		

Source: Health Indicators 2009, 2010, DOH
WHO (2011). National Health Accounts data, (http://www.who.int/nha/en/ accessed 10 May 2011)

Like many other countries with inherited Semashko health systems, the major part of both total (55% in 2005) and general government expenditure on health (54.8% in 2009) in Mongolia has been allocated to inpatient care, and only 1.8% of THE and 4.5% of general government expenditure on health were spent for public health and prevention. However, the expenditure allocated for primary care and public health are underestimated because many of the services of primary health-care facilities are delivered through hospitals. Further, due to data limitations, the disaggregation of total health expenditure by type of health service is very difficult. Expenditure data from the MOH suggests that 18.3% of public expenditure on health was spent on outpatient services in 2009 (Health Indicators 2009, DOH).

Table 3-3 General government expenditure on health by service input, 2005-2011 (%)

Service inputs	2005	2006	2007	2008	2009	2010	2011
Medicines and medical devices	14.4	11.8	10.2	11.0	12.4	13.8	12.3
Investment in medical facilities (land, buildings, equipment) at primary, secondary, tertiary, intermediate and social care levels	4.0	6.1	6.9	7.2	9.5	15.4	23.3
Human resources	29.5	33.6	40.8	44.3	45.3	40.9	36.5
Utilities	11.4	13.1	9.4	7.5	7.8	8.4	6.8

Source: Health Indicators 2010, DOH (2011)

As shown in the Table 3-3, the major shares of general government health expenditure are for human resources, capital investment, medicines and utilities. The spending for human resource takes the largest share, increasing between 2005 and 2009 and then dropping in 2010 and 2011. These increases reflect raises in salaries of public sector workers by 30% in 2007, 74% in 2007, twice in 2008-2009 and by 30% in 2010.

In 2011, the capital investment budget for health increased sixfold a percentage of government expenditure on health in comparison to 2005, and - more drastically - over the last two years. Such sudden increases are most probably related to Mongolia's high economic growth (17.3% in 2011) and the policy of the MOH to expand services covered under the SHI while freeing up more of the government budget resources for capital spending. In nominal terms, the capital budget increased from USD 9.3 million in 2007 to USD 30.3 million in 2010 and to USD 61.5 million in 2011. The spending for medicines and medical devices decreased

from 14.4% in 2005 to 12.3% in 2010 with fluctuations. Utilities costs have been decreasing with annual fluctuations but only in relative terms due to increases of other expenses.

3.2 Sources of revenue and financial flows

The extent of sources of revenue for Mongolian health system and their flows are shown in the Table 3-4 and Figure 3-6. There are three main sources of revenue for health (Table 3-4). They are central government revenues, social health insurance contributions, and out-of-pocket payments. Although very limited, other revenue sources such as private (voluntary) health insurance contributions is likely to be on the rise in recent years; however, the data are not available. The biggest source of revenue is central government expenditure and social health insurance (SHI) which together have decreased substantially from 79.5% to 55.1% of THE for the period of 1995–2010 (Table 3-4). The main factor influencing this trend is the increasing out-of-pocket payments in the total health expenditure due to various user fees by health facilities.

In 2008, the budget for social insurance fund was separated from the central government budget. Despite this change, the practice of regarding the social insurance fund as an integral part of the central government budget has continued. It is mainly due to a situation where the social insurance agency itself is an implementing agency of the government. By 2010 the Mongolian SHI fund had accumulated USD 70.7 million, a surplus equal to the revenue of the same year. Over the last several years, there has been a public debate about making the SHI autonomous, reporting to its governing body consisting of the insured, employers and government representations. However, a power struggle between government ministries of health and social welfare is ongoing.

Table 3-4 Sources of revenue as a percentage of total expenditure on health 1990, 1995, 2000 and 2005–2010

Sources of revenue	1990	1995	2000	2005	2006	2007	2008	2009	2010
Government expenditure		48.5	61.8	57.0	52.2	49.9	38.7	34.5	32.3
Social health insurance contributions		31.0	20.1	21.9	19.9	16.0	17.9	20.4	22.8
OOP payments		14.5	12.1	15.8	23.2	30.3	40.0	41.6	41.4
VHI									
Other private expenditure		6.0	6.0	5.3	4.7	3.7	3.4	3.6	3.5

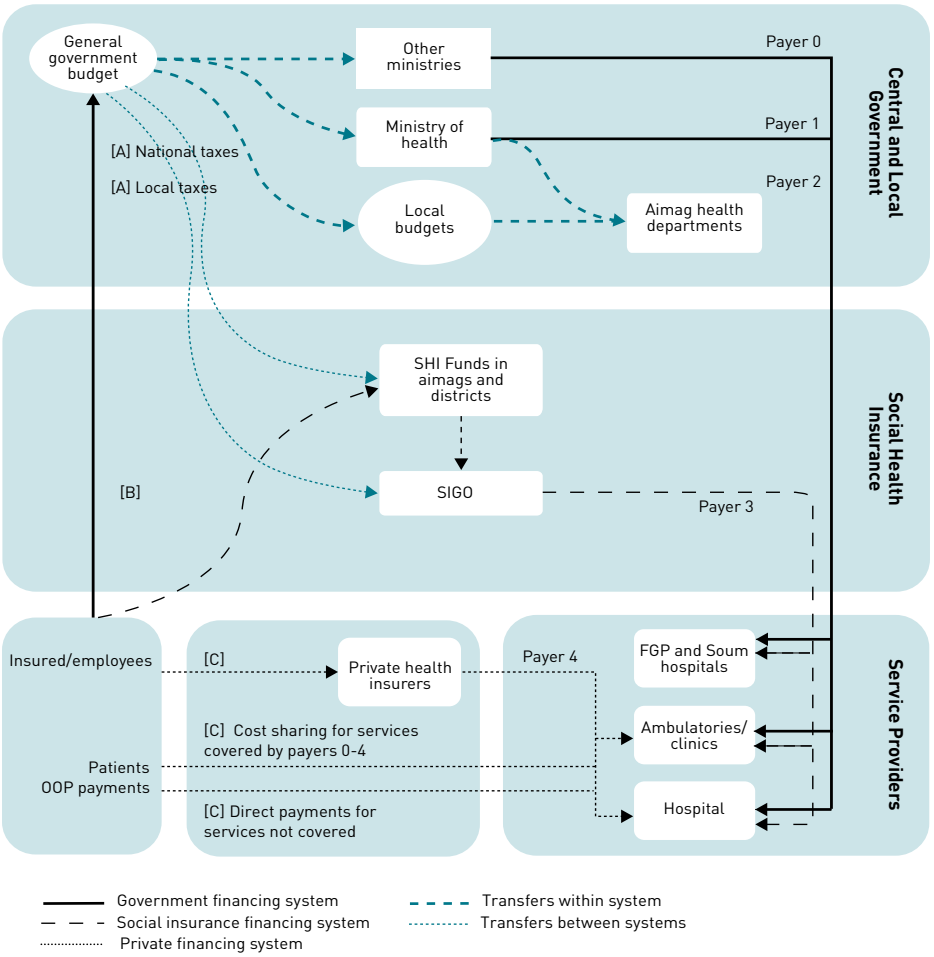
Source: WHO (2011). National Health Accounts data (http://www.who.int/nha/en/ accessed 10 May 2011).

A compulsory social health insurance system covered 82.6% of the total population in 2010. In 2011, in order to help the ruling political party deliver on its political promises, the Human Development Fund helped subsidize the uninsured groups and coverage reached 98.6% (Figure 3-6). However, this high level of coverage is unsustainable. The Mongolian citizens' health insurance law (CHIL) stipulates compulsory enrolment of members and aims to cover most population categories. Population groups, such as elderly, children, and beneficiaries of social welfare assistance, are subsidized by the government. According to private insurers and SIGO officials, employees of international organizations and better-off people are covered by emerging voluntary private health insurance.

The government and SHI have divided the services to be covered by each of them, creating two separate packages of services under the statutory financing schemes. The government budget covers the provision of preventive, public health services, maternal and child care, and treatment of chronic and infectious diseases such as diabetes and HIV/AIDS. The social health insurance benefit package covers predominantly individual clinical care such as outpatient and inpatient care (for more details see section 3.3). Officially, there are only small user-charges documented in the official health statistics with government-approved cost-sharing and formal user-charges for selected services. Children under 16 years old, pensioners and disabled people are exempted from these co-payments and official user- charges. These formal user-charges only make up 3% of the total revenue, but it should be noted that OOPs are very high.

The SHI contribution rate for salaried workers is set as a percentage of monthly salary, and both employer and employees are expected to share equally the payment. Initially, the rate was 6% of salary but it has been reduced to 4% in 2008 as part of policy decisions to reduce contribution burden of the overall social security system. A flat rate contribution applied for state-subsidized groups, herders, students and the self-employed population. As an employer, the government pays half of the contribution for publicly-employed civil servants. At the time of SHI introduction, the monthly health insurance contribution rate subsidized by the government was set at less than USD 0.3 per person and later it was increased to MNT 500 in 1998 and MNT 670 in 2008 (about USD 0.6) at present. Since 2008, the contribution rate for the self-employed is set at 1% of (reported) monthly income, revised from the previous flat rate of MNT 800 per month or USD 0.7.

Figure 3-5 Financial flows



3.3 Overview of the statutory financing system

3.3.1 Coverage

Breadth: who is covered?

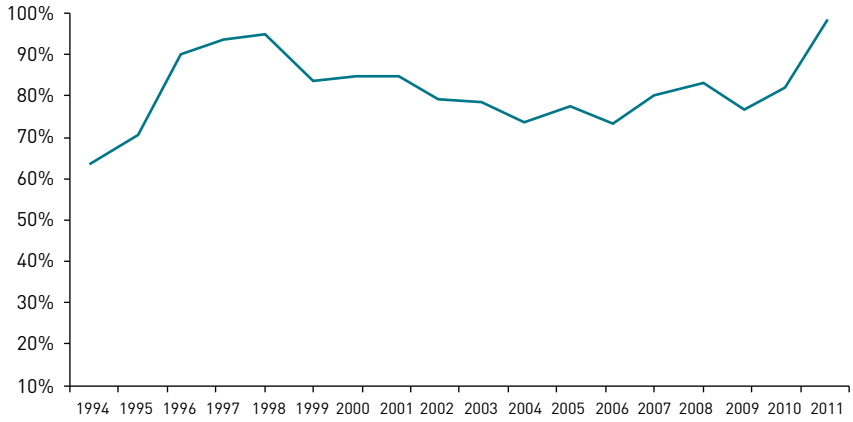
The amendment to the Mongolian Citizens' Health Insurance Law in 2006 made SHI cover compulsory for all citizens. Foreigners and persons without citizenship can be covered by health insurance on a voluntary basis. The law defines compulsory insured persons as employees of business entities, institutions and organizations, owners of business entities and sole proprietors, children under 16 (general secondary school students under 18), students at professional schools, citizens for whom their pension is the only income, mothers (fathers) taking care of their

babies under the age of two (twins under the age of three), persons on regular military service, herders, citizens who receive social assistance, and convicts serving their sentence. Of these, children under 16 years, citizens who receive social assistance, citizens for whom their pension is the only income, mothers (fathers) taking care of their babies under the age of two, and persons on regular military service are covered without having to make formal contributions to the SHI fund.

In order to have SHI entitlement, students, herders and others such as the self-employed and the unemployed should pay insurance contributions for not less than 12 consecutive months. For other insured persons, SHI entitlement is not strictly regulated in the law because the payment of contributions of those insured is made on their behalf through direct transfers from the state budget or employers.

The SHI population coverage rate reached 95.3% in 1998 but fell to 82.6% in 2010. This was mainly due to the decision taken in 1999 to eliminate students and herders from state-subsidized groups. Coverage continued to fall, reaching 74.3% in 2004, but it has gradually picked up since then as a result of actions by SIGO, including social insurance coverage targets for regions with benchmarking and performance-based incentives. In 2011, due to a one-time intervention to cover all uninsured people via the Human Development Fund (a special stabilization fund from mining revenue), coverage reached its historically highest level of 98.6%.

Figure 3-6 Health insurance coverage in Mongolia (1994-2011)



Source: Social Insurance General Office 2012

Scope: what is covered?

Under the Semashko system, the government funded all services. In the 1990s, with the introduction of the SHI, the government and the SHI divided the services to be covered by each. The government budget covers public and preventive services including primary and maternal health care services, and SHI is used to fund individual clinical care (Table 3-5).

While there are two clear packages of services, the rationale for the specific division of services is not well-outlined and does not follow a clear criterion, leading to gaps in covered services. For example, at the primary health-care facilities, outpatient drugs are covered by the SHI and inpatient drugs by the government. However, at the secondary- and tertiary-care levels, SHI covers inpatient drugs; outpatient drugs are not covered by either SHI or the government.

Table 3-5 Health services by level of care and funding sources

	Primary care	Secondary care	Tertiary care	Private Hospital
GOVERNMENT BUDGET	- Outpatient visits - Inpatient admission - Routine immunization	- Treatment of tuberculosis, cancer, HIV/AIDS, and mental illness (by DRG) * Outpatient visits * Diagnosis and tests * Inpatient - Consultation, diagnostics and treatments related to the pregnancy and childbirth until postnatal period ends * Outpatient visits * Diagnosis and tests * Inpatient - Medical emergency service * Outpatient visits * Diagnosis and tests - Ambulance service - Some drugs for diseases that require lengthy treatment and palliative care	- Treatment of tuberculosis, cancer, HIV/AIDS, and mental illness (by DRG) * Outpatient visits * Diagnosis and tests * Inpatient - Medical emergency service * Outpatient visits * Diagnosis and tests - Ambulance service - Some drugs for diseases that require lengthy treatment and palliative care	None
SOCIAL HEALTH INSURANCE	- Outpatient essential drugs	- Day care - Outpatient visits (excluding drugs) - Diagnosis and tests (up to MNT 36 000) - Inpatient admission (outside of government budget care) - Inpatient admission for traditional medicine - Inpatient admission for rehabilitative care - Inpatient admission for palliative care	- Outpatient visits (excluding drugs) - Diagnosis and tests (up to MNT 36 000) - Inpatient admission (outside of government budget care) - Inpatient admission for traditional medicine - Inpatient admission for rehabilitative care - Inpatient admission for palliative care	- Some payment of inpatient admission (outside of government budget care) - Some payment of inpatient admission for traditional medicine - Some payment of inpatient admission for rehabilitative care - Some payment of inpatient admission for palliative care

	Primary care	Secondary care	Tertiary care	Private Hospital
OOP	Copayment for essential drugs	- Co-payment for inpatient of health insurance (10 %) - Some payment of diagnosis and test (over MNT 36 000) - High-cost surgery - High-cost diagnosis and test (MRI, PTC ...)	- Co-payment for inpatient of health insurance (15 %) - Some payment of diagnosis and test (MNT 36 000) - High-cost surgery - High-cost diagnosis and test (MRI, PTC ...)	- Outpatient - Day care - Diagnostic test - Drug - Some inpatient payment

Source: WHO (2011). National Health Accounts data (http://www.who.int/nha/en/ accessed 10 May 2011).

Health services funded from the government budget are provided to all citizens free of charge and regardless of SHI status. They are:

- Consultations, diagnostics and treatments related to pregnancy and childbirth until the postnatal period ends.
- Medical services for children provided by public hospitals.
- Epidemiological and sanitation measures for communicable diseases including disinfection and routine immunization.
- Public health services, medical emergency and ambulance services, health services provided by the family, soum and village health centres, and medical services during disasters and infectious disease outbreaks;
- Treatment of individuals who have been injured or become ill when saving the lives of others or preventing large scale damage.
- Treatment of tuberculosis, cancer, HIV/AIDS, and mental illness.
- Some drugs for diseases that require lengthy treatment and palliative care.

Since the implementation of SHI, funding from this source has focused on individual health-care services, predominantly on inpatient services. In terms of types of health services, SHI covers:

- Diagnostic tests
- Inpatient and outpatient services at secondary and tertiary care providers
- Day care at secondary care level
- Inpatient treatment using traditional medicine
- Long-term care in sanatoriums and rehabilitation centres
- Inpatient palliative care
- Rehabilitation services for patients admitted to sanatoriums
- Essential drugs prescribed by bagh, soum and family doctors.

There is a national list of essential drugs approved every year. With the aim of expanding the range of health insurance benefits and ensuring greater access to essential drugs in primary health-care services by the insured population, the drug price discount system was introduced alongside the health insurance scheme in 1994. From March 2010, insured patients can get 339 essential drugs partly reimbursed (5%-91% of cost price) through health insurance if these drugs were prescribed by a family doctor, soum hospital doctor or bagh feldsher and dispensed by a health insurance designated or contracted pharmacy.

According to the Citizen's Health Insurance Law, there is no explicitly excluded list of services. However, in 2006, the MOH approved a list of services where user charges can be applied. Hospital managers are free to set prices for these services in consultation with the MOH. The Citizen's Health Insurance Law also allows insured persons who have not received care funded under SHI for three consecutive years to have a comprehensive health examination. This regulation was approved in October 2009 by the Social Insurance National Council, which is the three-party representation body for all social insurance schemes.

The process of deciding which services should be included in or excluded from the statutory benefit package is not regulated effectively. According to the Citizen's Health Insurance Law, the benefit package should be determined by the Minister of Health. The usual practice is to have a consultation through a stakeholder working group comprising representatives from MOH, MOHDSW, MOF, Health Insurance sub-Council, trade unions, employers' associations and providers. In many instances, nongovernmental parties are not effectively informed and involved. In addition, the criteria for selecting health services is not regulated or agreed, and health technology assessment is not routinely undertaken (see Section 2.7.2 Health technology assessment). The selection of services has instead been based on patients' or insured persons' complaints and demands without a review of the evidence. For example, a proposal to revise the Citizen's Health Insurance Law (submitted June 2010 to the Mongolian Parliament) includes traditional medicine which is not among the priority or evidence-based health services defined in the Health Act (2011) or Health Sector Strategic Master Plan (2005). In general, the SHI package has been expanding with more services of an outpatient and diagnostic nature.

Depth: how much of benefit cost is covered?

Since 1990, Mongolia has experienced financial hardships and one way of mobilizing more resources and lessening the burden on the government budget was to introduce user charges. Since then, the MOF has set a target for formal user-charge collections for all public hospitals to generate some revenue to maintain operations. In 2010, this was 3.3% of total GHE (Table 3-6).

Table 3-6 Proportion of total revenue generated from formal user-charge, 1995-2010

Sources of revenue	1995	2000	2005	2006	2007	2008	2009	2010
Proportion of total revenue generated from formal user-charge	2.7%	6.0%	5.0%	4.0%	3.0%	3.0%	3.0%	3.3%

Source: Health Indicators 2010, DOH (2011)

User-charges and cost-sharing are applied to both outpatient and inpatient care. In addition, patients pay formal user-charges for some specific diagnostic services (nuclear imaging, CT and MRI scan, ECG and EEG, endoscopy diagnosis, some ultrasound investigation, X-ray, Doppler diagnosis, laboratory services, preventive diagnosis and check-ups on voluntary basis), outpatient treatment (radiotherapy, adult dental service and prosthesis, optic laser treatment, plastic surgery and abortion) and other services (services normally covered by SHI provided to the uninsured, some medical devices used in surgery, reactive agents used in angiography and other such services). For inpatient care, the patient has to pay 10%-15% in co-payments, except for emergency and ambulance services, tuberculosis, cancer, mental illness, maternity and antenatal care, treatment of persons due to natural disasters, accidents, and outbreaks of dangerous infectious mass diseases. In addition, hospitals are allowed to set user-charges for services such as rooms with extra hotel services, etc. The people with disabilities, pensioners, and children under 16 years are exempted from these user-fees.

3.3.2 Collection

Despite the government commitment to health, Mongolia's resource mobilization capacity for health is and will be dependent on its mining revenues. The fluctuations of export revenues and international market price of copper, coal and other minerals influence tax revenues. Therefore, general government budget is extremely dependent on mining revenues (World Bank 2009). Social health insurance (SHI) financing

capacity has been limited due to the large informal sector and poorly targeted subsidized groups. However, with a perspective to create over 160 000 jobs over the next three years and increasing wage levels, the SHI has also a substantial potential to generate more contributions (See section 1.2).

Government budget

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 State Great 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 State Great 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 (Bolormaa et al., 2007)

In 2009, about 80% of the total general government tax revenue was collected by the central government. The local government tax was 7% of total general government tax revenue, but increased to 20% in 2009 and fell to 13% in 2010. More than 80% of income tax and VAT, and 100% of excise and foreign trade taxes are collected through the central government. Local government collects all property taxes, tax on herders and land payment.

Household socioeconomic survey from 2007/2008 shows a proportionally progressive Kakwani index of 0.096 for the total health financing in Mongolia. This means that on the whole, Mongolian total health financing is fairly equitably generated from all income groups with increasing tax or payment share shouldered by the better-off quintiles. More specifically, non-earmarked taxes are progressive, with direct taxes (Kakwani 0.27) being twice as progressive as indirect taxes (Kakwani 0.13) while SHI is regressive (Kakwani -0.021). Generally, the Kakwani index for SHI is calculated negative. This is largely explained by two situations: (i) the government subsidy for SHI is not based purely on income deprivation and, as a result, the poorer people actually pay a larger share of their income, and (ii) the premium cap is set at a lower level in comparison to the income of the richer quintile.

Social insurance contributions

The collection and administration of funds is relatively efficient as both the national taxes and the payroll-based health insurance premiums are collected from lower level of administrative units such as soums. The health insurance premium collection for the formal sector is also very effective with close to 100% collection of expected premiums (GVG consultants 2010).

Since 1996, social insurance contributions have been collected by the local branches of the SIGO. For salaried workers the social insurance contribution has been collected together with other social insurance premiums by one transfer. For state-subsidized groups mentioned earlier, the MOF transfers funds to the single treasury account of the SIGO monthly. Herders, students, self-employed and the unemployed pay their contributions individually.

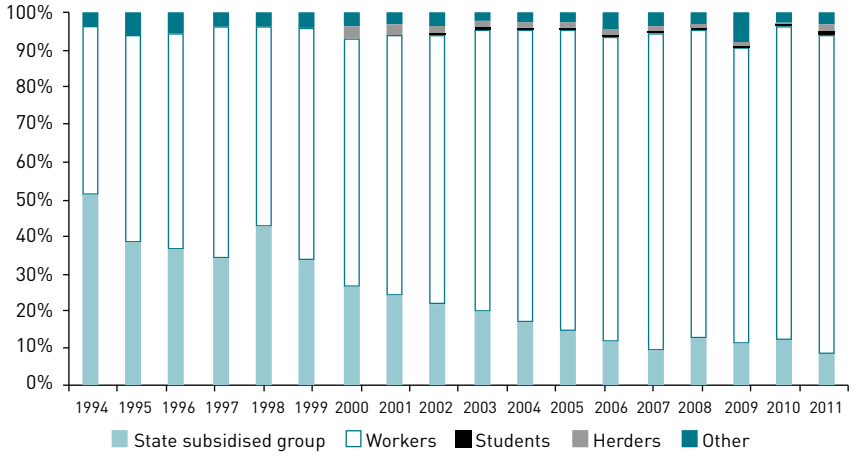
The SIGO has local offices in 21 aimags and the capital city and has 1217 employees in total (SIGO operational report 2009). The SIGO employees are responsible not only for collecting SHI contributions, but also for the old age pension, unemployment benefits, occupational accident insurance, and social assistance benefit insurance schemes. Two government bodies are involved in setting contribution rates for SHI members. The government sets the contribution rates for salaried workers, herdsmen, students, state- subsidized groups, convicts, and stateless persons and foreigners. The SIGO sets the contribution rates for employers and self-employed citizens.

Social health insurance contribution rates differ among population groups. The contribution rate for salaried workers is set as a percentage of monthly salary (currently 4%), and both employers and employees share SHI contributions equally (i.e. 2% each). For the self-employed people the SHI contribution is equal to 1% of monthly reported income. For other groups, SHI premium rates are set at flat rates as described in Section 3.3.1. There is an upper threshold on contributions to be paid equal to ten times the minimum wage level.

The structure of SHI revenue is shown in Figure 3-7. There is a substantial cross- subsidization between workers and other categories of members in Mongolian SHI. Majority of SHI revenue is generated from contributions from formal sector workers which constituted 45% of SHI revenue in 1994 and 86% by 2011. On the other hand, the government subsidy for

"vulnerable groups" decreased from 51.4% of SHI revenue in 1994 to 8.6% in 2011.

Figure 3-7 SHI revenue structure, 1994-2011



Source: Social Insurance General Office 2012

3.3.3 Pooling of funds

Allocation from collection agencies to pooling agencies

Direct and indirect taxes which constitute government budget are collected by the local offices and pooled at General tax authority of the MOF. Taxes are pooled in the single treasury account of general tax office placed in the Bank of Mongolia. Social health insurance contributions are collected by the local departments of SIGO and pooled in the single treasury account for social health insurance.

