Conceptual frameworks, health financing data and assessing performance: A stock-take of tools for health financing analysis in the Asia-Pacific region

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**Conceptual frameworks, health financing data and assessing performance: A stock-take of tools for health financing analysis in the Asia-Pacific region**

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This Working Paper represents the views of its authors and does not represent any official position of The University of Melbourne, AusAID or the Australian Government.
ACRONYMS

APNHAN   Asia Pacific National Health Accounts Network
DRG     Diagnosis-Related Group
EURO    WHO European Union Regional Office
GDP     Gross Domestic Product
ICHA    International Classification of Health Accounts
MDG     Millennium Development Goal
MOH     Ministry of Health
NHA     National Health Accounts
NHS     National Health Service (UK)
OECD    Organisation for Economic Cooperation and Development
OOP     Out-of-pocket
SHA     System of Health Accounts
UNESCAP UN Economic and Social Commission for Asia and the Pacific
WHO     World Health Organization

SUMMARY

This report was prepared by the Health Policy and Health Finance Knowledge Hub, Nossal Institute for Global Health, University of Melbourne. It brings together preliminary work by the authors on the theme of collecting and providing the evidence needed for health financing policy reform. It is presented as an initial contribution based on preliminary work and aims to identify next steps rather than provide definitive answers.

The initial studies reported here focus on the first of the aims originally identified for the Health Policy and Health Finance Knowledge Hub investigations, namely to review current work and available evidence, identify issues, weaknesses and gaps, and propose strategic steps to improve availability and use of evidence for health finance policy making.

The report is based on the recognition that three closely related ‘building blocks’ are needed for producing evidence on health financing policy and together contribute to a strong evidence base. These are:

- **Conceptual frameworks.** Frameworks identify the factors involved in health financing and suggest causative pathways for the links between health finance and overall health system performance.

- **Availability of data.** This includes quality and comprehensiveness, in regard to both health finances and health system performance. In regard to health financing, NHA were identified as the key data source. Data are used to populate the frameworks, to quantify relationships within health systems and to compare across countries.

- **Analysis and interpretation.** The frameworks and the analysis and interpretation of data come together to identify links with performance and thus to identify effective interventions or policies. An important area here is to identify potential performance indicators to measure significant aspects of health financing and health system function.
Conceptual Frameworks: The report reviews and compares the two main frameworks used to describe and analyse health financing functions:

- The framework developed by Joseph Kutzin (commonly presented as ‘collecting, pooling and purchasing’) (Kutzin 2001, 2008);
- The framework developed by William Hsiao (and used by the World Bank in their health system Flagship courses) (Hsiao 2003).

We conclude that the current frameworks seem to define sufficiently the elements and information needed for description and analysis of health financing, but more work is needed to understand the linkages between health financing functions and the achievement of intermediate outcomes and health system objectives. This may then result in modifications or elaboration of current frameworks.

Availability of Data: The report reviews the current status of National Health Accounts (NHA) preparation among countries of the Asia-Pacific region and the ongoing revision to the System of Health Accounts (SHA). While a uniform structure and guide for the preparation of NHAs is needed to enable comparability, it is important that such a structure accommodate the particular issues and needs of Asia-Pacific countries, and be appropriate to the capacities and issues facing policy makers, particularly in Pacific island countries.

Analysis and Interpretation: We review recent studies of health financing in countries of the Asia-Pacific that have attempted to analyse the performance of the health financing system and propose policy reforms. These include individual country studies carried out in association with the Nossal Institute for Global Health (notably in Vietnam and Indonesia) as well as broader cross-country comparative studies (such as the World Bank’s Good Practices in Health Financing – Gottret, Schieber et al 2008). These are discussed below.

Among the different studies of health financing performance, there is a consistency of approach in describing the health financing sub-system and the related policy issues as well as in identifying the broad goals or objectives for health financing performance. This consistency may be due to reference to similar conceptual frameworks, even where these may not be explicitly acknowledged.

However, there is some variability in the treatment of context, and, in consequence, a lack of consensus on the importance to be attributed to context in determining policy issues and recommendations. There is also an evident tendency towards broad and non-specific policy recommendations that lack specific links to the expected policy outcomes in different countries.

The report reviews some of the indicators of performance proposed by various reports and maps the indicators against the standard health financing functions. This demonstrates how the indicators reflect interaction among the health financing functions and between health financing and health system outcomes, and consequently shows the complexity of measurement and description of health financing performance.

Given the importance of achieving equity in both health financing and health system outcomes, the report proposes a strategy for further analysis that focuses specifically on identifying policy options to achieve equity in health financing functions and health systems performance.

The report concludes by posing questions about the feasibility of identifying causative links between health financing policy interventions and health system outcomes. In assessing different policy options, a more effective approach may be to identify the contextual conditions, the relations with other aspects of the health system and the potential impacts on a range of health outcomes that need to be considered in adopting or applying health financing policy.
INTRODUCTION

There is increasing interest in improving health service delivery outcomes and achievement of broader development goals. Health financing plays a critical part in achieving these ends. This implies a need for better use of evidence in policy making and consequently improvement in the collection and analysis of that evidence.

The World Health Organization’s Framework for Action on strengthening health systems (WHO 2007) notes that failing or inadequate health systems are one of the main obstacles to scaling-up interventions to make achievement of internationally agreed goals, such as the Millennium Development Goals (MDGs), a realistic prospect. The framework identifies the health financing system as one of six health system building blocks and argues that financing is functional when it raises adequate funds for health, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them. The World Health Organization (WHO) proposes to strengthen health financing through strategies such as disseminating information about what works and what does not, sharing country experience of various health financing reforms, sharing information required by policy makers and developing tools, norms and standards, including those required to assist countries to generate and use information in their own settings.

The importance of financing in the overall functioning of health systems has been recognised in the Asia-Pacific region through the development and release of the regional strategy on health care financing, initiated in 2006 and updated in 2009 (WHO 2005). The 2006-10 regional strategy notes that, while the countries of the region face similar generic problems as other low- and middle-income countries, the region has some specific characteristics. These include:

- Relatively low levels of total health spending, many countries spending less than 5 per cent of their gross domestic product on health, and per capita health spending being commonly well below $35 per person per year;
- Use of a mixture of government budget, health insurance, external funding and private sources, including non-governmental arrangements and out of pocket payments, to finance health services;
- A low share of government spending in total health spending, and in some countries a declining share during the last 10-20 years, mainly because out-of-pocket (OOP) spending has increased at a much faster pace;\(^1\)
- A significant proportion of the limited and inadequate funding for health commonly spent on illness rather than health;
- Additional challenges in Pacific island countries, reflecting small, scattered populations that are difficult to access, a low resource base and lack of a skilled workforce.

A recent multi-country study of health financing supported by the World Bank noted that the paths taken in policy reform are heavily contingent on each country’s political economy and institutional arrangements (Gottret, Schieber et al 2008). The study concluded by identifying the need to define and document good practice in health financing, in particular with a view to:

- Defining good performance in health financing;
- Collecting standardised quantitative and qualitative information;
- Describing health system characteristics in sufficient detail to identify critical components and interactions;
- Evaluating health financing practices rigorously;
- Disseminating the results of evaluations.

