

Early Draft  
Unit 1

# Purposes and Principles of the SHA

## Summary

This document, being an early draft Unit for the SHA Manual revision, was presented and discussed at the OECD Health Accounts Expert meeting in Paris 7-8 October 2009. Your feedback, specifically on the questions raised at the end of this document with any other comments, is invited by 20 November 2009. Please send your comments to [sha.contact@oecd.org](mailto:sha.contact@oecd.org)

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**Purposes and principles of the System of Health Accounts**

**11th meeting of Health Accounts Experts and Correspondents for Health Expenditure Data, OECD Conference Centre, Paris**

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N.B. THIS DOCUMENT WILL BE UPDATED ONCE THE MAIN SHA CLASSIFICATIONS ARE SET



## NOTE BY THE SECRETARIAT

1. The revision of the System of Health Accounts (SHA) manual 1.0 is a collaborative activity of the OECD, Eurostat and the WHO. Collectively the health accounts experts of the 3 organisations are known as the International Health Accounts Team (IHAT). This document is a draft of Unit 1 Purposes and principles of the System of Health Accounts, prepared by WHO in co-operation with the other members of IHAT. This draft document will be revised when the main classifications of the SHA 2.0 are agreed.

2. This draft of Unit 1 summarizes the uses of health (consumption) expenditure data produced by older standards in health accounting. To explain the importance of being comprehensive in health accounting, about describing the health system from an expenditure perspective, an adapted health systems framework is used to guide the revision of “A System of Health Accounts” version 1.0 of the OECD published in the year 2000 including an associated set of classifications of financial flows (known as the International Classification of Health Accounts, ICHA). The framework can contribute in two ways. First, the functional approach of the WHO framework assists in the delineation of the health boundaries and thus ensures that health expenditures are as comprehensive as possible. Second, the Health Systems framework provides the basic health system objectives and thus provides guidance in developing health accounts which are useful for measuring attainment of health system objectives.

3. The unit explains what the purposes of SHA 2.0 are, in setting the boundaries of health care for accounting purposes, defining dimensions in health accounting, and produce data which can meet the need of data users and/or for policy issues. Furthermore, Unit 1 outlines the principles on which SHA 2.0 is built. These include consumption as a starting point for describing health care, the priority given to usefulness, and a functional approach meaning that inclusion is based on whether it falls within the health expenditure definition, not how or by whom its funded or produced.

4. The Secretariat invites participating experts to:

- **COMMENT** on the general approaches presented in the paper;
- **REFLECT** on and **RESPOND** to the questions listed at the end of the document;

## SUMMARY

5. This draft of Unit 1 summarizes the uses of health (consumption) expenditure data produced by older standards in health accounting. To explain the importance of being comprehensive in health accounting, about describing the health system from an expenditure perspective, an adapted health systems framework is used to guide the revision of “A System of Health Accounts” version 1.0 of the OECD published in the year 2000 including an associated set of classifications of financial flows (known as the International Classification of Health Accounts, ICHA). The framework can contribute in two ways. First, the functional approach of the WHO framework assists in the delineation of the health boundaries and thus ensures that health expenditures are as comprehensive as possible. Second, the Health Systems framework provides the basic health system objectives and thus provides guidance in developing health accounts which are useful for measuring attainment of health system objectives. The unit explains what the purposes of SHA 2.0 are, in setting the boundaries of health care for accounting purposes, defining dimensions in health accounting, and produce data which can meet the need of data users a/o for policy issues. Furthermore, Unit 1 outlines the principles on which SHA 2.0 is built. These include consumption as a starting point for describing health care, the priority given to usefulness, and a functional approach meaning that inclusion is based on whether it falls within the health expenditure definition, not how or by whom its funded or produced.

## 1. Introduction

6. Health accounts are a systematic description of financial flows related to health care. Its intention is to describe a health system from an expenditure perspective. This unit introduces the main uses of previous health accounts, describes the purposes of the SHA 2.0, and outlines the principles on which it is developed.