On the basis of total general government tax revenue, social insurance fund revenue, and human development fund revenue, the MOF sets budget ceiling for the next year's revenue and expenditure base levels to all budget portfolio managers (usually ministers). Most public health-care providers and institutions are under the Minister of Health portfolio. However, there are other additional pools which are under the auspices of other ministers some of which have recently been transferred to local health departments of respective aimags. Still, the Central Prison Hospital and Hospital for Special Category of Civil Servants operate under the Ministry of Justice. The Central Army Hospital works under the auspices of the Minister of Defence.

Allocating resources to purchasers

Fiscal framework statement (FFS) is a document required under the Public Sector Finance and Management Law (PSFML) which defines limitations and main indicators that the government should follow in preparation of next year's general guideline of socioeconomic development and the government budget. This is approved by the State Great Khural which sets budget revenue and expenditure ceilings of portfolio ministers for the next fiscal year. FFS is based on the country's main policies such as the MDG-based National Comprehensive Policy 2021, medium-term socioeconomic development guideline, and the government action plan. Since 2011, these ceilings are given as a base level without any reflection of increments for policy changes. Once the health sector prepares its annual budget proposal, any budget increments will be added during budget negotiations with MOF.

The SHI provides revenue for covered services for entire population. Social insurance organization performs collection and pooling of funds, however purchasing of health insurance-covered services has been organized through complicated arrangements. The SHI is not really a purchaser, as the benefit package, payment tariffs, and selection of providers are decided by the MOH. Instead, the SHI reimburses for services that fall within its benefit package. The MOH is the central agency responsible for budgeting and expenditure management in the health sector and thereby oversees all national and sub-national health budgets. Therefore, in line with the sectoral budget ceilings the MOH decides on the budget allocation to aimags health sector and to lower-level health institutions. There are no concrete resource allocation rules, but MOH attempts to move to population-based, risk-adjusted funding approach for primary level health providers. For secondary and tertiary care, the allocation is based on the previous year's expenditure. The MOF implements a programme-based budgeting approach whereby the health sector does some sort of prioritization in terms of resource allocation. However, the linkage between health policy or plan and budget is seen still weak. Budgeting is incremental based on the previous year's actual execution.

On the basis of instructions from the MOF, which are issued before the budget preparation cycle, the MOH provides budget preparation guidelines to all public health care providers. Such budget preparation guidelines from the MOF and MOH are standardized across the country due to the highly centralized nature of public finance management in

Mongolia. It includes some guidance on line-item costing norms. Over the last three years, health facilities are increasingly learning to use such norms effectively to develop their annual budget proposals.

At the health facility level, formal sources of revenue are limited to government, social health insurance funding and official user-fees. For secondary- and tertiary-level health facilities, health insurance as a source of funding has been increasing from about 40% of the total budget to 60% and to 90% in some hospitals over the last few years.

The MOF submits a draft of the central and local budget proposals as well as social insurance and human development fund proposals to the government. The Parliamentarian Budget Standing Committee then reviews this proposal, permitting the budget to be consolidated. Upon approval by the Parliament, MOF allocates the budget to respective portfolio ministers for implementation of programmes and interventions in the coming year. According to the consolidated budget law, all the above processes are formulated and submitted based on input line items or "economic items" such as staff salary, utilities and communications, etc.

Capital budget planning in Mongolia is conducted using the same cycle and process as the recurrent budget. The public investment programme remains fragmented, and sector policies are not effectively linked to investment budgets. Politics plays an important role in capital investment decisions, and there is little role for a comprehensive capital investment plan at the central MOH level. Some inventory of equipment and buildings exists, but the practice of evaluating capital investment projects in relation to possible economic and social implications are almost non-existent.

3.3.4 Purchasing and purchaser-provider relations

In Mongolia, hospital care is predominantly provided by health-care providers which are owned by local and central governments. Primary care in remote rural areas is provided by publicly owned soum health centres (formerly soum hospitals). However, family group practices/ family health centres in urban settings deliver primary health-care services to a catchment population based on performance contract with the local governor's office and health department. Tertiary care centres and hospitals are under the MOH, and secondary care providers - aimag,

district hospitals and health centres - are owned by local governments. Therefore, the organizational relationship between purchasers and providers is based on an integrated model (health care providers are directly employed (or owned) by third-party payers) so contracting is not selective. Tertiary provider/hospital directors are appointed by the Minister of Health, whereas local governors appoint managers or heads of secondary and primary care providers at soums.

Contracting with providers is implemented by MOH, aimag and district authorities, and also by local branches of SIGO. All public health care providers conclude contracts with the general manager of the budget, which are local governors and the Minister of Health. Output-based contracting was introduced in 2003 with the public sector finance and management law (which refers to government budgetary organizations). Accordingly, FGPs and soum health centres conclude performance contracts with the aimag health department, in which the soum health centres agree to provide a specific mix of services to the population covered. Contracts specify the types of outputs and relevant quality and cost indicators. Contracts are evaluated annually and serve as the basis for extending labour agreements with directors. There is a regulation approved by the MOH on the evaluation of contracts. These contracts are not used for reducing or increasing the funding levels to health-care providers, except FGPs.

Contracts with all types of health care providers are implemented by the health insurance local offices, based on payment methods and tariffs set by the MOH in consultation with the Ministries of Finance (MOF) and Human Development and Social Welfare (MOHDSW). There is no real purchasing of health services exercised by SIGO as an insurer, and health insurance contracts are symbolic and lacking specific details for health service quality improvement. There is no clarity as to what kind of performance is expected, nor by what criteria this performance will be judged or by whom. Amendments to the citizen's health insurance law (2006) required that private hospitals joining the SHI scheme will be selected through a formal selection process; however, the relevant regulation was not introduced until June 2010. In June 2010, once the Department of Health organized a hasty selection process, the list was then sent to SIGO for contracting. The selection criteria consist of nine general and seven specific indicators. The general indicators are related to structure, capacity and the service quality of private providers. Specific indicators are related to professional staff and their skills, and they are

the same for all hospitals. Competition among providers for SHI contracts is almost non-existent.

Controlling of providers is achieved through price controls, claim review and onsite visits with the purpose of inspecting the quality of care provided to insured patients and by limiting out-of-pocket payments. There are no prices set for government budget-funded services. However, the MOH in discussion with MOHDSW and MOF approves payment tariffs for SHI services. In 2010, only about 2% of submitted claims were rejected by SIGO, and 80% of these rejections were due to irregularities in documentation. The MOH, however, has direct control on many operational aspects of hospitals. Despite being voluntary, accreditation is one of the instruments used to control health care providers. Until September 2012, the MOH organized the accreditation process, which involves a review of accreditation applications from hospitals and the assessors conducting onsite reviews according to 43 indicators. For private hospitals, the accreditation score determines the SHI payments rates.

A big part of inefficiency in the health system is related to supplier induced demand. It was found that 40% of admissions to tertiary hospitals is medically unnecessary. Studies suggest that there is a significant level of inappropriate admissions in the district hospitals (Bat-Ochir 2000; Byambaa et al. 2005). One revealed that 30.4% of admissions to district hospitals were chronic cases, which did not require acute treatment (Bat-Ochir 2000) (Bolormaa, et al 2007). Other incentives for unncessary utilization of health services are said to be created by the MOH decision to expand the number of SHI cases/groups from 22 to 115 and raise reimbursement rates in 2009.

3.4 Out-of-pocket payments

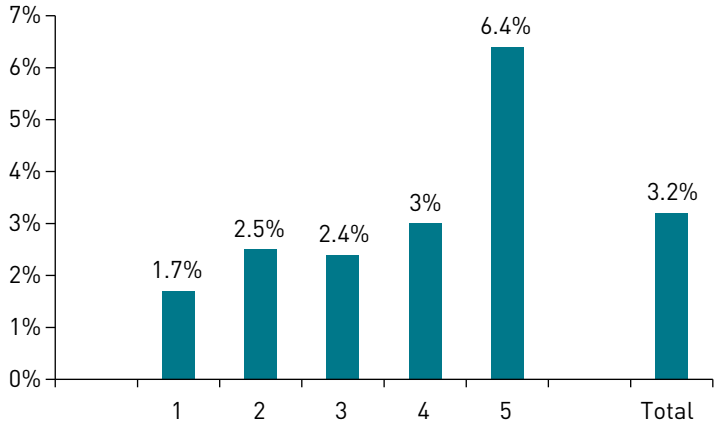
Private sources for health expenditure have been generated by direct payments, cost-sharing, and informal payments paid to health care providers. Out-of-pocket health payments have officially been acknowledged with transition to market regime in Mongolia early 1990s. Out-of-pocket payments increased from 14.5% of THE in 1995 to 41.4% in 2010 (Table 3-4). This estimate is based on the WHO NHA data and the methodology has changed over the past few years. Therefore, health expenditure data need to be treated with caution until the right trend is set. Despite this, the level of OOPs is still very high, indicating poor

services coverage of statutory funding schemes and patchy distribution of health services between the government and SHI.

There is lack of data on contributions of different types of OOPs to THE. HSES 2009 showed that the major percentage of household OOPs is likely to be paid for medicines (71%), which are directly purchased from private pharmacies. A recent study found that 9.1% of outpatients and 15.5% of inpatients had paid informal fees (Ouyngerel N. et al. 2011). However, other studies show that this could be as high as 66.4% of clients (UNDP, 2007).

The share of out-of-pocket health payments in the total household consumption expenditure increases as income quintiles go up (HSES 2009). This is consistent with the findings from other studies conducted in the Asia-Pacific region. The poorest households spend almost four times less than the richest parts of population. Out-of-pocket payments for health care are fairly low for the poorest of poor, which is due to their limited access to health services. On the other hand, the richest spend a lot more as they seek paid services at home and abroad (Figure 3-8). As a result, the incidence of catastrophic health expenditures was 3.8% and increased across wealth quintiles, with 1.6% of the lowest quintile and 7.5% of the highest quintile suffering from catastrophic health expenditures (Tsolmongerel Ts et al. 2011).

Figure 3-8 Distribution of out-of-pocket health payments across quintile, 2009



Source: Tsolmongerel Ts et al., Distribution of health payments and catastrophic expenditure in Ulaanbaatar, Mongolia, 2011.

The policy regarding user charges has not been very clear in Mongolia. The MOH policies including the recent health care financing strategy (MOH 2010) promote containing the amount to be generated by user charges. The policy objective was to keep the level of out-of-pocket health payments to no more than 25% of THE. However, the SHI payment rate for private providers has not changed since 2003. It was kept at about USD 30 for seven years. The basis of payment to private providers was decided by the score given through an accreditation process. Meanwhile the reimbursement rates for government hospitals has changed five times since 2003. Private hospitals have full liberty to set their service fees, and there is a lack of regulation to set ceilings or limit OOP paid at private hospitals. This meant that private patients have been bearing cost differences. Since 2010, however, the MOH increased the payment rate for private hospitals by 2.5 times. Still the payment level has been kept at half of the amount reimbursed to government hospitals on average.

Furthermore, in 2006 the MOH approved user charged services. However it has been argued that this has contributed to increases in out-of-pocket payments. On the other hand, the MOF budgets for formal user charge collections for all public hospitals to generate some revenue with a view to easing the burden on the government budget. In 2011, the MOH revised this decision and was able to agree with the MOF to limit user-charge revenues for hospitals that provide government budget-funded services like maternity care. Public hospitals are required to return their user-fee revenue to the state treasury. This policy not only prevents fee revenue from supporting quality improvements, it also reduces incentives for hospitals to collect currently mandated fees. It may also encourage the underreporting of user-fee revenue. SHI co-payments for primary health-care services were eliminated in 2006, making these services free at point of use.

3.4.1 Cost-sharing (user-charges)

User-charges at government hospitals are currently being used by SHI as an instrument to reduce the excessive utilization of hospital inpatient care. However, they probably have reduced some necessary utilization, particularly among the poor. HSES 2009 showed that the poorest people accessed outpatient and inpatient services less frequently than others. More specifically, 5% of respondents from the poorest quintiles have utilized inpatient care, whereas it was 10% for the richest. However, co-payments are currently waived for vulnerable groups. Therefore, it

is unclear whether these groups include only the poor or some of the "non-poor" as well. Another objective of the user-charge is to mobilize additional sources for revenue for providers.

According to the Mongolian Health Act and Citizen's Health Insurance Law, the MOH is responsible for making decisions about the level of cost-sharing. In making such decisions, the MOH takes the views of MOHDSW, MOF and MOJ into account. However, as a government ministry, the MOH cannot issue price ceilings, as this would violate the Mongolian Law on Prohibiting Unfair Competition (2000). According to this law, the government cannot make decisions on its own or with others to reduce or set market prices. Therefore, government health-care providers consult with MOH on the level of user charges.

3.4.2. Direct payments

SHI does not cover outpatient drugs at secondary and tertiary levels. They are purchased directly. Inpatients are used to paying for their food while in hospital. Survey results shows that 84.5% of all surveyed patients received meals from home every day. Those who purchased meals in hospital spent USD 5.8 daily. Furthermore, 40.9% of admitted patients reported that they purchased drugs and injections outside of hospital. For such costs, patients spent USD 13.5 on average (Oyungerel N. et al., 2010).

3.4.3 Informal payments

Out-of-pocket payment estimates are based on WHO NHA data which also includes informal payments. Unfortunately, there is a lack of official statistics on the level of informal payments as share of OOPs. Mongolia has various kinds of informal payments, which influences health-care utilization. According to a UNDP survey (2007), 66.4% of respondents paid informal payments up to about USD 26 for hospital admissions and surgeries. However, a study by the MOH in 2009 found that majority (90.2%) of outpatients reported that they did not give any remuneration or gifts for outpatient care. If one disaggregates the informal payments to staff, 23.1% of patients gave money, 67.4% fruits and other food items, and 2.2% non-food stuff. Further, it indicated that there were geographical variations in the prevalence of informal payments. The cost estimate shows that patients in remote aimags such as Uvs paid the highest informal payments for health services. However, people paid the smallest informal payments in Dornogobi aimag, which are located

closer to the capital city and the regional diagnostic and treatment centre (Oyungerel N. et al., 2010).

3.5 Voluntary health insurance

3.5.1 Market role and size

Despite the emergence of some private voluntary health insurance since 2000, the business is still insignificant in Mongolia. Amendments to the insurance law (2004) introduced two main reforms: long-term insurance, which sets the basis for providing life insurance, and reinsurance. To date, only one licensed life insurance company is offering health insurance products. National Life launched a health insurance product that is currently under revision towards a less expensive product that could prove to be more attractive and affordable.

Detailed information about the contribution of VHI to total health expenditure is unknown. However, according to the Financial Regulatory Commission, a crude estimate shows that the share of VHI's payments in THE was 0.2%, and the share of VHI payment in total private health expenditure was 1.2% in 2008.

3.5.2 Market structure

Though private health insurance is currently limited, there is potential for growth, particularly among medium and high income earners, those who go abroad for treatment (estimated by the MOH to spend around USD 35 million per year), and among international companies employing local workers (Tungalag and Bultman, 2010).

Interviews with private health insurers revealed that people of the following groups tend to buy voluntary health insurance policies. They are:

- self-employed business people
- employees of mining companies
- large business entities
- foreigners and tourists
- better-off families

Mongolian large business entities usually pay compulsory social insurance premiums for their workers and also enrol them in supplementary private insurance. However, there are a growing numbers of self-employed

business people choosing not to purchase compulsory social health insurance and preferring to purchase private insurance coverage instead, despite SHI being compulsory by law.

3.5.3 Market conduct

Annual premium of the only licensed private health insurance company ranged from USD 1381 to 3315 for persons aged 35+ and from USD 1656 to 3970 for persons aged 45+. If an insured person is diagnosed with a chronic life-limiting illness, s/he is excluded from cover. The scope of benefits includes both outpatient and inpatient expenses, yearly check-ups and a local ambulance service. Those opting for a high-end product will get worldwide emergency medical and travel assistance service from International SOS Medical to the limit of USD 1 million. Private health insurers limit age ranges for their policyholders. For example, the National Life Company does not cover individuals above 75 years of age. Insurance policies are renewable every year and none of the VHI schemes provide life time coverage.

The policyholders can choose the doctor and the hospital in or outside Mongolia. However, private health-care providers and overseas providers predominantly deliver services to privately insured patients. Services utilized at the insurer's recommended hospitals can be paid for by direct billing. In all other cases, reimbursement will cover 80% of treatment cost, subject to an annual limit. Mostly, insurers reimburse individuals after services are delivered by health-care providers. For groups of policyholders where companies pay the premiums of employees, insurers reimburse hospitals. Usually such companies insure employees for preventive checkups. The providers' remuneration are set in accordance with the fee schedule in those private and public hospitals, or in some cases like admissions, they use SHI payment tariffs.

3.5.4 Public policy

The foundation for public policy for private health insurers is yet to be defined. There is a lack of an integrated legal framework for the private medical services and private health insurance. Private health insurers are regulated by the Financial Regulatory Commission (FRC). This commission is responsible for the regulatory oversight of insurance market participants. Current legislation on insurance includes the law on insurance and the law on insurance intermediaries, both enacted in

2004. FRC issues licenses to private insurers including health insurance providers, and only one life insurance licensed company is offering health insurance products, although at least two general insurance companies are studying the possibility of entering the health insurance business.

The Citizen's Health Insurance (CHI) law and Health financing strategies serve as the policy framework for private health insurance. According to the Citizen's Health Insurance Law (2006), citizens can be insured with additional insurance, and voluntary supplementary health insurance is to be administered by insurance organizations of all forms of ownership. The revised Citizen's Health Insurance Law and Health Care Financing Strategy also define the role of VHI to be supplementary, although it would also entail complementary nature to cover the services that are excluded from the statutory package of benefits. However, this policy is yet to be approved under the proposed Citizen's Health Insurance Law amendments. In addition, the MOH approved the health sector public-private partnership strategy in 2011. This strategy does not have a specific direction for VHI. However, one broad strategic direction is related to the provision of private services, including private health insurance.

There are ongoing policy debates on how VHI should be developed in Mongolia in the future. There is no compelling reason to prevent private health insurers from offering products that effectively supplement the benefits provided under social health insurance. However, private health insurance should not be permitted to compete with social health insurance, and those purchasing private health insurance should not be permitted to opt out of the social health insurance system. The SHI depends on a national scale pooling of risk. With such a small population, if some groups were to opt out - especially the lower-risk, higher-income groups - it would decrease the financial sustainability of the SHI pool. There are likely to be other views emerging as well. For example, UNDP implemented a micro health insurance scheme targeted to less affluent people in Mongolia. This is not in line with the government efforts to strengthen and support the SHI. Moreover, the private health insurers also lobby policy-makers to transfer the management or the privatization of compulsory SHI system to private companies. Unless these positions are carefully regulated, it could potentially endanger the existing SHI system.

3.6 Other financing

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 soft loans (repayable funds or assets). External sources on health as share of THE was 8.6% in 1995 and increased to 28.1% in 2000 and decreased to 3.9% in 2010 (WHO National Health Accounts data, May 2012) (Table 3-7). The significant share of external financing raised important challenges related to strategic prioritization in resource allocation and effective public expenditure management.

Table 3-7 External sources for health, 1995-2010

Sources of revenue	1995	1996	1997	1998	1999	2000	2001	2002
External resources on health as % of THE	8.6	4.5	5.0	12.5	21.1	28.1	26.3	13.5
	2003	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
	4.4	7.1	4.2	4.6	2.5	4.8	4.0	3.9

Source: Health Indicators 2010, DOH (2011)

ADB is the single largest external financier providing assistance to the health sector. Support from other partners tends to be focused on assisting the government to address particular diseases or to develop certain programmes (ADB RRP MON 41243, 2010). External funding tends to follow the financial procedures and norms of multilateral donor agencies, within parameters set by the MOF. In order to streamline and improve effectiveness of various donor funded projects, the MOH established a single steering committee overseeing all projects and programmes. The committee is currently chaired by the Vice-Minister of Health. Further, there have been attempts to develop main system wide approach (SWAp) elements including emerging central-level capacity and increasing donor confidence (Ulikpan et al., 2008). However, it needs leadership and commitment not only by MOH but also by donors for this to be achieved.

3.7 Payment mechanisms

There are both prospective and retrospective payment methods used to pay health-care providers in Mongolia. The Health Sector Strategic Master Plan (2005) and Health Financing Strategy (2010) defined risk-adjusted capitation funding (based on population groups reflecting

different health risks) for primary care providers and case-based payment for hospital care. Paying the providers of health services takes place via a very fragmented system due to the fragmented benefit package. This, as mentioned before, is because of the separation of services between government and SHI based on unclear criterion. The fragmented package and subsequently fragmented payment system limit the intended purchasing effectiveness of the health insurance system (GVG consultants 2010). Many of the reforms or changes to the payment system have happened in Mongolia without proper assessments of the impacts of previous efforts.

3.7.1 Paying for health services

Under the old system, primary care doctors were paid a salary by the government. With the establishment of a new system of family doctors in urban settings, a risk-adjusted capitation payment method was introduced in 2000. The payment is intended to cover everything needed to operate the FGP. The original FGP payment model had weightings for 10 different types of clients, classified by five age groups and poor/non-poor. In 2006, it was decided that the determination of poverty classes was in-effective. In 2007, the socioeconomic adjustment was made according to the place of residence. It was changed in 2008 and revised again in December 2010. Today, the FGP risk-adjusted capitation model with 10 categories is set at USD 7 for a person in a ger district and USD 6 per capita in an apartment district.

Since 2008, the funding for primary health-care providers in rural areas has been decided through a risk-adjusted capitation model. Before that, the funding was allocated by line-item budgets from the government budget and a single flat rate payment from the health insurance fund for their inpatient services. A system for allocating soum hospital funding on the basis of population instead of bed numbers was developed in 2005 and was piloted for two years in five aimags before being rolled out nationwide in January 2007. Initially, the capitation formula was based only on fixed costs (e.g., heating, electricity, water) and population size (as a proxy for variable costs). Since 2008, it has been based on fixed costs and variable costs, with the latter including soum population size and age/sex distribution (75%), distance of the soum from the aimag centre (20%) and performance (5%). This capitation model continues to be the payment method used in most aimags to allocate resources among soum health centres. However, its implementation faced some problems (Ministry of Health, Finance and Economic Department, 2009). If the population of a

soum is below 3000 the allocated budget is seen to be insufficient. Then, aimag health departments are allowed to use 10% for distance and 5% for performance to compensate for this shortfall.

As is the case with primary care providers, Mongolian secondary and tertiary hospitals were also funded by flat rate payments for their inpatient and outpatient care in the past. Since 2007, hospitals are supposed to be funded using a simple DRG system with 22 DRG classes. However, in reality, their funding is decided using the previous year's spending as baseline and adjusted by a percentage increase, which is then classified or divided into 22 DRG cases to define the respective contributions of the government budget and health insurance fund. The MOH defined the list of essential and complementary services as well as their respective source of funding and payment methods in 2006.

Before these changes in the payment system, MOH piloted (2008-2009) the case-mix approach to introduce this type of payment system more thoroughly. The case-mix pilot collected extensive data on medical care at five pilot hospitals over a period of several months. On the basis of this database, 122 reasonably homogeneous DRGs were identified, mostly for inpatient care (because of limited data available on outpatients, all outpatient visits were combined into a single diagnostic group). The case-mix pilot included a costing exercise which was used, in combination with international data on relative costs, to develop a new set of case-based reimbursement rates that are believed to be more realistic in terms of their relationship to actual hospital costs than the 22 reimbursement rates. The work of the case-mix pilot has helped the MOH to issue an order (No. 180 dated 12 June 2009) expanding the previously used 22 DRGs to the 115 DRGs recommended by the case-mix pilot.

Payments from the health insurance fund for inpatient services of private health-care providers and sanatoria are calculated based on the rate defined by the accreditation score of the respective provider multiplied by the average case-mix rate applied for similar level public hospitals. Inpatient admissions for rehabilitation care and traditional medicine have always been funded by the SHI through flat rate case payment. There are also some sanatoria and spas providing combined rehabilitation services using natural resources such as hot springs, traditional medicine, sand and modern physiotherapy techniques and devices. These are also reimbursed from the SHI on the basis of same flat rates.

Essential drugs are reimbursable for pharmacies at a discounted rate (9%-95% of prices are reimbursed), but only when the drugs are prescribed by FGPs (primary health-care provider in urban settings) and soum hospitals (in rural settings). The health insurance subcouncil decides on the proposal of the MOH reference pricing lists and the reimbursable percentage of the cost.

Drugs for the treatment of government budget-funded services such as diabetes are provided by line-item expenses within approved budgets. However, patients complain that they have to pay for even those drugs that are supposed to be provided free of charge (regardless of SHI membership). On the other hand, hospitals claim that government funding does not cover such expenses. These have been largely to do with the lack of an effective purchasing mechanism, because the reimbursement rates are approved only for SHI services but not for government budget-funded services.

