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DIRECTORATE FOR EMPLOYMENT, LABOUR AND SOCIAL AFFAIRS
HEALTH COMMITTEE

Health Accounts Experts

A SYSTEM OF HEALTH ACCOUNTS

Version 2.0

International Health Accounts Team

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NOTE BY THE SECRETARIAT

1. This draft of the first eight chapters of SHA 2.0 has been prepared by the International Health Accounts Team (IHAT) for discussion at the Special Expert Advisory Workshop on the System of Health Accounts (SHA) Manual Revision on 14-15 June in Paris.

2. This document will be accompanied by a document DELSA/HEA/HA(2010)2 summarising the issues and questions for discussion.

Delegates will be invited to discuss the approach, the boundaries, the definitions and the classifications HC, HP, HF and FS, then to provide clear guidance to IHAT on the issues raised.

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LIST OF ACRONYMS

ADL	Services related to restrictions on the Activities of Daily Living
ATC	Anatomic Therapeutic Chemical classification
BPM6	IMF Balance of Payments Manual 6th Edition
CHE	Current health expenditure
COFOG	Classification of Functions of Government
COI	Cost of Illness
CPC	Central Product Classification
DNA	Deoxyribonucleic acid
DRG	Diagnosis Related Groups
ESA	European System of Accounts
ESSPROS	European system of integrated social protection statistics
FS	Classification of Financing Sources
GFCF	Gross Fixed Capital Formation
GFSM	Government Financial Statistics Manual
HETUS	Harmonised European Time Use Survey
HIV/AIDS	Human immunodeficiency virus /Acquired immune deficiency syndrome
HLE	Healthy Life Expectancy
HMO	Health Maintenance Organization
HPV	Human Papillomavirus
HB	Classification of Health system Beneficiaries
HC	Classification of Health Consumption functions
HF	Classification of Health Financing schemes
HP	Classification of Health Providers
IADL	Services related to Instrumental Activities of Daily Living restrictions
ICD	International Classification of Diseases
ICHA	International Classification for Health Accounts
IEC	Health-related Information, Education and Communication
IMF	International Monetary Fund
ISIC	International Standard Industry Classification of All Economic Activities
ISCO	International Standard Classification of Occupations
JHAQ	Joint Health Accounts Questionnaire (Eurostat-OECD-WHO)
LMIC	Lower and Middle Income Countries

MDG	Millennium Development Goals
MGEN	Mutuelle générale de l'éducation nationale (French mutual health insurance company)
MoP	Mode of Production or Mode of Provision
MSA	Medical Savings Accounts
NAICS	North American Industry Classification System
NGO	Non-Governmental Organisation
NHA	National Health Accounts
NHI	National Health Insurance
NPISH	Non-Profit Institutions Serving Households
NRCMS	New Rural Cooperative Medical Scheme (China)
OECD	Organisation for Economic Co-operation and Development
OTC	Over the counter medicines
PAHO	Pan American Health Organization
PBR	Psychological and behavioural rehabilitation
PG	WHO NHA Producer's Guide (Guide to producing national health accounts)
POM	Prescription only medicines
RNA	Ribonucleic acid
RoW	Rest of the World
SHA	System of Health Accounts
SHI	Social Health Insurance
SNA	System of National Accounts
TCAM	Traditional Complementary and Alternative Medicine
THE	Total Health Expenditure
TPE	Total pharmaceutical expenditure
UN	United Nations
UNGASS	United Nations General Assembly Special Session
USAID	United States Agency for International Development
WB	World Bank
WHO	World Health Organization

PART 1

FOUNDATIONS OF THE SYSTEM OF HEALTH ACCOUNTS

CHAPTER 1 INTRODUCTION

Background

3. As more countries have implemented National Health Accounts (NHA) so the demand for improved analytic tools related to health expenditure has grown. Health expenditure accountants have been encountering increased expectations from policy analysts, policy-makers and the general public alike for more sophisticated health expenditure data. In particular, it is desirable to have data which are reliable, timely, and comparable, both across countries and over time.

4. Health systems are changing due to technology, improvements in medical knowledge, wider individual access to information about health and health services, changing disease and health policy priorities, new methods of organization and more complex financing mechanisms.

5. A number of international manuals and guidelines on health expenditure accounts have been developed since 2000. These include: the System of Health Accounts 2000; The Guide to Producing National Health Accounts 2003; and the SHA Guidelines 2004. In order to maintain and increase their relevance to practitioners, this Manual updates and unifies the guidelines.

6. The development of a global standard can assist in avoiding the development of divergent methodologies for compilation of health expenditure data. At the same time, the content of the manual has to have relevance and applicability for government, health institutions, health analysts and policy-makers in countries that have with a wide range of differing health priorities, economic development and statistical capacity for compiling health accounting data.

7. This Manual draws on country best practice and relevant international standards. It is the result of a wide-ranging consultation process. The emphasis in development of the material has been policy relevance, feasibility and sustainability. Thus this Manual seeks to provide guidelines that will be relevant for an extended period of time – perhaps ten years or so.

Differences and improvements between SHA 1.0 and 2.0

8. This section outlines the main differences between SHA 1.0 and SHA 2.0. SHA 2.0 has introduced a number of changes and improvements. It starts with a greater focus on health consumption expenditure, with a more detailed consideration of prevention, long-term care, and traditional medicine. It provides more comprehensive guidance on recording the financing of health expenditures through financing schemes and financing sources. The manual has a chapter on expenditure by groups of beneficiaries according to disease, age, gender, region and socio-economic group. There is a greater separation of the accounting for consumption expenditure and capital expenditure in health systems to reduce the ambiguity regarding their links. This includes a new chapter on capital formation. Following the Producer Guide, there is a chapter on resource costs of healthcare providers. A new chapter provides guidance on recording the increasing phenomenon of international trade in health care goods and services. There is more guidance on prices. [*to be expanded to collect all the main changes and improvements here*]

Organisation of the Manual

9. The Manual is divided into two parts. Part 1 introduces the System of Health Accounts and sets out its foundations, purposes, principles and the main classifications of ICHA. The foundation of SHA is based on the consumption of health care goods and services. It addresses basic questions such as which type of services are consumed, who provides them, and who pays. Chapter 2 provides historical background information, examples of uses of health accounts data and in the context of a health system the basic principles of health accounting. Chapter 3 sets out the boundaries of the health accounts for the purposes of international comparison. Chapter 4 looks at key concepts and basic definitions. Chapter 5 describes the concept of the functional classification (HC) and then elaborates it. Chapter 6 discusses the provider classification HP. Chapter 7 describes the concept of financing schemes and elaborates the HF classification.

10. Part 2 develops the system into a number of extensions and applications, that many countries have found useful and discusses the measurement of health prices that enables better comparisons of health expenditure over time and between countries. It provides some limited guidance on accounting rules and compilation processes. Chapter 8 takes the financing analysis back to the revenues of health care financing schemes and provides the classification (FS). Chapter 9 describes expenditure by beneficiary group and a number of classifications of beneficiaries (HB). Chapter 10 discusses the resource costs of providers, which links to health care production. An RC classification is proposed. Chapter 11 sets out how to record capital expenditure in health systems. Chapter 12 sets out the framework and recommendations for recording trade in health care goods and services. Chapter 13 considers health prices and their analytical use. Chapter 14 provides some accounting guidelines and some basic ideas on compilation. Chapter 15 considers the presentation of results, through standard tables and some basic indicators of health care expenditure. [*A Chapter on products has been proposed and may be included subject to provision of text and agreement according to timetable*]

11. Annexes provide further relevant information including the links to national accounts, the measurement of health industries from a production perspective[1], links to other systems and classifications. It also provides some supplementary accounting tools and discusses human resources in health care. [*to be expanded*].

[1] An example is the PAHO Satellite Health Accounts Manual (2005), which follows closely a national accounts production approach to measuring health systems

CHAPTER 2 PURPOSES AND PRINCIPLES OF HEALTH ACCOUNTS

[This chapter will be reviewed to reflect and be consistent with subsequent versions of this Manual]

1. Introduction

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

13. Efforts to describe financial flows associated with (the consumption of) health care can be traced as far back as the 1920s[2]. In the early 1960s, Abel-Smith and others carried out a number of studies measuring health expenditures in developing countries[3]. 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 expenditures[4]. 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[5]. Over the years, such exercises have been undertaken to describe financial flows for a subset of health consumption expenditure categories such as HIV/AIDS and tuberculosis, regions and socioeconomic groups[6]. The above efforts reflected, in part, the systematic development of national economic accounts as a means to measure aggregate economic activity[7].

14. 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 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 (PG)*, 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

[2] Fetter 2006

[3] Abel-Smith B, 1963, & 1967

[4] Maxwell 1981, Poullier JP et al, 2002, van Mosseveld, 2003, Orosz 2005

[5] Rice, Waldo

[6] *e.g.* Sheppard D, Izazola JA, Avila L, Australia, Sri Lanka

[7] A comprehensive manual for assembling internationally comparable national accounts data was first developed under the auspices of the United Nations in 1953. The System of National Accounts 2008 (2008 SNA) is the fifth revision of the SNA. It is jointly published by EC, IMF, OECD, UN and WB.

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 (Eurostat, PAHO[8]), and many adjustments have been produced to guide national as well as sub-national estimations, for example, in the cases of Philippines, Palestine, Mexico, Malaysia.[to add some European examples?]

15. 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.

16. The focus and importance of different policy aspects and research interests have changed since the first version of SHA, and will continue to change. 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 an increasing movement of goods, services and patients across national borders with one clear manifestation in the phenomenon of medical tourism. These emerging health trends not only make it more difficult to capture the flow of funds at country level, they create new needs for defining, assessing and monitoring them. They also enlarge the range of interested users of the expenditure estimates.

17. This revised SHA Manual 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 the 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 strengthened.

2. Uses of National Health Accounts and SHA Data

18. 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[9]. 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.

[8] PAHO, Satellite health accounts manual 2005

[9] Newhouse 1992; Yip and Mahal 2008

19. Another popular use of national health expenditure data has been to assess the impact of ageing on health expenditures[10]. 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 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 expenditure on long-term care[11]. [*Review from source citation*]

20. 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[12]. 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[13]. Some analyses have also been conducted that compare health system characteristics across countries in terms of their impact on health expenditures[14].

21. 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 such provision. Another example is the case of Mexico, whereby following the NHA methodology, estimates of both private and overall national health spending were revised upwards significantly[15]. National health accounts data could offer a useful aggregate picture of the impacts of health reform efforts, including making expenditure projections, and assessing sustainability[16]. 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[17]. Large shares of foreign funding in health have been used to point out problems with predictability and sustainability of funding[18].

22. 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[19]. 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 of expenditure

[10] *e.g.* Ulf Gerdtham, Polder *et al*

[11] Ageing Report DG ECFIN

[12] Sweden 2007, references for OECD countries, province-level analyses for India

[13] Anand and Ravallion 1993

[14] *Poullier, OECD, other references*

[15] Frenk *et al.*, 2003

[16] *e.g.* Berman *et al.* 2003

[17] Kutzin 2008

[18] Murray 2009

[19] Turkish Ministry of Health 2003

on HIV/AIDS is now a global effort and is part of the annual UNGASS report[20]. Some of the Millenium Development Goals (MDG)[21] reported by countries also include expenditures.

23. There is limited systematic documentation of the uses of NHA and SHA data. 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[22]. 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 health data were instrumental when Egypt increased spending on primary health care, after data showed a lack of alignment between actual spending and public policy, and a heavy reliance on households' payments,
- NHA studies in South Africa have shown how inequitably health is funded, across regions and across income groups.

24. 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 need 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.

25. 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 in the time shortly before death, and not so much ageing per se, as being a major driver of health expenditures[23]. 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 another example, analyses of the introduction of a school health insurance scheme in Egypt[24] and price controls on hospital services in China[25] all required either household-level information, or at the level of individual hospitals. [*Question: Do we want to include other examples from comments?]*

3. Health Systems and the System of Health Accounts

26. 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 for data we have.

[20] UNGASS reports can be found at: http://www.unaids.org/en/KnowledgeCentre/HIVData/CountryProgress/2010CountryProgressAllCountries.asp

[21] http://www.undp.org/mdg/countryreports2.shtml

[22] De, Dmytraczenko, Brinkerhoff and Tien 2003

[23] *e.g.* Zweifel 2004

[24] Yip and Berman 2001

[25] Eggleston and Yip 2004

27. 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 components called *functions* in the WHO framework of a health system are essential 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. [*WHO will check][R&D?]*
- **Capital goods –** investments in fixed and other types of capital to be used in future health provision,

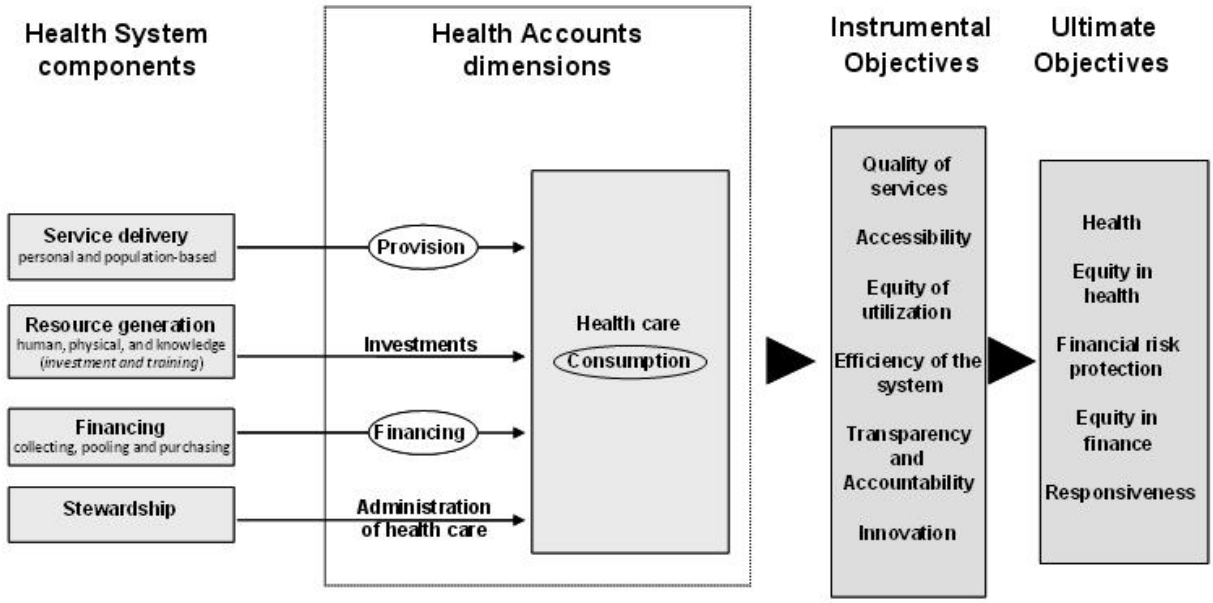
Financing - raising revenue for health, pooling resources and purchasing services.

