2 Organization and governance

Chapter summary

The Ministry of Public Health (MOPH) is the national health authority responsible for formulating and implementing health policy. Its role has changed as several autonomous health agencies have been established recently through legislations, notably the Health Systems Research Institute (1992), the Thai Health Promotion Foundation (2001), the National Health Security Office (NHSO) (2002), and the National Health Commission Office (NHCO) (2007). MOPH and these independent agencies form a complex interdependent governing structure, while non-state actors and civil society groups also play increasing roles. The NHCO is mandated to convene annual National Health Assembly (NHA), ensuring participatory engagement by all government and non-state actors in formulating health policy through NHA resolutions. The advent of the NHSO has had a major impact in transforming the integrated model of MOPH as purchaser and service provider, to NHSO as purchaser and MOPH as service provider.

Thailand has a long history of de-concentration of health management to the Provincial Health Office (PHO) and all public hospitals under the MOPH, especially the financial power to retain and use revenue according to regulations, subject to regular audit by the Auditor General. The PHO also holds regulatory power, such as new licence or annual licence renewal of private pharmacies and clinics, and consumer protection on food, drugs and cosmetics in the respective province. The Decentralization Act 1999 requested the MOPH to devolve all public health-care facilities to local elected government units: health centres to Tambon Administration Organizations (TAOs), district hospitals to municipalities, and provincial hospitals to Provincial Administration Organizations. Progress in implementing the Decentralization Act has been slow, in terms of both devolving functions and transferring budget from central to local governments. After a decade, there were 43 MOPH health centres out of total 9768 (0.4%) devolved, as TAOs lacked readiness, capacities and funding, and cannot fulfil the criteria for
assuming responsibility for health centres. Multiple factors contributed to
the lack of progress in devolving health centres to TAOs, including shift in
central government priorities and unwillingness of MOPH leadership to
devolve authority to TAOs; these were exacerbated by the fact that TAOs
are not ready to assume these responsibilities.

Significant progress was made on the national household surveys
conducted regularly by the National Statistical Office, and their use for
monitoring the impact of health policies on households and supporting
the estimation of capitation fee for the Universal Coverage Scheme (UCS).
The adoption of the locally innovated Diagnosis Related Group in paying
hospitals by all three public insurance schemes contributed to significant
improvement in inpatient clinical data and development of a national
inpatient data set for monitoring outcomes of treatment. Capacity in
health technology assessment has been gradually developed since 2007
and has contributed to the inclusion of new medicines on the National
List of Essential Medicines and interventions to be included in the benefit
package of UCS.

Medicines are regulated by the Food and Drug Administration, which
handles market approval and post-marketing control. However, with the
exception of essential medicines sold to government bodies, prices are
governed by market forces. Medical appliances are regulated, but their
social, economic and ethical impacts are only assessed if they cost more
than 100 million Baht (US$ 3.3 million).

Patients have the right to choose their preferred provider from those
approved by their insurance scheme, and most have access to a
complaints procedure. The public is involved in policy formulation.

2.1 Overview of the health system
The 2007 and subsequent versions of the Constitutions of Thailand
guarantee the equal rights of citizens to: (1) receive standard public
health services; (2) survive and receive physical, mental and intellectual
development (the latter particularly among children and youth); (3) access
and use with dignity public welfare, public utilities, and other appropriate
support from the State; (4) receive information and explanation and to
express their opinions on any government project or activity that may
affect their environment, health or well-being; and (5) participate with
the State and communities in the preservation of natural resources and
biological diversity and in the protection of an environment that minimizes hazards to health.

Despite 27 years of efforts to expand financial risk protection to the citizenry using targeting approaches since 1975 (Tangcharoensathien et al., 2009), by 2001 some 30% of the population was still uninsured. In 2002, Parliament passed the National Health Security Act, B.E. 2545 (2002), which aims at setting up a health system that provides essential health services for the people with good quality using universal health coverage approach. As mandated by the Act, the National Health Security Office (NHSO) was established to manage and ensure health security for the rest of the people who were not covered by the Civil Servant Medical Benefit Scheme (CSMBS) and the Social Health Insurance (SHI).

The year 2007 was a major turning point of health system, when the National Health Act, B.E. 2550 (2007) was adopted by Parliament. As described in this Act, health means the state of complete well-being in multiple dimensions including physical, mental, intellectual and social, all of which are considered in a holistic and interconnected way. As mandated by the National Health Act, the National Health Commission (NHC) and the National Health Commission Office (NHCO) were established as the implementing body of the Act and secretariat, respectively. The NHC is mandated to submit recommendations in respective National Health Assembly (NHA) resolutions to the Government through Cabinet Resolution on health policies and strategies for the Government and all sectors in society (Rasanathan et al., 2012).

The multiple governance mechanisms of the national health system are illustrated in Figure 2.1. Increasingly, there are legally established players and foundations, civil society, and the private sector, which are active in shaping health policies and agendas in Thailand. However, the Ministry of Public Health (MOPH), as a national health authority, is the principal agency, although its focus is on the largest health-care delivery systems under its jurisdiction. Other ministries also play a role in health-related activities in various dimensions, while local government plays very limited role in financing and health service provision. For the health security system, three major agencies cover the whole population: the NHSO manages the Universal Coverage Scheme (UCS), the Comptroller General Department (CGD) of the Ministry of Finance manages the CSMBS, and the Social Security Office (SSO) of the Ministry of Labour.
manages the SHI. The NHC makes recommendations on health policies using the annual NHA with participation by all stakeholders as a key mechanism of participatory public policy development. Some NHA resolutions are endorsed by Cabinet Resolution, and become legally binding to line agencies in the government to implement and report back to the Assembly.

Figure 2.1 Linkages of governance mechanisms in the national health system

The Thai Health Promotion Foundation (ThaiHealth) manages the Health Promotion Fund, financed by 2% additional surcharges from excise tax levied on tobacco and alcohol. The Fund supports all relevant sectors, public, private and civil society, to carry out active health-promoting activities. The Healthcare Accreditation Institute (HAI), established by a Royal Decree in 2552B.E. (2009) as mandated by the Public Organization Network.
Act 2542B.E. (1999), promotes and supports health-service quality development and accredits all public and private hospitals and other health-care facilities (such as health centres). The Health System Research Institute (HSRI), established by Health System Research Institute Act 2535B.E. (1992) manages and supports health-system research and development. In the light of these multiple actors, most established by laws, MOPH is adjusting its strategy to better coordinate and orchestrate these agencies to achieve national health goals in a synergistic manner.

2.2 Historical background

The MOPH is the core agency in the Thai public health system. The development of the MOPH began in 1888 as the Department of Nursing under the Ministry of Education. In 1918, it became the Public Health Department under the Ministry of Interior. The Ministry of Public Health was established in 1942 according to the Reorganization of Ministries, Sub-Ministries and Departments Act, B.E. 2485 (1942). Since then, there have been several reorganizations, first in 1972, a second in 1974, a third in 1992, and a fourth in 2002. In 2006, the MOPH prepared a proposal on its mission and structure, and the formal ministerial regulation on MOPH reorganization was issued in 2009, whereby a few new departments were established, and the government was downsized – including the health sector, where posts of retired persons were terminated (see Figure 2.2).

