Thai National Health Accounts: sustainable updates of 2006 and 2007 and diversifications

This report is produced by the NHA 2006-2007 WORKING GROUP

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ABSTRACT

This report provides a systematic analysis of Thailand health expenditure from 1994 to 2007, which is classified by types of financing sources, health care functions and health care providers following the OECD System of Health Accounts (OECD SHA). Results of the analysis came from research activities of the fifth phase of the Thai National Health Accounts. Fifteen sources of finance were aggregated into 3 main categories, namely government, non-government sources, and rest of the world. Government health expenditure was collected from involving government organizations and institutes. Non-government health expenditure was consisted of many sectors including private households and private corporations. An estimate of household out-of-pocket payments was imputed by using secondary data of the nationally representative household Socio Economic Survey (SES) conducted by the National Statistical Office of Thailand (NSO). Health expenditure by the rest of the world (ROW) was collected from Thailand International Development Cooperation Agency (TICA) of the Ministry of Foreign Affairs.

In 2007, total health expenditure (THE), including capital formation, of Thailand was 316 billion baht at current prices increased from 128 billion in 1994 (2.5 times). The ratio of THE to GDP was 3.5 percent in 1994 and reached 4.0 percent in 1997, the year of the Asian Financial Crisis. In 2007, the ratio of THE to GDP was 3.7 percent. THE per capita in 1994 at current prices was 2,160 baht and increased over 14 years to 5,005 baht in 2007.

In 2007, the share of public financing sources was 73 percent of THE, of which the central government accountable for 60.8 percent, local government 5.1 percent, and the Social Security Scheme 7.1 percent of THE. The non-government sources shared 27 percent of THE, of which household out-of-pocket payments contributed the major share of 19.2 percent of THE, and other private sectors (voluntary health insurance, private social insurance, non-profit institutions and private corporations) represented 7.6 percent of THE.

Thailand spent 82 percent of THE for purchasing personal medical services, 3.9 percent for medical products, 6.9 percent for health administration, 6.6 percent for prevention and public health services, and 4.5 percent for gross capital formation.

After the first implementation of the UC scheme in 2002, in 2007, the UC scheme became the major financing agent. However, the 2007 NHA results shows that the main financing agents which have a big share of health expenditure are 1) the UC, 2) the Central government, 3) the CSMBS and 4) the household Out-of-pocket.

The UC members benefited 67%, the largest proportion of public expenditure on IP services, while the CSMBS consumed 22% and the SSS consumed 11%. The female reproductive age of UC and the working age employees of the SSS are the major beneficiary of their scheme while the adult age 45-64 and the elderly of the CSMBS are the main beneficiaries. Injury is the main cause for highest spending on health around 10 billion Baht in 2007, followed by Lower respiratory tract infections, Ischaemic heart disease, and Cerebravascular disease.

Key words: National Health Account, health expenditure, financing source, healthcare function, healthcare provider, Thailand

ABBREVIATION

BOB	Bureau of Budget
CGD	The Comptroller General's Department
CSMBS	Civil Servant Medical Benefit Scheme
DOI	Department of Insurance
GFMIS	Government Fiscal Management Information System
GG	General Government
HSRI	Health System Research Institute
HWS	Health and Welfare Survey
IP	In-patient
MOPH	Ministry of Public Health
NESDB	the National Economic and Social Development Board
NHA	National Health Account
NHSO	National Health Security Office
NPI	Non Profit Institutions
NSO	National Statistical Office
OP	Out-patient
ROW	Rest of the World
SES	Socio-Economic Survey
SHI	Social Health Insurance
SSO	Social Security Office
SSS	Social Security Scheme
SWS	Social Welfare Scheme
TCE	Total Current Health Expenditure
THE	Total Health Expenditure
TICA	Thailand International Development Cooperation Agency
TPE	Total Public Expenditure
TPL	Third Party Liability
UC	Universal Health Care Coverage
WCF	Workmen's Compensation Fund

TABLE OF CONTENTS

ACKNOWLEDGEMENTS I
NHA 2006-2007 WORKING GROUP II
ABSTRACT III
ABBREVIATION V
TABLE OF CONTENTS VI
LIST OF TABLES VII
LIST OF FIGURES IX
1. INTRODUCTION 1
2. OBJECTIVES 2
3. METHODOLOGY 2
4. RESULTS 5
5. LIMITATIONS OF THE STUDY AND LESSON LEARNED 21
6. CONCLUSIONS 21
References 23
ANNEX 1: METHODOLOGICAL ISSUES 24
ANNEX 2: TABLES 28
ANNEX 3: THAILAND NHA TABLES 31

LIST OF TABLES

Table 1: Source of finance (financing agencies) in National Health Account in Thailand.......5
Table 2: Total health expenditure and selected indicators on health spending, 1994 to 2007 (current year prices).......7
Table 3: Percentage of estimated public curative expenditure for in-patient services by age group, gender and health insurance scheme, 2007.......18
Table 4: The estimated public curative expenditure for in-patient services by age group, gender and health insurance scheme, 2007.......18
Table 5: Percentage of estimated public curative expenditure for in-patient services by disease category and health insurance scheme, 2007.......19
Table A1: Total health expenditure by financing agents.......28
Table A2: Health expenditure by function of care.......29
Table A3: Current health expenditure by provider.......30
THAILAND NHA 2006 TABLES.......31
NHA Table 1 Current expenditure on health by function of care, provider and source of funding (2006), Millions Baht.......31
NHA Table 2 Recurrent expenditure on health by function of care and provider industry (2006), Millions Baht.......32
NHA Table 3 Current expenditure on health by provider industry and source of funding (2006), Millions Baht.......32
NHA Table 3 Current expenditure on health by provider industry and source of funding (2006), Millions Baht.......33
NHA Table 4 Current expenditure on health by function of care and source of funding (2006), Millions Baht.......34
NHA Table 5 Total expenditure on health including health-related functions (2006), Millions Baht.......35
THAILAND NHA 2007 TABLES.......36
NHA Table 1 Current expenditure on health by function of care, provider and source of funding (2007),Millions Baht.......36

NHA Table 2 Recurrent expenditure on health by function of care and provider industry (2007), Millions Baht 37
NHA Table 3 Current expenditure on health by provider industry and source of funding (2007), Millions Baht 38
NHA Table 4 Current expenditure on health by function of care and source of funding (2007), Millions Baht 39
NHA Table 5 Total expenditure on health including health-related functions (2007), Millions Baht 40

LIST OF FIGURES

Figure 1: Total health expenditure of Thailand, 1994 to 2007, at constant price 8
Figure 2: Real growth rate of GDP and operating health expenditure, 1994 to 2007 8
Figure 3: proportion of Government and Non-Government Financing Agent ... 9
Figure 4: Total Health Expenditure by financing source, 1994 to 2007 10
Figure 5: Total health expenditure by financing agent, 2007 10
Figure 6: Total Health Expenditure by Function, 1994-2007, at current prices 11
Figure 7: Total Health Expenditure by Function in 2007 12
Figure 8: Government and non-government health expenditure by function, 1994 - 2007 12
Figure 9: The Government and Non-government Total Health Expenditure in 2007 13
Figure 10: Current health expenditure by provider, 2001 and 2007 14

1. INTRODUCTION

The International Health Policy Program (IHPP), Ministry of Public Health was designated by the Ministry of Public Health to be the national focal point of the National Health Accounts (NHA) of Thailand and its production since 2001. In addition, IHPP serves as the national focal point for WHO annual National Health Account verification and updates for the World Health Report.

The Thai NHA development can be categorized into four phases.

Phase I - Incubation period. In 1994, the Health Systems Research Institute (HSRI) provided financial support for the development of the NHA in Thailand. The first Thai NHA in 1994 was compiled and produced by a group of researchers coordinated by College of Public Health, Chulalongkorn University in 1995. The group of researchers during this period consisted of researchers from the National Economic and Social Development Board (NESDB), the National Statistical Office (NSO), the Population and Social Research Institute, Chulalongkorn University and the Bureau of Health Policy and Planning-Ministry of Public Health (MOPH), The 1994 NHA was based on an international literature review, which resulted in the development of a simple matrix suited to Thailand's pluralistic health system. This simple matrix provided the flow of funds from the five ultimate sources of finance to 12 financing agencies. This indicated the proportion of health expenditure financed by different sources from both public and private. The 1994 NHA estimation differed markedly from the estimation of the National Economic and Social Development Board (NESDB) on National Health Expenditure which was calculated to be 2.01% of GDP. There were also large differences between the two estimations in the public and private proportion of health expenditures which the NHA figure was 46:54, comparing to the NESDB's National Account estimate of 18:82 **.** The 1994 NHA was quite successful in challenging the NESDB's estimation of health expenditure based on the National Account approach (UN Systems of National Accounts – UN SNA), as there were large discrepancies between the results produced by the NHA and UN SNA. [1]

Phase II – Consolidation. The objective of this phase was to modify the 1994 NHA matrix in order to facilitate international comparison – a modified OECD model was adopted for 1996 and 1998 and the 1994 NHA was revised using the OECD model. The 1996 and 1998 NHAs were the main outputs of this phase. The HSRI provided the financial support. Most of the researchers in the working group of this phase was the original team from period I and the coordinator was the College of Public Health, Chulalongkorn University.

Phase III- Institutionalization of NHA. The IHPP assumed a responsibility as a national focal point for the continuous updating of the NHA. In this phase, IHPP and other partners produced the 1994-2001 NHA (8 year series) applying the methodology outlined in the OECD Systems of Health Account's (SHA). The whole series of 1994 to 2001 NHA were produced in a three dimensional matrixes which were: 1) health financing agencies; 2) healthcare functions; and 3) healthcare providers. The HSRI was still the sole funding agency. The working group of this phase comprised of researchers from the NESDB, the NSO, the Bureau of Health Policy and Strategy-MOPH under the coordination of the IHPP.

Phase IV- Sustainability of NHA. In this phase, the attempt to sustain the series of the Thai NHA had been made. IHPP and its partners mainly from the previous one produced a series of NHA 2002-2005 by early 2007. The WHO Thailand and the MOPH supported the finance during this period.

NHA encompasses all the expenditures for improving the health of the population in a particular country, including public, private and donor expenditures. It illustrates the flow of funds between healthcare sectors from the financing agencies which purchase healthcare services from either public or private healthcare providers for the people of that country. Moreover, it gives the information on the mode of production provided by healthcare providers. This is important for policy makers to use for the planning of health service provision for the population. However, further more in-depth study is required to investigate about the health needs of the different groups of population for example people who are in different age groups or gender, as well as the differences of the burden of diseases among the population. Therefore, it is still necessary to maintain the continuous series of NHA for policy makers and, in addition, the in-depth study of the diversification of the NHA needs to be supported.

The aims of this study are to sustain the national capacity in the production and dissemination of National Health Account for 2006 and 2007; and the diversification of NHA in another presentation to facilitate policy uses.

2. OBJECTIVES

Specific objectives

2.1 To update NHA based on OECD SHA for 2006-2007, using a 3 dimensional matrix [Financing Agent X Healthcare Function X Providers] to facilitate national policy uses and international comparison.

2.2 To develop the 2007 NHA in another presentation in order to reflect health expenditure by:

- Beneficiary groups, namely, by age, gender and health insurance coverage.
- Disease categories.

2.3 To disseminate the whole series of NHA 1994-2007 by 3 dimensional matrices on a website so that it can be accessible by the public and by the key partners such as NHSO, BOB, Financing Committee of the NHSO, MOF CSMBS, NESDB and Social Security Office; and international partners.

3. METHODOLOGY

3.1 To update NHA 2006 and 2007 by using 3 dimensional matrices:

3.1.1) The methodological approach in updating 2006 and 2007 NHA was

based on OECD Systems of Health Account (SHA) version 1.0 and the International Classification of Health Account (ICHA)

3.1.2) scope of data tabulations was defined and to be presented. This included: the 3 dimensional matrixes [Financing Agent X Healthcare Function X Providers]. There are 5 tables chosen to present the results of the Thai NHA (details are shown in the Annex 3).

3.1.3) "Health expenditure" and timeframe of collecting data were defined

According to the SHA manual, OECD has proposed three measures of health spending for use in international comparisons:

- *Total expenditure on personal health care*. This is the sum of expenditures classified under categories HC.1 to HC.5 and covers spending for goods and services directed at the care of specific individuals (as distinct from collective health or public health services).
- *Total current expenditure on health (TCHE)*. This measure is the sum of expenditures classified under categories HC.1 to HC.7. Thus, it includes the spending for personal health care defined above, plus spending for collective health services and for the operation of the system's financing agents.
- *Total expenditure on health (THE)*. This aggregate includes TCHE plus capital formation by health care provider institutions (HC.R.1) [2].

Health expenditure is defined as the actual spending (not budget figures) by all financing agencies. Altogether, there are 15 financing agencies, 9 public financing agencies, and 6 private financing agencies.

The year 2006 and 2007 are referred to calendar year for all other expenditure, except the public source of finance which will be referred to fiscal year (October to September).

3.1.4) The financing agencies (Healthcare Financing-HF) have been defined, and in the Thai context, they can be classified into 2 categories:

3.1.4.1) Public financing agency includes:

- The Ministry of Public Health
- The other Ministries
- Local government
- The Civil Servant Medical Benefit Scheme (CSMBS)
- State enterprises
- Public independent agencies
- The Universal Healthcare Coverage (UC)
- The Social Security Fund (SSF)
- The Work Men Compensation Fund (WCF)

3.1.4.2) Private financing agency includes:

- Private insurance
- Traffic insurance
- The Employer's benefit for employees
- Out-of-pocket from private households
- The Non-Profit Institution Serving for Households
- Rest of the World

3.1.5) Healthcare Function and Healthcare Providers were defined based on the OECD SHA and the International Classification of Health Account (ICHA) and according to the Thai context. These are as followed:

3.1.5.1) Healthcare Function:

1) Personal healthcare services such as: in-patient care, out-patient care, home care, ancillary services, medical goods dispensed to out-patients,
2) Prevention and public health program, and
3) Health administration and health insurance.

3.1.5.2) Healthcare Providers:

1) Hospitals which can be sub-divided into public, private and specialty hospital
2) Nursing and residential care facilities,
3) Providers of ambulatory cares,
4) Retail sale and other providers of medical goods,
5) Provision and administration of public health programmes,
6) All other industries, and
7) Rest of the World.

3.1.6) The available secondary data on health expenditure have been reviewed and retrieved from both public registration records and from the national surveys. The disaggregate data on health spending that fits within the healthcare function and healthcare provider were incorporated into the NHA matrices.

However, those disaggregate data that were not available, or were available but does not fit into the columns in the matrix, there was a need to apply methodology in disaggregating total health expenditure by each financing agency using other necessary and relevant data set.

3.1.7) The primary data collection was conducted for the State Enterprises and the Public Independent Organization due to the lack of complete records for health spending. Mailing questionnaires was the mode of collecting data followed by telephone to follow up and check the consistency of data.

3.2 To develop the diversification of the 2007 NHA by age group, gender and health insurance coverage and by disease categories.

3.2.1) Methodology was applied to diversify NHA2007 in order to reflect curative health expenditure for in-patient services paid by public sources. This amount would be disaggregated by age group, gender and health insurance coverage and by disease category. The analysis was done using the individual inpatient records covering 6.4 million admissions covered by three public health insurance schemes (CSMBS, SSS and UC) during the fiscal years 2007. This data was from the Central of Health Information (CHI).

4. RESULTS

4.1 Specific objectives I

4.1.1) Thai NHA 1994-2007

After more than a decade, IHPP and the NHA domestic partners had successfully fulfilled the initiation and updating of the Thai NHA series between 1994 to 2005. The complete twelve-year series was produced based on the OECD SHA, providing the three dimensional matrix of health financing agencies, healthcare functions and healthcare providers.

In order to sustain the NHA series, IHPP in collaboration with other key partners put their efforts to update the Thai NHA for two more years (2006-2007). This paper presents the results of the 14 year series of Thai NHA (1994-2007) in the SHA format.

In the previous undertakings, the Thai NHA comprised of 14 financing agencies. However, in this current one the Thai NHA has 15 financing agencies which are either 'public', 'private', or 'rest of the world'. IHPP has transferred the 15 financing agencies into ICHA recommended format as shown in **Table 1**. The newly included source of finance is the Public Independent Organizations that emerged based on the Thai Constitution.

