Health Accounts Experts

INTERIM REPORT ON SHA DEVELOPMENTAL WORK

7TH MEETING OF HEALTH ACCOUNTS EXPERTS AND CORRESPONDENTS FOR HEALTH EXPENDITURE DATA

To be held at the Château de la Muette, Paris, 29-30 September 2005, starting at 11.00 on the first day.

The original title for this paper on the agenda [DELSA/HEA/HA/A(2005)1] was:

INTERIM REPORT ON THE WORK ON REFINEMENT OF HEALTH EXPENDITURE CLASSIFICATIONS (ICHA)

Contact: Eva Orosz
Email: eva.orosz@oecd.org

JT00189865

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format
NOTE BY THE SECRETARIAT

1. It has been agreed at the 6th Meeting of Health Accounts Experts, held on 30 September-1 October 2004 that some parts of the SHA Manual and of the underlying International Classification for Health Accounts (ICHA) require amendment and clarification. With this general aim, the SHA developmental work has been progressing along the following lines:

1. Guidelines for estimating long-term care expenditure have been prepared. Results are discussed under [HA(2005)3].

2. A review of the current categories of ICHA was started in connection to the preparatory work for the joint OECD – EUROSTAT- WHO SHA data collection and resulted in some minor modifications to the version of ICHA used in the questionnaire (see [HA(2005)1]).

3. Priorities of SHA developmental work have been put forward in new project proposals presented in this paper.

4. Of the proposed developmental projects, work has already started on refinement of the treatment of health financing under the SHA framework; and on international comparison of volumes and prices in health care. [HA(2005)5]

5. Most of the developmental projects intend to study the relevant experience of OECD countries. The agenda of this meeting underlines this by presenting the Australian case for expenditure by disease categories, age and gender and the US case for expenditure by ultimate source of finance.

2. Of the above, this paper presents a draft concept of the developmental projects that the OECD intends to focus on over the coming years.

3. Within the context of the OECD budget cycle, the preparation of the 2007-2008 work programme will start at the end of 2005. The discussion of this agenda item will help the Secretariat in formulating proposals for SHA developmental work under this 2007-2008 work programme.

4. The Secretariat invites participating experts to:

   • COMMENT on the general approaches presented in the project proposals;
   • EXPRESS their interests and possibilities to participate in the projects; and
   • PROPOSE further issues to be addressed in OECD’s SHA-related developmental work.
### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOTE BY THE SECRETARIAT</td>
<td>2</td>
</tr>
<tr>
<td>PROJECT PROPOSALS FOR SHA DEVELOPMENTAL WORK</td>
<td>4</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>4</td>
</tr>
<tr>
<td>1. REFINEMENT OF THE SHA FRAMEWORK FOR HEALTH FINANCING</td>
<td>5</td>
</tr>
<tr>
<td>Purpose of the project:</td>
<td>5</td>
</tr>
<tr>
<td>Improving Comparability and Availability of Private Health Expenditure in SHA-Based Health Accounts</td>
<td>6</td>
</tr>
<tr>
<td>2. ESTIMATING EXPENDITURE BY DISEASE, AGE AND GENDER UNDER THE SHA FRAMEWORK</td>
<td>6</td>
</tr>
<tr>
<td>3. INCORPORATING INPUT, OUTPUT AND PRODUCTIVITY MEASUREMENT INTO THE SHA FRAMEWORK</td>
<td>7</td>
</tr>
<tr>
<td>Classification and measurement of input</td>
<td>7</td>
</tr>
<tr>
<td>Output and price measurement</td>
<td>8</td>
</tr>
<tr>
<td>Productivity measurement</td>
<td>9</td>
</tr>
<tr>
<td>OECD Statistics Committee initiative on Output of the Non- Market Sector</td>
<td>9</td>
</tr>
<tr>
<td>4. STRENGTHENING THE CONNECTION BETWEEN THE SHA AND THE SNA</td>
<td>10</td>
</tr>
</tbody>
</table>
PROJECT PROPOSALS FOR SHA DEVELOPMENTAL WORK

INTRODUCTION

5. The OECD Secretariat published the first edition of the manual *A System of Health Accounts* (SHA) in May 2000. The SHA manual is currently used in a large and growing number of OECD and non-OECD countries as the accounting framework for statistics on health expenditure and financing. Although national administrations are at various stages of SHA implementation, the basic methodological framework presented in the SHA Manual is now widely accepted.