Table 3-8 Provider payment mechanisms

Sources of revenue	Ministry of Health	Other ministries	Local health authority	Local SHI departments	Private health insurers
Family doctors	C		C		
Acute hospitals	DRG	DRG		DRG	FFS
Other hospitals	DRG	DRG		DRG	FFS
Hospital outpatient	FFS	FFS		FFS	FFS
Pharmacies				FFS	
Public health services	C		C		

Notes: C=capitation, DRG=diagnosis related group, FFS=fee for service

Too frequent changes have been implemented to payment systems in Mongolia. Despite good intentions to expand services to the insured and respond to hospital needs, these changes have caused difficulties for providers and the SIGO. The information system was not ready and prior capacity building as well as marketing activities were slow to adjust. Moreover, changes in the payments system were often carried out without any thorough assessments. As of today, no study has assessed the impacts of hospital payment system reform.

3.7.2 Paying health workers

According to the civil service law, civil servants are classified into four main categories: political, administrative, special, and support civil servants. Health care personnel such as doctors, nurses, paramedics at government hospitals are classified as support civil servants and are salaried according to civil servant salary schedule. Salary levels vary in accordance with employment duration, seniority and professional degree.

The average wage for all government employed civil service employees has been increasing gradually. The government increased wages of all civil servants by 25% in early 2007 and by 30% again in the same year, followed by a further two rises in 2008-2009, and again by 30% in 2010. As of June 2011, the average monthly salary for a civil service employee is USD 323 which is seven times higher than in 2000. The significant strides in the salary increases for civil servants in recent years have made the average wage in the public sector outpace the average private sector wage (WB 2009).

Since 2003, certain types of support service personnel become contract workers, mostly nonclinical staff such as cleaners and/or maintenance people. This means that they are no longer civil servants. However, such contracting proved to be less effective for hospitals, and many health facilities went back to the old system.

Health personnel of family health centres have been employees in the private sector since 2011. FGPs are considered private non-profit-making cooperatives, and according to cooperative legislation, it is up to the members to decide how to allocate their income. Therefore, their salaries or remuneration are set by discussions of members. The salary of FGP doctors and nurses is regarded as being lower than that at a similar level of care provision like soum health centres.

Chapter 4: Physical and human resources

4. Summary

Under the Semashko system, the government established a nationwide network of government facilities focusing on free, curative services. While the physical infrastructure remains largely unchanged, since the early 2000s there have been many operational and functional changes with the introduction of family group practices (FGPs) and the three-tier referral system. Funding allocated for capital investment, which is budgeted separately from recurrent expenditures, has been increasing. The share of total health expenditure spent on construction work, renovations, renewal, technical supplies and equipment has increased from 4% in 2006 to 15.4% in 2010. Additionally, with the growth in private health organizations, the total number of health facilities has doubled in the past 10 years.

Primary health-care services are delivered at 546 facilities, including FGPs, soum and intersoum hospitals, and village hospitals. Referrals are sent to 36 secondary care general hospitals owned by local governments. There are 17 tertiary general hospitals and specialized centres, all located in the capital city. The infrastructure and facilities need to be analysed in light of the internal migration – while large segments of the population have moved from rural areas to urban, the number of health facilities and staff in both urban and rural remain the same.

Like other health systems inherited from the Semashko system, the Mongolian health system has been heavily reliant on hospital-based curative care with a very high hospital bed supply. With advances in health technology and rising budget pressures on the health system, this perception is changing with increasing focus on outpatient diagnosis and treatment, and hospital bed population has been halved by 2010.

Medical equipment, like other capital investment, is budgeted for separately from the recurring expenditures. While procurement is relatively uniform across different geographic areas, maintenance and repair are a major problem. Hospital information systems (HIS) were introduced in 2008 and currently most of the tertiary hospitals and specialized centres use HIS.

The health and education sectors are the largest public sectors in the country, accounting for 60% of all civil servants. The health sector employs 41 124 people (2011), and one-third of them are non-health support staff. Since 1990, the number of doctors per 1000 population has remained steady but the supply of nurses and other allied staff has significantly decreased. The health system could be more cost effective if this overdependence on doctors decreased, and the number, quality and responsibilities of nurses and other allied staff improved. To increase the number of nurses, more graduates must be produced, but this must be accompanied with an increase in budget for nursing staff, change in national staffing standards, and an expansion in the job description of the nurses. The MOH has also taken numerous steps to address poor working conditions by establishing an intersectoral committee on health sector human resources chaired by the Prime Minister, introducing incentive packages for health workers in remote areas, approving a housing programme for health workers and increasing overall salaries.

There is a perception that there is a huge discrepancy between urban and rural supply of doctors. However, viewing staffing numbers by level of service shows a different perspective. While there are more doctors per 1000 population in Ulaanbaatar, most of them are specialists providing services at the secondary or tertiary facilities. At the primary-care level, Ulaanbaatar has half the number of doctors compared to soums. On the other hand, there are significantly more doctors providing secondary care in Ulaanbaatar than in aimags. All tertiary care is provided in the capital.

Health professionals are trained at one state-owned university and five private colleges. Curricula for the programmes are approved by the MECS, and the licensing exam is given by the MOH.

4.1 Physical resources

4.1.1 Capital stock and investments

One of the remarkable achievements of the Mongolian health system during the socialist era was providing universal access to medical care. The government established a nationwide network of government facilities which provided curative medical care which was by and large free of charge at the point of use. The structure of the network followed the structure of municipality divisions rather than level and types of care provided and referral services. Although the physical structure of the government health facilities has remained almost unchanged, from 2000 there have been major operational and functional changes with the introduction of FGPs and a three-tier referral system.

Table 4-1 Types and number of health facilities, 1992–2000

Facilities	1992	1993	1994	1995	1996	1997	1998	1999	2000
General hospitals and specialized centres	30	30	28	24	14	21	23	23	19
Maternity hospitals	3	3	3	3	3	3	3	3	3
Paediatric hospitals	5	5	4	4	5	3	3	3	3
Hospitals under different Ministries	24	24	24	24	24	24	24	24	24
Aimag general hospitals	18	18	21	22	21	21	21	21	21
District general hospitals									9
Family group practices / FGPs									99
Precinct clinics	927	1108	1043						
Soum hospitals	311	314	320	384	359	340	345	347	334
Feldsher posts with hospital beds	53	25	33						15
District health centres				22	18	28	17	17	12
Aimag health departments								21	21
Inspection agencies*	28	30	36	23	22	22	31	31	31
Centre for Control of Communicable Diseases with Natural Foci				10	8	12	12	14	13
Medical schools, colleges				4	4	5	5	5	4
Spa resorts, sanatoriums				5	10	7	7	6	11

Facilities	1992	1993	1994	1995	1996	1997	1998	1999	2000
Pharmacies, drug manufacturers and wholesalers				292	615	551	280	628	319
Private hospitals and clinics				238	231	318	276	448	466
Professional dispensary				15	12	11	11	11	
Other organizations				91	76	104	89	105	50
Total	2480	2450	2314	2086	2324	2380	1995	2641	1467

Source: Health Sector 2003: Supporting Soum Hospitals, MOH

Since 2000, specialized general hospitals have been downsized. Some of them have been reorganized into district hospitals, paediatrics hospitals have been merged into district general hospitals, precinct clinics (heseg clinics) have been closed down, doctors working in the clinics have joined FGPs, and aimag health departments have been established. As a result, current structural composition of health facilities is notably different from that of 1992 (Table 4-1).

In 2010, primary health care was delivered by 546 health facilities including FGPs in urban settings (cities and aimag centres), soum and intersoum hospitals in rural areas, and village hospitals (Table 4-2). In 2010 under the new Health Act, FGPs were renamed Family Health Centres, and Soum Hospitals became Soum Health Centres (See Section 2.1) The FGP model was introduced in 1999 to provide primary health services free of charge. During the socialist era polyclinic type of outpatient facilities provided medical services to assigned catchment area population (MOH, 2003). General physicians working in those polyclinics were reorganized into private family group practices, with guarantees of income through risk-adjusted capitation payments from the government. According to the latest statistics, there are 218 registered FGPs operating across the country.

Table 4-2 Number of health facilities by level of care and type, 2001, 2005 and 2010

Facilities	2001	2005	2010
Primary health-care facilities			
Family group practices	178	228	218
Village hospitals			17
Soum hospitals	310	287	274
Intersoum hospitals	13	31	37
Secondary health-care facilities			
District general hospitals	12	12	12
Rural general hospitals	-	4	6
Aimag general hospitals	21	18	17
Maternity hospitals*	4	3	3
Tertiary health-care facilities			
Regional diagnostic and treatment centres	-	3	4
Specialized centres and specialized general hospitals	16	17	17
Other health facilities operating under MOH			
MOH and DOH	24	24	24
Research institute	1	1	1
Local centres for endemic diseases with natural foci	13	14	14
Ambulance service	1	1	1
Private health facilities			
Private hospitals		160	166
Private clinics	480*	523	947
Drug wholesalers	56	155	158
Drug manufacturers	-	37	41
Private pharmacies		514	666

* Includes both private clinics and hospitals
Source: Adapted from Health Statistics 2010, Volume 1, Government Implementing Agency-Department of Health

Since 2010, 24 soum hospitals have been upgraded into intersoum hospitals and six soum and intersoum hospitals into rural general hospitals. Financial and human resources of these hospitals have been improved to some extent and support from local and central government has expanded. Nevertheless, there is no information on any changes in quality or level of services provided. Similarly, the numbers of patients

from neighbouring soums seeking care in upgraded facilities is as yet unknown.

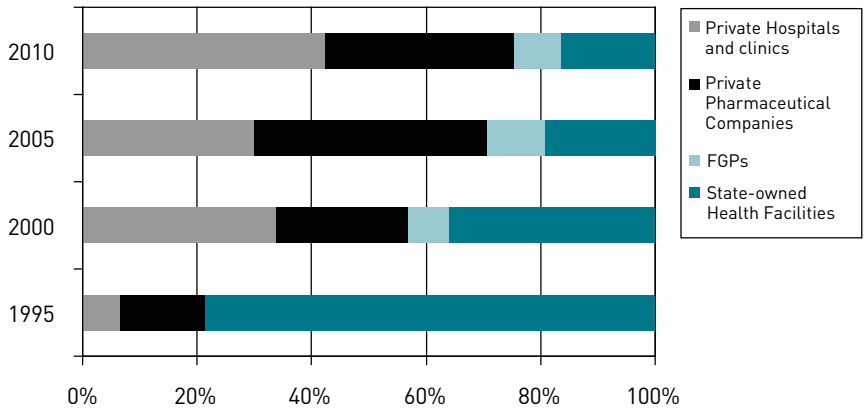
Some 36 general hospitals which are owned by the corresponding local governments provide secondary medical care serving patients referred from primary level. While numbers of district hospitals have not changed, four of the aimag general hospitals were reorganized into regional diagnostic and treatment centres to provide secondary and some tertiary referral services. District hospitals in Ulaanbaatar still do not have obstetrics beds except for the two remote districts Nalaikh and Baganuur. Maternity care is mostly provided by three soviet-style maternity hospitals with 300 beds in total.

Currently there are 17 tertiary-level general hospitals and specialized centres, all are located in the capital city as they serve patients referred from all over the country. Some of them serve as the secondary referral level for patients diagnosed with infectious diseases, skin problems or psychiatric disorders, etc. Over the past 10 years many of these institutions have become National Centres which have additional functions and responsibilities such as research, training and in some cases public health components to their main duty, which is the delivery of specialized referral level medical services.

Although the current structure of the primary health-care service network is meant to ensure equal physical access to basic health services, its cost-effectiveness and efficiency have rarely been analysed in the light of increasing internal migration. The latest census data shows the proportion of population living in rural area has decreased from 43% down to 30% in the past 10 years whereas the numbers of facilities, soum hospital/health centre beds and staff have not seen a corresponding reduction. Due to geographical barriers and particularities of nomadic lifestyle that prevent rural populations from accessing health facilities on a daily basis for outpatient services, soum hospitals/health centres still keep acute beds although they are primary health-care-service points. In contrast, the population of Ulaanbaatar and other major settlements has been increasing while the numbers of FGPs and primary care doctors have decreased (see section 4.2). If internal migration continues rising, the accessibility and availability of essential health services in Ulaanbaatar are likely to suffer.

Overall, the total number of health facilities has doubled since 2010 mainly due to an expanding number of private health organizations, which grew from 420 in 1995 to 2196 in 2010. In 2010, FGPs, private hospitals and clinics, drug wholesalers, and private pharmaceutical manufactures and pharmacies altogether represent 83.7% of total health organizations (See Figure 4-1).

Figure 4-1 Private health facilities Vs State-owned health facilities, as % of total health facilities, 1995, 2001, 2005 and 2010



Source: Ministry of Health, Health statistics, 1995, 2000, 2005, 2010

According to the information collected through the health management information system, 182 government-owned health facilities have been newly built which account for 28% of the total facilities. On average 10%-20% of the existing facilities undergo renovation each year (Table 4-3) by the investment fund allocated from the MOH.

Table 4-3 Numbers of newly built and renovated health facilities, 2006-2010

Facilities	2006	2007	2008	2009	2010	Total
Newly built	20	35	59	18	50	182
As % of total government facilities	11.2%	14.7%	18.1%	16.2%	21.8%	
Renovated	74	98	120	106	141	539
As % of total government facilities	3.0%	5.2%	8.9%	2.7%	7.7%	
Intersoum hospitals	13				31	37

Source: Estimated, based on Official Health Statistics, Volume 1, 2006-2010, DOH

The amount of funding allocated to capital investment has been continuously increasing (Table 4-4) and the share of total health expenditure spent on construction work, renovations, renewal, technical supplies and equipment increased from 4% in 2006 to 15.4% in 2010.

Table 4-4 Capital Investment budget, 2005-2010

Investment	2005	2006	2007	2008	2009	2010
Capital Investment, in billion tug	3.4	6.4	10.8	15.7	20.6	41.1

Source: Health Indicators 2010, DOH

Capital investment is budgeted separately from recurrent expenditures. The annual capital investment needs assessments are performed by the MOH in collaboration with the local health departments. The needs assessments involve all of the health facilities in the country and collect very detailed information. This provides the MOH with an overall picture of the situation in all of the public hospitals in terms of their needs for upgrades, renovation or changes in health system infrastructure (Bolormaa et al. 2007).

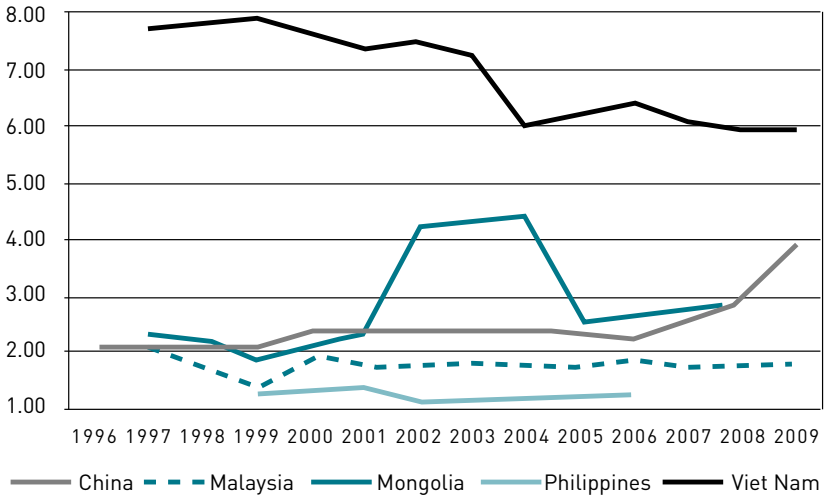
Capital investment in the health sector involves several different mechanisms. The construction of new government-run hospitals and reconstruction of existing facilities have similar implementation and controlling mechanisms. The building plans are approved by the GASI, and a tendering process attempts to select the best contractor at the best possible price. The tendering is organized by the MOH, local authorities and/or hospitals themselves. A special unit is created under the MOH to perform the tendering and routine monitoring and evaluation of the construction sites to ensure the adherence to the approved plans, and the terms and regulations of the contracts (Bolormaa et al. 2007). Initially, the construction of new health facilities at the primary care level of the health system was carried out with assistance from international partners. Due to substantial increases in the government budget for capital investment in health, this situation has changed in recent years.

4.1.2 Infrastructure

It is well-documented and widely acknowledged that the health system of Mongolia has been hugely reliant on hospital-based curative care and had relatively larger numbers of hospital beds. By the end of the socialist era back in 1990, Mongolia had more than 26 000 beds at rate of 12 per 1000 population. The total number of hospital beds has subsequently never exceeded that level.

Mongolia's hospital bed supply is still higher than that of other countries in the region (Figure 4-2). The high hospital bed supply is one of the common characteristics of the countries that inherited Semashko health systems from a centrally-planned socialist regime. Countries of the former Soviet Union had almost the same bed distribution back in 1990s. However, two decades later, the degree of variation between the countries has tremendously expanded ranging from 3 to 13 per 1000 (WHO 1990, 2000, 2011).

Figure 4-2 Hospital beds per 1000 population



Sources: Western Pacific country health information profiles, 1997 to 2010 revisions. Manila, WHO Regional Office for the Western Pacific.

For many years, hospitals with a sufficient number of beds have been considered as one of the most valuable characteristics of a good health system by Mongolians. In addition, hospitalization has been regarded as the most favourable and appreciated mode of receiving care. Nonetheless, with the advancement of health technology and rising budget pressure on health sector, this perception is changing, with outpatient diagnosis and treatment as well as alternatives to long-term hospital care being increasingly accepted internationally (McKee, 2004).

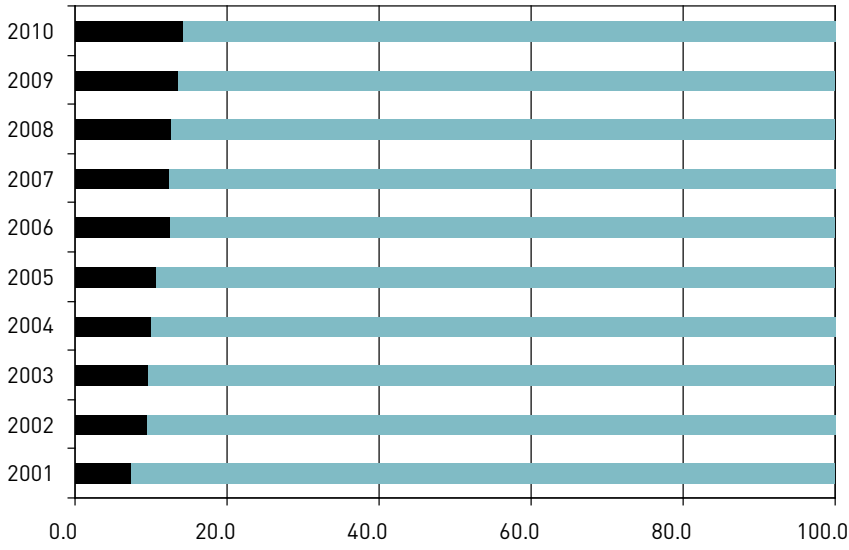
As result of a wider health sector reform, the hospital bed to population ratio has halved. In 2009 the ratio went down to 6.5 and the level was maintained to 2010 (Figure 4-2). These figures represent total number of beds including maternity beds, beds in the hospitals that are not managed by the health sector as well as long-term care beds such as

psychiatric and palliative care beds (if psychiatric and palliative care beds are excluded, the ratio drops to 6.2). The data, however, do not include other alternatives for long-term care beds, such as charity hospitals or nursing homes run by nongovernmental organizations.

Recent assessments of the health management information system concluded that the hospital bed data are reliable. The system collects complete hospital bed related data such as number of beds, number of inpatients, bed occupancy rate, and total and average lengths of stay by specialties, by level of care, and by location, although these unfortunately are not commonly used for planning and management purposes (Tugsdelger et al, 2008). The assessment also points out that private hospital beds might have been underreported. According to the latest statistics, private hospital beds account for 14% of total beds (Figure 4-.3).

The share of private hospital beds among total beds has been gradually increasing from 7.4% in 2001 to 14.2% in 2010, while the percentage of public hospital beds is decreasing (Figure 4-3). However, the increase in numbers of private beds could not exceed the decline in the number of public hospital beds, resulting in overall decrease.

Figure 4-3 Share of private hospitals beds, in percentage, 2001–2010



Source: Estimated, based on Official Health Statistics, Volume 1. Health Statistics Office, 2001-2010

At the primary-care level, beds are used for internal medicine, paediatrics, obstetrics and gynaecology, infectious diseases, and surgery inpatients. As the level of care goes higher, the variety of beds increases (Table 4-5). All specialized centres and multifunction general hospitals are located in the capital city, thus the district hospitals in Ulaanbaatar do not have psychiatric, dental or orthopaedics beds, which means some of the tertiary referral hospitals such as the Traumotology and Orthopaedics Centre and the National Centre for Psychiatry provide mixed levels of care: secondary referral care for city residents and tertiary care nationwide.

Table 4-5 Composition of hospital beds by type and level of care, in percentage, 2010

Specialties	Soum &village hospitals	Inter-soum hospitals	Rural general hospital	District general hospital	Aimag general hospitals	Tertiary hospitals	Private hospital
Internal medicine	46.8	37.4	30.4	53.7	22.6	19.3	37.2
Paediatrics	25.4	25.2	21.0	27.3	14.0	1.3	4.9
Ob & gyn	17.1	18.8	17.9	3.2	14.7	6.7	12.5
Infectious diseases	9.2	8.3	9.4	2.7	14.0	13.3	-
Surgery	1.5	10.3	19.3	2.8	10.6	11.1	7.7
Neurology	-	-	-	8.5	7.5	5.3	11.8
ENT & ophthalmology	-	-	-	0.1	2.6	4.1	6.6
Psychiatric & palliative	-	-	-	0.1	3.8	11.3	0.8
Emergency rooms	-	-	-	1.6	1.6	2.2	0.4
Orthopaedics	-	-	-	-	2.9	10.9	1.1
Traditional medicine	-	-	-	-	2.2	5.2	14.2
Nephrology & urology	-	-	-	-	-	4.7	2.5
Oncology	-	-	-	-	0.8	2.9	0.3
Dental & dental surgery	-	-	-	-	0.8	0.9	-
Others	-	-	-	-	1.8	0.9	-

Source: Estimated, based on Official Health Statistics, Volume 1. Health Statistics Office, 2010

Average length of stay in the hospitals has been steadily declining over the past 20 years. In 1990, average length of stay was 12.3 days but now patients are hospitalized for about 8.2 days on average. It is widely acknowledged that a bed occupancy rate above 85% has a negative

impact on the efficient operation of a hospital and quality of care (DOH UK, 2000). Unfortunately, estimated bed occupancy rates show that hospitals in Ulaanbaatar have a much higher load (Table 4-6). District hospitals' bed occupancy is over 100%, because they use extra beds during peak seasons.

Table 4-6 Bed occupancy rate of the hospitals, by level and types of care, in percentage, 2010

Hospitals	Bed occupancy rate %
Specialized centres and multifunctional general hospitals	93.2
Aimag general hospitals	85.2
Rural general hospitals	80.6
District general hospitals	116.5
Intersoum hospitals	75.9
Soum and village hospitals	81.0
Private hospitals	73.5
Others	76.1
Total	85.7

Source: Estimated, based on Official Health Statistics, Volume 1. Health Statistics Office, 2010.

Detailed analysis of bed occupancy rates shows beds for internal medicine, paediatrics, neurology, psychiatry, oncology and orthopaedics are in higher demand. In order to maintain the appropriate level of occupancy two strategies are being considered: adjusting the number of beds according to demand and revising hospital admission criteria and restricting inpatient care to those patients who cannot be treated as outpatients or day patients. It has been estimated that between 20% and 40% of admissions to the tertiary hospitals are unnecessary (ADB, 2006).

4.1.3 Medical equipment

Supplying government hospitals with modern high quality, safe and reliable equipment, and ensuring regular maintenance and repair services have been one of the chronic problems of the Mongolian health sector. The country itself does not produce any medical equipment except for disposable syringes and other minor medical devices. Having an appropriate policy that guides the process of selection, purchase, procurement and maintenance of medical equipment that are compliant with international standards is essential.

The Department of Finance and Investment of the Ministry of Health in collaboration with Department of Strategic Development is responsible for the development of such policy. Every year the MOH approves a list of essential medical equipment and devices for each level of care based on the needs of hospitals. Funds allocated for capital investment presented in Table 4-4 include resources to purchase medical equipment. Besides the investment from central government, funds come from local governments and international partners, and hospital revenues are used for the procurement of equipment. According to the latest regulatory document developed by the department and approved by the minister's order, planning for the supply of medical equipment involves both bottom-up and top-down approaches. Each hospital makes a list of required equipment and submits it to the MOH every year and the MOH finalizes the list considering the priority needs.

Due to their high acquisition and even higher maintenance costs, big-ticket technologies were introduced to public hospitals in Mongolia relatively late. Computerized tomography (CT scan) was first used in diagnostic practice in 2003-2004. According to MOH data, nine CT scanners are currently being used out of 13 scanners nationwide. Four of the operating scanners are owned by private facilities. Magnetic resonance imaging (MRI) diagnostic has been available in Mongolia since 2009, and currently there are two MRI scanners in operation. Positron emission tomography (PET) technology is still not available in Mongolia (Table 4-7).