Table 1: Source of finance (financing agencies) in National Health Account in Thailand

ID	SOURCE OF FINANCE in Thai context	Name	ICHA code	Name
HF1	MOPH	Ministry of Public Health	HF.1.1.1.1	Ministry of Health
HF2	Other Ministry	Other Ministry	HF.1.1.1.2	Other Ministries
HF3	Local Government	Local Government	HF.1.1.3	Local / municipal government
HF4	CSMBS	Civil servant medical benefit scheme	HF.1.1.1.2	Other Ministries
HF5	State enterprise	State enterprise medical fringe benefit scheme	HF.1.1.1.2	Other Ministries
HF6	Public independent agency	Public independent Organization	HF.1.1.1.2	Other Ministries
HF7	UC	Universal Coverage scheme	HF.1.1.1.1	Ministry of Health
HF8	SSS	Mandatory social security scheme	HF.1.2	Social security funds
HF9	WCF	Mandatory Workmen	HF.1.2	Social security

ID	SOURCE OF FINANCE in Thai context	Name	ICHA code	Name
		compensation Fund		funds
HF10	Private insurance	Voluntary private insurance	HF.2.2	Private insurance (other than social insurance)
HF11	Traffic insurance	Mandatory Third party liability scheme	HF.2.1	Private social insurance
HF12	Employer benefit	Employer benefit	HF.2.5	Corporations (other than health insurance)
HF13	Household	Household out of pocket spending	HF.2.3	Private households out-of-pocket exp.
HF14	NPI	Non profit institutions	HF.2.4	Non-profit institutions serving households
HF15	ROW	Rest of the world	HF3	Rest of the world

As the health expenditure reports from each source of finance were different; most of public agencies such as MOPH and other Ministries reported the spending to the Ministry of Finance by activity plan/project performance in order to use for planning and evaluation purposes. Thus, it was difficult to disaggregate the total spending towards healthcare function and healthcare providers. So firstly, IHPP transferred the figures on spending to the main categories that conformed to ICHA. Then the curative care expenditures were disaggregated to the relevant health care providers and health care functions by using the PQ approach (Price and Quantity). The analysis of unit cost of in-patient care and out-patient care using dataset record from all public hospitals were used as price, while the quantity of healthcare utilization in each level of care was derived from the Health and Welfare Survey (HWS) conducted by the NSO.

For the expenditure in the private sector, especially the out-of-pocket household spending on health, the data from the Socio-Economics Survey, as conducted by the NSO, was used. The figures on the Employer's benefit for employees were gathered from various surveys by the NSO such as the Manufacturing Survey, the Business, Trade and Services Survey and the Labor Force Survey.

4.1.2) Summary data on health expenditure

Thailand's total health expenditure (THE), including capital formation, in 1994 was 127 billion baht at current price. THE then slowly increased during the period from 1995 to 1997 before sharply dropped in 1998 due to the 1997 Asian Financial Crisis [3]. The decrease of Thai THE continued until 2001. However, after the Universal for Health Care Coverage Scheme (UC) was implemented in 2002, THE increased progressively thereafter to 316 billion baht (current year price) in 2007 (**Table 2**).

Per capita THE at current price during 1994 to 2007 fluctuated due to the Asian Financial Crisis. It was 2,160 baht in 1994, however, after 14 years it reached to 5,005 baht in 2007. The per capita THE in US$ in 2007 increased significantly to 144 compared to the previous year which partly occurred as a result of the changes in the exchange rates.

The ratio of THE to GDP was 3.5 percent in 1994 and reached 4.0 percent in 1997, which was the year of the Asian Financial Crisis. The ratio decreased in the subsequent years to be 3.3 percent in 2001 as health expenditure grew less than the overall economy. However, after the UC era the ratios increased again and reached 3.7 percent in 2002 before falling to 3.5-3.6 percent during 2003 to 2005, and slightly increased to 3.7 percent in 2006 and 2007.

In 1994, private sector played the major role in health care spending at 55% of the THE. The consequence from the expansion of the Government funded health insurance through various schemes such as the Free Medical Care Scheme for the poor or the Low-Income Card, the Voluntary Health Card Scheme and the UC Scheme contributed towards the contrast shown in the following period. Over the period of 14 years, the public financing agencies had become the major funding agents for health in Thailand at 73 percent of the THE in 2007.

Table 2: Total health expenditure and selected indicators on health spending, 1994 to 2007 (current year prices)

Indicator	1994	2001	2002	2003	2004	2005	2006	2007
THE, Total Health Expenditure (mln baht)	127,655	170,203	201,679	211,957	228,041	251,693	291,294	315,531
THE as % of GDP	3.5%	3.3%	3.7%	3.6%	3.5%	3.5%	3.7%	3.7%
THE from Public Financing Agencies (mln baht)	56,885	95,779	127,534	134,670	147,459	161,282	197,342	230,056
THE from Private Financing Agencies (mln baht)	70,771	74,424	74,146	77,288	80,582	90,411	93,953	85,476
THE from Public Financing Agencies (%)	45%	56%	63%	64%	65%	64%	68%	73%
THE from Private Financing Agencies (%)	55%	44%	37%	36%	35%	36%	32%	27%
THE per capita (baht per capita per year)	**2,160**	**2,732**	**3,211**	**3,354**	**3,680**	**4,032**	**4,636**	**5,005**
THE per capita (USD per capita per year)	86	61	74	81	91	100	122	144

Figure 1: Total health expenditure of Thailand, 1994 to 2007, at constant price

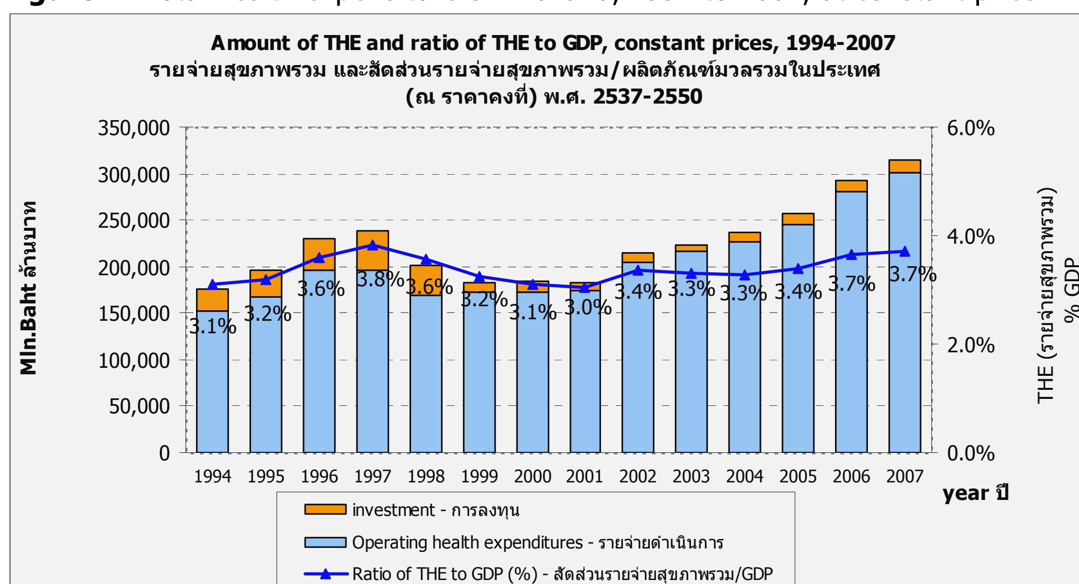
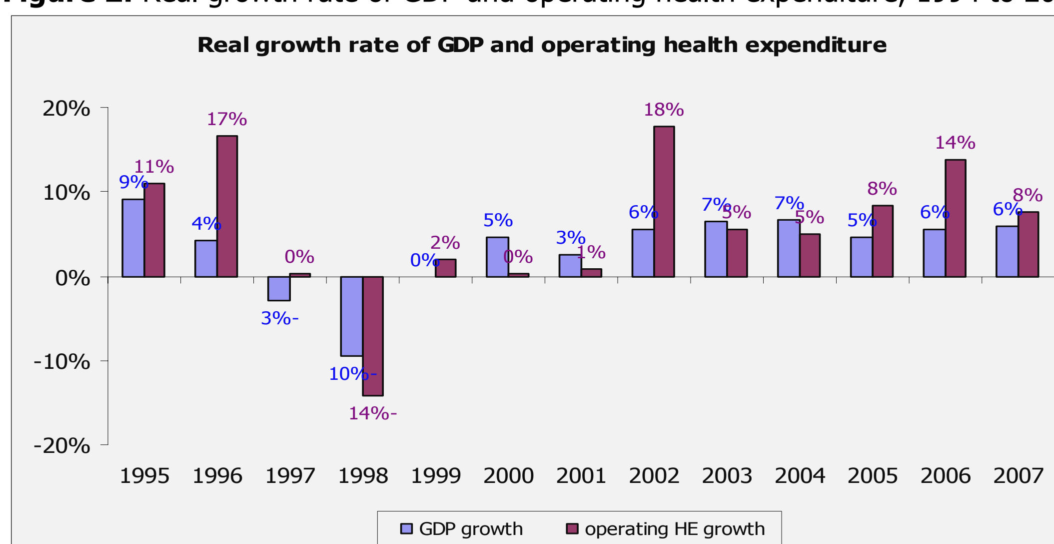


Figure 2 shows that the real growth rate of GDP had slightly increased after the year 2001 showing a sign of recovery from the 1997 economic crisis. Furthermore, the real growth rate of the operating health expenditure was significantly increased from 1 percent in 2001 to 18 percent in 2002, when the UC scheme was first implemented.

Figure 2: Real growth rate of GDP and operating health expenditure, 1994 to 2007

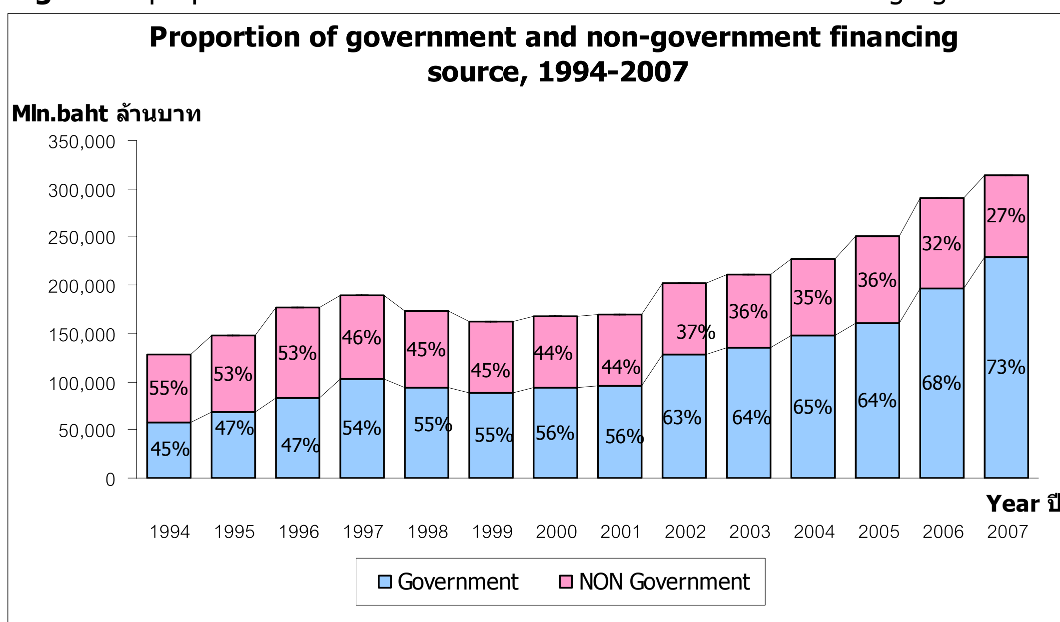


4.1.3) Health Expenditure by financing Source

Public health financing sources in Thailand include the Ministry of Public Health (MOPH), other Ministries that provide health care services, local government, the Civil Servant Medical Benefit Scheme (CSMBS), the UC Scheme, the Social Security Scheme (SSS), the State Enterprises, the Public Independent Organization, and the Workmen Compensation Fund (WCF). While the private sector comprises of the private insurance, traffic insurance,

the employer's benefit for employees, out-of-pocket from private households, the Non-Profit Institution Serving for Households (NPISH) and the financing sources from 'rest of the World'. In 1994, the share of health care spending by private financing agents was greater than their public counterpart. However, the proportion of public financing gradually increased and overtook the private spending to become the dominant financing agent after the economic crisis and the emergence of the UC scheme (Figure3).

Figure 3: proportion of Government and Non-Government Financing Agent



The trend of THE by financing source was observed from 1994 to 2007. In 1994, the household out of pocket payment was the major contributor in health care spending until the year of economic crisis in 1997 when the portion of household payment dropped down from 44 percent in 1994 to 33 and 19 percent in 2001 and 2007 respectively. While the Central government shared around 30 percent of THE in 1994 and spent even more in 2001 at around 33 percent, its share dropped to 20 percent in 2007. It can be seen that these two main sources of finance had similarity in the proportion for THE during the period between 1997 through to 2004. There were sharp decreases in proportion in the year 2002 when the UC Scheme was launched (see Figure 4).

The UC scheme had its share at around 15 percent since the initiative period from 2002 to 2004 and gradually increased to 22 percent in 2007. This was the highest proportion among all source of finance. The CSMBS and the State Enterprise had their proportion of about one tenth of the THE in 1994 but dramatically increased to reach nearly one fifth in 2007.

In 2007, it can be noticed that the out of pocket payment, the Central government, the UC Scheme and the CSMBS and State Enterprise contributed almost equal in proportion of health expenditure. The Social Security Scheme and the Workmen Compensation Fund shared around 7 percent while the Local government spent only 5 percent of THE. The other which comprised of voluntary health

insurance, private social insurance, the Non-Profit Institution Serving Households and private corporations, and the financing from Rest of the World had their share of about 8 percent. Figure 4 and 5 illustrate these details.

Figure 4: Total Health Expenditure by financing source, 1994 to 2007

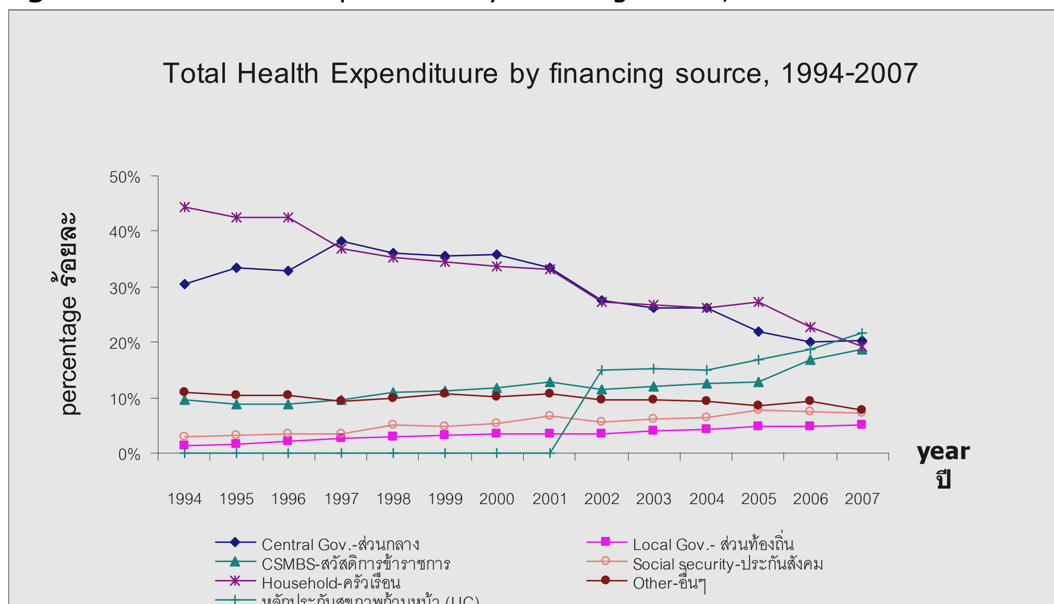
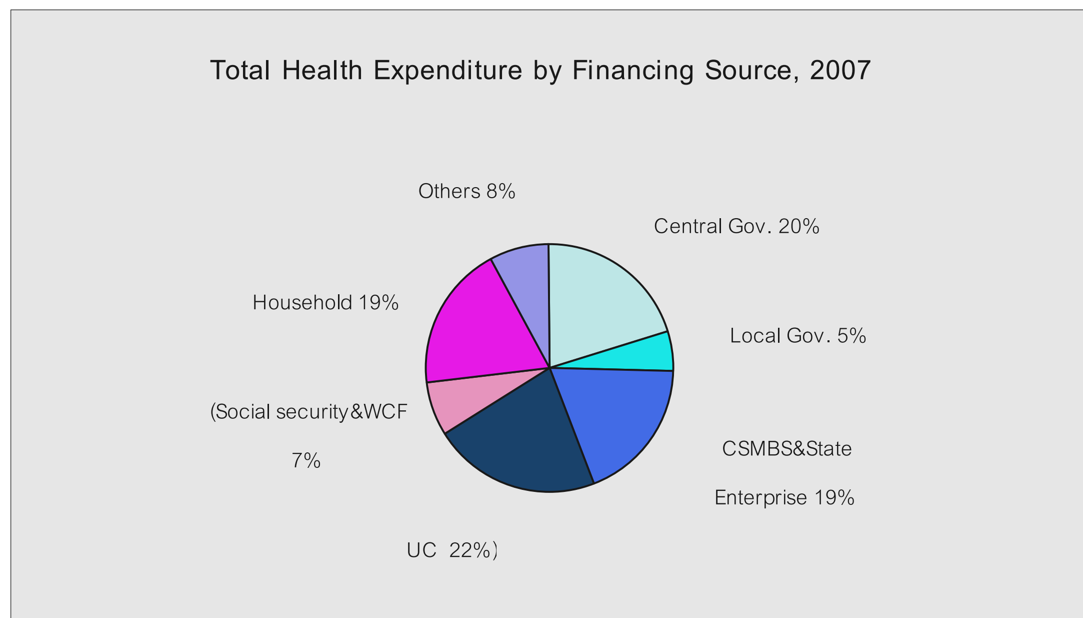


Figure 5: Total health expenditure by financing agent, 2007
(Total health expenditure = 100%)



4.1.4) Health expenditure by function

During 1994-2007, the major expenditure was spent to purchase personal medical services of which was service of curative and rehabilitative care of out- patient around 40 percent of the THE in each year, whereas the

expenditure of in-patient was 26 percent in 1994 and increased to 37 percent in 2007. The medical goods dispensed to out-patient had gradually decreased from 6.5 percent in 1994 to 4 percent in 2007 (see Figure 6 and 7).