7. Efforts to describe financial flows associated with (the consumption of) health care can be traced as far back as the 1920s (Fetter 2006)). In the early 1960s, Abel-Smith and others carried out a number of studies measuring health expenditures in developing countries (Abel-Smith B, 1963, & 1967). Beginning in the 1970s (and in some country cases, the 1960s), countries belonging to the OECD were regularly estimating health expenditures, combined with relatively aggregated information on private and public sources of funding (Maxwell 1981, Poullier JP et al, 2002, van Mosseveld, 2003, Orosz 2005). Of these initial efforts, perhaps the most comprehensive exercise was undertaken by the United States that provided detailed information on the sources of health financing, along with associated expenditure data (Rice, Waldo). Over the years, such exercises have been undertaken to describe financial flows for a subset of health consumption expenditure categories (e.g. HIV/AIDS and tuberculosis, regions and socioeconomic groups) (e.g. Sheppard D, Izazola JA, Avila L, Australia, Sri Lanka).

8. The above efforts, in turn, likely reflected the systematic development of national economic accounts, beginning with the work of Simon Kuznets in the 1930s, as a means to measure aggregate economic activity. A comprehensive manual for assembling internationally comparable national accounts data was developed under the auspices of the United Nations in 1953, with subsequent revisions in 1968, 1993, and 2008 (UN 1968, UN, WB, 1994, 2008).

9. In recent years, there have been two efforts to systematize the collection of information on financial flows related to health care. These include the publication of “A System of Health Accounts” (SHA) version 1.0 of the OECD in the year 2000 including an associated set of classifications of financial flows (known as the International Classification of Health Accounts, ICHA); and the combined efforts of the WHO, World Bank, and USAID that led to the development of the “Guide to producing national health accounts”, otherwise referred to as *NHA Producers Guide*, in 2003. These were the first standards to receive a wider acceptance and use in producing health expenditure data globally. These led to the compilation of internationally comparable data sets by the OECD, Eurostat, or WHO, each method contributing to the carrying out of a considerable amount of studies in higher income countries (SHA) and in low- and middle-income countries (NHA Producers Guide). Some other guidelines have been produced targeting a regional coverage and with various approaches (EU, PAHO), and many adjustments have been produced to guide national as well as subnational (e.g. Philippines, Palestine, Mexico, Malaysia).estimations.

10. This revised version of SHA reflects a desire to make SHA more adaptable to rapidly evolving health systems around the world, particularly in developing countries and to further enhance cross-country comparability of health expenditure and financing data, thereby increasing the information base for analytical use of data produced according to the SHA. Moreover, it is hoped that the revision of the SHA will help enhance its usefulness as a tool in the assessment and monitoring of health systems, and the analysis of the importance of health expenditures from a consumption perspective in the economy as a whole.

11. The focus and importance of different policy aspects and research interests have changed since the first version of SHA, and will continue to change. SHA2 is expected to provide guidance over the near

to medium term future. The analytical use of the SHA will depend on how well it meets both the changes in policy and research focus, and how well it can capture developments in the health systems. The financing of health care has become even more complex, with innovative mixtures of funding arrangements. Private and public mixes in financial contributions and organizational arrangements are increasing, so are the forms of prepaid arrangements. Medical and information technologies are developing with increasing speed which has a strong impact on how services are delivered. For example, the presence of the internet and increased availability of information facilitates health literacy. Individuals are increasingly engaged in self care, whether in promotion, preventive or even curative care. Individuals can now check their medical records, perform their own monitoring, relay information to their practitioners and order drugs on the internet. There are strong trends in consumption of alternative medicine and engagement in health promoting activities. Similarly we live in an increasingly globalizing world resulting in the movement of goods, services and patients across national borders with its clearest manifestation in the phenomenon of medical tourism. These emerging health trends not only make it difficult to capture the flow of funds at country level, it also raises new needs for defining, assessing and monitoring them. It also enlarges the range of interested users of the expenditure estimates.

12. This revised SHA2 is a global standard which can be implemented in countries, regardless of income level or health system characteristics. It can and should be adapted to country context and the implementation may differ between countries depending on the starting point. However, by applying the same definitions and aggregate level classifications, the consistency over time and between countries is ensured.