6. However, since the publication, much has been learnt from national SHA projects and, over the years, the Secretariat has received numerous requests for clarifications and further guidelines. Several projects commissioned by the EU, as well as from the OECD project on *SHA-based health accounts in thirteen OECD countries*, have added to this wealth of experience. All these show that a number of important issues in health policy analysis require further development of several issues in the SHA Manual and its *International Classification for Health Accounts* (ICHA).

7. The SHA helps health policy-making by providing internationally comparable information regarding the overall level of spending on health care. It allows for a multifaceted analysis of how financial resources in health care systems are raised (by different financing programmes/agents) and how these resources are allocated among functions and service providers.

8. There is an increasing expectation for an enhanced SHA framework to go beyond this and provide information (indicators) suitable to assess health system performance (sustainable financing, efficiency, productivity and equity at system level). It should, however, be clearly acknowledged that the SHA in its current state is not a performance indicator framework in itself, but rather a framework for reporting expenditure data that can serve as one (of multiple) inputs to generate performance indicators. This calls for developing appropriate connections between SHA and statistics of input, output and outcome of health care.

9. This note presents proposals for four methodological developmental projects¹ as follows:

   1. Refinement of the SHA framework for health financing
   2. Estimating expenditure by disease, age and gender under the SHA framework
   3. Incorporating input, output and productivity measurement into the SHA framework
   4. Study on strengthening the connection between SHA and SNA

¹ Only some of the major issues are summarised. It is not the purpose of the note to provide a detailed description of the proposed projects.
1. REFINEMENT OF THE SHA FRAMEWORK FOR HEALTH FINANCING

10. Both health policy work and health data work at OECD have pointed out that the current categories of private insurance are not adequate for presenting the major types of private insurance in OECD countries. In addition, new arrangements in health financing have been evolving during the last few years (e.g., in the Netherlands, Slovakia). All these require a study of whether the current categories of the ICHA-HF classification are able to adequately reflect the complex and changing systems of health financing in OECD countries.

11. It has also been revealed that the framework for describing health care financing, as currently presented in the SHA Manual, requires modification. A major weakness is the ambiguity that streams from the fact that the SHA Manual does not adequately distinguish among three important elements of health care financing, namely (ultimate) sources of funding, financing schemes and institutions executing in practice the financing schemes (financing organisations).

12. ICHA-HF also requires a review from the point of view of feasibility of data reporting. SHA implementations have shown that some three-digit level subcategories of ICHA-HF (e.g., subcategories of private household out-of-pocket expenditure) are too detailed and most countries are not able to report them. Furthermore these categories are less required for international comparisons.

13. In order to develop comprehensive and internationally comparable data on total expenditure, the SHA (among others) requires the accounting of expenditure by private insurance, households’ out-of-pocket payments, non-profit institutions and corporations. Incomplete sources and estimation methods for these components of private expenditure on health are among the major limitations to international comparisons.

Purpose of the project:

To amend the relevant chapters of the SHA Manual, that requires the following:

- to refine the conceptual framework for the treatment of health financing systems under the SHA framework;
- to revise and extend the International Classification for Health Accounts, including a revised structure (new dimensions with appropriate structure) and the revision of current definitions;
- to define the relationship between the components of health financing and the other dimensions of health expenditure (function, provider, characteristics of patients, etc.);
- to design the ways of appropriate presentation (tables, T-accounts); and
- to provide proposals for improving data sources and estimation methods for components of private expenditure.
Improving Comparability and Availability of Private Health Expenditure in SHA-Based Health Accounts

14. Data sources for estimating expenditure by private insurance, non-profit institutions and corporations are still incomplete for several countries. Data sources currently used for SHA were developed for other purposes, and hence a mapping of national categories to ICHA is often difficult due to differences in concepts, definitions and the exhaustiveness of classifications. Furthermore, there is a well-known tendency for data from household surveys to underestimate private health spending. The considerable differences between data from Household Budget Surveys and data reported in National Accounts (for households’ final consumption expenditure), and the methods for adjusting data from Household Budget Surveys would also require analysis. A further specific problem is the estimation of informal or illegal payments, for example, so called ‘under-the-table payments’.