The Gross capital formation which had some portion in the past accounted for 14 percent in 1994, most of which related to public investments in health infrastructure, reduced to 6 percent in 1999 after Thailand faced with the economic crisis in 1997 and after the UC Scheme was launched in 2002, it has been spent for replacement only around 3 to 5 percent each year.

The prevention and the public health services accounted 7-8 percent of THE during 1994-2001 and increased sharply to 12.4 percent in 2002 the year of UC initiating, however, since then it had declined to 6.7 percent in 2007. Whereas the expenditure for health administration and health insurance was 4.1 percent in 1994 and increased to 8.9 and 9.1 percent in 2005 and 2006 respectively. This might be because of a legal health insurance institution for the UC scheme namely the National Health Security Office.

Figure 6: Total Health Expenditure by Function, 1994-2007, at current prices

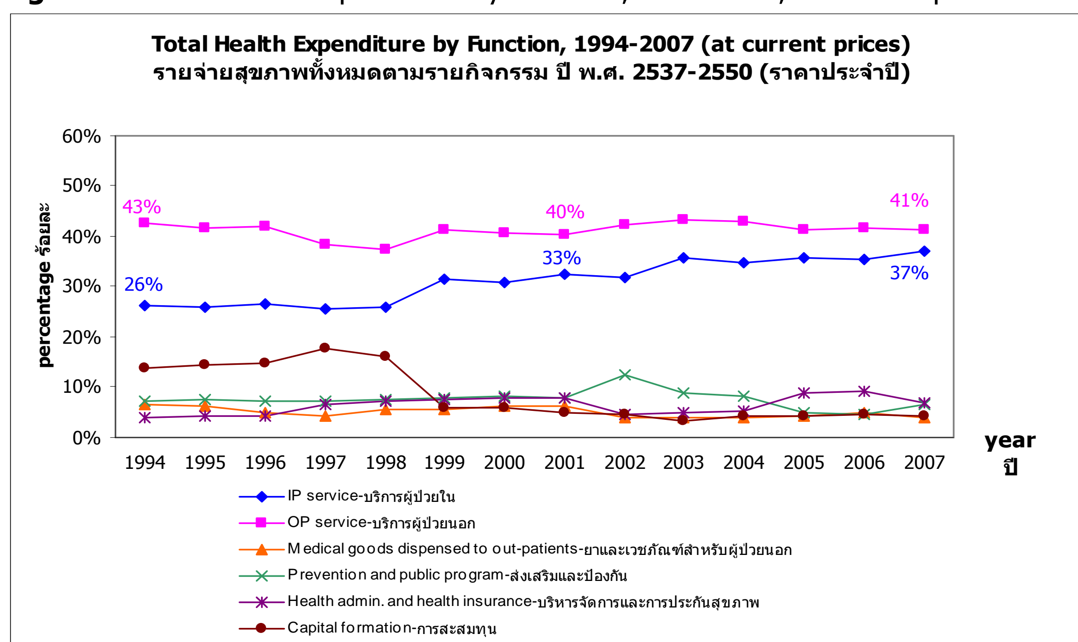
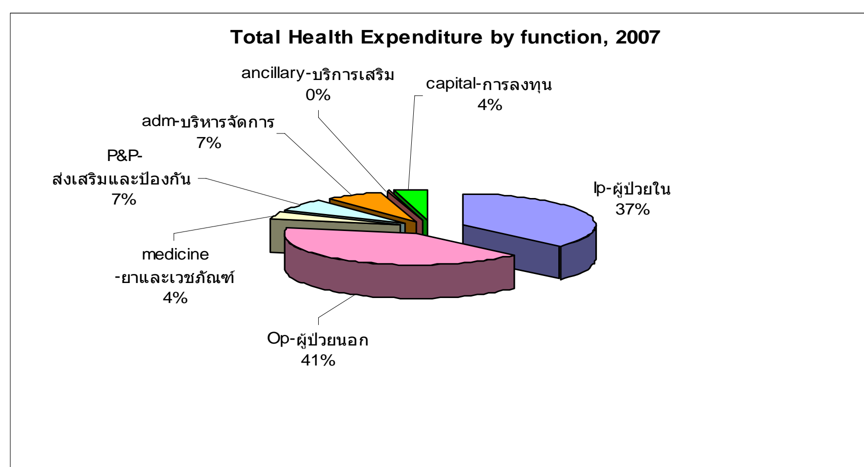


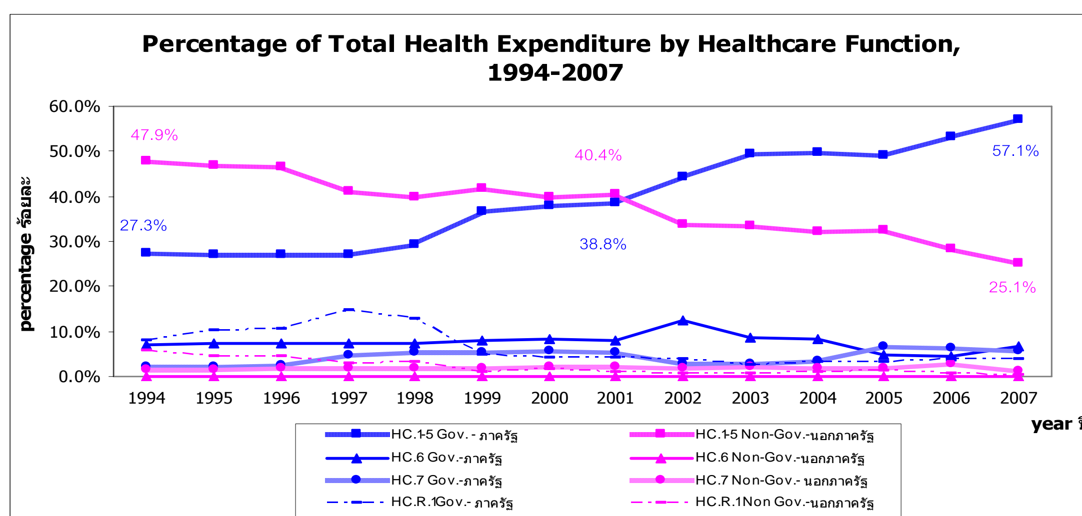
Figure 7 illustrates the proportion of health expenditure by function in the year 2007. It should be noted that the ancillary service was tiny amount, 0.2 percent, according to the hospital data base, most of expenditure on ancillary services were included in curative and rehabilitation services. As well as the services of long-term nursing care (HC3) were included in curative and rehabilitation services.

Figure 7: Total Health Expenditure by Function in 2007



Before UC era, between 1994 and 2001, the major source of funding for personal medical services was from non-government sector which accounted 47.9 percent of the THE in 1994, while the government sector contributed only 27.3 percent. Conversely, after the UC implementation, the non-government funding sources reversed this public funding trend from being the major portion of THE to a minor portion 25.1 percent in 2007, while the government funding source contributed 57.1 percent of THE in 2007. See Figure 8 below which shows the trend of health care expenditure by function of care of the Government and the non-government sector in the mentioned period.

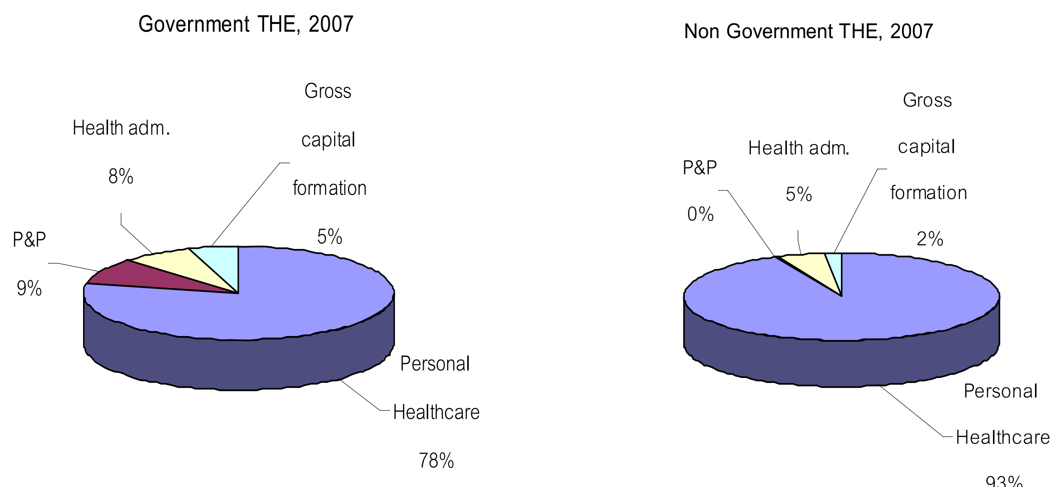
Figure 8: Government and non-government health expenditure by function, 1994 - 2007



The government sector also had higher proportion for investment in health, the collective services and health administration than the non-government sector through the whole period. In figure 9 provides information of Government THE versus the Non-government THE in 2007. The Non-government THE contributed most of its expenditure, 93 percent, in personal health care and spent tiny amount for Gross capital formation and prevention and public health services whereas the

Government sector spent 9 percent for prevention and public health services and 8 percent for health administration and health insurance.

Figure 9: The Government and Non-government Total Health Expenditure in 2007



4.1.5) Current health expenditure by provider

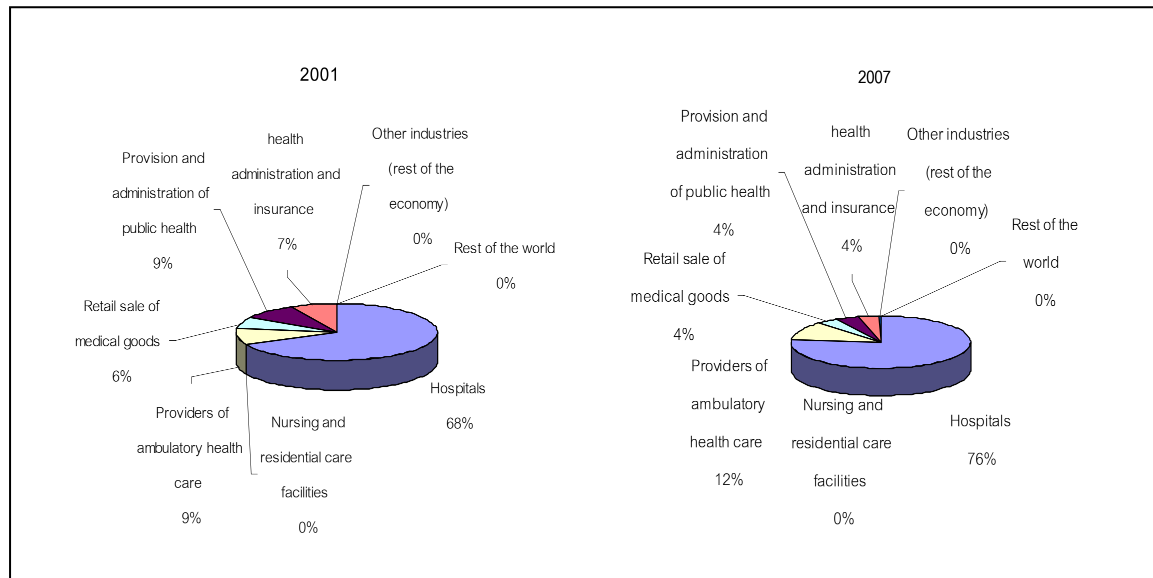
Hospitals are the most important providers of health services and consume most financial resources in Thailand. In 2007, 230 billion baht which accounted 76.3 percent of total current health expenditure (TCE) was spent on care provided by hospitals which increased from 110 billion baht or 67.9 percent in 2001 before the UC era (**Figure 10** and **Table A3 in Annex 2**). The other most significant expenditure was spent on providers of ambulatory health care 11.6 percent (private clinics, dental clinics and others) which increased from 9.1 percent in 2001. In contrast, the expenses of provision and administration of public health, retail sale of medical goods and health administration and insurance decreased from 9.1, 7.5 and 6.4 percent in 2001 to 4.1, 4.0 and 3.8 percent in 2007 respectively.

Expenditure on providers of ambulatory health care was 34,897 million baht in 2007 increased from 14,729 million baht in 2001. All other providers of ambulatory health care which included Health Care Centers accounted for most of this expenditure, 6.8 percent of TCE. This expenditure was obviously substantial increased after the UC era. The rest was shared between offices of physicians (4.1% of TCE) and offices of dentists (0.7% of TCE). Note that some expenditure on dentists would also be included under hospital care, as hospitals provide a substantial portion of dental services.

Expenditure on provision and administration of public health was 12,483 million baht in 2007. While the expenditure on general health administration and insurance was 12,114 million baht. The government administration of health accounted for most of this expenditure which was 5,738 million baht (1.9% of TCE), whereas the other social insurance and the social security funds accounted for 1.4% and 0.7 % of TCE respectively.

The significant increases in the categories of hospitals and providers of ambulatory care compared to 2001 expenditures reflect the implementation of the UC Scheme.

Figure 10: Current health expenditure by provider, 2001 and 2007
(Current health expenditure = 100%)



4.1.6) Current health expenditure by function and provider (NHA Tables 2 (2007) in Annex 3)

In 2007, expenditure on in-patient care was 116 billion baht (38.6% of TCE). Hospitals accounted for most of this expenditure (99.9%) of which 82.9% related to services provided by public hospitals which included specialty hospitals and 17.1% by private hospitals. The rest was distributed to nursing and residential care facilities and all other industries.

The expenditure on out-patient care was 130 billion baht (43.0% of TCE), which was distributed to providers of hospitals 106 billion baht (81.4% of OP care), providers of ambulatory care 24 billion baht (18.5% of OP care), provision and administration of public health program and all other healthcare industries 36 and 33 million baht respectively. In OP care, public hospitals accounted for 70.4%, whereas the private hospitals accounted for 11.1%.

Expenditure on ancillary services to health care was 592.07 million baht (0.2% of total current expenditure) of which 88.2% was paid to all other providers of ambulatory health care, and 11.8% to provision and administration of public health program.

In 2007, expenditure on medical goods was 12,169 million baht (4.0% of TCE). The retail sale and other providers of medical goods accounted for most of this expenditure (93.3%), of which 82.4% was dispensing chemists and 10.9% was all other sales of medical goods.

The spending on prevention and public health services was 20,941 million baht (6.9% of TCE). Most of this was spent on provider of ambulatory care (47.6%) and on provision and administration of public health programs (36.7%).

Health administrative and health insurance accounted for 21,774 million baht (7.2% of TCE). Most of this was spent on general health administration and insurance (55.1%) and in public hospitals (23.3%).

4.1.7) Current health expenditure by provider and financing agent (NHA Tables 3 (2007) in Annex 3): Spending structure of the financing agent to provider

In 2007, the expenditure on health of public sector was 218 billion baht (72.4% of TCE). Of which, general government (excluding social security) accounted for 196 billion baht (64.9% of financing agent), and social security funds (including workmen compensation funds) accounted for 22,491 million baht (7.5% of financing agent). 81.8% of public spending incurred at hospitals. Care provided by providers of ambulatory care accounted for 8.8% of government funding. Provision and administration of health care program accounted for 5.7%, while 3.6% was spent on general health administration and insurance.

Private expenditure on health was 83,180 million baht (27.6% of TCE). Of which household out-of-pocket (OOP) spent the most of this expenditure 59,510 million baht (19.7% of TCE), private insurance contributed 11,099 million baht (3.7% of TCE). While the employers' benefit to employees and traffic insurance accounted for 5,989 and 5,392 million baht or 2.0% and 1.8% respectively. The non-profit institution serving for household had its share of 1,190 million baht (0.4%).

