

Thailand

Health Care Reform: Financial Management

Report 12

Structure and Implementation of an Integrated Financial Monitoring System for the Health System of Thailand, and

Project Synopsis

September 2009

**ILO component:
Financial Management of the Thai Health Care System (THA/05/01/EEC)
under:
EU/Thailand Health Care Reform Project (THA/AIDCO/2002/0411)**

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List of abbreviations

BoB	Bureau of Budget
CFMU	Central Financial Management and Monitoring Unit
CSMBS	Civil Servants' Medical Benefit Scheme
EU	European Union
EUROSTAT	Statistical Office of the European Union
FCG	Financial Coordination Group
IHPP	International Health Policy Programme
ILO	International Labour Organization or International Labour Office
IMF	International Monetary Fund
INFIMO	Integrated Financial Monitoring System – Common health financing model for CSMBS, IHPP, NHSO and SSO, including a Financial Cooperation Group (FCG) running and maintaining the common model and related information tools
IT	Information Technology
MoF	Ministry of Finance
MoPH	Ministry of Public Health
NESDB	National Economic and Social Development Board
NHSO	National Health Security Office
NSO	National Statistical Office
OECD	Organization of Economic Cooperation and Development
SEC/SOC	Social Security Department of the ILO
SHA	System of Health Accounts (OECD) version 1
SNA	System of National Accounts (EU, IMF, OECD, UN, WB)
SSO	Social Security Office
SSS	Social Security Scheme
UC	Universal Health Care Scheme
UN	United Nations
WB	World Bank
WHO	World Health Organization

Reports produced under the Project

- Report 1 Statistical reporting: Structures, methodologies, data and outputs. Initial review
- Report 2 The calculation of capitation fees and the estimation of provider payments. Initial review
- Report 3 A Financial Coordination Framework. A first general outline
- Report 4 Proposal for a Revised Capitation Calculation and Financial Equalization System
- Report 5 An International Course in Health Finance for South-East Asia
- Report 6 A Common Health Care Financing Model (I) for CSMBS, IHPP, NHSO and SSO, and Proposal for a Financial Management Structure.
Terms of Reference, Review, Supervision
- Report 7A A Common Health Care Financing Model (II) for the main health purchasing agencies
– Universal Coverage Scheme
– Social Security Scheme
– Civil Servants' Medical Benefits Scheme, and
Projection Module for the National Health Accounts
User Manual
- Report 7B A Common Health Care Financing Model (II) for the main health purchasing agencies
– Universal Coverage Scheme
– Social Security Scheme
– Civil Servants' Medical Benefits Scheme, and
Projection Module for the National Health Accounts
Documentation of work and progress
- Report 8 A Common Health Care Financing Model (III) for CSMBS, IHPP, NHSO and SSO, and Proposal for a Financial Management Structure.
Note on Implementation
- Report 9 A Data Reporting Framework
- Report 10 Indicators for the Financial Coordination Group for monitoring the UC scheme and national health budget
- Report 11 Contents and Structure for Annual Reporting on the Financial Development of the Public Health System
- Report 12 Structure and implementation of an Integrated Financial Monitoring System for the health system of Thailand, and
Project Synopsis

Introduction

Since May 2003 the European Union (EU) has been committed to supporting health care reform in Thailand through the **Health Care Reform Project** (THA/AIDCO/2002/0411). The support and assistance of the EU followed Thailand's bold initiative towards achieving full population coverage in health care when in 2001, Universal Health Care was written into law with the introduction of what became popularly known as the "30-Baht" scheme. Under the scheme full access to health services became available to all Thai citizens.

A separate component was established within this project to address issues relating to the **Financial Management of the Health Care System** (THA/05/01/EEC) to be executed by the Social Security Department of the International Labour Office, Geneva (ILO-SEC/SOC). Technical assistance activities under the project have been on-going since spring 2006 and will continue until end 2009.

Specific activities were scheduled under the ILO component, to be documented in a series of technical reports. **This is the 12th and last report of the series.** In making use of and summarizing the findings of those preceding reports, this report - while technically relating to ILO's tasks under **activity (s)** and **output (k)** of the project document - provides a condensed description of the proposed financial monitoring (management) system for Thailand's public health system, including the elements readily available for implementation.

In certain respects the report is complementary to Report 3;¹ however, for a full understanding the reader should also refer to the other reports.

All countries around the world which maintain their health systems through substantial input of public resources make use of financial monitoring systems. The main immediate purposes of these systems are (i) to assess the size and structure of public health finance within the overall social budget² of the particular country; and (ii) to project into the future public health finance in the context of general government projections (budgetary and non-budgetary).

Statistical monitoring and projection is no end in itself; the justification to implement the required costly public structures is public interest. Public interest, in the case of health, is achieving and maintaining efficient and effective access of the total population to state-of-the-arts medical services. Usually, many public (and private) institutions work on achieving this goal. Health finances are an important part of any health system but, to be sure, they are not *the* health system. In other words, the final goal of an Integrated Financial Monitoring System is to contribute effectively to the permanent task of many public and private institutions, which is to improve the quality of health systems.

In concrete terms, INFIMO allows (a) for monitoring (and projecting) the internal (endogenous) financial structures of Thailand's health system, and to draw conclusions with respect to possible improvements, *and* (b) for monitoring the relation between general health finances and other public programmes in the overall demographic and economic

¹ ILO/Thailand Report 3: *A Financial Coordination Framework. A first general outline*, under ILO/EU: Financial Management of the Thai Health Care System (THA/05/01/EEC).

² For a definition of "social budget" see: Scholz, Wolfgang, Michael Cichon and Krzysztof Hagemeyer: Social budgeting. ILO/ISSA. Geneva 2000.

context, and to draw conclusions with respect to possible (health) system adjustments to be made.

The notion INFIMO suggests that there is a clear-cut definition that would allow for precise delimitation of statistics, activities and organizational structures that should be included or applied; however this is an unrealistic expectation. In reality, any such integrated information system is, and must be, a flexible governance tool: its build-up has to start from existing structures and sources of information (and information technology) and in order to adjust to newly emerging problem areas or policy questions, it has to be improved, step-by-step, methodologically, technically and administratively.

Where “INFIMOs” exist, they would normally consist of more or less systematic information structures.

One reason for this is that health systems have usually evolved historically, not systematically. Another reason is the often unsystematic implementation history of statistics. Usually statistics are not being initiated in order to serve the purpose of a (systematic) INFIMO. This situation often results in the co-existence of statistics and statistical methodologies that all cover not exactly the same subject matter(s) but, nevertheless, appear to be “similar”. In other words, there is often focus on few aspects, leaving other important aspects statistically uncovered. Furthermore, unsystematic statistics’ implementation often implies a non-coverage of (many) subject matters that would require statistical information coverage for rational policy formulation.

Therefore, information systems often naturally reflect a conglomerate of historical policy and information collection developments. As this is a not-unusual situation in many countries, the Thai Government has little reason to be overly self-critical with the statistical information and financial monitoring practice of its current health system.

However, with growing fiscal importance and a better understanding of the functioning of health systems, and in attempts to reconcile theoretical insight and empirical observation, many governments have started making their respective information tools more systematic. As a result, governments expect more immediate answers to pressing health policy questions. This is why the activities mentioned also include the development of methodology and statistical information on hitherto prevailing “white spots”.

In pursuing such policies, it is in practical terms reasonable as a first step to assemble all health system related information under one “umbrella”. This activity can be understood as a stock-taking process. Already this first step would often allow for a more consistent and systematic focus on health system structures and developments than before.