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\(^1\) This contention has been challenged. In Asia, amongst countries with somewhat reliable time series NHA data, almost all show increases in public spending as a share of Gross Domestic Product (GDP) and of total health expenditure over the past 15 years. The major exceptions have been China and Sri Lanka, but each of these countries has started to increase expenditure on the public side in the past five years.
Purpose
This report compiles recent work undertaken by the Health Policy and Health Finance Knowledge Hub in regard to strengthening evidence for health finance policy reforms. In general, the report aims to assess issues related to the development of strategies for health financing policy reform in the Asia-Pacific region. The main purpose is to review current work and available evidence, identify issues, weaknesses and gaps in the analytical process and propose strategic steps to improve availability and use of evidence for health finance policy making.

Review of Current Activity
This work should be seen in the context of a number of regional and country initiatives that seek to build and communicate evidence on health financing. These include:

- Work done by the Asia Pacific National Health Accounts Network (APNHAN), including a report on the status of NHA implementation in the Asia-Pacific region (Fernando and Rannan-Eliya 2005) and an evaluation of regional health accounts data collection (Fernando 2008).
- Strengthening evidence-based policy making in the Pacific: support for the development of NHA, an Asian Development Bank-funded project in 15 Pacific island countries.
- Inauguration of the Asian Network for Capacity Building in Health Systems Strengthening announced by the World Bank Institute at the 2009 International Health Economics Association conference in Beijing. This network includes nine regional institutions that have been involved in World Bank Institute flagship courses and will focus on equity, public-private partnerships, health sector reform and sustainable financing.
- A mid-term review of the WHO Regional Strategy on Health Care Financing undertaken in Cambodia, China, Laos, Mongolia, Philippines and Vietnam, which focused on achievements against the strategic goals of social protection and universal coverage (Annear 2008, Bekedam 2008).
- Studies of social health insurance in six countries of the region, funded by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP 2008).
- The World Bank study of good practices in health financing, which included three countries from the region (Sri Lanka, Thailand and Vietnam) and aimed to identify ‘enabling factors’ while recognising that health reforms are specific to particular countries (Gottret, Schieber et al 2008).
- Initial steps in the establishment of an Asia-Pacific Health System Observatory, with initial studies in Malaysia and the Philippines using the WHO European Union Regional Office (EURO) Observatory ‘Health in Transition’ template.

These studies have focused on a variety of issues and have each used different conceptual frameworks for the collection and analysis of data. The results of the different studies show a mix of commonalities in aims and broad strategies and considerable variation in country-specific policy issues and approaches. Given this variation, it has been difficult to extract from the cross-country comparisons consistent information for policy decisions.

Approach and Methodology
The current report identifies three tools needed to gather and use evidence for health financing policy making. The three are closely related, but collectively contribute to a strong evidence base. They are:

- **Conceptual frameworks.** These identify the factors involved in health financing and suggest causative pathways for the links between health finance and overall health system performance. Frameworks thus identify data needs and suggest analytical approaches.
- **Quality comprehensive data,** in regard to both health finances and health system performance. NHA were identified as the key data source in regard to health financing. Data are used to populate the frameworks, to quantify relationships within health systems and to make comparisons across countries.
- **Analysis and interpretation of results.** Data are used together with the frameworks to identify links with performance and thus to identify effective interventions and policies. We argue that it is important to identify potential performance indicators that can measure significant aspects of health financing and health system functioning.
Based on this approach, two papers were commissioned by the Health Policy and Health Finance Knowledge Hub:

(1) A review of existing conceptual frameworks and other templates for data collection, and their evolution over time, with a focus on the framework developed by Joseph Kutzin (Kutzin 2001, 2008). This review was conducted in collaboration with the Australian Institute for Health and Welfare.  

(2) A review of the current revision of the System of Health Accounts (SHA), including identification of performance indicators of the impact of financing on health systems. This review was conducted in collaboration with the Curtin University of Technology.

Preliminary results from these papers were presented at a technical review meeting with regional technical experts in September 2009. This report incorporates the preliminary results, comments from the technical experts and additional work undertaken by staff of the Nossal Institute.

The review meeting emphasised the need to consider the perspective of policy makers in examining the generation and provision of evidence. Issues raised included:

- Difficulties in the interpretation and use of data from NHA; while there are guidelines for the collection and preparation of the accounts, less guidance is available to assist in the interpretation of NHA data;
- Difficulties for national policy makers in participating in the debates and discussions on methodological issues related to measurement within health financing, such as the review of the SHA;
- Confusion arising from the lack of consensus among, as well as the provision of competing or conflicting policy advice from, different sources of technical expertise.

FRAMEWORKS FOR HEALTH FINANCING ANALYSIS

Conceptual Frameworks

The development and use of conceptual frameworks to assist in the analysis of health systems strengthening and financing strategy have been the subject of considerable discussion since the release of the World Health Report 2000—Health Systems: Improving Performance (WHO 2000). The evolution and meaning of this discussion are subjects for further research, but some preliminary observations are possible.

Conceptually, two levels are evident in the use of frameworks for analysis. The first level relates to broader issues of strengthening of health systems, and the second level focuses on health financing functions. Financing is often considered a subordinate part, or one of the ‘building blocks’, of health systems strengthening. Conceptual frameworks have appeared that deal with each of these two levels.

The World Health Report 2000 introduced a framework based on six ‘building blocks’, one of which is financing. Writing in the Bulletin of the WHO, Julio Frenk and Christopher Murray set out the process of development of the health systems framework used in the Report (Murray and Frenk 2000). This framework introduced a definition of health systems, distinguished intrinsic and intermediate objectives and defined three common goals: improved health, responsiveness to people's expectations and fair financial contribution. The framework—particularly its definition of health systems and the ranking of countries’ performance—stimulated a very lively discussion (Wibulpolprasert and Tangcharoensathien 2001).

Extending the WHO’s building-blocks approach, the WHO-based Alliance for Health Systems and Policy Research more recently published a flagship report on ‘systems thinking’ for health systems research (de Savigny and Taghreeted 2009). The report proposes using a comprehensive suite of tools to map, measure and understand the dynamics of the health system. This is presented explicitly as a dynamic approach, in comparison with static approaches that focus on particular events. The elements include systems organising, systems networks, system dynamics and systems knowledge. Systems thinking deals with a complex intervention as a system in itself.

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4 This includes preliminary results from the review of the WHO Regional Health Finance Strategy undertaken by Peter Annear and comparative work on World Bank country studies in Vietnam and Indonesia undertaken by Krishna Hort.
Other frameworks have focused on the health financing functions, such as the one used at Harvard University from the mid-1990s under the influence of William Hsiao and further developed through World Bank health financing courses (Hsiao 2003). Later, Julio Frenk also adapted this framework, which was taken up within the WHO prior to publication of the *World Health Report 2000* (WHO 2000). Following the publication of the Report, a further framework was introduced through the work of Joseph Kutzin (Kutzin 2001). Kutzin’s framework, which is based on the collection and pooling of funds and the purchasing and provision of health services, has become commonly used in health financing analysis.