Household out-of-pocket spent the most for hospital services 58.6%, 24.1% spent for the services of providers of ambulatory health care, of which 19.1% for offices of physicians, 2.5% for offices of dentists, 1.8% for the offices of other health practitioners, and the remaining 0.7% for other providers of ambulatory care. Household out-of-pocket also had their expenses on medical goods purchased through retail sale and other providers (17.3%), of which 15.4% for dispensing chemists, and 2.0 % for all other sales of medical goods.

The Rest of the World (ROW) played a minor role in Thailand. This source of fund was 155 million baht in 2007 (0.1% of TCE). Most of this fund was spent for general health administration and insurance (87%), 8.6% spent in hospitals and 4.2% for other industries.

4.1.8) Current health expenditure by function and financing agent (NHA Table 4): Functional structure of spending by financing agent

In 2007, the government sector spent 179 billion baht or 81.9% of its current health expenditure on personal health care services. Of which, 94 billion baht or 43.2% of it current health expenditure was spent for

out-patient services, in-patient services accounted for 84 billion baht (38.7% of public TCE), and ancillary services accounted for 592 million baht (0.2% of its TCE). The government contributed 21 billion (9.5%) and 18 billion (8.1%) on prevention and public health; and health administration and health insurance respectively.

Within the public sector, the UC scheme was the largest portion of financing agent. In 2007, the UC scheme spent 62 billion for health care of UC population which was 28.6% of public TCE. Of which, 48.7 billion (77.9% of its current health expenditure) spent on personal healthcare services, with 43.4% for IP services and 34.5% for OP services. Another 20% was for prevention and public health program; and 1.3% was for health administration and health insurance.

CSMBS consumed 46.5 billion in 2007 for its member which was 21.3% of public TCE. Of which 66.3% of its current health expenditure spent for out-patient services and 33.6% for in-patient care, only 0.1% was for health administration and health insurance which was the cost for the reimbursement administration after the direct reimbursement was implemented and the IP reimbursement using the RW of DRG.

The Social Security Fund which included the Workmen Compensation Fund had its share 22 billion or 10.3% of the public TCE for the registered employees. Most of the expenditure of the social security funds was spent on personal healthcare services (93.8%); with 48.8% spent on IP services and 45.0% spent on OP services. In addition, 6.2% of social security funds was spent on health administration and health insurance.

The private sector spent 81.0% of its funding on personal healthcare services, with 42% on OP services and 39% on IP services. In addition, the spending on medical goods dispensed to out-patients; pharmaceuticals and other medical non-durables, and therapeutic appliances and other medical durables were 13.8%, 12.6%, and 1.2% respectively. Prevention and public health services accounted for 0.2% and health administration and health insurance accounted for 5%.

The private household out-of-pocket payments which contributed the largest portion among private agents spent most of fund, 82.7% on personal health care services, with 52.6% for OP services and 30.1% for IP care. Household OOP also spent 17.3% for medical goods dispensed to out patients.

Private health insurance (including Traffic insurance) spent 76.4% of its fund to personal healthcare services, 73.4% was spent on IP services, and 3% on OP services. Health administration and health insurance accounted for the remaining 23.6%.

The Rest of the World spent 74.8% of its current health expenditure on prevention and public health services and 16.7% for health administration and health insurance. Only 8.6% was contributed to personal health care services and goods.

4.2 Specific objective II: To develop the diversification of the 2007 NHA by age, gender and health insurance coverage and by disease category.

4.2.1) Curative expenditure for IP services paid by public sources disaggregated by age, gender and health insurance coverage

From the results of NHA, the application to diversify the expenditure on health of people of Thailand by age, gender and health insurance scheme of in-patients are possible owing to the availability of data base of the patients from the Central of Health Information (CHI). Though the data base contains only the in-patient information mainly from public providers and covered by three public health insurance schemes it's worth to initiate the investigation that who gets the benefit from the Thai health system and how much.

The in-patient data set from the CHI provides information of individual in-patient data by age, gender, insurance scheme as well as the primary diagnosis. This information can be applied with the results of the NHA to estimate the expenditure for public in-patient services of the whole country by beneficiary groups.

In 2007, the NHA resulted that the public in-patient expenditure was 84,288 million baht. This expenditure was implied for the expense of public in-patients in each scheme by age group and gender.

Table 3 shows the percentage of IP services expenditure from the CHI data set. The proportions in table 3 were used to breakdown NHA 2007 only the part of IP expenditure paid by public sources, 84,288 million baht (Table 4). This results in the distribution of IP expenditure from public sources by age group, gender and three public health insurance schemes.

It can be seen that IP male consumed slightly higher benefit (50.6% or 42.7 billion Baht) than IP female (49.4% or 41.6 billion Baht) in terms of overall expense from all 3 schemes, CSMBS, SSS and UC.

Among 3 schemes, the UC member benefited the most of expense which accounted for 56.3 billion Baht or 66.8% of total expenditure for public IP services. It is because UC covers the majority of Thai population (75% of total population). UC male and female consumed quite equally of overall IP expense, 28.4 and 27.9 billion Baht respectively. The UC female at reproductive age 15-44 year had the highest proportion of expense which accounted for 9,288 million Baht or 11% of total expense, while the UC male of the same age had the second highest portion of 7,978 million Baht (9.5%). Adult age 45-65 year of UC scheme, male and female consumed 9.4% and 8.9% respectively.

Concerning the Social Security Fund, the male contributors benefited more than the female, 6.1% and 5.1% respectively. The adult male age 15-44 year consumed the highest proportion of expense, 4.3%, followed by the female of the same age, 3.9%. Whereas the CSMBS member spent the highest proportion at the age of 45-64 year in all gender. It is noticed that the elderly female consumed more than male in all schemes.

Table 3: Percentage of estimated public curative expenditure for in-patient services by age group, gender and health insurance scheme, 2007

Male	CSMBS	SSS	UC	All 3 schemes
Infants	0.1%	-	2.8%	2.9%
Pre-school 1-4	0.2%	-	1.6%	1.8%
School age 5-14	0.2%	-	2.1%	2.4%
Adult 15-44	0.9%	4.3%	9.5%	14.7%
Adult 45-64	3.5%	1.6%	9.4%	14.5%
Adult 65-74	2.7%	0.1%	5.0%	7.8%
Elderly 75-84	2.5%	0.0%	2.7%	5.2%
Oldest 85+	0.7%	0.0%	0.6%	1.3%
All persons	10.9%	6.1%	33.6%	50.6%
Female	CSMBS	SSS	UC	All 3 schemes
Infants	0.1%	-	1.8%	1.9%
Pre-school 1-4	0.1%	-	1.1%	1.2%
School age 5-14	0.2%	-	1.5%	1.6%
Reproductive age 15-44	1.4%	3.9%	11.0%	16.4%
Adult 45-64	3.2%	1.1%	8.9%	13.1%
Adult 65-74	2.8%	0.0%	5.1%	7.9%
Elderly 75-84	2.6%	0.0%	3.0%	5.6%
Oldest 85+	0.9%	0.0%	0.8%	1.7%
All persons	11.1%	5.1%	33.1%	49.4%
Total	CSMBS	SSS	UC	All 3 schemes
Infants	0.1%	-	4.6%	4.7%
Pre-school 1-4	0.3%	-	2.7%	3.0%
School age 5-14	0.4%	-	3.6%	4.0%
Reproductive age 15-44	2.4%	8.3%	20.5%	31.1%
Adult 45-64	6.7%	2.7%	18.2%	27.7%
Adult 65-74	5.5%	0.1%	10.1%	15.7%
Elderly 75-84	5.1%	0.0%	5.7%	10.8%
Oldest 85+	1.6%	0.0%	1.4%	3.0%
All persons	22.0%	11.2%	66.8%	100.0%

Table 4: The estimated public curative expenditure for in-patient services by age group, gender and health insurance scheme, 2007

(Millions Baht)

Male	CSMBS	SSS	UC	All 3 schemes
Infants	66	-	2,338	2,403
Pre-school 1-4	149	-	1,327	1,477
School age 5-14	195	-	1,788	1,982
Adult 15-44	797	3,654	7,978	12,429
Adult 45-64	2,971	1,378	7,908	12,257
Adult 65-74	2,293	90	4,214	6,598
Elderly 75-84	2,107	19	2,297	4,423
Oldest 85+	605	4	510	1,119
All persons	**9,183**	**5,146**	**28,360**	**42,689**

Female	CSMBS	SSS	UC	All 3 schemes
Infants	54	-	1,509	1,562
Pre-school 1-4	96	-	943	1,039
School age 5-14	144	-	1,246	1,390
Reproductive age 15-44	1,209	3,304	9,288	13,801
Adult 45-64	2,661	922	7,470	11,053
Adult 65-74	2,334	32	4,260	6,625
Elderly 75-84	2,159	5	2,519	4,683
Oldest 85+	741	0	705	1,446
All persons	**9,397**	**4,262**	**27,939**	**41,599**

Total	CSMBS	SSS	UC	All 3 schemes
Infants	119	-	3,846	3,966
Pre-school 1-4	245	-	2,271	2,516
School age 5-14	339	-	3,033	3,372
Reproductive age 15-44	2,006	6,958	17,266	26,230
Adult 45-64	5,632	2,300	15,378	23,310
Adult 65-74	4,627	122	8,474	13,223
Elderly 75-84	4,266	24	4,816	9,106
Oldest 85+	1,346	4	1,215	2,565
All persons	**18,580**	**9,409**	**56,299**	**84,288**

4.2.2) Curative expenditure for IP services paid by public sources disaggregated by disease category and health insurance coverage

The result from the Burden of Disease Study in the year 2004 by Dr. Kanitta Bundhamcharoen and team [4], provides the starting point for NHA diversification by disease category based on ICD10 to apply with the CHI IP data set. The lists of top twenty burdens of diseases among Thai population are shown in Table 5 which provides the percentage of public expenditure for IP services by disease and health insurance scheme. Table 6 shows the estimated public curative expenditure for IP services.

Table 5: Percentage of estimated public curative expenditure for in-patient services by disease category and health insurance scheme, 2007

BOD	Male + Female	CSMBS	SSS	UC	All 3 schemes
1	HIV/AIDS	0.1%	0.3%	0.8%	1.2%
2	Injury code (S or T code in ICD10) without external cause	1.5%	2.3%	8.1%	11.9%
3	Cerebro-vascular disease	1.1%	0.2%	2.3%	3.6%
4	Diabetes mellitus	0.4%	0.1%	1.0%	1.5%
5	Liver cancer	0.3%	0.1%	0.4%	0.8%
6	Alcohol use/dependence	0.1%	0.0%	0.2%	0.2%
7	Major depression	0.0%	0.0%	0.0%	0.0%
8	Ischemic heart disease	1.8%	0.2%	2.4%	4.5%
9	Chronic obstructive pulmonary disease	0.4%	0.1%	1.3%	1.8%
10	Deafness	0.0%	0.0%	0.0%	0.0%
11	Osteoarthritis	0.6%	0.0%	0.5%	1.2%
12	Cirrhosis of the liver	0.0%	0.0%	0.1%	0.1%
13	Lower respiratory tract infections	1.0%	0.2%	3.3%	4.5%

BOD	Male + Female	CSMBS	SSS	UC	All 3 schemes
14	Asthma	0.1%	0.1%	0.4%	0.6%
15	Bronchus & Lung cancer	0.3%	0.1%	0.4%	0.7%
16	Anxiety disorder	0.0%	0.0%	0.0%	0.1%
17	Self-inflicted injuries (Suicide)	-	-	-	-
18	Tuberculosis	0.1%	0.1%	0.6%	0.9%
19	Nephritis and nephrosis	0.7%	0.2%	1.5%	2.5%
20	Homicide and violence	-	-	-	-
	All others 90 specific disease categories	13.5%	7.1%	43.3%	63.9%
	Grand total 110 specific disease categories	22.0%	11.2%	66.8%	100.0%

Table 6: The estimated public curative expenditure for in-patient services by disease category and health insurance scheme, 2007

(Millions Baht)

BOD	Male + Female	CSMBS	SSS	UC	All 3 schemes
1	HIV/AIDS	55	271	653	979
2	Injury code (S or T code in ICD10) without external cause	1,241	1,950	6,851	10,043
3	Cerebravascular disease	901	207	1,968	3,076
4	Diabetes mellitus	305	83	849	1,238
5	Liver cancer	249	58	360	667
6	Alcohol use/dependence	50	13	129	192
7	Major depression	13	2	21	36
8	Ischaemic heart disease	1,547	183	2,030	3,760
9	Chronic obstructive pulmonary disease	346	50	1,111	1,506
10	Deafness	19	2	3	24
11	Osteoarthritis	487	33	461	981
12	Cirrhosis of the liver	19	20	75	115
13	Lower respiratory tract infections	866	146	2,779	3,791
14	Asthma	79	55	365	499
15	Bronchus & Lung cancer	253	50	314	617
16	Anxiety disorder	9	7	28	44
17	Self-inflicted injuries (Suicide)	-	-	-	-
18	Tuberculosis	120	102	533	755
19	Nephritis and nephrosis	618	201	1,285	2,105
20	Homicide and violence	-	-	-	-
	Total of 20 BOD	**7,175**	**3,434**	**19,816**	**30,425**
	All others 90 specific disease categories	11,405	5,974	36,483	53,863
	Grand total 110 specific disease categories	**18,580**	**9,409**	**56,299**	**84,288**

In 2007, the top twenty burden of diseases of Thai population caused curative expense for public IP care around 30,425 million Baht accounted 36.1% of total public expenditure for IP services. The UC member consumed the largest portion, 19,816 million Baht (23.5%), while CSMBS and SSS spent 7,175 and 3,434 million Baht or 8.5% and 4.1% respectively. Injury caused the highest expense of

10,043 million Baht or 11.9% of total public expense, of which 6,851 million Baht (8.1%) was spent by UC, 1,950 and 1,241 million Baht were consumed by the SSS and CBMBS members.

Considering by scheme, other than injury, the UC scheme spent much in Lower respiratory tract infections, Ischemic heart disease and Cerebro-vascular disease which accounted for 2,779, 2,030 and 1,968 million Baht respectively. Whereas the CBMBS spent much in Ischemic heart disease (1,547 million Baht), followed by injury and Cerebro-vascular disease. For the SSS, other than injury, there were not distinguish diseases in particular to spent with high expense.

5. LIMITATIONS OF THE STUDY AND LESSON LEARNED

Data and information needed for compiling NHA are belong to various organizations, both in public and private sector. Some data are not complete and the format of recording data are different. Moreover, the objectives of recording data are mainly for the purpose of the owners which use the data for organization management and evaluation. In such cases a breakdown of total aggregate expenditure is facilitated through primary survey data. It is necessary to refer to existing surveys to dis-aggregate public expenditure to various healthcare functions and healthcare providers. In Thailand, NSO is the national agency responsible for various national representative surveys, especially the Socio-Economic Survey (SES).

Estimates of household spending on health in NHA rely mostly on SES. A modification of the SES questionnaire to suit the NHA matrix - especially on healthcare function and healthcare providers - was an important step which facilitated the construction of NHA matrices.

To update and sustain the series of NHA, need a lot of effort and commitment from collaborative partners. Know-how and documentation are essential for transferring and training new researchers who come to replace those who has grown up to higher position.

Though, IHPP is designated as the national focal point for sustaining and updating NHA, the improvements of NHA in Thailand is limited by a number of factors, for example, the fragmentation of financing schemes. NHA has yet to reflect issues of efficiency and equity. It does not link with current processes for resource allocation and budget preparation and re-allocation of resources. The Bureau of Budget still maintains the itemized budget by program instead. This posed severe limitations to fill up NHA matrix.

6. CONCLUSIONS

NHA has been used as a health financing diagnostic tool for evidence based policy making. It is essential for technical level policy analysts and policy making process. Thus, it is essential to update and sustain the series of NHA.

More than a decade that the Thai NHA has been developed under various phases, a series of twelve year 1994 to 2005 NHA was conducted by early 2007. The aims of this study are to update NHA 2006-2007, to make the fourteen year series of

NHA available. In addition, to diversify the NHA using application techniques has been attempted.

The result of compiling NHA 2006 and 2007 and analyze data through 14 years of Thai NHA, it was found that the THE in 2007 was 315,531 million Baht increased from 127,655 million Baht in 1994, 2.5 times. THE as % of GDP was 3.7% which slightly increased from 3.5% in 1994. During 14 years, the ratio of government and non-government expenditure on health has reversed, the non-government sector played the major role in early stage, and the government sector switched its role to dominate in term of expenditure after the evidence of Asian Financial Crisis in 1997. It had impact on the Thai health system in particular health care expenditure and investment in the following years. Another important event was the emerging of the Universal of Health Care Coverage that reflected to health care consumers who used to be un-insured. Its impact reflected to the structure of health care expenditure. The UC scheme becomes the major financing agent which has largest number of members. However, the result in 2007 shows that the main financing agents which have a big share of health expenditure are 1) the UC, 2) the Central government, 3) the CSMBS and 4) the household Out-of-pocket. Hospitals are the major health care providers and the personal health care service is the main function of care.