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"[26]

28. 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 objectives are, in various forms and by various names, subject to measurement for analysis and monitoring of health systems performance. Figure 2.1 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.

[26] [Missing reference]

Figure 2.1 Linkage between the frameworks of health systems and health accounts

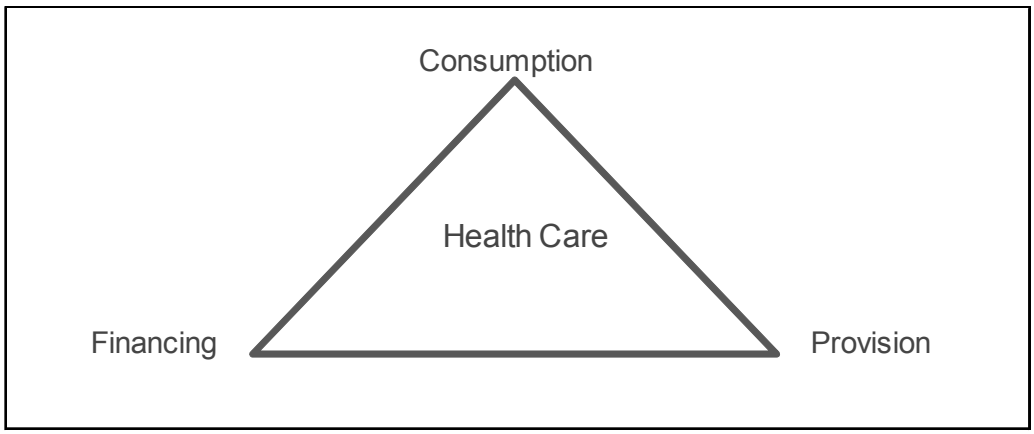


Adapted from: WHO, World Health Report 2000 *Health Systems: Improving Performance*; The WHO Regional Office for Europe, *Strengthened health systems save more lives*.

29. 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, but there is not a unique classification matching each axis. As an example, the financing axis can equally be measured by financing schemes and financing agents. Consumption is the starting point and the goods and services consumed with a health purpose (functions) set the boundary of the health accounts (see Chapter 3). 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.[27] Figure 2.2 illustrates the relationship between the three key axes.

[27] The analysis of the three axes 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.

Figure 2.2 Three axes of health accounts: consumption, financing, and provision of health care



30. 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)

31. SHA 2.0 will define additional dimensions that will allow the compilation of complementary indicators of the health system:

- classification of financing sources (FS) (Chapter 8)
- classification of beneficiaries: age, gender, disease, socioeconomic characteristic, or region (Chapter 9)
- classification of resource costs RC (Chapter 10)
- classification of health goods and services (Chapter/Annex XX?)
- classification of human resources (Annex YY)
- classification of capital formation (Chapter 11)
- classification of financial transactions

32. 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 are useful for the analysis of health care. Indicators for some of the objectives can be developed with expenditure data only. 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.

33. 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.** Expenditures on different functions in health care can, under certain assumptions, be used as indicators of **Efficiency** in combination with data on outcomes.

4. Purposes of the System of Health Accounts 2.0

34. SHA 2.0 provides the standard for classifying health expenditures according to the three axes of consumption, provision and financing. It gives guidance and methodological support to compile health accounts. More specifically, the purposes of the *System of Health Accounts 2.0* are;

- 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.
- to define internationally harmonized boundaries of health care for expenditure tracking of consumption,

5. Principles applied in SHA 2.0

35. A guiding principle in defining the dimensions and classifications of SHA 2.0 has been the relevance and usefulness for the purpose of health policy analysis, continuity with existing standards, and improved links to the System of National Accounts. 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 final consumption by residents which is given priority before production in describing the system.

36. A functional approach to what is provided and consumed in health care has been applied when developing this Manual, 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 (such as those in occupational health or medical services in military and security operations) are as important as health services in the main health services, or that the means of financing for health is not decisive for inclusion or exclusion in the health accounts, for example, whether or not the service of a traditional healer is paid or reimbursed by a public entity.

37. With this revised SHA 2.0, classifications are intended to facilitate 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.

38. SHA 2.0 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 2.0 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.

39. The SHA 2.0 shares the goal of the System of National Accounts (2008 SNA) 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. Overall, SHA 2.0 sought

to adopt, wherever appropriate, definitions and concepts from existing statistical systems, approved and defined under the auspices of the United Nations and other international and regional organizations.

40. 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 terms 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. Especially important when developing SHA 2.0 has been the alignment with the first version and with the Producer's Guide, to make it feasible for countries to migrate from the old to the new standard, and build time series which are consistent according to the revised standard international classifications for health accounts.

41. These demands are also constraints in the development of SHA 2.0. 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.

CHAPTER 3: GLOBAL BOUNDARIES OF HEALTH CARE

1. Introduction

42. Achieving consensus on a common boundary of health care activities is crucial for the complex tasks of international comparisons. In pursuing this objective, SHA refers to a functional approach based on selected health care activities which can be captured by transactions. Transactions are valued activities between different actors or organisations. The transactions recorded in the accounting framework of SHA relate to health care goods and services provided and consumed to improve the health status of individuals and of the population as a whole.

43. It has to be emphasized that health itself is a condition and is not exchangeable in contrast to health care. Health has value in use and not in exchange. Therefore, in health accounts, it is the demand, supply and the distributions of health care goods and services, rather than health per se, that define the transactions measured. Consequently, the focus of attention of Chapter 3 is on the boundaries of health care and not of health[28].

44. This chapter focuses on the boundary of health care activities which underlie the core accounting framework of SHA 2.0. In addition, it introduces extensions to the central framework, which allow the compilation of additional accounts for useful analytical purposes and the relations to other statistical systems.

2. Defining current health care expenditures

2.1 Health care boundary: focus on functions

45. The functional classification of health care (ICHA-HC) delineates the boundaries of health care activities from an international perspective.[29] Following the concept underlying the design of the functional classification of health care (ICHA-HC) the boundary contains *all activities with the primary purpose of improving, maintaining and preventing the deterioration of the health status of persons and mitigating the consequences of ill-health. through the application of qualified*[30] *health knowledge (medical, paramedical,*

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28 Measuring health, its improvement or deterioration is an important aspect of health economics and statistics, which is reflected, for example in such measures as live expectancy, HLY, or the quality/disability adjusted life years (QALY, DALY). SHA 2.0, similar as SHA 1.0, is not aiming in measuring these, but in measuring health care expenditure. This means that the accounting framework of SHA is part of a larger model, in which several determinants of health, one of them is the provision of health care, play a crucial role.

29 SHA describes the international concept and boundaries of health accounts. However, countries' responsibility defines what is in or out of the health care services basket. Therefore the national boundaries may deviate from the international boundaries.

30 "qualified" health knowledge is determined by national or state standards of accreditation or licensing for health care personal or organizations or by acceptance of household members as caregivers by payments of care allowances. In the case of OTC-products, self-care as such is not supervised, but the manufacturing and distribution of these products underlie particular safety and quality controls.

and nursing knowledge including technology, and traditional, complementary and alternative medicine (TCAM) The primary purpose mentioned above is pursued by following groups of health care activities:

- Health promotion and prevention
- Diagnosis, treatment, cure and rehabilitation of illness
- Caring for persons affected by chronic illness
- Caring for persons with health-related impairment, disability, and handicap
- Palliative care
- Providing community health programs
- Governance and administration of the health system.

46. In carrying out the above activities, the prerequisite of a basic level of medical, paramedical and nursing knowledge is one of the main delineation criteria, which refer in most cases, but not exclusively[31], to national standards of accreditation or licensing for health care personnel and organisations. This qualifies them to practice their medical and nursing knowledge and to provide more complex services within an institutional framework.

47. Administration is an embedded activity in the provision of health care goods and services, for example, those in a hospital or physician's practice, and as such is included as an inherent part of the functions mentioned above. The functional classification does, however, distinguish separate categories of health system governance and administration performed, for example, by ministries of health or health insurance enterprises, and defined as:

- **Governance and health system administration** (HC.7.1), necessary for the design, operation, management and control of health care policy
- **Administration of health financing** (HC.7.2)**,** necessary for managing the process of health care financing

2.2 The core and extended accounts of SHA

48. It is necessary to delineate the common boundary of the health care system, which will permit international comparisons concerning the size and structure of expenditures for health care services and goods. Central to the framework are three classifications, health care functions, health care providers, and financing schemes, which will be subsequently referred to as the core classifications or the core framework. Other classifications complement these. SHA 2.0 distinguishes three main groups of classifications:

i. The core framework encompassing the three classifications that measure current health care expenditure by functions, providers, and financing schemes,

ii. Capital formation with its related classification of assets, and

iii. Other classifications that allow for the compilation of additional indicators in the extension of the core accounting framework.

[31] Services and goods delivered through informal provision, for which licensing and/or accreditation may not exist are also included if these services are provided under the supervision of health personnel.. In SHA 1.0 TCAM or accepted alternative practices such as Chinese medicine or anthroposophic medicine, etc, were recommended to be dealt with individually on a country-by-country basis. [**TCAM to be discussed further with countries experts group]**

49. The core accounting framework is organised around a tri-axial system for the recording of health care expenditure, namely classifications of the functions of health care (ICHA-HC), health care provision (ICHA-HP), and health financing (ICHA-HF)[32]; as presented in Figure 3.1. These three core classifications address three basic questions:

- what kinds of health care goods and services are delivered? (Chapter 5)
- by which health care providers? (Chapter 6)
- who pays for these good and services? (Chapter 7)

50. The ultimate goal of data compilation is the ability to interlink data between categories of these classifications in order to characterise information on health care expenditure according to the three axes of health function, provider and financing.

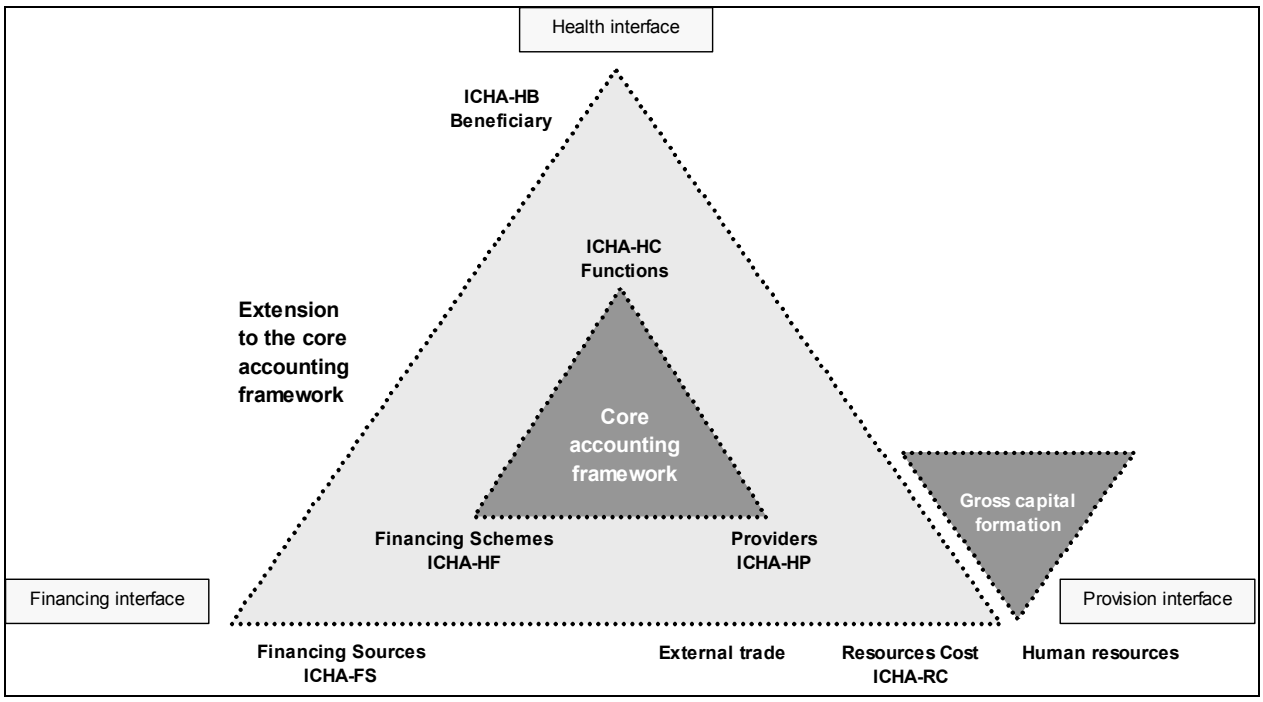
51. Around the core accounting framework of SHA, a number of complementary classifications might be added, which are closely linked to one of the three axes of consumption by health purpose, provision, or financing. Some of these additional classifications related to human resources, beneficiaries, financing sources, and resource costs were already proposed and partially discussed in SHA 1.0 and in the Producers Guide. SHA 2.0 revisits some of these with the aim of *inter alia*: proposing a more comprehensive structure of classifications as in the case of beneficiary and resources cost classifications; recommending a new breakdown to existing classifications such as type of revenue to the classification of financing sources; offering better guidelines to particular aspects of health accounts for instance in area of external trade in health care or capital formation, subjects of great interest both for national and international policy. From an economic perspective these classifications encompass activities that help to understand the health system in a wider context.