## **2. Uses of National Health Accounts Data**

13. Information from National Health Accounts and associated efforts has been used in a variety of ways by policymakers and researchers. For example, information on health expenditure flows (derived from NHA) has been used to study the growth of health expenditures in the United States and other OECD countries and its potential determinants; and also more recently, in China and India (Newhouse 1992; Yip and Mahal 2008). Newhouse (1992), for instance, used health expenditure for the United States to argue that technological change was the single most important factor driving health care costs in the United States. Other studies have sought to measure the relationship between GDP growth and health spending to assess the “income elasticity of demand” for health care, and projecting health care spending.

14. Another popular use of national health expenditure data has been to assess the impact of ageing on health expenditures (*e.g.* Ulf Gerdtham, Polder *et al.*). These studies have utilized the panel structure of health expenditure data (cross-section time series) to examine how the growth in the population of the elderly has influenced health expenditure increases in OECD and other countries. A central conclusion of this literature is that the effect of age per se, on overall medical care spending, is likely to be small, but will place strong upward pressure on public expenditure on long-term care (Ageing Report DG ECFIN).

15. Cross-country and cross-provincial health expenditure data, in conjunction with information on indicators of health outcomes, such as life expectancy at birth have been used to assess the “overall efficiency” of health spending, often using sophisticated stochastic frontier techniques (Sweden 2007, references for OECD countries, province-level analyses for India). Moreover, some studies have used specific components of health spending information available from health accounts data, for instance, public spending on health, to inquire about its impact on health (Anand and Ravallion 1993). Some analyses have also been conducted that compare health system characteristics across countries in terms of their impact on health expenditures (*Poullier, OECD, other references*).

16. In a survey of the literature, Berman (1997) argued that careful national health accounts analyses can contribute towards a better understanding of the health system. He noted, for instance, how national

health accounts data shed light on the fact that the public sector played only a small role in the provision of primary care in India, despite years of public investment in primary care provision. Another example is the case of Mexico, whereby following the NHA methodology, estimates of both private and overall national health spending was revised upwards significantly (Frenk *et al.*, 2003). National health accounts data could offer a useful aggregate picture of the impacts of health reform efforts, including making expenditure projections, and assessing sustainability (*e.g.* Berman *et al.* 2003). Information on patterns of financing, such as a high share of private out of pocket spending by households, have been used in various policy documents to highlight the lack of risk-pooling mechanisms (Kutzin 2008). Large shares of foreign funding in health have been used to point out problems with predictability and sustainability of funding (Murray 2009).

17. More recent instances of how data from national health accounts analyses have been used at the country level are available from the case of Turkey that showed differences in health spending by age and socio-economic groups (Turkish Ministry of Health 2003). A number of analyses at country level have focused on disease-specific sub-accounts, specifically HIV/AIDS, highlighting both overall allocations, the distribution of spending between preventive and curative care and patterns of international financing. The reporting on expenditure on HIV/AIDS is now a global effort and is part of the annual UNGASS report (reference). Some of the MDG<sup>1</sup> reporting by countries also include expenditures (reference).

18. There is limited systematic documentation of the use of NHA in low income countries where large efforts have been made to collate health expenditure information (on consumption) using the NHA tool during the last 10 years. A study of how NHA data has been used for evidence in policy making in 21 low- and middle-income countries gives several examples of how new data has informed decision making. (De, Dmytraczenko, Brinkerhoff and Tien 2003). The study shows that the main users in these 21 countries are the ministries of health and the donors. Some examples from the study are:

- off-budget and fragmented donor support to the health sector revealed in the NHA work supported the development of a Sector Wide Approach in Tanzania,
- NHA and non expenditure data were instrumental when Egypt increased spending on primary health care, after data showed lack of alignment between actual spending and public policy, and a heavy reliance on households' payments,
- in South Africa the NHA studies have shown how inequitably health is funded, across regions and across income groups.

19. There is no doubt from the preceding section that the information on financial flows from existing health accounts work has been used for different types of policy and research activities, and particularly for cross-country and cross-provincial comparative analyses. These achievements notwithstanding, health accounts data needs to be complemented with other types of health expenditure data when viewed in the context of the broader research and policy agenda on health financing and health systems.