The current report aims to identify the value of such frameworks in providing a basis for comparative country studies of the links between health financing mechanisms and health systems outcomes. We are not concerned here with measuring the performance of different health systems. To begin this work, we look more closely at the frameworks developed by Joseph Kutzin and William Hsiao.

**The Kutzin Framework**

Kutzin (2001) introduced his framework with the aim of developing a tool for *descriptive analysis of the existing situation* in a country’s health system with respect to health care financing and resource allocation, and equally as a tool to assist the *identification and preliminary assessment of policy options*.

Kutzin’s presentation focused on categorisation and description of the elements of the financing system (collection of funds, pooling of funds, purchasing of services and provision of services) rather than on the relationship between financing and the broader health system. He emphasised that the conceptual framework was driven by the normative objective of enhancing the ‘insurance function’ of providing access to care without financial impoverishment.

In a recent work, Kutzin (2008) explicitly related the health financing role to overall health system functioning by distinguishing three components, which he referred to as three pillars:

- Objectives, including broad health system goals and financing policy objectives;
- Functions and policies of health financing;
- Contextual factors, particularly fiscal constraints.

Among broader health system goals, Kutzin saw an important role for health financing in promoting universal protection against financial risk and promoting a more equitable distribution of the funding burden. He identified the financing policy objectives as instrumental and intermediate to broader health system goals. These intermediate objectives include promoting equitable use and provision of services relative to need; improving the transparency and accountability of the system to the population; promoting quality and efficiency in service delivery; and improving efficiency in administration of financing. Kutzin illustrated his approach with the diagram presented in Figure 1.
The Hsiao Framework

Hsiao’s framework is explicitly more analytical than descriptive. Hsiao (2003) aimed to develop a conceptual framework that modeled the role of health financing within the systemic aspects of the health system, i.e. the major components of a health system that can explain aggregate outcomes. He described this as a causal model whose major components (i.e. explanatory variables) could largely account for observed outcomes (i.e. dependent variables). Hsiao listed the causal components that could explain the system’s outcomes as:

- Final goals: health status, financial risk protection and consumer satisfaction;
- Intermediate outcomes: access, quality and efficiency of service delivery;
- Means: financing, organisational structure, payment mechanisms, regulation and persuasion (information provision).

Figure 2 illustrates these features.

Figure 1. Links of Health Financing System to Policy Objectives, Other System Functions and Overall System Goals (Kutzin 2008)

Figure 2. Relationships between Financing Instruments and Goals (Hsiao 2003)
Comparison of the Frameworks
The two frameworks use the same basic structure and have many similarities. Both attempt to provide guidance for policy by identifying the links between particular health system functions—notably financing functions—and system outcomes.

The Kutzin framework emphasises more strongly the health financing context, including fiscal capacity. In the 2008 version, this framework identifies a number of interrelated issues, such as the alignment or fragmentation between different elements, as system-wide functions that impact on outcomes. The health financing elements are described structurally and are presented as following the flow of funds, and there is more focus on coordination and coherence of approach. Analysis of health care financing systems using this framework highlights the interactions of policies and the need for a coherent package of coordinated reforms.

The Hsiao framework focuses more on policy levers and drivers and highlights connections between the different elements. In this way, the different health financing functions are described in terms of causal links, rather than through the funds flow. While Hsiao has emphasised in other work the strong impact of the macroeconomic environment on health financing and health policy, there is less reference in this framework to contextual factors, though there is greater recognition of multiple, potentially competing, objectives and of the need to balance the impact on different objectives in policy making.

Analysis and Discussion
This review of frameworks raises a number of questions that require further consideration.

Do conceptual frameworks matter?
One approach to research in health financing and health systems strengthening is to focus on empirical data collection and analysis without reference to ‘conceptual frameworks’. While this may be appropriate in some cases, the use of frameworks has greater relevance for understanding health financing within broader health systems, such as in systems analysis and cross-country comparisons, where common measures are needed. It is also particularly important in research that is more qualitative in nature and where conceptual frameworks function as theories that guide the research and the interpretation of the results.

In a recent series of papers examining qualitative methodology (Willis, Daly et al 2007), a group of Australian researchers emphasised the importance of theory in qualitative research. They note that theories provide structured interpretations or models for investigating and understanding a problem. They explain the importance of this framework by saying that theory provides a framework for structuring a study and plays a central role in data collection and analysis. And they argue that the use of theory in a study provides the essential link to the theoretical literature and allows researchers to assess the extent to which the results can be extended to other settings and contexts.

Conceptual frameworks provide the basis for the development of hypotheses on causal links in health financing, and thus determine what data are collected and seen as relevant and how the data are subsequently analysed. This is particularly relevant to cross-country comparative research. McPake and Mills (2000) argue that as international comparative research accumulates, models of the relationships between policy variables and outcomes are constructed and amended; these models facilitate comprehension of critical variables that influence policy outcomes. In doing so, they suggest a framework for the comparison of countries and their health systems, and the similarity of experience and outcome with health sector reforms can be predicted.

At the same time, frameworks should not be applied inflexibly and need to be adapted or revised on the basis of evidence. There should be a continual dialogue between the conceptual frameworks, the hypotheses they represent, the data collected and findings from research.

Are the current conceptual frameworks adequate?
Both the Kutzin and the Hsiao approaches provide a framework for identifying the key financing components and their place within the health system. These frameworks adequately illustrate general principles. However, while both frameworks are clear about categories, neither is explicit about the links between health financing policies, mechanisms and performance (or the means for achieving system objectives). In practice,
health systems are complex, and their elements interact both with each other and with their environment. Consequently, similar health finance policies and functions may lead to different outcomes in differing contexts. Because health financing circumstances differ between countries, the use of such frameworks must be adapted to local conditions.

For example, it is widely recognised that a high level of OOP health expenditure is commonly associated with high levels of inequity in the collection of health financing revenues and limited availability of financial risk protection among the population. This is particularly evident in low income countries, where the main part of health costs falls on households that cannot afford to pay them, thus causing indebtedness and impoverishment. OOP expenditure may be less of a concern where high levels of discretionary spending are possible (by those with the capacity to pay) while the poor are protected by targeted subsidies or prepayment mechanisms. South Korea has high levels of OOP expenditure yet maintains equity of contribution and risk protection by regulating the size of co-contributions (which make up the bulk of OOP payments). As Kutzin states, ‘the devil is in the details’ and a ‘thorough analysis’ is needed of the system of health financing and the arrangements for each function.

Should there be a single agreed framework?

In a collection of articles reflecting on the approach to conceptual frameworks outlined in the WHO's World Health Report 2000, Murray and Evans (2003) claim that development of a common framework is necessary. They argue that the absence of a common framework for analysing health systems has impeded progress. When nearly every study uses a somewhat different approach to defining inputs, processes, outputs and outcomes, and a different set of measurement methods, it is difficult to build a global knowledge base.

Murray and Evans’ aim is to develop a framework for describing, analysing and ultimately improving the performance of health systems that is flexible enough to be useful for both developing and developed countries. However, quoting Rose and Marmor, McPake and Mills (2000) argue that the search for a single best model is one of the key fallacies in discussions of international health comparisons. Such a search, they say, overlooks the importance of context—the best model in one setting may not be so in another.