52. Health functions of ICHA-HC refer to the purpose of activities but determine the boundaries of consumption more strictly. The transactions related to consumption of health goods and services on the one hand and the transactions related to capital formation, education and training, and research & development for future health care provision on the other hand serve different purposes. The first group of transactions relating to the current health expenditure account directly serve the promotion, development and maintenance of the health status of individuals and the population as a whole. Here it should be noted that activities of public health and of administration are considered to be for the direct final use of health care by the community as a whole. The second group of activities are those relating to resource generation with the purpose of supporting health care provision by developing technology, human resources and capital formation. In SHA 2.0, these different purposes are clearly separated while keeping the tri-axial account of current health expenditures of SHA 1.0. As a consequence the boundaries of the second type of transactions are included in additional expenditure accounts whose boundaries relate to those of the first type of (core) health consumption transactions but do not equate to them.

53. Figure 3.1 exhibits the core health expenditure accounts of SHA and its extensions. The three core classifications, in the middle of this figure, represent the consumption of health care goods and services, which equals their provision and financing. Each of the three dimensions provides interfaces to further breakdowns or dimensions. Details of the links to the additional accounts are described in more detail in Part 2 and the Annexes: SHA relations to other statistics and supplementary accounting tools.

[32] The standard tables to present the interaction of these three axes are included in Chapter 15.

Figure 3.1 The core and extended accounting framework of SHA 2.0



2.3 Criteria in boundary setting

54. Countries differ in their health care system financing, organisation and in the range of goods and services consumed. From the international perspective to have a common boundary of a functionally defined health care system means setting the limits to the health accounts in order to improve cross-countries data comparability. The main criterion to include or exclude certain activities relates to their role in enhancing health status, diminishing ill-health, or preventing deterioration of health of individuals and of the population as whole. Here the administration and governance of the health care system is also included. Although the direct relation with the patient is not explicitly introduced as a criterion, it is obvious that for cure and treatment as well as in personal prevention this direct contact is necessary. In the case of collective prevention activities both direct and indirect relations with the target group of population are possible. Another criterion is the amount of medical, paramedical and nursing or health knowledge needed to perform the activities, or the degree to which medical, paramedical or nursing professionals are involved in the provision process. It is also important to distinguish whether health care goods and services, subject to the transactions made, are consumed by patients, or utilised by the target population groups, or further transformed and used up within the production process as intermediate consumption[33], or increase the stocks of goods as capital formation. Four main criteria are set out for determining whether an activity should be included within the core expenditure account of SHA; these are presented below, in order of importance:

- The primary intent of the activity is to improve, maintain or prevent the deterioration of the health status of individuals, groups of the population or the population as a whole as well as to mitigate the consequences of ill-health;

[33] Intermediate consumption consists of the value of the goods and services consumed as inputs by a process of production, excluding fixed assets whose consumption is recorded as consumption of fixed capital.

- Medical or health care knowledge[34] is needed in the execution of the function, or it is executed under the supervision of those with such knowledge, or the function is governance and administration of health care programs and health care financing;

- The consumption is for final use[35] of health care; and

- There is a transaction of health care services or goods.

55. Consequently, neither reimbursement of the cost of health care goods and services nor information and data collected historically by a country's statistical system is a key criterion for inclusion or exclusion. In reality, this means that certain goods and services recorded by a particular country under the health care area might not be included for the purpose of international data collection and vice versa. Furthermore, the specifications of transactions as requested by any international accounting system may not always be in agreement with the available data or the way the statistical system is designed at a national level. Both over- or under-estimation of the aggregates may occur and a certain lack of purity in the transactions due to lack of detailed data might be difficult to prevent. From a data comparability point of view these departures from the standard should be minimised as far as possible, and well documented.

3. The boundary of the current health care expenditure account

3.1 The consumption frame of health care goods and services

56. The boundaries of the current health expenditure account are established by the purposes of the consumption of the health goods and services included, and are discussed in detail in Chapter 5 *The functional classification of health care* (ICHA-HC). Here, however it is essential to be clear about some aspects of the general structure based on the proposed criteria in operational terms as well as specific rules on how to handle borderline issues.

3.1.1 General structure in operational terms

57. In accordance with the **purposes**, health care comprises personal health care services and goods provided directly to individual persons and collective health care services. The latter covers prevention and public health services, as well as health care system administration and governance. Traditional tasks of public health include epidemiological surveillance and other measures of health promotion and disease prevention including the establishment and enforcement of standards, and the administration of health programs. These include special public health services such as regulation of blood-bank services, public health service laboratories, population health surveillance and planning services, etc. Governance and administration of health care systems include activities related to planning, management and regulation in order to ensure their effectiveness. (See Chapter 5)

58. Health care services and goods provided to and consumed by individuals comprise the majority of transactions recorded in the core accounting frame such as curative and rehabilitative services, long-term nursing care, preventative immunisation or screening, or pharmaceutical and other medical goods. The functional classification ICHA-HC distinguishes different types of settings, so called **modes of provision**, by which the services are provided: inpatient care, day-care, outpatient care, home care. One should note that health care services offered at the workplace or school health care services, despite their

34 It is a known fact that the numbers of medical and nursing staff involved in the provision process differ enormously across the world. This boundary issue is to be tackled in the Annex on health care human resources.

35 The concept of final use is more fully described in Chapter 4

provision being made in specific settings, are also included as the purpose is health improvement regardless of the provider settings or facilities and their regulatory status. From health care services and goods consumed by individuals, *occupational health services* require particular attention because these services are often provided by specialists of occupational medicine within industries.[36] In, the case that occupational services are contracted with self-employed medical specialists or health specialists of health care providers, it is important to avoid possible double counting.

59. The current health expenditure account of SHA focuses on **final consumption** and not on intermediate services. In other words SHA does not aim to account for health care goods and services provided as intermediate consumption to other providers. This appears for example when one hospital provides or carries out a laboratory test for another hospital. In the case of inpatient and day care services health expenditure should comprise all medical services and goods received during the episode of care regardless of the provider or the payer. The provision of a lab test by hospital A to hospital B leads to expenses for B and revenues for A. However, the lab tests are part of the treatment processes offered by Hospital B. Therefore the provision of lab tests by hospital A is counted but as a part of the output and billing of hospital B and as such considered in SHA as final consumption of health care goods and services. In this example, the additional compilation of the lab test of hospital A would lead to double counting of lab tests from a consumption point of view and is therefore not shown separately. In fact, it is essential that total expenditures for hospital care are reconciled for inter-hospital flows. Intermediate consumption is not limited to goods and services that are delivered by health care providers to other providers, but also includes goods and services delivered by units of the rest of the economy.

60. SHA focuses on the consumption of health care goods and services by the resident population irrespective of where this takes place. Firstly, this implies the **inclusion of imports** (from non-resident providers) and the **exclusion of exports** (health care goods and services provided to non-residents). In practice, when business or establishment surveys of resident providers are the starting point for the construction of SHA this may result in including exports of health care (delivered to non-residents but provided by resident units) and neglecting any imports of health care from non-resident providers. Here other sources of information such as insurance claims for reimbursement of services bought abroad, or travel surveys may be considered as an estimating factor. The increasing trend towards patient mobility and movement in health care goods and services may cause this trade to be significant for certain countries and for particular types of health care, thus careful consideration should be paid to such developments (see Chapter 12).

61. Another aspect to be considered in the consumption of health care is the **non-observed economy** (unrecorded, or illegal or informal activities) not always captured or reported in regular statistical sources. The reason may be that the activity is informal and thus escapes the attention of official surveys geared to formal activities; it may be that the producer is anxious to conceal a legal activity, or it may be that the activity itself is illegal. In some countries the consumption of health care goods and services is often related to informal payments, so called “envelope payments” or “under the table payments”. Whether these payments relate to normal or additional services provided to patients or represent a patient’s additional gratitude to the physician, these extra unrecorded payments increase the incomes on the side of health care providers and the financial burdens of the consumer. The non-observed health economy may account for a

[36] Occupational health care is treated by SNA as intermediate consumption and, therefore, not included in the consumption of health care services by households. In contrast, SHA includes occupational health services as health expenditures because of the health benefits for employees. It is governed in most countries by detailed regulations. Occupational health care includes surveillance of employee health (routine medical check-ups) and therapeutic care (including emergency health care services) on or off business premises. The expenditure incurred in occupational health care can be approximately estimated as the cost of personnel involved.

significant part of the health care system of some countries. It is therefore particularly important to try to make estimates of the total consumption of health care, even if it cannot always be separately identified as such[37].

62. SHA refers to **valued transactions** i.e. transactions under which payments are made to providers in exchange for health care goods and services received by consumers. In other words the flow of health care goods and services is accompanied by a flow of financial or other means. Usually these payments go to health care providers and are made directly by patients or indirectly by other actors of health care system (for example, government or health insurance) on behalf of individuals or groups of the population. However the recipients of these payments may not necessarily be a typical health care provider like a hospital or physician but a household which, under certain circumstances may provide some health services to other members of the family. The circumstances mentioned here refer to the **provision of health care services at home** (home health care) usually under supervision of medical or paramedical professionals or under the condition that the family member who provides them possesses certain medical knowledge that could be used for this purpose.

63. This requires that SHA considers households not only as a financing agent that pays for health care goods and services purchased or consumed, but also as a specific health care provider that can deliver services under certain circumstances[38]. The scope of health or health related services provided at home by family members often is **a mixture of health and social care services**. This leads to the problem of splitting the health component from the social one when classifying these activities under SHA. For the health component SHA recommends to take into account activities such as nursing and personal health care services including activities of daily living (ADL)[39]. If these activities are paid, for instance, via "nursing allowances" or other transfers granted for care to members of households, then they are included in the current health expenditure account. The interpretation here is that benefits granted for care to members of household, in order to provide this health service, are included if they are paid. Other benefits in cash such as benefits for sickness leave or maternity leave, pensions in the case of disabilities or work accidents are granted for the purpose of income maintenance and are therefore excluded from the core accounting framework.

64. Consumption is valued at purchaser's prices including VAT. This means that the value of medical goods and services is based on what purchasers pay.[40] Even if medical services and

37 Details about the accounting of non-observed health activities are outlined in *OECD* 2002.

38 Here, two problems appear. First is about data availability. Despite the progress in the measurement of health care provision by households few data about health care provided at home by relatives or neighbours are available. Furthermore, household provision consists of a large variety of different activities which are presently not standardised (Eurostat 2003)

39 The basic activities of daily living consist certain self-care tasks that could be supported or provided by family member if the person is not able to do it by him/her self: personal hygiene, dressing and undressing, eating, transferring from bed to chair, and back, voluntarily controlling urinary and fecal discharge, moving around (as opposed to being bedridden)

40 There is an inconsistency in SHA 1.0 (5.26) that has to be corrected: "The output of retailers is measured by the total value of the trade margins realised on the goods they purchase for resale (valued at actual prices)…..". This is derived from SNA. In SNA, the difference in value recorded for a product between when it is produced and the moment it is used for, say, final consumption expenditure can be considerable. Components of this difference are:

- Taxes less subsidies on products payable by the producer;
- Trade and transport margins, including taxes less subsidies on products payable by wholesale and retail traders;
- Transport, including taxes less subsidies on products, paid separately by the consumer.

pharmaceuticals are provided free of charge it is necessary to estimate the **values that are equivalent to market prices.** Often, health care services and medical goods are provided free of charge or with user charges, which are below prices "that are economically significant".[41] When reliable market prices cannot be obtained, a second best procedure is to value the output to be equal to the sum of their costs of provision: that is, as the sum of selected inputs including transport charges and trade margins. More detailed information together with examples is provided in Chapter 14.

65. Many prices of health care goods and services are the result of complex institutional pricing arrangements in which the prices, contracted by health insurance may not include the cost of capital services, which can be paid separately by government or other financing agents. One of the costs of providers' services is the consumption of fixed capital (CFC), or what is called **depreciation** in business accounting[42], for example for hospital buildings, medical equipment, or expired pharmaceuticals that can no longer be prescribed. It is the value loss of the capital assets used up in the process of delivering health care goods and services during the current period, resulting from physical deterioration, normal obsolescence or damage. It measures the decline in the usefulness of a fixed asset for purposes of health care provision. Within the core accounting framework, CFC is not explicitly measured, assuming that it is included in the price of health care goods and services. As this is not always the case, one solution proposed under SHA 2.0 is to add a kind of adjustment factor to capture capital transfers related to cost of capital services in order to improve the international comparability of current health expenditure. For more detailed information please see chapter 4 and 11. [**Subject of discussion with Expert group**].

