MINISTRY OF HEALTH
VIET NAM

HEALTH PARTNERSHIP
GROUP

Joint Annual Health Review 2007

Ha Noi
January 2008

Acknowledgements

The JAHR 2007 report is the result of cooperation between the Ministry of Health of Viet Nam and the Health Partnership Group (HPG). We hope that this report, the first of its kind in Viet Nam, will contribute effectively to the annual planning process of the Ministry of Health and strengthening of the effectiveness of international cooperation between the health sector in Viet Nam and international development partners.

We highly appreciate the contributions to developing this report made by the Department of Planning and Finance, Ministry of Health and the financial and technical assistance of the members of the HPG, including representatives of international organizations, bilateral donors and nongovernmental organizations including the World Health Organization (WHO), the Asian Development Bank (ADB), the Australian Agency for International Development (AusAID), the Embassy of the Netherlands, the European Community, the German Development Agency (GTZ), the Luxembourg Embassy, the Swedish International Development Cooperation Agency (Sida), and the Embassy of the United States of America.

The JAHR secretariat, headed by Dr. Nguyen Hoang Long, Deputy Director of the Planning and Finance Department of the Ministry of Health, and coordinators including Sarah Bales, Dr. Pham Trong Thanh and Duong Thu Hang, and other staff of the Health Policy Unit maintained momentum during the process of developing the report, organized consultative workshops to collect comments and ideas, and pulled the final report together. Special thanks are due to Mr. Bernhard Eder who collaborated closely with the secretariat and national consultants in facilitating the compilation of the report and Ms. Roslyn Stirling for editing the English version of the report. We highly appreciate and thank the national consultants who participated in the drafting of the chapters.

We give heartfelt thanks for the important contributions of ideas from Ministry of Health staff, staff of other ministries and other government agencies, local officials, members of the HPG and others who contributed to the process of undertaking this review.

Table of Contents

Acknowledgements 1

Abbreviations 4

Introduction 5

Chapter I: Health status and determinants of health 8
1. Health status of the Vietnamese people 8
1.1. Achievements and progress 8
1.2. Issues of concern 9
2. Health determinants 13
2.1. Socio-economic factors 13
2.2. Demographic factors 14
2.3. Clean water and sanitation 14
2.4. Lifestyle factors 15
3. General findings 15

Chapter II: Organization and management of the health system 17
1. Basic health policies 17
2. Organization of the health system 19
3. State management of the health care system 20
3.1. Development of health policies, plans and strategies 20
3.2. Health management information system (HMIS) 21
3.3. Management of service quality 23
3.4. Management of aid programmes 23
3.5. Management of the private health sector 24
4. Renovation of state management and administrative reform 25
4.1. General orientations 25
4.2. Decentralization of management 26
4.3. Administrative reform in the health sector 27
5. Recommendations 28
5.1. Continue supplementing and refining the legal framework and basic health policies 28
5.2. Renovate and increase state management effectiveness, determine the role and function of the Ministry in a decentralized health system and improve capacity for policy analysis 28
5.3. Develop the HMIS in order to improve quality and effectiveness in use of information for policymaking and health sector management 29
5.4. Refine the mechanism for managing the private health sector and health care in general 29
5.5. Consolidate the organizational structure at the district level 29
5.6 Improve effectiveness of international cooperation and aid 29
6. Summary of prioritized issues and solutions 30

Chapter III: Human resource development 33
1. Current health workforce situation 33
2. Training of the health workforce 36
2.1. Pre-service training 36

2.2. Re-training and continuous training....38
3. Recruitment and employment conditions for health workers....39
3.1. Recruitment....39
3.2. Conditions of employment....39
4. General assessment....40
5. Recommendations....41
5.1. Refine plans for health workforce development....41
5.2. Strengthen the health workforce at the grassroots level, especially in remote and isolated areas....41
5.3. Develop regulations on working conditions....41
5.4. Increase the budget for staff training....41
5.5. Gradually increase the quality of training....41
6. Summary of prioritized issues and solutions....43

Chapter IV: Health financing....45
1. Revenue collection....45
1.1. Overview of health financing in Viet Nam....45
1.2. Situation and difficulties associated with each financial source....47
2. Risk pooling....52
2.1. Pooling of tax revenues to subsidize health care....52
2.2. Pooling through social health insurance....52
3. Resource allocation and purchasing....53
3.1. Use of government budget funds for health....53
3.2. Purchasing of health services....54
3.3. Management and use of funds for development investment....56
3.4. Financial autonomy in state health facilities....58
4. Recommendations....58
4.1. Increasing state investment in health....59
4.2. Expand health insurance coverage in a sustainable manner, improve effectiveness of use of the health insurance fund....59
4.3. Health care protection for the near-poor and the uninsured....60
4.4. Reforming payment methods to providers and allocation of the government budget....60
5. Summary of prioritized issues and solutions....62

Chapter V: Health service provision....64
1. Utilization of health services....64
1.1. Utilization of preventive care/public health services....64
1.2. Utilization of curative care services....64
2. Provision of preventive care and health promotion services....67
2.1. Implementation of national health target programmes (NHTP)....67
2.2. Health information, education and communication (IEC)....68
2.3. Grassroots health system and PHC....68
3. Curative care service provision....71
4. Private health service provision and utilization....73
4.1. Situation in the private health sector....73
5. Pharmaceutical management and drug supply....74
5.1. Pharmaceutical management....74
5.2. Drug supply....75
6. Recommendations....76

6.1. Strengthen the organization, human resources and equipment for preventive care, especially at the grassroots level 76
6.2. Strengthen capacity against new dangerous epidemics and noncommunicable diseases 76
6.3. Improve the effectiveness and quality of health care services and primary health care at the grassroots level 76
6.4. Develop a quality assurance framework and strategy to increase quality and accountability of health care providers in both the public and private sectors 77
6.5. Reduce the workload in hospitals at upper levels 77
6.6. Improve management of prices and use of pharmaceuticals 77
7. Summary of prioritized issues and solutions 78

Conclusions 81
Summary findings 81
Summary Recommendations 85

Summary of proposed JAHR 2007 monitoring indicators 87

Annex 1: Organizational Chart of the Health System 91

Annex 2: Organization of the Ministry of Health and allocation of responsibilities among the leadership of the Ministry of Health in 2007 92
References 93

Tables

Table 1: Status toward achieving national health goals, 2000-2006 8
Table 2: Viet Nam's progress towards achieving the MDGs 8
Table 3: Structure of health workers over time (%) 35
Table 4: Government health spending, 2003-2006 (billion VND) 47

Figures

Figure 1: Organizational structure of JAHR 5
Figure 2: International comparison of average life expectancy (years) and GNI per capita in $PPP, 2003 9
Figure 3: Average life expectancy across socioeconomic regions 10
Figure 4: Proportion of health workers per 1000 people compared with other countries in the region 34
Figure 5: Number of health workers per 10 000 people across regions, 2005 35
Figure 6: Change in total real annual per capita health expenditures, 2000 and 2006 (Unit: US$ (2006 prices)) 46
Figure 7: Structure of total health expenditure in 2006 by source of funds 46
Figure 8: Change in general government spending on health as a proportion of total health expenditure and total government expenditure, 2003 – 2006 47
Figure 9: Change in per-capita health expenditures from households and government budget, 2003-2006 (Unit: US$ (2006 prices)) 48
Figure 10: Target groups in health insurance schemes in 2006 49

Abbreviations

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CHS	Commune Health Station
DPC	District People's Committee
DRG	Diagnostic related groups
EPI	Expanded Programme on Immunizations
GDP	Gross domestic product
GMP	Good prescribing practice
GNI	Gross national income
GTZ	German Development Agency
HCFP	Health Care Fund for the Poor
HCMC	Ho Chi Minh City
HEMA	Support to the Poor of the Northern Uplands and the Central Highlands
HMIS	Health management information system
HMN	Health Metrics Network
HPG	Health Partnership Group
IEC	Information, education, communication
IMR	Infant mortality rate
JAHR	Joint Annual Health Review
MDGs	Millennium Development Goals
MMR	Maternal mortality ratio
MTEF	Medium term expenditure framework
NHA	National health accounts
NHTP	National health target programme
ODA	Overseas development assistance
PHC	Primary health care
PPC	Provincial People's Committee
PPP	Purchasing power parity
RHC	Reproductive health care
SARS	Severe acute respiratory syndrome
SAVY	Survey Assessment of Vietnamese Youth
SWAp	Sector-wide approach
U5MR	Under-five mortality rate
UNICEF	United Nations Children's Fund
VHW	Village health worker
VSS	Viet Nam Social Security
WHO	World Health Organization
WTO	World Trade Organization

Introduction

After 20 years of *Doi Moi*, including important reforms in the health sector, Viet Nam's population now enjoys high life expectancy compared with other countries at a similar level of development, and indicators for many aspects of health status show continued improvement over time. Nevertheless, the country's health sector is facing many new challenges in this period of rapid economic growth and epidemiological transition. In the dialogue between the Government and development partners, it is clear that a more coherent approach for providing assistance is needed, especially as Viet Nam transitions towards middle-income country status.

The Ministry of Health and development partners together have agreed that there is a need for an annual sector-review process that is open to all relevant stakeholders to jointly identify key problems and priorities in the health sector. In future years, that process will be used as an instrument to hold the health sector accountable for meeting the goals set out in annual plans and to facilitate aid coordination and effectiveness, especially under sector programme support or SWAp arrangements.

The Joint Annual Health Review (JAHR), undertaken by the Ministry of Health and development partners in 2007 is the first of its kind in Viet Nam. This report is based on the concern of the Ministry of Health (MOH) and the development partners that Viet Nam's health sector is facing many new challenges and that it is necessary to gain a deeper understanding of these health problems through discussions between relevant agencies to facilitate the process of reforming the sector, as well as ensuring that resources are allocated appropriately in order to meet national development and health goals.

This review process should also allow future joint identification of key problems and priorities, be a tool for elaboration of the annual operational plans and offer an instrument for health sector accountability. The JAHR is therefore one of the elements of a possible future sector-wide approach (SWAp) based on the Ha Noi Core Statement.

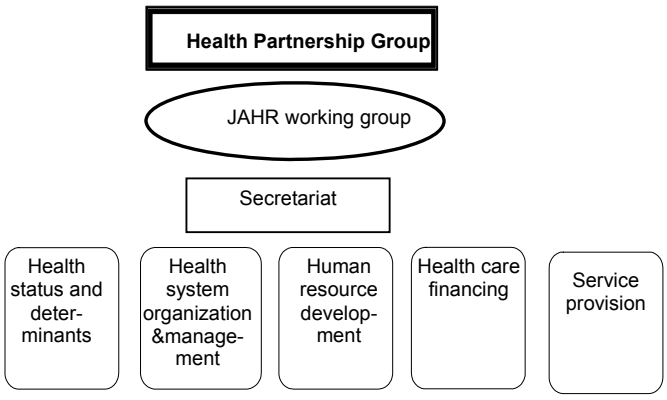
The Joint Annual Health Review (JAHR) is a reference for policy development and planning to develop the Vietnamese health sector in the direction of equity, efficiency and development.

Methodology

Organization of the JAHR

- The Ministry of Health together with other members of the Health Partnership Group (HPG) constitute the steering organization (Figure 1).
- The JAHR working group consists of individuals representing the HPG who are in charge of steering and

Figure 1: Organizational structure of the JAHR



monitoring progress in undertaking the JAHR, especially ensuring that resources are available for the process and reporting back to the HPG about progress and findings.

- The JAHR subgroups are the actual teams responsible for analyzing the situation, identifying priorities, and completing the chapters of the report.
- The secretariat**,** consisting of a representative of the Ministry of Health, an international coordinator, and a hired local coordinator, is in charge of daily operational and administrative issues, and ensuring that the Ministry's perspectives are clearly expressed and defended and that communication is open between the different stakeholders in the process. It is the responsibility of the secretariat to oversee the work of the JAHR so as to avoid duplication, ensure consistency and facilitate final editing and fact-checking.

Methodology

This report is the culmination of the first Joint Annual Health Review (JAHR) undertaken by the Ministry of Health and development partners. The review process started with a synthesis of existing literature on relevant issues. Unlike other reports, this JAHR went a step further in actively seeking out feedback from all relevant stakeholders to use in determining priorities and proposing solutions.

The review is not a situation analysis, but rather intends to propose concrete actions to overcome the priority challenges identified during the review. In future years, the JAHR will also serve as a mechanism for holding the health sector and development partners accountable for promises made in previous years. Therefore the lessons learnt from implementing the JAHR will be used to improve the quality and effectiveness of future reviews.

Information collection, therefore, relied mainly on:

- a literature review (see list of references);
- individual formal and informal feedback from relevant stakeholders;
- the specific expertise and insight into the Vietnamese health sector of each consultant (The consultants were selected based on their work experience or their previous involvement in the health sector and/or research and assessments, etc.);
- a series of workshops on each chapter (Each workshop was preceded by working papers on each chapter, sent to the invited participants/stakeholders.); and
- a final stakeholder workshop: A draft with the compilation of all chapters was forwarded to the expected participants.

Content and structure

The World Health Organization (WHO) identified four basic functions of the health system as priority areas in the World Health Report 2000 [1]. For Viet Nam, these were elaborated also in the Policy Options Study in 2006 [2]. Following the same path, the HPG also opted for these main areas to be covered in the JAHR 2007: health system organization and management, human resource development, health care financing and health service provision. In addition, the JAHR 2007 includes an introductory overview of the current situation and trends in health status and determinants.

The objectives set for every component were supposed to be aligned with the overall objectives of the health sector in view of equity - efficiency – development, while the structure within each chapter was expected to include a review of the current status and its challenges, identification of priority areas, suggestions for solutions and proposed monitoring indicators for use by future JAHRs to allow monitoring of the system's performance.

After the introductory sections, therefore the report follows the sequence of the chosen JAHR areas for 2007 and concludes by summarizing the priorities of the health sector, in particular those for donor-government dialogue.

Constraints and limitations

The JAHR 2007 is the first JAHR and thus serves as a 'baseline-JAHR' that is not yet aligned with the planning cycle of the Government, however, future JAHRs will aim towards greater alignment with the planning cycle.

This year's JAHR uses available data and references and has a more descriptive character. In the future it will be necessary to pay more attention to analysis, as well as linkages between chapters of the review.

It was decided by the Ministry of Health and HPG that this year's JAHR should aim for comprehensiveness on a national/policy level. Consideration of issues at the provincial, district or service delivery levels were limited to a review of existing documents. Thus, future JAHRs might have to find a more feasible balance and collect information at all levels of health management and care, while restricting coverage to a particular theme or geographic area.

International experience was insufficiently considered by the reviewing teams. The teams actively sought out JAHR reports from other countries. However, this type of report hardly conveys the experiences regarding dynamics, implementation process and tools relevant to this type of exercise.

Chapter I: Health status and determinants of health

Protection and improvement of people's health is the goal of all health systems. In order to assess the performance of a health system and find solutions to continue to improve effectiveness, it is important to make an assessment of health and its determinants. This chapter focuses on describing and analyzing these issues in order to identify priority health problems for Viet Nam's health system in the near future.

1. Health status of the Vietnamese people

1.1. Achievements and progress

After more than 20 years of Renovation, Viet Nam has made important achievements in both the economy and society, including in the field of health. In general, almost all basic health indicators show that the country has achieved or exceeded national goals for the period 2001-2005, including those for: life expectancy at birth, the infant mortality rate, the under-five mortality rate and child malnutrition (Table 1).

Table 1: Status toward achieving national health goals, 2000-2006

Indicators	2000	2001	2002	2003	2004	2005	2006	2010 Targets
Life expectancy (years)	67.8	68.0	71.3	71.3	71.3	71.3	71.3	>71.0
MMR*	..	95	..	85.0	85.0	80.0	75.1	70.0
IMR *	36.7	31.0	26.0	21.0	18.0	17.8	16.0	25.0
U5MR *	42	42	35.0	32.8	28.5	27.5	26.0	<32
Prevalence of underweight births (%<2500g)	7.3	7.1	7.0	6.5	5.8	5.1	5.3	<6
Malnutrition rate for children under age five* (%)	33.8	31.9	30.1	28.4	26.6	25.2	23.4	<20
Average height of adolescents (m)	..	..	1.58	..	..		..	1.6

Notes: MMR-number of maternal deaths per 100 000 live births; IMR -Number of deaths in children aged <1 year/1000 live births; U5MR -Number of deaths in children aged <5 years/1000 live births

* indicates that these indicators are also Millennium Development Goals (MDGs)

Source: Health Statistics Yearbook [3] 2010 Targets [4]; Data for 2002 on average height of adolescents [5]; Other data for 2000-2006 and 2005 targets [3].

Viet Nam is in line to meet the MDGs related to malnutrition in children under five years of age, tuberculosis and malaria. For HIV/AIDS, although progress has been made, much more effort will be required in order to achieve the goals set out for 2015 (Table 2).

Table 2: Viet Nam's progress towards achieving the MDGs

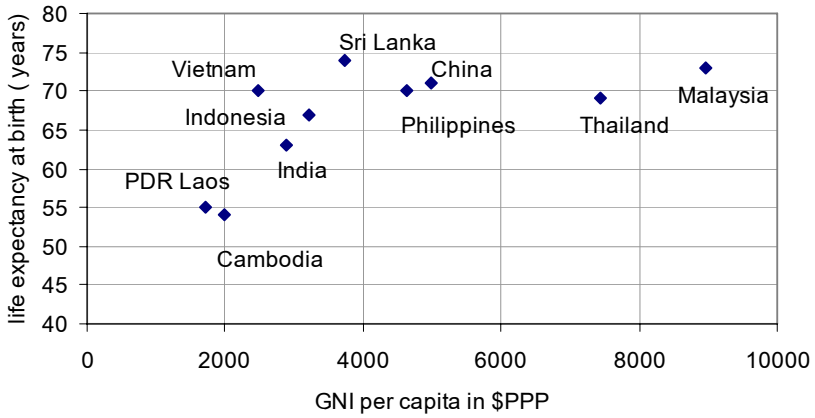
	1990	2000	2006	Objectives by 2015
Malnutrition rate for children under age 5 (% underweight)	45% (1990)	33.8%	23.4%	22,5% (reduce by half from 1990 level)

Under-five mortality rate (per 1000 live births)	58.1 (1990)	42	26.0	19/1000 (reduce by two thirds from 1990 level)
Maternal mortality ratio (per 100 000 live births)	200 (routine monitoring) 249(MOH/UNICEF)	95	75.1	50-62 (reduce by three quarters from 1990 level)
Prevalence of HIV (% adults aged 15-49)	0.004 (1991)	0.273	0.51 (2005)	Stop and reverse the spread of HIV/AIDS
Prevalence of malaria (%)	1.65 (1991)	0.38	0.11	Stop and reverse the prevalence of malaria
Incidence of tuberculosis (%)	0.086 (1992)	0.11	0.07	Stop and reverse the incidence of tuberculosis

Sources: Child malnutrition rate [6]; U5MR 1990 [7]; 2000 and 2006 [3]; Maternal mortality ratio 1990 [8] 2000 and 2006 [3]; Prevalence of HIV [9]; Malaria prevalence 1991 [8]; 2000 & 2006 [3]; Tuberculosis incidence 1992, 2000, 2006 [3]

It is very encouraging that Viet Nam's basic health indicators are better than some countries with higher levels of income (Figure 2). With gross national income (GNI) per capita in dollar purchasing power parity terms ($PPP) close to the level of India or Indonesia, Viet Nam has achieved higher life expectancy. Indeed, life expectancy in Viet Nam is on par with some countries with higher per capita GNI, such as China, the Philippines, and Thailand.

Figure 2: International comparison of average life expectancy (years) and GNI per capita in $PPP, 2003



Source: Ministry of Health, 2007, Viet Nam Health Report 2006 [10]

The achievements in health noted above are closely tied to achievements in the country's socio-economic development, as well as the important contributions of Party and Government policies, the efforts of the health sector, effective assistance from the international community and the strong participation of non-medical sectors in undertaking health-related work.

1.2. Issues of concern

Although much progress has been seen, there remain many health issues deserving of concern.

Delays and challenges in achieving some MDGs

The under-five mortality rate in Viet Nam was 58.1 per 1000 live births in 1990. By 2006, over a 15-year period, that rate had fallen to 26.0 , a reduction by half. In order to achieve the MDG of 18.4 (a reduction of two-thirds compared with 1990) in the remaining 10 years (2006-2015), it will be necessary to increase the pace in the reduction of child mortality.

According to the MDGs, by 2015 the maternal mortality ratio must decline by three-quarters compared with 1990 levels. In Viet Nam in 1990, the maternal mortality ratio was 200-249/100 000 live births; by 2006, it had declined to 75.1/100 000 live births. Thus, in order to meet the MDG by 2015, an MMR of 50-62/100 000, extreme efforts will be needed. This is a major challenge for the health sector.

According to the *Health Statistics Yearbooks*, in the period from 2001 to 2006, the malnutrition rate for children under five years of age declined from 33.8% to 23.4%, reaching the national target of < 25%. Nevertheless, the malnutrition rate for children under five years of age in Viet Nam remains among the highest in the region [6]. Child malnutrition is strongly related to inappropriate feeding practices, low birth weight, illness (especially parasites) and its treatment, and malnutrition of the parents. The child malnutrition rate is also high in families with poor sanitation, lack of clean water, food shortages and large numbers of children [10].

Regional disparities in people's health

The life expectancy of people residing in disadvantaged regions, like the Northeast, Northwest and Central Highlands, is lower than of those in areas with more advantageous socioeconomic development like the Southeast, North Central Coast and Red River Delta (Figure 3).

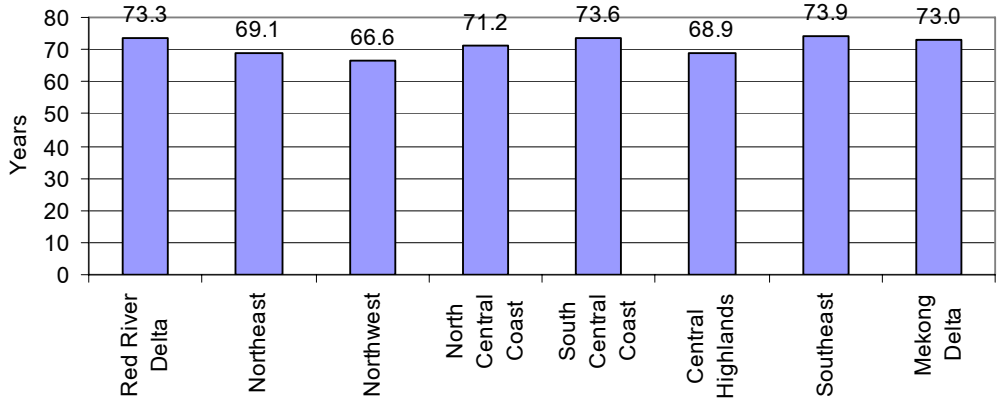


Figure 3: Average life expectancy across socioeconomic regions

Source: Survey of population change (01 April 2002) [11]

Maternal mortality ratios are still high in mountainous and remote areas (Central Highlands and northern mountains). Statistics on obstetric care indicate that maternal mortality is higher in areas where a large number of pregnancies are not monitored and where a substantial number of deliveries do not benefit from trained medical assistance [5, 12].

The infant mortality rate (IMR) remains high in the Central Highlands (28 per 1000 live births), Northeast (24) and the North Central Coast (22). In 2006, the Northwest had an IMR of 30 per 1000 live births, more than three times higher than in the Southeast (8) [13]. The IMR in rural areas (20.4 per 1000 live births) is more than twice that of urban areas (9.7) [14].

The under-five mortality rate (U5MR) is generally still high, especially in rural areas and among poor people (the U5MR among the poor is two times higher than among the rich, and has seen almost no decline over the past few years) [15].

The prevalence of low birth weight in 2006 had increased compared with 2005 (Northeast, Northwest, North Central Coast, South Central Coast, Central Highlands, Southeast), with the biggest increases in the Northwest and Central Highlands (increases of 1.86% and 2.93% respectively) [12].

The child malnutrition rate in rural areas is higher than in urban areas (30.8% compared to 21.2%), [6] in the Central Highlands it is 35.8%, and in the Northeast it is 32%, compared with the national rate of 26.6% in 2004.

Double burden of disease

Viet Nam is currently facing a double burden of disease. In the past few years, disease patterns have seen important shifts, with declines in the share of morbidity from communicable diseases and an increase from noncommunicable disease and accidents and injuries. Nevertheless, some communicable diseases continue to have high prevalence rates in endemic regions, such as dengue fever in the Mekong Delta, malaria in the northern mountains and Central Highlands, and tuberculosis in the South. Some diseases are making a comeback and are spreading rapidly over a wide area.

Dengue fever: Although dengue fever epidemics have been controlled, incidence in 2006 showed an increase compared with the same period in 2005 and there is a risk of the disease spreading to provinces in the South and Central regions. In 2006, there were 68 532 reported cases, of which 53 patients died [16].

Malaria: Incidence and mortality from malaria declined over the period 2000-2006. However, prevalence remains high in mountainous and remote provinces. In 2006, 91 635 cases of malaria were reported, with 41 deaths. Migration from malaria-endemic provinces to provinces without malaria makes it difficult to control the disease. Malaria prevalence rates are highest in the northern mountains (30% of all cases) and border provinces of the Central Coast and Central Highlands regions (20% of all cases) [3]. Low educational attainment, lack of fluency in the national language, and dependence on natural resources in the forests of mountainous, remote and border districts make it difficult to fight against malaria.

Tuberculosis persists as a widespread health problem in Viet Nam. Tuberculosis prevalence rates are highest in the South. New challenges for the tuberculosis control programme include multidrug-resistant strains of tuberculosis, (An estimated 2.5% of all new cases and 23% of retreatment cases are due to multidrug-resistant tuberculosis) and tuberculosis/HIV co-infection [10].

HIV/AIDS: HIV infection rates continue to increase, By 31 December 2006, the cumulative number of people infected with HIV in the whole country was 116 565, among whom 20 195 cases had developed into AIDS, and 11 802 patients had died from AIDS-related causes. Ho Chi Minh City (HCMC) has the highest number

of HIV/AIDS cases in the country (16 946 cases, equivalent to 15% of all cases in the country) and prevalence rates are highest in Quang Ninh with 672.9 cases per 100 000 population [10].

Besides traditional communicable diseases, new unpredictable diseases, such as severe acute respiratory syndrome (SARS) and avian influenza A(H5N1), are creating great challenges for the health sector. In recent years, cases of highly pathogenic avian influenza A(H5N1) have occurred in humans. Up till 12 November, 2007, Viet Nam has seen 100 cases of avian influenza A(H5N1) in humans, of whom 46 have died, the second highest incidence and mortality in the world after Indonesia [17]. Although the number of human cases in Viet Nam remains low (only 7 cases in 2007), nevertheless, epidemics of avian influenza in poultry continue to be widespread with complicated developments threatening a pandemic in humans.

Noncommunicable diseases, such as cancer, cardio-vascular disease, diabetes and hypertension are on the rise.