In 1999, the Decentralization Act was adopted by Parliament in order to transfer various activities held by central ministries, including education and health services, to local government organizations (LGOs). However, in late 2002 all health-care decentralization movements were suspended because of changes in government policy. In 2002, the advent of NHSO responsible for UCS resulted in a major shift of financial power from MOPH to NHSO. The conventional supply-side financing through annual recurrent budget allocation to MOPH-owned health-care facilities ended, with the service-related budget transferred to NHSO; allocation is now based on catchment population for outpatient services and service load for inpatient services. MOPH still retains a regulatory function, consumer protection, implementation of related public health laws, and health-service provision.

This shift, splitting the role of purchaser (NHSO) and provider (MOPH), has had major ramifications on MOPH and its relationship with NHSO. In 2009, there was a major public-sector reform to improve the efficiency of
the government sector, including delegation of tasks and budget to LGOs, downsizing and restructuring; posts were terminated after retirement across all government sectors. As a result, the MOPH, especially at central administration level, will probably become smaller and may play more stewardship functions such as goal-, policy-, strategy- and standard-setting, regulatory and public health functions, monitoring and evaluation, and coordinating with other health and non-health sectors to improve the health of the population. The competence and skill mix in central MOPH administration needs to be reoriented in response to potential future evolution.

Figure 2.2  Evolution of the Ministry of Public Health


2.3 Organization

The MOPH is the main organization responsible for health promotion, prevention, disease control, treatment and rehabilitation, as well as other official functions as dictated by laws. Other ministries also have health-care provision roles, albeit limited – including the Ministry of Social Development and Human Security responsible for other health-related social services for people with disability (PWD) and older persons; the Ministry of Justice for special population such as prisoners; local governments such as municipalities and Tambon Administration Organizations. The MOPH administrative structure is divided into two levels, central and provincial. The central administration consists of the Office of the Permanent Secretary and three clusters of technical

The central ministry also delegates functions to regional health offices and regional technical centres under technical departments in order to monitor and support the work of provincial health offices. The regional health offices are coordination bodies across provinces within a geographical region, responsible for integration of planning and mobilization of resources within a region.

**Figure 2.3 Organizational structure and interlinkages between MOPH and NHSO**

*Source: Synthesis by the Author*
The provincial administration is the responsibility of the Provincial Health Office (PHO), which oversees and supports the regional or general hospitals, district hospitals and district health offices within each province. The district health office oversees all health centres in the district and coordinates with district hospital for managing the district health system. In terms of level of care, health centres offer primary health care (PHC) services, while district hospitals provide PHC and secondary care (all district hospitals have clinical capacity to provide admission services, numbers of beds range from 10 to 120) and regional/general hospitals provide tertiary and other specialized care depending on their size and capacity. There are also other public health-care facilities under other ministries and local government, but these make up a very small proportion. Private clinics and hospitals also play a role in providing mostly curative services to match the demand among the better-off who opt to pay despite being covered by CSMBS, SHI or UCS. Note that private hospitals with more than 100 beds are the main contractors for SHI members through registration and annual capitation payment. The private sector had more than 60% of the total 10 million registered SHI members (see Chapter 3 for more details).

NHSO also established regional branches for purchasing of services within regions, covering providers under the MOPH, other public organizations and the private sector (see organization relationship between MOPH and NHSO in Figure 2.3).

### 2.4 Decentralization and centralization

The MOPH has a long history of de-concentration of health management, devolving mobilization and use of revenue to the PHO and all hospitals since 1975, along with certain degree of decision-making power and financial autonomy.

The Decentralization Act 1999 was promulgated as mandated by Chapter 284 of the 1997 Constitution. The Act mandates that all public services held by central ministries, including health and education, as well as their associated budgets, should be gradually devolved to LGO. LGOs include Provincial Administration Organizations (PAOs), municipalities and Tambon Administration Organizations (TAO). The councils that oversee TOAs are elected members. The First Decentralization Action Plan focused on the establishment of Area Health Boards (AHBs) at the provincial level and transferred all public health-care facilities to AHBs. This was intended to maintain integration of the health system,
instead of fragmenting to PAOs, municipalities and TAOs. The MOPH actively implemented functional AHBs in 10 pilot provinces in 2002 with some successes (Leerapan and Aathasit, 2005) and there was a plan to institutionalize AHBs by law in 2005.

All health devolution was suspended in late 2002 since there were changes in leadership of the MOPH and government policy (Taearak et al., 2008). Between 2001 and 2006, Prime Minister Thaksin’s administration initiated several policies affecting devolution – Village Fund and Urban Community Funds, universal health coverage (UHC) and provincial integrated administration policies through the function of the provincial Chief Executive Officer (CEO). Slow progress of decentralization was noted not only in health but also in education. More than 500,000 staff needed to be transferred to the LGO. As a result of the delays, the LGO budget share was only 24.1% in 2006 against the mandated target by Law of 35% (Figure 2.4).

Given the implementation problems, the Decentralization Act was amended in 2006 to set the minimum share of LGO to total government budget at 25%, with a target of 35%. Not only did this change the target of devolved budget, but the model of health-care decentralization as proposed in the Second Decentralization Action Plan (2008 onwards) was also amended. It seems that keeping all health-care facilities together as a network was less of a concern and devolution of health centres to TAOs was clearly defined as a target for health-care decentralization, while district and provincial hospitals had more flexible options (formerly they were to be devolved to the municipalities or PAOs). Establishment of a comprehensive integrated model of AHB was not referred to in this plan (Office of Prime Minister, 2008) and previous pilot implementations of AHBs were terminated.

Slow progress was again noted during the Second Decentralization Action Plan. As of 2015, only 43 sub-district health centres out of the total 9268 were devolved to TAOs, because of the stringent criteria of readiness for TAOs to assume health responsibilities. Positive results among the devolved health centres were reported, such as increased management flexibility, greater responsiveness to community and patients, and increased community participation (Hawkins, Srisasalux & Osornprasop, 2009). In 2009, there was an attempt of the Association of PAOs to demand transfer of the remaining health centres to the PAOs, as indicated in the Action Plan, and provincial committees in 27 pilot provinces were
appointed by the Office of Prime Minister to explore a feasible model to be fitted to the individual provincial context. There was no progress from this effort.

The Third Decentralization Action Plan was approved in 2012 without major change from the Second Action Plan except a model of transfer of a network of provincial health-care providers to PAOs in provinces with large populations is proposed again as an alternative. Progress of health-care decentralization and related policy interventions since 1999 are summarized in Figure 2.5. Criticism is that Thailand runs a risk of de-fragmentation of a well-functioning provincial–district–sub-district health system to individual PAOs, municipalities and TAOs.

**Figure 2.4  Local government budget: fiscal year 2000–2012**

![Local government budget chart]

*Source: Office of Decentralization to Local Government Organization Committee.*
The Decentralization Action Plan also indicated that 34 public health functions needed to be transferred from the MOPH to LGOs. These public health functions were mainly under the responsibility of Department of Health, Department of Disease Control, and Food and Drug Administration. In 2010, there were only seven public health functions under the responsibility of Department of Health being transferred to LGOs (Wibulproproprasert et al., 2011b).