The NHA diversification by beneficiary groups, namely, age, gender and disease by health care insurance has been conducted using the data set from the Center of Health Information and the study of Burden of Disease to apply. The result shows that the UC members benefited 67%, the largest proportion of public expenditure on IP services, while the CSMBS consumed 22% and the SSS consumed 11% of the total public spending on IP services. The female reproductive age of UC and the working age employees of the SSS are the major beneficiary of their scheme while the adult age 45-64 and the elderly of the CSMBS are the main beneficiaries. Injury is the main cause for highest spending on health around 10 billion Baht in 2007, followed by Lower respiratory tract infections, Ischemic heart disease, and Cerebro-vascular disease. The results allow issues such as equity and the need to redirect spending towards societal goals of efficiency and equity. Time series data will also facilitate projections and modeling of future health expenditure of the country. The completeness of individual data set, both OP and IP with essential information is crucial.

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ANNEX 1: METHODOLOGICAL ISSUES

1. Data sources

1.1 Public sector

Data on actual expenditure was obtained from relevant government organizations such as the Ministry of Public Health (MOPH), the Comptroller General Department (CGD) of the Ministry of Finance, the National Economic and Social Development Board (NESDB), the National Health Security Office (NHSO), and the Social Security Office (SSO).

Most data on actual expenditure by the government, especially by the MOPH, and other Ministries is reported directly to the CGD by relevant Departments of each Ministry. The Finance Ministry introduced GFMIS (Government Fiscal Management Information System) operated by CGD, to facilitate electronic submission of reports on actual expenditure in a real time basis when budgets were disbursed. This is the most important tool for monitoring fiscal spending (which is then matched with the revenue collections and other fiscal incomes from the Tax and Revenue Departments).

However, the categories of expenditure in the GFMIS reporting systems have changed frequently (almost every year) in order to catch up with the changing program outputs of each Ministry. Though it is convenient to retrieve electronically the actual public spending on health, this data is not ready to use. To meet the requirements of the NHA matrix requires significant re-categorization of expenditures.

The relevant health expenditures by the MOPH and other Ministries were re-categorized into eight main categories. Then these were transferred into ICHA.

Main categories of expenditure of MOPH and other Ministry	ICHA codes	Healthcare Function
1) Curative	HC1, HC2	This category was aggregated to HC1, HC2 by using Health and Welfare Survey
2) Prevention and health promotion (P&P)	HC 6	Prevention and public health services
3) Administration	HC 7	Health administration and health insurance
4) Capital formation	HC.R.1	Gross capital formation
5) Education	HC.R.2	Education and training of health personnel
6) Research	HC.R.3	Research and development in health
7) Food hygiene and water control	HC.R.4	Food, hygiene and drinking water control
8) Environment	HC.R.5	Environmental health

The actual aggregate health expenditure by local government was collected by NSO surveys of local government total spending, the disaggregated using data from questionnaire surveys conducted by NESDB. The other sources of data were collected from the Department of Local Administration and the Office of Bangkok Metropolis. These data were then processed and fed into the NHA matrix.

Expenditures incurred by CSMBS were retrieved directly from GFMIS. As a result of the use of the reimbursement model, the Scheme manages successfully to keep track of total expenditure on a monthly and quarterly basis. Expenditures can be classified to OP and IP for current government employees and their dependants, and for retirees, including a small faction of private hospital inpatient expenditure for accident and emergency case patients.

Data for the State Enterprises and the Public Independent Organization was collected by conducting surveys. Mailing questionnaire was the mode of collecting data following by telephone to follow up and checking for the consistency of data.

NHSO provides UC scheme expenditure reports using similar definitions to the ICHA. However there still needs to be a re-categorization of the UC Scheme expenditure to ICHA - see table below. For curative care NHSO aggregated the expenditure to in-patient and out-patient. Using HWS these data were disaggregated to health care providers (HP1.1.1 public hospital, HP1.1.2 private hospital and HP 3.3 offices of other health practitioners).

NHSO reporting categories	Detail of expenditure	ICHA	Health care function and health care provider
1.Inpatient care	**Curative IP**		
	- IP Public Hospital	HP1.1.1	
	- IP Private Hospital	HP1.1.2	
2.Out patient care	**Curative OP**		
	- OP Public Hospital	HP1.1.1	
	- OP Private Hospital	HP1.1.2	
	- OP Health Center	HP1.3	Offices of other health practitioners
3. Prevention and health promotion services (P&P)	Prevention and public health services	HC6	Prevention and public health services
4. EMS	Emergency medical service (pre-hospital care ambulance services)	HC4	Ancillary service
5. UC administrative budget	Health Administration	HC7, HP6	Health Administration and health insurance(HC7), General health administration and insurance(HP6)
6. Capital replacement	Gross capital formation	HC.R.1	Gross capital formation
7. No fault liability	Administration and provision of health-related cash-benefits	HC.R.7	Administration and provision of health-related cash-benefits

Data on health expenditure by the Social Security Scheme and the Workmen Compensation Scheme were retrieved from annual reports produced by the Social Security Office, the Department of Research and Development and by the Workmen Compensation Office.

1.2 Private Sector

Estimates of expenditure by private voluntary health insurance and Third Party Liability (TPL) Scheme (for traffic victims' compensation for medical care, death and disabilities) were obtained from the Department of Insurance (DOI) of the Ministry of Commerce, and the General Insurance Association. DOI produces annual reports on revenue generated from premiums and total expenditure compensation for all Plans, including voluntary health insurance and TPL

Estimates of expenditure by employers providing benefits were obtained from the Business, Trade and Services Survey and the Labor Force Survey conduced regularly by NSO of the Ministry of Information and Communication Technology.

An estimate of health expenditure funded through out-of-pocket expenditures by households was imputed by the application of the results of the national household Socio Economic Survey (SES) conducted by NSO. The gross capital formation expenditure by households was retrieved from the routine data of newly registered private clinics and private hospitals at the Medical Registration Division of the Ministry of Public Health. These numbers of newly registered clinics were multiplied by data on average capital formation for new private clinics and for private hospital beds. This data is based on periodic consensus estimates among key experts from the private hospital industry and Medical Registration Division of the Ministry of Public Health.

Expenditure by Non Profit Institutions Serving for Household (NPISH) in Thailand was obtained from the NSO survey and directly collecting data of some NPISH units such as Chulalongkorn Hospital (The Thai Red Cross Council) and Camillion Hospital (Saint Camillo Foundation) etc.

Expenditure by the Rest of the World (ROW) was collected from Thailand International Development Cooperation Agency (TICA) of the Ministry of Foreign Affairs. TICA was established in October 2004 as a focal agency under the Ministry of Foreign Affairs to administer international development cooperation. TICA reports the expenditure of each program across all sectors, such as health, education, agriculture, forestry, etc. NHA partners in the NESDB identified health and health related expenditure by these international cooperation partners to estimate relevant items for the NHA.

2. Differences between the classification of Health expenditure in national NHA practice and the IHCA

The Thai NHA identifies 14 sources of health financing. These 14 financing agencies are grouped into the main ICHA-HF only. The public sector in the Thai NHA did not include HF1.1.2 [State/ provincial government] as the budgets are transferred from Central to Provincial governments. For the private sector, especially out-of-pocket payments by households, the Thai NHA did not have HF2.1.3 out-of-pocket excluding cost-sharing**.**

For health care functions, most of expenditure cannot be further disaggregated to more detail at the third digit level according to the ICHA. In addition, it was not possible to separate the day cases of curative care and long term care from both in-patient and out-patient care, as there is no data. Thus NHA usually provided the main health care function at only the one digit level, according to the ICHA-HC.

The provider classification indicates where the medical and health services were provided. The NHA cannot provide expenditure for nursing and residential care facilities (HP2), except for NPI which provides these services.

In the Thai context the "Office of other health practitioners", HP 3.3 are sub-district health centres, owned by the Ministry of Public Health. They provide primary care services by paramedical practitioners.

Most of gross capital formation, HCR1 and most of all other memorandum items, HCR2 to HCR7; are allocated into healthcare providers based on the main duty or purpose of the organization due to data limitations.

3. Estimate on total expenditure

The conceptual framework for Thai NHA was developed and modified based on SHA tables. However the total expenditure in Thai NHA did not take into account imports of healthcare, such as health spending in hospitals abroad by Thai residents, who traveled for treatment abroad. The NHA also excludes exports of health services such as services provided by Thai providers to non-residents. This is because it is not possible to identify these categories in the data.

The expenditure for administration and provision of health-related cash-benefits in Thai NHA was only the expenditure paid for no-fault liability of UC scheme, according to the related provisions in the National Health Security Act 2545BE (2001AD).

4. Other methodological issues

When most figures on expenditure obtained from financing agents is an aggregate figure, or did not match the requirements of the NHA matrix, the Health and Welfare survey, a regular national representative household survey conducted by NSO, was applied to disaggregate total figures into health care functions and healthcare providers. When this dataset was applied across all health financing agents, it ensured the methodology for the disaggregation by healthcare function and healthcare providers was rigorous.

Since 1984, Thailand has gradually built up its human capacity and improved its methodological approaches in order to estimate better unit costs of producing at all levels, such as hospital costing, program costs, human resource production costs, etc. Unit cost data and health service utilization rates are important for disaggregating expenditure data into appropriate cells of the NHA matrix. The profile of utilization both in-patients and out-patients at each health care facility are multiplied by the unit cost of each health care facility. This results in an appropriate factor for disaggregating total expenditure by health care function and health care provider.

ANNEX 2: TABLES

Table A1: Total health expenditure by financing agents

Table A1: Total health expenditure by financing agents		First available year				Last available year	
		1994		2001		2007	
		Baht,millions	percent	Baht, millions	percent	Baht, millions	percent
HF.1	General government	56,884.57	44.6%	95,778.95	56.3%	230,055.63	72.9%
HF.1.1	General government excluding social security funds	53,182.41	41.7%	84,505.34	49.6%	207,564.46	65.8%
HF.1.1.1	Central government	51,367.28	40.2%	78,553.54	46.2%	191,418.63	60.7%
HF.1.1.2;1.1.3	Provincial/local government	1,815.12	1.4%	5,951.81	3.5%	16,145.82	5.1%
HF.1.2	Social security funds	3,702.17	2.9%	11,273.60	6.6%	22,491.18	7.1%
HF.2	Private sector	70,617.02	55.3%	74,237.14	43.6%	84,585.93	26.8%
HF.2.1	Private social insurance	3,007.40	2.4%	4,776.87	2.8%	5,392.50	1.7%
HF.2.2	Private insurance enterprises (other than social insurance)	2,234.13	1.8%	5,346.46	3.1%	11,098.97	3.5%
HF.2.3	Private household out-of-pocket expenditure	56,765.52	44.5%	56,285.95	33.1%	60,638.36	19.2%
HF.2.4	Non-profit institutions serving households (other than social insurance)	663.61	0.5%	858.51	0.5%	1,466.90	0.5%
HF.2.5	Corporations (other than health insurance)	7,946.35	6.2%	6,969.36	4.1%	5,989.20	1.9%
HF.3	Rest of the world	153.90	0.1%	187.21	0.1%	889.60	0.3%
	Total health expenditure	**127,655.50**	100.0%	**170,203.30**	100.0%	**315,531.16**	100.0%

Remark Total Health Expenditure is total recurrent expenditure on health plus Gross capital formation (HC.R.1)
HF.1.2: Social security scheme, Workmen compensation
HF.2.1: Traffic insurance
HF.2.2: Private insurance
HF.2.5: Employer benefit

Table A2: Health expenditure by function of care

Table A2: Health expenditure by function of care		First available year				Last available year	
		1994		2001		2007	
		Baht,millions	percent	Baht, millions	percent	Baht, millions	percent
HC.1;2	*Services of curative & rehabilitative care*	87,811.04	68.8%	123,992.66	72.8%	245,901.58	77.9%
HC.1.1.1;2.1	In-patient curative & rehabilitative care	33,489.70	26.2%	55,461.09	32.6%	114,249.93	36.2%
HC.1.1.2	All other specialist health healthcare	na		na		2,059.46	0.7%
HC.1.2;2.2	Day cases of curative & rehabilitative care	-	-	-	-	-	-
HC.1.3;2.3	Out-patient curative & rehabilitative care	54,321.35	42.6%	68,531.41	40.3%	129,592.20	41.1%
HC.1.4;2.4	Home care (curative & rehabilitative)	-	-	0.21	0.0%	-	-
HC.3	*Services of long-term nursing care*	0.00	0.0%	0.16	0.0%	18.34	0.0%
HC.3.1	In-patient long-term nursing care	-	-	-	-	18.34	0.0%
HC.3.2	Day cases of long-term nursing care	0.00	0.0%	0.16	0.0%	-	-
HC.3.3	Home care (long term nursing care)	-	-	-	-	-	-
HC.4	*Ancillary services to health care*	17.19	0.0%	322.42	0.2%	592.07	0.2%
HC.4.1	Clinical laboratory	na		na		na	
HC.4.2	Diagnostic imaging	na		na		na	
HC.4.3	Patient transport and emergency rescue	na		na		na	
HC.4.9	All other miscellaneous ancillary services	na		na		na	
HC.5	*Medical goods dispensed to out-patients*	8,237.11	6.5%	10,409.91	6.1%	12,168.68	3.9%
HC.5.1	Pharmaceuticals and other medical non-durables	7,463.22	5.8%	9,832.02	5.8%	11,159.89	3.5%
HC 5.1.1	Prescribed med	na		na		268.71	0.1%
HC 5.1.2	Over-the-counter medicines	na		na		10,033.00	3.2%
HC 5.1.3	Other medical non-durables	na		na		858.18	0.3%
HC.5.2	Therapeutic appliances and other medical durables	773.89	0.6%	577.89	0.3%	1,008.79	0.3%
HC 5.2.1	Glasses & other vision products	na		na		1,007.72	0.3%
HC 5.2.2	Orthopaedic app, other prosthetics	na		na		1.07	0.0%
HC 5.2.3-5.2.9	All other misc. durable med goods	na		na		-	-
HC.6	*Prevention and public health services*	9,085.72	7.1%	13,631.06	8.0%	20,941.13	6.6%
HC.7	*Health administration and health insurance*	5,015.08	3.9%	13,396.15	7.9%	21,779.08	6.9%
	CURRENT HEALTH EXPENDITURE	**110,166.14**	86.3%	**161,752.41**	95.0%	**301,400.88**	95.5%
HC.R.1	*Capital formation of health care provider institutions*	17,489.36	13.7%	8,450.89	5.0%	14,130.28	4.5%
	TOTAL HEALTH EXPENDITURE	**127,655.50**	100.0%	**170,203.30**	100.0%	**315,531.16**	100.0%

Table A3: Current health expenditure by provider

Table A3: Current health expenditure by provider		First available year				Last available year	
		1994		2001		2007	
		Baht,millions	percent	Baht, millions	percent	Baht, millions	percent
HP.1	Hospitals	75,875.17	68.9%	109,798.09	67.9%	229,965.83	76.3%
HP.2	Nursing and residential care facilities	6.53	0.0%	10.19	0.0%	18.34	0.0%
HP.3	Providers of ambulatory health care	12,086.02	11.0%	14,729.21	9.1%	34,897.16	11.6%
HP.3.1	Offices of physicians	8,662.47	7.9%	10,307.66	6.4%	12,363.84	4.1%
HP.3.2	Offices of dentists	1,485.02	1.3%	1,012.41	0.6%	2,018.14	0.7%
HP.3.3-3.9	All other providers of ambulatory health care	1,938.53	1.8%	3,409.14	2.1%	20,515.18	6.8%
HP.4	Retail sale and other providers of medical goods	8,235.69	7.5%	10,406.35	6.4%	11,355.00	3.8%
HP.5	Provision and administration of public health	9,178.82	8.3%	14,639.49	9.1%	12,482.60	4.1%
HP.6	General health administration and insurance	4,721.14	4.3%	12,051.61	7.5%	12,113.68	4.0%
HP.6.1	Government administration of health	2,229.27	2.0%	6,445.76	4.0%	5,738.04	1.9%
HP.6.2	Social security funds	383.69	0.3%	1,779.49	1.1%	2,206.27	0.7%
HP.6.3;6.4; 6.9	Other social insurance	2,108.19	1.9%	3,826.36	2.4%	4,169.37	1.4%
HP.7	Other industries (rest of the economy)	62.76	0.1%	117.40	0.1%	567.96	0.2%
HP.7.1	Occupational health care services	na		na		na	
HP.7.2	Private households as providers of home care	na		na		na	
HP.7.9	All other secondary producers of health care	na		na		na	
HP.9	Rest of the world	-	-	0.07	0.0%	0.31	0.0%
	Total current expenditure on health care	**110,166.14**	**100.0%**	**161,752.41**	**100.0%**	**301,400.88**	**100.0%**