Cancer: The incidence of cancer in Viet Nam increased from 1990 to 2002. It is estimated that approximately 75 000 people are diagnosed with cancer each year, and fatality rates are high, accounting for 12% of total deaths in the country each year [10].

Cardio-vascular disease: Results of the National Health Survey 2001-2002, indicate that 15.1% of men and 13.5% of women have high blood pressure. In the working age group (20-59), men have a higher risk of high blood pressure than women. However, only 28% of men and 42 % women with high blood pressure have been diagnosed with the condition [10].

Stroke: Statistics on stroke in Viet Nam are incomplete. Nevertheless, estimates for some localities indicate that incidence and mortality from stroke are on the increase. In Ba Vi district of Ha Tay province, mortality from stroke is estimated at 73/100 000 population. In Ha Noi and HCMC, mortality rates are much higher, at around 130-131/100 000 population. Some 60% of people suffering strokes are below 60 years of age, and 80% of those suffering a stroke die within 24 hours [10].

Diabetes prevalence is highest in cities (4.4%), with lower rates in delta areas (2.7%) and mountainous areas (2.1%). Prevalence increases with age. Many diabetics are unaware that they have the disease. Although information on the trends in diabetes incidence is inadequate, risk factors, such as overweight and aging, indicate that there will continue to be increases in the disease in the future [10].

Accidents, injuries and food safety have become prominent issues in recent years due to their complicated nature and the consternation caused in society by their increasing trends.

Accidents and injuries are a leading cause of death in Viet Nam. According to the National Health Survey 2001-2002 [5], accidents rank fourth in all causes of death. Statistics indicate that, in 2006, 11 103 people were injured and 12 155 died due to road traffic accidents. Ha Noi and HCMC have the highest number of traffic-related injuries and deaths (730 and 915 injuries, respectively, with 500 and 977 deaths, respectively) [16].

Food poisoning in Viet Nam is very widespread. According to the national target programme on food hygiene and safety, every year there are from 150-250 reported cases of food poisoning, with from 3500 to 6500 people affected and 37 to

71 deaths. However, it is likely that the true figures are much higher. Currently there are many cases of food poisoning in factory and business cafeterias, or other public eating places. Pesticide poisoning is also an area of concern. According to statistics reported from the provinces, in 2006 there were 2504 cases of pesticide poisoning, with 4943 people affected and 155 deaths, accounting for 3% of all people poisoned [10].

Violations of food hygiene and safety regulations occur at all stages, from the growing and raising of agricultural products, to processing, distribution and consumption. The main causes of street-food contamination are: inadequate hygiene and safety practices in processing food (49.1% to 91.6%); inadequate hygiene and safety in transporting and storing food (85.9% to 99.2%); the use of unhygienic and unsafe sites, equipment and utensils in food processing (37% to 88%) and vendors and food processing workers not complying with regulations on food hygiene and safety (43.8% to 88%) [10].

2. Health determinants

2.1. Socio-economic factors

Economic conditions: Per capita income continues to rise, leading to improvements in the living standards of the population and different regions, with a positive impact on health. Nevertheless, considerable income disparities between regions remain. Per capita income in the Southeast is 3.1 times higher than in the Northwest, and the poor and ethnic minorities in mountainous and remote areas have still not benefited fully from economic growth. Poverty alleviation is still vulnerable to setbacks and income and living-standard disparities between different social groups and regions appear to be increasing [10].

Education: Educational attainment and literacy rates clearly improved in the period 2001-2005 and there is no gender gap in current enrolments. The literacy rate in Viet Nam is high and continues to increase (in 2004 it was 93%). However, there are still disparities between regions and between the rich and the poor. For ethnic minorities, a lack of fluency in the Kinh language remains a hindrance for them in improving their educational attainment. In general, people with higher levels of education have better health status and longer life expectancy. Education is the foundation for economic development for the individual, the family and the community [10].

Migration and urbanization: rural-urban migration creates many problems that can influence health. The rapid urbanization that accompanies the process of industrialization creates big challenges for health care due to increased intensity of living, infrastructure development not keeping pace with population growth, and many social problems related to increased demand for housing, employment, energy, clean water and a clean environment. According to annual statistics, in 1986, the urban population was 11.9 million people accounting for 19.5% of the population; by 1995, it had risen to 14.9 million accounting for 20.8% and, by 2000 to 18.6 million people accounting for 24.0% of the total population. It is predicted that it will increase to 33% by 2010 and 45% by 2020 [18].

2.2. Demographic factors

According to 2006 estimates, Viet Nam's population had risen to 85.3 million people, an increase of 11 to 13 million people every 10 years. The increasing size of the population puts pressure on the health sector to protect, care for and promote the health of the people. The number of government hospital beds per 10 000 people is a standard measure of how resources allocated to the health sector are keeping up with population growth. This figure dropped slightly from 17.5 in 2000 to 16.6 in 2002, but actually increased to 18.3 by 2006 [3]. Population density has increased rapidly in many regions, especially urban areas, narrowing living space available and placing the population in an ever more polluted situation, where they are vulnerable to disease.

Viet Nam's population remains young and demands for reproductive health and youth health services are therefore high. On the other hand, the elderly proportion of the population (aged 60 and older) is increasing rapidly, currently accounting for 9.2% [13]. In the future, the aging of the population will increase the share of chronic illness in morbidity patterns, increasing the costs of health care services and will expand the demands for formal and informal long-term care.

2.3. Clean water and sanitation

Clean water: in recent years, the proportion of people using clean water has increased, however water quality still does not match demand. The proportion of people using a clean water source overall is 81% [5]. In the Northwest, Mekong River Delta and Central Highlands, the proportion is low, especially in rural areas (48.2%, 57.6% and 65.9%). Monitoring water quality by provinces suffers from a lack of personnel and funds for operations.

Hygienic toilet facilities: Only 50% of households in the whole country have hygienic toilet facilities, while the proportions are only 38% in the Northeast and Northwest, 35% in the Mekong Delta and 39% in the Central Highlands. The proportion of households with a hygienic toilet and who use clean water in rural, mountainous, remote areas is still low [10].

Hospital waste: Out of 497 units listed in the national list of `severely polluting entities', 89 are hospitals in different localities throughout the country. According to the list of polluting health facilities, 20% are central hospitals, 22% are provincial/regional hospitals, 13% are sector hospitals and 4% are district hospitals. They are causing severe pollution and are considered as priorities for investment in medical waste and sewage treatment [19].

Working environments and conditions have improved considerably in recent years. However, some production facilities continue to use obsolete production methods, thereby severely polluting the workplace Working conditions in small enterprises, private businesses, and craft villages are not yet being fully monitored on a regular basis. The working and living conditions of workers in joint ventures, limited companies, and of rural workers seeking informal employment in urban areas, pose many risks to their health.

Air pollution in urban areas is mainly the result of the high density of motor vehicles and construction due to the rapid expansion of cities. Many health problems are related to both short- and long-term exposure to air pollutants, with the highest risk among patients with respiratory and cardio-vascular diseases and the elderly [10].

Chemical poisoning of food, especially by agricultural chemicals, such as pesticides, and some food preservatives account for 25% of all food-poisoning incidents [10].

2.4. Lifestyle factors

Smoking is the cause of many illnesses and a major cause of mortality in Viet Nam. Consumption of tobacco in the country is showing an upward trend: in 1998, the male smoking prevalence rate was 50%; by 2002 it had increased to 56%. Among females, smoking prevalence is only 1.8%. In addition to the disease and death burden due to smoking, it also causes a financial burden [10]. There is still no system for monitoring diseases attributable to tobacco use.

Use of alcoholic beverages: Use of alcohol among young people is a concern in many countries. Youths are less able to control themselves than adults. Thus when they are under the influence of alcohol, they may indulge in behaviour that is risky to both themselves and society, such as driving motor vehicles at high speed and causing accidents, violence or sexual abuse. According to the Survey Assessment of Vietnamese Youth (SAVY), in 2004, 35% of youths aged 14 to 17 and 57.9% of youth aged 18-21 drank alcohol [20]. According to the National Health Survey 2001-2002, 40% of people with upper-secondary education or lower drank alcohol, while among people with post-secondary education the proportion was 60%, in both urban and rural areas [5].

Drugs, prostitution: The number of drug users in Viet Nam has increased in recent years, especially among young people. HIV/AIDS is strongly linked with the use of drugs in the country , and it is estimated that 56.9% of all people living with HIV/AIDS in Viet Nam were infected through IV drug use. The proportion of drug users having sex with a sex worker in a 12 month reference period was 18% to 59%, making the risk of infection between intravenous drug users, sex workers and their partners very high. Drug use is more prevalent among males (accounting for about 90% of all drug users), especially among young people. Currently 80% of drug users are below 35 years of age and 52% are below 25. According to the Behaviour Surveillance Survey (BSS) in 2000, the proportion of people using drugs is high among people with secondary education, and 65% to 94% of drug users are still unmarried [21].

3. General findings

The health of the Vietnamese people in recent years has seen clear improvements and can be considered relatively good compared with other countries at a similar level of economic development. However, there remain health problems that require appropriate policies and resources for their resolution in the near future.

Disparities in health status across regions and across income groups remain a major problem requiring an increase in the amount of funds allocated and development of resources for health.

Child malnutrition, which remains highest among the poor, and in mountainous and remote regions, is also a major concern and requires the health sector to continue placing high priority on maternal and child health, especially in disadvantaged areas.

Changes in morbidity patterns and growing health care needs require the health sector to develop appropriate policies to meet these challenges. On one hand, Viet Nam faces communicable diseases like dengue fever, malaria, tuberculosis and HIV/AIDS, while on the other, it faces emerging diseases like SARS and avian influenza A(H5N1). In addition, the increasing incidence of noncommunicable diseases, such as cancer, cardiovascular disease and hypertension, will make these the major cause of death among adults in the future. Noncommunicable diseases, like bone and joint diseases, chronic obstructive pulmonary disease, diabetes and obesity will create a heavy financial burden of disease.

The health of the population is facing important challenges from the living environment. Rapid urbanization and the process of industrialization are creating great challenges to health care due to the increased intensity of living, the inability of infrastructure to keep pace with population growth, and the demand for housing, employment, energy, clean water, clean environment and safe transportation. Challenges to health from the environment and a lack of food safety require placing priority on development of public health institutions, especially the establishment of monitoring and supervision mechanisms and increasing the role of the health sector in assessing the environmental impact on health of socio-economic development projects, as well as strengthening the cooperation of all sectors in environmental monitoring.

Chapter II: Organization and management of the health system

This chapter presents an overview of basic health policies that have influenced the development of the Vietnamese health care system in recent years; introduces the organizational structure of the health system; evaluates the state management of the health care system; and recommends priority issues to be addressed to continue reforming the organization and management of the health care system in the future.

1. Basic health policies

Prior to the *Doi Moi* period, the Vietnamese health system was subsidized by the Government and the entire population benefited from free health care services. The rural health care network was maintained by resources from agricultural cooperatives. By end of the 1980s, the health care system was facing enormous difficulties due to the consequences of the economic crisis and transformation of economic mechanisms. The communal health care network collapsed in many places, and many hospitals, especially those at the district level, deteriorated seriously.

During the early *Doi Moi* period, starting at the end of the 1980s, a series of new policies were introduced with a view to realizing the goal of 'the government and people working together', increasing resources and addressing people's health problems. These included:

- The policy on charging partial user fees, implemented in 1989 according to Decision 45-HĐBT, dated 24/04/1989, of the Council of Ministers and subsequently supplemented and amended by Government Decree 95-CP, dated 27/08/ 1994 and Government Decree 33-CP, dated 23/05/1995.
- The policy on private health practice, inaugurated in early 1989 by Decision 94/BYT/QĐ, dated 08/03/1989, of the Ministry of Health, and the Ordinance on private health practice, issued by Order of the President 26/L/CTN, dated 13/10/1993.
- The policy on Health Insurance, implemented by Decree 299/HĐBT, dated 15/08/1992, of the Council of Ministers.
- The intention to consolidate the grassroots health network, by Decision 58-QĐ/TTg, dated 03/02/1994, Decision 131-QĐ/TTg, 04/03/1995, of the Prime Minister; Government Decree 01/1998/NĐ-CP dated 03/01/1998, Directive 06-CT/TW, dated 22/01/2002, of the Central Party Committee.
- The policy on reduction and exemption of user fees for those who have rendered meritorious service to the nation, the poor, and poor regions/areas, according to Government Decree 95/CP dated 27/07/1994.

Since 2000, health policies have been further supplemented in the move towards 'social mobilization', and reform and orientation of the health care system towards equity, efficiency and development.

Many important documents have been issued for long-term direction of the health sector, including the Law on the Care and Protection of the People's Health (30/06/2000) and the National Strategy for the Care and Protection of the People's Health 2001-2010 (issued by Decision 35/2001/QĐ-TTg of the Prime Minister). Some long-term strategies have been formulated, including strategies for reproductive health;

nutrition; HIV/AIDS prevention and control; injury control; tobacco control; food safety and hygiene; and medical equipment.

In 2005, the Central Committee of the Vietnamese Communist Party issued Resolution 46-NQTW on the protection, care and improvement of people's health in the new situation. This very important document determines the reform and accomplishment of the Vietnamese health system in the move towards equity, efficiency and development, in order to overcome challenges in the context of comprehensive innovation, industrialization and modernization, development of a socialist-oriented market economy and economic integration into the world.

The government action programme to realize Resolution 46-NQ/TW was issued by Decision 243/2005/QĐ-TTg, which clearly identifies the objectives, tasks and responsibilities of all echelons and lists 41 proposals to develop draft laws and sub-legal documents for health.

The Government next issued Decision 153/2006/QĐ-TTg, approving the comprehensive master plan for Vietnamese health system development by 2010 and the vision for 2020. The comprehensive master plan includes four main areas: preventive medicine, the grassroots health care system, curative care and pharmaceuticals.

In addition, many specific policies have been supplemented and refined. The policy on health care for the poor was strengthened through the formation of the Health Care Fund for the Poor (HCFP) by Government Decision 139/2002/QĐ-TTg, dated 15/10/2002.[1] Recently, the policy on free health care for children under six years of age was issued by Government Decree 36/2005/NĐ-CP, dated 17/03/2005. A policy providing medical care assistance for the near poor is currently being developed with plans for the Government to provide a 50-70% subsidy on the voluntary health insurance premium for the near poor.

The policy on health insurance continued to be adjusted by Government Decree 63/2005/NĐ-CP dated 16/05/2005, and there will be a new Decree to amend and supplement articles of the Regulations for Health Insurance. The draft law on health insurance, which is under development, will create the legal grounds to expand health insurance towards universal coverage.

Socialization of health care activities by Resolution 90/CP, dated 21/08/1997, and Decree 73/1999/NĐ-CP, has continued to be promoted with the birth of Government Resolution 05/2005/NQ-CP. The regulation of autonomy for public health institutions was initiated by Government Decree 10/2002/NĐ-CP dated 16/01/2002 and further established under Government Decree 43/2006/NĐ-CP dated 24/04/2006. The policy on partial collection of user fees is being revised and supported by proposals for new payment methods for health care services.

Various efforts to consolidate preventive medicine and grassroots health care were made in 1994, 1998 and 2002 [22-24] and continue to be made more concrete such as: upgrading of commune health stations (CHS) and district and provincial hospitals; supporting the development of district centres for preventive medicine;

[1] So far, the estimated number of beneficiaries from the Health Care Fund for the Poor (HCFP) is about 17 million people. In 2006, the state budget allocated about VND 800 billion for the HCFP for all provinces. With support from the Fund, the use of health care services by the poor at all levels, especially at the grassroots level, also increased.

establishing policy to attract health workers to work in disadvantaged areas; granting stipends for village health workers (VHW); and training of the health workforce for work in disadvantaged and mountainous areas and the Mekong Delta [12].

Overall, over the past 20 years, many important Party and Government policies have been issued in response to the requirement for heath sector reform. In the implementation process, many policies have been supplemented and amended to fit in with the current context of each period of time. However, Resolution 46 of the Party Central Committee has stated, "some health policies are no longer appropriate but their supplementation or revision is delayed". Reforming and guiding the Vietnamese health care system towards equity, efficiency and development is the correct path. However, in discussions about specific policies to realize that goal, there are different, even conflicting opinions, mainly due to different viewpoints regarding the role of the market mechanism in the health sector, and also the complexity, difficulties and challenges ahead. This is a common problem in many sectors as the 10th Party Congress observed: "Some issues, in the realm of major viewpoints and positions, have not yet been clarified, high consensus has not yet been reached in terms of awareness of these issues, and there is a lack of decisiveness in policy-making and directing their implementation…," including issues of "reforming policy and management of education, health and culture." [25].

In these circumstances, it is necessary to conduct studies of health policies and the long-term vision with a view to seeking a consensus on 'innovative thinking' in health towards equity, efficiency and development.

2. Organization of the health system

The organizational structure of the Vietnamese health system consists of four levels that parallel the state administration system—central, provincial, district and commune (Annex 1).

Central level**:** The Ministry of Health is the government agency that carries out the functions for state management of people's health care, protection and promotion, including preventive medicine, curative care, rehabilitation, traditional medicine, prophylactic and treatment drugs, cosmetics, food safety and hygiene and medical equipment, and the state management of public services under the control of the Ministry, and represents ownership of the state-capital portion of state-owned enterprises, as regulated by the Law.

The administrative apparatus of the Ministry of Health includes the Ministry's Cabinet, departments and inspectorate (Annexes 2 and 3). Following the recent Decision of the 1st Session of the 12th National Party Congress on dissolving and merging some ministries and ministerial-level agencies a unit of the former Committee for Population, Family and Children was incorporated into the Ministry of Health. In addition, the Ministry of Health has 70 subordinate institutions in three major areas: hospitals, preventive medicine and professional institutes, and medical colleges and universities.

Provincial level: The Provincial Health Department, a professional agency under the management of the Provincial People's Committee (PPC), works to advise the PPC on state management of local people's health care, protection and promotion, and performs tasks and obligations as authorized by the PPC and legal regulations. The Provincial Health Department works under the control of the PPC in terms of direction,

organizational management, payroll and operations, but is also under the control of the Ministry of Health in terms of technical direction, guidance, monitoring and inspection.

The Provincial Health Department's administrative structure includes a Cabinet, an inspectorate, professional and technical divisions, health care facilities and centres of preventive medicine, and it is responsible for health audits, training and information, education and communication (IEC).

District level: The District Health Bureau, a professional agency under the management of the District People's Committee (DPC), works to advise the DPC on state management of local people's health care, protection and promotion, and performs designated tasks and obligations as authorized by the DPC and the Provincial Health Department. The District Health Bureau works under the control of the DPC in terms of direction, organizational management, payroll, and operations, but is also under the control of the Provincial Health Department in terms of technical direction, guidance, monitoring and inspection. The district level also has district hospitals (including polyclinics) and district centres for preventive medicine, which were split from District Health Centres by Decree 172, and are now under the stewardship and management of the Provincial Health Department.

Commune level: The Commune/Ward Health Station (CHS), the first formal point of health care contact in the government health care system, is designated to provide primary health care services, carry out early detection of epidemics, provide care and treatment for common diseases and deliveries, mobilize people to use birth control, practice preventive hygiene, and carry out health promotion. The CHS has a responsibility to the District Health Bureau and the Commune People's Committee for local people's health care, protection and promotion, and receives technical guidance from the district hospitals. However, this support has been reduced since the promulgation of Decree 172 . The CHS also supervises the VHW who are active very close to where people live and work. Every village has a VHW (with training from 3 to 9 months).

3. State management of the health care system

The management role of the Ministry of Health is regulated by Decree 49/2003/NĐ-CP, amended and supplemented at the request of the Government. The Ministry's major tasks include: drafting and submitting draft laws, ordinances and other legal documents to relevant authorities; developing strategies and annual and long-term plans; issuing documents at the Ministry level; providing direction, guidance and inspection of regulation enforcement and implementation of strategies, plans and national health programmes; providing IEC on health laws and information; and providing guidance for ministries, other sectors and the Provincial People's Committee in implementing policies and legal regulations related to health care activities.

Below is a review of the Ministry of Health's major performance areas in terms of management in recent years.

3.1. Development of health policies, plans and strategies

In recent years, the Ministry of Health has collaborated with other line Ministries and Party bodies to submit to the Central Party Committee, National Assembly and Government many draft laws, ordinances and health programmes, as

well as a master plan for health system development. A Steering Committee, comprising representatives from the Ministry of Health and related agencies, has been established to organize the drafting of documents. The head of the Steering Committee is the Minister or Vice-Minister of Health, depending on the nature of the document. A situational analysis, a review of related issues and workshops for soliciting opinions of local authorities and other sectors are conducted during the document-development process. Recently, the Government has requested ministries to post public draft documents on the website of the Government to collect public opinion.

The policy-making process, however, often fails to fully incorporate all the contributions from relevant stakeholders, especially the public. Intersectoral collaboration during the policy-making process is still limited. Many health-related policies are under the responsibility of other ministries and active collaboration and coordination between these and the Ministry of Health is still limited.

Health development plans include annual and five-year plans, as well as plans covering specific topics. The preparation of overall plans in the health sector is assigned to the Planning and Finance Department of the Ministry of Health to oversee. Other departments are also responsible for developing plans and sector strategies in their professional areas.

At present, the health sector is trying to develop result-based plans, but the quantity indicators tend to outweigh the quality ones. Planning and financing is combined, but the budgeting narrative is not clear. For example, in the mid-term budget framework (MTEF) prepared in 2005, it is not clear whether or not the budgeting is based on the already allocated funding as informed by the Ministry of Finance [26]. An issue of concern is the limitations in moving from the general master plan and five-year plans towards more concrete specification of action plans with specific objectives and activities, and financial feasibility [26].

Measures should be taken to strengthen planning capacity, not only at the central level, but also at the provincial and other levels, by sharing information and establishing a joint planning system with feedback [26].

Organizing the implementation, monitoring and evaluation of policies, strategies and plans is a weakness, which has been mentioned many times in official Party and Government documents, as well as by the Ministry of Health.

The Viet Nam Health Report 2002 also pointed out that supervision of plan implementation is inadequate and the methods used are not synchronous. At the same time there are limitations in the analytical and evaluative capacity for timely adjustments in implementation of policies, strategies and plans. Addressing this issue should be a priority.

3.2. Health management information system (HMIS)

The Viet Nam health information system includes an overall information system which lies within the health management information system of the Ministry of Health with the focal point being the Planning and Finance Department, and includes also sub-systems in other departments, national health programmes, and disease/epidemic surveillance systems. The synthesized information system is a network covering all levels, from central to province, district and commune level.

At the central level, the Statistics and Informatics Division of the Planning and Finance Department is the focal point for collecting health statistics data for the whole country, and is the only unit that provides formal health statistics for the health sector (annual health statistical yearbook).

At the provincial level, the Provincial Health Department is responsible for collecting and analysing information on health activities and the health status of local people and reporting according to regulations of the Ministry of Health.

At the district level, the District Health Bureau is responsible for guiding district health facilities in collecting information, filling out forms and reporting statistics to the Provincial Health Department. The biggest current difficulty with the health information at the district level is the fact that there are several focal points for collecting and processing statistical data of the commune level, but insufficient staff with appropriate qualifications and skills.

At the commune level, the primary level for data collection, there are many reporting forms to be filled out by CHS staff (about 30 reporting forms), including reports to the Ministry of Health, national health programmes and projects. All national health programmes, such as the Expanded Programme on Immunization, the Malnutrition Control Programme or the Reproductive Health Programme, has its own reporting system.

According to the assessment report on the Viet Nam HMIS from October, 2006 [27], the Vietnamese health management information system has been relatively well developed at the central and local levels. However, the health information system still faces some problems: the amount of information is great, but is duplicative; the quality of information should be improved. The use of information for management and policy-making at all levels also needs to be more strongly promoted.

Apart from the formal HMIS mentioned above, there are other information sources collected by various departments, for example on curative care, preventive medicine, HIV/AIDS, and so on. Currently over 30 hospitals are applying information technology in hospital management and management of patient records. However, this practice is spontaneous and incomplete. The software packages being used are not interlinked, but are expensive, leading to a great waste of money. So far, coordination by the Ministry of Health to take advantage of these databases remains limited [28].

Challenges

Strategies and policies: At present, policy and strategy on how the HMIS will be formulated in a decentralized health system has not yet been developed. Health information has not yet been utilized effectively because there is little confidence in the data. Another problem is the lack of practicality of the information gathered and the lack of awareness of the importance of using information to improve the performance of health staff. It is recommended that the orientation for development of the HMIS be set to secure the mastery of data collection.

Resources: There is limited investment in the health information system, and support equipment is lacking. Statistical and computer staff are lacking and lack stability, qualifications are limited, especially at the grassroots level.

Data sources: There is a lack of collaboration and sharing of information within the health sector and with other sectors and between health programmes, and overlaps in information collection and processing. Information varies across line ministries, is

not always available, fails to meet needs of users, is not very representative of the study population and suffers from small sample size**.**

Data management: Due to a lack of physical infrastructure and human resources, most data at the local level are stored in books or printed reports, with little data developed into databases on the computer, thus constraining exploration and use of information.

Dissemination and use of information products: The health information system has been reconciled and provides important information on health sector performance and health outcomes. The data, however, lack some much-needed information, especially on private sector performance. Dissemination is still limited, primarily only for internal use, which is a barrier to access to required information outside the sector.

3.3. Management of service quality

The present management of service quality is assessed as undisciplined and superficial, with only dissemination of new documents or guidance on the listing of services. Cross-inspections to evaluate and assess standards of health facilities (mainly public health facilities) have been carried out, and such evaluations have contributed to improvements in the quality of performance, but they have been more administrative than technical/professional evaluations.

Private health facilities have also been inspected by health inspectorates at different levels. These activities are usually ad hoc, and do not aim to improve performance or quality of care [29], but focus on discovering violation of practices.

3.4. Management of aid programmes

The Vietnamese Government is strongly committed to the effective use of aid as indicated in the *Ha Noi Declaration and Action Plan,* with specific indicators, activities and responsibilities for relevant agencies. The objectives and activities indicated in the *Plan of Action* are a manifestation of the great commitment of the Government. As stated in Directive 11 of the Ha Noi Declaration, by 2010, 75% of aid funds will transferred to the public finance system of the Government, a sharp increase from the current proportion of 34%. Recently, Government Decree 131/2006/ND-CP issuing the regulations on managing and using ODA according to programme or sector-based support or budget support as a new modes of support for more effective management and use of aid.

The health sector has also promoted many activities leading up to application of new aid modalities. Programme or sector-based support improves the coordination of resources and increases the leadership and management role of the health sector in realizing sector strategic objectives. Programme or sector-based support also facilitate improvements in the planning process through a common policy framework, such as application of the new planning tool (the medium-term budgeting framework (MTEF)), and enhances effectiveness by reducing the management costs for small-scale projects.

In 2007, discussions on piloting of budget support at the provincial level began in three provinces, Bac Giang, Bac Ninh and Ha Nam, with initial support of the EC.Actual activities are commenced in 2008**.** A few other programs are beginning to pilot program support assistance modalities (for example, HIV/AIDS control, TB control).