20. Consider for instance, the link between health spending and ageing. Some of the work in this area has focused on the concentration of health spending at the time shortly before death, and not so much ageing per se, as being a major driver of health expenditures (*e.g.* Zweifel 2004). However, most of these analyses rely heavily on individual-level information from insurers and household surveys. Similarly, analyses of the impact of reform efforts – such as the introduction of user fees in India, or medical savings schemes in China – typically rely on individual level information that is not accessible from NHA data. As

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<sup>1</sup> Millennium Development Goals

another example, analyses of the introduction of a school health insurance scheme in Egypt (Yip and Berman 2001) and price controls on hospital services in China (Eggleston and Yip 2004) all required either household-level information, or at the level of individual hospitals.

### 3. Health Systems and the System of Health Accounts

21. Health systems are complex with strong elements of cultural, political and economic influence and links across sectors of economic activity, public administration and activities related to social participation. Due to the multi-factorial nature of health, and the multi-sectoral contribution to health status, a health systems' approach is helpful to identify boundaries of health expenditures, and identify which needs of data we have.

22. The World Health Organization defines health systems as consisting of all the organizations, institutions, resources and people whose primary purpose is to improve health. Four functions (heretofore called components to avoid confusion with SHA terminology) of a health system are key to reach the ultimate objectives, by which its ultimate performance is measured. These are as follows:

**Governance** - oversight of the system including policy making, provision of appropriate regulation and monitoring.

**Resource generation** - investment in personnel as well as key inputs and technologies (human, physical, and knowledge):

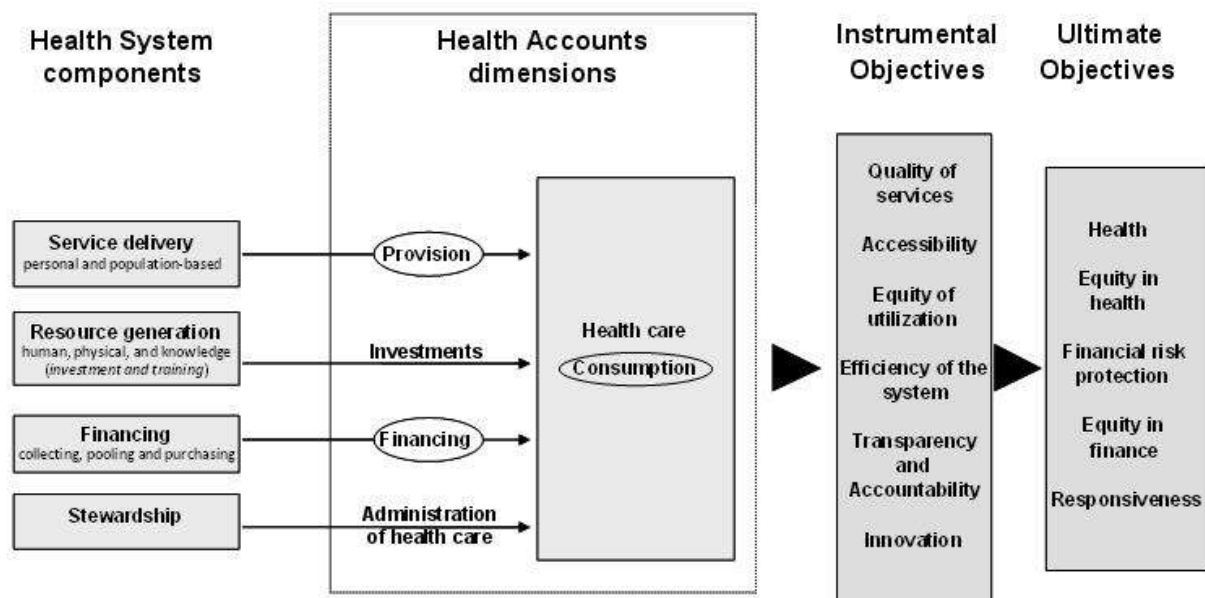
- **Human resources** - investments in, and provision of, a well performing health workforce,
- **Medical products and technology** - production and provision of cost-effective medical goods and pharmaceuticals.
- **Capital goods** – investments in fixed and other types of capital to be used in future health provision,