ANNEX 3: THAILAND NHA TABLES

THAILAND NHA 2006 TABLES

NHA Table 1 Current expenditure on health by function of care, provider and source of funding (2006), Millions Baht

Expenditure category	ICHA-HC function of health care	ICHA-HP provider industry	Public Financing Agencies									Private Financing Agencies						Total	%
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
			MOPH	Other mins	Local government	CSMBS	State enterprise	Public Independence Agency	UC	Social security funds	WCF	Private insurance	Traffic insurance	Employer benefit	Household	Non - profit	Rest of the world		
In-patient care including day cases	**HC.1.1; 1.2; 2.1; 2.2;**	**All industries**	**18,720.7**	**1,503.2**	**2,561.0**	**15,108.9**	**3,136.9**	**349.8**	**21,804.1**	**10,096.4**	**341.1**	**6,630.1**	**3,975.9**	**1,462.3**	**16,374.4**	**855.2**		**102,919.9**	**37.1%**
Curative and rehabilitative care			**18,720.7**	**1,503.2**	**2,561.0**	**15,108.9**	**3,136.9**	**349.8**	**21,804.1**	**10,096.4**	**341.1**	**6,630.1**	**3,975.9**	**1,462.3**	**16,374.4**	**855.2**		**102,919.9**	**37.1%**
General hospitals		HP.1.1	16,804.2	1,493.7	2,561.0	14,777.1	3,136.9	349.8	21,521.5	9,947.4	341.1	6,630.1	3,975.9	1,462.3	16,374.4	706.6		100,081.9	36.0%
- Public		HP.1.1.1	16,804.2	1,493.7	2,561.0	14,493.9	2,549.9	343.1	20,204.9	8,388.5	287.6	994.5	596.4	929.4	8,620.3	570.4		78,837.8	28.4%
- Private		HP.1.1.2				283.2	586.9	6.7	1,316.6	1,558.9	53.5	5,635.6	3,379.5	532.9	7,754.1	136.2		21,244.1	7.7%
Speciality hospitals (Public)		HP.1.2+1.3	1,916.5	9.5		331.8			282.6	149.0						2.8		2,692.1	1.0%
Nursing and residential care facilities (Private)		HP.2														19.7		19.7	0.0%
All other providers		All other														126.1		126.1	0.0%
Long-term nursing care	**HC.3.1; 3.2**	**All industries**																	
General hospitals		HP.1.1																	
Speciality hospitals		HP.1.2+1.3																	
Nursing and residential care facilities		HP.2																	
All other providers		All other																	
Outpatient curative and rehabilitative care	**HC.1.3; 2.3**	**All industries**	**20,220.7**	**1,521.4**	**2,931.9**	**21,895.5**	**4,273.0**	**415.4**	**20,122.7**	**8,811.2**	**378.8**	**205.1**	**253.8**	**3,744.7**	**35,854.5**	**108.0**	**12.5**	**120,749.1**	**43.5%**
Hospitals		HP.1.1	17,039.6	1,511.8	995.9	21,373.7	4,273.0	415.4	18,026.5	7,232.0	378.8	205.1	126.9	2,404.2	21,026.0			95,009.0	34.2%
- Public		HP.1.1.1	17,039.6	1,511.8	995.9	20,935.9	3,478.7	397.8	16,671.5	5,353.4	280.4	30.8	19.0	1,697.5	12,759.2			81,171.5	29.2%
- Private		HP.1.1.2				437.8	794.3	17.6	1,355.0	1,878.6	98.4	174.3	107.9	706.7	8,266.9			13,837.5	5.0%
Speciality hospitals (Public)		HP.1.2+1.3	1,136.5	9.6		23.3			68.2	987.5						0.6	12.5	2,238.2	0.8%
Offices of physicians		HP.3.1											126.9	904.3	10,997.8			12,028.9	4.3%
Offices of dentists		HP.3.2								591.6				251.1	2,296.2			3,139.0	1.1%
Offices of other health practitioners (1)		HP.3.3	2,008.6			498.5			2,027.9					162.8	1,266.1			5,963.9	2.1%
Out-patient care centres		HP.3.4			1,935.9											32.4		1,968.3	0.7%
All other providers		All other	36.0											22.3	268.5	75.1		401.9	0.1%
Home health care	**HC.1.4; 2.4; 3.3**	**All industries**														**10.0**		**10.0**	**0.0%**
Ancillary services to health care (2)	**HC.4**	**All industries**	**299.8**						**286.1**									**585.9**	**0.2%**
Medical goods dispensed to out-patients (3)	**HC.5**	**All industries**			**354.7**		**225.5**							**1,152.8**	**12,053.1**	**148.5**		**13,934.6**	**5.0%**
Phamaceuticals; other med. non-durables	***HC.5.1***				***354.7***		***225.5***							***1,058.9***	***11,397.2***	***147.4***		***13,183.6***	***4.7%***
Prescribed medicines	HC.5.1.1						225.5									7.3		232.8	0.1%
Over-the-counter medicines	HC.5.1.2													1,018.9	11,102.5	7.0		12,128.4	4.4%
Other medical non-durables	HC.5.1.3				354.7									40.0	294.7	133.1		822.5	0.3%
Therapeutical appl.; other medical durables	***HC.5.2***													***93.9***	***655.9***	***1.2***		***751.0***	***0.3%***
Glasses and other vision products	HC.5.2.1													93.9	655.9			749.8	0.3%
Orthopaedic appliances; other prosthetics	HC.5.2.2															1.2		1.2	0.0%
All other misc. durable medical goods	HC.5.2.3-5.2.9																		
Prevention and public health services	**HC.6**	**All industries**	**2,913.4**	**217.8**	**1,006.5**		**0.2**	**2,835.7**	**5,827.6**							**159.3**	**108.8**	**13,069.3**	**4.7%**
Health administration and health insurance	**HC.7**	**All industries**	**5,977.3**	**5,075.2**	**3,735.5**	**32.6**	**417.8**	**127.5**	**643.3**	**2,121.5**	**5.2**	**3,422.6**	**4,465.0**	**317.9**			**24.3**	**26,365.7**	**9.5%**
Total current expenditure on health care	**HC.1-HC.7**	**All industries**	**48,131.8**	**8,317.5**	**10,589.6**	**37,037.0**	**8,053.3**	**3,728.5**	**48,683.8**	**21,029.1**	**725.1**	**10,257.8**	**8,694.7**	**6,677.7**	**64,282.1**	**1,281.1**	**145.5**	**277,634.6**	**100.0%**
%			**17.3%**	**3.0%**	**3.8%**	**13.3%**	**2.9%**	**1.3%**	**17.5%**	**7.6%**	**0.3%**	**3.7%**	**3.1%**	**2.4%**	**23.2%**	**0.5%**	**0.1%**	**100.0%**	

(1) E.g. paramedical practitioners and providers of alternative medicine.
(2) This item includes freestanding clinical laboratory; diagnostic imaging; and patient transport.
(3) Included are fitting of prosthesis; eye tests and other services of providers of these goods.

NHA Table 2 Recurrent expenditure on health by function of care and provider industry (2006), Millions Baht

Unit : million Baht

Health care by function	ICH-HC code	HP 1 Hospital	HP 1.1 General hospital	HP 1.1.1 Public hospital	HP 1.1.2 Private hospital	HP 1.2 - 1.3 Specialty hospital	HP 2 Nursing and residential care facilities	HP 3 Providers of ambu care	HP 3.1 Offices of physicians	HP 3.2 Offices of dentists	HP 3.3 Offices of other health practitioners	HP 3.4 Special OP care centres	HP 3.5 Med & diag lab	HP 3.6 Providers of home health care	HP 3.9 All other providers of ambu care	HP 4 Retail sale and other providers of med goods	HP 4.1 Dispensing chemists	HP 4.2-4.9 All other sales of med goods	HP 5 Provision and adm of puvlic health programmes	HP 6 General health adm and insurance	HP 6.1 Govt admin of health	HP 6.2 Social security funds	HP 6.3 other social insurance	HP 6.4 Other (private) insurance	HP 6.9 All other health adm	HP 7 All other industries	HP 9 Rest of the world	Total	%
In-patient care	**HC 1.1, 2.1, 3.1**	**102,774.1**	**100,081.9**	**78,837.8**	**21,244.1**	**2,692.1**	**19.7**	**16.6**							**16.6**											**109.5**		**102,919.9**	**37.1%**
- curative and rehabilitative care	HC 1.1.1, 2.1	101,076.9	100,081.9	78,837.8	21,244.1	994.9		16.6							16.6											109.5		101,202.9	36.5%
- All other specialist health healthcare	HC 1.1.2	1,697.2				1,697.2																						1,697.2	0.6%
- Long term nursing care	HC 3.1						19.7																					19.7	0.0%
Service of day care (IP)	**HC 1.2, 2.2, 3.2**																												
- curative and rehabilitative care	HC 1.2, 2.2																												
- Long term nursing care	HC 3.2																												
Out-patient curative and rehab	**HC 1.3, 2.3**	**97,247.2**	**95,009.0**	**81,171.5**	**13,837.5**	**2,238.2**		**23,430.2**	**12,028.9**	**3,139.0**	**5,963.9**	**1,968.3**			**330.2**				**36.0**							**35.7**		**120,749.1**	**43.5%**
- Basic medical & diag services	HC 1.3.1	95,289.3	94,433.1	81,033.4	13,399.7	856.2		19,791.9	12,028.9		5,963.9	1,799.1							36.0									115,117.2	41.5%
- OP dental care	HC 1.3.2	106.7	106.7	106.7				3,308.2		3,139.0		169.2																3,414.9	1.2%
- All other specialist healthcare	HC 1.3.3	1,841.0	469.2	31.4	437.8	1,371.7		39.3							39.3											17.1		1,897.5	0.7%
- All other OP & rehab	HC 1.3.9, 2.3	10.2				10.2		290.8							290.8											18.6		319.6	0.1%
Home care (OP)	**HC 1.4, 2.4, 3.3**																									**10.0**		**10.0**	**0.0%**
- curative and rehabilitative care	HC 1.4, 2.4																									10.0		10.0	0.0%
- Long term nursing care	HC 3.3																												
Ancillary service	**HC 4**							**286.1**							**286.1**				**282.8**	**17.0**	**17.0**							**585.9**	**0.2%**
Med goods	**HC 5**	**1.2**	**1.2**	**1.2**				**359.3**				**359.3**				**13,205.9**	**12,121.4**	**1,084.5**								**368.2**		**13,934.6**	**5.0%**
- Pharm, other med, non-durables	HC 5.1							*359.3*				*359.3*				*12,456.1*	*12,121.4*	*334.7*								*368.2*		13,183.6	4.7%
Prescribed med	HC 5.1.1																									232.8		232.8	0.1%
Over-the-counter medicines	HC 5.1.2															12,121.4	12,121.4									7.0		12,128.4	4.4%
Other medical non-durables	HC 5.1.3							359.3				359.3				334.7		334.7								128.4		822.5	0.3%
- Therap appl, other medical durables	HC 5.2	*1.2*	*1.2*	*1.2*												*749.8*		*749.8*										751.0	0.3%
Glasses & other vision products	HC 5.2.1															749.8		749.8										749.8	0.3%
Orthopaedic app, other prosthetics	HC 5.2.2	1.2	1.2	1.2																								1.2	0.0%
All other misc. durable med goods	HC 5.2.3-5.2.9																												
Total expenditure on personal healthcare	**HC 1- 5**	**200,022.4**	**195,092.1**	**160,010.4**	**35,081.7**	**4,930.3**	**19.7**	**24,092.3**	**12,028.9**	**3,139.0**	**5,963.9**	**2,327.7**			**632.9**	**13,205.9**	**12,121.4**	**1,084.5**	**318.8**	**17.0**	**17.0**					**523.4**		**238,199.6**	**85.8%**
Prevention and public health services	**HC 6**	**1,520.6**	**1,520.6**	**1,283.1**	**237.5**			**4,886.4**			**4,416.2**	**441.4**			**28.8**				**6,529.3**	**102.4**	**102.4**					**30.4**	**0.3**	**13,069.3**	**4.7%**
Health Administration and health insurance	**HC 7**	**4,960.1**	**4,926.1**	**4,926.1**		**34.0**													**4,764.3**	**16,641.3**	**5,665.7**	**2,770.1**		**7,887.6**	**317.9**			**26,365.7**	**9.5%**
Total recurrent expenditure on health	**All HC**	**206,503.1**	**201,538.8**	**166,219.6**	**35,319.2**	**4,964.3**	**19.7**	**28,978.6**	**12,028.9**	**3,139.0**	**10,380.0**	**2,769.0**			**661.7**	**13,205.9**	**12,121.4**	**1,084.5**	**11,612.3**	**16,760.7**	**5,785.1**	**2,770.1**		**7,887.6**	**317.9**	**553.8**	**0.3**	**277,634.6**	**100.0%**
% Total recurrent expenditure on health		**74.4%**	**72.6%**	**59.9%**	**12.7%**	**1.8%**	**0.0%**	**10.4%**	**4.3%**	**1.1%**	**3.7%**	**1.0%**			**0.2%**	**4.8%**	**4.4%**	**0.4%**	**4.2%**	**6.0%**	**2.1%**	**1.0%**		**2.8%**	**0.1%**	**0.2%**	**0.0%**	**100.0%**	**95.3%**
Gross capital formation	HC.R.1	**7,799.1**	7,640.4	6,035.7	1,604.7	158.7	**9.7**	**1,098.4**	360.9		737.5				0.0				**298.5**	**4,250.4**	4,242.2				8.2	203.6		**13,659.8**	**4.7%**
Total Health Expenditure	**THE (HC & HCR1)**	**214,302.3**	**209,179.2**	**172,255.3**	**36,923.9**	**5,123.0**	**29.5**	**30,077.1**	**12,389.8**	**3,139.0**	**11,117.5**	**2,769.0**			**661.7**	**13,205.9**	**12,121.4**	**1,084.5**	**11,910.9**	**21,011.1**	**10,027.3**	**2,770.1**		**7,887.6**	**326.1**	**757.3**	**0.3**	**291,294.3**	**100.0%**
Memorandum items: Further health related functions	HC.R.2-7	**799.3**	**653.5**	**653.5**		**145.8**		**0.5**				**0.5**			**0.1**				**1,859.9**	**25,946.0**	**23,682.2**	**2,252.7**			**11.0**	**262.7**		**28,868.5**	**100.0%**
Education and training of health personnel	HC.R.2	698.7	653.5	653.5		45.2		0.5				0.5							770.6	8,850.5	8,850.5							10,320.3	35.7%
Research and development in health	HC.R.3	100.6				100.6		0.1							0.1				828.8	2,358.7	2,347.6				11.0	99.5		3,387.6	11.7%
Food, hygiene and drinking water control	HC.R.4																		260.5									260.5	0.9%
Environmental health	HC.R.5																			12,440.6	12,440.6							12,440.6	43.1%
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6																			43.5	43.5					163.3		206.7	0.7%
Administration and provision of health-related cash-benefits	HC.R.7																			2,252.7		2,252.7						2,252.7	7.8%

NHA Table 3 Current expenditure on health by provider industry and source of funding (2006), Millions Baht

		Public Financing Agencies									Private Financing Agencies						Total current expenditure on health	%
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
		MOPH	Other mins	Local government	CSMBS	State enterprise	Public Independence Agency	UC	Social security funds	WCF	Private insurance	Traffic insurance	Employer benefit	Household	Non - profit	Rest of the world		
Health care goods and services by provider industry		***48,131.8***	***8,317.5***	***10,589.6***	***37,037.0***	***8,053.3***	***3,728.5***	***48,683.8***	***21,029.1***	***725.1***	***10,257.8***	***8,694.7***	***6,677.7***	***64,282.1***	**1,281.1**	***145.5***	***277,634.6***	***100.0%***
Hospitals	**HP.1**	**36,938.6**	**7,942.8**	**3,556.9**	**36,506.0**	**7,409.8**	**765.2**	**41,310.3**	**18,316.0**	**719.9**	**6,835.2**	**4,102.8**	**3,866.5**	**37,400.4**	**820.3**	**12.5**	**206,503.1**	**74.4%**
Nursing and residential care facilities	**HP.2**														**19.7**		**19.7**	**0.0%**
Providers of ambulatory health care	**HP.3**	**2,008.6**		**2,732.0**	**498.5**			**6,730.2**	**591.6**			**126.9**	**1,340.5**	**14,828.5**	**121.8**		**28,978.6**	**10.4%**
Offices of physicians	HP.3.1											126.9	904.3	10,997.8			12,028.9	4.3%
Offices of dentists	HP.3.2								591.6				251.1	2,296.2			3,139.0	1.1%
Offices of other health practitioners	HP.3.3	2,008.6			498.5			6,444.1					162.8	1,266.1			10,380.0	3.7%
Out-patient care centres	HP.3.4			2,732.0											37.1		2,769.0	1.0%
Medical and diagnostic laboratories	HP.3.5																	
Providers of home health care services	HP.3.6																	
Other providers of ambulatory health care	HP.3.9							286.1					22.3	268.5	84.7		661.7	0.2%
Retail sale and other providers of medical goods	**HP.4**												**1,152.8**	**12,053.1**			**13,205.9**	**4.8%**
Dispensing chemists	HP.4.1												1,018.9	11,102.5			12,121.4	4.4%
All other sales of medical goods	HP.4.2-4.9												133.9	950.6			1,084.5	0.4%
Provision and administration of public health programmes	**HP.5**	**4,604.9**	**374.7**	**3,672.3**			**2,960.5**										**11,612.3**	**4.2%**
General health administration and insurance	**HP.6**	**4,579.7**		**628.4**	**32.6**	**417.8**		**643.3**	**2,121.5**	**5.2**	**3,422.6**	**4,465.0**	**317.9**			**126.7**	**16,760.7**	**6.0%**
Government (excluding social insurance)	HP.6.1	4,579.7		628.4	32.6	417.8										126.7	5,785.1	2.1%
Social security funds	HP.6.2							643.3	2,121.5	5.2							2,770.1	1.0%
Other social insurance	HP.6.3																	
Other (private) insurance	HP.6.4										3,422.6	4,465.0					7,887.6	2.8%
All other providers of health administration	HP.6.9												317.9				317.9	0.1%
Other industries (rest of the economy)	**HP.7**					**225.6**	**2.8**								**319.3**	**6.1**	**553.8**	**0.2%**
Occupational health care	HP.7.1																	
Private households	HP.7.2																	
All other secondary producers	HP.7.9																	
Rest of the world	**HP.9**															**0.3**	**0.3**	**0.0%**