2.5 Planning

The 2007 Constitution prescribes the directive principles for the development of the people’s health. The MOPH, in coordination with all other relevant sectors, has translated these principles into the 10th National Health Development Plan, 2007–2011, as a strategic plan that builds up the concept and approach to develop the health system in a holistic way. The new concept was based on the philosophy of economic sufficiency, which helps the system to move towards livelihood and health
development in all dimensions, by all sectors at all levels, in accordance with the national development direction.

The 10th National Health Development Plan established a sufficiency health system in a green and happiness-creating health culture, a medical and health service system satisfactory to the clients, while health-care providers are also happy, and an immunization system for minimizing the impact of illnesses and health threats (Wibulprolprasert et al., 2011b).

The strategies for development of the Thai health system in the 10th Plan are shown in Figure 2.6.

**Figure 2.6 Relationship of concept, vision and strategies for health and national development**

The other type of health development plan is Health Plan of Action under the National Administration Plan Four-Year Plan of Action (2009–2012), MOPH. This is a strategic plan formulated by the MOPH alone in accordance with the Royal Decree on Good Governance Principles and Procedures of 2003. The Plan specifies responsible agencies and budget for use in preparing an annual workplan and an annual performance agreement/certification.

The MOPH plan focuses on the translation of policies, targets, indicators, tactics and operating procedures in the 2009–2011 National Administration Plan related to MOPH, into the MOPH Plan of Action for 2009–2012. It has a rolling budget plan that has to be revised each year, based on the actual budget allocated by all agencies under the ministry and projected for the following 3 years. In its Four-year Plan of Action for 2009–2012, MOPH sets five targets for services with indicators and strategies for its operations, which include 58 products/projects, with a total budget of 1014 trillion Baht (US$ 32.7 trillion at 2012 exchange rate), of which 81.9 billion Baht (US$ 2.64 billion) is for capital investment in health during this plan (Wibulprolprasert et al., 2011b).

### 2.6 Intersectorality

Intersectorality in the health system is demonstrated in the public participatory engagement for policy formulation. There have been movements on tobacco control such as the enactment of the Tobacco Product Control Act of B.E. 2535 (1992) and the Non-Smokers’ Health Protection Act of B.E. 2535 (1992). In addition, there have also been movements on healthy cities, healthy schools and healthy workplaces, as well as health-system reforms during 1978–1996, for which intersectoral actions proved indispensable. The implementation of various public policies might have negative impact on health and well-being – for example, agricultural and livestock policies focusing on yield enhancement with widescale utilization of growth-stimulating hormones and pesticides. Conversely, the implementation of public policy which gives positive impact to health and well-being is termed “healthy public policy”, emphasizing the creation of health security – for example, the public policy on road safety, and pesticide-free agriculture and green movement are health-enabling frameworks.

The creation of healthy public policy should be a participatory public policy process with participation by all sectors, including technical and professional sector, popular and social sectors, and political and civil
service sector. In this process, each sector can exert its support of the policy development initiative (Rasanathan et al., 2012).

The National Health Act, B.E. 2550 (2007) was regarded as the first law in Thailand to foster public participation in agenda-setting and policy formulation. The Act provides an innovation platform for stakeholders from all sectors to formulate public policies conducive to the health of the people, such as the Statue on National Health System, the annual NHA, Local Health Assembly, the use of Health Impact Assessment as mandatory tool prior to decisions on major public and private investment projects which may have negative impact on health of the people (Wibulprosart et al., 2011b). The progress report of the implementation of various resolutions of the NHAs was mixed, some showed good progress, while others showed stagnation – even when an NHA Resolution was endorsed by the Cabinet and therefore legally binding on government agencies, such as the total ban on chrysotile asbestos.

2.7 Health information management

2.7.1 Information systems

Health information system (HIS) can be categorized into two subsystems: population based and facility based. Population-based HIS includes household surveys regularly conducted by the National Statistical Office (NSO), and civil registration. Facility-based HIS includes clinical, health and management information systems.

Population-based HIS

- **Population and housing census**: The first census was in 1910 and then repeated every 10 years. The most recent census was conducted in 2010 by NSO covering Thai and non-Thai residents. The census data reflect population distribution by age, sex, place and life expectancy, and supports the country’s development in various areas including public health (NSO, 2010).

- **Civil registration**: Thailand has had a long history of civil registration since its establishment in 1909. The Civil Registration Division under the Department of Local Administration, Ministry of Interior is responsible for civil registration. The primary registration units, located in all municipalities and in district offices, are responsible for recording the vital events in accordance with the regulations and instructions issued by the Civil Registration Division. By law, any birth
must be registered within 15 days, while death and still birth must be registered within 24 hours. In 1982, the Ministry of Interior launched the Population Identification Number Project, which significantly improved the registration system. It fully computerized the registration data of the entire population – issue of personal identity (ID) card and household registration book were made mandatory. A unique ID number comprising 13 digits is issued to every individual at birth registration. Previously, Thai citizens got their ID cards at the age of 15, this was changed to 7 years in 2011. A citizen’s ID card has to be renewed every 6 years. Although the records of birth and death are accurately collected, quality of cause of death information is still a major problem as 60–70% of deaths occur outside hospitals and may be classified as natural cause of death by head of village and civil registration officers who have no medical background (Tangcharoensathien et al., 2006). Many initiatives have been developed to improve the quality of cause of death information, including development of a manual of medical certification of cause of death based on ICD10, the use of verbal autopsy to verify cause of death (Kijsanayotin, 2011).

- **Population surveys:** NSO regularly conducts national household surveys. The Household Socioeconomic Survey (SES), Health and Welfare Survey (HWS), elderly survey and disability survey are useful to monitor policy impacts at household level. The SES was first conducted in 1957, and then every 5 years. It collects information on household income and expenditure, household consumption, changes in assets and liabilities, durable goods and ownership, and housing characteristics. NSO has been assigned to carry out this survey every 2 years since 1987 to respond to the rapid economic growth and to monitor antipoverty policy (NSO, Undated-a). The first HWS was conducted in 1974 and repeated every 5 years. It collects information on health insurance coverage, sickness episodes, health-seeking behaviour and health-care expenditure. However, after the country implemented Universal Coverage Policy in 2001, the MOPH requested the NSO to conduct the HWS every year from 2003 to 2007 to monitor the impact of policy in a timely manner. The HWS has been conducted every 2 years since 2007 (HISO, 2009). All NSO surveys contain a module to assess household ownership of durable goods, which facilitates the computation of the wealth index and quintiles to monitor equity on a regular basis with a very long time trend (Tangcharoensathien, Limwattananon & Prakongsai, 2007).
The MOPH also conducted the first National Health Examination Survey in 1991–1992 through collective effort of the National Epidemiological Board of Thailand and a number of universities. Though costly, the survey contributed to an in-depth understanding of the health status of the Thai population. Subsequent surveys have been conducted every 5 years and financed by MOPH (1996–1997, 2003–2004 and 2008–2009), with the active leadership and funding availability of the HSRI and the MOPH (Jongudomsuk et al., 2012).

In response to the HIV/AIDS epidemic, the national HIV sentinel surveillance survey invested by MOPH contributed to evidence guiding accurate intervention for different subpopulation groups (UNAIDS, 2004).