**Financing** - raising revenue for health, pooling resources and purchasing services.

**Service delivery** (provision) - "combination of inputs into a service production process that delivers health interventions to individuals or to the community (...); aims at producing the best and most effective mix of personal and non-personal services, and making them accessible"<sup>2</sup>

23. This health system framework also defines a set of objectives. These objectives can vary in importance over time and between countries. But their attainment is dependent on how the health system performs. All these ultimate and instrumental objectives are, in various forms and by various names, subject to measurement for analysis and monitoring of health systems performance. Figure 1 shows where the various dimensions of SHA can be linked to the different components of the health system framework, reflecting the policy relevance of these dimensions. The subsequent text further explains and defines these dimensions.

Figure 1. Linkage between the frameworks of health systems and health accounts



Adapted from: WHO, World Health Report 2000 *Health Systems: Improving Performance*; The WHO Regional Office for Europe, *Strengthened health systems save more lives*.

24. All of the four components of the health system can be linked to the three axes of health accounts: the consumption, the provision and the financing. Each axis is associated with specific classifications. Consumption is the starting point and the goods and services consumed with a health purpose (functions) set the boundary of the health accounts (see unit 2). What has been consumed has been produced and provided, thus another axis is provision. And what has been consumed and provided has been financed. This means that the third axis, financing as well as the second axis on provision are measured around the consumption.<sup>3</sup> Figure 2 illustrates the relationship between the three key axes.

Figure 2. Three axes of health accounts



<sup>3</sup> The analysis of the three axis allows for a comprehensive overview of the resources to be measured, avoiding double counts. The analysis of the resources entering the system and those consumed would also allow for a measurement of surplus and deficits.

25. Associated key health accounting dimensions, first described in SHA 1.0 include:

- classification of health functions (HC)
- classification of health providers (HP)
- classification of financing schemes (HF)

26. SHA.2 will define additional dimensions that will allow the compilation of complementary indicators of the health system:

- classification of financing sources (FS) (Unit 9)
- classification of beneficiaries: age, gender, disease, socioeconomic characteristic, or region (Unit 11)
- classification of resource costs RC (Unit 12)
- classification of health goods and services (Unit 13)
- classification of human resources (Unit 14)
- classification of fixed assets
- classification of financial transactions
- classification of financial assets

27. For financial flows under SHA to be policy relevant, they should help monitor and assess the attainment of objectives relevant to any given health care system. The health systems framework guides us to produce data which is useful for the analysis of health care. Indicators for some of the objectives can be developed with expenditure data only. Expenditures on different levels of care, and different function in health care can, under certain assumptions, be used as indicators of **Efficiency** in combination with data on outcomes. Data on how resources are used in health care promotes **Transparency and accountability** of the health system. Indicators for **Financial risk protection** can be developed with data on amounts of out-of-pocket spending and levels of various forms of pre-paid resources. Indicators for **Equity in financing** can be developed with data on the sources of funds and types of revenue.

28. Other objectives need a combination of expenditure and non-expenditure data to be assessed and monitored. For example, expenditure information in combination with utilization data can be used to develop indicators of **Accessibility** and **Equity**.

#### **4. Purposes of the System of Health Accounts 2.0**

29. SHA 2.0 provides the standard for classifying health expenditures according to the three axes of consumption, provision and financing. It clearly distinguishes transactions from entities conducting these transactions. It gives guidance and methodological support to compile health accounts. Complementary documents will provide practical guidance on statistical implementation in countries.

30. More specifically, the purposes of the *System of Health Accounts 2.0* are;

- to define internationally harmonized boundaries of health care for expenditure tracking of consumption,
- to define analytically useful dimensions of health accounts, and define central categories within these dimensions,

- to propose a framework for consistent reporting on health expenditures over time and to provide a set of internationally comparable health accounts in the form of standard tables,
- to provide a framework of main aggregates relevant to international comparison of health expenditures, and health systems analysis,
- to provide a tool, expandable by individual countries, which can produce useful data in monitoring and analysis of the health system.