3.1.2 Borderline cases

66. The SHA consumption frame draws the borderline independently of where and by whom the activities are provided and how they are financed. The functional classification of health sets the borderline according to purposes. In some cases, such as with cosmetic surgery, transportation of patients, home help services, sunglasses, and condoms it might not be clear where or whether to classify these services and goods under the current health expenditure account. Therefore, specific rules, like medical recommendations, can serve as additional guidance to handle borderline cases. Borderlines cases refer to specific goods and services that are situated on the boundaries of health care and non-health-care products[43]. Three particular areas of borderline cases are briefly discussed here:

- cross-sectoral issues:
- wellbeing
- social care

SNA aims to measure all inputs (productive activity) related to the production of goods and services. Certainly, the value of the productive activity of a retailer is not the value of the medical goods if the medical good is not self-produced ((Trade margins = sales - value of goods purchased + changes in inventories). The value of pharmaceuticals at purchaser's prices includes the productive activities by the wholesalers and the pharmaceutical manufacturer. The view of consumption in SHA requires a different approach than the view of production in SNA. Therefore, the value of the consumption of medical goods is measured at purchasers' prices including total VAT within the current expenditure framework.

41 Prices of health care services are dealt with in more detail in Chapter 13.

42 The differences between depreciation and consumption of fixed capital can be important, due to the historic cost versus replacement cost valuation principles (2008 SNA 1.60)

43 Products that are excluded from SHA boundaries might be considered by some countries for their inclusion in the complementary expenditure framework for analytical use

67. A large group of borderline cases relate to *cross-sectoral issues* such as road safety, intentional injuries, or measures to strengthen health equity by reducing impoverished neighbourhoods. The main criterion for the decision to include or exclude these activities in SHA is whether the primary purpose of these activities is health and/or an application of medical technology is involved in this activities. For example, road safety measures are a quite important activity to reduce road injuries; however the primary purpose is moving from one place to another and of public safety rather than health. Therefore it would be misleading to include the cost of construction of roads, road signs, and crash barriers into the accounts in addition to the cost of medical treatment of injured persons. Similarly the tests for safe cars, seat belts or the policy activities toward road safety are considered outside the consumption of health care services and goods.

68. Another group of borderline cases are related to *wellbeing* services such as those provided in spas and wellness centres. The perception of health services is evolutionary, inter-cultural, and social.[44] The understanding of the relationship between welfare, wellbeing, lifestyle and health status as well as the scrutiny of effectiveness of health goods and services might vary between countries. The current health expenditure accounts aim neither to measure the impact on welfare nor the effectiveness of health services. Types of goods and services directed primarily to wellbeing such as fitness training or specific diets might have health impacts but are excluded from the consumption frame unless these activities are part of activities under medical recommendation (for details see Chapter 5).[45] A wider range of borderline cases are described in a table at the end of this chapter.

69. The aim of social care is to provide services and support, by formal and informal caregivers, to individuals who, for reasons of disability, illness or other dependency, need help to live as normal a life as possible, either within a residential care setting or in their own home. Social care covers a range of services including professional advice and support, residential care in care homes, day care, home care in clients' own homes, meals, community equipment, and assessment and care management. Often local authorities are responsible for assessing the care needs of their populations, as well as the planning and provision of services. In reality, there may be a mixed economy of provision of social care (by public, non-profit, and for-profit providers), various mechanisms of its financing (direct payments, reimbursements, benefits in cash, etc.) and different arrangements for its delivery (pure social components or a mixture with various levels of medical care). The latter, as discussed earlier, often makes it difficult to separate between medical and social components of home care. Of special interest is the split of services related to help with activities of daily living (ADL) and instrumental activities of daily living (IADL). The proposed treatment of Long term medical /nursing care (LTC) in SHA 2.0 includes personal services (help with ADL) under health expenditure, while for example, home-help services (IADL), should be accounted separately outside the health care boundary. If, however, such services are also delivered as part of a service package in which a medical component dominates then the expenditure for these should also be included under health care **[subject to discussion with Expert group]**

3.2 Layers of the consumption frame

70. The layers of the consumption frame can serve different purposes. In SHA 1.0 the so called "**health related functions**" were introduced as additional layers to the functional classification encompassing areas that overlap with the health domain on the one hand but go beyond the health care boundary on the other hand. Seven health related functions were proposed: 1) Capital formation of health care provider institutions; 2) Education and training of health personnel; 3) Research and development in health; 4) Food, hygiene and drinking water control; 5) Environmental health; 6) Administration and

44 Petrera, Vicente 2008

45 Chapter 5 proposes a memorandum item for health promotion in multi-sectoral settings, notably to capture joint intervention of health system and other branches, e.g. alcohol level detection in drivers.

provision of social services in kind to assist living with disease and impairment; 7) Administration and provision of health related cash-benefits. In the joint OECD, ESTAT and WHO SHA data collection the so called "**memorandum items**" were introduced with reference to aggregates on specific expenditure categories such as totals of pharmaceuticals and of ancillary services (in both cases including inpatient and other modes of provision) that cannot be directly obtained from the functional classification categories. All these functions and items are of interest as they constitute relevant parameters for health policy.

71. As far as the different layers are concerned, SHA 2.0 recognises the importance of the purposes behind the 'health related function classes' and 'memorandum items' layers. However, it recommends that they refer to consumption of goods and services following one of the main criteria under this frame. Accordingly, certain modifications and additions to the SHA 1.0 concept **are proposed in the functional classification in Chapter 5 to be further discussed with countries experts group. In general**:

- it is proposed to consider capital formation **separately** both due to the complexity of this subject and experiences hitherto of international data collection in the SHA joint questionnaire. The latter has shown the shortcomings of the definition of capital formation, which resulted in significant problems of data comparability among countries.[46] To overcome these difficulties a set of guidelines for estimating capital formation in a more comprehensive approach than in SHA 1.0 is proposed in chapter 11. It addresses both human resources and research and development issues. In addition an "adjustment factor", related to capital transfers, is proposed to be introduced into the core framework in order to improve comparability of current health expenditure data.

- with regard to other health-related functions a modified version of those social services that are related to long-term care is to be retained in addition to new health-related functions as follows:- i) TCAM and ii) non-health consumption. Health interventions related to Food, hygiene and drinking water control, Environmental health and administration and provision of health related cash-benefits are proposed to be included within the boundary. [**to be reviewed with Chapter 5 and discussed with Expert Group]**

- it is proposed to keep Health care related and Reporting items for the totals of specific categories of expenditures such as pharmaceuticals, prevention, which are of interest from an analytical point of view:

  - Total expenditure on pharmaceuticals

  - Total expenditure on prevention

  - Total expenditure on health-related R&D.

  - Total expenditure on training of health personnel

[To be discussed and decided]

[46] The definitional shortcomings of the existing capital formation category have stimulated countries to focus on current data expenditure (which may, in many cases, include an implicit charge by health providers for consumption of fixed capital and investment) rather than a comprehensive recording of capital formation.

4. The boundaries of the additional expenditure accounts of SHA

4.1 Dimensions of extension

72. The boundaries of the extended health accounts can differ from current health expenditure captured under the core accounting framework depending on the additional activities considered. There are three main interfaces of extension, offering additional classifications and further breakdowns of expenditure, which link the core health expenditure account to a broader set of statistical areas (see figure 3.1):

- the health interface;
- the provision interface;
- the financing interface.

73. The derived additional expenditure accounts of SHA give the opportunity to develop all these areas in more detail. In the following only a general overview of interfaces and their relation to the boundary of the core accounting framework is presented. Some of them are further discussed in Chapter 4 Key concepts and definitions, Chapter 8 Classification of financing sources, Chapter 9 Classification of beneficiary characteristics, Chapter 10 Resource costs, Chapter 11 Capital formation, and in Annexes.

4.2 Health interface

74. The health interface is of particular interest to study the relationship between the consumption of health care goods and services and the associated health enhancement of the population. Although health is only partly determined by the consumption of health care the breakdown of health expenditures by **various characteristics of beneficiaries** helps to improve the understanding of the observed distribution in overall health spending. Health differences among individuals and population groups are apparent along many dimensions including age, gender, socio-economic status (SES), or geographic area. Age and gender are demographic characteristics of beneficiaries that are an intrinsic epidemiological part of identifying and measuring the utilization of health care goods and services by type of disease.

75. Some components of the health interface are closely connected to the social area. Organizing equal access to health must take into account of the diversity of people's social, cultural and ethnic backgrounds.[47] Identifying and measuring the burden of health care financing in different social groups of the population adds to the understanding of both consumption and financing patterns. It also helps to improve the consistency of health accounts. Health expenditures are quite unevenly distributed among population groups. Socio-economic variables may determine not only health but also in public financing schemes the exemptions from co-payments. "Catastrophic" health expenditures and out-of-pocket expenditures that low-income households face are therefore of particular interest for health accounts and add valuable information to the knowledge about both the demand for health care and its accessibility.[48]

76. By employing consistent methodology and data sources across all diseases it can be ensured that expenditures for various diseases can be compared and the sum of expenditures for all diseases totals to the

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47 For example, the Primary Health Care model as articulated at Alma-Ata explicitly stated the need for a comprehensive health strategy that not only provided health services but also addressed the underlying social, economic and political causes of poor health.

48 Often the poor receive less public spending subsidy than the rich, see *O'Donnell et al.* (2008). The importance of social determinants for health is comprehensively discussed in CSDH (2008).

current health expenditures estimates. SHA offers the possibility to make consistent **expenditure by disease accounts**. In practice, this means primarily a top-down approach to the allocation of health expenditures by specific health status classifications as the Global Burden of Disease or the International Classification of Diseases keeping the boundary of the current health expenditure account.[49] The cost of disease is different from the total costs that are faced by the patient. One reason is the inclusion of indirect costs. Indirect costs in Cost of illness (COI[50]) or productivity losses can be seen as the loss in earnings as a result of death, illness or time spent undergoing treatment for the society as whole. The loss of earnings can be both those of the patient and family members caring for the patient. Usually indirect costs are larger than health related cash benefits because these benefits do not fully the replace the lost incomes. The cost framework might also include intangible costs, e.g. costs of pain, suffering, anxiety, grief and loss of leisure time, for which a monetary value is assigned.

77. Current health expenditures can be considered as the product of the annual prevalence of patients receiving health care goods and services and the average value of these health care goods and services. The ability to **link monetary with non-monetary data** gives opportunities to gain information about utilization, incidence, and prevalence that is essential for measuring unit costs of health care services. These may be important for developing health price indices. Additionally, information about unit costs could be used for checking the consistency of the accounts.

4.3 Provision interface

78. The provision interface offers links to additional dimensions and accounts such as the resource costs classification or resource generation including the capital formation account. The focus switches here from the consumption to the production approach. In the current health expenditure account, the total of provision equals the total of consumption and the total of health care financing. It is important to distinguish between "provision" as the output of health care products and the "production" of providers as a process that relate inputs to outputs. Health care provision for final consumption differs from production of health care providers by the external trade in health care services and goods, the production of non-health products, and the production of health care goods and services used as intermediate consumption. From an economic perspective the total value of production of the health care system and the related value added are of interest. Such a broader economic perspective is taken in full health care satellite accounts that compile both the supply and demand of health care services and goods. 2008 SNA, chapter 29 describes such an approach that balances supply and use of health care services and goods in the outline of an input-output model. This is further discussed in Annex X.

79. The **resource costs (RC)** are the factor inputs used by providers to produce the goods and services consumed or the activities conducted in the system. The boundary of the measurement of resource cost is derived from the outputs of health care providers enclosed. Usually it differs from the boundary of health care consumption of the core health expenditure account. One particular issue of the resource cost account is that resource costs of providers include also items related to non-health products and exports. The extension of the core account of SHA to RC might be of interest for various reasons, e.g. the cost of the various components driving the expenditure increase varies according to the purchase and provision

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[49] Estimating current health expenditure according to disease is comparable with direct health cost in Cost-of-Illness accounts (COI). One should note that direct non-health cost such as transportation and lodging for family members if health provider is far from home, and childcare for dependent children during hospital stay is not included. COI may consider different time frames for cost estimation: the annual time frame (prevalence-based) or the lifetime time frame (incidence-based). Because of the simpler data requirement, prevalence-based models have been more widely used than incidence-based ones (see Chapter 9):

[50] COI studies are not standard in their content, so that the indirect costs are not always included or the coverage of the indirect costs is not unified. See Polder 2001.

organization and the strength of health professionals in the human resource markets of health care. Human resource costs are the most important group of variables of the resource cost account including the wages and salaries as well as social dues to be paid on earnings. Planning requires the identification of these dynamics. The identification of intermediate consumption in the additional expenditure account of SHA 2.0, allows the measurement of the total demand of health care services and goods[51]. [the issue of Resource Cost's dual purpose either to fitting with HC or to take the production focus is to be discussed.]