Facility-based HIS

• **Clinical and health information systems:** Clinical and health information systems include all information systems related to health services provided to patients, such as medical record system, pharmacy information system, radiology and laboratory information systems, records of health promotion, disease prevention and sanitation activities. These systems aim to provide information to support decisions of clinicians and public health personnel to manage individual patients and population health. Outputs of these clinical systems can be used for disease surveillance to be reported to the MOPH. There are 47 notifiable communicable diseases, 11 environmental–occupational diseases; HIV/AIDS and injury are also covered. There is a need to develop disease registries to cope with the increasing trends of noncommunicable diseases (NCDs), as there were only a few registries maintained by university hospitals and some tertiary hospitals within the MOPH. There was an attempt to link these registries together for research purposes, as well as to improve the quality of patient care. The NHSO requests all contracted health-care providers to register NCD patients, e.g. diabetes, hypertension, chronic renal failure, cancer and HIV/AIDS, as part of the disease management system, and this innovation improves disease registries significantly. It is useful when disease registries are linked with mortality data from civil registration through national ID number to assess the survival curve of different diseases and intervention outcomes.

• **Management information systems:** Management information systems include all administrative data needed for effective management at the operational, management and executive levels. Data cover health
insurance coverage of patients, claim data, resources management such as payrolls, medicines inventory.

The MOPH has developed health minimum standard data sets of facility-based HIS; these are the 12-files and 18-files standard data. The 12-files standard data was developed in 1996 as a standard data set for health insurance management; it covers demographic data of individual inpatients, as well as their clinical data, treatments and resources used. Case-based provider payment for inpatient care such as Thai Diagnosis-Related Group (Thai DRG) has been developed based on the 12-files data.

The 18-files standard data was developed in 2002 to be used by PHC facilities. The data cover demographic data, as well as insurance coverage of its catchment population, disease prevention, health promotion and sanitation activities. The 18-files standard data was initially aimed at reducing the workload of health workers in doing reports needed to be submitted to higher levels. Facilities within the MOPH have both 12-files and 18-files standard data as electronic databases, but using different software. Exchange of data between health-care facilities is limited and can be done only for administrative data, especially claim data and some health-service activities. This is because of the lack of HIS standards. Recently, there was an attempt to develop a standard medicine code, the so-called 24-digit system, which was implemented with some limitations. Development of standards of laboratory data is just starting using LOINC system with the support of the HSRI to increase the interoperability [Kijsanayotin & Sinthuwanich, 2012].

### 2.7.2 Health technology assessment

Health technology assessment (HTA) in Thailand is defined as a form of policy research that measures short- and long-term health, economic, social and ethical consequences of the application or use of health technologies (Teerawattananon et al., 2009). Since 2012, there has been no legal requirement to apply HTA in market authorization by the Thai Food and Drug Administration for diffusion and reimbursement of health technologies including medicines and biological products, except a few medical devices. The revised Medical Device Act B.E.2551 (2008) requires the assessment of the social and economic consequences of medical devices with a cost higher than 100 million Baht (US$ 3.3 million) before their market authorization. According to the Act, the Minister of Public Health can designate relevant HTA bodies in and outside the country to conduct the assessment, the cost of which is met by the industry.
However, due to a delayed process of issuing subordinate law, the HTA of medical devices has not been implemented since 2008.

In Thailand, HTA has become increasingly popular in recent years, especially after the establishment of the Health Intervention and Technology Assessment Program (HITAP), which is a research arm of the Bureau of Health Policy and Strategy, MOPH (Tantivess, Teerawattananon & Mills, 2009). In early 2007, HITAP was set up with the aim of generating the evidence necessary for priority-setting and resource allocation of health technologies and initiatives, including health-promoting and disease-preventing interventions. In December 2007, the first national methodological HTA guidelines (mainly focusing on health economic evaluation) were developed by local scholars with extensive consultations among stakeholders. The guidelines were eventually adopted by the National List of Essential Medicines (NLEM) Subcommittee and, since then, pharmacoeconomics evidence – including the assessment of cost-utility and budget impact analysis – has been requested by the Subcommittee for assessment of new and high-cost medications. For instance, the NLEM Subcommittee used pharmacoeconomic evidence to support the inclusion of tenofovir for treatment of chronic hepatitis B, pegylated interferon alfa-2a and pegylated interferon alfa-2b for treatment of chronic hepatitis C, oxaliplatin for treatment of colon cancer in the pharmaceutical reimbursement list (Mohara et al., 2012), and to reject the inclusion of osteoporotic drugs in the list (Kingkaew et al., 2012).

In 2010, the NHSO endorsed the HTA guidelines and HTA has been used for the development of the NHSO health benefit package under the UCS. International Health Policy Program (IHPP) and HITAP have been designated to act as programme coordinators, responsible for systematically prioritizing and assessing health interventions in cooperation with several groups of stakeholders, including policy-makers, health-care professionals, civil society, patient groups, academics, industry and lay people (Mohara et al., 2012). At least 10 HTA studies are conducted annually by IHPP and HITAP, and the results are considered by the NHSO Subcommittee. Although the NHSO Subcommittee does not always make decisions in line with HTA results, HTA information is very useful and has increased the robustness of its decisions (Youngkong et al., 2012).
Tantivess, Teerwattananon & Mills (2009) analysed key strategies contributing to the recent success of using HTA to inform policy decisions in Thailand. These include: (i) promoting effective communications between HTA agencies and key stakeholders; (ii) enhancing the image of HTA agencies by, for example, promoting transparent HTA process and strengthening technical capacity; (iii) ensuring validity of research; (iv) insuring policy relevance of HTA topics and research; and (v) establishing appropriate and effective programme management. HTA in Thailand is now recognized as a role model for other low- and middle-income countries (Yang, 2009; Glassman et al., 2012), and HITAP is host of the regional HTA network, namely HTAsiaLink (http://www.hitap.net/en/activities-network/htasialink).

2.8 Regulation

2.8.1 Regulation and governance of third-party payers

There are three public health-financing schemes covering the entire population. The SHI covers private-sector employees (without dependants except maternity benefits); the CSMBS covers civil servants, pensioners and their dependents (including spouses, children under 20 years and parents); and the remaining population is covered by the UCS. All schemes have been established by specific laws.

- SHI is a part of the comprehensive social security system, as mandated by the Social Security Act 1990 for non-work-related conditions; and Workmen’s Compensation Act 1972 (amended 1974) for work-related injuries, disabilities and mortality. The Social Security Office of the Ministry of Labour manages the SHI.

- CSMBS is mandated by the Royal Decree on Medical Benefits of Civil Servant 1980 and its major amendment in 2010. The Ministry of Finance Comptroller General Department manages the CSMBS.

- UCS is mandated by the National Health Security Act 2002. By law, the NHSO is responsible for managing the UCS.