Table 4-7 Items of functioning diagnostic imaging technologies (MRI units, CT scanners, PET) per 1000 population, 2010

Hospitals	Per 1000 population	% Utilization
CT scanners	0.005	69.2%
MRI units	0.001	100%
PET	-	-

Source: Official Health Statistics 2010, Volume 1. GIA-DOH, 2011

Primary care facilities are not designed to have high-technology equipment and technologies. Patients requiring more detailed diagnostic services are referred to higher-level health facilities. However, it is unrealistic to expect family or soum doctors to work without very basic diagnostic equipment and devices. 2010 data show that only 20 per cent of soum hospitals and FGPs are equipped with simple electrocardiographs.

In general, the supply of basic diagnostic equipment such as portable ultrasound machines, simple electrocardiographs or microscopes does not differ very much across geographic locations. The major problem that hospitals in rural areas face is a lack of repair and maintenance services at the local level. 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 and maintenance procedures.

As the private health sector expands, private hospitals - especially the multifunctional diagnostic and treatment centres - started playing a leading role in introducing the latest technologies in the sector. Although the services provided by these hospitals are less likely to be free of charges, having the services available in the country certainly creates opportunities to reduce the number of patients seeking diagnostic services abroad.

4.1.4 Information technology

Information and communication technology (ICT) in Mongolia entered new era of development in 1996 when the first commercial internet service provider (ISP) launched its service. The private sector has been a key component of Mongolia's ICT sector growth with companies in software development, internet service provision and telecommunication, including mobile communication technologies. Nevertheless, the Government of Mongolia has recognized the importance of ICT in the development of the country and necessity of government leadership in guiding future development, establishing legal framework, ensuring standardization, protecting consumer right and providing overall coordination.

ICT is one of the fastest developing sectors in Mongolia. ICT development index developed by International Telecommunication Union (ITU) ranked Mongolia at 88 out of 154 participating countries (ITU, 2009). The report of the United Nations E-Government Survey conducted in 2010 covering 184 member countries highlights that Mongolia gained 29 positions to be ranked 53rd globally, "a dramatic rise due primarily to efforts to enhance its national portal and ministry websites to offer more e-services available and more online content" (UN, 2010). The only index for Mongolia below the global average was telecommunication infrastructure (Table 4-8). Estimation of the index took into account the percentage of internet users, number of personal computers, main fixed telephone lines, mobile subscribers, and total fixed broadband per 100 inhabitants.

Table 4-8 Estimated E-Government Development Index for Mongolia, 2010

Index	Score		Ranking
	Global	Mongolia	
E-Government development index	0.4406	0.5243	53
Online service index	0.27384	0.5556	20
Telecommunication infrastructure index	0.23526	0.1036	122
Human capital index	0.8152	0.9127	56
E participation index	0.19798	0.4286	28

Source: United Nations E-Government Survey: Leveraging e-government at a time of financial and economic crisis, New York, UN, 2010.

The Information, Monitoring and Evaluation Department of the MOH is responsible for the development of policy, guidelines and standards related to the use of ICT in the health sector and overall coordination of implementation. The Department has developed long and mid-term strategies to develop ICT in the sector, uniform requirements and standards for hardware, software, interface and equipment to be used in health facilities and other guiding regulatory documents on networking, human resources for ICT in the health sector, distance learning and telemedicine etc. The department is also responsible for organizing the implementation of the health component of a national programme called Electronic Mongolia.

The health management information system (HMIS) and its subsystems employ ICT the most. The first software for collecting, integrating and processing health statistical information Med-Info has now been upgraded into Health Info and currently health facilities use version 2. The infectious diseases information system which is a subsystem of HMIS uses its own software called Ewar for collecting and processing information related to infectious disease morbidity, mortality, and immunization activities.

The hospital information system (HIS) was first introduced to Second General Hospital, one of the tertiary-level hospitals as an MOH and WHO initiative in 2003. Later Shastin Hospital (another tertiary-level, multiprofile general hospital) developed its own version of HIS with electronic medical records (EMR), the latest version of which was selected by MOH via an open bidding process to be used in all government hospitals in 2008. Currently, most of the tertiary-level hospitals and specialized centres are using the HIS. However, the hospitals using HIS

and EMR also have to keep paper records as the legal framework for electronic record keeping has not been fully instituted. ICTPA is yet to submit the draft law on electronic signature and the law on electronic data security to the Parliament.

IMED conducted an assessment survey to evaluate the implementation of regulations, standards, and minimum requirements on ICT use in the sector approved by the minister's orders in 2010. The results of the assessment show that aimag health departments, and secondary- and tertiary-level hospitals have established local area networks that connect all available personal computers. The PC to staff (user) ratio is 1:1.2 for aimag health departments and 1:3.8 for hospitals. 65% of the 30 health facilities covered by the survey connected to internet via fibre optic cable, and the rest had ADSL connections. Each of them had at least one person responsible for ICT, and over 30% of them had two or more staff depending on the number of network users and workload. On average an organization had 5.2 million tugrik (roughly USD 4000-4500) budgeted for ICT. However, most of the available budget pays for the internet connection fee and the facilities have limited resources for purchasing antivirus software or spare parts and devices essential for regular maintenance. Internet connection fees are still high in rural areas especially at soum levels (MOH, 2010). The use of IT at the primary care level is still limited to basic word-processing and the use of spreadsheets.

Based on the experiences and lessons learnt from the telemedicine project supported by the Luxembourg Government, the MOH completed the instalment of basic infrastructure for the national telemedicine network in 2009 and established a new department responsible for telemedicine within the structure of the GIA-DOH (this was renamed the Health Development Center in 2010). More than 60 organizations under the MOH including HDC , health departments and hospitals are connected to a virtual private network (VPN) via high speed broadband, which allows high capacity multimedia transmissions. The project was funded from the state investment budget. Health facilities connected to the VPN were also provided with teleconferencing equipment, PCs and other networking devices. Specialized centres for the telemedicine network, namely the cardiology centre, neurology and neurosurgery centre, nephrology centre, diabetes centre, liver clinic and hepatitis centres, have been established to provide network users with distance diagnostic and teleconsultation services.

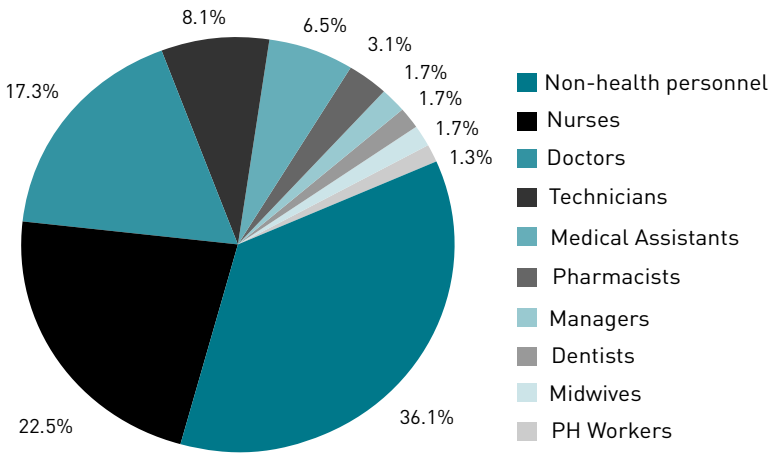
4.2 Human resources

4.2.1 Trends in health-care workforce

By number of personnel, health is considered one of the largest sectors in the country. According to the Civil Service Council, the health and education sectors alone account for nearly 60% of all civil servants (CSC, 2008). In 2010, the total number of personnel providing health-related services reached 39 608, and 8.4% of them represent health workers employed by other sectors including schools, educational institutes that produce health professionals, and hospitals operating under other ministries (military hospitals, railway hospitals, etc.).

The total number of people in the health sector workforce, personnel employed by health facilities operating under the MOH, was 41 124 (2011). Slightly more than one third of them are non-health/medical workers such as accountants, engineers, kitchen staff and other support and maintenance staff (Figure 4-4).

Figure 4-4 Composition of health sector workforce, 2011



Source: Estimated, based on Official Health Statistics, Health Statistics Office, Volume 1, GIA-DOH, 2010

Since 1990, the number of doctors per 1000 population has remained at a similar level. The supply of nurses, physician assistants (bagh feldshers), laboratory technicians and X ray technicians has decreased significantly (Table 4-9).

Table 4-9 Supply of selected health professional groups per 1000 population, selected years

Health Profession	1990	1995	2000	2005	2010
Health Profession	1990	1995	2000	2005	2010
Doctors and dentists	2.79	2.46	2.73	2.66	2.71
Nurses	5.37	3.43	3.02	3.16	3.32
Physician assistants	1.89	1.38	1.03	0.94	0.94
Pharmacy technicians	0.61	0.31	0.54	0.62	0.74
Laboratory technicians	0.56	0.35	0.30	0.28	0.33
X-Ray technicians	0.14	0.08	0.07	0.06	0.06

Source: Estimated, based on Official Health Statistics, Health Statistics Office

Although the overall number of doctors has remained almost unchanged, the specialization pattern is now slightly different. For instance, the number of paediatricians per 1000 fell to 1.7 by 2010, compared to 3.2 in 2001. There was a noticeable reduction in the numbers of pathologists, forensic medicine and doctors specialized in physiotherapy, whereas the number of oncologists, dentists, doctors practicing traditional medicine and doctors in imaging and laboratory diagnostics increased.

25.3% of doctors have not been specialized and 33.5% of them have had so called 'general specialization training'. Internal medicine, obstetrics and gynaecology, paediatrics and general surgery are regarded as general specializations. Nearly 6% have been trained in traditional medicine and the rest have narrower specializations such as ENT, ophthalmology, urology, nephrology, oncology, anaesthesiology, etc. Doctors in Mongolia are often regarded as 'overspecialized', considering primary health care being the key component of the health system (O'Rourke and Hindle, 2001).

For many years, it has been stated in official documents and review papers that there is huge discrepancy in the supply of doctors between urban and rural areas. According to the latest statistics, the number of doctors working in Ulaanbaatar is 3.94 per 1000 population and that in aimags is 1.85 per 1000 (DOH, 2010). Nevertheless, this estimate can be misleading because Ulaanbaatar data includes doctors working in tertiary-level specialized centres, who provide services not only to the citizens of Ulaanbaatar but also to those referred from aimags.

Estimates made by each level of service provided shows a different perspective. As mentioned earlier, the number of people living in rural areas has decreased (NBS, 2011) but the number of doctors has remained almost the same. As a result, Ulaanbaatar has half the number of doctors providing primary care, compared to soums (Table 4-10). On the other hand, there is a significant difference in the number of doctors providing secondary care between aimags and Ulaanbaatar city. Most of the private hospitals, which have more advanced equipment and facilities, are located in the capital city as well.

Table 4-10 Distribution of doctors by the level of care, per 10 000 population, 2010

Settings	Doctors per 1000 population
Total number of doctors per 10 000 population	2.73
Rural population (total)	1.85
Ulaanbaatar	3.94
Primary care	
Soum (service provided by soum hospitals)	1.04
Aimag centres and other big cities (service provided by FGPs)	0.51
Ulaanbaatar (service provided by FGPs)	0.46
Secondary and tertiary care	
Aimags	0.83
Ulaanbaatar	1.72

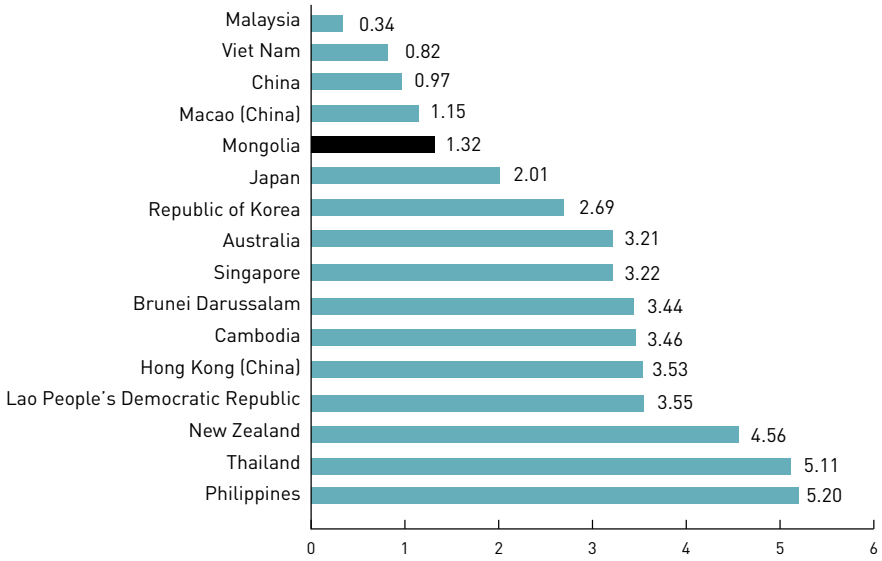
Source: Data on population obtained from the National Bureau of Statistics; data on doctors obtained from the National Health Statistics Office, DOH.

More detailed analysis show that aimag general hospitals are short of certain specialists, namely paediatricians, surgeons, obstetricians, gynaecologists, traumatologists, psychiatrists, infectious disease specialists, physiotherapists, pathologists, dentists and nephrologists. 13% of doctors (N=140) working in aimag hospitals are not specialized (DOH, 2010) whereas the proportion is only 5% in Ulaanbaatar district general hospitals. The Ministry of Health has estimated that by 2020 aimag general hospitals will need 694 more specialized doctors, mainly in the fields listed above (Bayart et al., 2008).

One of the biggest challenges that the health sector in Mongolia is currently facing is the overdependence on doctors, especially for services that could be easily addressed by allied health staff, including nurses. The number of nurses per 1000 sharply decreased in the early 1990s and has remained at a level of 3.0-3.3 since then (Table 4-9). The nurse

to physician ratio is 1:32 which is very low by international standards (Figure 4-5).

Figure 4-5 Nurse/midwives to Physician ratio, selected countries, by latest available year



Source: WHO Global Health Observatory Data repository. Accessed on September 2011 from [http://apps.who.int/ghodata/] (a) Western pacific country health information profiles 2011 revision (Unpublished). Manila, World Health Organization Regional Office for the Western Pacific.

One of the strategic objectives of the health sector human resource development policy is to bring this ratio up to 3:1 (MOH, 2009). In order to achieve this goal, the number of students to be enrolled in nursing schools must be much higher than that admitted to medical schools. However, this change has not happened since the policy came into force, as nurses in Mongolia are one of the lowest-paid professionals. Other changes must also accompany an increase in the number of nursing graduates; for example, increase in budget to support additional staff, change in national staffing standards, and expansion in job description of nurses.

There is a shortage of midwives and other allied health personnel as well. The situation is compounded by the over-specialization of medical doctors, which aggravates the shortage of physicians at the primary care level (HSDP, 2009). The health system could be more cost effective if dependence on doctors decreased and the number, quality and responsibilities of nursing and other allied staff improved.

Analysis of health professionals by place of work shows that dental care and pharmaceutical providers (pharmacies, drug wholesalers and manufacturers) are predominantly private. More than 60% of dentists and nearly 90% of dental assistants are employed by private hospitals and clinics. Only around 20% of pharmacists and pharmacy technicians work in government health facilities (Table 4-11).

Table 4-11 Health professionals by post, 2010

	Doctors	Nurses	Physician assistants	Midwives	Lab technicians	X-ray technicians	Dentists	Dental technicians	Pharmacist	Pharmacy technicians	PH workers
Primary health care	22.6	26.9	63.2	52.7	20.8	3.0	4.4	1.7	0.3	10.7	8.4
Secondary health care	24.6	27.6	13.4	30.8	30.4	40.2	14.6	2.2	3.8	3.3	7.5
Tertiary health care	22.1	26.5	6.1	12.2	31.1	36.7	9.7	7.8	6.5	2.7	6.7
Private pharmaceuticals industry	0.0	0.2	0.1	0.0	0.2	0.0	0.0	0.0	81.3	80.0	0.0
Private hospitals and clinics	17.0	11.0	3.2	3.6	10.4	11.8	63.6	87.2	1.7	0.7	2.5
Common service (ambulance service & blood bank)	1.5	0.4	0.2	0.0	0.7	0.0	0.0	0.0	0.2	0.1	0.0
Non-MOH	12.0	6.9	10.3	0.3	5.1	8.3	7.7	1.1	5.2	2.3	6.7

50% and above 20%–50%

Source: Calculations based on official health statistics, Health Statistics Office.

The social security of the health workforce is weak. Low wages, harsh working conditions and a lack of proper incentive packages negatively affect morale and productivity. These conditions may cause deteriorations in the quality and availability of health services, the failure to meet population health needs, and a loss of confidence in the health system.

In response to the challenges, some positive changes including the establishment of the intersectoral committee on health sector human resources chaired by the Prime Minister of Mongolia, the introduction of incentive packages for health workers in remote areas, the approval of the 'Housing Programme for Health Workers' and overall increase in salary have been introduced.

The health sector of Mongolia does not suffer from brain drain as not many health professionals migrate abroad to practise. Differences in the education system and language barrier could also be underlying factors although the educational institutes producing health professionals have been trying to make qualifications internationally recognized.

4.2.2 Training of health workforce

One state-owned university and five private school/colleges train health professionals on nearly 20 courses. The Health Sciences University of Mongolia is the only state-owned institution and has seven schools: School of Medicine, School of Biomedicine, School of Traditional Medicine, School of Dentistry, School of Pharmacy, School of Public Health, School of Nursing, and three branches in three aimags. All of the training institutions operate under the management of MECS, which registers and issues official licenses for carrying out the pre-service training of health professionals.

The programmes and the required study-term are presented in Table 4-12. Training institutes have developed based on the Soviet model, hence the educational institutes still do not produce some types of health professionals that are common in western countries such as occupational therapists, physiotherapists, optometrists, or speech therapists.
The duties and responsibilities of an optometrist are performed by ophthalmologist or nurses specialized in ophthalmology. Psychiatrists are not considered a separate profession, and medical doctors trained in psychiatry with postgraduate training are licensed to provide psychiatric care. Medical training and mid-level pre-service training have started to gradually move away from a specialist to a more generalist focus.

Curricula for the programmes are approved by the MECS; however, the licensing examination is given by the MOH to test if the knowledge and skills of new graduates are adequate for the needs of health sector. Medical school graduates who pass the licensing exam are granted with a two-year provisional license that permits them to practice in a primary health care setting. Other health professionals are allowed to practice at any level of care after graduation.

Table 4-12 Types of programmes, degrees granted and study years required

Programme	Degree	Years required
Medical doctor	Bachelor	6
Traditional doctor	Bachelor	6
Pharmacist	Bachelor	5
Public health worker	Bachelor	5
Dentist	Bachelor	5
Social health worker	Bachelor	5
Biomedical scientist	Bachelor	5
Health informatics	Bachelor	5
Health economist	Bachelor	5
Traditional medicine nurse	Bachelor	4
Traditional medicine nurse	Diploma	2
Nurse	Bachelor	4
Nurse	Diploma	2
Physician assistant	Diploma	4
Midwife	Diploma	3
Laboratory technician	Diploma	3
Dental technician	Diploma	3
Pharmacy technician	Diploma	3

Source: Department of Licensing, 2010, DOH

The MOH is responsible for postgraduate training of health professionals, which is managed and instituted by the Department of Postgraduate Training of GIA-DOH (now HDC). A board established by the MOH approves training curricula and sets the number of health professionals to be trained for each specialization. Licenses are automatically renewed every five years if the required credits are completed. If insufficient credit points are collected, the licensing examination has to be retaken in order to be able to continue to practice.

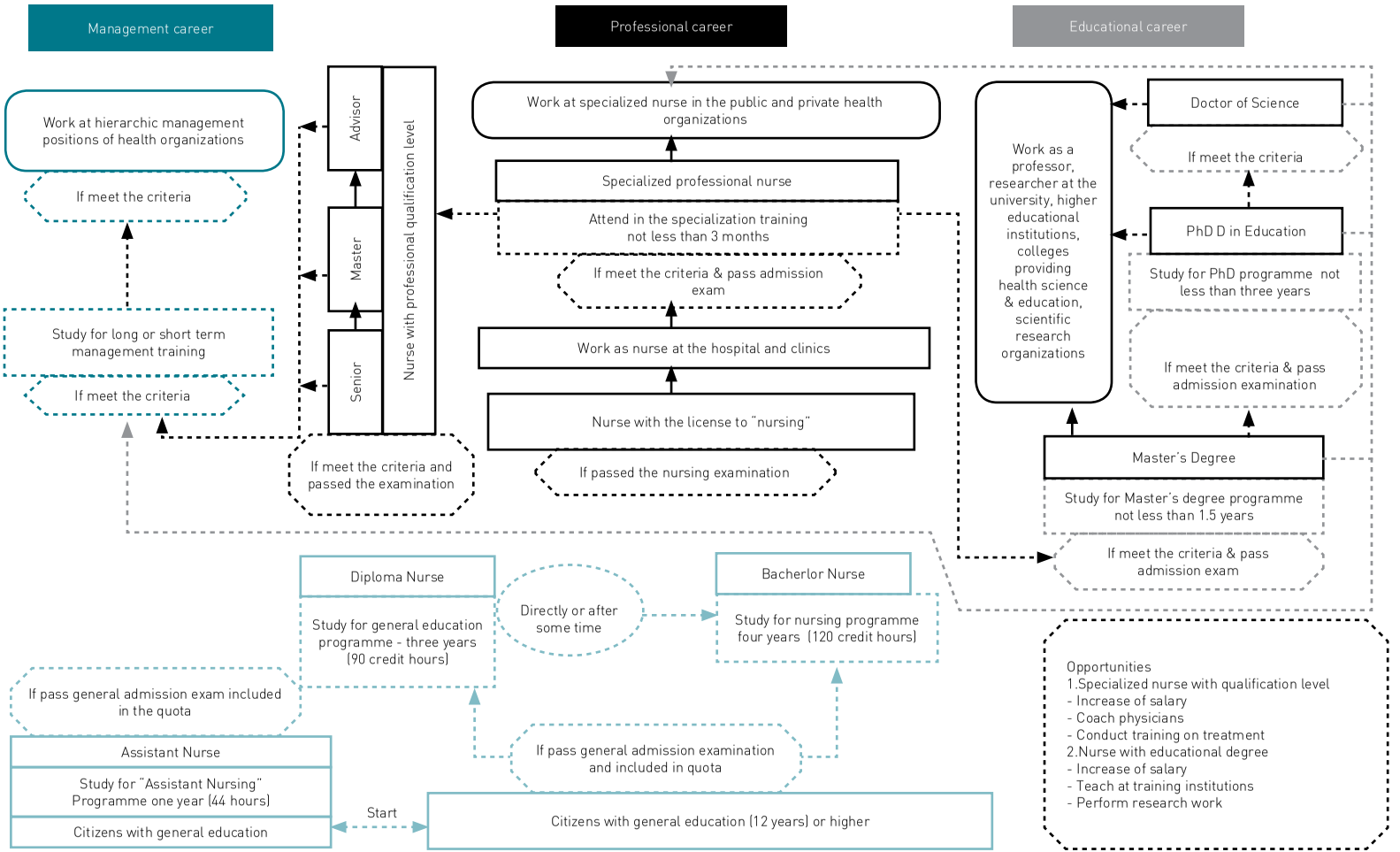
4.2.3 Career path of medical professionals

A career document for selected health professionals was first developed and approved in 2008 by the MOH with extensive involvement of professional associations, educational institutes and health managers. The document outlines the process of professional career development from entry to medical schools to the attainment of the highest specialization qualification. For instance, according to the document it takes 13-14 years for medical doctors to get highest specialization that

enables them to work in tertiary-level specialized centres or general hospitals (Figure 4-6).

Once specialization is acquired, the degree of competence and excellence is evaluated and acknowledged through professional ranking. There are three levels of rankings (which are literally translated as consultant, leading and senior) for each profession. Until 2010, professional qualification exams were organized by a body appointed by the MOH. However, the assessment of qualifications requires professional expertise, and excellence in certain professions must be evaluated and acknowledged by the professional community. Recognizing the importance of the professional community in setting professional standards, the MOH issued an order to transfer the authority of awarding professional ranking to 11 professional associations which have fulfilled this function since 2010.

Figure 4-6 Sample career pathway



Chapter 5: Provision of services

5. Chapter summary

The main aims of health services in Mongolia are the provision of accessible, equitable and quality services to everyone. In the framework of the Health Sector Strategic Master Plan, health services were divided into three main packages: essential health care, complementary health care, and other health services. The health system is based on a two-tier model that provides health services at primary and secondary/tertiary levels:

- Primary health care is delivered by family health centres, soum health centres and intersoum hospitals.
- Secondary health care is provided by district and aimag general hospitals, rural general hospitals and private clinics.
- Tertiary health care is delivered by multispecialty central hospitals and specialized centres in Ulaanbaatar.