80. The **generation of resources** as investment in key inputs and technologies (capital, human and knowledge) determine the capacities of the health care system. Information and communication technologies as well as medical equipment are nowadays integrated in almost all health care provision processes and give opportunities for further improvements. Capital formation is a crucial factor in the provision and enhancement of quality of health care services and goods by health care providers. Capital formation deals with changes in the resources used by providers. Gross capital formation is measured in the capital account by the sum of three components: gross fixed capital formation plus changes in inventories plus acquisitions less disposals of valuables. A human capital account would record expenditures for the formation of human capital in health care as well as the human resources in health care. Human capital and health knowledge are, like physical capital, crucial factors in the provision and enhancement of quality of health care services and goods by health care providers. Human capital within the health care system consists of the stock of knowledge, skills and experience embodied in the labour force of all types of skills ranging from medical to IT, cleaning and management, which is taken as proxy for human capital. SHA 1.0 recognised the importance of the labour force proposing the measurement of human resources in health care in a stock-flow approach and the expenditures for activities of education and training (SHA1.0: HC.R.2). Furthermore, the amount of resources devoted to innovation, science and inventions is measured in the form of expenditures for research and development in health (SHA1.0: HC.R.3). Both types of expenditures are not for current final consumption, but influence final consumption in the future. They are invested as inputs into the future capacities of the health care system like capital formation (see Annex X). Therefore, the boundary of resources generation / capital formation account is different from that of the current health expenditure account. **[Further adjustments are possible depending on final capital account/resources generation chapter].**

4.4 Financing interface[52]

81. The financing interface offers the possibility to expand the accounts of health care financing to a detailed analysis of the the revenues side of financing scheme as well as to link these schemes with institutional sectors of SNA. Information about health care financing is limited in the core expenditure account to the questions: "*where does the money go to?"* and "*which types of different services are financed?"* (HFxHPxHC). The financing interface to the additional account on **financing sources** aims to provide a more comprehensive picture about financing flows in health care, by providing answers to the question: *where does the money come from?* Information gained from the financing sources account can be two-fold. On the one hand it may focus on tracing back the funds that are at the disposal of financing schemes i.e. the flows from the institutional units of economy (general government, corporations, households, NPISHs and Rest of the World) to the Financing scheme. On the other hand, information on contributions mechanisms i.e. the way, the funds were collected (taxes, health insurance premium grants, transfers) might be of particular interest.

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51 Total demand = Intermediate Consumption + final demand (see Chapter 4). SHA 1.0 does not explicitly classify producers of intermediate products to health care as providers of medical care in the ICHA-HP. In contrast, SHA2.0 enables the activities of those producers which directly support the providers of health care to be explicitly shown.

52 This interface is developed later as the respective Chapters 7 and 8 are not yet final.

82. Identifying financing agents, which are the institutional units, and the types of revenues for each financing scheme allows for a better interpretation of public and private funding in the health care sector. For example, "households", as an institutional sector, belongs to the private sector, while households contribute both to public and private funds (e.g., the funds of social health insurance and the funds of voluntary health insurance). Social health insurance contributions paid by households are considered as elements of public finance and voluntary health insurance fees paid by households are considered as elements of private finance. In addition, financing sources account can provide information on discrepancies between the receipts and the expenses of financing scheme. Revenues and expenditures of financing agents/schemes may not be balanced. The total expenditure in HCxHF and the HPxHF tables does not necessarily equal the total revenues in FSxHF table. The differences show the surplus or deficit of the particular health financing schemes. A related issue is that of intergenerational imbalances in the financing system. Contributions (private and public) and premiums paid by one generation are by definition not always equal to the payments necessary for service delivery for this generation[53]

83. To sum up, the extension to the financing sources accounts does not change the consumption boundary considered in the current health expenditure account, but adds distributive transactions to the health accounts at the financing interface, the revenues of the financing schemes. Imbalances between revenues and expenditures might be accumulated over several years. These deficits or surpluses change the financial position of the financing schemes, their financial assets and liabilities. SHA 2.0 does not provide guidelines for the recording of financial assets and liabilities. If accountants are interested to expand the financial accounts further, they should follow the rules laid down by GFSM and SNA.

[53] For further details of the concept of intergenerational accounting see Auerbach, Gokhale, Kotlifkoff 1994

Annex 1: Borderline cases of SHA (core accounting framework)

Borderline activity	*primary intent: health*	*medical reason- health knowledge – health personnel*				*Transactions*		*Main arguments*	*Recommendation Include / exclude:Core or Extended Accounting framework*	*Core / Extended*
		medical	*knowledge*	*personnel*	*autonomous*	*payment in cash or kind*	*consumption for final use*			
Curative services										
Cosmetic surgery for reconstruction of traumatic damage	y	y	y	y		y	y	Performed by medical (surgeons) professionals using medical technology. Contributes to improvement of mental health. Direct contact of provider with patient	Include all services under these wordings, without trying to distinguish between various types (impossibility to separate plastic surgery without medical reasons). (For discussion)	C
Reconstructive surgery	y	y	y	y						
Other cosmetic or plastic surgery	m	no	y	y						
In-vitro or artificial fertilisation	m	y	y	y		y	y	Provided by health care institutions / professionals. Direct contact of provider with patient.	Include.	C
Autopsies		y	y			y	no	Pros: performed mostly under medical authority (legal medicine), by pathologists; determines causes of death; In SHA 1.0: included in HCR.	Include.	C
forensic medicine		y	y	y		y	no	Forensic services make large use health knowledge and technology (incl. psychology); autopsies and forensics are services linked together. In SHA 1.0: included in health related functions	Include.	C
Telemedicine	y	y	y	y		y	y	Performed using medical and paramedical knowledge and technologies	Include; for households final consumption; for professionals intermediate consumption.	C
Psychological therapy or psychotherapy related to mental or physical abuse	y	y	y	y		y	y	Performed by health professionals. Direct contact of provider with patient. Small therapy units may not be registered as health institutions and their activities not taken into consideration as such.	Include	C
Chiropractors' services	y	y	y	y		y	y	Provided by medical professionals	Include	C
Alternative healers/ alternative medicine	y	y	y	y		y	y	Alternative medicine is very important in many developing countries	See rules for TCAM	C
Acupuncture	y	y	y	y		y	y	acupuncture could generally be included as a health service	Include	C

Services provided by balneology institutes		y/n	y	no		y	y	Often provided by non health professionals; seldom prescribed as part of a medical treatment. The very large spectrum of such services do not allow reasonable definition refinements.	Include, if curative, rehabilitative, or prevention function, and if provided by health professionals. Included as health improving service, excluded as sports, wellness or fun purposes.	

Borderline activity	***primary intent: health***	***medical reason- health knowledge – health personnel***				***Transactions***		***Main arguments***	***Recommendation Include / exclude:Core or Extended Accounting framework***	***Core / Extended***
		medical knowledge		***personnel***	***autonomous***	***payment in cash or kind***	***consumption for final use***			
Care services										
Long term care	y	y	y	y	supervised	y	y	aim is improving and/or preverting deterioration of health status	Include; but exclude the non-health part if not linked to treatment. In case no separation is possible and majority is health and nursing then included; otherwise exclude.	*C*
Summer camp for disabled people and/or for whole family with disabled children providers				social		y	y	Pros: the main purpose of such services may be support to activities of daily living (ADL); could have a rehabilitative component. Cons: included in health related functions; activities go beyond daily living.	Exclude; social component is main purpose. Not included; only medical/health components are included.	
Orphanages (orphans and disable children) home for children				social		y	y	Generally considered as institutions of social care.	Social component is main purpose. Not included; only medical/health components are included.	
Crèches for 0-3				social		y	y	Has nothing to do with health; generally considered as institutions of social care.	Exclude	
Housing adaptation such as automatic staircase lifts		y/n	y/n	Social?			no	There is a large spectrum of such technical devices, which are generally not bound to health services or provided by health professionals. Moreover, it is not care but investment. It doesn't improve health but standard of living.	Excluded. Investment of a social type.	
Recreational services for patients (in mental health institutions)	m	y	no	no		y	y		Included in total turnover for treatment, should be separated.	
Recreational services for patients in residential care settings		no	no	no		y	y		Included in total turnover for "treatment", but should be excluded. Not included it is a social component.	

Borderline activity	*primary intent: health*	*medical reason- health knowledge – health personnel*				*Transactions*		*Main arguments*	*Recommendation Include / exclude:Core or Extended Accounting framework*	*Core / Extended*
		medical	*knowledge*	*personnel*	*autonomous*	*payment in cash or kind*	*consumption for final use*			
Preventive services										
Massages		y	y	y				Private demand of care provided by health professionals	Include if meets health purpose and criteria [Discuss]	
Fitness activities		y/n	y					Not health care	Exclude	
Nutritional products	p	y/n	y/n			y	y	Pros: contribute to improvement of health, products sold in pharmacies and/or prescribed by doctors. Direct contact with patient. Cons: also sold in supermarkets; a precise borderline on what is medically indicated by health professionals is nearly impossible.	Include but on a restrictive basis (i.e. advised by health professionals). Included in case health effects.	
Vitamins and minerals	p	y/n				y	ys	Improve health	Included in case of prescriptions and distribution by health care providers.	
Maternal and child health	y/p	y	y	y		y	y	Prevention and cure elements	Include	C
Occupational health care – In SNA intermediate consumption	y	y	y	y		y	y	Final consumption from the viewpoint of consumers	Include	C
Blood pressure instruments	p	y	no	no		y	y	Explicitly mentioned in SHA as example of miscellaneous medical devices.	Include under HC for Households; intermediate consumption for professionals and in that case to be excluded Households: Core Accounting	C*
Rims for glasses		no	no	no		y	y	Normally a joint product together with the provision of glasses.	Include, as a normal extension of glasses	C
Sunglasses	p	y/n				y	y	Pros: health prevention functions of these goods; produced and sold by pharmacists/opticians who are health professionals (ISCO 88); may be prescribed by doctors. Contra: sunglasses, except medical glasses, are fashion articles with high aesthetical added value.	Include but on a restrictive basis, only medically prescribed or advised. Exclude from any estimation of expenditure the articles sold by non health professionals.	
Suncream	p	y/n				y	y	Pros: Suncream prevents certain types of skin cancer; ie.e prevention. Cons: Sun cream belongs to general cosmetic articles.	Include.	
Condoms and other mechanical contraceptive devices	p	y	no	no		y	y	These devices have a preventive function (diseases and pregnancy).	Include.	C

Borderline activity	*primary intent: health*	*medical reason- health knowledge – health personnel*				*Transactions*		*Main arguments*	*Recommendation Include / exclude:Core or Extended Accounting framework*	*Core / Extended*
		medical	*knowledge*	*personnel*	*autonomous*	*payment in cash or kind*	*consumption for final use*			
Other services										
Patient transport to and from facilities for the purpose of receiving medical care by taxi or other conventional vehicles use	y	y	no	no		y	y	Pros: the transportation service is needed because of the health status or to get a health provision. Cons: the service is generally not provided by health professionals; when provided in a health institution, this expenditure is already included in the main product (intermediate consumption, not final use).	Include if possible in HC, if the services (expenditure) can be captured out of financial data of the providers or of special compensation (government or social insurance). Otherwise estimations may be necessary. But all to be included.	C/E
Ambulance services which do not result in the transport of patients	y	no	no	no		y	no	Joined product	Include.	C
patient supporting organisations in relation with diseases	p	y	y	Some-times		y	y	Use of health knowledge and skills, generally considered as prevention services.	Include; research should however be captured separately (HC.R).	C
Orthopaedic shoes	y	y	y	partly		y	y	This device is generally medically prescribed and provided by orthopaedic technicians considered as a health professionals (ISCO 88; ISCO 08).	Included	C
Other medical goods industry		no	y	y			no	Interrmediate products	Exclude; (no direct delivery to the patient).	
Policy formulation outside central government	y/n	y	?	?				In health programmes and donor programmes consultancy can be offered as part of the package.	Exclude as intermediate products	
Activities of organ banks	y	y	y	y				Performed using medical knowledge and technologies. No direct relation to patient.	Do not include if these products are intermediate consumption of other health providers.	
export of health services	y	y	y			y	y	part of the normal production processes of providers.	not included, not for domestic use; extended accounts.	
production for own final use						no	y	usually in replacement of professional provided care.	Include if payment involved.	
Medical association, nurses unions and the like (umbrella organisations for professionals)		y/n	y/n	no		y	no	Not a health activity toward patient.	Exclude any health professional association or trade union (intermediate services)	
Refresher training (courses to be followed by professionals on a obligatory or voluntary basis)	y	no	no	no		y	no	Included in health products or by the health providers as intermediate consumption or estimated separately in HC.R	Exclude; intermediate consumption / input factor.	
Environmental health			y/n	y/n		y	no	To be reconsidered if relevant in this list of borderline cases.	Exclude; extended accounts; SHA1.0 under HC.R5.	

Biochemical engineering		y/n	y/n	y/n		y	no	Pros: performed for public health institutions or the pharmaceutical industry. Cons: these products are integrated as intermediate consumption in health goods and services.	Exclude; intermediate consumption.	

CHAPTER 4 KEY CONCEPTS AND DEFINITIONS

84. This Chapter outlines the main concepts and definitions used in the System of Health Accounts. It discusses the accounting concepts related to the consumption of health goods and services and the range of possible uses of these. It defines consumption, final consumption expenditure, actual final consumption, intermediate consumption, current and total expenditure on health, gross capital formation, and discusses market transactions and the valuation of non-market transactions.

85. The Chapter shows the main similarities and differences between the System of Health Accounts and the System of National Accounts (SNA), relating information on the health sector to the national economy accounting rules and considering differences in the production boundaries of the two systems.

Accounting and National Accounting as a base for the System of Health Accounts

86. Accounting is "the art of recording, classifying, and summarizing in a significant manner and in terms of money, transactions and events which are, in part at least, of financial character, and interpreting the results thereof."[54] When this refers to the accounting of individual actors or institutional units in the economy such as households, enterprises, or public bodies such as government agencies this is sometimes referred to as microeconomic accounting. When talking about the accounting measurement of the economic activity of a nation (as compared to business activities which measures transactions for a corporation), we may talk about National Accounts or macroeconomic accounts. In turn, Health Accounts refers to summary accounts for expenditure with a health purpose in a particular economic territory or a nation, which aggregates the expenditure for this purpose of different actors and this sits in between micro- and macro-accounting and is sometimes referred to as mesoeconomic accounting.