3.5. Management of the private health sector

Since its inauguration in 1986, the private health sector has mushroomed and has made important contributions to health care. Recently, Party Resolution 46 of the Politburo on health care in the new situation confirmed the private health sector as a component of the health system, the development of which is supported and encouraged by the Government.

The major documents concerning the operation of the private health sector are the Ordinance on private pharmaceutical and health care practice, issued in 2003, and Government Decree 103/2003 "Regulating specific points in some articles of the Ordinance on private pharmaceutical and health care practice". According to Government Decree 49/CP, the Ministry of Health is responsible for "regulating conditions and standards for private health practice; unifying the granting and withdrawal of practice certificates for individual medical practitioners to head a health facility, certificates of eligibility (Certification of meeting necessary conditions to practice) for private and semi-private, people-founded or foreign-invested health facilities as regulated by the Law".

Granting of practice licenses: The Provincial Health Department is responsible for granting certificates for private practice of health clinics and pharmacies. The Provincial Health Department establishes an Appraisal Committee to verify and grant the certificate of eligibility (Certification that the facility meets conditions to be eligible to practice medicine) to applicants, which they use in applying for a practice license. Only health clinics, not their health workers, need practice licenses. Shortcomings in the system for management and granting of private practice licenses have been pointed out in the process of administrative reform, such as failure to disseminate the procedures for management and granting of licenses, unclear guidance, and the complicated procedures for granting of licenses, involving many other sectors (for example, the actual license for opening of a health clinic is granted by the commerce sector, not the health sector).

Requirements for training and upgrading of professional skills: Pharmaceutical and health practitioners, once they graduate are granted professional certificates, and can practice forever without taking compulsory re-examinations or pursuing re-training courses to update their knowledge and skills. Thus, it is difficult to manage and improve the qualifications of health workers.

Overall, there is not yet an appropriate management system for the private health sector and private health practice in general. The Provincial Health Department, with very limited resources, finds it very hard to accomplish its designated responsibilities of managing, supervising and granting eligibility and practice certificates to private health practitioners and facilities, which are dispersed and unorganized. In this regard, the role of medical associations in management is still minimal.

International experience shows that, if the private health sector is to contribute more to accomplishing the objectives of the national health system, there needs to be a strong information, management and regulation capacity, which is still missing in many countries, including Viet Nam. If the role of state management and regulation is weak, then the development of the private health sector will certainly produce new and serious societal problems regardless of the achievements brought about by different models [30].

To maximize the part played by the private health sector, the Government should strengthen its role in basic regulation and formulation of common standards for the public and non-public sectors (protection of consumers, granting of certificates, rules for prescription, etc.); bring the roles of nongovernmental organizations and vocational and societal organizations fully into play, especially in establishing and enforcing professional standards; improve the capacity of government staff in health management; and increase the generation, processing and analysis of information from the private sector, creating favourable conditions for private health to become involved in the mainstream health information system.

International experience in health information systems shows medical associations, private health unions and representatives of health insurance agencies working under the management of the Ministry of Health plays an ever more significant role in controlling medical technology, adjusting user fees, coordinating benefits, improving professional skills and morale, and assuring financing transparency. Viet Nam has many medical associations, such as the Viet Nam Medical Association, Viet Nam Pharmaceutical Association, the Viet Nam Traditional Medicine Association, which hold great potential for supporting the Government in the management of many areas. The Viet Nam Medical Association alone has 41 central specialized associations. The remaining medical associations are established at the local level and gather their membership from public and non-public health facilities.

Thus, in the near future it will be necessary to study effective measures to bring fully into play the great potential of professional and societal organizations in health, particularly in the private sector.

4. Renovation of state management and administrative reform

4.1. General orientations

According to Party and Government documents, the key to innovative state management is a shift from a centrally subsidized bureaucratic mechanism to a new management mechanism in which the State concentrates on accomplishing its development functions by following policies, strategies, programmes, plans and mechanisms; performing state management through the legal system; reducing, to the maximum degree possible, administrative interventions in the performance of the market and enterprises; separating state administrative functions from the business management functions of enterprises; separating the system of public administrative bodies from social service institutions; developing strong public services [25]; continuing the administrative reform process; developing cadres of staff and government servants with integrity and capacity; and establishing strict discipline against bureaucracy and corruption.

For the health sector, the innovation of state management is urgently needed to ensure a health system that works towards equity, efficiency and development. Prior to *Doi Moi*, all health facilities were under state ownership and were subsidized; the Government provided health services and managed, and regulated the provision of those services. The Government now has to perform more complicated tasks to manage and regulate a health sector in which there is a trend towards diversification of organization and ownership, in the context of shifting from a centrally planned economy to a socialist-oriented market economy, pushing up the growth rate and moving towards international economic integration.

The State does not intervene in the daily work of organizations and health facilities, but sets the direction and makes adjustments in performance by setting policies, strategies, programmes, plans and mechanisms for both the public and non-public sector and monitoring of the performance and quality of services. To that end, state management bodies have to access and analyze information from various sources related to health, people's welfare, etc; ensure the appropriateness of policy objectives and organizational structures; establish bilateral and multilateral relationships within the sector and with other sectors, collaborating with line ministries, professional associations, enterprises, medical and pharmaceutical schools, nongovernmental organizations, donors and other relevant partners; and ensure responsibility and accountability to the people [31].

4.2. Decentralization of management

Decentralization of management—one aspect of state management renovation—is taking place in personnel management, financial management and planning.

In the trend towards increased management decentralization, local authorities have been empowered with financial autonomy. The Law on Budget in 2002 helps provinces to control their own budget allocation to the district and commune levels. Increased government spending for lower levels is deemed an outcome of the decentralization of management [32].

There are two sources of funding for provinces: (1) the central budget (the recurrent budget and the budget granted by the Ministry of Finance for national health target programmes and collected by the Ministry of Health programmes), (2) the local budget. Better-off provinces have more favourable conditions in terms of resources collected from service fees to invest in prioritized areas.

The new organizational structure at the district level clearly reflects the decentralization of management. According to Decree 172, the Commune Health Station (CHS) is under the management of the Commune People's Committee. While the District Health Bureau, as a supervisor of CHS activities, is administered by the District People's Committee. This new structure has also caused no small difficulties in management and collaboration mechanisms for health activities.

National target programmes and projects, as well as all preventive and curative activities, are implemented at the district and grassroots levels but priorities and plans are often determined by the Ministry of Health [32].

Devolving autonomy and accountability to social service institutions in terms of organization, rearrangement of administrative apparatus, and use of labour and financial resources was implemented by Government Decree 43/2006/NĐ-CP, dated 25/04/2006, and is an important management decentralization measure. However, difficulties and limitations of the decentralization process include the following:

- There are insufficient necessary factors to secure the effectiveness of management decentralization in many localities, especially as regards organizational structure, management capacity and personnel. The differences between areas in terms of socioeconomic status have caused huge difficulties, especially in poorer provinces.
- Autonomy has led to difficulties in most health facilities due to shortfalls in management capacity, transparency, openness and accountability in management, the management information system and accounting of revenues and spending. Most

notably there is a lack of effective measures to stop revenue-enhancing abuses in the over prescription of drugs or services requiring high tech equipment, and to ensure equity by replacing the direct payment method (user-fee) with a pre-paid mechanism (health insurance).

4.3. Administrative reform in the health sector

In 2001, the Prime Minister issued Decision 136/2001/QD-TTg, approving the comprehensive plan for administrative reform during 2001-2010. The reform focuses on four areas: institutional reform; administrative apparatus; improvement of the quality of government staff; and public financial reform. To implement the Government's reform programme, the Ministry of Health has established a Steering Committee, headed by the Health Minister, and has implemented many activities in departments and units of the Ministry.

Results obtained:

Institutional reform: The process for the preparation and refinement of legal documents for health has been strengthened. Most statutory documents ensure efficacy, establish procedures and the jurisdiction for issuance, and follow Party guidelines. The comprehensive master plan for Viet Nam health system development up to 2010 and the vision to 2020 was approved by the Prime Minister in March 2007. In addition, the health sector is composing draft laws on health, to be submitted to the National Assembly in the coming year. Some administrative procedures have been streamlined. Resolution of complaints and accusations related to health are prioritized in the state management of health.

Reform of administrative apparatus: The functions, tasks and structure of the Ministry of Health have been reviewed, and gaps, overlaps and unclear assignment of tasks between the Ministry of Health and other relevant ministries and between various departments within the Ministry have been detected.

Improvement in the quality of government staff: The Ministry of Health has conducted a needs assessment and a review of the current situation as regards training for Ministry of Health staff in order to develop annual and five-year plans for improving the quality of staff and guiding and organizing implementation of policy regimes for staff in health institutions, such as pay raises, promotions and allowances. The capacity of many health staff has been strengthened in terms of foreign languages, information technology and state management.

Financial reform: The Ministry of Health has amended the policy for user-fee collection, the government cost norms for health care activities, and guidance on the list of user fees for hospitals under the Ministry's control. Different methods of payment for health services have been piloted to find the most appropriate. Socialization in the health sector is being widely implemented according to Government Resolution 05/NQ-CP.

Shortcomings:

Institutional reform: The health-related legal system is incomplete and suffers from many overlaps. There are many legal documents to amend single problems, which poses great difficulties for implementation.

Reform of administrative apparatus: The organizational structure of the health sector still consists of many agencies under the control of the Ministry of Health, and many organizations having overlapping functions and tasks. The health care network is organized according to administrative geography, concentrating on big cities, and is not yet organized according to clusters of population.

Public financial reform: The proportion of recurrent spending for health out of total government spending has been declining over some time. The regulation for partial collection of user fees in 1995 is no longer appropriate, and the expansion of health insurance to beneficiary groups is facing huge difficulties.

The quality of government staff is still limited, yet the administration does not exploit the full potential of human resources it has available

According to the assessment of the Party, administrative reform has obtained important preliminary results, but is still limited and inadequate. The functions and tasks of some administrative bodies are not clear enough; the organizational apparatus is cumbersome and inappropriate; the quality of government staff is failing to meet needs; and bureaucracy, corruption and waste are still very serious problems [33].

5. Recommendations

5.1. Continue supplementing and refining the legal framework and basic health policies

- Conduct studies on health policies and the long-term vision to engender a unified 'innovative thinking' in health with a view towards equity, efficiency and development.
- Promote the development of the draft Law on Examination and Treatment and the draft Law on Health Insurance, as well as other legal documents in order to gradually create a unified and consistent legal corridor for health system development.
- Continue to specify and implement measures for autonomization of public health facilities.

5.2. Renovate and increase state management effectiveness, determine the role and function of the Ministry in a decentralized health system and improve capacity for policy analysis

- Determine state management functions and strengthen the responsibilities of Ministry of Health institutions in line with the requirement for administrative reform, management decentralization and international integration.
- Strengthen the capacity for developing and implementing health policies and strategies, and capacity for monitoring and evaluation of policy implementation by agencies under the Ministry of Health and other levels of the health system
- Strengthen the monitoring and supervision of health policy implementation at all levels, together with providing information for adjustment of policy, if necessary.
- Strengthen the effectiveness of intersectoral collaboration in developing and implementing public health policies, such as food safety, environmental pollution and accident and injury prevention...

- Continue specifying programme activities to carry out the action plan for implementation of national strategies and master plans in the health sector with feasible objectives and resources for their implementation.

5.3. Develop the HMIS in order to improve quality and effectiveness in use of information for policymaking and health sector management

- Formulate a long-term strategy for developing the HMIS.
- Invest in the development of the physical infrastructure for the information system and strengthen the capacity of statistical staff at all levels, especially at the commune and district levels.
- Collaborate, assign and share information with other agencies and programmes, both within and outside the sector.
- Expand the collection, dissemination and use of information products in development of health policies, strategies and plans, as well as in management of the health sector. Increase public access to health information.
- Expand the application of information technology in health and hospital management.

5.4. Refine the mechanism for managing the private health sector and health care in general

- Supplement regulations on the granting and re-granting of practice and eligibility certificates, supervision of quality, resolution of complaints and staff training with unified standards for both the public and private sectors.
- Encourage the establishment of health professional regulatory councils and health professional associations. Bring into full play the role of health professional and societal organizations in the management of health services.

5.5. Consolidate the organizational structure at the district level

- Conduct surveys and assessments to recommend measures to consolidate the health organizational structure.
- Strengthen collaboration between district health bureaus, district centres for preventive medicine and district hospitals in the management and direction of preventive and curative activities at the commune level.

5.6 Improve effectiveness of international cooperation and aid

- Develop greater cooperation between the Ministry of Health and health partners
- Improve the process for reviewing the health sector with health partners
- Undertake dialogues between the Ministry of Health and the HPG on various cooperation topics

6. Summary of prioritized issues and solutions

ORGANIZATION AND MANAGEMENT

Key issues	Priorities	Solutions/actions		Achievements see also monitoring indicators
		Short-term (2008)	Long-term (2010-)	
Continue supplementing and refining basic health policies	1. Come to a consensus on 'renovation thinking' in the health sector 2. Create a uniform and consistent legal foundation for the development of the health system	• Develop and submit to the Government for approval the Law on Examination and Treatment, the Law on Health Insurance and other legal documents	• Undertake studies on the long-term vision and policies in the health sector	Draft Law on Examination and Treatment, Draft Law on Health Insurance and other legal documents are submitted to the Government and National Assembly for consideration and for feedback from the population
Renovate and increase state management effectiveness of the Ministry of Health, determine role and function of the Ministry in a decentralized system and improve policy analysis capacity	3. Clarify the state management functions and tasks of the Ministry of Health 4. Strengthen the capacity within the Ministry of Health and other levels of the health system for developing policies and strategies, and for monitoring and evaluating policy implementation 5. Increase effectiveness of intersectoral coordination in developing and implementing health policies.	• Undertake an institutional assessment study to analyze the state management functions and tasks of the Ministry of Health appropriate with the demands of renovation in state management and public administrative reforms, decentralization and international integration in the area of health	• Based on study results, propose adjustments in roles and functions of the Ministry of Health • Institutionalize the roles and functions of the Ministry of Health • Implement a strategy to change the role and function of the Ministry of Health • Monitor progress and adjust policies as needed.	• Evaluation study • Draft plans and measures • Draft documents for institutionalizing proposed adjustments

Health management information system	6. Develop the health management information system	• Formulate a long-term strategy for developing a health management information system. • Expand the use of information technology in health and hospital management	• Invest in development of information system infrastructure, strengthen the capacity of statistical and computing staff at all levels, especially at the commune and district levels. • Implement coordination, division of labour and information sharing between agencies and programmes within and outside the health sector. • Expand collection, dissemination and use of information products in the development of policies, strategies, plans of the health sector and in the management of the health sector. Strengthen accessibility of health information to the population.	• Develop and implement a development plan for the health information system for the period 2008-2010. • Use of information technology in management of hospitals and patients is improved and linked with each other, under the general oversight of the Ministry of Health.
Regulate private and public medical and pharmaceutical practice	7. Continue to develop the regulatory organization and mechanisms covering health service provision.	• Amend regulations on issuing and re-issuing medical practice licenses, monitoring quality, dealing with complaints, training staff, with unified standards for the public and private sectors.	• Encourage the establishment of medical associations and a health professional regulatory council. • Exploit the role of medical-related social organizations to participate in management of health care service provision.	• Establish a mechanism and conditions for issuing licenses for medical practice linked closely to monitoring of quality. • Quality assurance system established for monitoring quality of care for the public and private sectors. • Establish health professional regulatory councils • Attract private medical facilities to participate in medical-related social organizations in all localities

Consolidate the health organizational structure at the district and commune levels	8. Create a coordination mechanism between the District health bureau, centre for preventive medicine and Hospital in management and direction of the preventive health and curative care networks in the commune level	• Study and evaluate in order to propose solutions to adjust the health organizational structure at the district and commune levels. • Based on results of studies, request comments from related parties within and outside the health sector, in order to adjust the structure of health organizations at the district level, taking into consideration the diversity of the districts and provinces (revise Decree 172) • Based on results, develop a strategy to strengthen the coordination mechanism between the District health bureau, centre for preventive medicine and hospital in management and direction of the preventive medicine and curative care network at the commune level	• Implement adjustment of health organizational structure for district level • Implement strategy with built-in monitoring and evaluation system for adjustments based on results.	• Study reports • Strategy for implementation with a monitoring and evaluation component • Decree 172 is revised
Improve aid coordination and effectiveness	9. Further develop the cooperation between the Ministry of Health and health development partners	• Implement an overall coordination process in the health sector with health partners • Implement dialogue between the Ministry of Health and Health Partnership Group on coordination topics proposed in this report.	• Identify changes, approaches that can be used in 2008 or issues that need resolution in the following years.	• JAHR 2007 and 2008 are both implemented and have an impact on increasing performance of donors (e.g. in coordination, consistency, method of providing assistance,…)

Chapter III: Human resource development

Human resource development in health is one of the priorities in health policy that should be invested in and accounted for by the Government [10]. According to the World Health Organization "… *the goal for workforce development is to get the right workers with the right skills in the right place doing the right things, and in doing so to retain the ability to respond to crises to meet current gaps and anticipate the future*" [34]

In response to the requirement for orienting the Vietnamese health system towards the goals of equity, efficiency and development, health resources must (1) have an appropriate structure and appropriate workforce and funding allocations, with priority given to health workers in poor regions, where the burden of disease is heavier and there is lower access to health care services; (2) be trained and used appropriately to realize both sector prioritized and major policy objectives; and (3) be able to adapt to health-related scientific development and technology, responding to dynamic changes in people's health care needs.

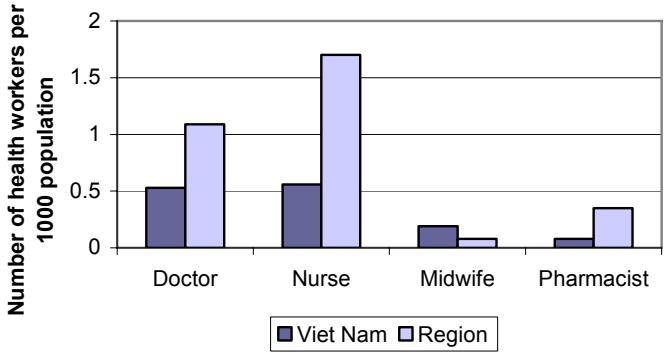
This chapter will present general observations on the current situation, as well as concerns and recommendations for health human resource development during 2008-2010, with a focus on a few major issues, such as numbers, qualifications, allocation, training and recruitment.

1. Current health workforce situation

The Vietnamese health workforce has mushroomed in terms of numbers and qualifications over the past few years. Presently, over 200 000 health workers of all categories, including doctors, doctor assistants, nurses, nurse assistants, technicians and university graduates in other specialties are working in health facilities throughout the country. The number of staff with high-level qualifications has also increased, with 982 master degree holders, 337 doctors of medicine or pharmacy and 188 professors and associate professors. These health staff are concurrently providing health care services and implementing successful preventive health programmes, making contributions to the achievements of the health sector [10]. There are, however, some issues of concern regarding the health workforce.

The staffing structure in some specialties is failing to meet actual need. The ratio of midwives to population is higher than in other countries in the region, while that of doctors, pharmacists and nurses is much lower (Figure 4) [10]. The doctor-to-nurse ratio is 1: 1.5, too low compared with the benchmark for comprehensive health care (1: 3.5) [10]. The current number of newly graduated doctors and nurses is sufficient to obtain the objective of 1: 3.5, however, it would be very difficult to adjust this ratio as it would require adjustment of the government payroll at the local level [35].

Figure 4: Proportion of health workers per 1000 people compared with other countries in the region



Source: *World Health Report 2006- Working Together for Health* WHO, Geneva 2006[34]

Around 13% of health workers are working in the area of preventive medicine, which is too low considering the priority given to development of preventive medicine [10]. The splitting of district health centres into district health bureaus, district centres for preventive medicine and district hospitals required the division of staff to work in these facilities. As a result, the number of staff/health workers working at the district centres for preventive medicine can only meet 68.6% of actual need for staff. In addition, the capacity of the staff/health workers working in preventive medicine is very poor. Only 20% have reached university level in their education and many have never updated their knowledge and technical skills in preventive medicine/public health[36].

At present, only 4% of health staff carry out management tasks [10]. Particular attention should be given to hospital management in the near future, in the context of financial autonomy. There are, however, only a limited number of health managers with economics or management backgrounds in health facilities. There are also limitations in terms of quantity and quality in staff or experts in health scientific research, and policy and strategy analysis at the macro level.

Slow evolution of health qualifications: During the period from 1996 to 2004, there was a slight increase in the number of university degree holders, especially degrees in new fields of study: university-level medical technicians, university-level nurses with only 0.1-0.3/1000 people. Many newly trained doctors and nurses lack skills to be able to provide basic health care services [10].

Table 3: Structure of health workers over time (%)

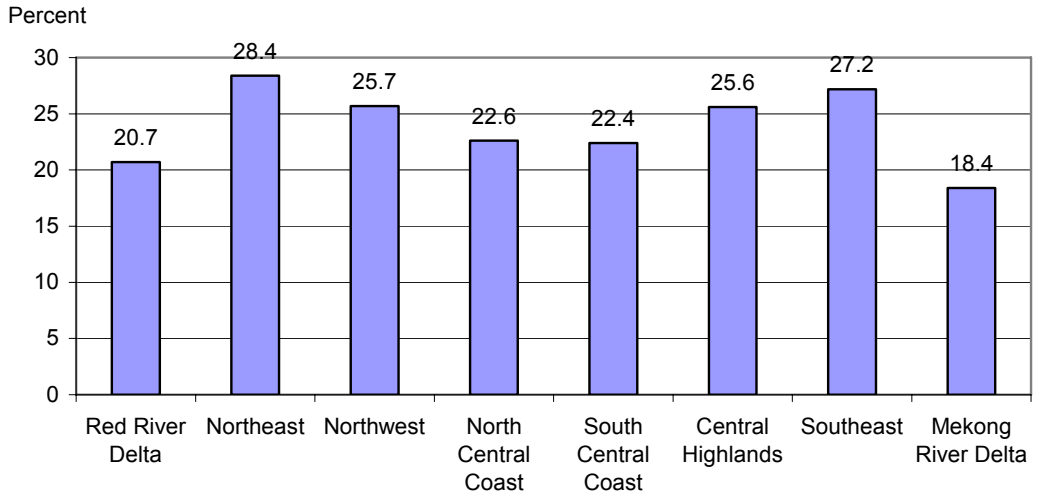
	1996	2000	2004
Doctors and higher level	25.3	26.4	26.8
Pharmacists and higher level	1.9	1.8	1.4
University nurses	0	0.3	0.2
University medical technicians	0	0	0.3
Doctor assistants	42.9	39.3	32.8
University level nurses	15.2	16.9	20.2
Secondary midwives	7.3	8.5	10.1
Secondary/college technicians	4.7	3.5	4.7
Secondary pharmacists	2.7	3.3	3.6

Source: Viet Nam Health report 2006 [10]

There has been no investment in recruitment and training of health staff in some intensive and special fields. In many technical areas, there is no spearhead or qualified health professional available and willing to take up new and updated technology. Training for technology transfer, and adoption of high and new technology seems incomplete and spontaneous. Master or doctoral theses have no clear orientation towards policy-making and sector development or specialized areas [10].

The current staff distribution is uneven across regions and areas (Figure 5). In mountainous areas, the ratio of health workers to population is lower than in lowland areas. The Mekong region has the lowest ratio, especially for health workers with high qualifications. Ideally, these regions, with difficult transportation and thinly dispersed populations should have a higher ratio of health workers per population than other regions with more favourable conditions.

Figure 5: Number of health workers per 10 000 people across regions, 2005



Source: Health Statistics Yearbook 2005 [37]

Most health workers are concentrated in big cities and urban areas, with very few doctors wanting to work in the isolated areas of the Northwest, Central Highlands and Mekong Delta [37]. The main reason is related to inappropriate policies for

compensation of health workers in these regions; their incomes are lower than those in urban areas.

There is a trend for health workers to migrate from the public to the private sector and from poor provinces to cities. The private health sector is mushrooming in Viet Nam, attracting more and more staff, but it only practices in higher-income regions, such as the Northeast and Southeast regions [5]. The number of pharmacy graduates is growing, but most of them are working in the private sector or in foreign-invested medical and pharmaceutical companies where incomes are much higher than in the public health sector.

Many staff, after having finished their post-graduate courses (Master or Doctoral Degrees), move to work in big cities, such as Ha Noi and HCMC [10]. As a consequence, many provinces are facing enormous difficulties in improving the quality of staff. This movement of staff makes the already difficult imbalance of qualified health workers across regions and areas even worse. Many health services are not provided due to a lack of qualified staff. This migration is blamed on inappropriate salaries and conditions in the public sector in remote and disadvantaged areas. The Government has started implementing some policies to avert staff movement, such as requiring graduates to fully refund training expenses if the migrants do not want to work in their original facilities. However, these policies are showing little success.

2. Training of the health workforce

2.1. Pre-service training

The number of students trained in medical training institutions has been growing dramatically in the past 10 years. On average, there are about 6200 graduates from medical schools, 18 000 graduates from secondary medical and pharmaceutical schools, and about 3000 post-graduates. This is a substantial source of health workers for the national health care system, and the numbers are greater than the actual staff recruited to work in public health facilities. Thus, the annual trained health workforce is obviously sufficient to provide heath care in the government system [35].

There are five secondary medical and vocational training schools under the control of the Ministry of Health, and medical schools under the management of central provinces/cities [10]. Presently, there is a health workforce training institution in every province— secondary medical school or medical college where students are trained in two years, as regulated by the Law on Education. The health sector plans to limit the number of doctor-assistant graduates and only allows for their training in 12 mountainous provinces. Many secondary medical schools, over recent years have been striving to improve the quality of their training and have been investing in upgrading of their physical infrastructure to bring them up to par with medical colleges, such as Quang Nam, Khanh Hoa, Ha Noi and Kien Giang medical colleges[12].

There is a total of 16 medical university training institutions, of which one belongs to the Ministry of National Defence, three are under the management of the Ministry of Education and Training, three are under the management of the Provincial People's Committee, and the remaining nine are under the control of the Ministry of Health [10].

In terms of distribution, medical and pharmaceutical universities and colleges are mainly located in the Red River Delta around Ha Noi. At present, some regions, such as the South Central Coast and Northwest, have no medical university or college [10].

Apart from medical schools, some research institutes also provide training for health workers, mainly post-graduates or specific doctoral programmes, such as the Central Institute of Hygiene and Epidemiology, the Institute of Nutrition, the Institute of Pharmaceutical Materials, and the HCMC Pasteur Institute. Some central institutes and hospitals also train medical technicians and secondary nurses [10].

Presently, most medical training institutions are under the management of the Government. Some non-public training institutions, such as Thang Long University or Da Lat Yersin University, have recently begun offering bachelor of nursing courses [35].