Health service provision in Mongolia has been affected by the socioeconomic changes in the country which have led to enormous rural to urban migration of the population. Despite this, Mongolia, seeks to sustain the achievements of the previous system and has made substantive efforts to provide resources to rural health facilities.

Public health is becoming a more important issue not only in the health sector but also in other sectors especially in education and environment sectors as well as local governments. For the last decade, legislative and structural foundations have been created to develop public health services. The knowledge and practices of the population for achieving a healthy lifestyle have improved due to substantial advocacy activities among decision makers, intersectoral cooperation, public health campaigns, community workshops, public events, school health programmes, healthy city, organization and food initiatives, wellness and fitness programmes, etc.

There is a mismatch between the planned activities of national public health programmes and the financial resources dedicated to them, which has led to shortcomings in their realization and discrepancies in programme implementation between urban and rural areas as well as between different aimags. In response to the situation, several public health programmes have been integrated for better coordination and greater efficiency in implementation. The introduction of non-hospital-based primary health care (PHC) system required a major reorientation of public expectations about the kind of health services they were entitled to. To make PHC attractive to the public and medical practitioners, a substantial investment in PHC services and facilities would be required.

Mongolian health sector and citizens still rely on hospital services. Unnecessary self-referrals to the upper level and hospital admissions make substantial contribution in this regard. These are mainly related to poor communication between primary care doctors and patients, low quality of care, and the lack of barriers to self-referral. Physical and technical capacity of private and public hospitals has improved over the last few years as a requirement of accreditation and selective contracting by social health insurance. However, poor quality control, inactive purchasing and no financial incentive for better performance hinder further gains.

5.1 Public health

The priority of Mongolian health sector is to provide primary health care services to citizens. The development of and improvements in public health have mainly been based on a vertical programme approach.

Since 1993, the State Great Khural has adopted a number of 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). The State Policy on Public Health (SPPH) in 2002 was the key government policy document for the next 10–15 years to develop a public health oriented system. In 2002, the National Public Health Council under the MOH was established to support the implementation of the SPPH (see Chapter 2). The Public Health Professionals Council was established at the ministerial level to coordinate national public health programmes.

Other main actors involved in public health are the HDC, the Public Health Institute, the National Centre for Communicable Diseases (NCCD), the GASI, National Physical Culture and Sport Agency, the Health Science University, Mongolia (HSUM) and international organizations (see Chapter 2). However, it is acknowledged that addressing public health issues also requires the involvement of other ministries. So the Ministry of Nature and the Environment, MECS, and the MOHDSW, among others, are involved in various working groups and committees, and are implementing health-related programmes in conjunction with the MOH (Bolormaa et al. 2007).

A range of national public health programmes have been implemented centrally in order to coordinate efforts at all different levels of the health system. A national public health programme is a package of activities organized to address priority health needs, and it usually has its own management structure, budgets, time-frames and involves a range of stakeholders – often including international partners – although the activities are carried out within the overall supervisory framework of the MOH. Most national programmes are now integrated and several strategies have been implemented in priority areas of public health issues. Local health departments usually develop subprogrammes based on the national public health programmes. The School of Public Health under the HSUM is the only institution in Mongolia that offers undergraduate and postgraduate training in public health.

Environmental health policy and its implementation are conducted by the MOH, and environmental health control and monitoring by the Environment, Tourism, Geology and Mining Inspection Department of GASI. The GASI has branches in all provinces and a nature and environment inspector in every soum. Currently, environmental health data are collected and stored at various institutions including the Ministry of Nature and Environment, environmental inspection authorities and 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 coordination and cooperation. In 2005, the Government of Mongolia endorsed the 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 hazardous effects of environment, intensifying interventions targeted at improving environmental health and increasing intersectoral collaboration (Bolormaa et al 2007).

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's role has been expanded by offering postgraduate training and conducting research at the national level. It organizes interventions during communicable disease outbreaks. However, not all infectious disease rates are decreasing as rapidly as expected. This appears to be related to weak political commitment, social/economic barriers (poverty, gender, ethnicity, etc.), unmotivated human resources (rapid staff turnover, shortage of health workers in rural areas, inappropriate training, low salaries, etc.), lack of outbreak response capacities, etc. (Country Profile SEARO-WPRO/CSR, 2006). The National Communicable Disease Control Programme for 2011-2015 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.

The National Immunization Programme is one of the most effective subprogrammes under the National Communicable Disease Control Programme. Long-term high immunization coverage of 0–1 year-olds has supported a dramatic decrease in the incidence of vaccine-preventable diseases. In addition, Mongolia achieved the polio-free status in 2000, and in 2011 it reached the regional target for hepatitis B control: HBV carrier rate under 1% for children under five years. Obligatory immunizations include BCG, polio, hepatitis B, DPT and measles. Bagh feldshers, and soum and family doctors play an important role in providing immunization services. In 2005, the pentavalent vaccine (DTP, HepB, Hib) was introduced, reducing the numbers of vaccination visits from three to one, thereby reducing the cost of vaccination which is one of the highest in the world due to huge territory sparsely populated . Since 2011, MMR became a routine vaccination also by the Government of Mongolia decision.

The National Centre of Zoonotic Diseases (NCZD since 2012) and the GASI are the main actors involved in control and management of zoonotic and natural foci 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. Mongolia has natural reservoirs of bubonic plague in the territory of 130 soums in 17 aimags.

The aimag health departments are the bodies with the main responsibility for public health issues including 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 unit for communicable diseases within the aimag general hospitals. At the PHC level in rural areas, soum health centres usually have three to five beds. When necessary, beds are redesignated 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 (Bolormaa et al. 2007).

Screening programmes have expanded in Mongolia under several government programmes such as Healthy Mongolians, Healthy Children and NCD programmes. But these activities still need to be better coordinated and follow-ups maintained after screening. The National Programme for Healthy Mongolians was implemented from 2006 to 2008, and under this programme medical examinations were carried out, as well as early detection and management of hypertension, diabetes, cancer of breast and cervix, TB, HIV/AIDS/STI and IEC activities among the population aged over 15 year old. The National Programme for Healthy Children was launched in 2012 to provide health access to every child up to 18 years old as a short government initiated programme. 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.

Most national health programmes have components of health education and promotion interventions targeted at different population groups. Health education has also been integrated into school curricula at all levels (Amindavaa, Kristensen et al. 2005). The aimag and district health departments play a key coordinating role in health education intervention and IEC campaigns in close collaboration with international donor organizations and international and national NGOs. In 2005, the STEPS survey on noncommunicable disease risk factors was conducted for the

first time in order to establish a suitable surveillance system. The survey was repeated in 2010 and revealed that NCD risk factors and actual illness are prevalent among the population. The newly approved National Strategy on the Adoption of Healthy Lifestyle and IEC (2010-2016) and Strategy on Health Education (2010-2015) aim to foster a health-promoting environment, which encourages a healthy lifestyle.

Since 2000, occupational health has been the joint responsibility of the MOHDSW and the MOH. The main national institution that deals with occupational health issues is the National Centre for Working Conditions and Occupational Disease, which is an affiliated agency under the MOHDSW. It is a government service organization which assesses occupational conditions as well as dangerous, toxic and high-risk factors at workplace. The Social Security Sector Strategy Paper developed by the MOHDSW was adopted in 2003 and contains concrete goals for developing and implementing a programme to prevent industrial accidents and occupational diseases. Allocating resources to implement this programme are available from the insurance fund against industrial accidents and occupational diseases. There is also a plan to amend the law on pension and benefits for industrial accidents and occupational diseases. The programme on the prevention of industrial accidents and occupational diseases was developed in 2005. The strategy paper pointed out the need for a pilot project to implement the programme and a later expansion based on the lessons learnt from the pilot implementation.

The Occupational Safety and Health Law (2008) demonstrate that if an employer initiates an industry and service in a new workplace, that particular workplace needs to be evaluated as to whether it fulfills workplace requirements. As the private sector grew through the 1990s, owners of private businesses became responsible for arranging and financing occupational health services for their workers (Bolormaa et al. 2007).

Most private enterprises are small-scale industries and hire up to 10 employees. Therefore, it creates challenges in adopting major industrial occupational safety and health rules and regulations. For this reason, it is essential to create detailed rules and regulations which are sensitive to the size of an industry. In 2005, the government adopted the National Programme for Occupational Safety and Hygiene for 2005-2010. Unfortunately, this programme was not renewed, and thus occupational

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

Issues and challenges in public health

In Mongolia, there is still a large gap between policy and practice in public health. 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 the 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). Infrastructure is poorly developed in these areas, which 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 (Bolormaa et al. 2007). In the meantime, formerly integrated system of hygiene, infectious disease control and bacteriology became fragmented at the central level, and neglected at the rural level, with hygiene functions shifted to professional supervision and standardization. Environmental health has also been neglected, and diseases related to pollution of water, soil, air and food have increased a lot since 1990 (Public Health Status for 2000-2010, MOH 2011).

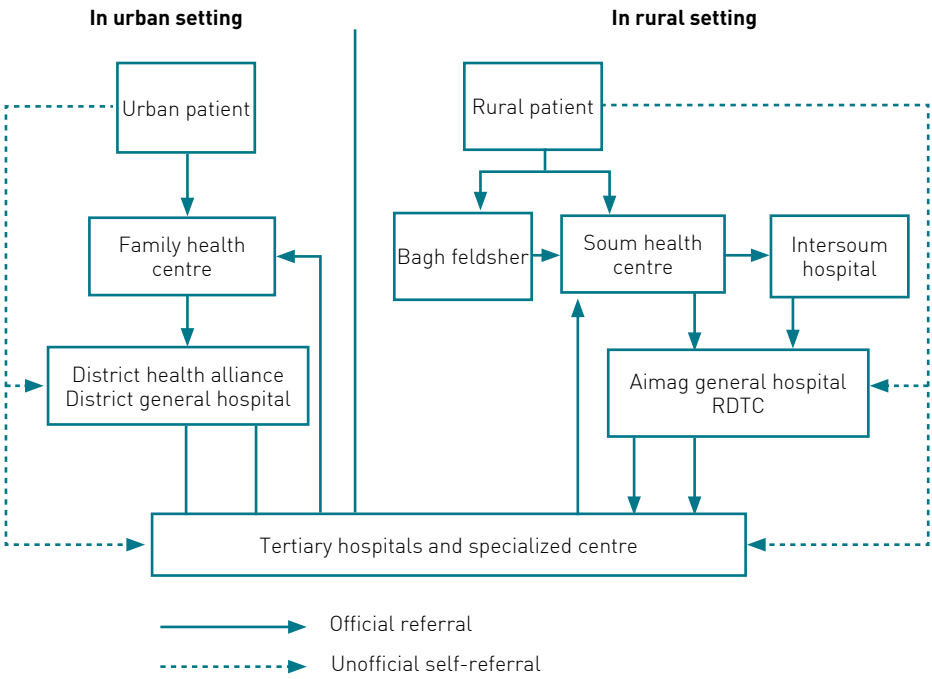
Before the revised Health Act of 20122, primary health care facilities were called soum hospitals in rural Mongolia, and family hospital/family group practice in aimag centres and in Ulaanbaatar. Such labelling has contributed to common public perception to prefer hospitals. Soum health centres have to deliver public health services in rural areas. However, on average only 17 per cent of total expenses of soum health centre is allocated to public health measures and 81 per cent to inpatient services (Public Health Status for 2000-2010, MOH 2011). It could be changed gradually by comprehensive interventions with involvement of both the government and public. So far, lack of financing and M&E on actual performance of primary health care services has resulted in poor quality of care. Historical line-item budgeting should be increased based on actual costing and well integrated to performance based financing.

Livelihood councils were established under each local governors' office at aimag and soum levels to integrate social issues such as health, social welfare and education with delegates from social sectors and the community. Also official positions for social workers on social welfare and health at every governor's office became basis of close coordination of family health centres and soum health facilities on social issues. This recent changes could be increasingly important to improve multisectoral coordination of public health activities at the local level.

5.2 Patient pathways

Official patient pathway in Mongolia is based on three layer system in order to improve the system efficiency and encourage public health priority. There are some differences between the patient pathways in rural and urban areas due to the structural differences in primary health care provision, which reflects geographical circumstances. Family health centres (FHCs), 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 population (see primary/ambulatory care).

Figure 5-1 Patient pathways



Dorj living in a soum and Tulga living in Ulaanbaatar would follow different patient pathways to have necessary health services when they need health care:

Box 5.1 Description of patient pathway

Patient pathway in urban setting	Patient pathway in rural setting
Tulga goes to the FHCs for his area when he is ill and sees the family doctor with whom he is registered. Although the consultation is free, he has to pay for prescribed medications if he is uninsured or if the drugs are not included on the EDL. If Tulga's illness cannot be managed by staff at the FHC, he is referred to the district health facilities using form 13A for a more detailed diagnosis and specialist services. Once referred to the district general hospital or district health alliance, Tulga would receive the required diagnostic services there, unless a specialist decides that a further referral to a tertiary hospital is required. If Tulga 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 Tulga 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 FHC for aftercare. If Tulga is insured, he should pay a co-payment when he is admitted to district or specialized hospitals. If he is under social care assistance, the government pays the co-payment. If he is uninsured he pays in full out-of-pocket.	If Dorj, a herder, is ill he goes to the soum health centre. 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, Dorj is referred to either the soum health centre or intersoum hospital depending on which is closer or depending on his needs. If the soum health centre or intersoum hospital cannot manage the case effectively, Dorj is referred using form 13A for more specialist services and diagnostics at the aimag general hospital, RDTC or tertiary services in Ulaanbaatar. After treatment in the more specialized centres, Dorj is discharged to the care of doctors at the soum health centre. The other aspect of health care that is far different in rural regions is antenatal and maternity care. Tuya (Dorj's wife) would have stayed in a maternity rest home attached to the soum health centre for the later stage of pregnancy, and not just for the birth. If Tuya had complications, she would be referred to the aimag maternity rest home based at the aimag general hospital.

The above mentioned official pathway is closely related to financing mechanisms reflected in the health law and the citizen's health insurance law. However, in reality there are a significant number of self-referrals to hospitals in urban areas. In practice, Tulga could go directly to the district or even specialized hospital and just pay the penalty fee for

self-referral. Hospitals even encourage such self-referrals because the penalty charges provide more revenue than standard referrals (Bolormaa et al. 2007). This has been essentially promoted by the Ministry of Finance through budget planning estimating user charges as a portion of hospital revenue (See Chapter 3).

Self-referral from rural areas is less common than it is for those living in urban areas, owing to the geographical barriers in getting specialist care. However, people in rural areas still do self-referrals to some extent, often using social networks and family links. In general, patient self-referral is one of the priority concerns of Mongolian health system. Self-referral from all level health facilities including rural and urban to tertiary hospitals in Ulaanbaatar was 31.1 per cent of total referrals and from soum and aimag to aimag general hospitals 32.3 per cent of total referrals subsequently (Health Indicators 2010, MOH). Currently there is no substantial mechanism to decrease self-referral and encourage gate-keeping at the primary health care level.

5.3 Primary/ambulatory care

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, they are described separately below. Primary care services are included in the package of essential services designed to address priority health problems. The amendment to the health law in 2011 has made it possible for primary health care facilities to function as health centres instead of FGPs or soum hospitals.

Primary care services in urban areas

In 2000-2003, FGPs were established in Ulaanbaatar and in the aimag centres under the name of family clinics, but are now known as family health centres (FHCs). FHCs have their own offices, human and technical capacity; their operational standard was revised in 2011.

Family health centres consist of three to four family doctors on average and one nurse per doctor, and they are placed in community settings, such as office blocks and health centres. In order to make social services nearer to residents, local governors have been reorganizing public entities as one point service providers, locating the local governor office, FHC, and police station in one place, especially in Ulaanbaatar. In total there are 2235 family doctors and nurses based in family health centres,

and they performed 5.9 million patient consultations, which means on average a person made 3.2 visits per year (Health Indicators 2011). For the last few years, the workload of family doctor has increased in Ulaanbaatar substantially due to the city's increased population through internal migration. A family doctor in Ulaanbaatar performs an average of 8198,4 patient consultations per year which was higher than that of aimag family health centres the average for which was 1740 examinations per doctor per year. There was an initiative to allow patients to choose their family doctor within a family health centres in order to promote continuity of primary care provision. However, this has not had the desired result because the policy has not been effectively implemented so there are still barriers to accessing specialist services. Most family health centres are open during regular office hours with some additional hours at weekends, but weekdays remain the busiest in terms of both clinic and home visits.

The services provided at family health centres are not as extensive as those provided in the soum health centres, due to the proximity of family health centres to tertiary- and secondary-level care services. The services provided by family health centres 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, accessibility to the primary health care provider at the FHC/soum health centres was high among the members of poor households (ADB and MOH, 2010).

In their short history, family health centres have achieved a lot: the concept of family medicine has been introduced, 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 strengthening postgraduate and inservice training for family doctors and nurses, improving the quality of services, reducing the high level of self-referrals, sustaining continuity of care, and maintaining good management of chronic diseases (Bolormaa et al. 2007). However, their gatekeeping is weak. The preponderance of oversized hospitals in the capital city and the poor capacity of family health centres are the most influential factors in the comparatively high levels of self-referral.

Primary care services in rural areas

In rural areas primary care is provided through the soum health centre (until 2011 called soum hospitals), which consists of soum doctors, nurses, midwives, feldshers and support staff. All soum health centres are public health facilities owned by local governments, and all staff are salaried. In recent years, the overall trend in MOH policy has been to increase funding for soum health facilities. The rural population has no restriction in choosing physicians. A peculiarity of rural PHC in Mongolia is that the soum health centres 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 and they need some inpatient services before travelling long distances to get secondary inpatient care in aimag centres. Most of the soum health centres have 5 to 15 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. Most soum health centres have simple laboratories providing rapid blood and urine tests. Attached to the relevant soum health centre is a network of 881 bagh feldsher posts (of which 11 have 1-2 beds), which provide primary care services in more remote areas. Where a rural hospital serves more than one soum, it is called an intersoum hospital. Intersoum hospitals also provide extended general services covered in the complementary package, so patients from nearby soums can be referred there (Bolormaa et al. 2007). As of 2011, there are 37 intersoum hospitals and 274 soum health centres providing primary care services to the rural population (MOH and DOH 2011).

The specific challenge of rural primary care is to meet the various health needs of the scattered and distant nomads. In 2011, soum health centres and intersoum hospitals had 132.6 thousand admissions and provided 2.4 million outpatient examinations, which are more than 1.6 million outpatient examinations provided by aimag general hospitals. The number of inpatients has been reduced by 8.8 per cent in intersoum hospitals and 4.5 per cent in soum health centres since 2009. Decline in numbers of inpatients is related to the policy to reduce hospital admissions and promote preventive public health services (MOH and DOH 2011).

The most important services provided in soum health centres are the maternal and child health services, which include deliveries. In 2011,

6548 mothers gave birth in soum health centres and intersoum hospitals, which accounts for 9.4% of all deliveries in the country (MOH and DOH 2011). As a result of prioritizing maternal and child health through a range of activities during the last 20 years, the maternal and child mortality rates have been decreasing steadily in rural areas. However, the child and maternal health of rural population remains the subject of concern. The third national programme on reproductive health (2007-2011) promoted the referral of complicated deliveries from soums to intersoum or aimag hospitals so that only normal deliveries were dealt with at soum hospitals. In total, 32.3% of deliveries were referred from soum health centres to aimag general hospitals (MOH and DOH 2010). However, soum health centres need to improve the management of common diseases by improving professional knowledge and counselling skills particularly for the leading causes of illness (see Section 1.4).

To maximize organizational accessibility, all soum health centres are open for 24 hours a day, nurses make regular duty shifts, and bagh feldshers make home visits. Owing to the extreme continental climate and the lack of direct transport routes to soum health facilities or feldsher health posts, access to primary care services is restricted considerably for rural nomads during winter. The budget of soum health centres is not linked to proximity to or the needs of the population. This has influenced access to health services, equity and quality of services. Given the very sparsely distributed population, efficient use of resources is not a priority at soum health facilities. A certain amount of staff are needed to be able to provide quality health services, and this number is maintained even if the population in the catchment area is small.

Primary care facilities in rural areas face a shortage of quality health personnel, which has created great urban–rural inequity in service provision. Currently, eight soum health centres have no doctors, and over 200 doctor posts are empty in soum and intersoum hospitals (Health Sector, 2004-2008, MOH and ADB 2010) even where the government has taken actions such as giving incentives to personnel who work longer in rural areas proved by the health law and sending doctors with promotion.

The Soum Hospital Development Programme for 2002-2008 (Government Resolution No. 89) was the main policy document for the physical and human resource development of soum hospitals and the provision of primary care services to the rural population. The rural health system has experienced a shift away from its former hospital orientation towards

a primary care focus. Thanks to the implementation of the soum hospital development programme, 76 per cent of the soum ambulance vehicles have been renewed, 85 per cent of soum health centres have been provided with essential equipment for diagnostics and treatment, the drug supply increased by 80 per cent establishing 285 drug revolving funds (see Section 5.6), financing of soum health facilities has increased year by year, and extensive capacity building activities have been implemented among soum doctors and medical staff (MOH, 2008). However, there are still challenges including continuous lack of medical personnel, inadequate funding, and poor working conditions.

5.4 Specialized ambulatory and inpatient care

At the secondary level, specialized ambulatory care is provided by the aimag and district general hospitals as well as district ambulatory and private hospitals. The services should cover more than seven fields including internal medicine, paediatrics, obstetrics and gynaecology, general surgery, dental care, neurology, and infectious disease services as defined in the health law and complementary package of health services approved as a part of Health Sector Strategic Master Plan. Tertiary-level care is provided through the specialized government hospitals and specialty 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. Some ministries have their own hospitals which provide secondary level services to their workers. These hospitals are not usually well coordinated with the MOH.

Aimag general hospitals

Aimag general hospitals are state-owned organizations, and the staff are employed by the local government and salaried. These hospitals get their financing from the centrally allocated government budget and the social health insurance (see Chapter 3). 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 between 105 and 405 beds, with an average bed occupancy rate of 78% (MOH and DOH 2009). Aimag general hospitals provide more services in terms of more specialty services 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, X-ray and ultrasound services (Bolormaa et al. 2007). However, as in the soum hospitals, aimag-level facilities are understaffed. The allotment of doctor's per 10000 population in aimags is 1.5 times lower than in Ulaanbaatar (Health Sector 2004-2008, MOH and ADB 2008).In this area, the application of structure and performance standards of health facilities is under discussion 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 local government-run district hospitals with 1353 beds in Ulaanbaatar. The size of district hospitals varies considerably, from 15 to 225 beds (MOH and DOH 2009). District hospitals usually provide inpatient services for only two to five main specialties: internal medicine, paediatrics, neurology, and resuscitation. 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. Overall, the district hospital system in Ulaanbaatar can be described as consisting of many small private and public hospitals with surplus bed capacity which provide services on a very narrow case-mix (Bolormaa et al 2007). Moreover, studies have suggested that there is a significant level of inappropriate admissions in district hospitals. One revealed that 77.4% of admissions to Songinokharkhan district hospital were chronic cases, which did not require acute treatment (Byambaa, Tumurbat et al. 2005).

In 1997, 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 service quality and strengthen the capacity of the hospital. This pilot proved a useful learning experience both in terms of its management and efficiency, 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. However, one survey compared reformed and unreformed hospitals and results show that the reformed hospitals have increased services, but there is no evidence of positive effects on hospital efficiency, productivity or quality of services and patient satisfaction when the hospital autonomy increased

(Bulganchimeg and Tumurbat, 2008). Therefore, future hospital reform needs to be based on the existing evidence and local practices.

Tertiary-level hospitals and specialized centres

There are four 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 30% of total admissions of Mongolia. The number of inpatients referred from soum and aimag hospitals to RDTCs was 31.1% of total referrals and from aimag and district hospitals to tertiary hospitals 24.9% of total referrals respectively (MOH and DOH 2010). Additionally, tertiary hospitals deliver all the services not covered by the five specializations delivered by district hospitals for the Ulaanbaatar population. For example, all common surgical operations in Ulaanbaatar (such as acute appendicitis) are carried out at tertiary-level hospitals which contributes to inefficiency in the system. Outside the capital, such conditions are treated in aimag hospitals at much lower cost than these national hospitals (Bolormaa et al 2007).

Private hospitals

Since the end of the 1990s, the number of private hospitals has risen dramatically. Most private hospitals are located in Ulaanbaatar, and in 2011 the number of private beds reached 3069 accounting for 16.2% of the total hospital bed stock. Mostly, private hospitals have 5-30 beds, and this type of small private hospitals comprises 73.7% of all private hospitals (MOH and DOH 2011). Aimags have different patterns of private hospital capacity. In the most populous three areas of Mongolia (Ulaanbaatar, Darkhan-Uul and Orkhon aimags) the number of private hospital beds per capita is very high, whereas Gobisumber aimag has no private hospital yet. Reporting 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 they are usually not reported in full.