In relation to international comparisons, McPake and Mills go on to distinguish between those conclusions that are context specific and those that are capable of limited generalisation to more similar countries. Consequently, a better understanding of contextual variables and their impact on policy outcomes is needed.

Within the Asia-Pacific region, a single agreed framework would be a means to describe and classify the different health financing systems consistently and therefore provide a coherent analysis of different health policies. In parallel with the use of such a framework, revisions to the SHA that provide the basis for consistent data collection through development of NHA could also assist cross-country comparisons (see the following section).

What are the implications for future research?

The current frameworks adequately define the elements and the information needs for description and analysis of health financing functions. However, these frameworks could be characterised as ‘static’. Further work on developing these frameworks could focus on introducing the means to account for the dynamic and developing aspects within countries. Such work could focus on a critical examination of contexts within which health financing arrangements are implemented and an account of the changing relationships between the different categories within the health financing system—i.e., the linkages between context, health financing functions, the achievement of intermediate outcomes and broader health system objectives.

AVAILABILITY OF DATA

A reliable source of data to populate the conceptual frameworks is essential for the analysis of health financing arrangements and strategies. In many cases—particularly in smaller and lower income countries—a consistent source of data is not available. In such cases, analysis relies on occasional surveys, partial studies, official and unofficial estimates and other ad hoc sources. Comparability, consistency and reliability of such data cannot be guaranteed.
National Health Accounts

The need for a reliable source of health financing data can best be addressed at country level by establishing NHA (WHO 2009a). NHA compiled according to a common agreed framework provide an accounting system for systematic, comprehensive and consistent measurement of financial flows in a country’s health system for a given period. However, developing NHA accounting is a complex process that requires sufficient in-country capacity and the allocation of sufficient resources to achieve reliable outcomes. NHA are available already in many Asia-Pacific countries, but there are also many where NHA are not compiled. Addressing this issue is one challenge for country-based health financing analysis.

Where they exist, NHA are designed to capture the full range of information contained in these financial flows and to reflect the main functions of health care financing: resource mobilisation and allocation, pooling and insurance, purchasing of care and the distribution of benefits. Health expenditures in NHA comprise the value in monetary terms of all goods and services consumed, or of activities carried out whose primary purpose is the restoration, maintenance and improvement of the health of a nation’s population. NHA include health expenditures from all types of payers, including government, households OOP, social health insurance, private health insurance, non-profit institutions and external sources (WHO 2008).

System of Health Accounts

The template for NHA data collection is provided by the SHA. The SHA is the standard used by the Organization for Economic Cooperation and Development (OECD), the European Union and different countries such as Sri Lanka, Tonga and Samoa (OECD 2000). The SHA establishes common concepts, definitions, classifications and accounting rules to enable comparability of health spending data over time and across countries. The SHA addresses three basic questions: Where does the money come from? Where does the money go to? What kinds of services are performed and what types of goods are purchased? (OECD, Eurostat et al 2009c).

The SHA is still under development as the international standard for health accounting. Both the accepted health care financing frameworks and the financing accounts of the SHA are based on a set of elementary accounting units that make up a health care system. These elementary units reflect the institutions collecting revenues (e.g. taxation departments), those pooling revenues or premiums (e.g. private health insurers) and those purchasing health care services and goods (e.g. ministries of health). Under the currently used SHA methodology, there are two classifications for compiling estimates: financing sources (ICHA-FS) and financing schemes (ICHA-HS).

The SHA manual is currently being revised in a coordinated exercise by three international agencies: the OECD, Eurostat and WHO. Achieving accurate classifications within the accounts is critical to collecting reliable, comparable data, and classifications must reflect actual practice. In the revision of the current manual, the classifications proving to be the most problematic are those for health financing.

One of the theoretical difficulties in aligning the methodologies for health accounting to the financing frameworks developed by Kutzin and others is that the collecting and pooling of funds are commonly performed by the same entity. To reduce some of the ambiguity in the current classification, the latest update on the proposed revisions to the classification system (Unit 9 and 10) proposes separate classifications for financing sub-systems or schemes and the institutions or agencies that administer the sub-system or scheme (OECD, Eurostat et al 2009a).

However, a number of problems remain with the current SHA financing classification, some of which may be specific to the Asia-Pacific region. The authors of this report believe that the proposed SHA classifications:
• do not remove ambiguities in concepts and definitions of health financing; e.g. between schemes and institutional units;
• mix financing schemes and institutional units in one category; e.g. private insurance enterprises (other than social insurance);
• do not differentiate clearly between systems that rely on unregulated OOP and regulated OOP financing;
• make a too simple division into general government and private sector schemes; the key differentiation in type of financing scheme should be according to the breadth of entitlement, not whether the scheme is managed by a government or private or non-government unit;
• do not properly categorise schemes to provide health benefits for civil servants.

There is also little methodological development and guidance on using the NHA framework to compile data needed to address important health policy questions, e.g. expenditures classified by gender, disease and age, socio-economic characteristics, health characteristics or geographical regions (administrative regions, rural-urban).

A new draft classification of financing schemes and financing sources was released for comment in October 2009 (OECD, Eurostat et al 2009b). While it is more complex, the approach does offer new insights into defining public and private revenue and expenditure, into the description and analysis of foreign (rest of the world) financing sources, and into distinguishing schemes (which cover the raising and pooling of revenue) and the agents or institutions that administer the schemes.

NHA in the Asia-Pacific Region

Many developing countries in the Asia-Pacific are yet to establish NHA systems. Reports from APNHAN periodically assess the development and implementation of NHA in regional countries. Using updated data based on a 2005 report of the network, Table 1 reveals that at least 14 developing countries in the region have yet to establish regular NHA reporting, and 10 others have only begun to develop NHA systems.

The situation is particularly difficult in many Pacific island countries, where the capacity to collect and analyse data and prepare NHA reports is limited. A more recent report (WHO 2008) notes that as of the end of 2007 six Pacific countries had produced NHA. Samoa and Tonga had produced more than two rounds of NHA and were in the process of making it a regular activity incorporating it into the Ministry of Health (MOH) work plan and budget line. Papua New Guinea, the Federated States of Micronesia, Fiji and Vanuatu still need to replicate the pilot NHA and to integrate NHA production into routine government work. Other Pacific countries like the Cook Islands, Kiribati, Solomon Islands and Tuvalu are preparing to undertake NHA work.