The characteristics of the governance and management structures of three public health insurance schemes are shown in Table 2.1. Note that they are public agencies and use public funds, and are all therefore subjected to financial audit by internal auditor and external audit by the Auditor General.
<table>
<thead>
<tr>
<th>Characteristics of governance and management structures of three public health insurance schemes</th>
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<tbody>
<tr>
<td><strong>UCS</strong></td>
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<tr>
<td>Type of organization</td>
</tr>
<tr>
<td>Governing board</td>
</tr>
<tr>
<td>Number of staff(^a)</td>
</tr>
<tr>
<td>365 (regional offices)</td>
</tr>
<tr>
<td>3505 (branch offices)(^b)</td>
</tr>
<tr>
<td>Branch offices</td>
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<tr>
<td>Roles of branch offices</td>
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<tr>
<td>Admin budget(^a)</td>
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Notes:
\(^a\) 2009 data.
\(^b\) These staff are responsible for all functions as required by Social Security Act, including premium collection, purchasing, pension benefit management, invalidity benefits.
Source: Jongudomsuk (2010).
<table>
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<tr>
<th>Benefit packages of three public health insurance schemes</th>
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<tbody>
<tr>
<td><strong>Health service utilization</strong></td>
</tr>
<tr>
<td>UCS: At contracting unit of primary care (CUP) both public and private</td>
</tr>
<tr>
<td>SHI: At registered main contractor hospital (&gt;100 beds), public or private</td>
</tr>
<tr>
<td>CSMBS: At any public hospital for outpatient services; or private hospital, except accident and emergency. Only public hospitals for admission services</td>
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<table>
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<th>Health services</th>
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<tbody>
<tr>
<td>UCS: Ambulatory and inpatient care including accident and emergency and rehabilitation services, and preventive and health promotion services. Note: prevention and health promotion for beneficiaries in all three schemes</td>
</tr>
<tr>
<td>SHI: Both ambulatory and inpatient care, including accident and emergency and rehabilitation services. No preventive services are provided, but NHSO manages prevention and health promotion for beneficiaries in all three schemes</td>
</tr>
<tr>
<td>CSMBS: Both ambulatory and inpatient care, including accident and emergency and rehabilitation services. No preventive services are provided, but NHSO manages prevention and health promotion for beneficiaries in all three schemes</td>
</tr>
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<table>
<thead>
<tr>
<th>Medicines</th>
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</thead>
<tbody>
<tr>
<td>UCS: Limited; only essential drugs (ED)</td>
</tr>
<tr>
<td>SHI: Limited; only ED</td>
</tr>
<tr>
<td>CSMBS: Limited; only ED, but the use of nonessential (NED) can be approved by 3 doctors in the hospitals</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Maternity (Delivery)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCS: Limited; only 2 deliveries</td>
</tr>
<tr>
<td>SHI: Limited; only 2 deliveries and payment in cash (lump sum 13 000 Baht per delivery inclusive of ANC and PNC services)</td>
</tr>
<tr>
<td>CSMBS: No limit</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Renal replacement therapy (RRT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCS: Covered and start with peritoneal dialysis, patient has to pay if choose haemodialysis</td>
</tr>
<tr>
<td>SHI: Covered; both haemodialysis and peritoneal dialysis, liable for copayment if beyond the ceiling</td>
</tr>
<tr>
<td>CSMBS: Covered; both haemodialysis and peritoneal dialysis, liable for copayment if beyond the ceiling</td>
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<table>
<thead>
<tr>
<th>Antiretroviral therapy for HIV/AIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCS: Included</td>
</tr>
<tr>
<td>SHI: Included</td>
</tr>
<tr>
<td>CSMBS: Included</td>
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<table>
<thead>
<tr>
<th>Organ transplantation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCS: Kidney and bone marrow covered for treatment of certain cancers</td>
</tr>
<tr>
<td>SHI: Kidney and bone marrow covered for cancer; corneal covered</td>
</tr>
<tr>
<td>CSMBS: No exclusion list</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dental care</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCS: Covered, both preventive and curative dental services</td>
</tr>
<tr>
<td>SHI: Reimburse no more than twice a year (max 300 Baht/treatment)</td>
</tr>
<tr>
<td>CSMBS: Covered, no limitation specified</td>
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<table>
<thead>
<tr>
<th>Medical devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCS: Covers 270 items</td>
</tr>
<tr>
<td>SHI: Covers 88 items</td>
</tr>
<tr>
<td>CSMBS: Covers 387 items</td>
</tr>
</tbody>
</table>

UCS: Universal Coverage Scheme; SHI: Social Health Insurance; CSMBS: Civil Servant Medical Benefit Scheme; ANC: antenatal care; PNC: postnatal care.
Source: Synthesis by the Author
All services, diseases and health conditions are covered by the health insurance schemes, with a few exceptions such as cosmetic surgeries, and services of unproven effectiveness such as stem-cell treatment. Initially in 2001, antiretroviral treatment and renal-replacement therapy for end-stage kidney disease patients were excluded from the benefit package, but these were added in 2003 and 2007, respectively. The benefits packages for beneficiaries of each public health insurance scheme are summarized in Table 2.2. The benefit packages differ as a result of different paces of historical evolution of these schemes. For example, the CSMBS offers a generous benefit package to civil servants and their dependents and its fee-for-service reimbursement model for outpatient services escalates the expenditure of CSMBS to 5 to 6 times higher than those of the other two schemes.

2.8.2 Regulation and governance of providers

In 2008, some 77% of hospitals were public, the vast majority owned by the MOPH, a few by other ministries, while 22% were private, 1% state enterprises and local governments. There were 17 671 private clinics, mostly single-practice, and 17 187 private pharmacies in 2009 (Wibulprolprasert et al., 2011b), almost all located in urban municipalities.

Each ministry and local government has its own regulation mechanisms for its own hospitals. Private health medical institutions are licensed and relicensed annually under the Sanatorium Act 1998 (Medical Premises License Act) in line with stipulated quality and standards. The Bureau of Sanatorium and Art of Healing, Department of Health Service Support, MOPH is responsible for overseeing all private health-care providers. Historically, the Medical Premises Act only applies to the private sector, all public providers are exempt from licensing.

2.8.3 Registration and planning of human resources

Several agencies are involved in the planning and management of human resources for health (HRH): the MOPH, the main employer of health-care workforce; the Ministry of Education, overseeing training institutions, the National Economic and Social Development Board for macro-economic policy, the Civil Service Commission on public-sector employment, and postgraduate training; the Bureau of Budget, overseeing the annual budget proposal; and the professional councils responsible for licensing and or relicensing of professionals. All these organizations work in
isolation, lacking coordination and synergies (Jindawatana, et al., 1996). In 2006, the MOPH led the development of the National Strategic Plan for HRH 2007–2016 in consultation with partners. The Plan was discussed in the National Health Assembly, from where a Resolution was submitted and endorsed by the Cabinet in April 2007. A National HRH Committee, comprised of representatives of all HRH-related organizations, was established to facilitate the implementation of this National Strategic Plan. It also serves an advisory role to the Cabinet on HRH (MOPH, 2009).

The First National Medical Education Forum (NMEF) was convened in 1956. Since then, the Forum has been held every seven years to review progress and redirect medical education in line with country health and health system needs and the requirements of medical curriculum reforms. The Forum includes medical education constituencies and the MOPH. As most decisions by the NMEF have concentrated on medical curriculum reform, it has lost sight of the increasing proportion of specialists despite concerns voiced by the MOPH.