Funding from Social Health Insurance to private hospitals increased during 1995-2010. It has contributed to the expansion of the private health care sector. The amendment to the health insurance law in 2006 stipulated that private hospitals should be financed for providing services not undertaken by public hospitals. Unfortunately, this article has not been implemented, and private hospitals mainly duplicate public service provision. The specialties that dominate in private hospitals are internal medicine, traditional medicine, rehabilitation, and gynaecology. Private hospitals usually provide medical services for non-severe cases and nursing services particularly in small hospitals. For the last few years, some private hospitals have introduced specific advanced laboratory technologies and management approaches.

The joint ownership of public and private hospital services has not been introduced in Mongolia. PPP was reflected in the health sector strategic master plan. However, it has not yet been realized and strategically coordinated by the MOH.

Hospital rationalization

The MOH has been trying to reduce the number of government hospital beds. However, the number of total hospital beds had not decreased as expected due to the expansion of private hospitals without adequate planning and coordination. Until recently there has not been any differentiation between the types of hospital beds, such as acute or long term. Only in 2005, an acute bed was defined by the Health Minister's Order No. 107, and the numbers of acute and long-term beds began to be counted separately. However, there is also a cultural belief that equates better services with more specialized care, which reinforces the current hospital structure and makes it hard to reduce the number of hospital beds (Bolormaa et al 2007).

Within the framework of hospital restructuring, the average length of stay in hospitals has been reduced noticeably from 12.3 days in 1990 to 8.1 in 2010 (NCHD 2002; MOH and DOH 2010). This achievement is not well-coordinated with other interventions to promote continuous care at the primary care level. Contracted hospitals are usually reimbursed by the social health insurance scheme according to a "standard length of stay", which has given hospital managers the incentive to admit patients for up to 10 days for care which would be better provided in an outpatient setting.

Health service provision at aimag level is more adequately organized within the three-layer system than in Ulaanbaatar. Overall, curative and hospital-based approach to health service provision contributes to the overcapacity of hospital beds especially in Ulaanbaatar including secondary- and tertiary-level hospitals. Much of the care provided in hospitals is inappropriate in the sense that it could be provided at lower levels of the system. 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. Tertiary hospitals in Ulaanbaatar should consider phasing out provision of basic acute care services, which would be better provided at the district hospitals. For instance, district hospital doctors need to be trained on management of trauma or injury and cancer cases. This issue has been studied and discussed occasionally for the last decade. So far, no final consensus has been reached among key stakeholders on hospital rationalization initiatives, mainly due to a lack of political commitment and apprehension about large scale reform which would require a lot of knowledge and resources.

5.4.1 Day care

Since 2006, day care has been included in the services as a case-mix reimbursable by the social health insurance scheme in order to decrease hospital admissions, improve bed utilizations, and decrease waiting times. A Health Ministerial order stated that 5 to10 per cent of patients who need hospitalization should be served by day care at secondary level hospitals only. The day care rate of SHI reimbursement was increased by 2.5 times, and no co-payment would be applied for day care services. But hospitals still prefer inpatient services because of the higher payment rates for inpatient services, limited allocation of funding and shortage of personnel for day care services.

5.5 Emergency care

Emergency care is financed by the government budget to secure accessibility to everyone who needs urgent medical care. The closest hospital should provide emergency care services when someone has an urgent disease, trauma or injury. Recently, Telemedicine Divisions were established at the aimag Health Departments to introduce modern telemedicine technology in the health system, improve specialist services in the local areas, and ease distant emergency calls. The division has

taken responsibility for coordinating long-distance emergency services between medical specialists and local health care facilities and organize field trips for specialists if required. The leading causes of long-distance ambulance calls from rural area were injury (26,4%), cases required general surgery (23.1%) and paediatric cases (18.6%). Out of 242 long-distance ambulance calls 133 cases were provided specialized medical care on site and others were provided consultation at time of call (Health Indicators 2011, MOH and DOH).

The Emergency Care Centre provides ambulance services mainly for emergency cases in Ulaanbaatar, deciding whether or not a case is an emergency, providing consultation and emergency services, and transferring cases to relevant health-care facilities. The centre provides resuscitation and emergency services for over 140 000 cases a year by specialized doctors, nurses and fully equipped ambulance cars. But this service does not meet the full demand for emergency services because the territory of Ulaanbaatar is expanding and there are now frequent traffic jams. Therefore, the MOH is considering establishing separate emergency care units in districts in order to make services closer to and prompter for clients.

5.6 Pharmaceutical care

Most of the imported drugs sold in Mongolia come from the Russian Federation and other eastern European countries (see Pharmaceuticals in Chapter 2). Drug supply companies and pharmacies should be accredited in order to undertake drug supply functions. With accelerating growth of the private sector, the drug supply business has proven to be very profitable. Currently, 741 pharmacies are operating all over the Mongolia and 75% of the private pharmacies have one or two branch offices. There are 286 pharmacies working under the drug revolving fund initiative (evaluation report, MOH and WHO, 2010).

All drugs used in the country should be registered once agreement and authorization by the National Drug Council have been given. According to a report by MOH, there were 1502 registered medicines supplied from 190 companies of 36 countries, and 55 medicines and 92 raw materials for drugs were delivered from domestic national drug factories (MOH and WHO, 2010). The GASI 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 a four-year

period. The drugs should be of a good quality and compliant with good manufacturing practice (GMP) regulations to qualify for registration for further use. Nevertheless, with the pharmacy business becoming more and more profitable, many unregistered drugs are being sold for public use (Bolormaa et al. 2007). In 2009, 38 drug factories have taken special permission and currently medicines, bio-substances and devices produced by these factories have comprised 25 per cent of market share. In total four certified laboratories work nation-wide for quality control and there is a room to improve human resource and laboratory capacity.

The Essential Drugs List was first developed in 1991 and has been revised five times with the sixth revision being completed in 2009. There is also a list, updated annually by the health insurance subcouncil, which gives the upper price level for certain drugs provided to insured inpatients and stipulates how much of this cost is to be covered under Social Health Insurance. The prescribed drug is written on a special form by only primary health care doctors at family and soum health centres, and bagh posts. Drug revolving funds established at soum level implement drug price discount programme (DDP) for rural population enabling access to essential drugs. Drug revolving fund initiative started from 1994 with assistance of UNICEF and established in 285 soums as of 2008. Currently, 311 drug revolving funds are implementing DDP contracting with aimag social insurance divisions. Over 362 medicines are approved under the DDP regulation to be reimbursed by social health insurance. The insured patient takes the medicine from contracted pharmacies at discounted price. However, despite these provisions, such drugs are not available frequently particularly in rural areas, and funding by social health insurance for DDP is insufficient, resulting in high out-of-pocket payment by the insured (see Chapter 3). Medicard programme is implementing a part of pro-poor policy stated in the Health Sector Strategic Master Plan, starting from January 2010, and shares the DDP payment and co-payment of medical services of eligible poor identified by proxy means testing survey and homeless identified by social welfare irrespective of their insurance status.

Some treatments included in pharmaceutical care are to be provided free of charge subsidized by the government budget, including 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 to propose cost-sharing in the treatment of some of the above conditions because the government was unable to cover their full costs (Bolormaa et al. 2007). Particularly, transplantation of organs, such as kidney and liver, are increasing not only overseas but also in Mongolia, and post-transplantation treatment requires a lot of funding for medicine and care.

The uncontrolled sale of nominally prescription-only 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 with the GASI 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. 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 (Bolormaa et al. 2007). The storage and transportation of pharmaceuticals, particularly those prepared for injection, is a challenge due to the harsh cold weather and lack of adequate facilities to protect drugs and pharmaceuticals from freezing. Since 2006, with the full privatization of Mongol EmImpex drug supply company, the MOH made a contract with this company for the storage and distribution of medicines, such as immunizations and drugs for targeted population.

5.7 Rehabilitation/intermediate care

There are 132 rehabilitation units of which two are state-owned enterprises, one state-owned cooperative and 129 private spas and sanatoria. Most aimag general hospitals have their own rehabilitation units. Availability and access to rehabilitation services is comparatively good. Sanatoria and spas provide combined rehabilitation services using natural resources such as hot springs (14), sand (2), traditional medicine, and modern physiotherapy techniques (116). Some sanatoria are financed by the Social Health Insurance which provides nationwide

services. Elderly and disabled people take cash benefits from social welfare services when they are served in these sanatoria. The Strategy on developing rehabilitation care and service (2011) is the main policy document in this area. Rehabilitation diagnosis and treatment guidelines on commonly occurring cases were also released in 2009.

5.8 Long-term care

Long-term care for the elderly and the disabled is not well developed in Mongolia, as most long-term care is provided informally within the family. Long-term care for the disabled in particular is extremely difficult for families due to late and inappropriate treatment, and the lack of home-based techniques and necessary equipment. Also, discrimination against the developmentally-disabled still exists in the community, and these people face considerable social stigma. Most developmentally-disabled people are kept in a long-term care hospital in Ulaanbaatar or their homes. A very small amount of social welfare benefit is provided to informal carers of the disabled.

The MOHDSW is mainly responsible for long-term care through its branch organizations such as the National Rehabilitation Centre and nursing homes for the elderly and orphans. The National Rehabilitation Centre was established in 1999 with 15 beds, to train health, education and social welfare officers who are working with disabled people and provide medical and rehabilitation services for the disabled. The Batsumber nursing home under the MOHDSW has been working as the only long-term care facility for elderly, disabled and mentally ill patients with capacity of 130 beds.

5.9 Palliative care

The National Health Programme Against Cancer was approved by a government resolution in 1997, and palliative care was incorporated in this programme to be budgeted and financed by local health authorities. Article 28 of the revised health law of 2011 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. The 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 unit has been providing specialized services at the National Cancer Centre with support from the external sources. From 2005, this unit has

been financed from the government budget, and a social worker and a physiotherapist have been assisting 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 developing textbooks and training materials on palliative care (Bolormaa et al. 2007). The 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. In order 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. Palliative care was included in the HSMP as an integral part of the package of essential and complementary services and as part of a 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 (Bolormaa et al. 2007).

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. A very important move to support palliative care was made in 2009 as a joint order of three main ministries (MOH, MOF and MOHDSW) to finance palliative care services by Social Health Insurance. Despite all the positive achievements in the development of palliative care, 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 still looked after in tertiary-level specialized care services (MOH 2005c), or they are discharged as "incurable" cases to be cared for at home.

5.10 Mental health care

The Law on Mental Health was approved in 2000 and amended in 2010. This has been the major regulation in the provision of mental health care in Mongolia. Following the approval of the law, the Government of Mongolia ratified the National Programme on Mental Health, which was implemented between 2002 and 2007. The programme aimed to create an environment that promoted mental health, developed mental health

services and improved 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. 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 (Bolormaa et al. 2007). Inservice training for family doctors in mental health care and the revision of undergraduate training to include community-based approaches to mental health are also important achievements (Department of Policy Coordination 2003).

Implementation of the National Mental Health Programme for 2002-2007 has brought achievements in the development of mental health. However, the implementation rate of the programme at the primary health-care level was 70 per cent (Independent evaluation, 2007). For this reason, the Second Mental Health Programme for 2010-2019 was approved by the government, which aimed to protect the human rights of mental health patients, introduce new drugs for mental health services and increase the supply of these drugs, improve access and quality of community-based mental health services, and enhance human resources at every level.

There is only one specialized psychiatric hospital with 450 beds in Ulaanbaatar. The psychiatric hospital treats 17.7 patients per 100,000 population and has an occupancy rate above 80%. The majority of inpatient services in the country are provided by mental health units attached to aimag hospitals, followed by community-based psychiatric outpatient units. There are now 35 outpatient facilities, seven day care centres and about 12 residential (ger-based) programmes that provide occupational rehabilitation and residential services with 60 beds for chronic patients (Asia-Pacific Community Mental Health Development Project, 2008). There are psychiatric units with 5 to15 beds in aimag general hospitals. In these hospitals, a total of thirty-two specialist doctors provide outpatient and inpatient mental health services. 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 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).

A strategy for the development of human resources in mental health is needed 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 progressing only slowly. However, as a result of inservice training, 40% of family doctors have improved their knowledge and skills in treating mental health problems and are now 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 government budget for mental health is spent on institutional care. The country spends 2% of the total health budget on mental health. At present, mental health funding is mainly directed towards psychiatric hospital care, which consumes 64% of all mental health expenditure (Asia-Pacific Community Mental Health Development Project, 2008). Moreover, the provision of community-based services is lacking active coordination and integration. Owing to the lack of financial and human resources, there was 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. Thus, at the tertiary level of care, the National Mental Health Centre was established by combining the Mental Health Hospital and the Centre for Mental Health and Narcology in 2006. It is responsible for integrated specialist mental health services, including the coordination and management of preventive and curative services, conducting continuous and postgraduate training, and the provision of professional and policy guidance. Access to mental health facilities is uneven across the country, favouring those living in or near the capital city.

5.11 Dental care

Dental health care in Mongolia is provided by both public and private providers. 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 only ambulatory services at district and tertiary hospitals are reimbursed by Social Health Insurance. The First National Health Programme for Oral Health (1999-2005) was implemented successfully. As a result of this programme, prevalence of dental caries decreased by 24.4 per cent and children under 18 years old with no Decayed/Missing/Filled Teeth (DMFT) increased by five per cent. The government approved the Second National Health Programme for Oral Health for 2006-2015 in 2006, which aims to decrease the prevalence of the dental caries, improve control and surveillance of caries and their risk factors, encourage healthy oral health behaviour, and improve access and quality of oral health services at the community level.

5.12 Complementary and alternative medicine (CAM)

Mongolian traditional medicine has a long history. The concepts and practices of traditional medicine are deeply embedded in the Mongolian people's 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 in Mongolia includes treatment with herbs and medicinal plants, acupuncture, massage therapy, moxibustion, cupping treatments and diet-related therapies.

Mongolian traditional medicine is already an integrated part of the Mongolian health system in parallel with western medicines. Access to traditional medicine is good, particularly at city and aimag levels. 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 government hospital beds specialized in Mongolian traditional medicine account for 3.7% of the total number of beds in government hospitals (MOH 2005c). There are 82 private traditional medicine clinics, 63 of which are located in Ulaanbaatar. There is a total capacity of 371 traditional medicine beds in the public and private sector health facilities in Ulaanbaatar, of which 31.2% are in the private sector. Hospital beds in traditional medicine in both public and private hospitals are financed by Social Health Insurance and, depending on the level of care, patients make co-payments. In 1999, a national policy to develop Mongolian traditional

medicine was adopted. In 2003, this policy was revised and adopted by the State Great Khural (Bolormaa et al. 2007).

All medical schools and colleges have traditional medicine departments, but there is no longer an integrated curriculum and the training is of poor quality. The Traditional Medical Science, Technology and Production Corporation is designated a public sector tertiary-level facility (See Chapter 2). There are three traditional medicine factories in the public sector and three in the private sector, and they produce 220 types of traditional medicinal 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 traditional medicines are not yet formulated. There are no treatment standards for the use of traditional medicines and there is a lack of research in this area, so their proper use is difficult to monitor and regulate.

5.13 Health care for specific population

At this moment only one facility in Ulaanbaatar, the Enerel Hospital, is providing services for homeless and unregistered immigrants. Enerel Hospital was established with the assistance of foreign organizations and is currently operating under the Ulaanbaatar city administration. Approximately 45 per cent of financing is subsidized by the state budget and 55 per cent by Social Health Insurance and other sources. However, targeted programmes such as Medicard and TB for the homeless and poor are being implemented at this hospital with international partners reimbursing payments directly to the hospital. In July 2013, this programme will be transferred fully to the government budget. Medicard programme has two target groups such as the poor and homeless. Poor households eligible to Medicard programme are identified by Proxy means testing survey and homeless by Social Welfare Service Office. Medicard programme provides them with drug services and outpatient, inpatient and diagnostic services at secondary level hospitals, all free of charge. Drug discount programme is implemented by contracted pharmacies with social insurance divisions including drug revolving funds. Main aim of this programme is to protect health status of the poor and provide financial protection.

Chapter 6: Principal health reforms

6. Chapter summary

Most public sector reforms were introduced in Mongolia in the early 1990s, and the socioeconomic transformations triggered by them have had a significant impact on the health system. Unlike other countries which experienced similar transitions, the reform of the health system in Mongolia has been slower than expected. This section focuses on the three main areas of health sector reform in Mongolia: structural and political reform, health service delivery reform, and health financing reform (Box 6.1). In the 1990s, the government introduced Social Health Insurance, PHC concept, and public-private partnership. These initiatives were aimed at ensuring equity, quality and improved efficiency. Reforms have focused on strengthening the health regulatory framework, setting strategic objectives, and sustaining previous reforms.

Health care reforms in Mongolia have been notable for their slow speed of implementation, inconsistency and the contradictory nature of processes. The frequent changes in the governmental or ministerial leadership have likely impeded the progress of some policy reforms, and as a result, some of the desired policy reforms were not achieved (e.g. reductions in the number of physicians, hospital beds, and the intake of medical students). Moreover, these policy reforms were all politically very sensitive, encountering resistance for many years. The Government of Mongolia and specifically the MOH has lacked a core of top-level staff with the leadership and stewardship capacity to attain an institutional memory and sufficient continuity to coordinate the health sector reform process. Effective implementation of reform will require greater attention to stakeholder participation and greater MOH ownership in the reform process.

The existing legal framework, the rule of law, and the overall regulatory capacity are crucial factors behind successful implementation of health reform. In the last decade, some issues related to the legislative environment of health reforms were addressed through revisions

and amendments, which gave opportunities to carry out effective implementation of health reforms. Political parties and other civil society groups play a significant role in prolonging the reform process. In recent years, some health and medical professional associations started participating in the policy debate and expressing their views publicly, but they have not yet emerged as a powerful force for influencing policy directions and agenda setting (Bolormaa et al. 2007).

6.1 Analysis of recent reforms

Mongolia has been undergoing wide-ranging reforms to expand the coverage of health services to its population. In the 1990s, the government introduced a radical new direction for the health system by mobilizing additional financial resources through the establishment of Social Health Insurance in order to address the drastic decline in the government health budget due to the socioeconomic transition of 1990s. Moreover, a shift in priorities to changes in different level of system (PHC policy, rationalization of hospitals and drug policy, etc.); establishment of public and private partnership (encouraging the involvement of the private sector, etc.) and ensuring equity through institutional changes (FGP etc.); and quality (accreditation health facilities and licensing for staff, introduction of QA/QM, etc.) and efficiency improvements (SHI, NHA, HSMP, etc.) were started (see Bolormaa et al. 2007) and reached certain positive outcomes (see in Chapters 2-5).

Box 6.1 Major health reforms and policy initiatives from 1994 to 2011

Year	Health reforms/policy changes
Described in previous HiT, 2007	
1994	Establishment of the health insurance system
1996	Transfer of the SHI funds to the State Social Insurance General Office
1997	Piloting health sector privatization programme
1998-2002	Establishment of a licensing and accreditation system
2001	State policy on public health (SPPH)
2002	Introduction of the Public Sector Management and Financing Law
	National Health Accounts
2002-2003	Establishment of FGP, introduction of capitation payment
	Economic growth support and poverty reduction strategy (EGSPRS) launched
	Rationalization of health facilities and restructuring hospitals
2005	Law on drugs, approving the essential drugs list for promoting equity, accessibility and efficiency
	Health Sector (Strategic) Master Plan for 2006-2015 launched

Year	Health reforms/policy changes
	Sector-wide approach (SWAp) introduced
	Amendments to the health law, including greater state financing of PHC services and DRG type remuneration for inpatient care
2006	Amendments to the health insurance law including administration and governance of SHI
Since 2007 to 2011	
2007	The implementation framework of HSSMP 2006-2010
2008	MDG-based comprehensive national development policy introduced
2009	Human resource development policy of the health sector for 2010-2014
2010	Revision of the Law on Government Special Funds increases social responsibility of alcohol and tobacco producers and import companies and strengthens the Health Promotion Fund
2011	Revision of the health act, emphasis has shifted from treatment to prevention
2011	Revision of the Citizen's Health Insurance Law
2011	Policy on public and private partnership in health sector

Incremental developments, intending to clarify and strengthen the health regulatory framework, setting strategic objectives, and clarifying the functions and responsibilities of various stakeholders for improving and sustaining previous reforms, have been the main focus of reform efforts since the previous edition of the Health system review for Mongolia was published.

In the progress of reform process, a comprehensive technical long-term policy in the health sector of Mongolia needed to be developed on the basis of a clear vision, continuity and concrete legal basis. The goal of the long-term policy framework, Health Sector Strategic Master Plan (HSSMP) for 2006-2015, is to improve the health status of Mongolian people, especially mothers and children, through the provision of responsive and equitable pro-poor, client-centred and quality services (see Bolormaa et al. 2007). The HSSMP openly links health service delivery to Millennium Development Goals, the economic growth support and poverty reduction strategies and the Mongolian national development programme. In order to implement HSMP, it was critical for the government to develop and approve the medium-term planning document called the Implementation Framework of HSSMP in 2007. The framework breaks down into strategic actions in HSMP-extracted and organized objectives as well as main activities along with their outputs and indicators, and is used during the planning cycle. The implementation framework encourages and plays an essential role in providing a

sectoral orientation to the annual planning exercise, and improves the coordination of resource flows and allocation (MOH, 2007)

Within the health sector, HSSMP has a strategic objective to introduce an effective sector-wide management system for improving coordination and efficiency through a common mission and effective partnerships among all stakeholders based on sector-wide approaches (SWAp) (see Bolormaa et al. 2007), of which has not been fully realized so far. Improvement of aid effectiveness is still one of the most challenging issues in Mongolia (WHO, 2010).

In order to ensure the successful implementation of the Millennium Development Goals (MDGs), the Parliament of Mongolia has defined and approved its own Mongolian-specific MDGs and MDGs-based Comprehensive National Development Policy in 2008. In the framework of health MDGs in Mongolia, two main objectives were determined to reduce infant and underfive mortality: to improve maternal health, and to fight against HIV/AIDS, STIs, tuberculosis and other diseases (see detail in 7.4.1). MDG targets on reducing maternal and child health mortality rates were fulfilled prior to the expected mid-term and the outstanding targets were assessed as "early achieved" (UNDP, 2009).

Regarding the rationalization of health facilities and human resources and improvement of healthcare quality, numerous quantitative and qualitative changes have been made in the human resource for the health sector during the past years (see Bolormaa et al. 2007). In 2009, Human Resource Development (HRD) Policy of the Health Sector for 2010-2014 was approved by the government, which was revised and developed in consultation and collaboration with various stakeholders and representatives of health workers. The HRD policy is aimed to link the systems of training, retraining specialization and development of human resources with needs in the health sector. It also aims to improve the ethics and the morale of medical professionals. The main policy objectives include strengthening multisectoral system of human resource management, partnership and collaboration to enhance the training of medical specialists and combine it with the human resource needs of the health sector. The purpose is to create a supportive environment that will ensure social guarantee and motivation of employees in the health sector, build appropriate skills mix at the health-care services, and improve the system for ensuring ethics and accountability of medical specialists. The

policy document consisted of the human resource policy of the health sector, a plan of action to implement the policy, the planning for medical personnel till 2020, and the social guarantee subprogramme for workers in the health sector (Bayart et al. 2009).

The adoption of the State Policy on Public Health (SPPH) in 2002 became a key policy of the health system to improve the health status and quality of life of the population. Based on this, several targeted national programmes have been implemented. In order to ensure sustainable fund for the targeted PH programmes, the government revised the Law on Government Special Funds in 2010. In revision, the health promotion fund was strengthened by utilizing the tobacco and alcohol taxes, which also contributed to increasing the social responsibility of alcohol and tobacco producers and importers. Since the enforcement of the amendments, the range and frequency of health education and health promotion activities for targeted population and community have been expanded.

The measures consistently undertaken in Mongolia since 1994 have fostered the expansion of the private sector, and private health-care providers have almost doubled since private health practice was allowed in 1994 (see Decentralilzation in Chapter 2). Public-private partnership has received much attention during the recent years and the policy on public and private partnership in health sector was developed in 2011, providing a legal framework for engagement of civil society organizations in health care and promotion functions of the government. The policy document promoted following specific areas among others: better enforcement of the health legislations and regulations and reflection of proposals related to implementation of health projects and programmes in decision-making; representation of the NGOs at the decision-making levels including the Minister of Health's Council, National Accreditation Council or Human Drugs Committee; organization of IEC and research in public and private health care; and monitoring and evaluation of the enforcement of health laws, regulations, policy and national programmes (www.moh.mn).

In the 10 years of the enforcement of the new and periodically revised health act, the socioeconomic conditions have changed and the quality and access of the care has improved. However, the status of some of the primary care facilities and the scope of services delivered is unclear and fail to meet the health needs of the population, as well as, standard and

quality requirements. Thus, in May 2011, a new revision of the health act was approved by the Parliament. It includes significant amendments: (i) reforming soum hospitals to soum health centres with a focus on PHC, (ii) introducing contract-based financing, and (iii) explicating the legal status of FGP as private entities and incentive package for FGP staff. Soum health centre reform, i.e. changing soum hospitals into soum health centres, means that the hospital functions are reduced (while keeping some observation beds) and the primary care function and outpatient care is strengthened.