In the ensuing steps, remaining “white spots” as already referred to may be filled by systematic information collection. This work has to be based on the information needs arising from the design of national health systems. International statistical methodologies (and international experience) have played - and still play - a significant role in these efforts. Some of the main methodologies are (i) the SNA which, with its latest 1993 version, also serves as a guide for the development of national statistical systems (beyond the specific needs of national accounting), including statistical satellite systems, (ii) the (OECD-developed, SNA-consistent) SHA, and (iii) explicit health satellite accounts (also fully SNA-consistent). Generally, governments developing health statistics/information systems are well advised to follow the explicit and implicit guidelines of the above-mentioned international methodologies. They provide guidance and can easily be complemented by statistics satisfying specific national information needs.

These developments have been – and are still – very much supported by modern information technology which allows for organizing easy access to large data banks at comparatively low cost.

The proposals to the Thai Government developed under this project broadly follow the recently developed path of thought and activities. More specifically, the reports written under the project contain concrete advice and recommendations on the development of:

1. statistical reporting systems;
2. analytical tools for policy projection and analysis; and, correspondingly required
3. administrative (organizational) structures.

In the context of the project, all three elements together constitute “INFIMO”.

Substantial intellectual input is required to develop analytical tools for policy projection and analysis (item 2 above). As a project result, a formal model for Thailand’s health system was developed on the basis of ILO’s ample experience in analyzing social protection systems, including their financial design. This work drew great substance from ILO’s theoretical and practical insights into the (financial) functioning of health systems. Clearly the work had to be based on available statistical information. In this respect three important observations were made: firstly, as expected, systematic statistical (historical) information on Thailand’s health system is sparse and oftentimes quite limited; secondly, in some areas it was possible to collect, for the purposes of the project (modelling) additional information from hitherto “untouched” sources; and thirdly, there is (much) additional statistical information potentially accessible which, however, can only be collected and published through a systematic, administratively backed, nationwide statistical reporting system that goes well beyond the “narrow” technical and political needs of the Thai public health purchasing institutions.

1. Overview

The concept of an Integrated Financial Management and Monitoring System (INFIMO) addresses the need to steer the finances of Thailand's public health system at national level through (i) a problem-adequate set of statistical reporting systems ("statistics"), (ii) modelling tools required for the appropriate analysis of that information ("models"), and (iii) organizational measures ("administration") that are a prerequisite for making statistics available and the models productive for health policy decisions to be taken and strategies to be formulated by the Government.

The main purposes of INFIMO are to make the above three elements interact such that costs of quality services provided by the health system can be balanced with scarce resources (i.e. with principally limited tax and contribution revenue) and, at the same time, to quantify any (additional) fiscal space required for further improvements of quality and quantity of health services, and their accessibility by patients, under generally accepted medical standards. It is hereby understood that additional fiscal space cannot only be made available through more revenue, but also by more effective and productive use of given resources by the health providers.

In other words, INFIMO is not only a tool for short- to medium-term financial planning, complementing with detailed information and supporting the government's overall budgeting process, but a prominent instrument providing concrete guidance with respect to maintenance and improvement of service quality and, more generally, towards health policy development.

Over the period of the project (see Introduction), the ILO covered each of these three elements (statistics, models, administration) to varying degrees.

The work on **statistics** was *mainly* addressed in the following reports:

1. Report 1: *Statistical reporting: Structures, methodologies, data and outputs. Initial review.*
2. Report 9: *A Data Reporting Framework*; and
3. Report 10: *Indicators for the Financial Coordination Group for monitoring the UC scheme and national health budget.*

The work on **models** was *mainly* addressed in the following reports:

1. Report 2: The calculation of capitation fees and the estimation of provider payments. Initial review.
2. Report 4: Proposal for a Revised Capitation Calculation and Financial Equalisation System.
3. Report 6: A Common Health Care Financing Model (I) for CSMBS, IHPP, NHSO & SSO, and Proposal for a Financial Management Structure – *Terms of Reference, Review and Supervision.*
4. Report 7A: A Common Health Care Financing Model (II) for the main health purchasing agencies.
 - Universal Coverage Scheme
 - Social Security Scheme

-
- Civil Servants' Medical Benefits Scheme, and

Projection Module for the National Health Accounts – *User Manual*; and

5. Report 7B: A Common Health Care Financing Model (II) for the main health purchasing agencies

- Universal Coverage Scheme
- Social Security Scheme
- Civil Servants' Medical Benefits Scheme, and

Projection Module for the National Health Accounts – *Documentation of work and progress*.

The work on **administration/organization** was *mainly* addressed in the following reports:

1. Report 3: A Financial Coordination Framework. A first general outline.
2. Report 8: A Common Health Care Financing Model (III) for CSMBS, IHPP, NHSO & SSO, and Proposal for the Implementation of a Financial Management Structure. *Note on Implementation*; and
3. Report 11: Contents and Structure for Annual Reporting on the Financial Development of the Public Health System.

The above list excludes Report 5: An International Course in Health Finance for South-East Asia, which draws substantial input from the overall project work but does not fit well into the systematic as it aims – in cooperation with Naresuan University, Phitsanulok, Thailand – at the implementation of a diploma course in health finance in the South-East Asian region. While the activities related to Report 5 are consistent with ILO-SEC/SOC's worldwide training strategy, it is hoped that the report may form a basis for longer-term cooperation in this field with Thailand's relevant health and academic institutions.

According to the nature and dynamics of the project, overlaps in the contents of different reports could not be avoided; also, the very subject matter of the project required the continuous intertwining of statistical issues, forecasting techniques and questions of administrative implementation – a situation well reflected in the reports.

Most reports were drafted at varying stages of project implementation and advancement; as such, they were of course amply discussed between ILO-SEC/SOC and its Thai counterparts. The final reports incorporate the results of these discussions.

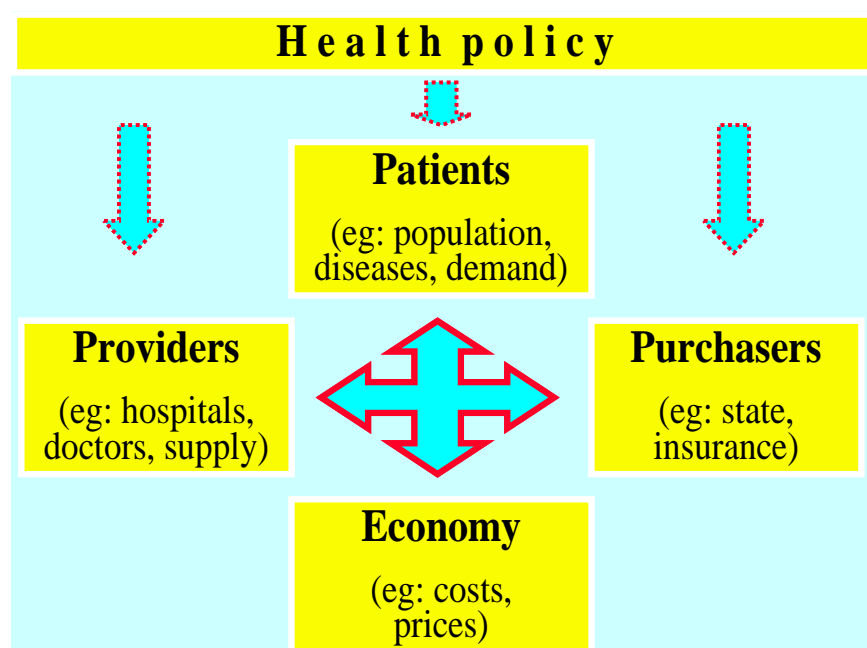
In this last report under the project, the findings of all reports produced are reviewed; observations and conclusions from a more distant and settled point of view have been added, while also taking into account information received in discussions with the Thai project counterparts on the “*implementability*” of INFIMO under the prevailing governance circumstances.