87. The System of Health Accounts draws and relies on both the accounts of individual units and organisations related to health care, as well as aggregates compiled in national accounts. The more closely SHA can link to business accounting and public accounting standards, to international and national health recording standards, and to national accounting definitions the more feasible and useful it is. Accounts that can be linked to national accounts are known as satellite accounts to the national accounts framework. SHA uses methodologies that are closely linked to the main national accounts methodology, but are not bound to employ exactly the same concepts and focus more on health specific issues. SHA does not qualify as a full SNA satellite account. In order for SHA to become an SNA satellite account, it would need extra information on the production of health care industries[55]. As stated in Chapter 3, SHA focuses on the current health spending for consumption purposes and is tri-axial, linking the consumption to the provision and to the financing.

88. National accounts typically present the production, income, and expenditure activities of economies' *institutional units* (corporations, government, households, and not for profit institutions). It

54 American Institute of Certified Public Accountants (AICPA)

55 To become an SNA satellite account, SHA would need extra information and accounts such as a production account; intermediate inputs to the health care industries; as well as gross capital stock and an input-output table of health care industries. See 2008 SNA, 29.139 to 29.141

measures stocks (accumulation to a point in time) and flows (over time). The main aggregate measures in national accounts are gross domestic product (GDP), gross value added, disposable income, saving, and investment. Typical national accounts tools include input-output tables (shows how industries interact with each other in the production process), and national balance sheet (shows assets on one side and liabilities and wealth on the other). The accounts are derived from data sources, including surveys, administrative and census data, or official records. The main national accounts components include current accounts (production, income, and expenditure accounts), capital accounts, financial accounts, and balance sheets. Each account has a balancing item, which is obtained by subtracting the total value of the entries on one side of an account (assets) from the total value on the other side (liabilities). They ensure accounts balance, and provide information such as value added, operating surplus, disposable income, saving, net lending/net borrowing, and net worth.

89. Annex 1 of this Manual discusses in more detail the links and mappings of national accounts and health accounts statistics, to support the development of health accounts using national accounts information.

Consumption, availability and use of health goods and services

90. This section examines the central SHA concept of *consumption* of health goods and services in relation to the SNA perspective of the *use* of health care goods and services. Health care goods and services are as delimited in Chapter 3 and classified in the functional classification in Chapter 5.

91. Health care goods and services that are available in a country have been either supplied by domestic providers or imported from the rest of the world. They can then be used for the satisfaction of individual and collective health needs or as inputs into the production of other health goods and services. For example, a radiologist can provide a consultation to patients resident in the country, to foreign tourists or to another health provider (a colleague or a hospital). Health goods or services produced in the economic territory if used by a resident to satisfy an individual or collective need are classified as final consumption and included in the core health accounting framework. The following cases are outside the boundaries of these core accounts: if the user is non resident, the products are exports; if health goods and services are used by other health providers, they are considered as intermediate consumption; and if health care goods are stored for future use they are accounted for as a change in inventories.

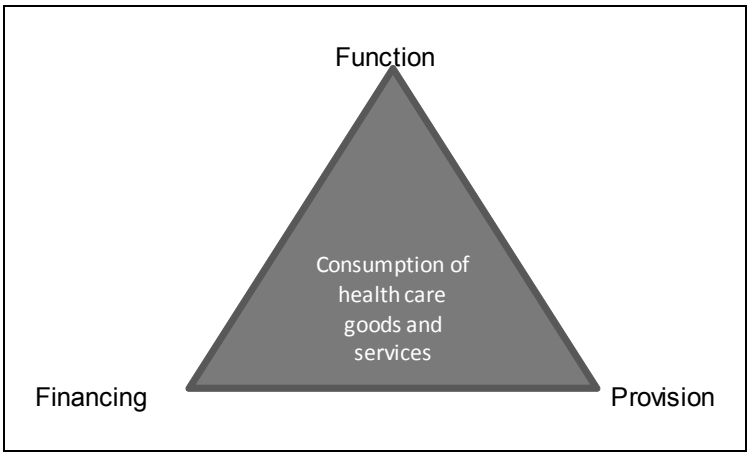
92. Figure 4.1 presents in a schematic form, from an SNA perspective all the possible uses of health care goods and services. The two main categories of uses are intermediate consumption and final uses. The latter includes final consumption expenditure by households, general government, and NPISH; investment; and exports. The lightly-shaded area represents the **final consumption expenditure** on health goods and services in SHA and corresponds to the lightly-shaded health care consumption, provision and financing SHA triangle in Figure 4.2, which illustrates also the identity in SHA between consumption, provision and financing.

93. Intermediate uses consist of the health care goods and services that are consumed (used-up or transformed) in the production process. Those products, which could be either produced by domestic firms or imported from the rest of the world, are used together with other "intermediate consumption" produced by the rest of the economy (*e.g.* electricity, water, fuel, surgical masks, and protective wear) and the capital goods. Capital goods are characterised by the fact that are used repeatedly and for more than one year in the production of health services.

Figure 4.1 The uses of health care goods and services (SNA perspective)

<table>
<tr><td rowspan="4">Health care goods and services</td><td colspan="7">Total uses of health care goods and services</td></tr>
<tr><td rowspan="3">Intermediate Consumption</td><td colspan="5"></td><td rowspan="3">Gross capital formation</td><td rowspan="3">Exports</td></tr>
<tr><td colspan="5">Consumption</td></tr>
<tr><td>Households</td><td colspan="2">NPISH</td><td colspan="2">General Government</td></tr>
<tr><td></td><td></td><td>Individual</td><td>Collective</td><td>Individual</td><td>Collective</td><td></td><td></td></tr>
<tr><td>Produced within the economic territory</td><td></td><td colspan="5" rowspan="2">Health care goods and services purchased within the economy and purchased abroad by residents</td><td></td><td></td></tr>
<tr><td>Imported</td><td></td><td></td><td></td></tr>
</table>

Figure 4.2 Consumption of health care goods and services (SHA perspective)



94. Household final consumption expenditure consists of expenditure incurred by resident households on individual consumption goods and services, including consumption of goods and services acquired abroad.

95. Final consumption expenditure by general government consists of expenditure incurred by government units and is divided into those expenditures incurred for the benefit of individual households and those incurred for the benefit of the community as a whole, or large sections of the community.

96. Individual goods and services are distinguished from collective or public goods and services. Individual goods and services have the following characteristics:

- It must be possible to observe and record the acquisition of the good or service by an individual household or member thereof and also the time at which it took place;
- The household must have agreed to accept the provision of the good or service and to take whatever action is necessary to make it possible, for example, by attending a school or clinic; and
- The good or service must be such that its acquisition by one household or person, or possibly by a small, restricted group of persons, precludes its acquisition by other households or persons.

97. The treatment of consumption expenditures incurred by NPISH[56] is very similar to that for general government. Whereas government expenditures are financed in large part out of taxation, those of NPISHs are financed principally out of subscriptions, contributions or donations, or property income. Final consumption expenditure of NPISHs consists of the expenditure incurred by resident NPISHs on individual consumption goods and services and possibly on collective consumption services.

98. Final consumption expenditure refers to "who spends". Total final consumption may be viewed also from another angle, that is, "who consumes". ***Actual final consumption of households*** is measured by the value of all the individual consumption goods and services acquired by resident households. There are three sets of goods and services entering into household actual final consumption: those acquired through the final consumption expenditure of households themselves; those acquired as social transfers in kind from general government and from NPISH. The goods and services can be the output of these institutions as non-market producers, or they may have been purchased by these institutions from market producers for onward transmission to households free or at prices that are not economically significant.

99. Health goods and services acquired by non-residents from resident providers are **exports.** For example, health care provided to non-resident tourists represents an export. Exports can, however, take other forms which do not necessarily imply the movement of the user across the border. Consider, for example, the increasing importance of e-health, tele-diagnosis, or the purchase of medical goods through the internet. Another example relates to health professionals providing services abroad on a temporary basis. Health services provided to foreign enclaves such as embassies are also part of exports.

Main aggregates of health expenditure

Current expenditure on health

100. As discussed in Chapter 3, Global Boundaries of Health Care, health care is defined by the types of activities or purposes according to the classification of health care functions (ICHA-HC). In measuring expenditure on these goods and services, *current expenditure on health* can be defined as follows.

Current expenditure on health = final consumption expenditure of resident units on health care goods and services (the lightly shaded cells).

101. In other words, the current expenditure on health quantifies the economic resources spent on the health care functions as identified by the consumption boundaries in Chapter 3. That is, expenditure of resident units in the economic territory plus their expenditures in the rest of the world. Hence the SHA concerns itself primarily with the health goods and services *consumed* by resident units, irrespective of where the consumption takes place or indeed who is paying. Therefore, exports of health care goods and services (provided to non-resident units), are **excluded**, whereas imports of health care goods and services for final use, *i.e.* consumed by residents abroad, are **included**.

[56] In most countries non-profit health care providers have market oriented practices. As in SNA (4.83) health non-profit institutions are legal or social entities, created for the purpose of producing goods and services, whose status does not permit them to be a source of income, profit or other financial gain for the units that establish, control or finance them. In practice, their productive activities are bound to generate either surpluses or deficits but any surpluses they happen to make cannot be appropriated by other institutional units according to the articles of association by which they are established.

Total expenditure on health[57] *[For discussion related to capital transfers issue]*

Besides expenditure for the consumption of health goods and services, health financing schemes may transfer, to the health providers, additional funds to be used for the acquisition of structures or equipment used in their production. For example the Government can transfer to a hospital the funds required to purchase a MRI machine.

It is argued in an issue document prepared on Capital Transfers, that those funds should be considered as health expenditure together with current health expenditure. In other words, it is proposed that SHA 2.0 defines a new aggregate called "Total health expenditure" which equals the sum of current health expenditure plus capital transfers to health providers[58].

Gross capital formation expenditure in the health care system

102. The distinction between current expenditure on health care goods and services and capital expenditure in health care industries is important. Capital goods are an essential component of demand and play a crucial role in the provision of health care services and goods to maintain or expand their production.

103. Gross capital formation in health care is defined as the acquisition of produced assets, that is assets intended for use in the production of other goods and services for a period of more than one year. It is the sum of the values of the following three components:

- gross fixed capital formation;
- changes in inventories; and
- acquisitions less disposals of valuables.

104. Therefore, gross fixed capital formation is one of the three elements included in the wider aggregate called Gross capital formation.

105. In calculating the acquisition of produced assets in capital formation, the disposal of existing assets should be deducted from the value of the acquired capital goods. Such capital may be tangible assets, for example, hospital buildings, ambulances or MRI machines, or intangible assets, such as investment in software and expenditure on research and development (see below). Gross capital formation can be further broken down according to the health care provider industry. It is to be noted that for the most part the capital goods are produced by branches or industries outside the realm of health care providers.

106. For the recording of gross capital formation, the SHA recommends that it concerns only those providers where health care is the predominant activity. Where administration activities of public health and health care financing or insurance are embedded into larger units, any relevant capital formation may be impossible to distinguish.

107. The guiding principle for the recording of gross capital formation is the ownership of the assets by the health providers. The only category of health providers for which capital formation would not be

[57] This aggregate represents a new concept and should not be confused with the SHA 1.0 aggregate.

[58] The System of National accounts defines "Capital transfer" as: "Capital transfers are unrequited transfers where either the party making the transfer realizes the funds involved by disposing of an asset (other than cash or inventories), relinquishing a financial claim (other than accounts receivable) or the party receiving the transfer is obliged to acquire an asset (other than cash) or both conditions are met. Capital transfers are often large and irregular but neither of these are necessary conditions for a transfer to be considered a capital rather than a current transfer. Other transfers are described as current." (System of National Accounts 2008 page 158)

recorded is the rest of the world, as the acquisitions of capital by non-resident providers will be recorded in the country of residence of the provider.

108. The inclusion of all providers (except the rest of the world) is a departure from SHA 1.0, which excluded the net acquisition of capital assets made by retailers of medical goods (as retail sale of medical goods is regarded as a supporting activity). The proposal to record also the values of gross capital formation acquired by the retail sellers is motivated by the fact that retail sales are part of the health system. Retail sellers are part of the distribution of medical goods, a different type of providers but as relevant as medical offices. Also in certain countries, such as Switzerland, retail sellers can recommend and prescribe medicines. Prescription and provision of medicines are health services.

109. In summary, the suggested definition is the following:

> Gross fixed capital formation in the health care system is measured by the total value of the assets that health providers have acquired during the accounting period (less the value of the disposals of assets of the same type) and that are used repeatedly or for more than one year in the provision of health services.[59]

Research and development

110. In the 2008 SNA, research and development is to be considered as an intellectual property product and as such included as a part of capital formation. The results of research and development (R&D) "consists of the value of expenditures on creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and use of this stock of knowledge to devise new applications. This does not extend to including human capital as assets within the SNA. The value of research and development (R&D) should be determined in terms of the economic benefits it is expected to provide in the future. This includes the provision of public services in the case of R&D acquired by government. In principle, R&D that does not provide an economic benefit to its owner does not constitute a fixed asset and should be treated as intermediate consumption. Unless the market value of the R&D is observed directly, it may, by convention, be valued at the sum of costs, including the cost of unsuccessful R&D…." (SNA 2008, 10.103).