## 5. Principles applied in SHA 2.0

31. A guiding principle in defining the dimensions and classifications of SHA 2 has been the relevance and usefulness for the purpose of health policy analysis as well as continuity with existing standards. The starting point for the SHA 2.0 is the consumption of services and goods by the resident population of a country or region. This influences the structure of the classifications in that it is the domestic final consumption which is given priority before production in describing the system.

32. A functional approach to what is provided and consumed in health care has been applied when developing SHA 2, which should also be the case at the stage of implementation in countries. This means that health expenditures are included regardless of how or by whom the service or good is funded, or how and by whom it has been provided. For example, health services provided and consumed outside the traditional health branch (occupational health or medical services in military and security operations) is as important as health services in the main health services, or that means of financing for health is not decisive for inclusion or exclusion in the health accounts, e.g. the service of a traditional healer paid or not paid by a public entity.

33. With an advanced SHA 2, classifications are ensured to provide a universal practice, independent of where it is implemented, responding to worldwide policy related information need. For example, SHA 1.0 built its classification of Financing Agents on institutions, which did not provide enough information on the organization of the funding. A compulsory social insurance scheme operated by private insurers (sometimes in conjunction with public insurers, and/or separate voluntary insurance), would only be classified as private health insurance, which would not sufficiently describe the financing system. In general, using only institutions (private and public) as a classification guide is not sufficient as a description of the financing mechanisms.

34. SHA 2 is intended to be a statistical standard which can provide data for various analytical needs. The classifications are developed in a way that they can be used on different levels of aggregation. Several dimensions are optional, in the sense that the three organizations publishing SHA 2 will not collect or request data by all of them from their respective member states. The various dimensions are instead intended to make it possible to describe the health system more comprehensively from an expenditure perspective.

35. The SHA 2 shares the goal of the System of National Accounts to constitute a system of *comprehensive*, internally *consistent*, and internationally *comparable* accounts, which should be *compatible* with other aggregate economic and social statistics as far as possible (*ref to SNA 08 when published*). Overall, SHA 2 sought to further adopt definitions and concepts from existing statistical systems, approved and defined under the auspices of the United Nations and other international and regional organizations.

36. Being *internally consistent* makes it possible to use identities and accounting rules for crosschecking the validity of estimates derived along the different dimensions of the SHA and identify gaps and deficiencies in current reporting systems and health accounts, indicating where priorities should

be set for continued quality improvement of the data. During the implementation of SHA 1.0 and the Producers' Guide, a considerable amount of progress in term of *comprehensiveness* has been shown. The accounts and the data produced increasingly included a more comprehensive picture of countries' health systems as seen in the OECD-EUROSTAT-WHO joint questionnaire data collection. With the increasing integration of other statistical systems such as the System of National Accounts in the health accounting framework, the consistency of data produced according to this revised standard will increase. Especially important when developing SHA 2 has been the alignment with the first version, to make it feasible for countries to migrate from the old to the new standard, and build time series which are consistent.

37. These demands are also constraints in the development of SHA 2. The quality criteria of the SHA are competing with the goals of *timeliness* and *precision* in reporting. Accounting rules and principles from the SNA are sometimes in conflict with the need of data in health policy analysis, causing conflict with the *policy sensitivity* and *relevance criteria* of the indicators provided by the SHA. In addition, these considerations limit the possible expansion of expenditure boundaries and the extent to which classification of expenditure categories can be developed.

*\*The organization of the manual, and brief introduction of Units, is left for the preface.*

### **Questions for discussion**

38. This unit is still under development and will be reviewed after final agreement is reached on the other key units (*e.g.* units 7, 8, 9, and 10). In the meantime, health accountants are invited to:

1. share information on the use of Health Accounts results in policy development and decision making;

*(It would be highly appreciated if information shared includes the documentary references to be cited.)*

2. provide feedback on how to improve this chapter.

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