2. The statistics component

Any comprehensive statistical information system must be guided by theory. This overarching principle holds true despite the fact that often the reality of statistics gives an impression of ad-hoc and non-systematic evolvement. To be sure, however, users of statistics are often not, or at least not fully, familiar with the powerful theoretical considerations behind statistical programmes.

The theoretical concept underlying the statistical requirements of an INFIMO adjusted to the needs of Thailand's health policies can be visualized, in a highly condensed way, as follows (Chart 1):

Chart 1. Health policy and the four gravity centres of contemporary health systems



Source: ILO 2008.

Health systems can be considered to consist of four interdependent categories of actors ("gravity centres") which "health policy" tries to influence. Health theory determines our view as to how we see these gravity centres interacting and, thus, how health policy might wish to influence the design, the structures, the dynamics, etc. of the system. In the context of this project, ILO-SEC/SOC was confined (mainly) to issues of analyzing and modelling (monitoring) Thailand's (public) health purchaser finances. The theoretical considerations (and practical constraints) on which this modelling work was based have been addressed in several reports, but principally in Report 6.

Basically, a distinction is made between the four centres where statistical information is required:

- Providers (supply side of the health system);
- Purchasers (demand side of the health system);
- Population (patients are that part of the population that is actually sick);
- Economy (interacting with the health system).

The type of information required is simultaneously determined by the theory about the interaction of these centres *and* the ways policy tries, and intends to influence those interactions of the health system. In short, the statistical requirements are widely compatible with the concept of *satellite systems* to the *system of national accounts*. Indeed, the statistical information required for INFIMO can, in its broadest terms, be considered an *extended satellite system* to a country's national accounts (in this case: Thailand's).

Health satellite systems have been carefully defined elsewhere.³ By their nature, they are so-called secondary statistical information, which is, however, compiled from primary statistical sources. They potentially provide ample insight into the structure and development of the demand- and supply-side aspects of health systems, their production conditions, and interdependencies with other sectors of the economy (e.g. the pharmaceutical industry). The compilation of health satellite accounts requires sound methodology and access to primary statistics: accordingly, the scope, depth and details of available primary statistics co-determine the quality of national health accounts. When available, the combined use of primary and secondary statistical information offers ample possibilities for thorough analysis and interpretation not only of the statistical satellite results (secondary statistics), but also of the underlying source statistics as their information might appear in a different light when seen in a satellite context. Furthermore, health satellite systems might provide useful guidance in the implementation of further primary statistics or a revision of existing statistical programmes.

Satellite systems are fully (or almost) methodologically consistent with the system of national accounts. In other words, statistical results of health satellite accounts can be related to the statistical results of the national accounts without risking methodological prudence.

Methodological compatibility is of importance as any macro-economic and macro-fiscal considerations with respect to the financial room available for active, and possibly expansionary health policy will have to be related to the income(s) generated by the real economy as mapped in detail by the system of national accounts, which provides the methodological instrumentarium for the calculation of GDP.

Satellite systems, by construction, also map the physical and other entities of their focus subject matter. In the case of a health satellite system this necessarily includes, among others, general *and* specific health system information on:

- labour market information (structure, development), including employment and unemployment as well as remuneration (wages, profits);
- price and cost information (price indexes, cost indexes);
- demographic information by age, sex, anonymized patients' health status, etc.;
- health system contact frequency;
- health system "production" capacity; and
- many more aspects.

³ See Commission of the European Communities, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, World Bank: *System of National Accounts 1993*. (SNA 1993) Brussels/Luxembourg, New York, Paris, Washington, D.C., 1993, pp. 489-522; or Germany - Federal Health Monitoring: Health Expenditure Accounts. <http://www.gbe-bund.de/> (information correct at 5 March 2009).

A detailed analysis of the possibilities and limitations of establishing a health satellite system in Thailand has been provided in ILO/Thailand Report 9. More concretely, Report 9 describes the possibilities and limitations of improving the existing Thai NHAs⁴ in the direction of a more comprehensive satellite system in which the NHAs would be an element.

One prominent project result is a model, with a comprehensive data base attached, that can be taken as a nucleus for the development of such a satellite.⁵

As such, satellite systems to the national accounts, like the national accounts themselves, are meant to provide information not only to governments but also to a broader public, including politicians, social partners, universities (academia), enterprises, civil society, etc.

It is stressed here that the notion “satellite system” might incorrectly trigger the impression of a predominantly academic use, which would however be a wrong understanding. Health satellites (of various designs) are increasingly used by governments around the world for practical health policy formulation.

INFIMO, as a variant or concrete application of a satellite system, is mainly an instrument intended to be used by the Government for governance purposes. Generally speaking, this does not at all exclude the public from the information used and/or issued by INFIMO, but its primary purpose is governance in a concrete routine and/or managerial sense.

It is therefore suggested that the Thai health satellite accounts, as limited as they might be at the beginning of the data compilation process, be successively complemented by detailed information that is (only) accessible by the health administration for internal health system financial management purposes. (This will explain the use of the above notion “*extended*” health satellite system for stipulating the definition of INFIMO.)

Some examples of statistical complements to standard health satellite accounts would be individual information on the registered population of Thailand’s (public) health purchasing institutions, (definition of) DRGs, costs per system-contact, provider-cost indices, labour costs and non-labour costs of hospitals, and other items not further specified here. The significance of this suggestion is not rooted in the very listing of that information but in its *systematic* nesting within the SNA-compatible Thai health satellite system.

At first, the compiled information might be solely used for internal governance purposes. Once experience and confidence in the system’s information contents have grown, the Government might later decide to offer the same information base, appropriately anonymised, to the general public and international research.

ILO/Thailand Report 10 offers a comprehensive list of data which, if further differentiated and integrated in the model-data bank, can serve as a much wider information basis for facts-based policy formulation. It is vital that there is continuous maintenance of the data and that the data is integrated into the database that was developed in the context of the modelling work.

The data list found in Report 10 is kept abstract and would need to be focused on and, where required, substantiated with information supporting the above mentioned purposes of INFIMO. Foremost, this includes statistical information on the performance of

⁴ Designed along the lines proposed by OECD.

⁵ See ILO/Thailand Report 6, op. cit.

Thailand's hospitals (quality of services and diagnoses, success of treatment, etc.). One way of deriving such information is through regular (annual, bi-annual or tri-annual) nationally *standardized* hospital reporting on the quality of outcomes of their health related activities.

3. The model component

The projection model that has been developed during the project is the result of theoretical considerations, data availability and practical requirements resulting from the Thai annual health budgeting process. In short, the model was designed in order to serve practical governance purposes. It was not designed for furthering the theoretical and academic discussion of the functioning of health systems.