All training institutions, public and private, must be accredited by Ministry of Education, while curricula are accredited by concerned professional councils before student recruitment. The numbers of training institutions and their graduates in 2009 are summarized below (Leerapan & Aathasit, 2005):

- **Medical doctors**: 19 medical schools – 18 public, 1 private. Average annual number of medical doctor graduates between 2000 and 2009 was 1423.
- **Dentists**: 10 dental schools – 9 public, 1 private. Average annual number of graduate dentists between 2000 and 2009 was 415.
- **Pharmacists**: 14 pharmacy schools – 11 public, 3 private. Average annual number of graduate pharmacists between 2000 and 2009 was 1159.
- **Nurses**: 75 nursing schools – 65 public, 10 private. Average annual number of graduate nurses between 2000 and 2009 was 5091.

The professional councils – Medical, Dental, Pharmacy and Nursing and Midwifery – are responsible for their particular national licence examination as required by all students to obtain licence for professional practice, in order to ensure similar qualification and professional standard regardless of their training institutions.
2.8.4 Regulation and governance of pharmaceuticals

The Thai Food and Drug Administration (FDA), of the MOPH is a national regulatory agency of pharmaceutical products which, according to Thai laws, include modern and traditional medicines and biological preparations such as vaccines, toxoids and blood derivatives [Drug Act B.E. 2510 (1967)]. Regulation of psychotropic substances and narcotics with therapeutic uses also falls under responsibility of the FDA. To undertake pre- and postmarketing control of all categories of pharmaceuticals, the FDA works closely with the Department of Medical Sciences (DMSc) of the MOPH, which is the national laboratory agency. Furthermore, the FDA serves as secretariat of the National Committees for Drugs, Psychotropic Substances, and Narcotics, the missions of which are to determine national policies and guidance in relation to regulation of these products.

Entry to the market

Market authorization is required for all pharmaceuticals, either locally manufactured or imported. Exceptions have been given to the importation and production managed by public agencies, including MOPH departments, the Government Pharmaceutical Organization (GPO), the Defence Pharmaceutical Factory and the Thai Red Cross Society. Production of medicines in hospitals and freshly prepared products for individual patients are also exempt from the regulation as stated in the Drug Act [Drug Act B.E. 2510 (1967)]. However, the production of psychotropic substances and narcotics for any purposes has to follow the provisions in respective laws. It should be noted that despite the exception, the GPO –the MOPH-controlled state enterprise – voluntarily follows the market authorization requirements.

Market approval of pharmaceutical products generally involves assessments of their safety, efficacy, effectiveness and quality [Teerawattananon et al., 2003]. Importers or manufacturers of particular products are required to submit application for registration, together with the content of container labels and package leaflets, drug formula (active and nonactive ingredients and their amounts), and dossiers showing that the products meet legal requirements. For new drug products, i.e. products containing new chemical entities, new combinations or those with new routes of administration, evidence from preclinical and clinical studies are mandatory submission.
Modern medicines are classified into three categories, over-the-counter (OTC) drugs, dangerous drugs, and specially controlled drugs. OTC products can be distributed through any premises, without requirement for the qualifications of the sellers (Teerawattananon et al., 2003). Dangerous and specially controlled medicines are available only in pharmacies, clinics and hospitals, and may be only dispensed by pharmacists or medical doctors. Dispensing of specially controlled drugs requires a physician’s prescription. The sale and dispensing of traditional medicines is allowed by traditional drug stores under supervision of licensed traditional doctors or pharmacists. Advertisement of pharmaceutical products of all categories is regulated by the FDA (Teerawattananon et al., 2003). Advertising medicines requires FDA approval of the materials, sounds and related scripts. Only OTC and traditional drugs can be advertised to the general public.

Quality of medicines

Registration of all locally produced or imported medicines requires information on their specifications including quality standards, protocol for quality assurance and testing be submitted to the FDA. Bioequivalence data are required in case of generic drugs whose original products have obtained approval in the country since 1991. Product samples submitted with registration files are sent to the DMSc laboratory for testing of their quality and analysis.

The quality of pharmaceutical products manufactured in Thailand is ensured through the enforcement of Good Manufacturing Practice (GMP); this is a legal requirement for manufacturing premises, including the infrastructure, personnel, manufacturing and quality-assurance processes. Compliance with GMP standards among local drug producers is inspected by FDA officials. Regarding manufacturers in foreign countries, the Thai authority requests GMP certificates issued by national regulatory agencies in the country of origin. At the postmarketing phase, FDA inspectors and pharmacists in Provincial Health Offices, in collaboration with DMSc scientists, monitor the quality of pharmaceutical products on the market through testing of samples from the shelves. Container labels, leaflets, expiration, registration status and storage conditions are also inspected during the official visits to drug stores.

Pharmaco-vigilance as recommended by the World Health Organization (WHO) is overseen by the FDA as an integral part of postmarketing control of medicines. Major sources of information on adverse drug
reactions (ADR) are mandatory reports by all health-care professionals in hospitals, clinics and pharmacies. At the same time, global evidence generated by the Upsala Monitoring Center contributes significantly to effective risk-management measures such as product withdrawal and revision of warnings/precautions illustrated on product leaflets. The FDA works closely with the MOPH Bureau of Epidemiology to conduct case investigation of all reportedly severe ADR and determine their causal relationship with specific products, and provide the evidence and recommendations to the appropriate subcommittee and the Drug Committee for appropriate actions [Health Product Vigilance Center, 1992]. For new drugs, the manufacturers and importers are responsible for safety monitoring and reporting for at least two years after market approval [Jirawattanapisal et al., 2009]. The monitoring period will be extended in cases where questions arise.

**Pricing and market access**

Price regulation of pharmaceutical products is not well established in Thailand [Jirawattanapisal et al., 2009]. As a laissez-fair market, there was no mechanism in place to control retail and wholesale prices and margins; however, price negotiations are conducted daily at different levels, such as the Subcommittee for the Development of the National List of Essential Medicines (NLEM), the NHSO responsible for UCS as a strategic purchaser, and Pharmacy and Therapeutic Committee in individual hospitals. The reference pricing scheme for drugs on the NLEM is promulgated by the appropriate subcommittee under the Committee for National Drug System Development. However, reference prices recommended by this scheme are effective only for drugs purchased by government hospitals and health programmes.

The NLEM is referred to as the pharmaceutical benefit package by all three health insurance schemes (CSMBS, UCS and SHI). The formulation of this List is undertaken by a subcommittee under the Committee for National Drug System Development. The drugs to be listed must have market approval by FDA. The subcommittee reviews the safety, effectiveness and some elements concerning quality of the products, in comparison with drugs of the same category. Prices, health needs and burden of disease are also taken into account. Cost–effectiveness and budget impacts are analysed for expensive drugs.

In practice, beneficiaries of the CSMBS are privileged, as drugs outside the List – nonessential medicines (NEMs) – can be fully reimbursed.
if their physicians consider them necessary. Patients covered by UCS and SHI are unlikely to obtain expensive NEMs, owing to incentives for cost containment. It is evident that medicines prescribed to members of CSMBS differ from, and are more expensive than, those acquired by beneficiaries covered by UCS and SHI.