15. The proposed project would conduct a systematic review of current practices for estimating components of private expenditure (available data sources, estimation methods, etc.); and possible methods for their improvement. Furthermore, the project would propose methods to develop new data sources. For example, a model supplementary questionnaire to the Household Budget Surveys and a model questionnaire for revenues and services of private providers of health care would be developed.

16. The project would also formulate proposals for better harmonisation between the OECD ICHA-HC (Functional Classification of Health Care) used for analysis of utilisation of private expenditure and relevant classifications used in national accounts, such as COICOP (Classification of Individual Consumption by Purpose) and COPNI (Classification of the Purposes of Non-profit Institutions Serving Households).

2. ESTIMATING EXPENDITURE BY DISEASE, AGE AND GENDER UNDER THE SHA FRAMEWORK

17. In order to more adequately answer the question of “Who gets what, where, and how”, the incorporation of further dimensions of health expenditure, namely age and gender groups, and disease categories into the ICHA is required. In other words, supplementing the SHA with dimensions of patients’ characteristics would be necessary in order to answer equity-related questions of health policies.

This project intends to avoid the duplication of the WHO project on disease specific chapter of the WHO Producer Guide. Therefore, it will assess the possibilities of incorporating the results from the WHO project into the relevant chapter of the SHA Manual.

18. It should be noted that the current Table 6 in the SHA Manual cross-classifies personal expenditure by major ICD-category and function (mode of production), and Table 7 cross-classifies personal expenditure by age, sex and function (mode of production). However, the Manual does not provide further details on these issues (and the SHA implementation has not included these tables so far); and the current tables require modifications.

19. This project would develop a conceptual framework for accounting expenditure by patient characteristics (disease, age and gender, etc.) under the SHA and develop the related classifications. It would first review and evaluate the existing literature and identify the conceptual and practical challenges
to estimate expenditure by age and gender groups, and disease categories. The availability and comparability of data which conform to the resulting draft conceptual framework would be addressed. Finally, guidelines to produce the proposed SHA tables would be drafted.

20. Accounting expenditure by disease therefore raises a number of methodological issues to be solved. The purpose of the revised version of Table 6 would be to show how the total (personal) expenditure is distributed among the main disease groups. It would require that expenditure is reported according to the primary cause of treatment. The classification should be based on the major ICD-groups, but it should not be necessarily identical. (Currently, Table 6 in the SHA Manual presents the major ICD-groups). Key methodological challenges are to find a way for including information on co-morbidity; and define the desirable modifications to the main ICD groups: in particular, it would be to disaggregate some of the major ICD categories.²

21. To provide adequate explanation for differences in expenditure by disease across countries would require information on utilisation of services. Health expenditure is related to diseases through services (medical interventions) provided to prevent and cure diseases. The same medical conditions can involve different treatments, and hence, different costs. Data sources providing information on expenditure by disease usually contain information on medical interventions. A key challenge is, however, to define the information that should be presented by the SHA, including to defining the adequate level of detail required, both in terms of disease groups (level of the ICD-categories) and types of services /interventions.

3. INCORPORATING INPUT, OUTPUT AND PRODUCTIVITY MEASUREMENT INTO THE SHA FRAMEWORK

22. The SHA provides a comprehensive and uniform framework of basic accounting rules and a set of standard tables for reporting health expenditure data. In order to fulfil the expectations mentioned at the beginning of this proposal, through a better utilization of the potential analytical power of the SHA framework, the incorporation of input, output and productivity measurement into the SHA framework is required.³

Classification and measurement of input

23. To supplement the SHA Manual with the dimension of input (to producing health services) would be important for several reasons. Expenditure by provider and input would show payments by providers (GPs, specialists, hospitals, etc) for different types of labour, intermediate inputs (goods and services) and capital input. This would allow deeper understanding of the production of health services, effects of changes in the use of human capital, medical technology, etc.

---

² For example, the current Table 6 only presents the most aggregated structure of ICD (the 18 chapter of ICD-9), among them Diseases of the circulatory system. It would be desirable to create sub-categories, for example: Ischaemic heart disease, Cerebrovascular diseases and Other diseases of the circulatory system.