Another conceptual remark is necessary for understanding the modelling approach. After the implementation of the UC scheme, the annual capitation estimation was partially, and in some years strongly, influenced by “zero-budgeting” techniques that were favoured by the BoB, which had to approve the capitation estimations proposed by the NHSO administration for the annual budget law. This approach was justified, to some extent and over some period, as long as the NHSO (UC) budget was under-funded in comparison to the “objective” needs of the UC-covered population, but where the objectively true funding level was not known. This was clearly the case in the beginning of the UC scheme, and it was, thus, reasonable (from the point of interest of the BoB as well as the NHSO) to justify every year, in greater detail, the requested public resources. Both sides, the BoB and the NHSO, could initially not be sure about the “true” resources that would adequately cover the health needs of the UC scheme members. It was therefore reasonable for both sides to be subject to a *tatonnement* process aiming to find a common understanding and agreement on the financial resources to be made available. In 2007/2008, this common understanding has been reached; in other words, the order of volume of annual public resources to be allocated to the UC scheme can now be considered generally accepted by the BoB as a standard element in the overall Government budget. Differences between the BoB and the NHSO are now of the same order and nature that might exist between any line ministry and the BoB during the annual budgeting process. It is therefore worth mentioning that the initial “mutual scepticism” that might have existed between the administration of the NHSO – representing the interests of its newly covered population under the UC scheme, and the administration of the BoB – representing the interests of the general tax payer, has been broadly replaced with a common understanding of the subject matter and the BoB’s trust in the professional competencies of the planners of health finance at the NHSO.

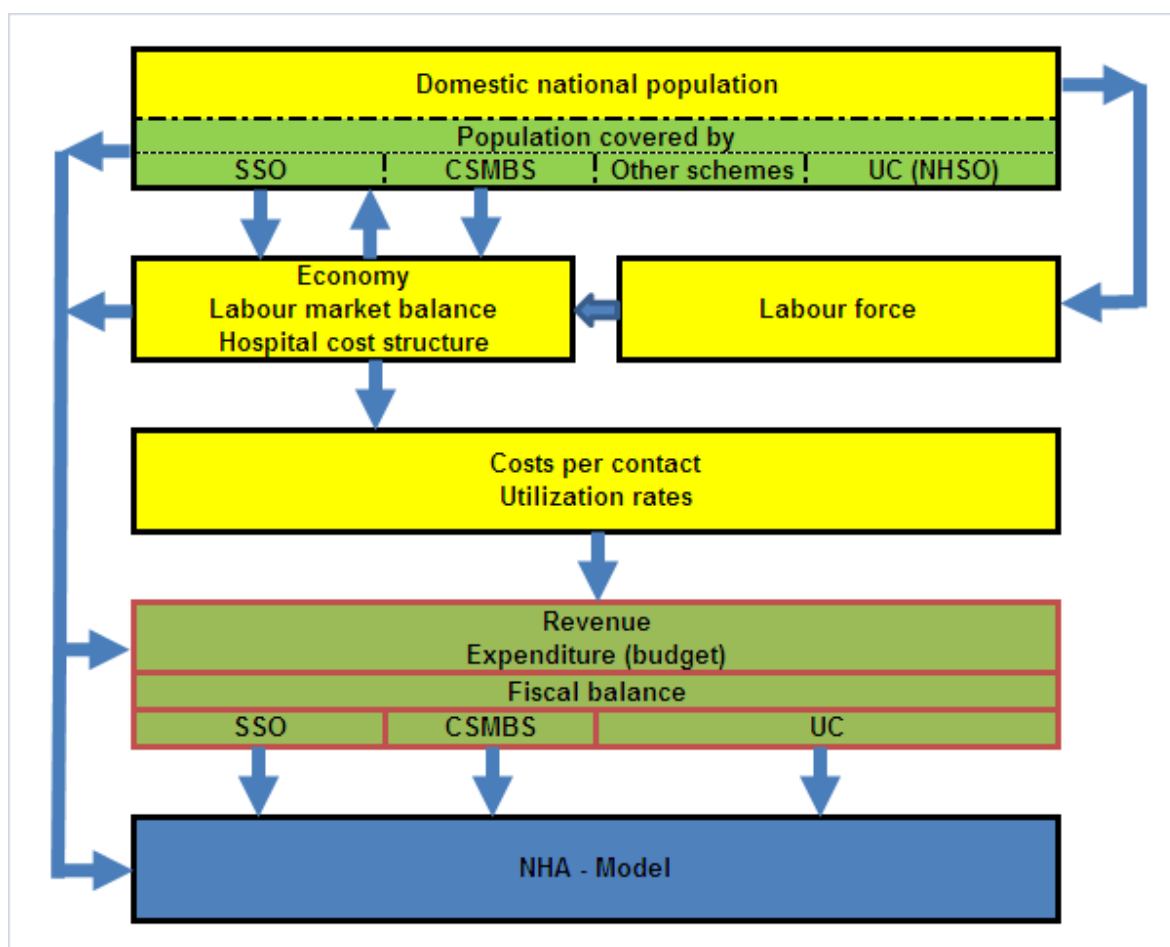
Given this background, there was no need to design the UC sub-model on the basis of zero-budgeting-type considerations. Equally, for other reasons, this was also not necessary with respect to the SSO, the CSMBS and the IHPP (NHA) sub-models. Instead, the model, as developed, is explicitly *path dependent*, i.e. it “accepts” historical developments and assumes that realizations of past developments do have a predominant impact on all variables that have to be taken into account in the budgeting process.

Nevertheless, the model has equally great explanatory power and is practically applicable in Thailand’s revolving annual budgeting process. In its design it follows core principles of models with similar budgetary purposes as they have been established in countries with mature health systems such as Germany and the UK.

Technically, the model can be called an adaptation of the ILO’s social budget model.⁶ Its systematic construction and dependency structure is depicted in the following Chart 2.

⁶ Forerunners of the health budgeting model currently in use at the German Federal Ministry of Health, Berlin, were developed at ILO (ILO-SEC/SOC) in 2004. The UK health budget model functions on the basis of similar principles. See also: Scholz, Wolfgang, Michael Cichon and Krzysztof Hagemejer: Social budgeting. ILO/ISSA. Geneva 2000.

Chart 2. Hierarchic structure of the health budgeting model of Thailand



Source: ILO 2009.

The basic hypotheses governing the model can be summarized as follows:

1. The total population uses the health system (i.e. the population contacts the providers of health services) according to its health needs; frequency of contacts with the system is measured by utilization rates; utilization rates are distinguished by in-patient contacts and out-patient contacts; the population moves over time depending on its fertility and mortality rates (for projections the model assumes zero net migration).
2. Utilization rates are sex and age-dependent, i.e. basically young persons use the system less often than old persons; infants and young children have slightly increased utilization rates in comparison to the average (gender-differentiated “J-curve” approach); there is no theory as to how sex and age-dependent utilization rates (the J-curves) changes shape over time; in other words, level and shape of the J-curves are exogenous inputs to the model (might be trend-based).
3. Each contact (treatment) produces costs in the health system; past observed costs per contact are measured as total scheme expenses, differentiated by sex, age and in-patients and out-patients. As only very limited provider-based cost information is available in the case of Thailand (where hospital cost accounting is still widely acknowledged to be in its infancy - close to no nationwide information is available with respect to the required hospital-based cost breakdown by sex, age and in-patients versus out-patients), costs are measured by the budgetary expenses of the purchasers by the required differentiation (sex, age, in-patients versus out-patients). For in-

patients, in all three schemes (sub-models), use is made of age- and sex-differentiated DRG information; no equally-differentiated information is available for out-patients;