111. Therefore, R&D of health care providers should be recognised as part of capital formation. In order to achieve this, several issues have to be addressed. These include deriving measures of research and development, price indices and service lives. Specific guidelines, together with handbooks on methodology and practice, will provide a useful way of working towards solutions that give the appropriate level of confidence in the resulting measures.

112. Examples of R&D linked to the generation of specific products such as vaccines and pharmaceuticals result from basic research and biomedical, clinical research, and research on risk factors.

113. The Frascati Manual, which provides detailed guidelines for the estimation of expenditure on research and development in health[60], may be a source of useful examples. Further information on international comparisons and examples of national efforts can be found in "Measuring expenditure on Health-related R&D" (OECD, 2001). The separate recording of expenditure on R&D as a component of capital formation is suggested and will be targeted for further development.

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[59] Please note that we opted for the use of "provider of health services" instead of "health care services" so to include those economic units providing health administration services.

[60] Frascati Manual (OECD, 2002, Annex 4)

114. An OECD "Handbook on deriving capital measures of intellectual property" is under preparation at the time of writing. The purpose of the handbook is to provide guidance on deriving capital measures (gross fixed capital formation, consumption of fixed capital, capital services and the stock of capital) of R&D and other intellectual property products.

Total expenditure on health (SHA 1.0)

115. The approach taken in SHA 1.0 was to sum the two aggregates of "current expenditure on health" and "gross capital formation" to equal "total health expenditure". However, the use of the aggregate "total health expenditure" tended to be misunderstood. Indeed, current health expenditure refers to final consumption, which is the demand for health goods and services by households, government and non-profit institutions, while gross capital formation refers to the demand for capital goods by health providers. Thus it could be argued that the two aggregates cannot be directly summed up as they refer to different consumption timing, as capital enables future provision, and statistical units. For this reason, it is suggested to keep the two aggregates separate in the revised manual, and discourage the use of the aggregate "total health expenditure" at least regarding how it was used in SHA 1.0. It is proposed to use the term "current expenditure on health" plus "gross capital formation in health care" instead.

Time of recording

116. The timing of recording of the final consumption expenditures within SHA has two elements:

a. calendar year versus fiscal year

b. accrual versus cash accounting

117. First, a particular period must be chosen within which the activities took place. Most often this is a fiscal year or a calendar year. This choice may seem trivial, but in practice it can pose problems. For example, government entities may report spending on the basis of a fiscal year while private entities report on the basis of a calendar year. In such a case, the health accountant must adjust the figures reported so that only one time period is used[61].

118. The second element of the time boundary is the distinction between when the activity took place and when the transaction that paid for the activity took place. In practice, this involves a choice between accrual accounting and cash accounting. Health accounts should use the accrual method, in which expenditures are attributed to the time period during which the economic value was created, rather than the cash method, in which expenditures are registered when the actual cash disbursements took place.

119. Similarly, in the case of exports and imports, these are recorded at the time when a service is delivered or, in the case of goods, when the change in ownership of real assets occurs.

The measurement of consumption and output: market and non-market production

120. As a general rule, final uses are valued at the prices agreed to by the parties to the transaction. These prices are described as market prices or purchasers' prices. In the case of payments by households, they correspond to the price paid in stores. The prices of final uses include non-deductible VAT, other taxes on products (such as sales taxes, and specific duties), and transport and marketing costs.

- There are a large range of activities for which the notion of sales is non-existent, and these constitute the non-market sector, covering mainly services provided by general government and

[61] The PG provides practical guidelines.

non-profit institutions. The organisations concerned do not sell their services, and it is therefore necessary to find a different measure of valuation of their output. Non-market producers are those that provide services, and in some cases goods, either free of charge or at prices that are not economically significant, meaning in practice prices that cover less than half the cost of production. The value of the good or service is conventionally measured as equal to the sum of its production costs, including:

- intermediate consumption;
- compensation of employees (gross salaries in cash and in kind, actual and imputed social contributions and taxes);
- consumption of fixed capital, which is the utilisation cost of the equipment used by non-market producers; and
- other taxes paid on production (taxes on ownership or use of land, buildings or other assets used in production).

121. General government bodies constitute the bulk of the non-market producers, but there are others, like the non-profit institutions. Most of the services provided by general government are provided to the general public without charge. These services may be financed through taxation and social contributions, but there is no direct link between the payment of the tax and the level of services received. A tax is a compulsory transfer to general government and is not the price of a public service. Certain services provided by general government, like education and healthcare, are provided to households on an individualised basis, meaning that it is possible to know who consumes them. Other services are provided only on a collective basis (e.g. mass health information and education campaigns), meaning it is impossible to know who consumes what.

122. Most government corporations are engaged in market oriented production. However, when they offer health care services to their workers and their relatives, the provision may be free of charge. Hence the valuation should also be made through an input cost approach.

123. In the case of individualised services, if prices are fully paid by patients or third party payers (on patients' behalf), the provision is valued at market prices. If patients do not pay the full price, for example if government charges only part of the price to the consumer, and this price is well below the production costs of the services consumed, the value of the good or service is conventionally to be measured as equal to the sum of its production costs.

Rest of the world

124. Imports and exports of goods and services are defined by the existence of a transaction (sale, barter, gift, grant, etc) in goods and services between residents and non-residents, but not necessarily involving the movement of the good or service across a border. Given the increasing importance of trade in health goods and services, (*e.g.* as a result of patient mobility, e-health, tele-diagnosis, the purchase of medical goods via the internet, etc) a consistent and comparable aggregate of health care expenditure which takes accounts of this trade is necessary.

125. As discussed above, current health expenditure relates to the resident population, such that it should *exclude* any consumption of health care goods and services provided by resident providers to non-residents (exports) but should *include,* for example, any final consumption by residents outside of the

territory (imports). In this respect it is important to clarify the concepts of residence and what is to be included under imports and exports.

126. Residents include any individual, enterprise or other organisation ordinarily domiciled domestically. To ensure compatibility in this regard with other macroeconomic statistics, SHA takes its lead from the definitions contained in the Balance of Payments Manual (BPM6): "The residence of each institutional unit is the economic territory with which it has the strongest connection, expressed as its centre of predominant economic interest. Each institutional unit is a resident of one and only one economic territory determined by its centre of predominant economic interest".

127. In the System of Health Accounts, the category 'Rest of the world", relating to non-resident units, exists in both the provider and financing schemes classifications. However, with respect to imports and exports of health goods and services, it is important to clarify that it is the provision rather than the financing by non-resident units that is of interest here. For example, if a foreign government or non-resident non-governmental organisation (NGO) pays for health services for residents but these services are actually provided by a domestic provider then these services are financed by the Rest of the World but are not an import. If, however, the services are both provided and paid for by a foreign government to a resident, then this is indeed accounted for as an import.

128. In the SHA tables, therefore, imports of goods and services from non-resident units are recorded under the provider category 'Rest of the world' (HP.x) and can be cross-classified against the functional and financing classifications. Within the measure of current health expenditure, exports are not included since they refer to consumption by non-residents. During compilation, the direct purchase of health care goods and services by non-residents will often need to be explicitly excluded from domestic provider revenues. However, for transparency and reconciliation, it is proposed that **exports** should also be reported as a memorandum item. [exactly where it should it be reported (e.g. in HC or HP) is to be discussed].

The production boundary of health care services

129. The SHA recommends standard SNA rules for drawing the production boundary of health care services, with two exceptions:

- occupational health care is included in the national totals of health care spending. In the SNA, this item is recorded as ancillary services and part of intermediate production of enterprises; and
- part of the cash transfers to private households for care givers of home care for the sick and disabled are treated as paid household production of health care.

Occupational health care

130. Occupational health care expenditure is the sum of expenditures incurred by corporations, general government, and non-profit organisations on the provision of occupational health care. Occupational health care can be provided in-house, sub-contracted to health care providers (HP.1-6), or provided by not-contracted providers (such as providers of preventive care HP.6)[62]. Occupational health care includes surveillance of employee health (routine medical check-ups) and therapeutic care (including emergency health care services) on or off business premises.

62 The first two items correspond to *Item 5.2: Health* in the Classification of the Outlays of Producers by Purpose (COPP). Occupational health care is recorded in the SNA as intermediate consumption within the business sector; this excludes remuneration in kind in health services and goods which do not constitute intermediate consumption but household actual final consumption.

Household production of health care

131. The production of health care services not only takes place in establishments (including private non-profit institutions) but also in private households, where care for the sick, infirm or old people is provided by family members. The own-account production of these personal services by members of the household for their own final consumption is excluded from measured production in conventional national accounting practice. The boundary line drawn in the SHA includes, however, personal health services provided within households by family members, in cases where they correspond to social transfer payments granted for this purpose.

132. Problems of data comparability across countries and over time arise when households have the choice between benefits in cash or benefits in kind, in which case both kinds of care (by laypersons within the family and by specially trained nurses) are considered to be close substitutes but treated differently in common national accounting practice (as health care benefit in kind or social transfer in cash). Consequently it is recommended that for this sort of cash transfer it is considered as "paid" household production. The part of these payments which corresponds to care given to family members should be recorded under final consumption expenditure (final use) of health and not under transfer payments. The corresponding item should be shown separately in health accounts.

133. This treatment adopted by the SHA explicitly recognises that the unpaid work devoted to the home care of household members has an economic value which can be estimated in monetary terms. While recognising the importance of these unpaid health services provided by households, they are only included in SHA if a cash transfer is paid.

134. Substitutability between household production and production on the market exists in fact when social programmes give households the choice between receiving social transfers in cash for health care provided by them and benefits in kind in the form of the services of a trained nurse financed, partly or totally, by the social programme. In the case where substitutability is not quite as obvious and households receive transfer payments for the health care they provide within the household instead of having recourse to outside help, the economic value of their care activities is nonetheless recognised in the SHA since non-market household production of health care services is imputed a value equal to the transfer payments received.

135. This valuation is based on the assumption that the value of the unpaid care work performed in the household is worth what social programmes are willing to grant. This is of course not a totally satisfactory treatment since the actual amount of time spent on health care work is not taken into consideration. Nevertheless it is preferable to no valuation at all, and therefore no consideration of hours spent on care, which is the case when no choice or monetary support is granted to households.

Health care as part of the informal sector

136. The concealed production of health services (to avoid the payment of income or other taxes or to achieve hidden additional income besides that under contracts with health insurance and/or government programmes) may amount to a sizeable share of the real medical benefits accruing to private households. An estimate of this amount should be part of total current expenditure on health as defined by the SHA, as differences in the treatment of the informal health care sector can distort international comparisons.

137. The national health expenditure estimates of some countries have, in the past, under-reported so-called "under-the-counter" or "envelope" payments by patients paid directly to providers. These payments do not show up in tax declarations of providers. This includes payments by patients that want to jump the waiting list or to obtain greater quality in the delivery of health care services. They might constitute an

essential though informal part of the payment of providers. In the SHA these expenditure should be included in the estimates of overall spending.

138. Illegal actions should in principle be recorded in the accounts in the same way as legal actions, if they fall within the health care boundary. For example, although the provision of abortion may be illegal in certain countries, it could still be provided, albeit illegally. In such circumstances, whenever the service is paid, which is most likely the case, the payment should be recorded in SHA. Other activities, clearly falling within the SHA boundaries and also being legal, could be deliberately covered from public authorities (e.g. to avoid the payment taxes or contributions; or to avoid having to meet certain legal standards). Consider, for example, cases where physicians are paid "under the desk". Those transactions should be included in SHA.

The treatment of subsidies and other transfers to provider industries

139. In actual health care provision and finance, current government transfers and subsidies are frequently designed to reduce the prices paid by final consumers or insurance funds for certain goods or services (especially of institutionalised care). These government transfers have two different forms, according to whether they are paid to market or non-market producers in health care. Transfers to market producers are identical to the category of "subsidies" in national accounting, in so much as subsidies can only occur in market production. In many countries, however, subsidies for market production in health are only of minor importance compared with transfers that go to non-market producers. These are recorded under "current transfers". In its Chapter 29 on satellite accounts, the SNA 2008 lists two options for reporting on subsidies:

140. "In the core framework, when these goods and services are considered market products, they are included in final consumption at purchasers' prices. In a satellite account there are two options: either consumption is valued differently from the core framework in order to include the value of consumption subsidies, or consumption is valued as it is in the central framework and specific current transfers must include consumption subsidies. This may also include other subsidies on production." (SNA 2008, 29.69)

141. The SHA abides by the first option. Final consumption values of, for instance, hospital services should be recalculated (whenever possible) by adding subsidies to the recorded costs. This solution provides for a uniform treatment of national totals and for functional and institutional breakdowns, when shares in total expenditure on health are compared across countries. The exclusion of subsidies could lead to distortions in cross-country comparisons. In practice, subsidies for health care are almost exclusively related to inpatient care.

142. According to SNA s*ubsidies* are current unrequited payments that government units make to enterprises on the basis of the levels of their production activities or the quantities or values of the goods or services which they produce, sell or import (SNA 2008, para 7.98). Subsidies on products (payable per unit of good or service) should be distinguished from other subsidies on production (not calculated per unit of good or service) often taking the form of regular transfers paid to cover persistent losses. It is important to recall that "Subsidies... do not include grants that governments may make to enterprises in order to finance their capital formation, ...such grants being treated as capital transfers" (SNA 2008, para 7.99).

143. Subsidies to public corporations and quasi corporations consist of regular transfers paid to public corporations and quasi-corporations that are intended to compensate for persistent losses (that is, negative operating surpluses) incurred on their productive activities as a result of charging prices that are lower than their average costs of production as a matter of deliberate government economic and social policy. In order to calculate the basic prices of the outputs of such enterprises, it will usually be necessary to assume a

uniform ad valorem implicit rate of subsidy on those outputs determined by the size of the subsidy as a percentage of the value of sales plus subsidy (SNA 2008, para 7.105).