<table>
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<tr>
<th>Status</th>
<th>Countries</th>
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<tbody>
<tr>
<td>Group I: Territories with permanently established NHA systems with routine updates</td>
<td>Australia, Japan, South Korea, New Zealand, China, Philippines, Sri Lanka, Taiwan, Thailand, Hong Kong SAR, Samoa, Tonga, Malaysia</td>
</tr>
<tr>
<td>Group II: Territories with NHA systems intending to produce routine updates in future</td>
<td>Bangladesh, Vietnam</td>
</tr>
<tr>
<td>Group III: Territories currently developing NHA systems</td>
<td>India, Indonesia, Kyrgyz Republic, Mongolia, Myanmar, Nepal, Papua New Guinea, Fiji, Vanuatu, Federated States of Micronesia</td>
</tr>
<tr>
<td>Group IV: Territories planning/considering to initiate NHA systems development</td>
<td>Brunei, Cambodia, Laos, Kiribati, Palau, Tuvalu, Cook Islands, Solomon Islands</td>
</tr>
<tr>
<td>Group V: Territories with no official decision to develop NHA</td>
<td>Bhutan, Maldives, Timor-Leste, Marshall Islands, Nauru, Singapore</td>
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</table>

Sources: (Fernando and Rannan-Eliya 2005; Fernando 2008)
The APNHAN survey noted the considerable diversity in the structure of NHA templates used by Asia-Pacific countries (Fernando and Rannan-Eliya 2005). The report found variability in the dimensions measured (sources, providers, functions, sub-national measures), the elements included (with variability in the treatment of research and development, medical education and programs such as sanitation) and the inclusion of intermediaries in tracking funding flows. However, there is increasing reliance on the OECD SHA as a basis for preparation of NHA. It appears that the majority (60%) of countries developing NHA have used the 2000 version of the OECD SHA or earlier unpublished versions as the basis for developing their frameworks. This suggests increasing interest in international comparability.

The analysis of the SHA revision process and its implications for NHA raises two questions that require further consideration:

- Are the proposed revisions to SHA and NHA appropriate for countries of the Asia-Pacific region? The use of a common system of classification for the preparation of NHA would be of benefit to the Asia-Pacific, as it would be of benefit globally. However, it is essential that revisions to the SHA are appropriate to the specific situations within Asia-Pacific countries and that the guidelines and formats for their use provide sufficient flexibility to enable them to be simplified for use in less complex systems without losing the basic elements of comparability.

- How can we make best use of NHA data? This includes: use of NHA data for in-country policy making; and cross-country comparisons or regional analysis. While more uniform methods of NHA preparation improve the comparability of data, there is a need for such data to be made available for use in cross-country comparisons. For in-country use, there is a need to prepare guidelines and provide technical support for the presentation and interpretation of results and the identification of policy-relevant outcomes.

The implementation and strengthening of NHA procedures within the Asia-Pacific region provide an opportunity for further research and analysis of regional health financing issues. This is evident in a number of areas:

- Using NHA-generated data in national health financing analysis and cross-country comparisons;
- Developing a common repository for country-based data across the region;
- Establishing links with such ongoing projects as Asian Development Bank health financing activities, the OECD ‘health at a glance’ series and the OECD Korea Centre Regional NHA database project;
- Supporting the development of NHA guidelines that are more appropriate for specific contexts in the region, particularly a minimum data set and simplified manual for data compilation in Pacific island countries.

### RECENT EXAMPLES OF HEALTH FINANCING ANALYSIS

Using the type of conceptual frameworks discussed in this paper, different studies in recent years have used NHA and other health financing data for analysis of health financing practices both for cross-country comparisons and for in-depth country studies. A key question is the extent to which these analyses have contributed to identifying effective policy interventions. In this section we review some of these different analytical studies.

### Cross-Country Comparisons

Among cross-country comparisons, two recent examples illustrate different approaches and the use of different sources of data, including NHA returns.

The 2008 World Bank study of health financing (Gottret, Schieber et al 2008) used a case-study approach based on a conceptual framework of common health financing functions (raising revenues, pooling health risks and purchasing health services) and multiple sources of in-country data collection. Of the nine case-study countries, three (Sri Lanka, Thailand and Vietnam) were in the Asia-Pacific.

A different approach to analysis, designed to support the development of a common policy approach across countries, is evident in the *Strategy on health care financing for countries of the Western Pacific and South-East Asia regions 2006-2010* (WHO 2005). The regional strategy was assessed recently in a mid-term evaluation and subsequently updated with the preparation of a new regional strategy for the period 2010-2015. Though
designed to meet different objectives, the two approaches aim to provide evidence for policy makers to support health financing reforms.

**Good Practices in Health Financing**

Gottret, Schieber et al (2008) examined countries that were considered to have shown ‘good performance’ in health financing in terms of coverage expansion, health outcomes and financial protection, compared with countries of similar health spending and income levels. The study identified common enabling conditions for good performance and addressed the question: Are health reforms country-specific, or can a common set of enabling conditions be found among good performers?

The findings need to be viewed with some care, as the authors themselves explain. The study did not attempt to define ‘success’ rigorously because failures were not defined or examined; it did not attempt to attribute causality to specific factors and interventions for specific reform outcomes; and it did not examine countries without the identified ‘enabling factors’ or those that performed poorly. The main reason for the omission of these areas of investigation was the lack of adequate longitudinal data.

The study concluded by identifying three key types of common enabling factors:

- **Institutional and societal factors**: strong and sustained economic growth; long-term political stability and sustained political commitment; strong institutional and policy environment; and a well-educated population;
- **Policy factors**: financial resources committed to health, including private financing; commitment to equity and solidarity; health coverage and financing mandates; consolidation of risk pools; limits to decentralisation; and focus on primary care;
- **Implementation factors**: carefully sequenced health service delivery and provider payment reforms; good information systems and evidence-based decision making; strong stakeholder support; use of efficiency gains and co-payments as financing mechanisms; and flexibility to make mid-course corrections.

As the authors themselves note, these factors could have been proposed without the support of a formal study. This raises the question of whether and to what extent generalisable lessons can be obtained from cross-country comparisons.

**Regional Strategy for Health Care Financing**

The WHO strategy takes a rather different approach. The strategy aims to provide operational and practical guidance to WHO member states in improving overall health care financing policy development to achieve adequate, stable and effective health financing that provides equitable access to health services of assured quality.

Thus it also starts with a definition of what is to be achieved, or ‘good performance’, and then identifies the ‘issues and challenges’ which may be constraining Asia-Pacific countries from achieving these outcomes. The issues and challenges were identified from international, regional and country-specific experiences, available evidence, regional and bi-regional meetings and consultations. The strategy also draws on NHA data from the WHO database. The identified issues and challenges include:

- lack of public financing for health services, leading to cost recovery and user fees;
- excessive expenditure on inappropriate curative services, particularly with high technology, and neglect of prevention and promotion;
- high levels of OOP spending, leading to catastrophic expenditure for some households and contributing to poverty;
- significant disparities in health care access and health status between rich and poor, between genders and between urban and rural populations.

As a strategy, the WHO document adopts a prescriptive approach, identifying key policy issues and linking these with expected outcomes. The good practices study focused more on the importance of context, while the strategy says relatively little about contextual factors.
The strategy identifies the broad policy objectives and actions needed to achieve these objectives in the following areas:

- Increasing investment and public spending on health;
- Universal coverage and social safety nets;
- Developing prepayment schemes, including social health insurance;
- Supporting broader national and international development;
- Strengthening regulatory frameworks and functional interventions;
- Improving evidence for health financing policy development and implementation.