4. For projection purposes, it is assumed that average costs per contact consist of a labour-cost component and a non-labour-cost component; the labour-cost component is represented by an index representing hospital staff costs. Non-labour costs are represented by an index composed of the non-labour-cost components of public hospitals (which report these costs on a monthly basis to the MoPH); these costs consist of drug costs, the cost of appliances, operation costs, materials, supplies, energy, depreciation and some others; the cost indexes are weighted with the weighting of labour costs and non-labour costs in total hospital costs and projected as linear functions of the macro-economic aggregates (wages, prices) of the economy.
5. All budgetary calculations are in nominal terms (current prices in national currency). In the case of NHSO and CSMBS, scheme expenditure is identical with scheme revenue (tax); in the case of the SSO, scheme revenue is calculated on the basis of the number of contributors, their average contributive wages and the legislated health contribution rate.
6. In compliance with legislation, the UC-covered population is calculated residually as follows. First, the total domestic Thai population is calculated; then, the 'population covered' under the SSO and the 'actives' under the CSMBS are calculated as a function of labour market developments; civil servants' dependents are calculated on the basis of exogenous assumptions with respect to their family structures; the population covered by local municipalities, public enterprises and other government sector institutions (together comprising around 200 different schemes, but covering only a very small percentage of the total population) is estimated as a constant percentage of the total population. UC-covered population is then calculated as:

$$\text{Pop (UC)} = \text{Pop (Total)} - \text{Pop (SSO)} - \text{Pop (CSMBS)} - \text{Pop (Other)}$$

7. While the model moves from t to $t+1$, it moves
 - a. the population by sex and single ages;
 - b. the scheme populations by sex and single ages;
 - c. the utilization rates by sex and single ages;
 - d. the costs per contact by single ages;enabling it to calculate
 - e. the total scheme expenses, in $t+1$, by way of multiplying the population by the utilization rate and by the costs per contact.
8. Expenditure projection results of the three schemes are input to a separate, elasticity-based macro-financial model of the Thai NHAs; the NHAs map the expenses, by function, of all health purchasing institutions, including out-of-pocket health purchases of private households, and private insurance.

In simple mathematical notation, the model represents each scheme's health expenditure (UC, SSO and CSMBS) through a modelling approach, similar for all schemes (but differing in details), as follows:

$$\text{Exp} = \text{Pop} * f * c,$$

Where

Exp =: Health expenditure of scheme [UC, SSO, CSMBS, respectively]

Pop =: covered population of scheme [UC, SSO, CSMBS respectively]

f =: factor representing frequency of contacts of population with scheme [UC, SSO, CSMBS respectively]

c =: average costs per population's contact with health system [UC, SSO, CSMBS respectively]

All variables/parameters are calculated by single ages (0, 1, ..., 100), by sex, by in-patient and out-patient. Thus, *pop*, *f* and *c* represent 101 x 1 column-vectors and the mathematical operation to calculate *exp* consists of a sum-product.

Apart from the pure projection part, the model also features a sub-model for the NHSO that allows for a *formula-based prospective allocation* of total (budgeted) annual resources to UC-contracted hospitals (provider resource allocation module). During the project, several attempts were made to find agreement among stakeholders on a new formula that would represent providers' health finance needs on a better basis than the formula that had hitherto been used by the NHSO.

It was soon realized that an ideal, pure needs-based allocation approach was neither acceptable nor possible, because of the lack of information. Also, any such formula would have had to have taken into account the significant (supply-side) cost differentials between hospitals in different (e.g., urban or rural) regions of Thailand, including cost differentials between different types and sizes of hospitals (e.g., teaching versus non-teaching hospitals). Although not ideal from an allocation approach striving for maximum equity of health access, such supply-side elements would have had to be taken into account because otherwise the financial survival of many hospitals, and thus the supply of health services to the population, could have been put at serious risk. Although theoretically not especially demanding, the incorporation in the projection model of such an approach *in real terms*, i.e. for practical use in the annual budgeting process, was impossible as any such formula would have had to have been based on empirical data representing these cost differentials. Such information, however, was not available.

In order to fulfil our obligations, an alternative allocation formula was proposed that could be based on grouped sample data, i.e. on cost data referring to (ten-year) age groups, sex and a selected number of diseases (for example, 100 diseases). This proposal also depends on empirical cost estimates which could, however, be derived on a relatively small sample basis. In other words, the collection of such data on the basis of hospital files would be relatively cheap. Nevertheless, collecting the required data on a consistent and representative basis would have required resources beyond the actual project description. For further details see ILO/Thailand Report 4.

Because of the difficulties described and in order to make the overall model still applicable in the annual budgeting process, the allocation formula was kept as it had been used by the NHSO thus far, and implemented as a sub-module into the projection model. It should be noted that the NHSO's allocation formula broadly fulfils the requirements of a (pure) demand-based allocation approach. Its weakness stems from its inadequate regard of supply-side costs, discussed above.

In summing up, the model – as developed – is complete and applicable in the budgeting process. The details necessary for a full understanding of its use and handling, including the model for the NHAs, are provided in Report 6.

4. The organizational component and implementation aspects

The problems surrounding the proper implementation of INFIMO, its data base and model, within the Thai administration in order to ensure that overall project results could be carried over into the future on a reliable basis was – and still is at the time of writing – the most difficult issue to solve.

Thailand's statistical system is dispersed over many institutions and there is no commonly accepted statistical authority. In an ideal world, one would first have solved the related organizational and statistical problems before starting the work on INFIMO. In that case, one would first have established an institution with national statistical competency and thus authority, and all INFIMO-related *statistical* issues and problems could have been – and could in future be – left to that authority. That authority would closely cooperate with, and provide authoritative guidance to, all public and private institutions, including public and private enterprises, that collect and assemble statistics for public or internal use.

In such a setting, the NHSO, the SSO and the CSMBS (and all other institutions now assumed to provide statistical information to INFIMO) would continue using their respective information and reporting channels for collecting data but these would instantaneously be transferred to that statistical institution, which would retain the *statistical* handling of that information, consistent with the broader statistical connexion.

As a result, the unit running INFIMO could be kept relatively small in terms of required manpower. It would only have to exercise the modelling work in a more narrow definition, while all data related issues (data quality, timely data availability, data consistency, coordination with other data flows, etc.) would be dealt with by this 'hypothetical' statistical institution. Such a set-up would also provide ample freedom to formulate facts-based health policy.

The world is not ideal, however, and replacing Thailand's scattered statistical system with a more rational one was, for obvious reasons, not included in the terms of reference of the project. Thus, a much more modest approach was taken with respect to the organizational/administrative implementation aspects of INFIMO. The aim was to formulate a proposal that could be used as a blueprint for institutionally implementing both (i) the statistics, as well as (ii) the modeling, budgeting and policy formulation parts into any appropriate, existing administrative or notional framework.