At national level, there is no regulation regarding generic substitution. Although guidelines on this practice exist in public and private hospitals, significant variation occurs across settings (Tantai & Yothasamut, 2012). It has been argued that capitation payment applied by SHI and UCS and its consequence on budget constraints encourage the use of generic drugs, especially in hospitals; generic substitution is de facto applied extensively for beneficiaries covered by SHI and UCS (Tarn et al., 2008). In most settings, generic substitution is not allowed for particular drugs, such as life-saving ones and drugs with narrow therapeutic index.

Increased problems have been noted with direct sale, mail-order and internet pharmacies. Although selling medicines through these channels is prohibited by law, there is no effective solution to contain such practices.

As member of the World Trade Organization (WTO), Thailand has adopted a patent policy as suggested in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs). The Patent Act provides 20-year protection for both product and process of innovations, including pharmaceuticals. Although TRIPs flexibilities such as government-use licences are legalized according to Thai law, policy-makers are reluctant to introduce these measures to improve access to essential medicines, as the country has experienced strong protests from patent holders, associations of transnational pharmaceutical companies, including threatening trade sanctions by governments of industrialized countries (Wibulpolprasert et al., 2011a). To improve access to these patent products in public health emergencies, the government had successfully introduced TRIPS flexibilities on government use for a few antiretroviral medicines. Intellectual property protection beyond TRIPs, which will result in extension of period of market exclusivity and delayed market entry of generic products, has been sought by some countries through bilateral trade negotiations. Extension of market exclusivity beyond those agreed in the TRIPs has negative impacts on access to essential medicines (Akaleephian et al., 2009).
Rational use of medicine (RUM) has long been a point of concern at country level, as efforts to combat irrational use first appeared in the National Drug Policy of 1981. Since then, several measures have been developed and introduced with the aims of changing professional practice and consumer behaviour. Such efforts involve the introduction of regulatory, management, education and information measures. Despite this, inappropriate use of pharmaceutical products is prevalent in communities and health-care facilities. Only a few measures, especially those connected to health-care provider payments, have proved effective (Tantivess, Teerawattananon & Mills, 2009). Pilots such as Antibiotic Smart Use have been successful but still need to be scaled up nationwide (Sumpradit et al., 2012). Drug-use evaluation (DUE) and pre-prescription authorization are recommended and enforced in hospitals as conditions for prescribing a number of very expensive medicines on the NLEM. The measures are successful in preventing irrational use of these drugs among UCS beneficiaries.

The pharmaceutical industry sponsoring medical professionals for domestic and international medical conferences and other unethical market promotion activities has been regularly reported (Layton et al., 2005). These unethical practices and involvement by some practitioners – violating trust in and integrity of health-care professionals – led to the National Health Assembly adopting a resolution in 2009 to terminate the unethical practices of drug market promotion, and subsequent establishment of ethical criteria for drug promotion in Thailand (National Drug Development Committee, 2012) with reference to the WHO ethical criteria (WHO, 1998). The Code of Conduct applies to all concerned parties such as prescribers, dispensers, pharmaceutical industry, who are all obliged to observe and implement the Code. The National Health Assembly is responsible for monitoring progress of implementation of the Code, especially on its effectiveness and responses from all stakeholders.

2.8.5 Regulation of medical devices

The Medical Device Control Division of the FDA is responsible for regulating, controlling and monitoring the use of medical devices in Thailand (Teerawattananon et al., 2003). By law, a device is licensed in the market if it achieves the performance intended by the manufacturer and meets standards for personal safety. Unlike pharmaceutical products, there is no requirement for clinical efficacy evaluation from randomized control trial before market approval. The Medical Device Control Division also controls postmarketing, such as inspection of manufacturing factory and implementation of appropriate measures when the unsafe medical devices are reported.
According to the revised Medical Device Act B.E.2551 (2008), the assessment of the social, economic and ethical impact of medical devices with a cost exceeding 100 million Baht (US$ 3.3 million) is mandatory before market authorization (Teerawattananon et al., 2009). The MOPH needs to designate HTA units in- and outside the country to conduct these assessments, the costs of which shall be shouldered by the industry. There is neither a price ceiling nor a reference set for medical devices such as orthopaedic instruments or services provided such as computed tomography (CT) scanners. Price is determined entirely by market demand and supply. There is no reimbursement list for medical devices. Their distribution is controlled implicitly by the suppliers. The coverage of use of medical devices varies greatly across the three public health insurance schemes. The CSMBS covers almost all medical devices using a fixed-rate fee-for-service payment, whereas the UCS and SHI schemes include use of medical devices as part of their basic health-care packages and support based on prepaid capitation. As a result, inequitable access to and use of expensive medical devices has been widely noted, for example, CT scans, magnetic resonance imaging (MRI) and mammography between CSMBS and UCS and SHI beneficiaries (Teerawattananon et al., 2009).

2.8.6 Regulation of capital investment

During the early phase of health-care infrastructure development in Thailand, the National Economic and Social Development Board and the MOPH played a pivotal role in planning for capital investment through the use of the 5-year National Economic and Social Development Plan. As a result, Thailand rapidly built up good geographical coverage of rural health-care infrastructures within the 25 years from the first Plan (1961–1966) to the fifth Plan (1982–1986) (Wibulprolprasert, 2002). A capital investment plan was developed later based on demand of public hospital managers, or local resources mobilized by reputable monks, with reference to criteria such as standards of hospitals at different levels. During the last two decades, the government has established specific policies to improve health-care infrastructures and these have led to a substantial increase in capital investment budget. These policies included:

- decade of health-centre development (1992–2001);
Before the implementation of the UCS in 2002, the highest proportion of capital investment budget to the total health budget was 34.0% in 1997 and the average proportion of capital investment budget to the total health budget during 1994–2001 was 21.16% (Na Ranong & Na Ranong, 2005). The UCS totally changed the planning and capital budget allocation. Budget for the UCS was calculated on a per-capita basis (capitation rate). Part of the capitation budget covers capital replacement or depreciation cost, calculated as 10% of budget for ambulatory and inpatient care (Prakongsai et al., 2002) and this was intentionally misinterpreted by the Bureau of Budget as a capital investment budget and bar for new capital investment in the MOPH hospitals for some years. The NHSO managed this capital-replacement budget by transferring part of it directly to their contracted health-care providers and keeping some to manage at the central level to strengthen health-care infrastructures at the PHC level and some excellent centres such as trauma, cardiac and cancer centres in consultation with the MOPH. This capital replacement budget was reduced from 10% of curative budget to 6% in 2012 (Health Insurance Information Service Centre, 2012). The MOPH complained that the new system operated after the establishment of the UCS substantially decreased its total capital investment budget. The Bureau of Budget then allowed the MOPH to request a capital investment budget directly from the government.

Private-sector investment in infrastructure is usually focused in urban provincial areas where people have high purchasing power. The government has a policy to support private investment in poorer areas where there are inadequate health-care facilities through corporate income tax incentives for eight years and import duty exemption for major medical devices (Thailand Board of Investment, Undated).