Training programmes. At present, the Ministry of Health issues 48 curriculum frameworks for different levels (elementary, secondary, college and university). However, the current training curricula have not been updated to fit in with the current context [2]. According to the regulations, the curricula will be updated after five years, but concrete guidance for specific curricula is still missing. As a result, many training curricula have not been updated for many years. For example, although the current national standards and guidelines for reproductive health were implemented in 2003, they have not been updated in the training curriculum for general practice doctors. The curricula for post-graduate training programmes have also not been updated.

Considerable strides have been made in medical training in Viet Nam over the past 10 years, with technical and financial support from many international organizations. Active and participatory community-based teaching methods have been applied in almost all medical universities. The 'blue book', with minimum regulations for doctors' core capacities as regards knowledge, attitude and practice, has been widely used to design teaching programmes for general practice doctors. Active efforts have helped to adjust teaching programmes in reproductive health; and laboratories for reproductive health have been established in Hue Medical University and some other medical schools. At present, field-based teaching of reproductive health has been expanded to the district and commune levels. New teaching methods have been applied in some training institutions, such as Ha Noi School of Public Health, Ho Chi Minh Medical University, Hai Phong Medical University. Can Tho Medical and Pharmaceutical University applies the teaching block method in its training programme for general practice doctors with the support of the Dutch Government. This application, however, is scattered and incomplete.

At present, many medical universities have developed pre-clinical skills laboratories for students to practice their health examination and treatment skills on models before they are sent off to practice on patients in hospital. Implementation of pre-clinical skills laboratories is also done in secondary medical schools [35].

Follow-up of graduates after graduation to see where they work and whether or not they are able to meet actual needs has been applied in some training institutions, such as the Ha Noi School of Public Health and the Public Health Department of HCMC Pharmaceutical and Medical University [38]. However, this practice is not being implemented systematically in all medical universities.

The Ministry of Education and Training has set forth regulations and a roadmap for verifying the quality of training to ensure consistency in all universities throughout

the country. However, no health science university is implementing the regulations for verification of training quality [39].

Management of training. The number of annual admissions to universities vary across universities and is determined by indicators issued by the Ministry of Education and Training and the Ministry of Health [35]. From 2007, the number of students will be determined by the training institutions themselves, but the admission numbers will also rely on the previous year, which fails to reflect actual training needs. This requires training management, quality assurance and student management to adapt to the new situation, especially regulations on obligations for new graduates [12]. On the other hand, forecasting of medical staff need should also be promoted to serve the long-term training plans of the health sector in the future.

Low budget for training: The current network of medical and pharmaceutical schools is mainly made up of public institutions, with major funding from the public purse. The annual allocated training budget is only VND 3.5 million per secondary student, VND 6.5 million per university student and VND 6.0 million per post-graduate. Tuition fees do not exceed VND 180 000/month. That training budget applies to all students and is too low for specialties like medicine and pharmacy. Due to a lack of funding, medical schools have limited resources to upgrade their laboratories and teaching and practice facilities, which causes enormous difficulties for the students. This is also one of the reasons that the technical skills of new graduates are lower than previous generations [10]. Besides, the incomes for teachers in these training institutions are low, and therefore they are not concentrating completely on their teaching and strengthening their skills, but also on doing other jobs in their spare time to increase their incomes, which leads to a decline in the quality of training [40].

Some specialties, such as public health, paediatrics, and grassroots medicine, fail to attract student enrolment in medical universities. One of the main reasons is that there is no appropriate policy on salaries, allowances and working conditions for those who work in these specialties after graduation [35].

2.2. Re-training and continuous training

Apart from pre-service training, the health sector is focusing on re-training and continuous training for health staff in order to provide them with the most up-to-date knowledge. All health facilities have an annual plan for re-training and upgrading the skills of their staff. However, staff training is facing huge difficulties. The state training budget is quite limited and at a cost of VND13.5 million per two-week course, only 50 courses, with a total of 2000 trainees can be accommodated [10]. These courses concentrate mainly on information technology, scientific research methodology and nursing management with a few other specialized courses. Besides the government-funded re-training programmes, many other re-training programmes are supported by health programmes or projects. These programmes, however, are implemented without Ministry of Health coordination [10].

Differences in the effectiveness of re-training programmes can also be seen across regions. Health facilities in poor, remote and disadvantaged areas are unable to send staff to attend programme/project-funded courses, because there are no other staff to take over their work. For example, only one-third of staff in seven mountainous provinces can attend the training courses on strengthening capacity for district-level staff held in Thai Nguyen Central General Hospital [10].

At present, there is no regulation requiring staff to be re-trained or continuously trained. Many health workers therefore fail to upgrade their knowledge and skills after years of work. As a consequence, many staff are unable to meet actual needs due to a lack of knowledge and skills [10].

3. Recruitment and employment conditions for health workers

3.1. Recruitment

At present, the procedures for assessing the number of government-paid staff and for their recruitment are widely applied throughout the country, regardless of regions or areas [41]. During the period from 2001 to 2005, about two-thirds of graduating doctors and one-third of nurses/midwives were recruited every year [35]. In addition, there are gaps in implementation of the recruitment policy in many localities. Although many provinces pursue an incentive recruitment policy to attract graduates to work in their locations (provide scholarships for outstanding students or exemption for entrance examination to university), many graduates fail to find a job in those localities.

One of the main reasons for the existing gaps in recruitment of health workers is the failure to determine the specific numbers and categories of health staff needed for each region, area and health facility. More attention should be given to forecasting actual workforce need in each sector and region in order to develop a clearer plan for health manpower development in the future.

3.2. Conditions of employment

Policy on salaries is important in promoting productivity and effectiveness in work performance. Salary and other compensation policies, however, are still problematic and are failing to secure a sufficient standard of living for health staff. Presently, the Government has a system of allowances to supplement salaries of health staff (Circulars 17/LĐTBXH-TT, 19/LĐTBXH-TT and 23/LĐTBXH-TT; Decisions 155/TTg and 276/2005/TTg) such as: allowances for harmful, toxic and dangerous work; mobile work; taking on extra responsibility; prevention and control of epidemics; implementing surgery or medical procedures; night shift and overtime; and for the special nature of the medical profession [42].

This system is implemented on a large scale, but fails to reach all the targets (for example health staff working in preventive medicine). These policies are not really appropriate, and need to be amended and supplemented to cope with actual conditions [10].

There is currently no effective mechanism to monitor the performance of health workers as a foundation to introducing appropriate incentives and conditions. Presently, the Ministry of Home Affairs sets forth the functions and tasks for various health occupations, such as doctors, pharmacists, nurses, and other public health workers, while job descriptions for different positions are still not completed. This practice affects the assignment and arrangement of work at all health facilities, and causes difficulties in staff assessment, while failing to reward good work. Supervision of work mainly relies on quantity rather than quality. Experience shows that clear job-description-based supervision and timely feedback is an effective measure to encourage and improve staff capacity. This is also a form of supervision that promotes on-the-spot training [43].

Ensuring promotion on a career path is important in creating incentives for staff to improve the quality of their work and increase their capacities. Career choices for

health staff are relatively clear. The vocational level is the lowest, but health staff can study further at the next level, such as secondary, college, university and post-graduate. After graduating from health science universities, health staff can pursue their studies to obtain post-graduate degrees in their areas of interest. Post-graduate training programmes follow two different systems. While academic training includes training courses like those in other sectors, such as masters degrees and doctorates, there is also post-graduate training for hospital practice, including specialized levels I and II. Intern-training is a special post-graduate training programme that dates back to the French colonial period. Intern doctors must be excellent in both theory and practice.

Presently, there is a four-year full-time training programme for doctors. While doctor assistants who have worked for a certain number of years also have the opportunity to become doctors through in-service training, the quality of the staff from the in-service training programme is lower than those graduating from the full-time training programme [35]. Therefore, the Ministry of Health intends to only train doctors through in-service programmes in mountainous and remote areas.

4. General assessment

The health workforce has been renewed and has been growing in terms of both quantity and quality. Besides traditional health occupations, such as doctors and pharmacists, there are new health occupations with more in-depth professional training, such as university-level nurses, bachelors of public health and medical technicians. Staff distribution, however, is uneven across regions and areas. There is a severe shortage of staff in remote, isolated and disadvantaged areas, and in some specialties, such as preventive medicine, paediatrics and grassroots health. There is also a shortage of specialized staff, such as university-level pharmacists and university-level technicians. Insufficient attention has been given to the training of staff specializing in new medical techniques. Due to the lack of appropriate employment conditions, the resultant 'brain-drain' from the public to the private sector is having a negative impact on the health workforce and is causing a considerable fall in the number of university-level pharmacists in the public sector.

The number of newly trained staff has been growing over the past 10 years. The system of medical training at different levels, from secondary to university and post-graduate, has been expanded throughout the country. Training methods and materials have been renewed in some medical schools, but not in a systematic manner, and are often failing to meet actual needs. Implementation of re-training programmes has not been coordinated by the Ministry of Health. The training budget is low and the low income given to trainers, plus a lack of documents and regulations on training quality, are the basic reasons for the abovementioned gaps.

The procedure for staff recruitment is unified throughout the country without taking into account the special characteristics of individual regions or fields of study. Job descriptions for health workers are not clear and thus the assignment and monitoring of work is very difficult. At present, there are gaps in the policy on allowances for health workers, which are failing to cover all targets and are too low.

The aforementioned issues highlight the major health workforce problems being faced: insufficient numbers, weak capacity, ineffective performance and a failure to meet people's current health care needs. In order "*to get the right workers with the right skills in the right place doing the right things, and in doing so to retain the agility to respond to crises to meet current gaps and anticipate the future*", some basic plans that guide the

way forward in human resource development should be implemented in the near future in order to improve the quality of the health workforce and ensure appropriate distribution of staff across regions and areas.

5. Recommendations

5.1. Refine plans for health workforce development

- Assess the current situation to enable the development of job descriptions for different staff categories and posts. Determine health staff needs by region and location, forecast and identify training needs for different staff categories, and determine the 'wear and tear' on health staff.
- Develop a master plan for a network of health workforce training institutions. Encourage non-public schools to train health workers.
- Develop a plan for intensive training to respond to actual need (identify need, determine training institutions and implement training programme).

5.2. Strengthen the health workforce at the grassroots level, especially in remote and isolated areas

- Develop a proposal on policies to attract health staff to work in remote, isolated areas, and on allowance schemes for health staff. These proposals should be accompanied by an appropriate salary and allowance policy plus perquisites like housing, travel and further study.

5.3. Develop regulations on working conditions

- Develop and implement regulations for the obligations and rights of health staff (Article 87 of Law on Education 2005 on Obligation to work on a term basis as required by the Government). Thought should be given to obliging staff to work in the facility for two to three years before they are allowed to embark on further study or open private clinics.

5.4. Increase the budget for staff training

- Increase the budget for training institutions to upgrade their physical infrastructure, conditions and equipment, and to improve the quality of their teachers and training.
- Diversify the types of training offered and increase tuition fees to supplement training institutions' budgets.

5.5. Gradually increase the quality of training

- Develop a legal, documented system of training quality assurance (verification of training quality, improvement of training programme, teaching materials, strengthening staff's capacity for teaching and research).
- Strengthen capacity for re-training by establishing regulations for re-training/continuous training for health staff; strengthening re-training/continuous training in professional areas; technology transfer; establishing a management mechanism for re-training to avoid overlaps or deficits; paying attention to re-training programmes for some undersubscribed basic majors, such as hospital management; identifying exclusive re-training institutions; strengthening the capacity of health

facilities; and coordinating re-training programmes for the health sector. Health facilities should plan for re-training, giving more attention to on-the-job training to address the intermediate shortages of staff.

- Ensure that training institutions commit to implementation of the roadmap for verifying training quality and certificate-based training issued by the Ministry of Education and Training.
- Ensure that donors keep supporting the improvement of health workforce training quality for the secondary, college and university levels (upgrade physical infrastructure, strengthen the capacity of teachers, update teaching methods and contents to produce a health workforce that is able to meet current need). Support universities to implement the quality verification programme issued by the Ministry of Education and Training. Support the health sector to train health staff in the application of high-level medical technology.
- Develop the draft Law on Examination and Treatment, referring to the role of issuing certificates on eligibility to practice medicine to secure a universal standard for health care service provision.
- Strengthen management skills for state management and management of health facilities at all levels through developing a training programme and open a short-term training course on management for public health workers and hospital managers.

6. Summary of prioritized issues and solutions

HUMAN RESOURCE DEVELOPMENT

Key issues	Priorities	Solutions/actions		Achievements see also monitoring indicators
		Short-term (2008)	Long-term (2010-)	
Plans for health workforce development	1. Complete the comprehensive plans for health human resource development	• Review current situation of human resources. • Determine demand for health staff in each locality and region	• Develop appropriate strategy for human resources development • Create master plan for the network of training institutions for health staff, implement the strategy, assess and adjust the strategy	• Report on the situation of human resources • Strategic plan is approved
Health workforce at the grassroots level, especially in remote and isolated areas	2. Refine the policy to attract health workers to work in remote areas including appropriate compensation packages.	• Assess the situation and propose reforms in the compensation package, including salary, allowances and other perquisites such as housing, transportation allowance and continuous training for health workers working in remote areas.	• Implement the policies, assess and adjust as appropriate.	• Policy paper, approved • Ratio of health workers to population in disadvantaged areas • Duration of service of health workers in remote areas by gender, type and region .
Conditions of employment	3. Develop regulations on obligations and rights of health staff (Article 87 of Law on Education 2005 on Obligation to work on term basis as required by the Government).	• Design policy, including health worker obligations to work in the facility for 2-3 years before further study or engagement in the private sector.	• Implement policy, evaluate progress and adjust policy accordingly.	• Policy paper, approved.
Financing for training	4. Increase budget (from public funds and tuition fees) for training institutions to upgrade physical infrastructure, improve capacities and quality of instructors, update content of program and develop active training methods	• Increase training budget • Diversify forms of training to strengthen revenues of training institutions • Propose to donors to support training facilities to improve their physical infrastructure and equipment	• Implement policy, evaluate progress and adjust policy accordingly.	• Policy paper, approved • Budget increased

Quality assurance	5. Law on Examination and Treatment specifies regulations on issuing and reissuing certificates of eligibility to practice medicine according to uniform standard to improve quality of health services provision.	• Draft and adopt law.	• Based on law, design quality assurance framework. • Establish a monitoring and evaluation mechanism to ensure effectiveness of quality assurance framework.	• Law adopted • Approve quality assurance framework • Approved evaluation mechanism for the quality framework.
	6. Training institutions implement the programme for accreditation of training approved by the Ministry of Education and Training.	• Implement the programme for accreditation of training according to the roadmap of the Ministry of Education and Training. • Provide financial support for health training institutions to implement the accreditation programme. • Encourage donors to support medical universities to implement accreditation programme	• Gradually implement the plan for accreditation. • Assess compliance with accreditation and find adequate responses to identified constraints.	• Roadmap on accreditation. • Number of medical universities that implement the accreditation program by type, number and region
	7. Strengthen capacity for re-training.	• Design regulations for re-training/continuous training. • Reach consensus on the re-training programme frame for the major needs including coordination of re-training programme, identifying exclusive re-training institutions	• Implement frame. • Monitor and evaluate progress and adjust as necessary	• Approved regulations. • Approved programme frame • Plans for programme component. including plans for the coordination of re-trainings, for hospital management, exclusive re-training institutions and capacities of health facilities.
	8. Develop and implement plan for specialised training to respond to actual needs.	• Identify needs, determine training institutions and required resources to develop the plan . • Assist the health sector to strengthen capacity of health staff in use of high tech medicine • Develop a program and open courses on state management of health at all levels and in management of hospitals	• Implement plan including the establishment of a monitoring and evaluation mechanism of the plan. • Adjust frame based on evaluation outcome.	• Evidence (needs) documentation. and plan including a monitoring and evaluation system of the plan. • Adjusted plans based on monitoring and evaluation outcomes.

Chapter IV: Health financing

The transformation from a centrally planned to a socialist-oriented market economy has led to considerable changes in the health financing system of Viet Nam. It has become a multi-source system that no longer only relies on government budget and foreign aid, but also to a large extent on private funds, mainly from household out-of-pocket payments paid directly to health care providers.

With the aim of reforming and refining the health system towards equity, efficiency and development, health financing reform policies have increased the resources available to the system. However, challenges remain in ensuring equity in access to health services and efficiency in using financial resources.

In order to identify issues and recommend solutions for the most basic problems related to equity and efficiency in the health financing system in Viet Nam in 2008 and beyond, this chapter presents the priority issues following the structure of the three functions of the health financing system: revenue collection; risk pooling; and purchasing. Section 4 presents recommendations on solutions to deal with prioritized issues.

1. Revenue collection

The health financing system of Viet Nam is a multi-source system, involving funding from the government budget, foreign aid, social health insurance (compulsory and voluntary[2]), ODA, household direct payments for health services and 'social mobilization'.[3] Out of all funding sources, household contributions via direct user fees and indirect expenditures account for a large share. In recent years the Government has taken an important step towards greater equity and efficiency in the health care system by allocating funds to cover free health services for the poor and children under six years of age.

1.1. Overview of health financing in Viet Nam

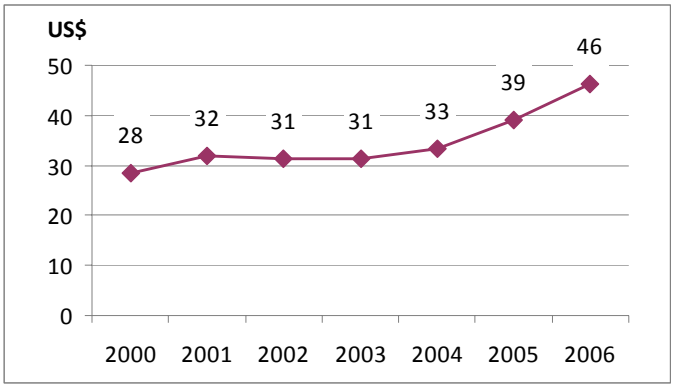
Figure 6 shows that in terms of total health sector resources per capita, the health financing system of Viet Nam has grown rapidly, from a very low level of health financing (28 US$/capita in 2003 [44]) to 46 US$/capita in 2006 [45], However, it should be emphasized that a major share of total resources continues to come from household out-of-pocket payments. Section 1.2 will describe in more detail how this source of health financing is allocated and spent.

[2] In contrast to voluntary health insurance programmes in other countries, the voluntary health insurance scheme in Viet Nam is not commercial.

[3] "Socially mobilized funds" are understood as private funds invested in public and private health facilities.

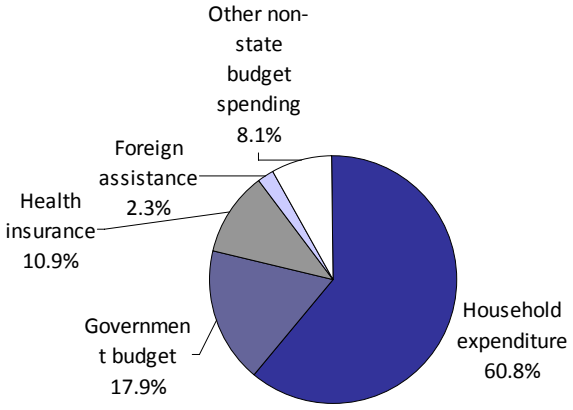
Despite improvements in the source structure of resources for the health sector in the past few years, the goal of achieving an equitable and efficient health system has not yet been met. According to estimates by the Department of Planning and Finance, Ministry of Health, in 2006, out of total health spending the government budget accounted for 17.9%; social insurance, 10.9% (including funds covering curative care services and payments for sick leave and maternity leave); household health spending, 60.8%; foreign investment and funds mobilized from society, 8.1%; and foreign aid, 2.3% (Figure 7).

Figure 6: Total health spending per capita, 2000 to 2006 (Unit: US$ (2006 prices))



Source: Ministry of Health, National Health Accounts 2000-2003 and estimated data for 2004- 2006 [44, 45].

Figure 7: Structure of total health expenditure in 2006 by source of funds



Source: Ministry of Health, estimated data for NHA 2004-2006 [45]

*Other non-state budget includes spending for health by enteprise, school and charity

Thus, according to Ministry of Health estimates, in 2006, public financial resources (including government budget, social insurance and foreign aid (loans and grants coordinated by the government)) only accounted for 31.1% of the total health expenditure for the whole country.

Despite the fact that the estimated total health expenditure per capita in Viet Nam had increased to US$46 per capita, household expenditure accounted for 61% of total health expenditure. The next section will describe and analyse revenue collection for health from each source.

1.2. Situation and difficulties associated with each financial source

Government health spending

Viet Nam's economic characteristics are similar to those of other low-income, developing countries. Income taxes only accounted for 1.94% of the total government budget revenue in 2003. A considerable proportion of government revenue is derived from petroleum (24.15% of total budget revenues [47]). Like other developing countries, total public expenditure in Viet Nam is low compared with GDP (29.9% of GDP in 2004 [48]), and the amount of spending over budget is very low. The annual economic stability and growth in GDP of around 8% per year facilitate increasing the share of the government budget for health.

One of the most enlightened health financing policies in Viet Nam is the provision of subsidies to users from certain targeted groups. The Government has set aside funds from the state budget to provide free health services for the poor (since 2003) and children under age six (since 2005). With such policies, government health spending should increase.

However, in real terms, government spending on health has seen an important decline, with 2005 figures falling to only 86% of 2003 figures (Table 4). In 2006, government spending on health increased rapidly, reaching 123$ of 2003 levels in real terms.

Table 4: Government health spending, 2003-2006 (billion VND)

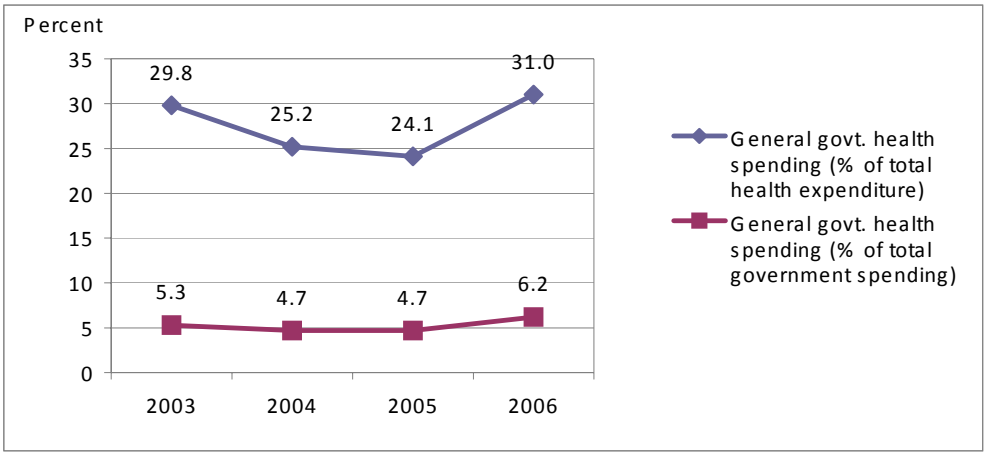
Year	Current price government spending on health	Constant price government spending on health (2006 prices)	% compared with 2003 (2006 real prices)
2003	7.201	9.134	100%
2004	6.930	7.746	85%
2005	7.480	7.876	86%
2006	11.233	11.233	123%

Source: Ministry of Health, Estimates for NHA 2004-2006 of Ministry of Health, version dated 18/9/2007 [45].

Note: GDP health deflator used for deflating to 2006 VND.

According to Ministry of Health estimates, the share of government spending for health as a proportion of total health expenditure increased from 27.3% in 2003 to 28.8% in 2006, while the share of the government budget for health as a proportion of total government expenditure declined from 4.0% in 2003 to 3.6% in 2006 (Figure 8).

Figure 8: Change in general government spending on health as a proportion of total health expenditure and total government expenditure, 2003 – 2006

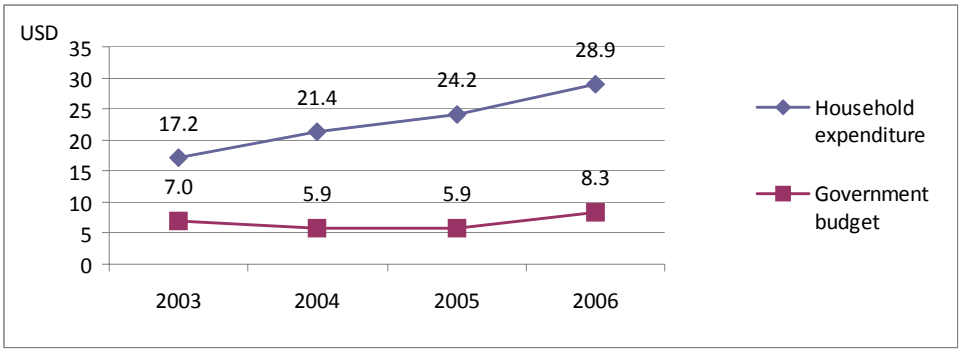


Source: Ministry of Health, NHA 2000-2003 and estimated data for NHA 2004-2006 [45]

Note: The govt. health spending includes regular spending, investment spending, spending from Social health Insurance funds and external sources coordinated by Government

Figure 9 shows that per capita government spending on health was stagnant over the four years from 2003 to 2006, with 2006 values on par with real values in 2003. These figures take into account population growth, general price inflation and exchange rate changes. However increased salaries and allowances for health staff (resulting from adjustment of the salary coefficient and minimum salary level in labour policy) and the increased prices of medicines and medical materials, in excess of general inflation, continue to erode the actual value of government resources spent on health. At the same time private per-capita health expenditure is estimated to have almost doubled from 2003 to 2006, from US$ 17.2 to US$ 28.9 (Figure 9).

Figure 9: Change in per-capita health expenditures from households and government budget, 2003-2006 (Unit: US$ (2006 prices))



Source: NHA 2000 – 2003 [44] and estimates by the Department of Planning and Finance –Ministry of Health – for draft NHA 2004-2006 [45].

Note: government budget expenditures for health exclude SHI and external sources

The lack of significant increase in real government spending on health has clearly not met the need for health financing. The average per capita health expenditure from the government budget was approximately 25% of the average spent on health through out-of-pocket payments by households in 2006 (US$ 8.3/capita from the government budget compared with an estimated US$28.9/capita from households).

Health insurance

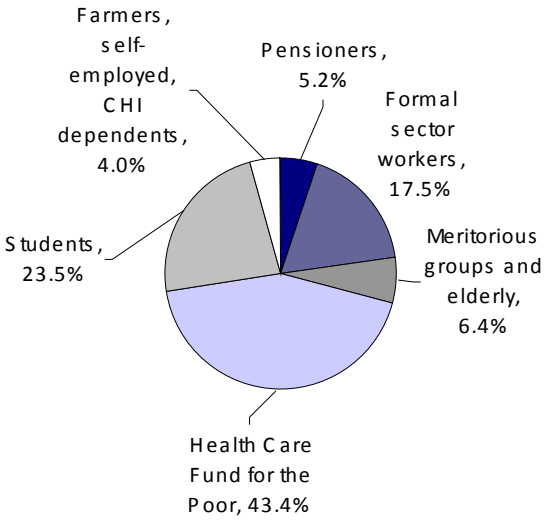
Health insurance coverage has continued to expand in the last few years. In addition to employees in the formal sector, many social policy beneficiaries have also benefited from health insurance, with support from the Government. In 2006, 14.6 million poor people were provided with health insurance cards by the Government. Apart from the compulsory health insurance scheme, non-commercial voluntary schemes[4] have quickly covered many target groups and the total number of health insurance enrolees is now more than 34 million, (around 41% of the population). The amount paid for health care from health insurance is increasing (VND 4330 billion in 2006).