Since the 2000, a series of policy and strategy directives and reforms regarding the improving health finance management and SHI have been introduced (see Bolormaa et al. 2007), all of which aimed at improving efficiency and achieving national health outcome targets. As a result, the capital investment budget for health has tripled, and the share of OOPs in THE has risen (see Chapter 3). Nevertheless, the SHI population coverage rate has been falling from early years of Citizens' Health Insurance Law enforcement. In addition, Mongolian SHI performs collection and pooling of funds, but the SHI is not really a purchaser, as benefit package, payment tariffs, and selection of providers are decided by the MOH.

In 2010, Health care financing strategy of MOH with the main concepts of establishing a single purchaser and strengthening the health insurance system was approved by the government; consequently, the action plan for the implementation of the strategy was approved by MOF, MOH and MOHDSW. In compliance with the proposals, a working group, comprising representatives from the MOH, the SSIGO and the MOF, developed the necessary amendments to the Health Insurance Law.

National Health Accounts (NHA), which was introduced in 2002 for the first time and gives detailed data about national health expenditure, creates a reliable base for the development of strategies and policies in the area of health care financing, because the data are disaggregated by sources of financing, health facilities and health-care functions (see Bolormaa et al. 2007). Although the NHA has been institutionalized since 2005, the initiative stagnated in 2004-2008 due to restructuring of the institutes and initiators; and NHA is still not fully appreciated or adopted by the policy-makers (ADB, 2010).

6.1.4 Reform in context

The MOH keeps the responsibility for the development of the national health policy and plays a major role in the decision-making process in health policy. Almost all major health policy documents have been initiated at this level. Frequent staff changes in the management of the MOH and local health departments caused fundamental political decisions to be continuously questioned and amended according to the ideology and values of the successive ministers. 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 (see Bolormaa et al. 2007).

Political parties play a significant role in the reform process. Overall political orientation of the governments in the process of the health sector reform has been inconsistent, and the reform agenda has been influenced by corporate interests. Parties have direct influence on the health care sector through the legislation dealing with health matters, especially the state health budget and the appointment of leaders of the MOH.

Since 2008, in order to strengthen public personnel systems and professional civil service, the Parliament of Mongolia amended the law on civil service to mandate civil servants to be non-partisan and free from any political activities. This marked the move to creating a professional civil service which is politically neutral. However, key officials within the ministries and local departments were still supporters of the ruling or opposition parties, constituting another source of political influences on the health policy, and policy reforms are all politically very sensitive encountering resistance for many years (ADB, 2010).

6.2 Future developments

Future reforms are focusing on an improved accountability of health financing via enhancing the purchaser role of the SHI, hospital rationalization in a more inclusive and comprehensive manner, and improving drug safety and rational usage of drugs. The health-care financing reform aims to address the sustainability of the social health insurance system, strengthen its purchasing capacity, and extend coverage to the currently uninsured population. "Establishing an autonomous purchaser of health services, reporting to a National Health Insurance Council, will ensure the separation between purchaser and

provider of health services, improve the health services purchasing capacity, and prevent inter-ministerial tension to own the social health insurance system" (Bodart and Tsolmongerel, 2011). A working group, consisting of representatives of different ministries, is developing the necessary amendments to the Health Insurance Law. .Further, it is debated that future health financing reforms will include a single purchaser through an independent social health insurance agency, and various views on the governance and institutional arrangements for the new purchasing body are being debated.

The secondary and tertiary hospital sector currently absorbs the majority of health care resources. There is a need for policy reforms in the hospital sector to improve hospital efficiency as there has been little or no progress in implementing hospital rationalization or optimization. The country shows one of the highest inpatient discharge rates per capita in the world, similar to Germany, Hungary and France (World Bank, 2009a:93). (See section 7.5 Health systems efficiency.)

The government needs to focus on the drug safety regime. Shortages of drugs have been reduced drastically, but access to essential drugs continues to be limited in rural areas. The irrational use or unnecessary prescription of drugs, excessive use of antibiotics, self-medication, poly-pharmacy, and the substandard and counterfeit medicine on the market still exist (see Pharmaceuticals in Chapter 2), and drugs account for around two-thirds of the total out-of-pocket health expenditure (World Bank, 2010).

Chapter 7: Assessment of the health system

7. Chapter summary

The Mongolian government has been committed to ensuring sustainable funding to the health sector and providing accessible and equitable quality health care to all citizens. As a result of prioritized and targeted efforts, health outcomes and indicators are improving. However, there are still significant problems associated with poor quality of care, inefficiency, and inadequate implementation of reforms and institutional improvements.

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 and demographic (nomads versus settled population). There is a marked urban concentration of health facilities, human resources and material inputs. Many internal migrants, living on the outskirts of the cities and the ger districts around Ulaanbaatar and in rural areas, do not have sufficient access to the quality and the range of services available to the urban population. 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 and provision of care. The wealthy tend to have better access to health care while the poor, the uneducated and those most in need are often neglected (Bolormaa et al 2007). But survey findings reveal that a considerable number of poor people utilize primary health care units as a reflection of universal coverage policy.

The hospital-oriented system inherited from the socialist period has been the most important barrier to improving the efficiency of the health system even though the legislative environment and policy directions have changed substantially during transition. The three-layer health care system has been implemented successfully to some extent in Mongolia. However, more efforts are needed for gatekeeping and proper functioning of the financing mechanisms at the primary health care level, the rationalization of secondary and tertiary hospitals in Ulaanbaatar, and adequate private and public partnership in health service provision.

NCDs and injuries are becoming serious issues for the health system, requiring integrated multisectoral coordination, advanced preventive approaches, and adequate management of chronic cases. Some positive actions and regulations are in place by the government initiatives and commitment in this regard with further expansion.

The weak accountability and transparency as well as corruption is evident in Mongolia including the health sector. Comprehensive and committed actions are needed by the government.

7.1 The stated objectives of the health system

The vision of the Mongolian MOH is to ensure the availability, accessibility, affordability and equity of quality health care services for all citizens. The mission is to build favourable living conditions for people by improving the quality of health care, public health and preventive services to international standards. The adoption of the state policy on public health (SPPH) in 2002 became a key action of the health system to improve the health status and quality of life of the population. Based on this, several targeted national programmes have been implemented. The goal of the long-term policy framework, Health Sector Strategic Master Plan for 2006-2015, is to improve the health status of all the people of Mongolia, especially mothers and children, through the provision of responsive and equitable pro-poor, client-centred and quality services.

Long- and medium-term planning by the current government also demonstrate a willingness to ensure sustainable human development through improving health provision introducing provider payment system, universal PHC service, budget subsidy to the SHI and targeted screening programmes. However, the monitoring and evaluation of outcomes and the careful adjustment of policy based on experience and lessons learnt from the recent reforms are crucial to supporting and maintaining the process.

7.2 Financial protection and equity in financing

7.2.1 Financial protection

Legislative environment of the financial protection in Mongolia looks favourable for the population. The health Act, amended in 2006, provides free access to primary health care, some medical and public health services to all the people regardless of their socioeconomic and

insurance status. The government pays premiums for certain vulnerable groups including children under 16, mothers with children less than two years old, pensioners, and the disabled, which all constitute around 60.0% of the entire population.

Officially, there are only small user-charges in the health system with government-approved co-payments and formal user-charges for some services to be paid OOPs. However, since 2006, tertiary-level hospitals have been charging for most outpatient diagnostic tests and treatments even if patients are insured. Tertiary hospitals lack power over the use of revenues from internal business activities. So far, secondary level public hospitals mainly do not charge for medical services if patients are insured.

WHO NHA data shows a substantial and rapid increase of OOPs in the THE, from 15.8% (2005) to 41.4% (2010) (see Chapter 3.1). This jump may be reflective of a change in methodology in calculating OOP, and/or actual jumps in OOP perhaps due to better representation of informal payments in the estimate. Therefore, further analysis is needed. Out-of-pocket health payments are on average 5.5% of the household capacity to pay. 3.8% of households experienced catastrophic health expenditures, and 1.8% of households are impoverished due to health payments in 2009 (Tsolmongerel et al. 2011).

The 2003 household survey revealed that spending on pharmaceuticals represented over 60% of households' out-of-pocket spending for health. This situation has further deteriorated as other survey showed that very poor spent 94% of OOPs on pharmaceuticals (Tsolmongerel et al. 2011). The failure of the social health insurance to adequately cover essential drugs at primary level leads to a disproportionate impact mostly on the poor, namely herders, migrants, informal sector workers, and the homeless. In order to satisfy the pro-poor policy direction and decrease financial burden of the poor and homeless, the government has been implementing a Medicard programme to provide essential drug services and certain medical care for vulnerable individuals identified through proxy-means testing with further institutionalization of this initiative.

A health ministerial order, approved at the end of 2009, extended services reimbursable by Social Health Insurance, including day care, ambulatory services, diagnostic tests, traditional medicine care, inpatient services, and rehabilitative and palliative care services. This decision

was expected to contribute to a reduction of OOPs and financial burden on the vulnerable. However, WHO surveys shows that these changes have not prevented an increase in OOPs and the government needs more substantial actions to be taken in terms of improving the regulation of private sector, rationalizing hospitals, extending health insurance service package, applying proper costs in health services and upgrading primary health services.

SHI coverage is steadily declining from 90% to 70% for the last 10 years, thus limiting access to services especially for those poor and unregistered groups in the population, who have migrated from rural to urban areas. This means that 20% of the population has no protection against the financial consequences of illness, except the access to PHC (GVG, ADB. 2009). In 2011, the government paid the SHI premium of the uninsured population living below the poverty line from the Human Development Fund as a part of social welfare assistance and HI coverage reached 98.6%, but this was a one-time payment and unlikely to be sustainable. The amendment of the Social Welfare Law in 2012 declared to subsidize a premium of the poor from the government budget. It was supposed to improve access of health services to the poor

7.2.2 Equity in financing

Health financing in Mongolia is fairly equitable by Kakwani index (0.096). Universal coverage of PHC for everyone is ensured by the health law. Compared to developing countries, health insurance coverage is high in Mongolia.

Although the entitlement for health services is universal and currently the coverage of population by health insurance was 98.6% in 2011, poor and disadvantaged have less access to health and medical care. Those who are most likely to be excluded from the coverage, belong to the lowest income group and informal employment. Some sources suggest that the uninsured are mostly unregistered, internal migrants coming from rural provinces to the capital city, illustrating that both income and demographic dimensions of health inequity persist.

Spending on self-prescribed medicines represents almost half of the total household spending on health. This statistics rises to two-thirds among the poor (National Statistical Office, World Bank et al. 2004). Informal payments also impact negatively on poor people's access and lead to

implicit discrimination against those who cannot pay, especially at the tertiary level. As the wages of medical staff fall in relative terms, informal payments will continue to pose a problem.

7.3 User experience and equity of access to health care

7.3.1 User experience

Accreditation of health-care facilities requires satisfaction surveys for patients and for medical personnel biannually. Since 2004, the DOH has been conducting a satisfaction survey among clients and providers of the health-care facilities under the MOH located in Ulaanbaatar. In 2011, the satisfaction survey covered 14 public health facilities, and the questionnaire included five key indicators for outpatient and inpatient services and six indicators for doctors and medical personnel. Most indicators in outpatient departments were rated lower than those in inpatient departments. It may confirm patients' preference for inpatient services and the perceived poor quality of outpatient services.

Table 7-1 Satisfaction rates of clients and personnel, 14 public health facilities

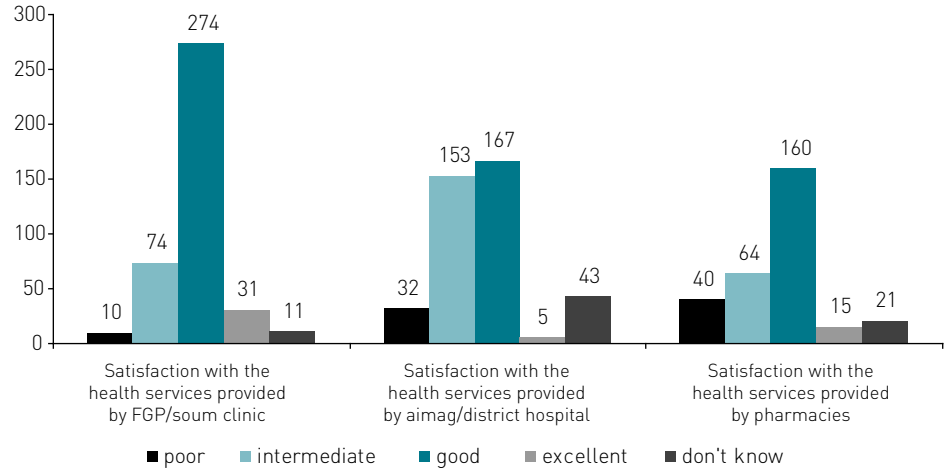
Indicators for clients	Rate (Outpatient departments)	Rate (Inpatient departments)	Indicators for providers	Rate
Overall quality	82.8%	89.1%	Facilitative supervision	76.3%
Communication skills of health personnel	82.7%	91.6%	Salary and incentives	64.6%
Fee for services	77.3%	85.8%	Capacity development	60.2%
Waiting time	77.5%	85.3%	Attitude of providers	80.4%
Environment of health facility	78.6%	83.8%	Work place safety	69.7%
Satisfaction rate	79.8%	87.1%	Satisfaction rate	73.0%

Source: Satisfaction survey among clients and providers, HD, 2011

Waiting time indicators are not included in health regulation and routine statistics. In a recently conducted survey, the waiting time for family soum health centre physician and secondary health care were the factors influencing access to health care by the poor (Survey on access to health

care of poor households in Mongolia, ADB 2010). The same survey found that poor households prefer services provided by FHC/FGPs or soum hospitals/health centres than aimag/district hospitals and pharmacies, because these facilities are closer to them and FGP and soum doctors know their health status.

Figure 7-1 Satisfaction with health-care services



Source: Survey on access to health care of poor households in Mongolia, ADB 2010.

The Code of ethics approved by an order of the Health Minister in 2006 defined confidentiality of clients and right, responsibility and punishment to health personnel when their rights are violated. However, there is no evidence on whether and how this regulation is enforced. Implementation is likely to be influenced by the familiarity of doctors with ethical issues, availability of information, and the accountability of doctors.

One report stated that health services, which had been routinely provided and had not been particularly responsive to the needs of the population, became even less responsive when their needs changed and the population became urbanized (Mongolia: Health and Social Protection, ADB, 2008). The evidence suggests that geographical barriers and disparity across population groups are influencing factors in access and satisfaction.

7.3.2 Equity of access to health care

PHC is fully funded by the state and ensures free access to everyone. But the vast size of Mongolia combined with low population density and its nomadic tradition pose real geographical barriers to health care access. 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 sufficiently responsive to the changing health needs of the population (MOH 2005c). The government has taken actions to improve the civil registration system through social welfare programmes and targeted interventions. This helps rural–urban migrants to be registered and improved access to health services.

About 46% of the rural poor accessed primary health services at soum health centres while only 30% of non-poor people did so. Further, 68% of the rural poor accessed medical services, while 56% of non-poor people did (MOH and ADB, 2010). This may indicate that poor people have relatively high utilization to PHC services as they have greater health needs.

According to the Situation Analysis Survey of ADB in 2010, only 25% of unregistered residents could obtain health services while 62.2% of registered residents can. One third of the respondents did not access primary care when they needed to because of a lack of money (77.5 %), no health insurance (55.9%), and being too far away (31.8%). In addition, The survey on access to health care of poor households in Mongolia (ADB, 2010) revealed that the proximity of a FGP/soum hospital, the nearest public transport and day pharmacy were also factors influencing the accessibility of health care by the members of poor and vulnerable households.

7.4 Health outcome, health service outcomes and quality of care

7.4.1 Population health

Overall, health outcomes have shown mixed results. Infant and under-five mortality rates are quite low in Mongolia relative to other countries at the similar level of economic development, and life expectancy at birth (68.05 in 2010) is higher than the average for low-income countries. Infant, child and maternal mortality have been declining steadily in Mongolia since 1990, and Mongolia is on track to reach the MDG targets of a two-

thirds reduction in mortality rates between 1990 and 2015. Continuous commitment of the government to population health and successful implementation of comprehensive public health programmes, such as the national programme for child development and protection (2002-2010), national strategy for infant feeding (2008-2015), national strategy on maternal and newborn health (2011-2015), immunization programmes, integrated management of childhood illnesses, the national reproductive health programmes, and the strategy to reduce maternal mortality have made important contributions to this achievement.

Although maternal and child mortality is declining, there is a risk that the high rate of poverty and the deteriorating health situation of children and mothers may reverse the achievements and progress made in the indicators. For instance, child malnutrition is higher in rural areas, as recorded in Third National Food and Nutrition Survey, 2006. The proportion of malnourished children in poor households was three times higher and underweight three times higher than in ordinary households; 9 out of 10 underweight children were from poor households in rural areas.

Of children under five, 41 per cent are vitamin D deficient, with a high prevalence in eastern, western, highlands regions and Ulaanbaatar. Vitamin D deficiency is common among not only children under five, but also among pregnant women particularly in the western region (47.5 per cent). Acute respiratory diseases are the leading cause of child morbidity, and they also indicate substantial rural/urban disparities, recorded at 17.1 per cent in urban areas and 42.7 per cent in rural areas for children under one year of age. The western region has the highest prevalence of anaemia among pregnant women (34 per cent) and children (21.4 per cent) (Situation Analysis of Children and Women in Mongolia, 2009).

Health statistics illustrate that an increasing number of people suffer from NCDs and injuries, which will be priority issues to the health system in the longer term. Although the health sector has been implementing a series of programmes and projects to reduce NCD risk factors and illness since the 1990s no substantial improvement has been made as lifestyle- and behaviour-dependent diseases, such as circulatory system diseases, cancer, and injuries, have become the leading causes of morbidity and mortality. Common risk factors associated with unhealthy lifestyle and behaviour are becoming highly prevalent among men adults and adolescents and become major causes of premature death in the productive age group. According to the Mongolian STEPs survey on the

prevalence of NCD and injury risk factors in 2009, the prevalence of smoking, physical inactivity, and hypertension remained stable, obesity and drinking increased, and daily fruit and vegetable consumption decreased compared with the same survey conducted in 2005.

According to above survey in 2009, twice as many young men compared to women and more than a half (61.4%) of men above 45 years old have a high risk of NCDs. The proportion of current daily smokers was more than eight times higher in males (43%) as compared to females (5.2%). About 49.8 % for men and 27.2% for women have consumed any alcohol in the last 30 days was, and binge drinking was 2.5 times more common in males compared to females. Mortality due to suicide, homicide and other injuries was quite different across gender. Compared with women, suicide and homicide rates per 10 000 populations are 5.5 and 3.6 times higher for men, respectively.

The leading causes of morbidity are respiratory, genitourinary, circulatory and digestive system diseases, and injuries and poisoning have increased year by year in recent years, with the rates in 2010 showing 1.5-2.0 times higher than those in 2000. When the incidence of the five leading causes of population morbidity is stratified by place of residence, the incidence rates of injuries was higher in urban areas, while others were higher in rural settings.

The majority (79.1%) of new cancer cases were diagnosed in late stages (III and IV) of disease, and 61.4 per cent of people diagnosed with cancer survived for less than a year. It is a clear evidence of poor quality of preventive and diagnostic services despite high utilization of health services in Mongolia.

7.4.2 Health service outcomes and quality of care

Despite a relatively low per capita income, Mongolia has fairly strong health indicators. However, Mongolia experiences several challenges and potential gaps in health-care provisions related to the geographical location, urban and rural settings, and across population groups. Relatively higher infant mortality rate in the western region and geographical disparity can be explained by late access to antenatal and postnatal care, poor infrastructure, and inadequate knowledge and skills of doctors and nurses in rural areas. Comparing 2010 with 1998, infant

mortality caused by prenatal disorders increased by 27% and infant mortality caused by birth disorders increased by 12%. This indicates the need to improve perinatal diagnostic and treatment capacity in all levels of services. While the overall MMR has decreased, there is significant variation in maternal mortality across the country, with some western aimags (Uvs, Khovd and Gobi-Altai) recording rates 1.5-4.5 times higher than the national and aimag averages (Health Indicators 2010, MOH and HD). More than 40 per cent of maternal deaths occur among herder women in remote rural areas where access to medical services is poor (MOH 2007). Almost half (41.2 per cent) of maternal mortality has occurred due to pregnancy complications and it increased three times in 2011. The data show that early registration of pregnancy and active monitoring during the pregnancy is of concern.

A policy is being pursued to place pregnant mothers with anticipated normal deliveries at soum maternity houses and send mothers with high risk pregnancies to specialized doctors at the maternity wards of aimag hospitals. As a result, institutional births have substantially increased in aimag and Ulaanbaatar city levels (Health Indicators 2010, MOH and DOH). But the number of personnel and the budget has not risen, and maternity houses and rest rooms are overloaded. There is a wide variation in MMR between urban and rural areas. In some remote aimags, especially in the western part of the country, the MMR is as high as 213 to 365 per 100 000 live births. This is four to six times higher than the MMR in the capital city of Ulaanbaatar. One unfavourable trend has been the increase in the birth rate among adolescents in the last five years. The percentage of total births among adolescents in 2008 varied from 26.3% in the rural areas of the south, 18.3% in provincial centres, and 5.3% in Ulaanbaatar (WHO-Mongolia Country Cooperation Strategy 2010-2015).

Survey data show that the main reason that social health insurance reimbursement to hospitals is denied is because registration data were incomplete (82%) (N.Oyungerel, 2011). No reimbursement was denied for medical errors and mistakes. Quality improvement programme has been implemented since 2002. Inefficiency of the hospital sector is one of drawback of the health system and could be improved by undertaking a considerable rationalization of hospital services particularly in Ulaanbaatar and introduction of performance based financing.

Noncommunicable diseases

The epidemiological transition from communicable to noncommunicable diseases in Mongolia is similar to that in other low income countries. Although health policy encourages behaviour change communication and screening activities, NCD risk factors have been persistent among the population. Alarming indicators for male health show that more integrated actions need to be taken with the coordination of various sectors and the community. Male adult mortality (76.8 per 10 000 men) is much higher than that of females (49.2 per 10 000 women). Ischemic heart disease (predominantly among men) is the leading cause of deaths associated with cardiovascular diseases estimated to be 9.9 per 10 000 population in 2010. Mortality due to injuries and poisonings is highest among men aged 20-24 years, and men are 3.4 times more likely than women to die as a result of traffic accidents. Disease management of chronic cases is a concerning issue to be strengthened at all levels of the health system.

Communicable diseases

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 due to changes in the socioeconomic situation and disparities related to income. Inadequate sanitation is prevalent in rural areas. Among the poor, 48.4 per cent have no access to improved sanitation, while this percentage is 25 per cent for non-poor people (Access to health services for disadvantaged groups in Ulaanbaatar, MOH and ADB, 2010).

The immunization programme has successfully controlled diphtheria, pertussis and neonatal tetanus. Localized outbreaks of measles still occur. The country introduced hepatitis B vaccine for infants in 1992, resulting in reduction of chronic hepatitis B infection among children. However, viral hepatitis continues to be a major public health issue as vaccination does not affect the existing carriers. Based on the existing challenges the MOH developed and enforced Strategy for fight against viral hepatitis for 2010-2015. Hib vaccine was introduced in 2005 and has resulted in a substantial decline in Hib meningitis. In 2009, trivalent measles-mumps-rubella vaccine was introduced into the routine expanded programme on immunization (EPI) schedule. Though the national coverage of expanded immunization rate for under one-year-

old children reached more than 96%, there are still areas and population groups with low coverage such as remote and rural areas and the mobile and unregistered population in urban areas. Ensuring adequate regulation and legislation to guarantee vaccine quality also remains a challenge (WHO Country Cooperation Strategy for Mongolia 2010-2015).

Quality of care

In order to improve the quality of health care, quality control teams were established at the MOH in 1992, at secondary and tertiary hospitals in 1997, and at all health organizations from 2007. Accreditation of health organizations started in 2002. The accreditation manual was updated in 2008, including 44 general and 25 specific indicators.

Quality of services is considered one of the health sector's main directions in the Health Sector Strategic Master Plan for 2006-2015. The MOH approved the programme on strengthening hospital quality management system (2008-2013), aiming to strengthen quality management system at all levels of the sector, create a supportive legal environment, develop and enforce service standards, clinical guidelines and pathways, and performance and quality indicators, and provide stakeholders coordination in continuous quality improvement. In addition, the Health Minister's order has produced the strategy on strengthening of health facility infection control system in 2010 to provide client safety and control hospital infections. Over the last few years, most hospital and clinical standards have been updated, and manuals and guidelines on specific diseases and conditions have been published.

However, most surveys and reviews revealed that the quality of services is a major constraint in the Mongolian health sector. Patient safety indicators have not been enforced in hospitals. So usually hospitals do not report such cases. Apparent urban and rural disparities in health service quality may be explained by the significant decline in health care quality in rural areas due to inadequate staffing and poor continuous training for remaining personnel.