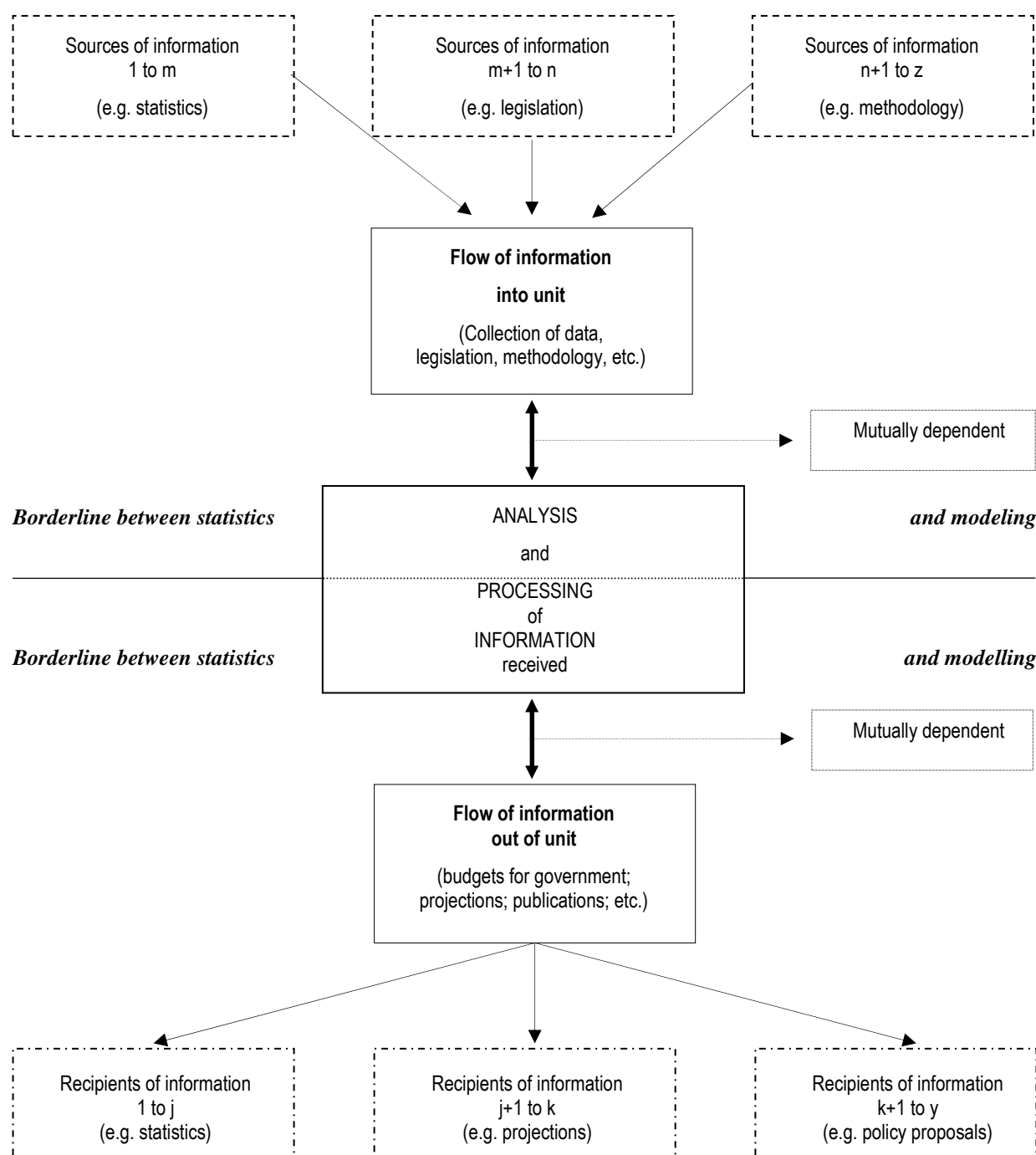
Especially when seen in combination with the data bank and model (as developed), the great advantage of the proposed structure is that it can be understood as the beginning of a more rational statistical system at least for Thailand's health sector (which, not surprising, is as dispersed as the rest of Thailand's statistical system). The model makes maximum use of data considered relevant for explaining the expenditure of Thailand's health purchasers. In doing so, the model, and its data bank, can in future be expected to act as an attractor of additional statistical information, adding more and more health, and health system-related statistics to the existing stock.

If, some day in the future, Thailand would have at its disposal a comprehensively authoritative statistics institution (or something close to it - as described above), then the (further developed) data base of INFIMO could easily be transferred to that authority as a package, and the terms of reference of the organizational unit running INFIMO could be re-formulated accordingly.

Against that background, therefore, and for the time being, the following set-up is proposed to run INFIMO. It is already noted that the structure can either be applied with similar rigour in a formal institutional setting or within a co-operative working group

setting, where the working group is established as a common inter-institutional project of the CSMBS, the NHSO, the SSO and possibly others (see below).

Structure of Unit Running INFIMO



Notes (related to chart):

- 1 Inflow (collection) of information has to be organized among involved institutions, i.e. CSMBS, SSO, and NHSO/UC.
- 2 Analysis of information depends on information received, on analytical instruments available and on information requested by recipients.
- 3 Processing of information depends on information received, on analytical instruments available and on information requested by recipients.
- 4 Outflow (dissemination) of information (including periodical statistical publications) has to be organized.
- 5 The Unit would be advised to develop a matrix that shows the type of work to be done over time, **for example** as indicated by the following blueprint (to be enlarged and filled):

Matrix of Unit activities during year

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Task 1	X	x	X		X	x		X	x			
Task 2			X		X						x	
Task 3		x		x						X	x	x
...
Task n										X	x	x

(Matrix may be set up more detailed, by weeks 1 to 52.)

Matrix of Unit activities over several years (optional)

Activity	Y 1	Y 2	Y 3	...	Y t
Task 1	z	z		...	z
Task 2			Z		z
Task 3		z		Z	
...
Task n	z	z	Z	Z	z

Justification of the proposed structure

At this point in the project it had become clear that Thailand's public health policy sector needed a financial management unit (INFIMO), whereas at the beginning of the project its institutional or inter-institutional implementation, its structure and the related organizational measures still had to be politically justified. Those justifications, which mainly focused on the indispensable connexion between successfully maintaining Thailand's universal health coverage and balancing the required financial resources with the overall budgetary and economic capacity of the society, are not repeated here in detail. The reader interested in further details is referred to ILO/Thailand Report 3 referenced above.

The above *structure* is a direct outcome of the *terms of reference* of the unit, proposed as follows. The unit would:

- Systematically and continuously collect the following information (and set up a data bank, accordingly):
 - **Statistics** on:
 - National Accounts, i.e. GDP (nominal, real), GDP by sectors (special focus on health sector according to SNA), primary distribution of GDP, wages (national, sectoral, especially in the health sector), etc.;
 - population and labour markets, i.e. full breakdown of labour supply and labour demand; breakdown of labour demand especially by sectors, focus on employment in health, health employment by different qualifications, occupations etc.;
 - scheme populations: i.e. members and beneficiaries of CSMBS, SSO, NHSO/UC;
 - prices, especially prices/costs in the health sector, pharmaceutical prices, supply prices charged to hospitals, etc.;

- financial flows (revenue, expenditure) of the health system by the three schemes; “physical” variables assumed to have an impact on health finances as, for example: numbers of health staff (doctors, nurses, other), numbers of hospitals, beds, in-patient “contacts”, numbers of drugs sold/prescribed etc.;
- international developments in health care (for international comparison), for example: mortality rates, deaths by type (according to WHO systematic), prices of drugs, etc.;
- statistics collected are to be stored in a *Statistical Archive* (hardcopies, electronically) and should be made accessible, in Thai and in English, on the internet.

See also ILO/Thailand Report 10.