[4] The voluntary health insurance schemes mentioned here are non-commercial schemes designed by the Government and organized by the Viet Nam Social Security Administration, with a low flat fee but benefits similar to those for the compulsorily insured.

However, revenue collection from health insurance schemes is subject to the following major problems:

Only a small share of those insured are contributing members of compulsory insurance. Less than 50% of formal sector employees are enrolled in the compulsory health insurance scheme [49]. Out of 34 million people holding health insurance cards, only 6.2 million make contributions to the compulsory health insurance scheme (accounting for approximately 17.5% of the total number insured by the end of 2006). The remaining enrolees include people whose insurance is paid by the Government (e.g. the poor, the elderly and people who have rendered meritorious service to the country) and voluntary health insurance holders, whose contributions are low (Figure 10).

Figure 10: Target groups in health insurance schemes in 2006



Source: Department of Health Insurance, Ministry of Health and Viet Nam Social Security

Low health insurance contribution levels. In 2006, the average per capita contribution (both compulsory and voluntary) was VND 130 000, (approximately US$8 per year), while the estimated total health expenditure per capita for the whole society in 2006 was US$ 45 per year.

Adverse selection in the voluntary health insurance scheme. The design of the voluntary health insurance schemes contains few measures to control adverse selection beyond requiring that at least 10% of the pool of people to be insured purchases insurance [50, 51]. In reality, the 10% who do enrol in the scheme tend to be people already suffering from illness, and in some localities it is not feasible to reach this minimum coverage. Adverse selection combined with low premiums resulted in overspending of health insurance funds in 2006 (according to informal sources, the health insurance fund overspent by around VND 1200 billion in 2006, equivalent to US$75 million).

External assistance

ODA grants and loans for the health sector have made a considerable contribution towards filling the deficit in the government budget for health. The grants and loans committed in 2003 were equivalent to VND 829 billion, and the amount increased continuously over the four years from 2003 to 2006 reaching VND 1397 billion in 2006 [52]. However, the amount of external assistance as a proportion of total health expenditure of the entire society did not increase: 2.59% in 2003 and 2.30% in 2006.

The two main forms of assistance are overseas development assistance (ODA) and nongovernmental assistance. In 2006, the Ministry of Health managed 52 ODA projects with total commitments of more than US$ 624 million, of which 56% was financed from loans and 44% from grants [12]. However, total disbursements for all projects in 2006 only reached about US$ 111 million (17.8% of total commitments) [12]. Grants are mainly concentrated in technical assistance projects, while loans are used primarily to upgrade health system infrastructure [53]. In 2006, the Ministry of Health approved 58 nongovernmental projects, valued at approximately US$ 17 million.

Collecting comprehensive data about all external assistance projects in the health sector is not an easy task. However, according to a recent study conducted by the Viet Nam – Sweden Health Cooperation Program, up to the year 2005, the World Bank, Japan, the Asian Development Bank (ADB), the Federal Republic of Germany, and the European Commission were the leading donors in the health sector in terms of cumulative values. Analysis of external aid by health field indicated that the majority of grants were concentrated in three areas: hospital services (26.4%), primary health care (22.4%), and communicable disease prevention (18.5%). Some areas in the health sector received little donor support, including: noncommunicable disease prevention (0.03%), nutrition (0.7%), traditional medicine (0.5%), and training (0.5%). There were also some disparities in distribution of projects by region. The number of grant projects was highest in the Mekong River Delta (209) and the Southeast (87), while the Northwest and Central Highlands had the lowest number of projects (29) [54].

Increasing the effectiveness of ODA assistance is a priority concern for both the Vietnamese Government and donors. The Government and donors achieved a consensus in commitments to the Hanoi Declaration on increasing the effectiveness of external assistance, one of the objectives being that, by the year 2010, at least 50% (compared with the current 12%) of total external assistance would be managed through the state budget management system [26]. The sector-wide approach (SWAp) is considered an important tool to obtain this objective. However, it is recommended that there should be a roadmap for the implementation of SWAp in the health sector starting with pilot implementation.

Management of nongovernmental assistance encounters many difficulties related to compliance with government regulations on management and utilization of such grants and project reporting, inspection and monitoring [12]. Generally, external aid for the health sector is fragmented. The link between external assistance and health sector policies and strategies is difficult to analyse in a clear manner [26]. No comprehensive assessment report on external assistance to the health sector has yet been made. Assessment is typically carried out for specific programmes, but even in these assessments, the effectiveness of the programmes is not clearly or adequately determined. Several independent assessments have asserted the need to reinforce the links, harmonization and appropriateness of the priorities of the health sector to those of external donors [55].

Commercial health insurance

Private-for-profit health insurance has appeared in Viet Nam since the *Doi Moi* reforms and the number of foreign insurance companies operating in the country has grown rapidly in recent years. According to informal data, in 2006, 37

commercial insurance firms registered for operation in Viet Nam with a total turnover of 1.8% of GDP [56]. Preliminary data indicate that, in 2006, there were 5.6 million life insurance contracts, covering 6% of population, of which more than 2 million had health insurance riders. Local insurance firms, such as Bao Viet, Bao Minh and Pjico, are implementing some commercial health insurance schemes, focusing on schoolchildren and university students. There are several million clients with health insurance under student insurance and comprehensive personal insurance policies [56]. So far, no official study has been carried out to assess the coverage, benefit package and reimbursements from commercial health insurance schemes in Viet Nam [56]. There are no reliable data to evaluate the revenue from commercial health insurance schemes in total health expenditure of the entire society.

State regulation (monitoring, reporting, issuance of regulations, compliance with regulations) of commercial health insurance schemes is weak.

Out-of-pocket household spending on health

As in many other developing countries, out-of-pocket household health expenditure accounts for a large share of total health expenditure. According to estimates from the Department of Planning and Finance, Ministry of Health, in the draft report of NHA 2004-2006, this share did not decrease between 2004 and 2006 (63.9%; 65.8% and 62.8% for 2004, 2005 and 2006). Therefore, despite efforts to increase public financing for health (government budget, external assistance and health insurance), household out-of-pocket spending on health as a proportion of the total health expenditure of the entire society is still high, negatively affecting the goals of equity and efficiency.

Of total household expenditure on health in 2006, 70% is used to pay medical costs in health facilities (both public and private facilities, both inpatient and outpatient spending); 30% is spent at pharmacies on over-the-counter medicines and medical consumables for self-treatment [5]. In analysis of the structure of household expenditures on hospital stays, only 60% of spending is on hospital user fees and the remainder is for indirect expenditures on medicines and extra services outside hospitals, such as food, lodging, travel and gifts for health workers [5]. At higher levels of care, patients pay more for indirect expenditures. Around 84% of outpatient household expenditures are on medicines and medical services, with indirect expenditures only accounting for 16%. There is a significant increase in spending on curative care as one moves from the district to the provincial and central levels, related to both inpatient and outpatient services. Household out-of-pocket spending on health increases with people's living standards. Average spending for an inpatient admissions among the highest living-standard quintile is three times higher than among the poorest quintile, while for outpatient care the difference is two times.

The share of household health expenditures spent on self-medication is higher among lower income people. The share in poor households is 38.4%, compared with 32.9% in middle-income households and 24.2% in better-off households [57]. The burden of health expenditures is heavier on the poor than the rich. The payment of direct user fees for an inpatient stay among the poor is equivalent to 17 months of non-food household expenditure per capita, compared with eight months in the rich group [57]. The proportion of households facing catastrophic expenditures (annual health expenditures exceeding 40% of total household non-food expenditures) in Viet Nam is quite large compared with many other developing countries (8.2% in 2004)

[58]. The burden of health expenditure has resulted in borrowings by many households; around 34.5% of medium-income inpatients without health insurance have to borrow to pay for health services [57].

2. Risk pooling

An important function of health financing is management of health revenues in a general fund to pool risks in an equitable and efficient manner in order to create financial protection for all people from catastrophic health expenditures [59]. In this manner, the risk of paying for health services is shared by all individuals pooled in the general fund. Risk pooling in Viet Nam is implemented primarily through pooling of tax revenues to provide government subsidies for healthcare and social health insurance which together account for 90% of public health spending [45].

2.1. Pooling of tax revenues to subsidize health care

Tax revenues are used to subsidize public provision of preventive health programmes, primary health care and hospital care. They are also used to purchase health insurance or reimburse providers for health services for certain target groups of the population, such as the poor, people who have provided meritorious service to the nation and children under the age of six.

Government budget funds allocated to the health sector include both central and local budgets. *The central health budget* includes those funds allocated directly to health facilities by various ministries or agencies, as well as supplementary amounts allocated to provinces to cover target groups benefiting from special assistance or various vertical programmes (e.g. Health Care Fund for the Poor, health care for children under age six, national health target programmes,…). In 2006, the total health budget of the central level was VND 4294 billion, accounting for 33.5% of the total recurrent budget for health [10].

The local health budget includes budget from the People's Committee of each locality spent on health activities and local health facilities. In 2006, the total local health budget was VND 6388 billion, accounting for 49.8% of the total recurrent budget for health [10].

2.2. Pooling through social health insurance

Social health insurance is the other main mechanism for risk pooling. Approximately 40% of the population of Viet Nam is covered by health insurance. Through this risk-pooling mechanism, their curative care costs are partially or fully paid thus reducing the risk of impoverishment for the covered population when they face high medical costs. However, from a perspective of risk sharing and financial protection in health care, some problems have become apparent.

The health insurance fund in poor and mountainous provinces is under-used due to numerous factors, including lower availability and capacity of health service providers, geographical/transportation and cultural factors, and especially the low ability of the poor to pay costs not covered by health insurance. Thus, instead of obtaining a cross-subsidy from the rich to the poor through fund pooling, what happens is that the health insurance funds in poor provinces remain unspent and funds are transferred to cover deficits in the insurance funds of cities and rich provinces.

In addition the severe adverse selection observed in the voluntary health insurance schemes reduces the ability of the fund to ensure an adequate cross-subsidy from the healthy to the sick to cover the risks, and has contributed to a serious imbalance in the overall health insurance fund.

The group still subject to payment of user fees, including the 'near-poor', accounts for around 50% of the total population. Because this group must pay user fees, their utilization of health services is lower than the health-insured group, thus reducing their opportunity to benefit from government subsidies to providers. There is strong concern about the vulnerability to impoverishment among the near poor not covered by health insurance or other schemes should they face catastrophic health expenditures.

3. Resource allocation and purchasing

Purchasing constitutes *the third function* of the health financing system (the other two include revenue collection and risk pooling). Appropriate purchasing mechanisms will help the health system to achieve optimal efficiency and constitute one of the determinants of the sustainability of the health financing system.

Differing from the other two functions (which affect equity in the health system), this function has greater influence on the efficiency of the system. The method that the Government (related to government budget funds) or health insurance agencies (related to health insurance funds) employ to reimburse health facilities for health services provided (preventive as well as curative) is an important instrument to encourage efficient use of the financial resources.

3.1. Use of government budget funds for health

Most health financing is used for curative care. As estimated in the National Health Accounts 2005, the amount allocated to curative care as a proportion of total revenues for health in 2005 was 85%, while only 14% was for preventive care. If one calculates these shares only for funds from the State budget, 75.5% is spent on curative care and 20.5% on preventive medicine [45]. Of the total amount allocated to preventive care, public health financing (including external assistance) accounted for approximately 60%. An assessment of public health expenditure in 2004 shows that the amount allocated to preventive care from the central budget was far larger than the amount from the local budget [32]. This confirms the concern that the local level focuses more on curative care than on preventive care. Further decentralization of management tends to reinforce this phenomenon if adjustments are not made in a timely manner. The situation of most of the health budget being allocated to curative care is a common problem in developing countries. However, health economic assessments indicate clearly that the cost–effectiveness of investments in preventive interventions is typically far higher than in curative care. Therefore, the allocation of funds between the curative and preventive care sectors should be adjusted to assure the implementation of programmes based on public health objectives.

Out of the total financial resources for health, recurrent expenditure accounts for more than 90% [45]. Of the total 10% of total health spending on development investment, the government budget accounts for only 48% [44]. Thus, a major contribution to development investment comes from the non-public sector. Most of the government budget for health is allocated to recurrent expenditures. However, the expenditure on development investment as a proportion of the total government

budget for health in recent years has seen a trend towards a slight increase, from 24% in 2003 to 28% in 2006 [12]. In 2006, government spending on development investment for health facilities at the central level accounted for 46% of the total, with the remaining 54% allocated to the local level. Irrational investment in infrastructure and upgrading of equipment has led to a situation in which many public health facilities are in poor condition and the quality of their services is not assured, especially at the grassroots level. In order to achieve development targets in the health sector and follow the key orientations laid out by the government related to health sector development, the share of the government budget for health should concentrate more on development investment.

There are clear disparities in terms of per capita health expenditure between regions and provinces nationwide. In 2005, total per capita health expenditure in the Southeast and Red River Delta regions was the highest of eight regions, at VND 938 389 and VND 771 792, respectively, while it was lowest in the Northeast and Northwest regions, at only one-third of that in the Southeast region [45]. Analysing per capita expenditure from the government budget, including recurrent expenditure and spending on national health target programmes, across eight regions shows that the Southeast still ranks first, followed by the Central Highlands and the Northwest [37]. In the Southeast, many provinces and municipalities have budget surpluses and they are fully entitled to allocate those surpluses to their own priorities, which may include the health sector, as is done, for example, in HCMC, Binh Duong, Ba Ria-Vung Tau and Dong Nai. Rich provinces can set aside a higher percentage of their budgets for health. The high level of budget expenditure per capita in the Central Highlands and the Northwest indicates that the government budget is allocated in a manner that gives priority to economically disadvantaged regions.

3.2. Purchasing of health services

Historically, the Government purchased health services from public health facilities using annual plans for setting goals and line-item budgets for controlling costs and disbursements. As the health sector underwent reforms, adding health insurance and patient out-of-pocket payments as sources of revenue, and as private providers came into being, the fee-for-service mechanism became the predominant means for reimbursement. This mechanism currently suffers from a lack of information on the actual costs of providing medical services, a lack of a quality monitoring and assurance system, and incentives to over provide unnecessary services, which has led to great inefficiencies and waste.

The following section will discuss purchasing using funds from the government budget, health insurance and households, from both the service-user and provider perspectives.

Payment for health services from the government budget

The Government uses its funds to purchase health services for the population in three ways. First, it provides direct budget subsidies to public health facilities to cover some inputs needed to provide preventive and curative services. Second, the government budget is used to purchase compulsory health insurance for certain target groups (including more than 14 million poor people) and the health insurance fund reimburses health facilities (both public and private) for services provided to the insured, according to the method described in some detail below. Third, the Government reimburses health providers directly for services provided to children

under the age of six using the current user-fee schedule as the basis for reimbursement.

(1) Government subsidies to providers:

The central government budget for health is allocated to provinces and municipalities based on their population sizes and regional adjustment coefficients. At the local level, the local government (People's Council, People's Committee) has some discretion in the allocation of funds for preventive and curative care and to each facility, although normally funds are allocated based on the number of beds or number of staff members, using line-item budgets and annual plans.

Direct government purchase of health services faces some important problems. Allocations to provinces are not adjusted for differing disease patterns or abilities to absorb funds. Local health budgets are approved by the National Assembly. However, funds available in many localities are insufficient to cover the total amount approved and, in some cases, funds intended for health care are reallocated by localities to other purposes. The allocation of funds for health at the local level often focuses on the curative-care sector and the proportion allocated to preventive medicine is typically low. In many localities, the amount allocated to preventive medicine is only 12% to 13% of the total health budget. The amount actually paid to a hospital is based on the number of planned beds and for preventive medicine, based on administrative norms rather than outputs, workload or quality of performance. The Government does not yet have a mechanism for effective monitoring of health care quality. The current payment method applied to the public health system does not encourage health facilities to provide health services efficiently.

(2) Government purchase of health insurance for the poor, ethnic minorities and policy beneficiaries through the health insurance system.

In an initial effort to implement the policy orientation of supporting health service users rather than providers, the Government issued Decision 139 and Decree 63/2005/ND-CP, on new health insurance policy, making it compulsory to purchase health insurance for the poor using government funds. Under social insurance, reimbursement for health services is based on a fee-for-service mechanism that has numerous short-comings as mentioned above.

(3) Payment for services for children under six

To implement the International Convention on the Rights of the Child, the Government has implemented a policy of free health services that includes government budget reimbursement to facilities for services provided to children under the age of six. Around 8 million children under six are covered under this policy. Payments are also based on fees for services, with little monitoring of quality or assurance that eligible children are actually benefiting from the policy.

Health insurance

The health insurance fund covers curative care expenditures for the population enrolled in social health insurance schemes (compulsory and voluntary). Health insurance agencies sign contracts with health facilities and reimburse service costs based on user fees set by local governments according to the government guidelines on allowable ranges of fees. Patients are subject so some co-payments for services using high-level technology.

The health insurance agencies apply a ceiling to total reimbursements at district hospitals. In addition, payment for referral care at higher-level facilities is taken from the health insurance fund at lower level facilities. In provincial and central hospitals, no ceilings are imposed on reimbursements. As many of the higher-level facilities are strongly implementing the policy of hospital autonomy (Decree 43), which aims to maximize revenues, many take advantage of the lack of ceilings for health insurance reimbursements to increase their revenues.

The result is that the amount reimbursed by the health insurance fund is very high at the central level. In fact, reimbursements to just one central hospital in Ha Noi in 2007 may take up 10% of the total amount reimbursed by the national health insurance fund to all hospitals. Cost escalation in higher-level facilities is very rapid, while the ceilings imposed on district hospitals and at the grassroots level cause hardship, as these facilities must limit the benefits they provide to patients in order that costs do not exceed reimbursements.

With the current user-fee-based payment method, the financial resources of the health insurance fund are not being used efficiently and moral hazard on the part of the service provider is unavoidable. Monitoring of service provision reimbursed by health insurance is inadequate due to a lack of managerial capacity and a lack of standard treatment guidelines for hospitals.

Payment method for patients paying out-of-pocket user fees

Patients subject to user fees pay public and private hospitals on a fee-for-service basis, with no monitoring or quality assurance. In the public health sector, the user-fee schedule was not established based on a systematic costing exercise covering all costs; fees for most services have not been updated since 1995. In the private health sector, the user fees are fully determined by providers. With half the population paying for health services out of pocket[5], and more than 60% of outpatient services being provided by the private health sector, the lack of a regulatory environment for quality assurance and the fragmentation of purchasing power by individual patients are negatively influencing the efficiency of household out-of-pocket spending.

3.3. Management and use of funds for development investment

Government budget

As noted earlier, of the total government budget for health, the proportion for development investment is only 28%. According to current regulations, depreciation and development investment costs are not recovered through user fees. This leaves public facilities reliant on limited government funds for upgrading of their physical facilities or training of staff. Of the current total budget for development investment, the proportion for central-level health facilities accounts for approximately 50%, while the extensive local health system (provincial, municipal, district and grassroots levels) is left with the remaining 50%, leading to scattered and unsystematic investments. Social mobilization of investment funds for upgrading of hospital infrastructure is being promoted at all levels. Such a strategy to fill in the shortfall in

[5] Around 40% of the population are covered by health insurance and 10% are benefiting from free health services for children under the age of six. The remaining 50% still have to pay for health services out of pocket.

investment budget puts equity at risk, as investors will eventually want to get a return on their investment which will require charging higher user fees. Another point to be noted in relation to development investment is that the finance for training as a proportion of the government budget for health only accounts for 3%. Training of health staff, especially those at the grassroots level, has encountered many difficulties due to under funding. In order to assure the quality of health staff, more priority should be given to allocating a larger amount of the government budget for re-training.

Private and socially mobilized expenditures

The official call for social mobilization is intended to mobilize potential for resources of society to invest in health care. The denotation of 'social mobilization in health' also includes development investment in the private health sector and mobilization of private development investment in public health facilities. The strategy of social mobilization is intended to develop the health service provision system, to increase responsiveness to meet people's needs for health care, to increase investment in advanced medical equipment in public health facilities and to partly deal with the lack of resources from the government budget for investment in and upgrading of equipment.

Most private sources of socially mobilized funds are interested in profits, regardless of whether the investment is in the public or private sector.

In the context of public health facilities implementing the 'autonomization' policy under Decree No. 43 (previously Decree No. 10), investment in public hospitals from socially mobilized sources is being exploited to develop services and increase revenues for hospitals. Recent additions to the user-fee schedule under Circular No. 03 have created important differentials in fees that can be charged for different services, with much higher fees allowed for higher technology and newer services. These distorted price schedules may encourage public health facilities to invest in machines and focus on providing high-tech services to gain greater profits. Many of the most expensive equipment items in public hospitals (mainly in large cities) are purchased using private funds.

A study assessing medical equipment in provincial general hospitals shows that many pieces of equipment were being under-used in the provincial general hospitals surveyed (approximately 20%) [60]. Some emerging problems related to social mobilization to increase investment in development in health facilities include:

- Investment in health service provision from socially mobilized source have a profit objective; services are mainly provided to people with convenient access to services, high-income groups.
- The efficiency of investments from socially mobilized sources usually lacks cost–effectiveness analyses, investment in equipment not matching training on operation of machines or for clinical staff.
- Although the policy on self-financing applied in health facilities, in accordance with Decree No. 43, can encourage the use of the government budget share in an economical manner, it cannot ensure that the amount saved will be used to provide more health services for the people, especially the poor and other disadvantaged groups.

3.4. Financial autonomy in state health facilities

Decree 10/2002/CP-ND on financial regulation applied to fee-collecting public service entities marked an important change in financial management for such entities, including hospitals. According to the Decree, hospitals are entitled to enjoy the rights of autonomy, especially in financing and personnel management, so that they can manage their finances to ensure that revenues cover recurrent expenditures.

On April 25 2006, the Government promulgated Decree 43/2006/NĐ-CP to replace Decree 10. Decree 43 expanded the scope of its influence to all service entities, and clarified the rights and responsibilities of autonomous units in terms of accountability, organizational structure, personnel and finance. Stipulations in this Decree are strongly in line with the orientation towards decentralization and fostering of autonomy in public service entities.

This policy is intended to be a tool to increase technical efficiency in delivering health services by providing strong economic incentives to hospital staff and allowing greater autonomy to hospital managers. According to Decree 43, hospital managers are entitled to autonomy in financial management, using savings to increase staff incomes and for re-investment, in accordance with current regulations. However, all these incentives were provided in an almost unchanged legal environment, especially regarding policies on user fees and recruitment of staff, so the intended efficiency effects have not generally occurred.

Decree 43 provides strong incentives to public hospitals to expand their services to gain additional revenues, but the existing mechanisms do not create appropriate incentives to reduce hospital operational costs. There are few evaluations on the implementation of the autonomization policy in the health sector, so evidence on the impact of hospital autonomy is still limited. Some emerging issues can be anticipated with implementation of this policy.

First, since hospitals still receive recurrent budget funding in the form of a block grant that is fixed during a three-year period, there is a risk that they may use this funding, not for public health purposes, but to improve the quality of services targeting paying patients. Second, there are no effective mechanisms in place to monitor the quality of care received by different categories of hospital patients (for example, the insured, the poor, other categories of exempted patients, and fee-paying patients). There is a risk that the quality of services for non-fee-paying patients will deteriorate as supply-subsidies (block grants to public providers) intended to support their care are diverted to the care of fee-paying patients [32]. Third, the increase in health service charges will create a barrier to the poor and near-poor accessing health services.

In order to ensure that hospital autonomization meets the objectives of improving efficiency while ensuring health equity, the guidelines for implementing Decree 43 in the health sector need to take into account the specific characteristics of the health sector and the potential for achieving health equity.

4. Recommendations

To ensure equity and efficiency in the health system and in the poverty-reduction policy, it is necessary to prioritize health-financing solutions with an orientation towards: increasing the share of total national health spending from public sources; protecting the population from the risk of impoverishment resulting from

catastrophic health spending through effective implementation of risk pooling; and increasing efficiency in the use of health financing through payment mechanisms that encourage cost-effectiveness and through the use of quality assurance systems and policies for appropriate reforms in the management of public and private hospitals. According to the above orientation, the following solutions for health financing for upcoming years are proposed:

4.1. Increasing state investment in health

- Use many information channels to advocate for and achieve consensus on increasing the state health budget. Widely disseminate reports assessing health financing, and emphasize that investment in health is investment in development.
- Increase funding from the state budget for health in line with economic growth, taking into consideration population growth and inflation each year. The government budget for health care should take the lead during the period when social health insurance coverage is not universal, and health financing from the public sources (health insurance and government budget) should account for no less than 60% of total health expenditure.
- Revenue from taxes on goods, such as tobacco and alcohol (sin taxes), should be considered as additional resources for health care.
- The increased government budget should focus on priority areas, including: (1) strengthening the grassroots health care network and developing preventive medicine; (2) supporting health care for groups in need of social protection, including people who have rendered meritorious service to the nation, the poor, the near-poor and ethnic minority people and (3) providing support for disadvantaged areas.

4.2. Expand health insurance coverage in a sustainable manner, improve effectiveness of use of the health insurance fund

- Extend coverage to dependants of formal sector workers, which can effectively increase the number of contributors (workers and employers) to the health insurance fund, instead of relying on the state budget to purchase health insurance for dependents of wage earners.
- Improve compliance by empowering the health insurance agency to monitor and impose sanctions for non-compliance, as in many other countries with social-health-insurance-based health financing. This provision should be also stated in the Law on Health Insurance.
- Revise health insurance policy with the aim of developing a unified health insurance system. Investigate the feasibility and issues involved with decentralization in management of health care funds at the provincial level and establishment of a national reserve fund to help improve health care funding for poor provinces as well as to ensure national cross-subsidies through the fund.
- Set an appropriate contribution level in line with the costs of health care and the ability of the population to pay.
- Diversify the forms of voluntary health insurance, overcome adverse selection using technical solutions, while ensuring the rights of the population to enrol in

voluntary health insurance. Strengthen the management capacity of the health insurance agency, specifically in design and implementation of voluntary schemes.

- Manage effectively the health insurance program, including fraud prevention and management, actuarial analysis and review of the complexity of provider payment methods, with a view to ensuring they create the right incentives and encourage efficient services of an appropriate quality, without encouraging overprovision/overuse of services or technologies.

4.3. Health care protection for the near-poor and the uninsured

- Implement a voluntary health insurance scheme for the near-poor, with contributions subsidized by the government budget.
- Subsidize the uninsured near-poor by paying catastrophic health expenditures using the government budget.