The social insurance scheme should review and monitor the quality of medical services. No cases were rejected because of poor quality. So far, there is no active purchasing mechanism due to the high work load of health insurance inspectors mainly on the financial review of claims and inadequate guidance and technical capacity of staff.

7.5 Health system efficiency

7.5.1 Allocative efficiency

Although public health services and PHC are highlighted as being of utmost importance for improving the overall health of the population, most resources still go to curative secondary and tertiary care services although health expenditure for tertiary and secondary hospital services has fallen from 70% (2007) to 53% (2010). The current government health expenditure breakdown by level of care is as follows: 21.8% to tertiary care, 31.6% to secondary care, 21.2% to primary health care, and 25.4% to others (Health Indicators 2010, MOH and DOH). Spending by the level of services shows an explicit reduction of hospital expenses but there should be a caution as soum health centres provide hospital services, which can also be considered primary health care. As accounted in a WB report, in 2008 27% of inpatient cases were registered in soum and intersoum hospitals.

Existing historical line-item budgeting, poor commitment to rationalization and unenforced performance-based financing have been barriers to the proper allocation of the budget. However, most health facilities have financial personnel trained in service costing in the framework of the Health Sector Strategic Master Plan, but effective usage of their skills has not been attained . Therefore, costing exercises are not reflected in budgeting nor are risk-adjusted resource allocation formulas. Rationalization of hospital services is needed particularly in Ulaanbaatar city due to uncontrolled increase of private entities and the inadequately organized district hospitals.

Inadequate funding of investment has caused delays in the introduction of new health technology and patients seeking advanced medical care abroad. In 2011, 16.4% of the total health budget was disbursed to newly built constructions, repair and equipment. This share would be the basis for improving conditions and amenities in health facilities.

7.5.2 Technical efficiency

Most health system studies reveal that the health system suffers from notable inefficiencies, related to both excess capacity and overuse of services. Three types of inefficiencies in the utilization of health care have been consistently identified in Mongolia: (i) medically unnecessary

hospitalization, (ii) hospitalization at a higher-level hospital than is medically necessary, and (iii) longer-than-medically-necessary hospital stays (Knowles, 2004). An ineffective primary health care system, perverse incentives to patients and providers, and a weak referral system are evident in the provision of health care.

An estimated 40% of all hospital admissions are thought to be clinically unnecessary (Tumurbat, 2004). A key factor contributing to this situation is the poor availability of discounted essential drugs prescribed by primary health care doctors. Because hospitalized patients receive free drugs (along with other services) there is an incentive for people to bypass primary health care. Furthermore, when patients at the primary care level are unable to afford or access the discounted drugs prescribed for them, their condition can deteriorate, resulting in hospitalization which could otherwise have been prevented. Even planned budget for expanded services in the social health insurance scheme including discounted drugs has not yet increased.

The main challenges for improving the efficiency of the health system are the inefficient provider payment system, the lack of gatekeeping mechanisms, and the absence of an information system focusing on the content and quality of the health system. The move away from line-item budgeting or fee for service payment towards case-based payment as introduced in the 2006 reforms is a tool to improve hospital efficiency, yet it does not encourage cost control and quality improvement. Government hospitals do not have financial incentives to increase efficiency and quality of care as they receive guaranteed funding from the budget not based on performance.

There is a growing private sector in the Mongolian health care system, which is for-profit and self-financed, raising income from fees for service. But the private sector is not closely regulated and only available to those few who can afford the high prices. The rapidly growing private sector does not promote technological advancement or substitute public services substantially as stated in Citizens' Health Insurance Law, but it increases medical costs and the inefficiency of health services, as these private health services are financed by social health insurance and most private hospitals have less than 15 beds (Bolormaa et al. 2007).

7.6 Transparency and accountability

The lack of accountability and transparency not only in the health system but also more widely in Mongolian society is an issue which deserves attention. Weak accountability may be seen as systemic. 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 (Bolormaa et al. 2007).

Despite the enactment of the Anti-Corruption Law in 2006 and the establishment of the Independent Authority Against Corruption (IAAC) in 2007, numerous studies have revealed a persistent public perception of corruption in the public sector. Research conducted by the Asia Foundation has found that health care providers are consistently ranked among the top three professions amenable to bribes (Mongolia Corruption Benchmarking Survey, 2008). An independent project-supported assessment published in 2008 revealed persistent deficiencies in health sector accountability and transparency on financial management, budget-based procurement, and participatory decision-making on financial allocations at sectoral, ministerial and organizational levels (Integrity in the Health Sector, UNDP, 2009)

The public service reform of 2008 that prohibits civil servants from being political party members is hoped to bring long-lasting change and help develop a more stable civil service, avoiding volatility and frequent staff rotations in government ministries and agencies. The year 2009 was declared the Year of Ethics in the health sector. The MOH commitment has been reflected in ministerial decrees on accountability benchmarks and Code of Ethics (Integrity in the Health Sector, UNDP, 2009).

8. Conclusions

Mongolia's commitment to ensuring steady and sustainable financing to the health sector, and to providing accessible and equitable quality health care to all citizens has already seen some success. Primary health care services are fully state funded ensuring free access to everyone. Social health insurance population coverage is very high and a 2009 Ministerial Order has extended the services reimbursable by Social Health Insurance, making the services more financially accessible for the poor.

However, challenges remain for the system. As it evolves and tries to adapt from the Semashko model, its hospital-oriented system remains costly and is a barrier to improving the efficiency of the health system. The system remains overly dependent on costly doctors with not enough nursing and other allied health staff. The vast, very sparsely populated areas of Mongolia also pose a challenge to service delivery, with poorer quality of services and fewer resources in rural areas.

Despite the relatively high rates of social health insurance coverage, SHI population coverage has decreased from 90% to 70% over the past ten years. With occasional injections of outside funds (from such sources as the Human Development Fund) the coverage has been expanded to include students, herders and other vulnerable populations. However, this external injection is neither sustainable nor consistent, leaving the most vulnerable without access to needed services. The rapid increases and decreases in coverage also undermine the credibility of the system. Latest data also indicate higher out-of-pocket expenses than had previously been calculated. While this data need to be analysed further, it may also be indicative of a need to adapt to the changing health needs of the population.

Infant, child and maternal mortality have been declining steadily and Mongolia is on track to achieving its MDG targets. High rates of poverty, however, may threaten gains made in these areas. Additionally, like other countries in the region, Mongolia has seen the shift of the burden of disease from communicable to noncommunicable. The top three causes

of death are now diseases of the circulatory system, cancers, and injuries. This will pose a significant financial challenge to a system that is already inefficient.

Frequent changes in government and in policies accompanied by a poor accountability system have meant that health care reform in Mongolia has been slow in implementation, inconsistent, and, at times, contradictory to other or previous reforms. As the economy in the country continues to grow rapidly, and demographic and epidemiological transitions continue, the system will have to evolve more quickly to be able to address issues of efficiency and access.

9. Appendices

9.1 References

1. Asian Development Bank (2001). National Immunization Program: Financing Assessment, Mongolia (pp.17-20). Manila.
2. Asian Development Bank (2009) [web site]. Private sector assessment for Mongolia (http://www.adb.org/Documents/Assessments/Private-Sector/MON/PSA-MON-2009.pdf, accessed 24 February 2011)
3. Asian Development Bank (2010). Fourth Health Sector Development Project (RRP MON 41243). Manila.
4. Asian Development Bank (2011). Review of the Mongolian Health Sector Human Resource Development Policy and Forecast Workforce Plan 2011. Ulaanbaatar: GVG Consulting Report, Third Health Sector Development Project.
5. Asian Development Bank (2010). Completion Report on Mongolia, Second Health Sector Development Project. Manila.
6. Bat-Ochir D (2000). Nauchnoe obosnovanie razvitiya sistemi meditsinskoi pomoshi i upravleniya zdravookhraneniem v usloviyakh stanovleniya rinochnoi ekonomiki Mongolii [Some issues of development of health care system in the condition of market economy in Mongolia]. Moscow.
7. Bodart C. (2006). Technical completion report- ADB: 4123-MON: Health sector reform. Ulaanbaatar.
8. Bold Sh (n.d) [web site]. Brief History and Development of Traditional Mongolian Medicine. (http://www.wipo.int/edocs/mdocs/tk/en/wipo_iptk_bkk_09/wipo_iptk_bkk_09_topic6_1.pdf, accessed 18 December 2011)
9. Bolormaa T et al. (2007). Health Systems in Transition Mongolia. Asia Pacific Observatory on Health Systems and Policies. Geneva: World Health Organization.
10. Boyreau, G., G. Dore, et al. (2009). Mongolia Consolidating the Gains, Managing Booms and Busts, and Moving to Better Service Delivery, A Public Expenditure and Financial Management Review. Washington, D.C.: World Bank.

11. Bredenkamp C et al. (2010). Rapid assessment of the effect of the economic crisis on health spending in Mongolia. HDNHE of World Bank. Washington, D.C.: World Bank.
12. Bulganchimeg B. (2008). Study of Reformed Hospitals. Ulaanbaatar.
13. Byambaa R, Tumurbat B et al. (2005). Level of inappropriate admissions at hospitals of UB city. Mongolian Medicine, 2(132):555.
14. Byambaa R, Tumurbat B et al. (2005). Level of inappropriate admissions at hospitals of UB city. Mongolian Medicine, 2(132):555.
15. Byambasuren Ya (2010). Citizen Participation in Local Budgeting: A Case of Mongolia. Network of Asia-Pacific Schools and Institutes of Public Administration and Governance (NAPSIPAG) Annual Conference.
16. Cheng M (1996). Health Technology Assessment of Mongolia. Ulaanbaatar: Ministry of Health.
17. Chuluunbaatar, G., P. Dorjsuren, et al. (2010). Changes in the State of Democratic Governance in Mongolia 2009-2010, Support in Achieving MDG-9 on Human Rights and Democratic Governance Project.
18. Citizen's Health Insurance Law, 2002, amended on July 20 2006.
19. Country Profile SEARO-WPRO/CSR, 2006.
20. Declaration of Alma-Ata (1978), International Conference on Primary Health Care, Alma-Ata, WHO (http://www.who.int/hpr/NPH/docs/declaration_almaata.pdf, accessed 11 February 2011).
21. Declaration on the Promotion of Patients' Rights in Europe (1994) [web site]. (http://www.who.int/genomics/public/eu_declaration1994.pdf, accessed 22 February 2011)
22. Department of Health (2000). Shaping the future NHS: long term planning for hospitals and related services. Consultation document on the findings of the national beds inquiry. London: Department of Health, United Kingdom.
23. Department of Health (2011). Some critical issues of private health sector. Ulaanbaatar.
24. Ministry of Health and Asian Development Bank (2010) Access to health services of Disadvantaged people. Ulaanbaatar: Ministry of Health.
25. Ministry of Health (2010) Evaluation of The Soum Hospital Development Programme. Ulaanbaatar: Ministry of Health.
26. GIZ (2011). Report on Health Insurance: Understanding of citizens on health insurance. Ulaanbaatar.
27. Government of Mongolia (2011) [web site]. (http://www.pmis.gov.mn/indexeng.php, accessed 7 March 2011)
28. GVG consultants for ADB Third health sector development project

(2010). The new health financing model for Mongolia. Ulaanbaatar.
29. Health Act of Mongolia (1998). (http://moh.mn/moh db/ Healthreports.nsf/, accessed 25 June 2011)
30. Health Act, 2002, amended on July 20 2006 and revised on May 5 2011.
31. Health Statistics Database: GIA-DOH (not publicly accessible).
32. HiT Kyrgyzstan (2011) [web site]. (http://www.euro.who.int/, accessed 16 January 2011)
33. Independent evaluation the National Mental Health Programme, 2007.
34. Japan International Cooperation Agency (JICA) (2008) [web site]. (http://www.jica.go.jp/english/, accessed 25 March 2011)
35. Ministry of Health (2009). Joint regulation on "Setting payment amount of variable costs of services provided to insured" of Ministers of Health, Finance and Social Welfare and Labor, No. 407/265/159, 2009. Ulaanbaatar.
36. King E. (2007). The Mongolian health system at a crossroads an incomplete transition to a post-Semashko model. Working paper series No.2007:1. 2007. Washington D.C.:World Bank.
37. Litvack J., Ahmad J. (1998). Rethinking Decentralization in Developing Countries. Washington D.C.: World Bank.
38. Mathers, C. D., R. Sadana, et al. (2000). Estimates of DALE for 191 countries: Methods and results. Global Programme on Evidence for Health Policy Working Paper. Geneva: World Health Organization.
39. Ministry of Health (2010). Health human resources policy 2010-2014. Ulaanbaatar: Ministry of Health.
40. Ministry of Health (2004) [web site]. Health situation, Statistical and Policy Reports Mongolia (http://moh.mn/moh db/HealthReports.nsf/, accessed 12 January 2011).
41. Ministry of Health 2001-2011, Health Indicators 2000-2010, Ministry of Health and Government Implementing Agency-Department of Health. Ulaanbaatar: Mongolia.
42. Ministry of Health and ADB. (2009). Private health care services and PPP in Mongolia. Ulaanbaatar.
43. Ministry of Health and ADB. (2010). Coordination and financing of private health care services and PPP in Mongolia. Ulaanbaatar.
44. Ministry of Health and JICWELS. (2005). Health Sector Strategic Master Plan (2005). Ulaanbaatar.
45. Ministry of Health UNFPA and WHO (2003). The household survey on spending of drugs (unpublished document).
46. Mongolia Corruption Benchmarking Survey, 2008.

47. Mongolia: Health and Social Protection, 2008. Manila: Asian Development Bank.
48. Mongolian Foundation for Open Society (2010) [web site]. (http://www.soros.org.mn/, accessed 14 February 2011)
49. Mongolian Statistical Yearbook (2008) [web site]. (http://www.nso.mn/v3/index2.php, accessed 18 January 2011)
50. Mongolian Traditional Medicine (2011) [web site]. (http://en.wikipedia.org/wiki/Traditional_Mongolian_medicine, accessed 15 December 2011)
51. Moser PA. (1996). Technical completion report- ADB: 2279-MON: Strengthening Health Insurance. Ulaanbaatar.
52. National Statistics Office (2010 and 2011). Household Socio Economic Survey 2007/2008 and 2009. Ulaanbaatar: National Statistics Office.
53. National Statistics Online database, National Statistics Office available at: http://www.nso.mn/v3/index.php?page=free_access.
54. Nomin L (2009). Integrity in the Health sector: Mongolia project Assessment. United National Development Programme (UNDP).
55. NSO (2011) [web site]. Presentation on Results of the Population and Housing Census, National Statistics Office, 2010 available at: http://www.toollogo2010.mn/doc/Main%20results_20110615_to%20EZBH_for%20print.pdf, accessed on 19 July, 2010 via http://www.nso.mn/v3/
56. NSO (2011). 2010 Population and Housing Census of Mongolia. Ulaanbaatar: National Statistics Office.
57. NSO [web site] 1990-2010, Mongolian Statistical Yearbook 1990-2010. Ulaanbaatar: National Statistics Office.
58. Office of the Prime Minister (2011). (http://www.open-government.mn/phpgov/, accessed 14 March 2011)
59. Orgil B, Hindle D et al. (2002). Privatised family group practices in Mongolia: an initial assessment of service access. Australian Health Review, 25(4):19–30.
60. Oyungerel N et al. (2011). Hospital services costing survey at aimag and district health facilities. Ulaanbaatar.
61. Parliament Chancellery (2011) [web site]. (http://www.parl.gov.mn/home.php, accessed 20 May 2011)
62. Patient Rights: Procedure, Medication, Definition, Purpose, Description, Alternatives (n.d) [web site]. (http://www.surgeryencyclopedia.com/Pa-St/Patient-Rights.html, accessed 25 June 2011)
63. Peake S, Gallagher G, Valentine N et al. (2008) [web site]. Health equity through intersectoral action: An analysis of 18 country case

studies, WHO&Ministry of Health Canada, p 52. (http://www.who.int/pmnch/topics/health_systems/healthequity_who/en/index.html, accessed 28 February 2011)
64. President Chancellery of Mongolia (2011) [web site]. (http://www.president.mn/index.ph, accessed 20 May 2011)
65. Report of Asia-Pacific Community Mental Health Development Project, 2008.
66. National Health Development Center, (2001). Satisfaction survey among clients and providers. Ulaanbaatar: National Health Development Center.
67. Ministry of Health and Asian Development bank (2010). Situational Analysis of the access to health services of vulnerable population in UB city. Ulaanbaatar: MOH and ADB.
68. Spoorenberg, T. (2008). "The demographic window, development, and population policy implications in Mongolia." Asian Population Studies 4(2): 215-232.
69. B.Bulganchimeg and B.Tumurbat, (2008). The effects of management on financing, activities and productivity of a sample of district and aimag hospitals. Ulaanbaatar.
70. The Soum Hospital Development Programme for 2002-2008 (Government Resolution No. 89).
71. Tsolmongerel et al.,(2011). Distribution of health payments and catastrophic expenditure in Ulaanbaatar. Ulaanbaatar.
72. Tugsdelger, S., P. Oyuntsetseg, et al. (2008). Mongolia Health Information System: Assessment Report. Ulaanbaatar: Health Metrics Network, WHO & Ministry of Health.
73. Tumendemberel N. Promoting sustainable strategies to improve access to health care in the Asian and Pacific region: Chapter IV Mongolia: Promoting sustainable financing and universal coverage through social health insurance.
74. Tungalag K and Bultman J. (2010). Review of Mongolian social health insurance system, GVG consultants for ADB third health sector development project. Ulaanbaatar.
75. Ulikpan A et al., (2008). Is the Mongolian Health Sector Ready for a Sector-Wide Approach, Asian Social Work and Policy Review 2 (2008) 111–125.
76. UNDP (1997). Human Development Report Mongolia 1997. Ulaanbaatar: Government of Mongolia and UNDP.
77. UNDP (2000). Human Development Report Mongolia 2000: Reorienting the State, Government of Mongolia and UNDP.
78. UNDP (2003). Human Development Report Mongolia 2003: Urban

-Rural Disparities in Mongolia. Ulaanbaatar: Government of Mongolia and UNDP.
79. UNDP (2007). Human Development Report Mongolia 2007: Employment and Poverty in Mongolia. Ulaanbaatar: Government of Mongolia, UNDP, International Labor Organization and Swedish Development Cooperation Agency.
80. UNDP (2011). Mongolia Human Development Report 2011 From Vulnerability to Sustainability: Environment and Human Development. Ulaanbaatar: Government of Mongolia, UNDP, and Swedish Development Cooperation Agency.
81. UNDP. (2009). Third national report on the Millennium Development Goals Implementation. Ulaanbaatar.
82. United Nations Children's Fund (UNICEF) (2011) [web site]. (http://www.unicef.org/mongolia/, accessed 21 January 2011)
83. United Nations Development Program (UNDP) (2011) [web site]. (http://www.undp.org/undp/en/home.html, accessed 18 January 2011)
84. United Nations in Mongolia (2011) [web site]. (http://www.un-mongolia.mn/, accessed 15 January 2011)
85. United Nations Population Fund (UNFPA) (2011) [web site]. (http://www.un-mongolia.mn/unfpa/index.php, accessed 22 June 2011)
86. Universal Declaration of Human Rights (1948-1998). (http://www.un.org/rights/50/broch.htm, accessed 16 May 2011)
87. World Bank (2009). Consolidating the Gains, Managing Booms and Busts, and Moving to Better Service Delivery. A Public Expenditure and Financial Management Review, Volume 1, Poverty Reduction and Economic Management Unit East Asia and Pacific Region. Washington D.C.
88. World Bank (2009). Consolidating the Gains, Managing Booms and Busts, and Moving to Better Service Delivery. A Public Expenditure and Financial Management Review, Volume 1, Poverty Reduction and Economic Management Unit East Asia and Pacific Region. Washington D.C.
89. WHO (1992). International Classification of Diseases, 10th revision. Geneva.
90. WHO (2002) [web site]. 25 questions about health and human rights, Geneva, WHO (Health and Human rights publication series, issue 1) (http://www.who.int/hhr/information/, accessed 25 January 2011)
91. WHO (2002) [web site]. Genomics and World Health Report: Report of the Advisory Committee on Health Research. (http://apps.who.int/gb/archive/pdf_files/EB112/eeb1124.pdf, accessed 18 June 2011)

92. WHO (2003). Millennium Development Goals, WHO's contribution to tracking progress and measuring achievements, Geneva: World Health Organization.
93. WHO (2010). The Second STEPS Survey on the Prevalence of Noncommunicable Disease and Injury Risk Factors 2009. WHO and Ministry of Health, Mongolia.
94. WHO (2011) [web site]. National Health Accounts data, (http://www.who.int/nha/en/ accessed 10 May 2011).
95. WHO Country Cooperation Strategy for Mongolia 2010-2015 (http://www.who.int/countryfocus/cooperation_strategy/ccs_mng_en.pdf, accessed 15 September 2011).
96. World Bank (2003). Mongolia UB Hospital restructuring project. Ulaanbaatar.
97. World Bank (2007). Mongolian Health System at crossroads: An Incomplete Transition to a Post Semashko Model. Washington D.C.
98. World Bank (2009) [web site]. (http://www.worldbank.org, accessed 20 May 2011)
99. World Bank (2009). Mongolia Consolidating the Gains, Managing Booms and Busts, and Moving to Better Service Delivery: A Public Expenditure and Financial Management Review, Volume 1. Washington D.C.
100. World Development Indicators, World Bank available at: http://data.worldbank.org/indicator.
101. World Health Organization (WHO) (2011) [web site]. (http://www.un-mongolia.mn/who/, accessed 22 March 2011).
102. World Health Statistics 2011, WHO, available at[web site] http://www.who.int/healthinfo/statistics/mortality_life_tables/en/

9.2 Useful websites

http://www.moh.mn/

http://www.open-government.mn/

http://www.nso.mn

http://www.legalinfo.mn

http://www.who.int/nha/en

http://www.adb.org/countries/mongolia/main

http://www.worldbank.org/en/country/mongolia

www.unicef.org/mongolia

http://www.undp.mn/

http://www.un-mongolia.mn/unfpa/

9.3 HiT methodology and production process

HiTs are produced by country experts in collaboration with an external editor and the Secretariat of the Asia Pacific Observatory based in the WHO Regional Office in the Western Pacific in Manila, the Philippines. HITS are based on a template developed by the European Observatory on Health Systems and Policies that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. 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/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Data are drawn from information collected by national statistical bureaux and health ministries. Furthermore, international data sources may be incorporated, such as the World Development Indicators of the World Bank.

In addition to the information and data provided by the country experts, WHO supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the Western Pacific Country Health Information Profiles (CHIPs) and the WHO Statistical Information System (WHOSIS). HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are subject to wide consultation throughout the

writing and editing process, which involves multiple iterations. They are then subject to the following:

- A rigorous review process consisting of three stages. Initially, the text of the HiT is checked, reviewed and approved by the Asia Pacific Observatory Secretariat. It is then sent for review to at least three independent experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies to check for factual errors within the HiT.
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (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.

9.4 About the authors

Tsolmongerel Tsilaajav is Director of Policy and Planning Department of Mongolian Ministry of Health. She is a health economist and has been working extensively on reform issues of health care financing and social health insurance.

Evlegsuren Ser-Od is Head of the Public Health Division of the Policy Implementation Coordination Department, MOH, Mongolia. She is a public health professional with more than 10 years of experience in working at policy-making level and holds master degrees in public health (epidemiology) and health administration. Her areas of expertise include monitoring and evaluation, health management information system and human resource for health. She shares authorship of number of books, guidelines, articles and policy documents in these fields.

Baasai Bulganchimeg is Manager of the Third and Fourth Health Sector Development Projects by Asian Development Bank. She is a medical doctor and has extensive work experience in health insurance and health systems and policies, and received a Master of Hospital Administration at the Public Health College of the University of the Philippines.

Ganbat Byambaa is Project Expert for Social Health Insurance Reform in Mongolia and Associate Professor of Health Sciences University of Mongolia. He is a medical doctor with special interest in health policy and management and medical education.

Oyunbileg Shagdarsuren is Deputy Team Leader of the EPOS Health Mmanagement, MCA Health Project. She is a medical doctor with a special interest in public health, health policy and management, and received a Master of Health degree in Policy and Management at the Nuffield Institute of the University of Leeds, the UK, and a PhD D at the School of Public Health of the National University of Taiwan.

The Asia Pacific Observatory on Health Systems and Policies is a collaborative partnership which supports and promotes evidence-based health policy making in the Asia Pacific Region. Based in WHO's Regional Office for the Western Pacific it brings together governments, international agencies, foundations, civil society and the research community with the aim of linking systematic and scientific analysis of health systems in the Asia Pacific Region with the decision-makers who shape policy and practice.

ISBN-13 978 92 9061 609 2

Australian AID

ADB

MINISTRY OF HEALTH
SINGAPORE

World Health Organization
South-East Asia Region Western Pacific Region