- **Develop** and maintain knowledge/expertise on methodology of:
 - population statistics and National Accounts, especially methodological treatment of health in the SNA;
 - treatment of health within the system of health accounts (WHO-systematic);
 - satellite systems to the SNA, especially health satellite systems;
 - information is systematically to be stored in the Statistical Archive.
 - **Maintain legislation** on health:
 - national;
 - international (selection);
 - all information to be systematically stored in the Statistical Archive.
 - **Aim at** and maintain active **membership** in working groups:
 - in order to maintain institutional knowledge base, Unit staff participates in international (regional) and national working groups that deal with methodological and statistical health financing issues; through participation in these working groups the Government maintains its stakes in the national and international debate/discussion/development of health financing policies;
 - all information is to be stored in the Statistical Archive.
- **Analyze** the information collected for purposes of budgeting/policy information. Analysis of the collected information comprises:
- **processing** of the collected statistical information with the help of standard statistical techniques (programs);
 - tabular and graphical **presentation** of information;
 - factor analysis/**explanation** of statistical results;
 - **interpretation** of statistical results;

-
- **monitoring** and assessing **adequacy of legislation** on the basis of statistical results;
 - **monitoring** and assessment of international and national statistical and **methodological** developments in the area of health;
 - **monitoring** and assessing internationally implemented developments in **health policies** (as far as relevant in the Thai case).
- **Process** the information collected and analyzed for purposes of **budgeting/policy formulation**:
- development and **maintenance of the health (budget) models** for CSMBS, SSO, and NHSO/UC and NHAs;
 - the models aim at short-, medium-, and long-term **projections** and simulations, mainly on an annualized data basis;
 - they distinguish between **acute care** and **long-term care**. It is obvious that no data are yet available that could build a basis for modelling long-term care. In other words, this part of the model(s) to be developed by the Unit is, for the time being, to be “generic” and applicable for costing purposes;
 - models must be mainly **demand side driven** (How many cases?), but also have a **strong supply side** (Capacity orientation: Are the required numbers of care-givers available?);
 - models allow for projecting and monitoring, on annualized basis, the **aggregate financial statements of the providers** (hospitals) related to CSMBS, SSO, and NHSO/UC;
 - permanent **updating** of the models with the statistical information collected;
 - updating the structures of the models according to **changes in legislation**;
 - updating of the structure of models according to **changes in availability of statistical data**;
 - tabular and graphical **presentation** of model results;
 - **explanation** of model results;
 - **interpretation** of model results;
 - monitoring and assessment of international and national **modelling methodology** in health;
 - monitoring and assessment of internationally **proposed developments in health policies** (as far as applicable to the Thai case; to be specified);
 - model versions and results are systematically stored in the *Statistical Archive*.
 - **Membership** in modelling and policy working groups:
 - in order to **maintain** their **knowledge base**, Unit staff members participate in international and national working groups that deal with modelling health; through participation in these working groups the **Government of**

Thailand maintains its stake and influence in the national and international debate/discussion/developments of health modelling and its possible repercussions on statistics, methodologies and policy;

- with respect to policy formulation at the national and international level, the Unit *contributes model results* (projections, simulations) and their explanation and interpretation *to national and international working groups* dealing with health policy formulation.
- *Disseminate* the information collected, analyzed and processed for purposes of policy information:
- *regular* systematic *statistical information* to the government/general public;
 - regular *systematic production of short-, medium- and long-term forecasts/projections* of “the health system” and its finances for budgeting purposes; addressee: government/general public;
 - unit staff *participate in government operational working groups on short- and medium-term policy planning* (budget, public investments, general social policy development plans, etc.). Participation may have impacts on the annual working routine of the Unit and on those other working groups;
 - regular (annual) *publication* of statistical information on the three schemes CSMBS, SSO, NHSO / UC and NHAs (in Thai and in English);
 - make available *to other* interested *institutions in electronic format* the *statistical information* collected (e.g., to research institutes, universities, international organizations (WHO, OECD, ILO, others)).

In order to perform its duties, the Unit has to develop an annual (possibly multi-annual) work routine, integrated with the general government’s budget processing needs.

Thus, in practical terms, the Unit must address and focus on two core aspects:

- (i) *directly*: the notorious limitation of resources available for public health policies, and
- (ii) *indirectly*: the efficient use of available resources and their effective use for improving the health situation of Thailand’s population.

During project execution the perspective on the concrete ways of implementing the Unit changed, and there are basically now two options:

A new organizational Unit under the MoPH

A *first option* is to implement the Unit as a new component within an existing administration. This option is preferred by ILO-SEC/SOC and it would mean, in concrete terms, establishing the Unit within the existing MoPH administration, either as an additional section or department, or as an Institute under the supervision of the MoPH. This option is practical and reasonable as, given the political importance of the Unit, it would imply ability and, possibly, power to act, as well as “closeness” to the political decision-making levels in the MoPH.

A working group approach

A *second option*, preferred by the Thai counterparts to the project for some time (and to some extent still today), is to establish a standing INFIMO working group consisting of the public health purchasing institutions, i.e. CSMBS, NHSO and SSO as equal partners – and complemented, for purposes of overall policy consistency and guidance, by MoPH, MoF, BoB, IHPP (with respect to the needs of the NHA-model) and possibly others (such as, for example, NESDB, NSO).

Under this arrangement, inputs of the CSMBS, the SSO, and the NHSO/UC to the standing working group would consist of their own, scheme-specific models. Model projections would be simultaneously planned and carried out within the working group, under mutual information on exogenous model assumptions of either institution, aiming at mutual consensus in assumption setting.

Members of the working group would be mutually supportive, to the extent possible, with respect to overcoming any modelling problems that might occur.

With respect to these ends, the working group would commonly maintain a historical data base and undertake data analysis. Conclusions drawn from data analysis would be channelled into modelling improvements, and improvements of other analytical tools maintained.

Generally, the working group could be organized so as to effectively take part in, and support, Thailand's continuing social policy and health reform process.

At the time of finalizing this report, the Thai Government was aiming at implementing the standing working group, as described. The disadvantage of the approach is that, in order for it to be able to function well, it needs a *secretariat* performing all tasks required to keep the working group "alive". In other words, the idea of a Unit in a more formal, administratively integrated sense (option one) comes in through the backdoor. While at first this option appears to be identical with the first option (the terms of reference, as listed above, could and would also apply for the secretariat), the difference is that the secretariat itself would only be able to perform its role with authority if integrated into the MoPH (a solution that would be preferred and recommended by ILO-SEC/SOC). As the project draws to a close, however, this does not seem to be a solution preferred by the Thai Government. In other words, in the current circumstances, the functioning of the secretariat, and the working group, would fully depend on the sustained will of all stakeholders to participate. In such a setting, there is inevitably a high risk for the working group to fail.

ILO-SEC/SOC therefore strongly recommends finding a solution that formally establishes a new Unit, and integrates it into the given administrative structures along the lines as proposed above (option one).

Staffing the Unit/the Secretariat; Costs

Upon completion of either of the above options the Government would have to provide resources for additional staff as follows:

-
- seven professionals: two responsible for each scheme (CSMBS, SSO, NHSO/UC), one responsible for the NHA-model;
 - three information specialists/programmers;
 - one or two additional support staff (“statistical clerks”);
 - one secretary.

In total, the unit/secretariat would thus comprise 12 persons. Terms of reference for each staff would have to be specified in detail (two to three pages) once tasks and work flows have been specified in detail.

The costs for the Unit/Secretariat should be borne by the MoPH or equally shared, respectively, between the CSMBS, the SSO, the NHSO/UC and the IHPP.

Inter-institutional cooperation under INFIMO

By the end of the project, its results would allow for implementing INFIMO under either of the two organizational options just described: either as a new Unit integrated in the existing administration or as a unit acting as the Secretariat of an inter-institutional standing working group.

Both solutions are possible; however the “secretariat” solution, in ILO-SEC/SOC’s understanding, might imply sub-optimal strictness of carrying out the terms of reference, which would be very similar under both regimes.

Both solutions require almost identical networks of processual cooperation among the involved institutions, where the *Unit* or the *Secretariat*, respectively, would have to perform the role of a centre for administrative operations and recurrent guidance through the budget year.

The professional pre-requisites for a network solution of either kind are currently very good. The reason being that, as a result of the training component of the project, all institutions involved, CSMBS, NHSO, SSO and IHPP, have highly qualified staff at the technical level. After training in the social budgeting course at the Graduate School of Governance, Maastricht, the Netherlands, professional staff of all institutions are aware of the common theoretical and quantitative approach to social budgeting and its application in Thailand’s health budgeting context.