2.9 Patient empowerment

2.9.1 Patient information

Thai people can obtain health information through various media. The most popular media for rural people are television (29.7%), newspapers (17.7%), radio (16.3%), personal contacts (8.8%), magazines (8.2%), village broadcasting service (7.7%), leaflets (6.1%) and posters (2.8%). When the people are sick, they seek advice from health personnel (90.6%) and friends/relatives (28.5%). People’s opinions on the accuracy of health information varies according to its source, with health personnel as the most trusted (85.3%) followed by television/radio (10.7%), journals (3.5%) and village broadcasting service (0.5%) (Uphayokin, et al. 2005).
Literacy among Thai students is low compared to other countries in the region such as Singapore, Republic of Korea, People’s Republic of China and Japan. This would unavoidably affect the health literacy of the Thai population and limit access to understanding and use of information on ways to promote and maintain good health. This was confirmed by the recent study: the majority of Thai people could not access health information and were not aware of their rights, and health-care providers provided limited information to their patients since they were afraid of being sued by the patients using that information (Wongchai, et al. 2008).

2.9.2 Patient choice

Patients can go to any health-care facility if they pay the cost of health services from their own pockets. The PHC gatekeeping system started in the low-income Medical Welfare Scheme (MWS) in 1975 and was extended to the Health Card Scheme (HCS) in 1984 (Thamatacharee, 2001) and the UCS in 2002. The SHI requires its insured persons to register with hospitals with more than 100 beds as their main contractor. SHI members have to use the contractors they are registered with as first-contact health-care providers, except in case of accidents and emergency. This exception is also applied to the beneficiaries of the UCS. The members of CSMBS can use health services in any public health-care facility and in private health-care facilities under certain conditions. The Government adopted a policy to allow every Thai citizen to access emergency medical services at any health-care facility, both public and private hospitals, from 1 April 2012.

2.9.3 Patient rights

Patient rights have been guaranteed by several mechanisms. Access to essential health services has been considered as a basic right since the promulgation of the Thai Constitution in 1997. Professional organizations including the Medical Council, the Nursing and Midwifery Council, the Pharmacy Council and the Dental Council have adopted the Declaration of Patient’s Rights since 1998 and request all health-care providers to ensure that patient rights are fully observed in their clinical and professional practices (Faculty of Medicine, Chiang Mai University, Undated). The enactment of the National Health Act 2007 provided a legal framework to guarantee patient rights in many sections of Chapter 1. In summary patient rights include:

- the right to use essential health services without discrimination by social status, race, nationality, religion or others factors;
• the right to get adequate information before obtaining health service and the right to consent to or refuse treatment except in case of emergency life-threatening situation;

• the right to get urgent attention and immediate relief in case of critical condition or near death regardless of whether the patient requests assistance;

• the right to know the full name and speciality of the health-care provider who provides health service to them;

• the right to request a second opinion and opt for another health-care provider;

• personal health information shall be kept confidential – the only exceptions being with the consent of the patient or due to legal obligation;

• the right to demand complete information regarding their role as subjects in research and the associated risk, in order to make informed decision to participate in, or withdraw from, research carried out by a health-care provider;

• the right to know and demand full and current information about their medical treatment as in the medical record;

• the father/mother or legal representative may use their rights on behalf of a child under the age of 18 years or who is physically or mentally handicapped whereby they cannot exercise their rights;

• the right to live in a healthy environment;

• health of women, children, disabled persons and older people shall be appropriately promoted and protected;

• the right to request for an assessment and participate in the assessment of health impact resulting from a public policy; and

• the right to make a living will in writing to refuse health service which is provided merely to prolong their terminal stage of life or to stop severe suffering from illness.

2.9.4 Complaints procedures (mediation, claims)

If patients are harmed, injured or suffer adverse outcome from iatrogenic medical services, they or their relatives can complain to the Medical Council and request an investigation. The Medical Council can initiate the investigation process by itself without any request from the victim,
or publicity in the media. This mechanism aims to protect patients by ensuring medical and ethical standards of physicians.

Among the three public health insurance schemes, the UCS has a clear legal framework, well-established complaint-handling mechanisms and enforcement by NHSO. UCS beneficiaries can complain through various means such as call centre with a 24-hour hotline number, email, letter, facsimile or contact the office directly. In 2010, there were 4186 complaints, the majority (15.3%) of which were issues related to the standard of medical services. As mandated by the law, all complaints must be investigated and settled within 30 days; 97% of the complaints were completed by 30 days in 2010. Some of these complaints (0.39%) needed to be investigated by the Health Service and Quality Standards Committee, a national committee established by the National Health Security Act 2002, and health-care providers may be penalized if they violate the law (NHSO, 2011b).

However, the Social Security Office sets up a complaint-handling system for SHI members without a clear legal framework. SHI members can seek information and complain through call centre hotline, letter or website; the SHI hotline received about 2.6 million calls in 2012, covering all benefits under the Social Security Act including social health insurance. While civil servants and their dependents have a generous benefit package, there is no effective system for handling complaints (Hawkins, Srisasalux & Osornprasaop, 2009).

### 2.9.5 Public participation

Public participation is an essential component of the UCS. There are representatives of civil society groups on both the National Health Security Committee and Regional Health Security Committees to oversee UCS implementation. In addition, there is a specific national subcommittee and a bureau within the NHSO to support public participation. Initiatives that support public participation include establishment of health insurance-coordinating centres in 104 communities, establishment of six patient groups and their supported networks, and establishment of community health funds with matching funds from local government budget. In 2010, there were 5508 community health funds nationwide, coverage of 70.8% of local authorities (NSO, 2012).

There is less participation in the governance bodies of SHI and CSMBS. The Social Security Committee is a tripartite governance, consisting of 15
members, namely five government representatives from the Ministry of Labour, Ministry of Finance, MOPH, Budget Bureau and the secretary general of the Social Security Office; five employee representatives (all trade union representatives); and five employer representatives. The CSMBS was administered by the Comptroller General Department (CGD) of the Ministry of Finance. As CGD is a department answerable directly to the director general, there is no need for a governing body; however, it has an advisory board representing government and a few CSMBS members, but neither civil society nor health-care providers are represented.

The NHSO also conducts a satisfaction survey of health-care providers and beneficiaries, annually by outsourcing an independent polling agency affiliated with Assumption University. From 2003 to 2010, satisfaction of beneficiaries on the result of their treatment was very high (90%) and stable. Satisfaction of health-care providers with the system was lower (6 out of total 10), but improving trend was noted [NSO, 2012].

2.9.6 Patients and cross-border health care

Thailand is a leading Asian country for medical tourism. In 2007, there were 1.4 million international patients including medical tourists, general tourists and foreigners working or living in Thailand or neighbouring countries. Unlike general tourists and expatriates, medical tourists are increasing at a rapid pace – from almost none to 450 000 a year in less than a decade [Na Ranong & Na Ranong, 2011]. The government actively promoted medical tourism for a decade, but it was implemented mainly by private hospitals. Recently, many university hospitals have requested additional budget to invest in infrastructure to respond to medical tourists. Civil society groups have expressed concerns on the negative impact of this policy on access to care by Thai citizens, especially when Thailand still has a shortage of physicians; this issue is still contentious and under public debate, and has been brought to the attention of the National Health Assembly [National Health Commission Office, 2010].