4.4. Reforming payment methods to providers and allocation of the government budget

Replace the current fee-for-service payment with other appropriate methods (DRG, capitation,…), based on careful calculation of full service costs. Careful and accurate hospital costing will also provide the data necessary for development of a new user-fee framework at 'full cost'. The steps to be taken are:

- Selection of an appropriate method of hospital costing.
- Pilot test costing of hospital services, improve the method and develop a hospital-costing manual.
- Expand implementation of the costing nationwide on an annual basis.
- Based on data from hospital costing, implement a pilot test of new payment methods and replace fee-for-service payments with the new payment methods for insured patients, with large-scale expansion in later years.
- The Ministry of Health needs international technical support for hospital costing and implementation of new payment methods.

To achieve greater efficiency, it is recommended that allocation of the government budget be based on performance (output) instead of the current allocation based on number of beds and number of staff.

To allocate the budget according to output, the following steps need to be implemented:

- Implement hospital costing (as mentioned in the steps above).
- Calculate statistics on the volume of health services provided for health insurance and user-fee-paying patients.
- Using the hospital costing database, separate costs to be covered by the health insurance fund and costs to be covered by the government budget.
- Allocate the government budget according to the volume of services provided; pilot case-based payment methods and diagnostic related groups (DRGs) later.

To ensure the cost-effectiveness of health financing, it is necessary to develop and implement a quality assurance system, to apply standard treatment guidelines and to improve drug policy in term of drug selection and rational drug use (see details in Chapter 5 on health care service delivery).

5. Summary of prioritized issues and solutions

HEALTH FINANCING

Key issues	Priorities	Solutions/actions		Achievements see also monitoring indicators
		Short term (2008)	Long term (2010-)	
Fund mobilization	1. Increase sources for health financing from the government budget and 'sin taxes' to ensure equity of health financing	• Lobby for increasing government budget allocated to the health sector.	• Increase government spending on health • Propose earmarking revenues from sin taxes on alcohol and tobacco for health care purposes	• Increase the share of the state budget in total health expenditure • Reduce out-of-pocket household spending as a share of total health expenditures
	2. Expand health insurance coverage sustainably and improve effectiveness of using the health insurance fund	• Revise policies on collecting health insurance contributions and financial management of health insurance. • Revise policies on voluntary health insurance. • Manage effectively the health insurance program	• Expand compulsory health insurance coverage of dependants of formal sector workers, and develop a mechanism for monitoring and ensuring compliance with compulsory health insurance regulations for wage workers.	• Share of population covered by health insurance • Share of wage workers covered by compulsory health insurance
	3. Strengthen effectiveness of international aid	• Study, pilot and evaluate the SWAp mode of external assistance	• Refine the method of programme support	• The number of programmes supported by SWAp or programme support
Risk and financial pooling	4. Provide health care assistance to the near-poor and uninsured when facing catastrophic health care costs	• Increase financial protection for households when facing catastrophic health care costs	• Protect the uninsured population from impoverishment, with priority on the near-poor through voluntary health insurance and assistance in paying for catastrophic health care costs	• Proportion of near-poor who participate in health insurance. • Number of near-poor people receiving assistance for catastrophic health care costs • Revisions in draft Law on Health Insurance to present to the National Assembly for approval and implementation starting in 2009.
Manage and use health financial resources	5. Change the mechanisms for provider payments and allocation of the state budget for health.	• Study and implement new mechanisms for provider payments and budget allocations to providers. • Revise user fees based on calculation of full costs	• Develop and pilot a new health insurance provider payment mechanism • Develop user fees based on hospital costing	• The number of hospitals able to calculate their costs • The number of hospitals pilot testing new payment mechanisms • Revise policy away from subsidizing hospitals

		• Manage drug prices effectively and use drugs safely and rationally	• Allocate state budget funds to health facilities based on performance. • Refine the policy on drug prices.	based on number of beds • New regulations on drug price management are passed • Drug price index
	6. Allocate government budget based on performance (based on output) to achieve higher effectiveness instead of current allocation based on number of beds and staff.	• Implement hospital costing as mentioned above. • Develop database on volume of health services for health insurance and user fee patients. • See chapter 5: develop quality assurance system, update standard treatment guidelines and revise drug policy in term of drug prices, rational drug use	• Using hospital costing database, separate the costs to be covered by the health insurance fund and the costs to be covered by the government budget. • Allocate the government budget according to the volume of services, pilot case payment methods, and DRGs later • See chapter 5: implement a quality assurance system, enforce application of standard treatment guidelines and enforce revised drug regulations (see chapter 5).	• Hospital costing manual • Database on health services

Chapter V: Health service provision

This chapter provides an overview of the situation and summarize and analyse the major problems related to health service provision and utilization, propose priorities and solutions for developing the network of healthcare service providers in Vietnam.

1. Utilization of health services

1.1. Utilization of preventive care/public health services

Children and mothers are the main groups utilizing preventive care services in the community. Preventive care services mainly include vaccination and primary health care. The national expanded programme on immunization (EPI) provides free vaccinations against seven diseases: tuberculosis, diphtheria, whooping-cough, tetanus, polio, measles and hepatitis B. Some 95.7% of children received full vaccination against all seven diseases [16]. However, the figure is lower in the Northwest and Central Highlands provinces. In addition to vaccinations against the seven childhood diseases, children in certain regions are also vaccinated for free against other diseases, such as typhoid, cholera and Japanese encephalitis, and pregnant women are immunized against tetanus. Generally, the national EPI programme is considered to be quite successful, with elimination of polio and decreases in other diseases. In addition, with the effective support from UNICEF, most children in the country receive a vitamin A supplement. In the future, if UNICEF discontinues its support, the Government should mobilize other resources to sustain the supplementation of vitamin A for children.

Most pregnant women use obstetrics services. On average, each pregnant woman has 3.1 contacts with health facilities for prenatal care, 84.7% make three or more visits to health facilities for prenatal care and 92% receive two injections against tetanus [12]. However, there are differences in terms of the quantity and quality of reproductive health services received in different regions. Generally, women in the delta regions have more contacts with health facilities for prenatal care and utilize more diagnostic services, such as ultrasound and lab tests, than women in mountainous areas [5, 61]. Around 86% of mothers in the whole country receive some forms of postnatal care [62]. However, field surveys conducted in mountainous areas in the North and Central Highlands revealed that quite a few women in those regions do not receive post-natal care (2.9% in Dien Bien and 10% in Son La, Lai Chau) [61].

Gynaecological care services are frequently provided. Around 88.5% of health facilities at the district and commune levels provide consultation, testing and diagnosis services for common gynaecological diseases for around 10 million contacts by women [62] and 4.7 million contacts for treatment of these diseases [62]. This means that a high percentage of women suffer from gynaecological diseases, and implies that reproductive health care programmes should be more intensive and extensive.

1.2. Utilization of curative care services

No treatment

Generally, 'no treatment' is not a serious problem in Viet Nam. Many diseases disappear themselves without intervention. There are many reasons for non-treatment, such as mildness of the disease, chronic disease, hesitation in contacting health facilities, financial barriers, etc. As revealed by studies conducted recently, the percentage of untreated disease is higher among the poor. As regards serious diseases, the percentage of

cases making no contact with health services among the poor was 10.2%, against 6.8% in the medium-income group and 6.3% in the rich group [10]. However, for the poor, the financial barrier is the main reason discouraging them from seeking treatment when they incur serious disease (around half of the poor group). In recent years, since Decision 139/QD-TTg on health care for the poor was issued, cases of no treatment and self-care have seen decreases. According to a survey by the Health Strategy and Policy Institute in 2006, the percentage of the poor having no treatment in the Northern mountainous areas and Central Highlands was only 6.4% [61].

Self-care

The percentage of people practicing self-medication is relatively high, not only among the poor, but also the rich [10]. This problem is common in a situation where the marketing of medicines is overwhelming and poorly controlled. In addition poor households typically cannot afford to visit health services [10]. According to the Viet Nam National Health Survey 2001-2002, 65.4% of the population used medicines bought from pharmacies or drug outlets, without any professional advice (over-the-counter medicines) during the four week reference period of the survey [5]. The percentage self-medicating as a share of all medical contacts was higher in the poor group than among the rich: 67.4% against 61.8% [5]. However, in recent years, the percentage of people practising self-care in the poor group has changed significantly. Similar to no treatment, after the issuance of Decision No. 139/QD-TTg, the percentage self-medicating among the poor group in the Northern mountainous areas and Central Highlands was 18.8% [61].

General utilization of health services

Currently, most of the population is able to access and use health services, including the poor. It is estimated that, in 2006, in the whole country, around 100 million contacts were made with health facilities, of which one-third were covered by health insurance. The percentage of hospitalizations out of the total number of contacts was 8.4% [62].

There is no significant difference in the utilization of inpatient services between the poor and the rich groups. However, when looking into the utilization of services at various levels, difference are apparent:

- The poor have poorer access to high quality health services than the non-poor.
- The poor tend to use inpatient services chiefly at district hospitals, while the rich tend to use these services at provincial and central hospitals.
- When incurring serious illness, the poor principally visit district hospital for services.
- A far smaller percentage of the poor utilize the inpatient services of provincial or central hospitals compared with the rich group [10].

The data from the Viet Nam National Health Survey 2001-2002 also show that the average length of inpatient stay in the whole country during the 12 months prior to the survey was eight days. There was a significant difference in the number of inpatient days between facilities, with the average generally being greater in health facilities at higher levels: 3.6 days in CHS/polyclinics; 6.8 days in district hospitals; 9.6 days in provincial/municipal hospitals; and 13.5 days in central/regional hospitals. This is rational, as hospitals at higher levels typically have to deal with more complicated cases that require longer treatment; however, the length of stay at all levels may be higher than

necessary. The average number of inpatient days among obstetric patients was only 4.2 days against 6.9 days among patients with acute illness, 8.4 days among patients with injuries and 11.4 days among patients with chronic illness [10].

The number of outpatient contacts averages 1.2 contacts/person/year [62]**.** The percentage of people visiting health facilities for consultations is increasing at all levels, especially in non-public hospitals, where it has increased by more than 25% since 2005 [62]. Generally, the percentage of people choosing non-public health facilities for outpatient services is quite high, at more than 50% [5] for all groups. However, the average number of outpatient contacts per poor patient was far smaller than for the better-off and rich groups. The rate of utilization of outpatient services at the CHS and polyclinics gradually decreases as living standards increase, with a rate of 51.8% among the poor and 16.8% among the rich [10].

Utilization of health services by the poor

Most of the poor are provided with free health care cards/health insurance cards thanks to Decision 139/QD-TTg, which helps to increase their access to essential health services. However, quite a large number of poor people are without health insurance cards or have the wrong information on their cards [61, 63], which hinders the effectiveness of the HCFP. Moreover, a certain segment of the poor who are provided with health insurance cards do not use them when visiting health facilities for various reasons, such as: they do not know how to use them; the administrative procedures are complicated; shyness; or their cards are invalid [61, 63]. Generally, the number of poor patients visiting health facilities and using health insurance cards varies significantly between localities. In some mountainous provinces, such as Lai Chau and Son La, the average number of health facility visits by the poor is 0.5 and 0.6/year, respectively, while it is 2.7 in Ha Giang [64].

Despite the problems, the use of health care cards by the poor has gradually increased over time. Around 70% of poor people visit CHS, 24% district hospitals and 6% provincial hospitals [64]. However, the poor still have limited access to quality health services because of indirect expenses (on food and travel) and geographical barriers, which are important to them (even when they hold health insurance cards) [61].

Utilization of reproductive health services

In recent years, reproductive health care (RHC) has significantly improved and programmes, such as safe motherhood and essential obstetric care, have been implemented extensively. However, the percentage of deliveries carried out at home in some regions and among some population groups is still high, mainly among women living in mountainous areas, ethnic minorities and poor women. The percentage is only 4.7% in provinces in the central coast region, while in five northern mountainous provinces and the Central Highland, it is far higher, 87.6% [65]. In these regions only around 18% of pregnant women receive professional birth attendance; the rest are helped by their husbands, relatives or traditional birth attendants, or even attend to themselves during birth (5.1%) [61]. Some pregnant women, delivering at home use clean delivery kits; however, the percentage differs greatly between provinces. Along with RHC activities, some international organizations, such as UNFPA, implement projects to actively support mothers, such as providing clean delivery kits, communication, pregnancy management, etc.

Periodic gynaecological care is quite good in many localities, but it is poor in others due to limited funds, equipment and human resources. Moreover, since the

separation of the RHC teams from the district hospitals, mobile care has encountered more difficulties as regards use of the human resources and equipment of the obstetric department. The percentage of people using family planning and abortion services, is increasing, with abortions increasing particularly among young people [10].

2. Provision of preventive care and health promotion services

2.1. Implementation of national health target programmes (NHTP)

Preventive care services are mainly provided in national target health programmes, including control of malaria, goitre, tuberculosis, leprosy, dengue fever, child malnutrition, HIV/AIDS and the expanded programme of immunization (EPI), community mental health care and food hygiene and safety. Many NHTPs have gained positive results, such as EPI and the malaria and leprosy control programmes. They have helped to reduce morbidity and mortality from some dangerous diseases and epidemics, including HIV/AIDS, and to reduce the malnutrition rate and increase life expectancy.

However, the implementation of preventive care activities is also facing some problems and risks [10] that threaten the achievements made in the preventive care sector.

- The surveillance system and the responsiveness to diseases are poor in many localities. The collection, reporting and processing of information, as well as responsiveness to diseases, is not being carried out in a timely manner in many localities. There are shortages of human resources, equipment and funds for active epidemic surveillance and control.
- The achievements made in some projects are not sustainable. Many diseases have the potential to relapse and erupt into epidemics, such as tuberculosis and dengue fever. The HIV/AIDS infection rate has not been brought under control. Food quality and safety is an emergent problem in society.
- The quality of certain preventive care services in some localities is not high, especially in remote and mountainous areas. There have been some complications related to vaccinations, such as anaphylactic shock, high fever, paralysis and death. The causes may be: (1) poor quality vaccines; (2) poor storage conditions for vaccines; (3) poor professional skills among preventive care workers (4) patients' inherent vulnerability. In some localities, such as the Central Highlands and HCMC, people show their resistance to and suspicion of vaccination services after such complications occur.
- New and dangerous diseases have emerged recently, such as SARS, avian influenza A(H5N1), foot, hand and mouth disease, etc. and some type-variated virus strains, such as dengue fever, causing difficulties for preventive care. In recent years, pockets of communicable diseases have been found in some localities.
- Many activities have been implemented for prevention of accidents and injuries, but the results have been limited. For example, the number of deaths due to traffic accidents is not decreasing. In the first six months of 2007, there were 6910 deaths, an increase of 7.2% against the same period last year [66]. Industrialization and joining of WTO have resulted in the rapid growth of investments, expansion of production and construction, etc. The negative side of economic growth has resulted in increases in many occupational diseases and workplace accidents in various sectors as a consequence of low professional skills and poor work-safety measures [67].

- The possibility of involving various sectors, organizations and the community, as well as the private health sector, in disease and epidemic control activities is limited and these programmes are mainly the responsibility of the health sector. Compared with the past, it is more difficult to mobilize the community to participate. Furthermore, collaboration in surveillance, detection, diagnosis and treatment of many diseases at the grassroots level is poor. In addition, human resources and collaboration are poor in terms of quantity and capacity at various levels, especially the district and commune levels.
- In the future, if the Government discontinues its support for some NHTPs, such as dengue fever control, goitre control, etc. , the preventive care system at the grassroots level may encounter difficulties and diseases that have been brought under control may return unpredictably.

2.2. Health information, education and communication (IEC)

The IEC system is vertically organized, from the central to the district and commune levels. In Viet Nam, generally, IEC is widely implemented and achievements have been made as regards improvement of people's awareness and behavioural changes related to preventive and curative care, especially birth-rate reduction, that have contributed to the control of diseases and improved basic health indicators.

Some major problems related to IEC remain, however:

- IEC documents are rarely tested before publication due to limited resources and technical skill [10]. Such documents are typically compiled for all targeted groups; therefore, the effectiveness of communication to those with a low educational level and ethnic minorities is not high. Moreover, the poor communication skills and methods of some communication workers at the commune and village levels also limit the effectiveness of IEC.
- IEC activities at the district, commune and village levels are limited because of the absence of a full-time IEC staff at the district level. Most provinces have established an IEC collaborator network at the commune level, mainly VHW (estimated at 130 755 collaborators [68]) with a wide coverage (93.7% of villages). However, there is an absence of measures to encourage, monitor and assess the effectiveness of the IEC activities of the VHW network. Furthermore, the incentives for communicators are not good, making it difficult to mobilize them.
- IEC has had little effect in rural, remote and mountainous areas and among ethnic minorities.

2.3. Grassroots health system and PHC

The grassroots level is the closest to the general population, and includes district hospitals, district centres for preventive medicine, polyclinics, commune health stations and VHW. This level plays a very important role and has the main responsibility for providing health services and PHC. The maintenance of this system, even when the country was encountering many difficulties, is a great success story for the health sector, and it has made significant contributions towards increasing some basic health indicators in Viet Nam. In coastal, remote and mountainous communes, the grassroots health system has received significant assistance from the military medicine sector. However, certain shortcomings remain:

Organization: Most grassroots facilities encounter difficulties in implementing Decree 172. Like the preventive medicine sector, major problems include a shortage of human resources and coordination mechanisms. Overlaps in management results in many problems: (1) difficulty in professional direction as a result of responsibility for human resources and finances being separated; (2) absence of technical assistance, as well as human resources from the district level; and (3) reduction in the number of doctors at the commune level because they are sent to the district level as a result of the current organization of the network. Currently, in many communes, doctors have even left their jobs due to low salaries, the shortage and outdatedness of equipment, and the slowness in payment of salary by the Commune People's Committee. In some provinces, the percentage of doctors at the commune level has fallen from 90% to 55% [65]. The management and maintenance of the VHW network is even more difficult.

Commune health stations (CHS)

Generally, the capacity of commune health stations (CHS) to meet people's health care needs is poor; the quality of their services is not high. The major cause is the shortage of qualified health workers, with even assistant doctors and nurses in short supply in many CHS in mountainous areas. The Government and national, as well as international organizations have invested in infrastructure and equipment in many CHS, but in many others equipment are out-dated and in poor condition.

Difficulties related to health insurance-based care have emerged at the commune level due to the payment ceiling. Moreover, trying to implement health services based on health insurance in a situation where the infrastructure and the qualifications and numbers of health workers are limited and there is an increasing demand is generating a great deal of pressure on CHS. Furthermore, when human resources are limited, the heavy burden of administrative procedures and the tasks of reporting and providing information for various national health programmes also contribute to a reduction in CHS effectiveness. Another factor that should be mentioned is the limited capacity and responsibility of some health workers in CHS, which add to reduced performance effectiveness.

The CHS plays the key role in implementing PHC activities. However, their capacity to respond is limited. The knowledge of CHS health workers on coping with some common diseases, like acute respiratory infection, is relatively good, but may be mediocre for diarrhoea and very poor for hypertension and obstetric interventions [5, 10]. Therefore, performance effectiveness at the CHS is in great need of reassessment. Currently, many CHS have extended their performance scope and, in addition to providing curative care services, also provide health care services at home. However, the fact that public health workers perform private health services outside the CHS may be misunderstood. This situation requires more regulation to minimize the emergence of negative outcomes and risks related to health workers, as well as patients.

In addition to curative care services, health management and periodic health check-ups are also undertaken by the CHS. However, these functions are not performed well in most communes due to limited funds. Pregnancy and obstetric management, as well as mother and child management, is performed in most CHS, and have contributed to reductions in maternal and infant mortality. Yet, the health management of other age groups, such as chronic diseases among the elderly, social diseases, etc. has not received due attention.

Village health worker (VHW) network

Attention has been given to this network, covering around 85% of villages nationwide. The professional qualifications and capacities of VHWs are generally poor, thus the coverage and surveillance of some diseases within national health target programmes are not good, especially in remote, mountainous and border areas. Generally, the performance effectiveness of the VHWs in many localities is not high because of the high percentage with low qualifications (more than one-fourth of VHWs have not had the required three months of training). In addition many VHWs simultaneously do other jobs assigned by the village or commune, thus they cannot devote much time to their health activities. VHWs quitting their jobs also causes problems for health activities at the commune level. One of the reasons for this is that the VHW stipend is so low that it does not encourage involvement.

The current VHW management model causes many difficulties for the development and maintenance of activities and, in some localities, the VHW network has decreased in terms of both quantity and quality. In some provinces, VHW coverage has dropped from 100% to 70% of all villages [65].

Primary health care (PHC)

Right from the period when Vietnam first gained its independence, the Government has been greatly concerned with PHC. After reunification, while advanced technologies remained underdeveloped, Viet Nam channelled many resources into pursuing the fundamental issues outlined in the Alma-Ata Declaration of 1978. Giving priority to invest in PHC contributed to the general achievements of the health sector in terms of basic health indicators.

However, economic development and the changing disease pattern are posing a challenge for PHC. Despite the fact that many diseases and epidemics have been controlled or curbed (such as tuberculosis, dengue fever, etc.), their potential to return is high, and many new dangerous diseases have emerged. The child malnutrition rate is quite high and its reduction is relatively slow. High-risk factors affecting health, such as alcohol, tobacco, drug abuse and prostitution are increasing, due to weak corrective action, and noncommunicable diseases, such as cancer, cardiovascular disease and diabetes, are increasing rapidly, putting great pressure on the health system. PHC activities need to prevent communicable diseases and prevent the risk factors related to noncommunicable ones.

The rapid development of advanced medical technologies seems to influence the role and performance of PHC. Some PHC activities that were performed well in the past are being disregarded in the current context. IEC is not being evenly performed and focused upon in some localities. It is a fact that, in areas where people's awareness is good, such as cities, it is more difficult to perform these activities. On the other hand, the possibility of mobilizing community participation in PHC activities is not high. The reason for the spread of dengue fever in 2007 include unhygienic living conditions and a lack of responsibility on the part of administrative leaders, schools and the whole community, ineffective campaigns and poor environmental sanitation [69]. Regulations require that all communes should establish a PHC Committee, chaired by the chairman of the Commune People's Committee. Yet, the performance of these committees in many communes is poor, with meetings held only once every six months or annually.

The development of the labour force also requires that PHC should focus on labourers. However, insufficient attention is paid to PHC in most industrial parks,

factories, etc. Work safety measures are limited and labourers' self-protection is not good [67].

3. Curative care service provision

The public health network has a wide coverage. Health facilities are established at all four levels: central, provincial, district and commune. Districts, communes and villages are called the grassroots level.

At the central level, there are general and specialized hospitals under the control of the Ministry of Health or People's Committees of large cities with the function of providing curative care services involving intensive specialties and complicated and modern techniques.

At the provincial level, there are provincial general hospitals, regional hospitals and provincial specialized hospitals under the management of line ministries and sectors, whose function is to receive and treat patients whose conditions are beyond the capacity of the district level.

At the district level, there are district hospitals that admit inpatients for treatment using basic techniques, resolve emergencies and treat common diseases.

At the commune level, the commune health station (CHS) mainly focuses on preventive care and provision of outpatient care services. However, most CHS have some beds for inpatients in cases of delivery, emergency or for monitoring patients. Village health workers (VHW) operate under the management and direct technical direction of the CHS. VHW are responsible for implementing health education and communication, making contributions to implementation of national health programmes and providing home-based primary health care for the people and community.

There are 1030 public hospitals with 127 562 beds accounting for 95.5% of all hospital beds. In addition to public health facilities, private ones are expanding in terms of size and number. At present, there are 66 licensed private hospitals whose total beds account for 4.5% of the total [68]. The ratio of hospital beds to population has increased in recent years. In 1995, the ratio was about 18.1 beds per 10 000 population. By 2002 the ratio had fallen to 16.6 but increased to 18.3 by 2006 [3].

Generally, the curative care system in Viet Nam is gradually being invested in and upgraded to meet people's needs as well as social development needs. Many advanced and complicated technologies and procedures have been employed in hospitals, such as liver and kidney transplants, endoscopic interventions, etc.

However, despite the achievements gained, the provision of curative care services in Viet Nam is currently experiencing problems that require solutions by investors and policy-makers.

First, as regards the curative care network: Hospitals cover all three levels: central, provincial and district. Yet, the links between these levels are weak, as indicated in the lack of professional supervision and support by hospitals at the upper level to the lower one. The imbalance in human resources between health facilities at different levels should also be addressed, especially in remote and mountainous provinces. As regards decentralization of management, the difference between localities in terms of human resources and economic conditions causes problems for many provinces, especially poor ones.

Second, overwork in hospitals: The overload in central hospitals is serious, indicated by the high bed-occupancy rate. As reported by the Therapy Department, in 2004 [70] overload was noted in both the inpatient and outpatient sectors. The cause was associated with patients' free choice of health services; the absence of specialties and equipment at the lower levels; the small differential in user fees in hospitals at the upper levels compared with the lower ones; and increasingly convenient transport, facilitating access to health facilities at the upper levels.

However, further analysis reveals that the actual number of beds, estimated in 2006 as 20 beds/10 000 inhabitants, is on a par or higher than other countries in the region [71]. While patient overload is rarely found at higher levels of care in other regional countries, this is truly a serious problem in Viet Nam. Although the overload at the higher level is well recognized, people seem to accept it without using other appropriate health services at lower levels that are 'underloaded'. This indicates that the referral system is not working effectively.

There is a significant difference in terms of the average length of inpatient stay between different facilities. Generally, the average number of inpatient days is greater in health facilities at higher levels: 3.6 days in CHS/polyclinics; 6.8 days in district hospitals; 9.6 days in provincial/municipal hospitals; and 13.5 days in central/regional hospitals. This contributes to the overload in hospitals at upper levels.

Third, problems related to hospital autonomy: This is a sound policy in general, however, conditions for implementation in Viet Nam are not good. For effective implementation, three major factors are required: human resources, infrastructure and equipment, and regional economy. In fact, hospitals have to cope with many difficulties during the process of autonomization because these three factors are absent, especially in district hospitals. More specifically, the problems are (1) the poor management capacity of hospital leaders, (2) limited resources (human resources and income), (3) outdated infrastructure and equipment; and (4) a lack of mechanisms to support information management, general management and accounting for expenditure and income. In order to undertake autonomization, currently all hospitals are attempting to increase their incomes, leading to abuses in the use of medicines and equipment.

Fourth, hospital financing: Limited finance is the most evident difficulty in most hospitals. People's needs for health care are increasing, while the corresponding investment in health care is not being made. User fees do not fully reflect costs, causing many problems for hospitals in assuring sufficient finance for their performance, especially when they implement autonomization.

Most hospitals cope with financial problems when providing health services for health insurance card patients. The irrational reimbursement mechanism within the health insurance system for patients at the upper level causes a situation where hospitals at the lower level do not want to refer patients. Delayed reimbursement causes difficulties for hospitals.

Fifth, government management of the health sector: Coordination between the preventive care and curative care sectors, and between hospitals and the grassroots level is inadequate in some localities. This problem became more acute with the implementation of Decree 171 and Decree 172 when the district centre for preventive medicine took them over without close coordination with curative care activities. Moreover, the implementation of hospital autonomization in a situation where state regulation capacity is limited and there is an absence of coordination and tools to control

it effectively may cause more serious problems in provision of health services, affecting equity and efficiency in health care.