Following a mid-term review, the WHO strategy was recently updated as the *Health Financing Strategy for the Asia-Pacific Region 2010-2015* (WHO 2009b) and was adopted at the 60th session of the WHO Western Pacific Regional Committee, Hong Kong, 21-25 September 2009. The updated strategy identified four key health financing targets for countries of the region:

- Total health expenditure should be at least 4-5 per cent of GDP;
- OOP spending should not exceed 30-40 per cent of total health expenditure;
- More than 90 per cent of the population should be covered by prepayment and risk-pooling schemes;
- Close to 100% of vulnerable populations should be covered with social assistance and safety-net programs.

**In-Depth Country Studies**

Significant in-depth country studies have been carried out recently in Indonesia and Vietnam. (World Bank 2008; Gottret, Schieber et al 2008; World Bank 2009a; World Bank 2009b; MOH 2008). Each of these focuses on particular issues and describes different aspects of health financing and health system performance, although none aim to make a comprehensive study of health financing. The studies do focus, though, on key policy issues and reforms and provide policy recommendations. Our review of these studies revealed commonalities in a number of areas:

- Outcomes: progress in achievement of MDGs, changes in key population health indicators such as mortality rates and within-country differences;
- Service delivery: how health services are organised and delivered, including the role of the private sector and the organisation of state health services;
- Financing: related to availability of resources, pooling and purchasing; the degree to which the population is protected from catastrophic health expenditure;
- Policy context: the nature of politics or conditions of society that influence policy recommendations;
- Policy recommendations.

The health financing issues in each country were similar: low levels of public investment and funding for health; high levels of private contribution and OOP expenditure; social health insurance for the employed sector; safety-net schemes to cover the poor (attached to the social health insurance programs); limited coverage for the informal sector; and complex and fragmented provider payment systems. However, performance differed in terms of utilisation of services and health outcomes, with Vietnam generally performing better than Indonesia.

Reflecting the similar conditions, the policy recommendations for the two countries were also similar:

- Increase state funding for services, particularly to maintain the community level network of primary health care facilities;
- Consolidate and expand social and voluntary health insurance to cover more of the population;
- Develop output-related methods of provider payment to control potential over-servicing and increasing costs;
- Strengthen regulation and oversight of health service delivery.

In the case of Vietnam, the move to a national ‘single-payer’ system using the consolidated health insurance fund while focusing state health department activity on regulation and oversight appeared as a strong
recommendation. For Indonesia, more emphasis was placed on rationalising and streamlining the flows of state funds to health services and on improving efficiency and productivity in the delivery of services.

The studies demonstrated consistency of approach in describing the health financing sub-system and the related policy issues, and in identifying the broad goals or objectives for health financing, suggesting that the frameworks contributed to a common analytical approach. The studies also make extensive use of data generated by NHA and confirm the importance of NHA as the source of data for analysis.

Other Analytical Approaches

Other analytical approaches are also evident in the literature, including more comprehensive whole-of-system approaches, the use of performance indicators, consideration of equity issues and so-called linking-up strategies.

Whole-of-system assessments

Different studies aim to analyse the health system as a whole, largely with a view to assessing performance, identifying system ‘bottlenecks’ and understanding linkages between components. Such assessments include the Health 2020 assessments and the Health in Transition series (Islam 2007; Mossialos, Allin et al 2007).

Health in Transition assessments have been carried out using a common analytical template, mainly in OECD countries, including Australia. They are now also being trialled in Malaysia and the Philippines. This is seen as a step towards the possible establishment of a collaborative Asia-Pacific observatory for health systems development on the model established already in Europe. One of the authors of the current report (JG) reviewed the Health in Transition template on health financing and suggested amendments that would make the template more appropriate for Asia-Pacific country health systems, including changes to the sections on informal payments, external funding sources and cost-sharing.

Identification of performance indicators

According to one definition, indicators are succinct measures that aim to describe as much about a system as possible as concisely as possible; indicators help us understand a system, compare it and improve it (NHS 2008).

The criteria for good indicators include that they be:

- Important and relevant: addressing a significant question;
- Scientifically valid: measuring what they claim to measure;
- Measurable: able to be populated with meaningful data;
- Meaningful: clear about what they tell us and with how much precision;
- Action oriented: producing results that lead to appropriate action.

A range of indicators for describing health financing systems have been suggested, including the WHO Regional Health Financing Strategy 2006-2010 and Health Systems 2020 (WHO 2005; Islam 2007). Reviewing these, one of the authors of the current report (SH) has proposed a list of key indicators. These indicators are listed in Annexes A, B, C, D and E according to funding source and health financing function (resource collection, pooling and purchasing). The aim here is to provide country policy makers with indicators that are readily available in published international data sets and are of high quality and comparability. Where available, targets for indicators that have been developed by international agencies are also displayed. Macroeconomic indicators are included, because they provide a picture of the overall adequacy of economic resources.

While indicators for resource collection and pooling provide a reliable picture of how a country’s health system is progressing towards targets in these areas, the purchasing function is somewhat more problematic. A range of strategic purchasing indicators is difficult to find even in high-income countries due to difficulties in measurement. For example, a recent OECD report emphasises the importance of appropriate indicators for spending effectiveness (Häkkinen and Joumard 2007). The authors note that one of the aims of a health service is to produce outputs of health services with a minimum of real resources (technical efficiency) at each level of care or institution, while also minimizing the (relative) costs of inputs.
The importance of ‘strategic purchasing’ in the achievement of health system goals is underlined in many countries by ongoing reform programs designed to enhance the cost-effectiveness of spending, especially public spending. The reforms include better methods of paying providers and purchasing care, more efforts to improve coordination and reduce fragmentation of the delivery, and modification of institutional features in ways assumed to be more conducive to efficiency.

Current indicators, such as Diagnosis-Related Group (DRG) payments to hospitals, are limited, however, as they do not account for the quality of services, whether the right mix of services is funded (e.g. the Caesarean rate), the degree of community empowerment in resource allocation decisions, the extent of performance-based contracts for employees and contractors, or the availability of information on individual providers’ performance.

These indicators reflect the interaction between the different health financing functions and other aspects of the health system, such as service delivery. Thus OOP payments are a measure of private funding contribution to health finances but also reflect the extent of prepaid contributions and pooling and the way in which services are purchased.

A focus on equity and linking-up strategies

In low-income countries, high levels of poverty are common, equity and access to services are key concerns and establishing a system of financial protection within the context of moving towards universal coverage is critical. These conclusions come from a recent review of health financing strategies in Western Pacific countries and progress on implementation of the WHO Regional Strategy for Health Financing (Annear 2008). The review noted that, in all countries visited, large sections of the population remained uncovered by adequate health financing or pre-payment mechanisms and faced financial barriers to access to health services; this was particularly true for those living below the poverty line, remote area populations and rural-urban migrants.

The report documented many of the issues already identified in the regional strategy and suggested a ‘building blocks’ approach, based on progressively developing specific health financing programs for different sections of the population: urban and rural, formal and informal sectors, poor and less poor. This is similar to the linking-up approach suggested by Gottret, Schieber et al (2008).

The report therefore recommended that national health financing strategies begin with an understanding of the role and nature of each of the different schemes—targeted subsidies, voluntary prepayment, social health insurance—and be able to define a path along which the various schemes may be combined in order to achieve at some point a comprehensive and unified national system.