³ It should be noted that the current SHA Manual (version 1.0) emphasises the importance of the incorporation of further dimensions of health expenditure into national health accounts.
24. Without prices on output, there are only two options for estimating expenditure at constant price: direct volume measurement (output indicator methods) or deflating inputs (input methods). Although, there is an agreement that input methods should be avoided, it might be necessary to use it for some part of health services (e.g., prevention, administration, etc.) for some time to come. Estimating productivity growth over time requires accurate measure of changes in the volume (quantity and quality) of inputs. Similarly, to estimate productivity differences between countries, standards for measuring the quantity and quality of inputs across countries would be needed.

25. The first step would be to develop an appropriate classification to further disaggregate major types of input (labour, capital and intermediate inputs). The next stage would require the development of indexes which could take into account changes in quality and composition of input (educational level, composition of health personnel, etc) to.

26. This component of the project first would review and evaluate the most important relevant literature and identify the conceptual and practical challenges to incorporate the dimension of input for producing health services into the SHA framework, including questions related to decomposition of expenditure into volume (quantity, quality) and prices of each important type of input. This implies the development of a classification for inputs to health services under the ICHA, which would be done in the light of an investigation of the availability and comparability of relevant data in a selected group of OECD member countries. Finally, guidelines to produce the proposed SHA tables would be drafted. The results would be presented as an addendum to the SHA Manual.

27. Currently, table 10 in the SHA Manual refers to Total employment in health care industries; and Annex A.1 discusses some issues of measurement of human resources in health care. Several countries have started to elaborate Health Labour Accounts. The project would take into consideration these experiences.

**Output and price measurement**

28. Analysis of SHA-based health accounts requires comparison of health expenditure across countries and over time. Currently, data in the SHA tables present transaction values in current prices, that is decomposition of expenditure into price and volume is required.

29. Comparisons of overall level of consumption of health goods and services across countries are currently limited by several factors, in particular by the lack of reliable, internationally comparable health-specific price deflators. To compare health expenditure across countries at a given point in time, economy-wide (GDP) PPPs are used as the most available and reliable conversion rates. The use of economy-wide PPPs means that the resulting variations in health expenditure across countries will reflect not only variations in the volume of health services, but also any variations in the prices of health services relative to GDP prices, across countries. Therefore, it would be of fundamental importance to use health-specific PPPs. The project intends to examine the feasibility of this.

30. At this moment, for calculating growth rates of health expenditure, health expenditure in national currency units is deflated by the economy-wide (GDP) price index for each country. This, however, distorts the results due to the fact that the health sector usually has a higher inflation than the economy as a whole in most countries, as well as variations in this difference across countries.

31. In the health sector, without prices on the majority of outputs, for decomposition of expenditure at current prices into price and volume changes, the direct volume measurement (output indicator methods) would be the preferred method. This underlines the importance of defining adequate classification for units of output of health care.
32. There are numerous conceptual and methodological problems related to output measurement in health care. The ideal units for output would be complete treatments, including inpatient, outpatient care, pharmaceuticals, etc. Such data are not usually available. The lack of prices for the majority of outputs, difficulties in measuring quality of services, difficulties in aggregating many types of activities, etc. also constitute serious methodological challenges.

33. A fundamental precondition for output measurement is to define (to choose or develop) an appropriate classification for products in health care. The classification of functions of health care (ICHA-HC) could provide a broad framework to this, however it is not detailed enough for this purpose. The project would review the existing classification systems (e.g., DRG) and related ongoing projects.

34. This component of the project would first review and evaluate the most important relevant literature and identify the conceptual and practical challenges to better incorporate output and price measurement into the SHA framework. The project intends to develop a classification for health products (services and goods) under the ICHA. It would investigate the availability and comparability of relevant data in a selected group of OECD member countries. Finally, guidelines to produce the proposed SHA tables would be drafted. The results would be presented as an addendum to the SHA Manual. This project would also include a revised version of the chapter on Price and Volume Measurement in the Manual.

**Productivity measurement**

35. Comparing changes in productivity of different types of input in producing major types of health services (outputs) would provide information of fundamental importance for health policy-making. Similarly, measurement of productivity at system level would be an important indicator of the performance of health systems.

36. For productivity, a common approach is to measure movements in inputs and movements in outputs so that change in productivity can be calculated as the difference between the two. There is a number of productivity measures (productivity indices) used in the economy (value-added based and gross output based labour productivity, capital productivity, multifactor productivity, etc.). Recently several projects on measuring productivity in health sector have been commenced (e.g., at the University of York).