Sixth, quality of health care services: This is a concern in many health facilities due to poor investment in infrastructure and a shortage of human resources in terms of both quantity and quality, especially a shortage of doctors in district hospitals and in mountainous provinces. Bypassing is quite common due to the poor quality of services at the lower level, causing overload in central hospitals, especially specialized ones. In 2001, only 64% of the patients referred from district or provincial to central hospitals had been correctly diagnosed by the lower level, and only 51% referred from district to provincial had been correctly diagnosed by the district level. These figures were 75% and 59%, respectively, in 2003, but it is evident that the percentage of incorrect diagnoses in hospitals at the lower level is very high. However, there is no system or criteria for controlling and assessing the quality of health services at health facilities.

Seventh, management of hospital waste: Hospital waste is a pressing issue for the health sector. Hospital plans include systems for medical waste treatment, but in practice little attention is given to this area. The major shortcomings in management of medical waste include:

- Regulations for classification and disposal of medical waste are not appropriate. Not all hospital wastes are toxic or dangerous. The disposal of all medical waste incurs expensive operation costs and a waste of valid refuse that could be recycled.
- Most current disposal methods are not hygienic. Statistics show that only one-third of solid waste is burned by a modern incinerator. The remainder is destroyed using simple methods: 15.3% is burned in the open air, 13.9% is burned by a manual incinerator, 33.3% is dumped on hospital land, and 27.2% is disposed of in a shared garbage dump [72].
- Most treatment systems for solid and liquid wastes are old and outdated, consuming high amounts of energy and treating the waste improperly, which produces toxic sub-products.
- Medical waste treatment is an economic burden for most hospitals in the current situation of constrained funding and revenue.

It is reported that hospital waste has been affecting the environment, health workers and the community at an alarming rate. This is an urgent problem that needs to be addressed immediately.

Eight, a weak HMIS: The absence of HMIS software in hospitals is a problem for management, monitoring and processing of information, as well as for projecting investment needs. The Ministry of Health has not produced optimal software for hospital management. Therefore, the information collected is not standardized and uniform between hospitals and health facilities.

4. Private health service provision and utilization

4.1. Situation in the private health sector

Since officially being recognized, the private health sector has seen strong and diversified development. In 1998, the Ministry of Health recognized 19 836 private health facilities of various types, 14 182 private pharmacies and 7015 private traditional medicine practices [73]. By June 2001, the figures had risen to 27 394 private health facilities, 17 733 private pharmacies and 9338 private traditional medicine practices [74].

According to the most recent data available, by 30 June 2004, 65 000 private health facilities had been recognized nationwide (estimate by the Therapy Department, Ministry of Health), of which 30 000 were private clinics, 23 000 private pharmacies and drug outlets and 12 000 private traditional medicine practices. However, these figures do not reflect the full situation. The number of unlicensed facilities is far larger, and private providers without any clinics or traditional healers visiting homes to provide care are quite common, especially in rural areas.

The development of the private health sector is not only indicated by the number of facilities, but also the number of private hospitals. By July 2005, 42 private and semi-public hospitals had been recognized nationwide (4.6% compared with public ones), of which 28 were general hospitals and 14 were specialized. The total number of beds in private hospitals was 3282, accounting for 13% of the number of public hospital beds. The smallest number of beds in a private hospital was 21 and the largest was 500. The average number of beds in a private hospital was 21 to 60 [75] To date, according to the Therapy Department, Ministry of Health, 66 private hospitals have been recognized nationwide.

The coverage of the private health sector is wide. According to the Viet Nam National Health Survey 2001-02, 71% of communes had private health facilities; 62% had private western practitioners (doctors, assistant doctors, nurses); 37% had at least one non-public western doctor; 23% did not have doctors, but assistant doctors; and 1% did not have doctors or assistant doctors, but private nurses. As also shown by the Survey, around 48% of communes had non-public traditional medicines practitioners.

At present, the private health sector generally performs strongly in better-off regions. It mainly focuses investment in outpatient care and performance of simple and easy-to-recover-cost techniques. Moreover, there is an evident imbalance in the distribution of private practitioners; they are concentrated mainly in better-off areas. There are a large number of unlicensed private practitioners, and public doctors providing private services account for 70% of the total number of private doctors. A common fact is that private health facilities typically violate regulations, as they provide consultations and sell medicines at the same time; in many cases they overuse high-level technologies and expensive medicines to gain profit [10]. However, control and monitoring of the private health sector is limited.

5. Pharmaceutical management and drug supply

5.1. Pharmaceutical management

State management of the pharmaceutical area has been consolidated in recent years. However, much remains to be done:

A management system for pharmaceuticals has been developed but has not yet been fully implemented. By the end of 2005, six provinces had failed to organize a pharmaceutical management apparatus, 12 provinces did not have a drug inspectorate and five provinces had no centre for quality checking of pharmaceutical products and cosmetics [10].

There is a shortage of human resources for management with limited management experience in the market mechanism at both the central and local levels. In many provinces, there are only one to two pharmacists in charge of drug administration.

The pharmaceutical inspectorate lacks trained personnel, therefore inspection and punishment for non-compliance with technical regulations, including hospital

regulations, regulations for prescription and selling of drugs, regulations for private health and pharmaceutical practice, are not yet strictly enforced.

Although legal documents on drug administration have been developed it is not yet synchronous, the regulations are not keeping abreast with market changes, many activities are not clearly indicated and punishment is not strong enough.

The application of information technology in drug administration is limited. There is a lack of collaboration between management agencies and the pharmaceutical sector in producing legal documents on drug market management.

5.2. Drug supply

The number of central pharmaceutical enterprises, private companies, pharmaceutical limited companies and joint-stock and foreign-owned pharmaceutical companies rose dramatically in the period from 1999 to 2005. Revenue from pharmaceutical producers increased from VND 440.8 billion in 1995 to VND 3968.6 billion in 2003. The total revenue submitted to the state budget amounted to VND 37.5 billion in 1995 and VND 698.5 billion in 2004. However, some limitations have become apparent in the pharmaceutical production industry of Viet Nam.

- Pharmaceutical production has no focused long-term strategy and production capacity is therefore limited, reducing competitiveness
- Pharmaceutical production in Viet Nam is small-scale with limited techniques, simple technology and low quality, and 90% of production materials are imported.
- Many domestic pharmaceutical producers manufacture products with the same active ingredients, which tend to be common drugs with low prices and low ability to compete.
- Viet Nam has not invested in the production of special treatment drugs, or essential drugs that require a higher level of technology.
- Drug prices are unstable

Distribution of drugs:

- The principles of competitive bidding for drug supplies for hospitals are not clear enough and are hard to apply. The drug prices consulted during competitive bidding are not regularly updated nor widely disseminated. Some bid winners do not provide sufficient drugs and patients therefore have to buy drugs outside the hospital. Some hospitals only call for bids for a one to three month supply of drugs, as they do not have sufficient funding, thus they are always passive in securing drug supplies for treatment.
- There is a wide network of drug stores, which facilitates people accessing drugs but poses a great challenge for the management of drug quality, drug storage conditions and safe and rational use of drugs.
- Pharmacies are facing huge difficulties in securing the human resources and physical infrastructure necessary to implement good prescription practices (GPP)…. Many drug sellers are not used to giving instructions to buyers.

Safe and rational use of drugs:

- Self-treatment is prevalent.

- Due to economic incentives and benefits, medical practitioners, drug stores and health facilities tend to sell more drugs than necessary, which leads to irrational use of drugs.

6. Recommendations

The recommendations on priorities and solutions to improve and strengthen the system of health service provision in the future are based on two criteria: (1) urgency of the problem, as mentioned above; and (2) resource feasibility.

6.1. Strengthen the organization, human resources and equipment for preventive care, especially at the grassroots level

- Develop a policy to encourage preventive care workers to work in disadvantaged areas, and invest in equipment for the preventive medicine sector at the grassroots level.
- Develop a sustainable development strategy for the preventive care sector in disadvantaged areas. Organize training and re-training for preventive health workers.
- Focus on and undertake social mobilization in health care. Mobilize the participation of all levels of the government and the community in health. Mobilize additional resources from civil society organizations.

6.2. Strengthen capacity against new dangerous epidemics and noncommunicable diseases

- Strengthen the surveillance, monitoring, supervision, inspection and evaluation of the environment and food hygiene and safety to reduce any negative impacts on health.
- Strengthen IEC activities, heighten awareness and change community behaviour.
- Develop a health consultation service network as related to, e.g. HIV/AIDS, reproductive health care.
- Develop a national strategy for prevention and control of noncommunicable diseases and have specific actions to implement the strategy.

6.3. Improve the effectiveness and quality of health care services and primary health care at the grassroots level

- Reunify the regulations on responsibility and authority in terms of curative care at the commune level, creating legal grounds for health workers in providing services.
- Develop a mechanism for collaboration between district hospitals, district health bureaus and district centres of preventive medicine in monitoring, inspecting and supporting the commune level.
- Develop a re-training plan for commune health workers, focusing on local skills training to ensure feasibility.
- Develop rational policies to encourage qualified staff to work at CHS in remote and mountainous provinces.
- Increasing investment in equipment for CHS, giving priority to remote areas and those CHS which have not achieved benchmarks, focusing on equipment for preventive care activities.
- Organize outreach care services in remote and mountainous areas with support from district health facilities.

- Strengthen investment to implement Project 225 on upgrading of district hospitals.
- Develop a private health network at the village level as collaborators of the CHS.
- Develop health consultation centres and expand the 'family doctor' model.

6.4. Develop a quality assurance framework and strategy to increase quality and accountability of health care providers in both the public and private sectors

- Increase management capacity for health and hospital managers. Continue to undertake hospital self-financing according to Decree No. 43.
- Develop and strengthen the hospital information management system. Set up a set of hospital quality assessment indicators.
- Research, set up and pilot care pathways for some common major disease groups.
- Increase access to quality health services for the poor, ethnic minorities and vulnerable groups.
- Construct and strengthen the medical waste treatment system.

6.5. Reduce the workload in hospitals at upper levels

- Develop and implement a comprehensive plan to reduce the workload in hospitals at upper levels.
- Revise lists of services to be provided at different referral levels of the system to bring them into line with the development of the sector and social need.
- Develop a day-hospital model. Expand the satellite hospital network
- Improve quality, reduce average length of stay (through improvements in professional skills, equipment and appropriate use of inpatient beds).

6.6. Improve management of prices and use of pharmaceuticals

- Implement the strategy on medicine price stabilization
- Reorganize drug provision, management and use in hospitals;
- Develop plans to strengthen IEC activities for both providers and users on using drugs safely and rationally.

7. Summary of prioritized issues and solutions

HEALTH SERVICE PROVISION

Key issues	Priorities	Solutions/actions		Achievements see also monitoring indicators
		Short term (2008)	Long term (2010-)	
Preventive care and public health	1. Strengthen preventive health activities, especially at the grassroots level.	• Develop policies to encourage preventive health staff to work in disadvantaged areas, invest in equipment for preventive health at the grassroots level • Organize training and retraining for preventive health workers • Encourage social mobilization for health care. Mobilize the participation of authorities at all levels and the community in health care; mobilize resources from the localities and various organizations	• Develop a sustainable development strategy for preventive health in disadvantaged regions	• Increase the number of preventive health workers in disadvantaged areas
	2. Strengthen the ability to deal with dangerous emerging diseases and noncommunicable diseases	• Strengthen IEC activities, improve awareness and change behaviour in the community • Develop a national strategy to control noncommunicable disease	• Develop a health consultation service network as related to, e.g. HIV/AIDS, reproductive health care. • Strengthen the monitoring, supervision, inspection and evaluation of the environment and food hygiene and safety to reduce any negative impacts on health.	• Revise monitoring indicators for national health programmes

Grassroots level and PHC	3. Increase effectiveness and quality of health services and primary health care at the grassroots level	• Reunify the regulations on responsibility and authority in terms of curative care at the commune level, creating legal grounds for health workers in providing services. • Develop a mechanism for collaboration between district hospitals, district health bureaus and district centres of preventive medicine in monitoring, inspecting and supporting the commune level. • Increase investment in equipment for CHS, priority in remote areas and for CHS that have not yet met national standards, especially for equipment used for preventive medicine • Collaborate with health facilities at the upper level in continuing to provide outpatient services for patients after discharge from hospital.	• Strengthen investments and implement effectively project 225 on strengthening district hospitals. • Develop retraining plan for commune health workers, with emphasis on training in place to ensure feasibility • Develop appropriate policy to encourage well qualified health workers to work in the CHS in mountainous and remote areas • Organize outreach examination and treatment with assistance from district health facilities for remote regions • Develop a network of private providers to collaborate in village health work • Develop health consultation centres and expand the 'family doctor' model.	• A refined collaboration mechanism between district hospitals, district health bureaus in monitoring, supporting professional activities at the commune level • Increased access to health services of the people at the grassroots level
Curative care	4. Increase quality of hospital services	• Strengthen management capacity of health and hospital managers, continue to implement autonomization of hospitals under Decree 43 • Strengthen access of the poor, ethnic minorities and other vulnerable groups to quality health care services • Develop and consolidate the hospital waste treatment facilities.	• Develop and strengthen the HMIS of hospitals. Research and develop evaluation indicators for hospital quality • Research, develop and pilot care pathways for a number of disease groups	• Proportion of poor patients able to use hospital services

	5. Reduce overload on higher level hospitals	• Revise lists of services to be provided at different referral levels of the system to bring them into line with the development of the sector and social need. • Implement a price system that encourages use of lower level facilities • Improve the quality, reduce the length of inpatient stay	• Develop and implement a uniform plan to resolve the overcrowding of higher level facilities • Develop a day hospital model. Expand the satellite hospital network	• Bed occupancy rates decline
Strengthen management of prices and use of pharmaceu-ticals	6. Safe and rational use of drugs	• Reform the provision, management and use of drugs in hospitals • Develop a plan to strengthen IEC on instructions for how to use pharmaceuticals safely and rationally for providers and users of medicines	• Implement the strategy for drug price stabilization of the Drug Administration of Vietnam	• Measures to strengthen safe and rational use of drugs are developed.

Conclusions

Summary findings

Health status

The available information shows fairly good basic health indicators, indicating a steady positive trend in health outcomes. Indicators such as MMR, IMR, U5MR and under-five malnutrition have shown declines. However, it is necessary to pay attention to growing differences across regions (Northeast, Northwest, Central Highlands) and between urban and rural areas.

Economic growth has brought about great opportunities for development of the health system, but has also widened the gaps between the better-off and the poor, and between urban and rural populations. The economic transition is also leading to changing disease patterns. While communicable diseases have largely been contained, some specific diseases remain problematic (dengue fever, malaria, tuberculosis, HIV/AIDS, avian influenza A(H5N1), and noncommunicable diseases (e.g. cancers, cardiovascular diseases, diabetes, injuries and accidents, poisonings) are increasing. The development of some newly emerging diseases is difficult to predict.

Although the coverage of the health care network has been expanded, the poor are still facing increasing constraints in access to good quality essential health services.

Socio-economic and cultural factors are widening the differences in living standard across social strata and regions. The literacy rate is high, but there are differences across regions and socio-economic strata. While some health determinants have been showing a positive trend, water quality is still failing to meet requirements and the percentage of households with access to hygienic latrines and safe water is still low in rural, mountainous, isolated and remote areas. Changing lifestyles are accompanied by a high incidence of traffic accidents; a high prevalence of tobacco smoking, especially among men; abuse of alcohol, mainly among young people; and uncontrolled prostitution and drug addiction, constituting high-risk groups for HIV infection.

Organization and management of the health system

Since *Doi Moi* the Vietnam has begun to implement decentralisation and administrative reform, reviewing and developing the functions, tasks and powers of the Ministry itself, and its subordinates; decentralizing management responsibilities from the central to local levels; envisioning 'bottom-up' planning mechanisms; allocating the budget at the provincial level; and granting financial autonomy according to the Budget Law.

The provincial level has assumed responsibility for the implementation of national health programmes and projects, as well as for preventive and curative care, with the People's Committees and Councils at various levels being responsible for supervising the allocation of the budget. The central level (Ministry of Health and its subordinates) is leading in 'stewardship', providing instruments for implementation, including directives, circulars and guidelines. A series of policies was issued (partial collection of user fees (1989), private practice in health care (1989), health insurance (1992), reduced/exempted user fees for the poor and children (2002), Health Care Fund for the Poor (2002), free health care for children under six years of age (2004), health insurance policy under Decree 63 (2005), social mobilization for health in Resolution 05 (2005), financial autonomy under Decree 10 (2002) and Decree 43 (2006). Reforms to improve the health

system with an orientation towards equity, efficiency and development are being made following Resolution 46 of the Politburo (2005); the comprehensive master plan for health system -Decision 153 (2006).

Challenges remain**:** Some health policies are no longer relevant but have been slow to be revised or amended. There remains a lack of consensus on issues related to basic health policies. Intersectoral collaboration in health care is still limited. Implementation of health policies, strategies and plans remain weak.

Management systems are a major concern with two priority issues:

The health (management) information system remains weak, data and information are not collected and compiled systematically and are seldom used for management decisions at the various levels. The system suffers from, inadequate investment, lack of collaboration and sharing of information within the health sector and with other sectors, as well as overlaps in data collection and processing.

The quality management system is in its early stages. The concept and criteria for 'quality' in health care are currently not fully understood. Inspections of quality at both public and private facilities are not undertaken rigorously. Monitoring instruments are largely nonexistent or are not fully carried out. The role of professional medical associations, are not currently being brought into full play in managing the private health sector.

Priority should be placed on strengthening intersectoral collaboration in developing and directing implementation of policies and plans, augmenting planning capacity for different health care levels. Capacity for monitoring and evaluation of implementation also needs strengthening to create a feedback mechanism for policy design and implementation. This will require the identification of the clear state regulatory roles and functions of the Ministry of Health and the lower levels. Accountability at different levels needs strengthening. Management systems, especially HMIS and quality assurance, require priority investments.

Human resources

The health workforce has been renewed and has been growing, in terms of both quantity and quality in recent years. Besides the standard health professionals, such as medical doctors, pharmacists and nurses, several new medical occupations have been established, like bachelors of public health, university-level nurses and medical technicians. Staff distribution, however, is uneven across regions and areas and there is a severe shortage of staff in remote, isolated and disadvantaged areas. Health workers in preventive medicine are lacking in many areas. Some health professions, such as pharmacists, and bachelors of nursing are in short supply, and training of health professionals in some highly specialized fields is not receiving enough attention. Due to a lack of incentives, the brain drain from the public to the private sector is limiting the number of pharmacists in the public sector.

The number of graduates has increased in the last 10 years. The number of medical training institutions has been expanding in different categories, from vocational training up to university degree and postgraduate training over the country. Teaching methods and materials have been revised in some training institutions, but still seem fragmented. Training programmes have not been updated, and are failing to meet actual needs. Implementation of the re-training programme is not being coordinated by the Ministry of Health. The limited training budget, low incomes for teachers and the lack of

policies, regulations and guidelines to assure the quality of training programmes are all affecting training of human resources for health.

The recruitment procedures being implemented according to government regulations do not account for the differences between regions and provinces. Job descriptions are not clear, and thus the evaluation of health worker performance does not have a good reference base. The salaries and incentives are not appropriate, do not cover all health professionals and are too low.

To respond to societal changes, lifestyle-related diseases and newly emerging health problems, training programmes have to be updated to equip health workers with the necessary skills to address these new health problems and satisfy the rising demands for health care of the population. The growing and aging population requires training of health workers and strengthening of health care services for children and the elderly. There is a need for appropriate incentives for health staff to reduce the challenges the public health sector faces in addressing shortages of human resources in general, and especially in remote areas.

Health financing

The mobilization of funds shows mixed results. The total average health expenditure per capita in 2006 is US$46 per capita and total health expenditure as a percentage of GDP is 6.2%. However, although health care expenditure is increasing, the proportion from public financing, including the government budget, is still low and out-of-pocket expenditure is still high, which is having an adverse impact on the equity of the health care system. Estimates of health expenditure in 2006 show that the share of resources from public sources (including state budget, social health insurance and external sources coordinated by Government) in total health spending of society has increased, but is still only 31.1%; with the share from the state budget out of total health spending accounting for only 17.9% in 2006.

Around 5% of the population is at risk of falling into the poverty trap due to out-of-pocket payments for health care.

The health insurance system has a relatively narrow coverage, but also low premiums. The overall coverage of salaried staff is low (46%), primarily because of low compliance of private sector employers, and the number of contributors is small compared with the total number of insured people (6.2 million/36 million). So far, the health insurance system has failed to include the dependants of salaried staff. On the other hand, premiums are lower than average health expenditure (the premium is equivalent to US$8, while average expenditure is US$ 45).

In the current method for allocating the state budget for health**,** risk-sharing is low. The allocation of funding is based on the number of planned beds, not on actual need or facility performance. Also, the proportion of funds allocated for preventive health comprises only 25% of the total government budget for health, while the proportion of development investment expenditure is 28% with 48% for central health facilities.

The provider payment mechanism (fee for service) does not encourage the efficient use of financial resources. The full actual cost of services is not known, and it is not clear whether the state budget subsidy plus user charges cover these actual costs. There is no effective mechanism for management of drug prices and rational use of drugs.

Prioritized measures need to be taken to increase the share of public funding in total health spending through lobbying to increase government spending on health and

increase spending through health insurance. Increase state budget spending on health in line with growth in the economy, taking into consideration population growth and annual inflation. Expand health insurance coverage in a sustainable manner through reforms and adjustments to policy which should be institutionalized in the Law on Health Insurance. The near-poor need to be protected from the risk of impoverishment through partial state subsidies of their health insurance contributions and assistance in paying for catastrophic health care costs. The paradox of poor regions supporting rich regions has to be overcome by organizing the health insurance management system at the appropriate decentralized level. Replace the fee-for-service payment mechanism with a more suitable mechanism based on determination of hospital costs using a scientific method. Allocate state budget based on performance instead of based on number of beds or staff.

Health service provision

The health care network is widespread with health facilities established at four levels (central, provincial, district and commune). Private health care facilities are expanding in terms of scale and quantity, but the public sector still plays the leading role in providing health care services for the people. In total, the country has 1030 public hospitals with 127 562 beds.

Children and mothers are the main users of preventive services in the community. The percentage of children fully immunized against seven childhood diseases is 95.7%, though the rate is lower in the Northwestern and Central Highlands provinces. Children may also be immunized against other diseases, such as typhoid, cholera, hepatitis B and Japanese encephalitis.

Most pregnant mothers use preventive health services, with an average of 3.1 antenatal visits and 84.7% having three or more visits and above and 92% of pregnant women receiving two doses of tetanus vaccine. However women in lowland areas use more antenatal care services, as well as high-tech services, such as ultrasound and lab tests. Although about 86% of mothers seek care during the postpartum period, this depends on the socioeconomic and geographic factors, which are uneven, leaving a high number of women without care after delivery. Gynaecological examinations are done on a regular basis and show a high proportion of women with gynaecological diseases.

Primary health care has brought about remarkable achievements for the health sector. Nevertheless, grassroots health care and PHC services in most localities are currently facing difficulties in implementing Decree 172. The village health network is widespread reaching almost 85% of villages nationwide, although the capacity and qualifications of the VHWs is still limited. PHC is facing great challenges in coping with newly emerging diseases, relatively high prevalence of child malnutrition, and limited ability to mobilize communities in PHC activities.

A major constraint in the provision of curative care is the overload in provincial and central hospitals due to bypassing of the referral system by patients and inappropriateness of incentives promoting extended length of hospital stay**.** Implementing autonomy in some hospitals has caused difficulties due to limited management capacity, inadequate physical infrastructure, out-dated equipment and limited sources for revenues and financing. This contributes to the risk of inappropriate use of drugs and equipment to increase revenues.

Hospital autonomy, according to Decree 43, must be further promoted, along with strengthening management capacity, development of a set of core health indicators to

monitor the quality of hospitals, refinement of the tools for pharmaceutical management and strategic improvements in PHC services.

In the long term it will be necessary to implement coordinated solutions for comprehensive quality improvements in health services for both the state and private sectors, reduce overcrowding in higher level hospitals, and increase access to quality health care services for poor people; further exploit private sector involvement in care of the people's health with an orientation towards equity, efficiency and development.

Private sector medical practice is widely available in better-off areas and focuses on outpatient services, providing services and procedures with high prices. Public sector doctors working in the private sector account for 70% of total private practitioners. Private health practitioners often violate practice regulations by providing examinations and at the same time selling drugs and overusing high-technology procedures. Inspection and supervision of private practices has many limitations.

Priority issues in preventive medicine are to stabilize the organization of the preventive health system; strengthening of the technical capacity of preventive medicine staff, especially at the grassroots level; and investing in equipment for preventive activities at the grassroots level. The quality of health care and the effective performance of CHS need reforms through consolidating organization and personnel, especially the village health network; strengthening comprehensive quality of PHC, further developing activities in a 'civil and military health collaboration' and stronger promotion of prevention and control of child malnutrition. In the long- term further investments must be made in physical infrastructure, training of health workers, strengthening of health care services for children and interventions to combat epidemics and risks factors through the design and implementation of national strategies for the prevention and control of noncommunicable diseases and consolidated community-based PHC activities.

Summary Recommendations

In each chapter is a presentation of the overall strategic objectives presented systematically by group of problem. This section summarizes the above-mentioned recommendations. However, to ensure that these recommendations are applied, and can contribute to improving the efficiency of the health sector, it is necessary that specific and concrete actions are made to develop mechanisms, policies and projects in line with these recommendations.

Organisation and management

- Continue supplementing and refining basic health policies, including revising health policies and the long term vision of the health sector, the draft Law on Examination and Treatment and the law on Health Insurance and other legal documents.
- Continue to renovate and increase state management effectiveness of the Ministry of Health, determine the roles and functions of the Ministry in a decentralized health system and improve the policy analysis capacity of the Ministry.
- Strengthen the intersectoral coordination mechanism, especially for resolving public health problems like food safety, environmental pollution and control of accidents and injuries.
- Develop the health management information system to improve the quality and efficiency of use of information in policy-making and management of the health sector.
- Refine the mechanism for managing the private health sector and health care in general

- Consolidate health sector organizational structure at the district and commune levels, develop a mechanism to strengthen effective coordination between health service providers in preventive and curative care at the district and commune levels.
- Improve effectiveness of international cooperation and aid, consolidate dialogue between the Government, Ministry of Health and development partners.

Human Resources Development

- Refine and implement plans for health workforce development
- Develop policies to attract health workers to work in remote and isolated communes
- Develop regulations on rights and responsibilities of health workers
- Comprehensive strategy to strengthen human resources and skills of health workers, for example training and recruiting of new staff, retraining, specialized training and training in use of high technology.
- Develop training facilities, including increasing the budget to improve capacity and quality of these facilities.
- Strengthen human resources in state management and management of health facilities at all levels in a systematic way.