In analysing the impact of these schemes, the author suggested adopting an approach based on distinguishing between supply-side (funding health care providers) and demand-side (funding the users of health services) financing issues and policies. In recent decades, health financing commentary has focused almost exclusively on supply-side issues within the context of structural adjustment, the implementation of user fees and public-private partnerships. This has generally been to the exclusion of issues related to the distribution of health care among the population, access to services, impoverishment due to health costs, and equity.

More recently, demand-side issues have re-emerged as important considerations in health care financing, including through agencies such as the WHO and World Bank. One part of this is a renewed emphasis on achieving universal health care through various financing means, such as improved government funding and the extension of social insurance and other prepayment schemes (including targeted subsidies for the poor).

At the point of treatment, decisions about providing medical services are mostly made by health workers and are based on need. The return to need as a criterion instead of price (or user fee) is essential if equity is to be served. Another important issue is the income of those who need services: in developing countries where fees apply for access to health services, many poor people are excluded simply because they have insufficient income. Where price signals are introduced to ration demand (such as user fees or co-payment for health insurance), to create internal markets to manage funding, or as incentives to modify provider behaviour, such initiatives must be implemented in a way that does not contradict the provision of health services on the basis of need.
On the supply side, the key issues are the quantity and quality of services. On the demand side the key issues relate to financial access and financial protection. This view of health financing draws immediate attention to the service-delivery and population-access functions of the financing system. Understanding these twin roles of health financing is essential for maintaining a balance in policies and programs. This approach also draws attention to the unique features of the health care ‘market’, the nature of public goods, and the need to provide promotional, preventive and public-health services through public spending (Arrow 1963).

Within each national strategy, the emphasis given to the various health care financing components—tax funding, donor support, social health insurance, community insurance and subsidies for the poor—should reflect the national context, needs and capacities. Many developing countries in Asia have introduced social health insurance as a mechanism for financing health care through prepayment. Schemes like this are commonly funded by compulsory salary deductions financed by employers and employees in the civil service or private sector. However, as the formal employment sector in these countries remains quite limited, the population base for the schemes is narrow. Moreover, with a large proportion of the population in the informal sector or living below the poverty line, many people are ineligible for the insurance and may be excluded from health care because they cannot afford it. In these circumstances, a key component of any health financing strategy must be a comprehensive program of national or social health protection—not simply social health insurance—that includes targeting mechanisms to provide subsidised care to the poor.

CONCLUSION

Identifying Effective Policy Interventions and Generalising Lessons

These various studies all demonstrate the challenges and issues surrounding the identification of effective policy interventions and the generalisation of lessons on health financing. Perhaps two key issues emerge from this brief overview:

1. There is considerable variability in the treatment of context and, in consequence, a lack of consensus on the importance to be attributed to context in determining policy issues and recommendations.

2. There is a tendency towards making broad and non-specific policy recommendations and a lack of country-specific links to expected policy outcomes.

A number of challenges flow from an understanding of these issues:

- The impact of various policy interventions is dependent on both context and interactions between different elements of the system, such as power relationships among system actors;
- The definition of ‘effectiveness’ is dependent on the outcome desired, and any particular intervention is likely to have an impact on a range of outcomes, which may be valued differently in different contexts or by different stakeholders;
- The lack of consistent and comparable data on health financing and health systems, particularly longitudinal data, limits the ability to identify the impact of different interventions;
- The lack of understanding of how evidence can be incorporated into policy making affects the type of policy recommendations that might contribute to better policy outcomes.

This report has considered the current state of knowledge and practice on issues related to health financing and health systems analysis regarding the use of conceptual frameworks, the availability of reliable and consistent data and different approaches to analysis and interpretation. There are significant challenges still to be met in each of these areas.

While there is a degree of consistency in the approaches so far offered, the development of an agreed conceptual framework is still incomplete. First, there is a need to understand all of the various elements of the system as a whole, from context to structure to interventions and outcomes. There is also a need to adopt common categories for the description of each of these elements. And there is a need to investigate more carefully the relationships between these different elements (i.e. investigate the arrows and not just the boxes within the conceptual framework).
Even where a consistent conceptual framework may be employed, limitations on the availability of reliable and consistent data in many cases restrict that analysis. The best means to address the limitations of the data is to strengthen the SHA and develop in-country capacity for implementing NHA. Clearly, there is a need to tailor SHA and NHA procedures to the specific conditions and needs evident in countries of the Asia-Pacific region. There is also a need to adapt the general principles to country-specific conditions in a way that increases their relevance without losing the ability to make valid comparisons across countries.

With a firm framework and reliable data, analysis of health financing and health systems would become more accurate and more effective. In the absence of such tools, or where their development is incomplete, different methods of analysis will be required. In any case, a variety of analytical methods will be needed both to produce a comprehensive picture of health financing and health systems in the region and to carry out studies of different questions in different conditions. The use of multiple methods can strengthen the research outcome in the analysis of system-wide issues or where national conditions are complex. In this respect, combining conceptual frameworks, strong quantitative data sources and qualitative methods (including approaches based on theory or logic) warrants further consideration.

The question therefore arises whether it is feasible or useful to identify causative links between health financing policy interventions and system outcomes. It may be more effective to investigate the contextual conditions, the connections with other aspects of the health system and the potential effects on health outcomes based on experience in a variety of contexts. Such an approach would be consistent, e.g. with the linking-up approach.

Even so, the various approaches based on systems analysis, strategic approaches to health financing and universal coverage or case-study comparisons all require the consistent use of evaluation criteria. All such approaches benefit from reference to conceptual frameworks that describe the workings of the health financing and health delivery systems and from reliable data. There is therefore a need to look at strengthening theoretical work in each of these areas.

These issues therefore provide an agenda for further research. One such approach is to use the conceptual frameworks, improved data collection practices and an analytical approach to investigate specific areas of interest. Examples of this may include further work on the role of non-state providers of health care in specific Asian and Pacific countries such as Indonesia, Vietnam and Papua New Guinea. Another approach is to examine policy recommendations related to particular outcomes. One example of this is to look more specifically at the means for achieving equity in health and health care outcomes.

This report offers a general approach for further work in these areas that is of particular relevance to health systems development in the Asia-Pacific region. It considers the strengths and weakness of the various analytical approaches. Further work will focus both on developing these approaches in a way designed to reduce their limitations and on conducting context-specific studies of health system and health financing issues.
REFERENCES


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OECD. 2000. A system of health accounts. OECD.