NHA Table 4 Current expenditure on health by function of care and source of funding (2006), Millions Baht

		Public Financing Agencies									Private Financing Agencies						Total current expenditure on health	%
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
		MOPH	Other mins	Local government	CSMBS	State enterprise	Public Independence Agency	UC	Social security funds	WCF	Private insurance	Traffic insurance	Employer benefit	Household	Non - profit	Rest of the world		
Current expenditure on health care		***48,131.8***	***8,317.5***	***10,589.6***	***37,037.0***	***8,053.3***	***3,728.5***	***48,683.8***	***21,029.1***	***725.1***	***10,257.8***	***8,694.7***	***6,677.7***	***64,282.1***	***1,281.1***	***145.5***	***277,634.6***	***100.0%***
Personal health care services	**HC.1-HC.3**	**38,941.3**	**3,024.6**	**5,492.9**	**37,004.5**	**7,409.8**	**765.2**	**41,926.7**	**18,907.6**	**719.9**	**6,835.2**	**4,229.6**	**5,207.0**	**52,228.9**	**973.3**	**12.5**	**223,679.0**	**80.6%**
In-patient services		18,720.7	1,503.2	2,561.0	15,108.9	3,136.9	349.8	21,804.1	10,096.4	341.1	6,630.1	3,975.9	1,462.3	16,374.4	855.2		102,919.9	37.1%
Day care services																		
Out-patient services		20,220.7	1,521.4	2,931.9	21,895.5	4,273.0	415.4	20,122.7	8,811.2	378.8	205.1	253.8	3,744.7	35,854.5	108.0	12.5	120,749.1	43.5%
Home care services															10.0		10.0	0.0%
Ancillary services to health care	**HC.4**	**299.8**						**286.1**									**585.9**	**0.2%**
Medical goods dispensed to out-patients	**HC.5**			**354.7**		**225.5**							**1,152.8**	**12,053.1**	**148.5**		**13,934.6**	**5.0%**
Pharmaceuticals and other medical non-durables	HC.5.1			354.7		225.5							1,058.9	11,397.2	147.4		13,183.6	4.7%
Therapeutic appliances and other medical durables	HC.5.2												93.9	655.9	1.2		751.0	0.3%
Personal health care services and goods	**HC.1 - HC.5**	**39,241.1**	**3,024.6**	**5,847.5**	**37,004.5**	**7,635.3**	**765.2**	**42,212.9**	**18,907.6**	**719.9**	**6,835.2**	**4,229.6**	**6,359.8**	**64,282.1**	**1,121.8**	**12.5**	**238,199.6**	**85.8%**
Prevention and public health services	**HC.6**	**2,913.4**	**217.8**	**1,006.5**		**0.2**	**2,835.7**	**5,827.6**							**159.3**	**108.8**	**13,069.3**	**4.7%**
Health administration and health insurance	**HC.7**	**5,977.3**	**5,075.2**	**3,735.5**	**32.6**	**417.8**	**127.5**	**643.3**	**2,121.5**	**5.2**	**3,422.6**	**4,465.0**	**317.9**			**24.3**	**26,365.7**	**9.5%**

NHA Table 5 Total expenditure on health including health-related functions (2006), Millions Baht

		Public Financing Agencies									Private Financing Agencies						Total current expenditure on health	%
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
		MOPH	Other mins	Local government	CSMBS	State enterprise	Public Independence Agency	UC	Social security funds	WCF	Private insurance	Traffic insurance	Employer benefit	Household	Non - profit	Rest the world		
Health care services and goods by function																		
Services of curative and rehabilitative care	**HC.1, HC.**	**38,941.3**	**3,024.6**	**5,492.9**	**37,004.5**	**7,409.8**	**765.2**	**41,926.7**	**18,907.6**	**719.9**	**6,835.2**	**4,229.6**	**5,207.0**	**52,228.9**	**973.3**	**12.5**	**223,679.0**	**76.8%**
Services of long-term nursing care	**HC.3**																	
Ancillary services to health care	**HC.4**	**299.8**						**286.1**									**585.9**	**0.2%**
Medical goods dispensed to out-patients	**HC.5**			**354.7**		**225.5**							**1,152.8**	**12,053.1**	**148.5**		**13,934.6**	**4.8%**
Pharmaceuticals and other med. non-durables	HC.5.1			354.7		225.5							1,058.9	11,397.2	147.4		13,183.6	4.5%
Therap. appliances and other med. durables	HC.5.2												93.9	655.9	1.2		751.0	0.3%
Personal medical services and goods	**HC.1 - HC.**	**39,241.1**	**3,024.6**	**5,847.5**	**37,004.5**	**7,635.3**	**765.2**	**42,212.9**	**18,907.6**	**719.9**	**6,835.2**	**4,229.6**	**6,359.8**	**64,282.1**	**1,121.8**	**12.5**	**238,199.6**	**81.8%**
Prevention and public health services	**HC.6**	**2,913.4**	**217.8**	**1,006.5**		**0.2**	**2,835.7**	**5,827.6**							**159.3**	**108.8**	**13,069.3**	**4.5%**
Health administration and health insurance	**HC.7**	**5,977.3**	**5,075.2**	**3,735.5**	**32.6**	**417.8**	**127.5**	**643.3**	**2,121.5**	**5.2**	**3,422.6**	**4,465.0**	**317.9**			**24.3**	**26,365.7**	**9.1%**
Total curent expenditure on health		**48,131.8**	**8,317.5**	**10,589.6**	**37,037.0**	**8,053.3**	**3,728.5**	**48,683.8**	**21,029.1**	**725.1**	**10,257.8**	**8,694.7**	**6,677.7**	**64,282.1**	**1,281.1**	**145.5**	**277,634.6**	**95.3%**
Gross capital formation	HC.R.1	**990.5**	**601.5**	**3,343.2**		**15.0**	**7.3**	**6,088.3**						**1,651.7**	**270.9**	691.2	**13,659.8**	**4.7%**
Total expenditure on health		**49,122.3**	**8,919.0**	**13,932.8**	**37,037.0**	**8,068.3**	**3,735.8**	**54,772.1**	**21,029.1**	**725.1**	**10,257.8**	**8,694.7**	**6,677.7**	**65,933.8**	**1,552.1**	**836.7**	**291,294.3**	**100.0%**
Memorandum items: Further health related functions		**5,664.8**	**7,184.2**	**12,910.3**			**78.7**		**2,252.7**						**195.7**	**582.2**	**28,868.5**	**100.0%**
Education and training of health personnel	HC.R.2	2,515.6	6,802.7	469.7											0.5	531.7	10,320.3	**35.7%**
Research and development in health	HC.R.3	2,888.6	338.0				78.7								31.9	50.4	3,387.6	**11.7%**
Food, hygiene and drinking water control	HC.R.4	260.5															260.5	**0.9%**
Environmental health	HC.R.5			12,440.6													12,440.6	**43.1%**
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6		43.5												163.3		206.7	**0.7%**
Administration and provision of health-related cash-benefits	HC.R.7								2,252.7								2,252.7	**7.8%**

THAILAND NHA 2007 TABLES

NHA Table 1 Current expenditure on health by function of care, provider and source of funding (2007),Millions Baht

Expenditure category	ICHA-HC function of health care	ICHA-HP provider industry	Public Financing Agencies									Private Financing Agencies						Total	%
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
			MOPH	Other mins	Local government	CSMBS	State enterprise	Public Independence	UC	Social security	WCF	Private insurance	Traffic insurance	Employer benefit	Household	Non - profit	Rest of the world		
In-patient care including day cases	**HC.1.1; 1.2; 2.1; 2.2;**	**All industries**	**21,666.3**	**2,169.9**	**2,988.1**	**15,648.6**	**3,437.3**	**296.5**	**27,107.7**	**10,614.7**	**358.5**	**7,132.4**	**4,978.0**	**1,662.8**	**17,888.2**	**803.6**		**116,752.5**	**38.7%**
Curative and rehabilitative care			**21,666.3**	**2,169.9**	**2,988.1**	**15,648.6**	**3,437.3**	**296.5**	**27,107.7**	**10,614.7**	**358.5**	**7,132.4**	**4,978.0**	**1,662.8**	**17,888.2**	**803.6**		**116,752.5**	**38.7%**
General hospitals		HP.1.1	20,046.0	2,157.1	2,988.1	15,318.0	3,437.3	296.5	26,692.3	10,373.9	358.5	7,132.4	4,978.0	1,640.8	17,485.4	656.2		113,560.4	37.7%
- Public		HP.1.1.1	20,046.0	2,157.1	2,988.1	15,063.1	2,764.9	289.6	24,888.0	8,913.1	308.0	1,069.9	4,328.7	1,104.9	9,252.2	529.7		93,703.5	31.1%
- Private		HP.1.1.2				254.8	672.3	6.9	1,804.3	1,460.8	50.5	6,062.5	649.3	535.8	8,233.2	126.5		19,856.9	6.6%
Speciality hospitals (Public)		HP.1.2+1.3	1,620.4	12.8		330.6			415.4	240.8						2.6		2,622.6	0.9%
Nursing and residential care facilities (Private)		HP.2														18.3		18.3	0.0%
All other providers		All other												22.0	402.8	126.4		551.2	0.2%
Long-term nursing care	**HC.3.1; 3.2**	**All industries**																	
General hospitals		HP.1.1																	
Speciality hospitals		HP.1.2+1.3																	
Nursing and residential care facilities		HP.2																	
All other providers		All other																	
Outpatient curative and rehabilitative care	**HC.1.3; 2.3**	**All industries**	**21,169.6**	**1,987.0**	**3,420.9**	**30,832.5**	**4,725.0**	**445.3**	**21,549.6**	**9,683.9**	**435.1**	**220.6**	**276.3**	**3,000.1**	**31,308.0**	**100.3**	**13.3**	**129,167.4**	**42.9%**
Hospitals		HP.1.1	18,382.9	1,975.2	1,162.1	29,728.7	4,725.0	445.3	18,715.6	8,058.9	435.1	220.6	158.9	1,775.4	17,398.4			103,182.0	34.2%
- Public		HP.1.1.1	18,382.9	1,975.2	1,162.1	28,847.3	3,921.9	416.9	16,957.0	6,196.3	334.5	33.1	138.2	1,122.0	9,328.5			88,815.9	29.5%
- Private		HP.1.1.2				881.4	803.1	28.4	1,758.6	1,862.6	100.6	187.5	20.7	653.4	8,069.9			14,366.1	4.8%
Speciality hospitals (Public)		HP.1.2+1.3	489.3	11.7		412.5			124.6	1,313.2						0.6	13.3	2,365.1	0.8%
Offices of physicians		HP.3.1											117.4	898.2	11,348.2			12,363.8	4.1%
Offices of dentists		HP.3.2								311.9				200.7	1,505.5			2,018.1	0.7%
Offices of other health practitioners (1)		HP.3.3	2,261.4			691.4			2,709.3					125.7	1,055.9			6,843.7	2.3%
Out-patient care centres		HP.3.4			2,258.9											30.1		2,288.9	0.8%
All other providers		All other	36.0													69.7		105.7	0.0%
Home health care	**HC.1.4; 2.4; 3.3**	**All industries**																	
Ancillary services to health care (2)	**HC.4**	**All industries**	**69.6**						**522.5**									**592.1**	**0.2%**
Medical goods dispensed to out-patients (3)	**HC.5**	**All industries**			**413.8**		**261.9**							**1,041.2**	**10,313.8**	**138.0**		**12,168.7**	**4.0%**
Phamaceuticals; other med. non-durables	***HC.5.1***				***413.8***		***261.9***							***932.7***	***9,414.6***	***136.9***		***11,159.9***	***3.7%***
Prescribed medicines	HC.5.1.1						261.9									6.8		268.7	0.1%
Over-the-counter medicines	HC.5.1.2													885.3	9,141.2	6.5		10,033.0	3.3%
Other medical non-durables	HC.5.1.3				413.8									47.4	273.4	123.6		858.2	0.3%
Therapeutical appl.; other medical durables	***HC.5.2***													***108.5***	***899.2***	***1.1***		***1,008.8***	***0.3%***
Glasses and other vision products	HC.5.2.1													108.5	899.2			1,007.7	0.3%
Orthopaedic appliances; other prosthetics	HC.5.2.2															1.1		1.1	0.0%
All other misc. durable medical goods	HC.5.2.3-5.2.9																		
Prevention and public health services	**HC.6**	**All industries**	**3,944.8**	**423.9**	**1,174.4**		**0.2**	**2,659.6**	**12,474.6**							**147.9**	**115.7**	**20,941.1**	**6.9%**
Health administration and health insurance	**HC.7**	**All industries**	**5,209.4**	**5,223.5**	**4,358.5**	**33.1**	**433.4**	**119.7**	**807.3**	**1,386.9**	**12.0**	**3,746.0**	**138.2**	**285.2**			**25.8**	**21,779.1**	**7.2%**
Total current expenditure on health care	**HC.1-HC.7**	**All industries**	**52,059.7**	**9,804.3**	**12,355.8**	**46,514.1**	**8,857.8**	**3,521.1**	**62,461.6**	**21,685.6**	**805.6**	**11,099.0**	**5,392.5**	**5,989.2**	**59,510.0**	**1,189.8**	**154.7**	**301,400.9**	**100.0%**
%			**17.3%**	**3.3%**	**4.1%**	**15.4%**	**2.9%**	**1.2%**	**20.7%**	**7.2%**	**0.3%**	**3.7%**	**1.8%**	**2.0%**	**19.7%**	**0.4%**	**0.1%**	**100.0%**	

(1) E.g. paramedical practitioners and providers of alternative medicine.
(2) This item includes freestanding clinical laboratory; diagnostic imaging; and patient transport.
(3) Included are fitting of prosthesis; eye tests and other services of providers of these goods.