Health Financing

- Increase state investment in the health sector, focused on priority areas at the grassroots level, remote areas, and providing assistance for health care for people who have rendered meritorious service to the nation, the poor, near poor and ethnic minorities.
- Expand health insurance coverage in a sustainable manner, redesign the voluntary health insurance and improve efficiency in management of health insurance.
- Pilot test and eventually replace the fee-for-service provider payment mechanism with another more appropriate method (DRG or capitation,…) based on results of calculation of full costs of services.
- Study and develop a mechanism for performance-based allocation of state budget to the health sector.

Health Service Provision

- Strengthen the organization, human resources and equipment for preventive medicine and grassroots health care.
- Strengthen the capacity to control dangerous emerging epidemics and noncommunicable disease
- Develop a national strategy on control of noncommunicable diseases.
- Improve the effectiveness and quality of health care services and primary health care at the grassroots level.
- Develop a quality assurance framework and strategy for health services and increase accountability of health care providers including both public and private.
- Reduce overcrowding in hospitals at upper levels.
- Improve management of prices and use of pharmaceuticals.

Summary of proposed JAHR 2007 monitoring indicators

The indicators proposed below include both indicators for which data are readily available in existing data systems (noted in bold), and indicators for which data are not readily available in the regular data collection systems of the HMIS or other official sources, such as the General Statistics Office. As each JAHR identifies new priorities or finds that previous priority issues have been resolved, the list of indicators is likely to change over time.

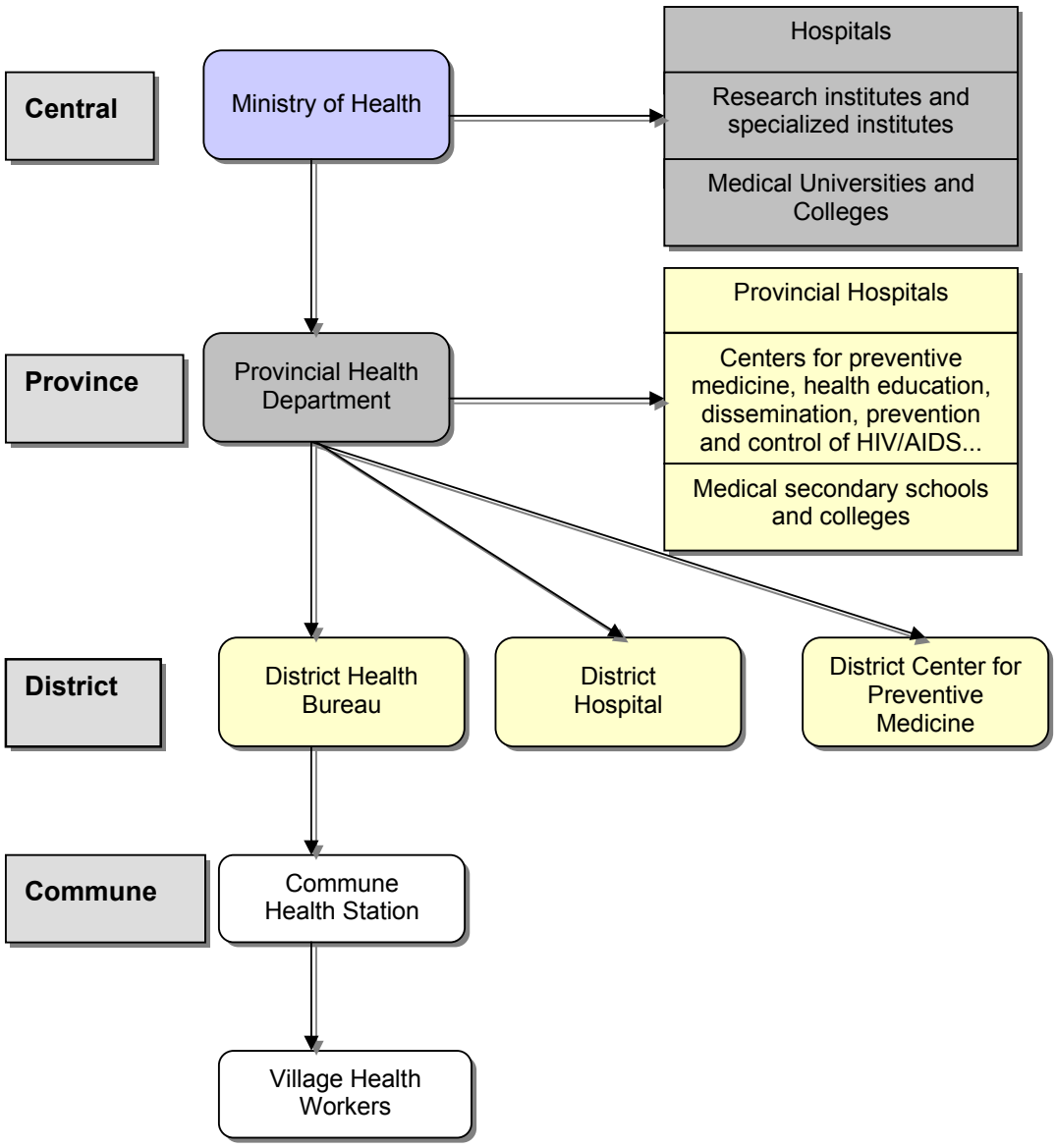
Proposed JAHR Indicators	Reasoning	Source of Information	Reference Periods	Remarks for improving HMIS
Health Status and Determinants of Health				
1. Infant mortality rate, under 5 mortality rate	**Disparities in MCH across provinces, gender**	**Provincial data from annual survey on Population Change of the General Statistics Office.**	**3 yearly**	**Need to find regular source of data on U5MR, need to disaggregate by gender**
2. Maternal mortality rate	Disparities in MCH across provinces	Provincial data on annual survey on Population Change of the General Statistics Office.	3 yearly	Poor vital statistics system makes estimates of MMR difficult and unreliable
3. Child malnutrition rates	**Disparities in child health across provinces**	**National Institute of Nutrition annual nutrition survey**	**Annual**	
4. HIV prevalence and mortality rates	**Disease patterns and disparities across provinces**	**HMIS, vertical programme**	**Annual**	
5. Tuberculosis incidence	**Disease patterns and disparities across provinces**	**HMIS, vertical programme**	**Annual**	
6. Malaria incidence	Disease patterns and disparities across provinces	HMIS, vertical programme	Annual	
7. Dengue fever incidence	**Disease patterns and disparities across provinces**	**HMIS, vertical programme**	**Annual**	**Estimates are not currently published in health statistics yearbook, need to check on availability of statistics by province**

Proposed JAHR Indicators	Reasoning	Source of Information	Reference Periods	Remarks for improving HMIS
8. Incidence of food poisoning	Food safety and control	HMIS, vertical programme	Annual	Not very useful as it only reports on mass food poisonings, not all cases
9. Incidence and mortality from traffic accidents	**Leading cause of non communicable morbidities.**	**HMIS, vertical programme**	**Annual**	
10. Prevalence of cancer by type of cancer	Disease patterns and disparities across provinces	HMIS, vertical programme	Annual	Hard to get accurate numbers as many are undiagnosed or not seeking care at government facilities.
Health system organization and management				
11. Proportion of public health facilities that have implemented Decree 43	**Reflecting scope of hospital autonomy policy**	**Provincial health offices**	**Annual**	
12. Proportion of hospitals using Ministry of Health approved hospital information management software	**Reflects ability to manage information**	**Provincial health offices**	**Annual**	**Still does not reflect ability to use the information**
13. Number of private health facilities licensed	**Reflects magnitude of private sector development and need for regulators**	**Provincial health offices**	**Annual**	**Not currently compiled at the national level.**
Human Resources				
14. Type and number of health workers	Proxy indicator for health workforce strategy.	Payroll, national HR reports, HMIS	Annual	
15. Proportion of CHS with medical doctor	**Proxy for quality of care at CHS**	**HMIS**	**Annual**	**Does not reflect true quality as assistant doctors may be well qualified to fulfil duties of CHS**
16. Proportion of health workers with university and higher education	**Policy to improve qualifications of state health workforce**	**Health Statistics yearbook**	**Annual**	
17. Ratio of health worker / population in underserved areas	**Policy to attract health staff to work in underserved areas**	**Payroll, District/Provincial reports, HMIS**	**Annual**	
Health Financing				

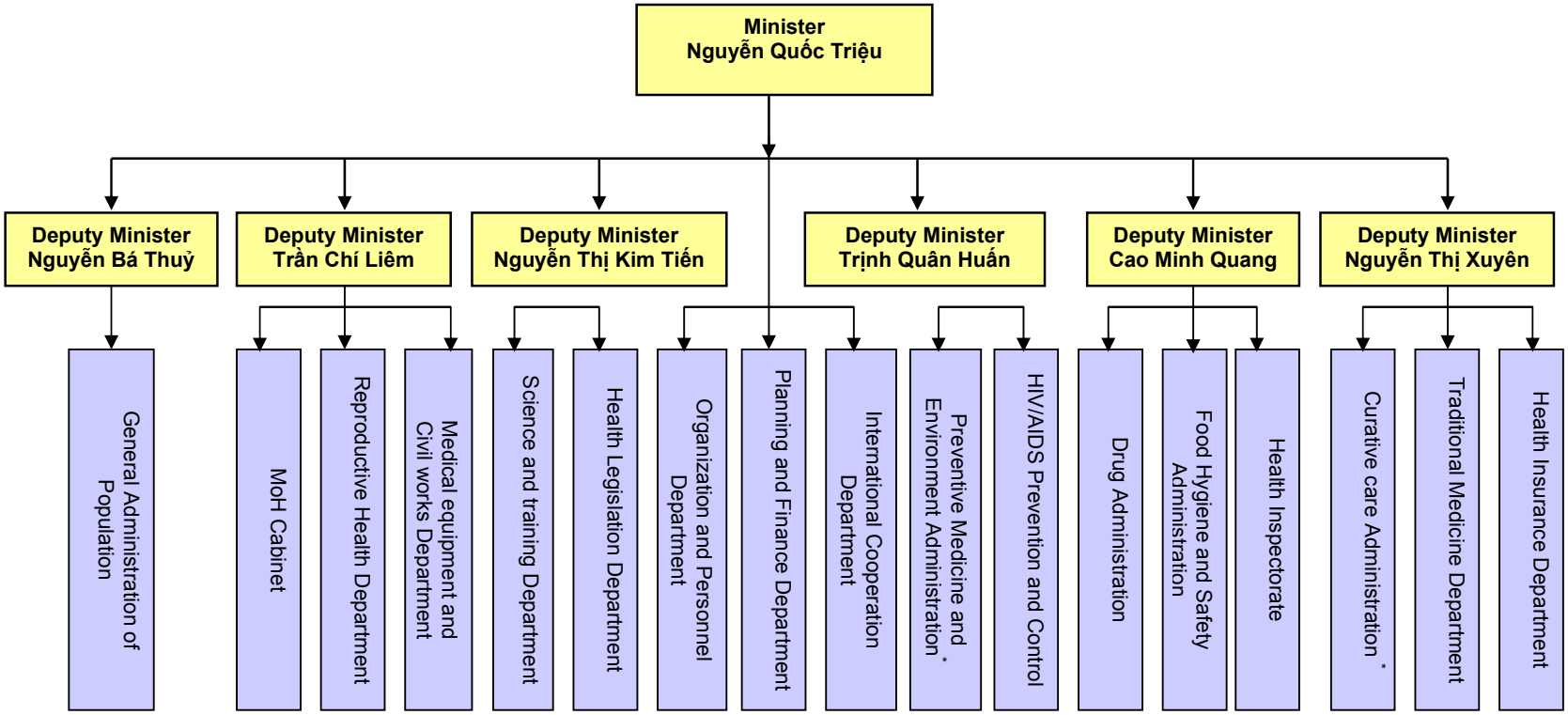
Proposed JAHR Indicators	Reasoning	Source of Information	Reference Periods	Remarks for improving HMIS
18. Total expenditure on health as % of gross domestic product	**Investment in health of the entire society**	**National Health Accounts (NHA)**	**Every 3 years, and eventually every 2 years**	
19. Government expenditure on health as % of total expenditure on health	**Government investment in health of the entire society**	**National Health Accounts (NHA)**	**Every 3 years, and eventually every 2 years**	
20. Government expenditure on health as % of total government expenditure	**Level of priority of government given to health**	**General Statistics Office/Ministry of Finance**	**Annual**	
21. Health insurance coverage as % of total population	**Compliance with insurance policy**	**General Statistics Office, VSS (insurance data)**	**Annual**	**Hard to obtain from VSS**
22. Coverage of health insurance for the poor as % of the poor	**Compliance and degree of protection by insurance policy**	**Reports from monitoring of Decision 139**	**Annual**	
23. Coverage of health insurance for the near poor as % of the near poor	Compliance and degree of protection by insurance policy	General Statistics Office, VSS (insurance data)	Annual	Impossible to obtain as near poor are not identified
24. Proportion of state budget spent on preventive health	**Reflects purchasing priorities**	**NHA**	**Every three years**	
Health Service Provision				
25. Ratio of outpatient patients/1000 persons/year	**Utilization of services**	**Health statistics yearbook**	**Annual**	
26. Ratio of inpatient patients (or consultations)/1000 persons/year	**Utilization of services**	**Health statistics yearbook**	**Annual**	
27. Hospital bed occupancy rate (%)	**Quality assurance, effective use of referral system and efficient use of health system**	**Health Statistics Yearbook, Annual Hospital inventory**	**Annual**	
28. Average length of inpatient stay (days)	**Quality assurance, effective use of treatment protocols and efficient use of health system**	**Health Statistics Yearbook, Annual Hospital inventory**	**Annual**	
29. Number and proportion of health facilities with system for treating medical waste	**Quality assurance**	**HIS on quality assurance (to be set up)**	**Annual**	**Recent priority**
30. Proportion of pregnant women making 3 or more prenatal contacts with health services	**Utilization and quality of RH services**	**Health statistics yearbook**	**Annual**	**Need to improve quality of these statistics**

Proposed JAHR Indicators	Reasoning	Source of Information	Reference Periods	Remarks for improving HMIS
31. Proportion of pregnant women delivering at health facility	Utilization and quality of RH services	District / Provincial reports, HMIS, vertical programmes	Annual	No data available on a regular basis
32. Proportion of women assisted at birth by trained professionals	**Utilization and quality of RH services**	**Health statistics yearbook**	**Annual**	**Need to improve quality of these statistics**
33. Full immunization rates	**Disparities in MCH across provinces**	**HMIS, vertical programme**	**Annual**	**Currently no province is below 90%.**
34. Proportion of communes achieving national benchmarks for commune health care	**Quality of grassroots health care**	**Provincial health offices**	**Annual**	**Unclear source of data**

Annex 1: Organizational Chart of the Health System



Annex 2: Organization of the Ministry of Health and allocation of responsibilities among the leadership of the Ministry of Health in 2007



* *This figure is adjusted based on Decree 188/2007/ND-CP dated 27/12/2007 of the Government on the functions, powers, responsibilities of the organizational structure of the Ministry of Health.*

References

1. World Health Organization. World Health Report 2000- Health Systems: Improving Performance. Geneva: World Health Organization; 2000.
2. Ministry of Health Vietnam, World Health Organization. Policy Options for the Renovation and Improvement of the Health System towards Equity, Efficiency and Development. Hanoi: World Health Organization; 2007.
3. Ministry of Health Vietnam. Health Statistics Yearbook. Hanoi: Statistics, Information-Planning and Finance Department.; (various years).
4. Government of Vietnam. Decision 35/2001/QD-TTg of the Prime Minister dated 19/3/2001 approving the Strategy for the care and protection of the People's health 2001-2010; 2001.
5. Ministry of Health Vietnam, General Statistics Office. Report on results of the Vietnam National Health Survey 2001-2002. Hanoi: Medical Publishing House; 2003.
6. National Institute of Nutrition, General Statistics Office. Progress in child and maternal nutrition: Effectiveness of the intervention program in Vietnam 1999-2004. Hanoi: Statistical Publishing House; 2005.
7. General Statistics Office. Intercensal Demographic Survey- Main Findings. Hanoi; 1995.
8. UNDP. Millennium Development Goals- Closing the Millennium gaps. Hanoi; 2003.
9. Vietnam Administration of HIV/AIDS Control. HIV/AIDS Estimates and Projections, 2005-2010 accessed at http://www.unaids.org.vn/facts/facts.htm; 2005.
10. Ministry of Health Vietnam. Vietnam Health Report 2006. Hanoi: Medical Publishing House; 2007.
11. General Statistics Office. Survey of Population Change and Family Planning (1/4/2002) -Main results. Hanoi: Statistical Publishing House; 2003.
12. Ministry of Health Vietnam. Evaluation Report on Health Activities 2006 and Plan for Protection, Care and promotion of the People's Health in 2007 Following the Sustainable Development Plan [Báo cáo tổng kết công tác y tế của Bộ y tế 2006]. Hanoi: Ministry of Health; 2007.
13. General Statistics Office. Survey of Population change, Labour and Family Planning, 1/4/2006, Main results. Hanoi: Statistical Publishing House; 2007.
14. General Statistics Office. Survey of Population Change and Family Planning (1/4/2004)- Main results. Hanoi: Statistical Publishing House; 2005.
15. Wagstaff A, Nga NN. Poverty and Survival Prospects of Vietnamese Children under Doi moi. Washington, D.C.: World Bank; 2002.
16. Ministry of Health Vietnam. Health Statistics Yearbook 2006. Hanoi: HSID, Planning-Finance Department; 2007.
17. World Health Organization. Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO as of 12/11/2007. http://wwwwhoint/csr/disease/avian_influenza/country/cases_table_2007_11_12/en/indexhtml . 2007.
18. Luu Duc Hai. Vietnam's urban environment- situation and solutions http://wwwneagovvn/tapchi/Toanvan/04-2k2-17htm) accessed 30-6- 2007. 2007.
19. Chau PN. Situation report on hygiene and the environment at health facilities: Preventive Medicine Administration; 2005.
20. Ministry of Health Vietnam, General Statistics Office, UNICEF, World Health Organization. Survey Assessment of Vietnamese Youth 2003. 2005.
21. Chung A, Kane T, editors. HIV/AIDS Behavioural Surveillance Survey 2000-BSS Round 1 results (English version). Hanoi; 2001.
22. Communist Party of Vietnam. Resolution of the 4th Conference of the Central party Standing committee (Session VII); 1994.
23. Government of Vietnam. Decree 01/1998 NĐ-CP dated 3/1/1998; 1998.
24. Central Party Secretariat. Directive 06-CT/TW, dated 22/01/2002; 2002.
25. Communist Party of Vietnam. Documents of the 10th National party Congress. Hanoi: Political Publishing House; 2006.
26. Bijlmakers L, et al. The feasibility of application of program-based support for health, June 6, accessed on 4/10/2007 [Khả năng áp dụng mô hình viện trợ theo ngành/chương trình

trong điều kiện thực tế ở Việt Nam]: http://www.ngocentre.org.vn/file_lib/vietnam_sps_health__final_report_june_06.pdf 2006.
27. Ministry of Health, Hanoi Medical University. Report on assessment of Vietnam health information system. October; 2006.
28. Le Truong Giang. Chuẩn nào cho cơ sở dữ liệu y tế? Thế giới vi tính B, tháng 4 truy cập tại http://wwwhtmedsoftcom/tinhocykhoa/chuandulieuhtm. 2002;Sect. 21.
29. Huyen DT, Quan LV, Hong ĐT. Assessment of trial of integrated supervision of health care at private health facilities providing curative services for STDs in An Giang, : Center for Research and Development of Strategy for public health; 2005.
30. World Health Organization. The role of the private sector and privatization in European health systems. Regional Committee for Europe Fifty-second session Copenhagen, 16–19 September 2002 2002; 2002.
31. Travis P, Egger D, Davies P, Mechbal A. Chapter 25: Towards better stewardship: concepts and critical issues. Chapter 25 In: Murray CJL, Evans D, editors. Health systems performance assessment: debates, methods and empiricism Geneva: World Health Organization; 2002.
32. Government of Vietnam and the World Bank. Management of public expenditure, poverty reduction and growth. Review of public expenditure and joint evaluation. Vol. 2: Problems of sectors, . Hanoi; 2005.
33. Central Party Standing Committee. Resolution 17-NQ/TW dated 1/8/2007 5th Conference of the Central Standing Party Committee of the 10th Session on promoting administrative reform, improving efficacy and effectiveness of the state management apparatus.; 2007.
34. World Health Organization. Working together for health. The World Health Report 2006. Geneva: World Health Organization; 2006.
35. Science and Training Department. Report on training activities, Conference of Directors of Medical Schools. Hanoi: Ministry of Health; 2007.
36. Ministry of Health Vietnam. District health assistance project 2007-2010 [Dự án hỗ trợ trung tâm y tế huyện giai đoạn 2007-2010.] 2007.
37. Ministry of Health Vietnam. Health Statistics Yearbook 2005. Hanoi: Statistics, Information- Planning and Finance Department.; 2006.
38. Le Cu Linh, Nguyen Thanh Ha, Bui Thanh Mai, Nguyen Hai Chi, Nguyen Van Nghi. Alumni survey. Hanoi: Hanoi School of Public Health; 2006.
39. Ministry of Education and Training. Report on activities of the 2007 school year [Báo cáo tổng kết hoạt động năm học 2007]; 2007.
40. Bicknell WJ, Beggs AC, Tham PV. Determining the full costs of medical education in Thai Binh, Vietnam: a generalizable model. . Health Policy and Planning. 2001;16(4):412-20.
41. Government of Vietnam. Government Decree 116/2003/NĐ-CP dated 10/10/2003 on recruitment, use and managemnet of government staff in state agencies, [Nghị định 116/2003/NĐ-CP về việc tuyển dụng, sử dụng và quản lý cán bộ, công chức trong các đơn vị sự nghiệp của nhà nước]; 2003.
42. Ministry of Home Affairs, Ministry of Labor- Invalids and Social Affairs, Ministry of Finance, Committee for Ethnic Minorities. Joint circular 11/2005/TTLT-BNV-BLDTBXH-BTC-UBDT on regional salary allowances [Thông tư liên tịch. 11/2005/TTLT-BNV-BLĐTBXH-BTC-UBDT ngày 5 tháng 1 năm 2005 hướng dẫn thực hiện chế độ phụ cấp khu vực]; 2005
43. Konkelenberg RV. Human resource policy options for renewing and improving the health system towards equity, efficiency and development: . Hanoi: WPRO and MOH; 2006.
44. Ministry of Health. National Health Accounts implemented in Vietnam for the period 1998-2003 Hanoi: Statistical Publishing House; 2006.
45. Department of Planning and Finance- Ministry of Health. Estimated data for National Health Accounts 2004-2006 (version dated 18/9/2007): unpublished data; 2007.
46. World Health Organization. Macroeconomics and Health: Investing in Health for Economic Development. Report from the Commission on Macroeconomics and Health.; 2001.
47. General Statistics Office. GSO website http://www.gso.gov.vn/default.aspx?tabid=389&idmid=3&ItemID=4711, accessed 12/09/2007; 2007.
48. UNDP. Vietnam at a Glance fact page (http://www.undp.org.vn/undpLive/Content/UNDP/About-Viet-Nam/Viet-Nam-at-a-Glance-fact-page) accessed 12/09/2007). 2007.

49. Department of Health Insurance- Ministry of Health, Vietnam Social Security Administration. Data on health insurance enrollments. 2007.
50. Ministry of Health, Ministry of Finance. Joint Circular No. 22/2005/TTLT/BYT-BTC dated 24/8/2005 instructing implementation of voluntary health insurance. 2005.
51. Ministry of Health, Ministry of Finance. Joint Circular No. 06/2007/TTLT/BYT-BTC dated 30/3/2007 instructing the implementation of voluntary health insurance. 2007.
52. Department of Planning and Finance- Ministry of Health. Estimated data on external assistance. 2007.
53. Department of Planning and Finance- Ministry of Health. Report on health financing sources presented at workshop organized by the Central Committee on Science and Education on 29/9/2006. 2006.
54. Ministry of Health Vietnam, Vietnam-Sweden Health Cooperation Program. Compendium of on-going projects in the health sector for the year 2005 (database)[Bảng thống kê các dự án theo chương trình đang triển khai trong ngành Y tế trong thời điểm năm 2005]. 2006.
55. Valdelin. J, Huyen DT, Krantz. G. Health cooperation at crossroads: more of the same or making a difference: Vietnam Sweden Health Cooperation; 2006.
56. Uyên Vũ Ngọc. Commercial health insurance, presentation at workshop on health insurance on 9/5/2007. 2007.
57. Lieu DH, et al. Health financing from household and user perspective. Hanoi: Medical Publishing House; 2005.
58. Trần Tuấn, al. e. Catastrophic health spending in Vietnam 2000-2004. [Chi phí y tế thảm hoạ tại Việt Nam 2000-2004]: unpublished manuscript; 2007.
59. Gottret P, Schieber G. A Practitioner's Guide: Health Financing Revisited Washington, D.C.: The World Bank.; 2006.
60. Vietnam-Sweden Health Cooperation Program and Hanoi Medical University, *Health Technology Assessment: An inventory and assessment of status of diagnosis equipment in provincial general hospitals*, Hanoi 2006.
61. HEMA, Health Strategy and Policy Institute. Assessment of health care for the poor in northern mountainous and central highlands regions - Hanoi; 2007.
62. Therapy Department- Ministry of Health. Review of curative care in 2006. 2007.
63. Health Strategy and Policy Institute. Assessment of impact of health care fund for the poor on poor households in Bac Giang and Hai Duong, HSPI, Hanoi 2005. Hanoi; 2005.
64. Vietnam Sweden Health Cooperation Program, Thai Nguyen Medical College. Assessment of implementation of health care for the poor policy in northern mountainous provinces; 2006.
65. Lương DH. Assessment of health status and utilization of health services in 8 central coastal provinces: ADB TA-4855.; 2007.
66. National Traffic Safety Committee. Report on traffic accidents in the first 6 months of 2007. 2007.
67. Labor medical institute. Survey on working conditions, health status and regulations on labour safety in some production sites. 2004.
68. Ministry of Health. Policy options to reform and refine Vietnam health system in an equity, efficiency and development orientation, monograph on health service provision. Hanoi: World Health Organization project; 2007.
69. Ministry of Health. Report at the conference on dengue fever control in the south. 2007.
70. Therapy Department- Ministry of Health. Review of Curative Care 2004. 2005.
71. Planning and Finance Department- Ministry of Health, Central Institute of Economic Management- Ministry of Planning and Investment. Draft report on "Hospital reform", September Hanoi; 2007.
72. Ministry of Health. Report on hospital waste, October. 2007.
73. Long NH, Minh PD, Chuan LH, Thien DD, Hien TVH, Thuy PT, et al. Situation, role and potential of the private sector (second draft). Ha Noi: Vietnam Sweden Health Cooperation Programme; 2007.
74. Legal Department (Ministry of Health). Report reviewing 7 years of implementing the ordinance on private medical and pharmacy practice. 2001.
75. Therapy Department (Ministry of Health). Report on private hospital activities. 2006.