37. This component of the project would first review and evaluate the most important relevant literature and consider the possibility to use their results in developing proposals for including productivity measurement in the SHA framework. The results would also be presented as an addendum to the SHA Manual.

**OECD Statistics Committee initiative on Output of the Non-Market Sector**

38. This project would be co-ordinated with a more general initiative. The OECD Statistics Committee, which brings together the heads of National Statistics Offices, has asked the Secretariat to launch a special statistical project during 2006/2007 devoted to the measurement of output of the non market sector, in particular in the domain of health and education. This interest has been inspired by the Atkinson Report to the UK Office of National Statistics on this issue.

---

4 The health output is defined as the quantity of health care received by patients, adjusted to allow for the qualities of services provided, for each type of health care. Changes in quality involve changes in physical characteristics and changes in production mix. Product groups should have sufficient homogeneity and composition of the product group does not change over a certain time period. Ideally, the output should be measured in terms of complete treatments.
39. The project will be jointly organized by three directorates of the OECD: STD (Statistics), EDU (Education), ELS (Employment, Labour and Social affairs, including Health). The project will be in three phases: (1) drafting of a scoping paper exploring differences in statistical practice between countries and their impact on output and productivity measures, (2) organization on an international seminar, by June 2006 titled: “Output and price measurement in education and health: how can it be improved?”, (3) depending of the success of the seminar, drafting of an international manual to recommend best practice.

4. STRENGTHENING THE CONNECTION BETWEEN THE SHA AND THE SNA

40. Health expenditure data under the SNA and the SHA framework are produced for different purposes and serve somewhat different audiences. The System of Health Accounts has been designed to provide a reliable, comprehensive, comparable and policy relevant picture of how the health services are financed, produced and utilised in the health sector. The SHA is expected also to address policy issues that arise in the health sector. Therefore, the SHA focuses on the interaction between health care services and funding sources; and it is planned to further widen its scope towards spending by diseases and population groups. (These issues are obviously beyond the main National Accounts framework.) Classifications and definitions used in the SHA (International Classification for Health Accounts) are specifically designed to serve these goals.

41. The System of National Accounts measures the level of economic development and the rate of economic growth, the change in consumption, saving, investment, debt and wealth for the total economy and its institutional sectors. The health sector is just one of the industries; and classifications and definitions used for health are components of the general economic classifications designed for the above purposes.

42. The SHA recommends an economic framework and accounting rules, which are methodologically compatible with the SNA (SNA 93), wherever this is deemed appropriate (See Chapter 8 in the SHA Manual). However, as a consequence of the differences in their purposes, there are differences in their main approaches to the health sector, definition of boundaries of the health sector as a whole, as well as classifications and definitions applied to the components of the health sector under the SNA and the SHA framework. Furthermore, several specific issues are treated in different ways under the two systems (e.g., occupational health care, government-financed insurance of civil servants with private companies, etc.).

43. Experience shows a growing interest in strengthening the connection between SHA-based health accounts and NAs in OECD member countries. Currently, the most important link is that most countries’ SHA-based health accounts use data from their NA for estimating private out-of-pocket expenditure. A few countries followed a satellite-account approach (e.g., Norway).

44. The aim of the project is to provide a systematic comparison of the SHA and SNA by reviewing and comparing their basic approaches (theoretical frameworks) to health care, classifications and definitions used for the health sector, valuation rules, data sources, and methodologies applied for

---

5 The SHA applies a functional approach, while the SNA presents an industrial (provider) one.
estimation of specific items. This would result in a more transparent link between the two systems that, in turn, could improve each of them.

45. One of the most important issues is the better harmonisation between classifications used in SNA and the SHA (that is, International Classification for Health Accounts). In general, harmonisation is required between the ICHA-HP (Classification for Health Care Providers in ICHA) and the industry classification (ISIC® / NACE) in SNA; furthermore, between ICHA-HC (Functional Classification of Health Care in ICHA) and the product classification (CPC) in SNA; as well as between ICHA-HC and COICOP and COFOG (Classification of the Functions of Government). It should be noted, however, that the harmonisation between the SHA-ICHA and the health component of the general economic classifications requires a longer process.

---

6 In the ongoing ISIC Rev4 (and CPC) revision process OECD had provided a proposal for health in ISIC Rev4 (and CPC) that has been endorsed and is expected to increase the importance of health in NAs and contribute to improving consistency between the two systems.