NHA Table 2 Recurrent expenditure on health by function of care and provider industry (2007), Millions Baht

Health care by function	ICH-HC code	HP 1 Hospital	HP 1.1 General hospital	HP 1.1.1 Public hospital	HP 1.1.2 Private hospital	HP 1.2 - 1.3 Specialty hospital	HP 2 Nursing and residential care facilities	HP 3 Providers of ambu care	HP 3.1 Offices of physicians	HP 3.2 Offices of dentists	HP 3.3 Offices of other health practitioners	HP 3.4 Special OP care centres	HP 3.5 Med & diag lab	HP 3.6 Providers of home health care	HP 3.9 All other providers of ambu care	HP 4 Retail sale and other providers of med goods	HP 4.1 Dispensing chemists	HP 4.2-4.9 All other sales of med goods	HP 5 Provision and adm of puvlic health programmes	HP 6 General health adm and insurance	HP 6.1 Govt admin of health	HP 6.2 Social security funds	HP 6.3 other social insurance	HP 6.4 Other (private) insurance	HP 6.9 All other health adm	HP 7 All other industries	HP 9 Rest of the world	Total	%
In-patient care	**HC 1.1, 2.1, 3.1**	**116,183.0**	**113,560.4**	**93,703.5**	**19,856.9**	**2,622.6**	**18.3**	**15.4**							**15.4**											**111.0**		**116,327.7**	**38.6%**
- curative and rehabilitative care	HC 1.1.1, 2.1	114,123.6	113,560.4	93,703.5	19,856.9	563.1		15.4							15.4											111.0		114,249.9	37.9%
- All other specialist health healthcare	HC 1.1.2	2,059.5				2,059.5																						2,059.5	0.7%
- Long term nursing care	HC 3.1						18.3																					18.3	0.0%
Service of day care (IP)	**HC 1.2, 2.2, 3.2**																												
- curative and rehabilitative care	HC 1.2, 2.2																												
- Long term nursing care	HC 3.2																												
Out-patient curative and rehab	**HC 1.3, 2.3**	**105,547.1**	**103,182.0**	**88,815.9**	**14,366.1**	**2,365.1**		**23,975.9**	**12,363.8**	**2,018.1**	**6,843.7**	**2,288.9**			**461.3**				**36.0**							**33.2**		**129,592.2**	**43.0%**
- Basic medical & diag services	HC 1.3.1	101,943.5	101,648.3	88,163.6	13,484.7	295.2		21,299.0	12,363.8		6,843.7	2,091.5							36.0									123,278.4	40.9%
- OP dental care	HC 1.3.2	124.5	124.5	124.5				2,215.6		2,018.1		197.5																2,340.1	0.8%
- All other specialist healthcare	HC 1.3.3	3,479.2	1,409.2	527.9	881.4	2,069.9		36.5							36.5											15.9		3,531.6	1.2%
- All other OP & rehab	HC 1.3.9, 2.3							424.8							424.8											17.3		442.0	0.1%
Home care (OP)	**HC 1.4, 2.4, 3.3**																												
- curative and rehabilitative care	HC 1.4, 2.4																												
- Long term nursing care	HC 3.3																												
Ancillary service	**HC 4**							**522.5**							**522.5**				**69.6**									**592.1**	**0.2%**
Med goods	**HC 5**	**1.1**	**1.1**	**1.1**				**418.2**				**418.2**				**11,355.0**	**10,026.5**	**1,328.5**								**394.4**		**12,168.7**	**4.0%**
- Pharm, other med, non-durables	HC 5.1							418.2				418.2				10,347.3	10,026.5	320.7								394.4		11,159.9	3.7%
Prescribed med	HC 5.1.1																									268.7		268.7	0.1%
Over-the-counter medicines	HC 5.1.2															10,026.5	10,026.5									6.5		10,033.0	3.3%
Other medical non-durables	HC 5.1.3							418.2				418.2				320.7		320.7								119.3		858.2	0.3%
- Therap appl, other medical durables	HC 5.2	1.1	1.1	1.1												1,007.7		1,007.7										1,008.8	0.3%
Glasses & other vision products	HC 5.2.1															1,007.7		1,007.7										1,007.7	0.3%
Orthopaedic app, other prosthetics	HC 5.2.2	1.1	1.1	1.1																								1.1	0.0%
All other misc. durable med goods	HC 5.2.3-5.2.9																												
Total expenditure on personal healthcare	**HC 1- 5**	**221,731.2**	**216,743.5**	**182,520.5**	**34,223.0**	**4,987.7**	**18.3**	**24,931.9**	**12,363.8**	**2,018.1**	**6,843.7**	**2,707.1**			**999.2**	**11,355.0**	**10,026.5**	**1,328.5**	**105.6**							**538.6**		**258,680.7**	**85.8%**
Prevention and public health services	**HC 6**	**3,152.4**	**3,130.0**	**2,606.3**	**523.6**	**22.5**		**9,965.3**			**9,423.5**	**515.0**			**26.8**				**7,684.6**	**109.2**	**109.2**					**29.3**	**0.3**	**20,941.1**	**6.9%**
Health Administration and health insurance	**HC 7**	**5,082.2**	**5,062.9**	**5,062.9**		**19.3**													**4,692.4**	**12,004.5**	**5,628.8**	**2,206.3**		**3,884.2**	**285.2**			**21,779.1**	**7.2%**
Total recurrent expenditure on health	**All HC**	**229,965.8**	**224,936.4**	**190,189.7**	**34,746.6**	**5,029.5**	**18.3**	**34,897.2**	**12,363.8**	**2,018.1**	**16,267.2**	**3,222.1**			**1,026.0**	**11,355.0**	**10,026.5**	**1,328.5**	**12,482.6**	**12,113.7**	**5,738.0**	**2,206.3**		**3,884.2**	**285.2**	**568.0**	**0.3**	**301,400.9**	**100.0%**
% Total recurrent expenditure on health		**76.3%**	**74.6%**	**63.1%**	**11.5%**	**1.7%**	**0.0%**	**11.6%**	**4.1%**	**0.7%**	**5.4%**	**1.1%**			**0.3%**	**3.8%**	**3.3%**	**0.4%**	**4.1%**	**4.0%**	**1.9%**	**0.7%**		**1.3%**	**0.1%**	**0.2%**	**0.0%**	**100.0%**	**95.5%**
Gross capital formation	HC.R.1	7,634.3	7,575.1	6,686.9	888.2	59.1	10.0	1,390.0	608.1		781.8				0.0				171.8	4,707.4	4,699.0				8.4	216.9		**14,130.3**	**4.5%**
Total Health Expenditure	**THE (HC & HCR1)**	**237,600.1**	**232,511.5**	**196,876.7**	**35,634.8**	**5,088.6**	**28.3**	**36,287.2**	**12,972.0**	**2,018.1**	**17,049.0**	**3,222.1**			**1,026.0**	**11,355.0**	**10,026.5**	**1,328.5**	**12,654.4**	**16,821.1**	**10,437.1**	**2,206.3**		**3,884.2**	**293.6**	**784.8**	**0.3**	**315,531.2**	**100.0%**
Memorandum items: Further health related functions	HC.R.2-7	**957.1**	**813.9**	**813.9**		**143.2**		**0.6**				**0.5**			**0.1**				**1,425.2**	**31,167.1**	**28,647.9**	**2,507.9**			**11.3**	**482.9**		**34,032.9**	**100.0%**
Education and training of health personnel	HC.R.2	769.4	769.4	769.4				0.5				0.5							317.0	10,129.9	10,129.9							11,216.8	**33.0%**
Research and development in health	HC.R.3	143.2				143.2		0.1							0.1				700.8	4,411.9	4,400.6				11.3	315.4		5,571.4	**16.4%**
Food, hygiene and drinking water control	HC.R.4																		407.4									407.4	**1.2%**
Environmental health	HC.R.5																			14,069.2	14,069.2							14,069.2	**41.3%**
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6																			48.3	48.3					167.5		215.8	**0.6%**
Administration and provision of health-related cash-benefits	HC.R.7	44.4	44.4	44.4																2,507.9		2,507.9						2,552.3	**7.5%**

NHA Table 3 Current expenditure on health by provider industry and source of funding (2007), Millions Baht

		Public Financing Agencies									Private Financing Agencies						Total current expenditure on health	%
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
		MOPH	Other mins	Local government	CSMBS	State enterprise	Public Independence Agency	UC	Social security funds	WCF	Private insurance	Traffic insurance	Employer benefit	Household	Non - profit	Rest of the world		
Health care goods and services by provider industry		***52,059.7***	***9,804.3***	***12,355.8***	***46,514.1***	***8,857.8***	***3,521.1***	***62,461.6***	***21,685.6***	***805.6***	***11,099.0***	***5,392.5***	***5,989.2***	***59,510.0***	**1,189.8**	***154.7***	***301,400.9***	***100.0%***
Hospitals	**HP.1**	**40,564.0**	**9,213.6**	**4,150.2**	**45,789.7**	**8,162.3**	**741.8**	**48,999.0**	**19,986.7**	**793.6**	**7,352.9**	**5,136.9**	**3,416.2**	**34,883.8**	**761.9**	**13.3**	**229,965.8**	**76.3%**
Nursing and residential care facilities	**HP.2**														**18.3**		**18.3**	**0.0%**
Providers of ambulatory health care	**HP.3**	**2,261.4**		**3,187.6**	**691.4**			**12,655.3**	**311.9**			**117.4**	**1,246.7**	**14,312.4**	**113.1**		**34,897.2**	**11.6%**
Offices of physicians	HP.3.1											117.4	898.2	11,348.2			12,363.8	4.1%
Offices of dentists	HP.3.2								311.9				200.7	1,505.5			2,018.1	0.7%
Offices of other health practitioners	HP.3.3	2,261.4			691.4			12,132.8					125.7	1,055.9			16,267.2	5.4%
Out-patient care centres	HP.3.4			3,187.6											34.4		3,222.1	1.1%
Medical and diagnostic laboratories	HP.3.5																	
Providers of home health care services	HP.3.6																	
Other providers of ambulatory health care	HP.3.9							522.5					22.0	402.8	78.7		1,026.0	0.3%
Retail sale and other providers of medical goods	**HP.4**												**1,041.2**	**10,313.8**			**11,355.0**	**3.8%**
Dispensing chemists	HP.4.1												885.3	9,141.2			10,026.5	3.3%
All other sales of medical goods	HP.4.2-4.9												155.9	1,172.6			1,328.5	0.4%
Provision and administration of public health programmes	**HP.5**	**4,830.6**	**590.7**	**4,284.8**			**2,776.4**										**12,482.6**	**4.1%**
General health administration and insurance	**HP.6**	**4,403.7**		**733.2**	**33.1**	**433.4**		**807.3**	**1,386.9**	**12.0**	**3,746.0**	**138.2**	**285.2**			**134.7**	**12,113.7**	**4.0%**
Government (excluding social insurance)	HP.6.1	4,403.7		733.2	33.1	433.4										134.7	5,738.0	1.9%
Social security funds	HP.6.2							807.3	1,386.9	12.0							2,206.3	0.7%
Other social insurance	HP.6.3																	
Other (private) insurance	HP.6.4										3,746.0	138.2					3,884.2	1.3%
All other providers of health administration	HP.6.9												285.2				285.2	0.1%
Other industries (rest of the economy)	**HP.7**					**262.1**	**2.9**								**296.5**	**6.5**	**568.0**	**0.2%**
Occupational health care	HP.7.1																	
Private households	HP.7.2																	
All other secondary producers	HP.7.9																	
Rest of the world	**HP.9**															**0.3**	**0.3**	**0.0%**

NHA Table 4 Current expenditure on health by function of care and source of funding (2007), Millions Baht

		Public Financing Agencies									Private Financing Agencies						Total current expenditure on health	%
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
		MOPH	Other mins	Local government	CSMBS	State enterprise	Public Independence Agency	UC	Social security funds	WCF	Private insurance	Traffic insurance	Employer benefit	Household	Non - profit	Rest of the world		
Current expenditure on health care		***52,059.7***	***9,804.3***	***12,355.8***	***46,514.1***	***8,857.8***	***3,521.1***	***62,461.6***	***21,685.6***	***805.6***	***11,099.0***	***5,392.5***	***5,989.2***	***59,510.0***	***1,189.8***	***154.7***	***301,400.9***	***100.0%***
Personal health care services	**HC.1-HC.3**	**42,835.9**	**4,156.9**	**6,409.1**	**46,481.1**	**8,162.3**	**741.8**	**48,657.3**	**20,298.6**	**793.6**	**7,352.9**	**5,254.4**	**4,662.8**	**49,196.2**	**903.9**	**13.3**	**245,919.9**	**81.6%**
In-patient services		21,666.3	2,169.9	2,988.1	15,648.6	3,437.3	296.5	27,107.7	10,614.7	358.5	7,132.4	4,978.0	1,662.8	17,888.2	803.6		116,752.5	38.7%
Day care services																		
Out-patient services		21,169.6	1,987.0	3,420.9	30,832.5	4,725.0	445.3	21,549.6	9,683.9	435.1	220.6	276.3	3,000.1	31,308.0	100.3	13.3	129,167.4	42.9%
Home care services																		
Ancillary services to health care	**HC.4**	**69.6**						**522.5**									**592.1**	**0.2%**
Medical goods dispensed to out-patients	**HC.5**			**413.8**		**261.9**							**1,041.2**	**10,313.8**	**138.0**		**12,168.7**	**4.0%**
Pharmaceuticals and other medical non-durables	HC.5.1			413.8		261.9							932.7	9,414.6	136.9		11,159.9	3.7%
Therapeutic appliances and other medical durables	HC.5.2												108.5	899.2	1.1		1,008.8	0.3%
Personal health care services and goods	**HC.1 - HC.5**	**42,905.5**	**4,156.9**	**6,822.9**	**46,481.1**	**8,424.2**	**741.8**	**49,179.8**	**20,298.6**	**793.6**	**7,352.9**	**5,254.4**	**5,704.0**	**59,510.0**	**1,041.9**	**13.3**	**258,680.7**	**85.8%**
Prevention and public health services	**HC.6**	**3,944.8**	**423.9**	**1,174.4**		**0.2**	**2,659.6**	**12,474.6**							**147.9**	**115.7**	**20,941.1**	**6.9%**
Health administration and health insurance	**HC.7**	**5,209.4**	**5,223.5**	**4,358.5**	**33.1**	**433.4**	**119.7**	**807.3**	**1,386.9**	**12.0**	**3,746.0**	**138.2**	**285.2**			**25.8**	**21,779.1**	**7.2%**

NHA Table 5 Total expenditure on health including health-related functions (2007), Millions Baht

		Public Financing Agencies									Private Financing Agencies						Total current expenditure on health	%
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
		MOPH	Other mins	Local government	CSMBS	State enterprise	Public Independence Agency	UC	Social security funds	WCF	Private insurance	Traffic insurance	Employer benefit	Household	Non - profit	Rest the world		
Health care services and goods by function																		
Services of curative and rehabilitative care	**HC.1, HC.2**	**42,835.9**	**4,156.9**	**6,409.1**	**46,481.1**	**8,162.3**	**741.8**	**48,657.3**	**20,298.6**	**793.6**	**7,352.9**	**5,254.4**	**4,662.8**	**49,196.2**	**903.9**	**13.3**	**245,919.9**	**77.9%**
Services of long-term nursing care	**HC.3**																	
Ancillary services to health care	**HC.4**	**69.6**						**522.5**									**592.1**	**0.2%**
Medical goods dispensed to out-patients	**HC.5**			**413.8**		**261.9**							**1,041.2**	**10,313.8**	**138.0**		**12,168.7**	**3.9%**
Pharmaceuticals and other med. non-durables	HC.5.1			413.8		261.9							932.7	9,414.6	136.9		11,159.9	3.5%
Therap. appliances and other med. durables	HC.5.2												108.5	899.2	1.1		1,008.8	0.3%
Personal medical services and goods	**HC.1 - HC.**	**42,905.5**	**4,156.9**	**6,822.9**	**46,481.1**	**8,424.2**	**741.8**	**49,179.8**	**20,298.6**	**793.6**	**7,352.9**	**5,254.4**	**5,704.0**	**59,510.0**	**1,041.9**	**13.3**	**258,680.7**	**82.0%**
Prevention and public health services	**HC.6**	**3,944.8**	**423.9**	**1,174.4**		**0.2**	**2,659.6**	**12,474.6**							**147.9**	**115.7**	**20,941.1**	**6.6%**
Health administration and health insurance	**HC.7**	**5,209.4**	**5,223.5**	**4,358.5**	**33.1**	**433.4**	**119.7**	**807.3**	**1,386.9**	**12.0**	**3,746.0**	**138.2**	**285.2**			**25.8**	**21,779.1**	**6.9%**
Total curent expenditure on health		**52,059.7**	**9,804.3**	**12,355.8**	**46,514.1**	**8,857.8**	**3,521.1**	**62,461.6**	**21,685.6**	**805.6**	**11,099.0**	**5,392.5**	**5,989.2**	**59,510.0**	**1,189.8**	**154.7**	**301,400.9**	**95.5%**
Gross capital formation	HC.R.1	1,755.1	538.3	3,790.0		24.1	10.2	5,872.4						1,128.3	277.1	734.9	14,130.3	4.5%
Total expenditure on health		**53,814.8**	**10,342.6**	**16,145.8**	**46,514.1**	**8,881.8**	**3,531.3**	**68,334.0**	**21,685.6**	**805.6**	**11,099.0**	**5,392.5**	**5,989.2**	**60,638.4**	**1,466.9**	**889.6**	**315,531.2**	**100.0%**
Memorandum items: Further health related functions		**7,171.4**	**8,594.9**	**14,600.4**			**294.0**	**44.4**	**2,507.9**						**200.8**	**619.0**	**34,032.9**	**100.0%**
Education and training of health personnel	HC.R.2	2,385.0	7,734.8	531.2											0.5	565.3	11,216.8	**33.0%**
Research and development in health	HC.R.3	4,379.0	811.9				294.0								32.8	53.6	5,571.4	**16.4%**
Food, hygiene and drinking water control	HC.R.4	407.4															407.4	**1.2%**
Environmental health	HC.R.5			14,069.2													14,069.2	**41.3%**
Administration and provision of social services in kind to assist living with disease and impairment	HC.R.6		48.3												167.5		215.8	**0.6%**
Administration and provision of health-related cash-benefits	HC.R.7							44.4	2,507.9								2,552.3	**7.5%**