Around a dozen staff members of the CSMBS, the NHSO, the SSO, the MoF and other institutions participated in the social budgeting course in Maastricht in different years of project execution. Some staff members attended as part of their master course studies at the Graduate School, others participated in the four-week social budgeting block of the Master course, and other staff were given an additional two-week in-depth training by SEC/SOC at ILO headquarters in Geneva.⁷ It can be assumed, therefore, that the Thai Government’s quantitative analytical capacities “around” health finance have been significantly enhanced during the past three years.

Almost all staff trained in Maastricht and at ILO headquarters have also been directly involved in the theoretical and practical development of INFIMO’s data base and model component. Direct involvement in the statistical and modeling work *plus* participation in

⁷ For fuller details of training activities and accomplishments, see project implementation reports.

the Maastricht course have helped all participants to understand the integrative financial planning approach of social budgeting (in contrast to standard compartmentalized budget planning), including the value added to financial planning in Thailand's public health sector.

While comprehensively understanding their respective institution's financial operations, including the underlying system-specific financial drivers, all trained staff, especially of the CSMBS, the NHSO and the SSO, can be considered to qualify as senior staff either in a "unit" – solution or a "network" – solution.

In a unit-solution, selected staff (trained in Maastricht) would be transferred to the new *Unit*, and those transferred would have to be replaced, in their sending institutions, with new staff that would gradually have to work themselves into the subject-matter of public health finance.

In a network (secretariat)-solution, the respective staff (trained in Maastricht) would stay in their present positions in their respective institutions, and the *Secretariat* would have to be equipped with new staff, who, once again, would have to work themselves into the subject-matter of Thailand's public health finance.

Although the unit-solution is preferred by ILO-SEC/SOC (see above), the functioning of either approach depends in the end on the underlying professionalism, the willingness to cooperate and the availability of the means required for the sustained carrying out of the proposed activities. Professionalism and willingness to cooperate are readily available; however the required means (authority, staff costs, office space etc.) must be provided by the Government.

A note on the acronym INFIMO

At the beginning of the project, there was a strong feeling that the acronym INFIMO triggered more questions than it was able to answer in the Thai Government context and in the wider public. The acronym had been burdened with an undue connotation of tight "top-down" government control of the different health purchasing schemes (CSMBS, SSO, NHSO/UC, including the private sector) amid fears that the ILO would recommend, under an overarching financial management umbrella, unification of those schemes in one system. The acronym INFIMO was therefore barred from being used during some period of project execution.

It is now understood by all stakeholders of the project that it was never, and still is not, the intention of the ILO to suggest such a system nor to move towards a system aiming at the unification of the CSMBS, the SSO and the UC. Rather, the ILO prefers policies aimed in principle at maintaining the institutional structures as they have evolved over the recent past and, from this basis, taking the perspective of consolidating and fostering the universal-health-coverage-policy of the past years and improving it on the basis of what has been achieved thus far.

The ILO, represented by Mr Scholz, was grateful for the necessary clarifications received in Bangkok (12 October 2006) as a result of discussions with the director of the IHPP (Dr Viroj), in the presence of the project implementation unit (Dr Thaworn). In that meeting, it was specifically agreed that all institutions other than the CSMBS, the NHSO and the SSO that are being covered in the Thai NHAs would no longer fall within the scope of the project.

Thus, by the end of the project, with misgivings and misunderstandings about the connotations of an inappropriate policy-slogan overcome, we have reverted to using the notion INFIMO.

5. Conclusions

With the proposals made therefore in the context of this EU-financed project “Financial management of the Thai Health Care System”, and summarized in this report, Thailand’s public health policies possess a valuable blueprint that can be used for concrete implementation of an Integrated Financial Management and Monitoring System (INFIMO).

In as far as this blueprint consists of the developed analytical projection model for the CSMBS, NHSO, SSO and IHPP, it is actually an output that, when maintained, depends on tangible cooperation of the institutions mentioned, and various other institutions.

If maintained, it allows for substantial, systematic and comprehensive data collection in a structured data bank.

Further, with respect to its projection part (which is based on the statistical data base), it allows for continuous management of the health finances of those institutions, during the government’s overall revolving budgeting and medium-term financial planning procedures, in a cooperative manner.

If successful, this cooperation can be expected to evolve in the future into a more systematic approach to public health finance, and (ideally) to public health policy. If that were the case, in the longer run the Government might even be able to carefully address the pending problems between the (export-oriented) private health providers and the domestic public sector. These problems are diverse and, from a social health policy point of view, basically concern issues of guaranteeing in the long run equitable health provisions for the Thai population.

Modelling the public health system is not the *dominant* problem of Thailand’s INFIMO. For the time being, it is more important to work through the set of political, institutional and other possible complexities which make it difficult to implement and maintain the statistical reporting infrastructure required for health system analysis and health policy.

In other words, systematic statistical data collection and best administrative practice and structure are at the core of the continuing problems of steering the finances of Thailand’s public health system.

These problems existed before the project, and they will continue to exist after its finalization, although hopefully less so.

However, during project execution it became clearer that focus on the modelling work would help to address and potentially (partially) overcome the problems of statistical data collection. Initially only expected to be (an important) part of INFIMO, it became increasingly clear that the model could (and actually would) form a platform for Thailand’s integrated financial management and monitoring system, which could in future easily develop into a much wider and deeper health information system.

In order for this to happen, it is crucial that an adequate administrative structure be put in place, for which the project developed a comprehensive proposal but which is obviously the most difficult component to implement. Administrative changes would be difficult under any project in any country. The special implementation problems prevailing in Thailand are:

- (i) dispersed and not always sufficiently transparent intra- and inter-institutional health policy and health administration responsibilities. While this is also the case in

countries with much more developed statistical infrastructure, the Thai situation is further compounded by;

- (ii) lack of formalized inter-institutional (as opposed to quite well functioning, but structurally unstable inter-personal) cooperation; and furthermore;
- (iii) the understanding of the value of historical (time-series) and structural statistical information as an important instrument of governance of a modern society is not fully understood and accepted in all relevant public institutions, and finally
- (iv) the continued and amicable cooperation between public and private institutions that is required for maintaining a constant statistical information and data stream is not sufficiently developed (e.g., NHAs).

For the time being, at the close of the project (summer 2009), it is hoped by the ILO and their direct Thai counterparts that it will be possible to formally implement an administrative unit, either as a new department in the MoPH, or as an institute under the umbrella of the MoPH, that could and would resume all institutional responsibilities and execute the activities relating to the full implementation and maintenance of the developed model and its data bank, with a concrete perspective of developing into the national unit, as proposed, that runs Thailand's INFIMO on the basis of a nationwide (statistical) information network.

As a second-best solution, ILO-SEC/SOC proposes a network-related *Secretariat* solution, as described in the main body of this report.

The components required for the establishment of an institutional solution have been discovered and laid down during the project. What is now required is government action, i.e. the provision of room, staff, budget and formal competencies which, all together, would allow the Unit to act with authority.

It is important to take action soon as a sufficient number of professionals in different institutions that would be directly involved in INFIMO have been intensively trained during the project, and most of them were directly involved in the project's practical and theoretical technical work. These persons are considered as highly skilled, and they are aware of the theoretical and practical administrative and political implications of the proposed institutional set-up. In other words, the *Unit/Secretariat* could immediately and effectively take up operations. The institutional counterparts required to make INFIMO fully functioning are known and available.

The more time passes before implementation of the structure, the more the currently established network of persons and knowledge is at risk of disappearing. There is a window of opportunity now, and it should be used before it closes again.

The Government should not miss this chance.