## ANNEXES: INDICATORS FOR MONITORING HEALTH FINANCING FUNCTIONS

### A. Macroeconomic and Institutional Context

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sources</th>
<th>Targets</th>
<th>WHO HF Strategy</th>
<th>WHO HS assessment</th>
<th>USAID HS assessment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth rate (5-year average)</td>
<td>National accounts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provides an indication of the fiscal space available to government</td>
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<td>Tax revenue as a % of GDP</td>
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<td>Poverty</td>
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<td>- Proportion of population with income below $1PPP/day</td>
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<tr>
<td>- Share of poorest quintile in national consumption</td>
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<td>CPIA/IRAI index (World Bank)</td>
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<td></td>
<td></td>
<td></td>
<td>Measures how conducive the policy and institutional framework is for fostering poverty reduction, sustainable growth and effective use of development assistance. Spending has a higher impact on the margin in better governed countries</td>
</tr>
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### B. Revenue Collection

<table>
<thead>
<tr>
<th>Indicators</th>
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<th>WHO HF Strategy</th>
<th>WHO HS assessment</th>
<th>USAID HS assessment</th>
<th>Comments</th>
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<td>✓</td>
<td>✓</td>
<td>Equity in utilisation and resource distribution; Quality; Equity in health and finance; Health gain through ensuring adequacy of resources</td>
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<td></td>
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<tr>
<td>- health expenditure per capita</td>
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<tr>
<td>- health expenditure per capita in USD purchasing power parity (PPP)</td>
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<tr>
<td>Public health expenditure as % GDP</td>
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<td>OOP expenditure as % of total health expenditure</td>
<td>NHA/SHA Household survey data</td>
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<td>✓</td>
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<td>OOP expenditure as % of private expenditure</td>
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<td></td>
<td></td>
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</tr>
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<td>OOP expenditure across income distribution</td>
<td>SHA estimates on financing of health functions</td>
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<td>Good quality NHA estimates are required to monitor OOP expenditure by type of care</td>
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<td>OOP financing on types of health goods and services (functions) e.g. pharmaceuticals and medical goods, acute care</td>
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<td></td>
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<td>Prepayment schemes as a % of total private health expenditure</td>
<td>NHA</td>
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<td>External health sector aid</td>
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<td>External health sector aid as % GDP</td>
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<td>Bilateral and multilateral debt for health as % total government debt</td>
<td></td>
<td></td>
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### C. Pooling of Funds

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sources</th>
<th>Targets</th>
<th>WHO HF Strategy</th>
<th>WHO HS assessment</th>
<th>USAID HS assessment</th>
<th>Comments</th>
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</thead>
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<td>✓</td>
<td>Consolidation of risk pools to provide maximum financial protection and universal coverage, equity of utilisation and resource distribution</td>
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<tr>
<td>Services covered by prepayment financing (depth of coverage)</td>
<td></td>
<td></td>
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<td>Prepayment ratio in health insurance plans</td>
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<tr>
<td>Funding sources and sustainability of health insurance</td>
<td></td>
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<tr>
<td>Financial protection</td>
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<tr>
<td>- Population suffering from catastrophic health expenditure as % total population</td>
<td></td>
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<td>✓</td>
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</tr>
<tr>
<td>- Incidence of health related poverty as % population falling into poverty due to ill-health</td>
<td></td>
<td></td>
<td>✓</td>
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<tr>
<td>- % of poor and vulnerable population covered by social safety nets</td>
<td></td>
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<tr>
<td>Risk adjustment/subsidisation between pools</td>
<td>Regulation, auditing practices</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
<td>Risk spreading function of insurance</td>
</tr>
<tr>
<td>Average ratio of transfer to estimated shortfall / surplus in each pool</td>
<td></td>
<td></td>
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<tr>
<td>Membership in each pool</td>
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<tr>
<td>Per capita spending in each pool</td>
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<tr>
<td>Share of co-payments to total health expenditure in each pool</td>
<td></td>
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<tr>
<td>Share of administrative expenses of total health spending</td>
<td></td>
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</tbody>
</table>
## D. Purchasing of Services

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Sources</th>
<th>Targets</th>
<th>WHO HF Strategy</th>
<th>WHO HS assessment</th>
<th>USAID HS assessment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is purchased: e.g. allocation of resources to types of services as % of total health expenditure</td>
<td>NHA expenditure by function</td>
<td></td>
<td></td>
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<td></td>
<td>Health clinics and ambulatory care provide most care for the poorest 20% of the population. Reallocating the budget toward primary care may result in higher pay-offs in terms of health outcomes.</td>
</tr>
<tr>
<td>How it is purchased: Strategic purchasing e.g. innovative, contracting, DRGs</td>
<td>Ministry of Health annual reports, studies on purchasing in health</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>Effectiveness and efficiency, health gain</td>
</tr>
<tr>
<td>% of hospital services funded by DRGs</td>
<td></td>
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<tr>
<td>Share of total funds spent on different payment mechanisms (e.g. salaries, fee for service, capitation)</td>
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<tr>
<td>Degree of market power of purchasers (e.g. government) and providers (e.g. medical)</td>
<td>Studies of market power</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>International comparisons of competition in medical markets, provider payment system</td>
</tr>
<tr>
<td>Number of purchasers</td>
<td></td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>Mean and distribution of total expenditure across purchasers</td>
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<tr>
<td>Mean and distribution of number of providers paid by each purchase</td>
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<tr>
<td>Evaluation and monitoring of purchasing</td>
<td>Ministry of Health</td>
<td></td>
<td></td>
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<td>Effectiveness and efficiency, health gain</td>
</tr>
<tr>
<td>Transparency in entitlements i.e. services available and obligations, rules that must be followed to obtain the entitlements</td>
<td>Regulation</td>
<td></td>
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<td>Equity of utilisation, responsiveness</td>
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<tr>
<td>Government budget formulation and allocation to health:</td>
<td></td>
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<tr>
<td>MOH budget trends</td>
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<td>Central / local government proportions</td>
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<td>Rural / urban allocation</td>
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<tr>
<td>Budget line allocation: salaries, medicines, recurrent costs, investments</td>
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<td>Contracting mechanisms between MOH and service providers</td>
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<td>User fees:</td>
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<td>Policies for user fee payments</td>
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<tr>
<td>Allocation of user fee revenues</td>
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<tr>
<td>Informal user fees</td>
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</table>
### E. Provision of Services

<table>
<thead>
<tr>
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<th>Targets</th>
<th>WHO HF Strategy</th>
<th>WHO HS assessment</th>
<th>USAID HS assessment</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilisation of services by health need, by income, by regions (rural vs. urban), geopolitical region, gender, age, insurance status</td>
<td>Household health survey</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Proposed revision to SHA—classification by beneficiary characteristics by age, sex, socioeconomic, health and geographic characteristics</td>
</tr>
<tr>
<td>Ratio of per capita health service use of lowest income quintile to per capita use of highest income quintile</td>
<td></td>
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<tr>
<td>Cost effectiveness of intervention, evaluation of products and services, appropriateness of treatment, quality</td>
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<tr>
<td>% compliance of medical practice with the evidence base</td>
<td></td>
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<td>Guidelines from (NICE) UK WHO-CHOICE</td>
</tr>
<tr>
<td>Waiting times for services Satisfaction</td>
<td>Patient satisfaction questionnaires</td>
<td></td>
<td></td>
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<td></td>
<td>Effectiveness, responsiveness</td>
</tr>
</tbody>
</table>

**Sources:** WHO HF Strategy, WHO HS assessment, USAID HS assessment

**Comments:** Proposed revision to SHA—classification by beneficiary characteristics by age, sex, socioeconomic, health and geographic characteristics.
KNOWLEDGE HUBS FOR HEALTH
Strengthening health systems through evidence in Asia and the Pacific

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