The relationship between SHA current expenditure on health aggregate and SNA terminology

144. SHA and national accounts differ in their primary perspective of the economic activity of a society. While SHA concerns itself with the consumption, provision and financing of health care goods and services only, national accounts refer to the supply of all goods and services, the use of those goods and services, and the generation and distribution of income in the whole economy.

145. Although, as stated, the primary interest of SHA is the consumption of health goods and services, the health provision boundary linked to the basic health consumption boundary is important as it involves some differences from the SNA production boundaries. The expenditure of productive units on providing occupational health services for their employees is recorded as intermediate consumption of the respective units under SNA, while it is recorded as output of the respective units in SHA. In another departure from SNA, the production of households that take care of their dependents is not considered as an economic activity under the SNA and therefore not recorded. Under SHA, however, it is recorded as health expenditure, although restricted to the case where there are social transfers made to carers.

146. In SNA the output of products is recorded at basic prices. The basic price is defined as the amount receivable by the producer from the purchaser for a unit of a good or service produced as output minus any tax payable and plus any subsidy receivable on the product as a consequence of its production or sale. It excludes any transport charges invoiced separately by the producer.

147. The use of products is recorded at purchasers' prices. The purchaser's price is defined as the amount payable by the purchaser, excluding any deductible VAT or similar deductible tax, in order to take delivery of a unit of a good or service at the time and place required by the purchaser. The purchaser's price of a good includes any transport charges paid separately by the purchaser to take delivery at the required time and place. The difference in value recorded for a product between when it is produced and the moment it is used for, say, final consumption expenditure can be considerable. In the health sector, the main component of this difference is "taxes less subsidies on products payable by the producer".

148. Table 4.1 shows the link between current expenditure on health as defined in SHA and the main components of consumption as defined in 2008 SNA. Although the concept of current expenditure on health mainly overlaps with the SNA aggregate "final consumption expenditure" (which is much wider as it covers all goods and services consumed in the economy), as described above it also includes some components which are not considered as consumption in SNA.

Table 4.1 Relationship between SHA current expenditure on health and SNA terminology

SNA 2008 code	*Description*
P.31	Individual consumption expenditure on health
P.32	Collective consumption expenditure on health
P.3	Final consumption expenditure on health (=P.31 + P.32)
D.31-D.21	Government subsidies to health care providers (net) in order to lower price of output
P.31*	Occupational health care (intermediate consumption within establishments) minus an estimated share of occupational health in health providers' and other medical

	industries net administration
P.31*	"remunerated" unpaid household production in the form of transfer payments (social benefits in cash) for home care of sick, disabled and elderly persons provided by family members
P.3*	Adjusted total final consumption expenditure on health (=P.3 + D.31 – D.21 + P.31*)

(*): the production boundaries used in the SHA for the estimation of this item differs from SNA rules

[Review to add some SHA codes here later]

N.B. This Chapter may later include some additional text on transactions, output and production.

CHAPTER 5 FUNCTIONAL CLASSIFICATION OF HEALTH CARE CONSUMPTION

ICHA-HC

I. Introduction

149. This chapter presents a brief review of the concept “function” and the expected uses of a classification by function within the SHA framework. A summary of the main changes from SHA 1.0 is also included. The HC classification is introduced followed by definitions and examples as well as those areas requiring development to further strengthen accountability. The main problems identified by health accountants using the functional classification in SHA 1.0 and the PG are presented as an Appendix to the chapter.

150. In the health accounting framework, the underlying principle may be formulated as "what is consumed has been provided and financed". Boundaries are set based on the consumption purpose. It is thus important to have a clear understanding of what consumption with a health purpose is, and which categories are relevant to be identified. The classification is limited to describing the types of direct consumption by the population, thus, provision for future consumption or investment is not included and is treated separately in a specific classification in chapter 11. The functional classification in this health accounting framework has the purpose of an improvement in the estimation of current spending, to be triangulated with the provision and financing axes.

151. To achieve this tri-axial perspective, it is desirable to improve the consumption measurement, notably because there is no one-to-one relationship between health care functions and provision and financing classes: A particular health care function may be consumed from several types of providers and may be purchased by several types of financing schemes. The opposite is also true. Each type of provider may be involved in the provision of several types of health care functions as well as several types of financing schemes.

152. The proposed classification responds to both conceptual and feasibility criteria. Experience has shown that a limitation to the feasibility of compilation is the nature of the records in health statistical systems around the world, which seldom correspond to the same health purpose classification. What is to be classified can differ according to the data available, as well as to the ability to implement an accounting framework. To illustrate this challenge two examples are mentioned. A typical grouping, such as the Diagnostic Related Groups (DRG) comprises several hundred hospital products embracing only a third of total hospital activity. Pharmaceuticals may number several thousand different entries, grouped in 14 different chapters when using the Anatomic Therapeutic Chemical (ATC) classification. Therefore, the aggregation into groupings of health care functions may follow different paths.

II. Conceptual scope

The concept of health care functions

153. The health accounting concept of function is that of purpose. The term “function” does not have an intuitive global understanding: in national accounts it may refer to groups of goods and services or products, as well as to the primary purpose of the institutional units, or to the purpose of the activities of production units or even the purpose of the financing. The groups of goods and services reflect more appropriately consumption within the SHA framework. Here the concept of purpose relates "to the type of

need a transaction or group of transactions aims to satisfy or the kind of objective pursued". Transactions on the expenditure side deal with the question "for what purpose?" (2008 SNA, 2.42).

154. Thus the classification of function refers to a group of health care goods and services consumed by final users (households[63]), with a specific health purpose, which primarily aims to promote, restore or maintain the health status of individuals, groups of the population or the population as a whole. The functional analysis deals with the consumption of personal and collective health care services, as well as other collective services aimed to maintain and increase the effectiveness and efficiency of the health system, which by convention, are included as final consumption and classed under Governance and Administration.[64]

155. As stated in Chapter 3, health care consumption is made with *the primary purpose of improving, maintaining and preventing the deterioration of the health status of persons and mitigating the consequences of ill-health*. This consumption involves health care goods and services with the specific purpose of:

- Health promotion and prevention
- Diagnosis, treatment, cure and rehabilitation of illness
- Caring for persons affected by chronic illness
- Caring for persons with health-related impairment, disability, and handicap
- Palliative care
- Providing community health programs
- Governance and administration of the health system.

Mode of provision

156. Based on the list of purposes involved in health care, the diversity of goods and services is immense. This is also due to the fact that each interaction is an individual and customised response by the health system, and also, to the fact that in accounting, differences in quality may imply different goods and services. In most countries, a general consultation in a city hospital can involve different technology than a general consultation by a physician in a rural area. It is also true that treatment during an inpatient stay will be provided on a more continuous basis than with outpatient care or a home based service. The entry point to the system implies an inherent quality difference in the technology and length of the direct interaction with the consumer, which is identified in this classification through the mode of provision (MoP). Four major classes of MoP are identified, namely inpatient, day cases, outpatient, and home based.

Health care related classes

157. The functional classification focuses on the grouping of health care goods and services consumed with a defined health purpose. However, some health care services may be integrated with services with a

[63] By convention, households are the final consumers who also are allocated the benefits of government and NGOs, on what is called in SNA as actual final consumption.

[64] The concept of final use, broadly similar to the one of final consumption, is referred as facilitating the handling of these conventions.

non-health purpose. This is the case of wellbeing or health care inter-linked with social care, as in rehabilitation and long term care (LTC). Some collective services can also involve a non-health component, as in the administration of health insurance. Although the aim of the health accounting framework is to measure the health purpose expenditure, some of this related spending may also be of major policy relevance. This is the case with long term care expenditure and several disease control and support programmes, such as HIV/AIDS, for which a total value, including the social care is useful for resource allocation purposes. This classification therefore proposes some additional health care related classes and some relevant indicators summing the health and non-health components. This is notably the case for LTC and Traditional, complementary and alternative medicine. A general description of the expected content of such classes is also included in this chapter.

Reporting items

158. The selected categories of the functional classification reflect the most desirable health policy relevant classes and in compliance with the rules of any classification construction process: the classes are designed to be both exhaustive and mutually exclusive. However, some components contained within the estimations but not fully disaggregated as separate classes, may also have strong analytical relevance. This is the case for pharmaceutical consumption, for which only the direct purchases by the consumer are reported as a separate class. A total expenditure figure on pharmaceutical consumption is useful to inform decision makers, thus the identification of total pharmaceutical expenditure and the components is proposed regardless of the consumption path. Some other selected components of health care spending are proposed for reporting when relevant for specific country policies.

III. Uses of the functional approach

159. A clear definition of health functions and the establishment of an unambiguous boundary are essential to ensure greater harmonisation of the estimates. The main expected uses of a functional classification are:

a) A grouping of the health care goods and services entering final use analysis;

b) A cross-classification of these groups with the financing classifications and/or with the provision classification, and distribution across related beneficiary classifications;

c) The generation of indicators including, for example, total consumption expenditure, shares of preventive/curative expenditure, the ratio of inpatient to outpatient spending, and to generate indicators resulting from cross-classifying functions with financial or provision information such as: private spending by purpose (e.g. the main functions classes of Out of pocket spending), hospital provision by purpose (e.g. inpatient/outpatient). Note that indicators for national monitoring needs may differ, and may be linked to more detailed reporting levels.

IV. Improvements in the functional classification

160. Based on the feedback from health accountants and to ensure consistency with changes developed in SHA2.0, several refinements have been introduced in relation to SHA 1.0.

a) Functional nomenclature. In a functional approach, the analytical axis involves the personal and collective consumption of health care goods and services, as well as systemic services, aimed to increase the effectiveness of the system. An effort has been made to enhance the functional approach both in the labels and definitions of the first level categories. In that regard, the personal consumption which is linked to separate providers is identifiable by purpose and thus has been renamed accordingly, though the content remains unchanged.

b) Current spending. Capital formation is acquired as a means of production, while the associated capital expenditure is a cost of current and future production thus it is not final consumption and has been moved to a specific capital classification. The re-structured component refers also to human resource formation and to research and development, when they are developed as investment. The focus on final consumption improves the operation of the triaxial approach. In health accounts triaxiality involves the equivalence of consumption ≡ production ≡ financing. Advantages of this approach include an optimal use of the data sources to ensure that neither double counting nor omissions occur.

c) A comprehensive measurement of expenditure for the purpose of prevention. Feedback from countries was considered to re-structure the content, and to better define the preventive purpose. Public health has been identified as a category with only partial coverage and involving non-exhaustive and non-exclusive classes, which diminished the comparative gains across countries (see Annex). The label of “public health” also led to confusion and was misunderstood as services provided and/or financed by public entities with various purposes involved. Thus the label "public health" is no longer used. Preventive health care consumption has been identified as the purpose class (see table 5.1 with a mapping to SHA 1.0 and the definitions developed in paragraphs xx to yy).

d) Health care related classes have been re-structured and identified to ensure policy relevant or accounting relevant content related to but going beyond the health care boundary. This is the case of programmes with a joint component of social care. It is also the case of products that are generated with medical knowledge, but for some reason are not part of the health care boundary under measurement, but are relevant to be identified to facilitate the analysis of the output. Specific examples are exported health care goods and services and "non-health products", such as those with a primary cosmetic purpose (see table and definitions developed in XX).

e) Reporting Items have been introduced, to identify policy relevant categories included in the reported classes but not identified through a specific category, thus are part of the health care boundary. For example to highlight the value of total consumption of pharmaceuticals, and notably, when part of the consumption is part of a package of services, not separately identifiable and accounted for (see table and definitions developed in XX).

f) A Research and development class is proposed as a reporting item, the content of which should follow the SNA rules: "R&D that does not provide an economic benefit to its owner should be treated as intermediate consumption (SNA 2008 p 10.133). As in SHA 1.0, when research is a joint product of medical service provision (either clinical or community), it is accounted for as part of the expenditure on the disease control programme management services, thus its value is contained in the final consumption on health, as well as when R&D is developed as a mean of immediate improvement of services, such as the operational research in HIV/AIDS programme. R&D expenditure is part of the capital account in SHA 2.0, when it fits the concept of asset formation.

g) Training of Human resources for health (HRH) is retained as a reporting item. It is expected to follow the SNA accounting rules, "when training is given by an employer to enhance the effectiveness of staff, the cost is treated as intermediate consumption. As in SHA 1.0, when training is a joint product of medical service provision (either clinical or community), it is accounted for as part of the disease control programme management services expenditure (SNA 2008 p 1.54). Education and training of health personnel are treated as related to the capital account in SHA 2.0, when it fits the concept of resource formation of HRH for a future period.

V. Rationale of the classification

The first level purpose classes

161. The first level classes aim to distribute purposes of health consumption between functions as much as possible. Consumption of health care goods and services is split between personal and collective consumption. The expenditure by purpose of consumption of **personal** services can be individually identified and valued. The **collective** services cannot normally identify their consumers[65] and thus cannot easily allocate their expenditure on an individual basis. They involve some health care preventive consumption as well as governance and administration services to maintain and improve the health system.

Personal health care goods and services

162. **Personal health care goods and services** include the standard components of an individual contact with the health system linked to an episode and may be disaggregated into a sequence of components designed to:

- Establish a diagnosis;
- Formulate a prescription and therapeutic plan;
- Complement the process by imaging, laboratory and functional tests for diagnosis and clinical evolution assessment;
- The prescription can involve various therapeutic means including the acquisition of pharmaceuticals and other medical goods, as well as therapeutic components, such as surgical, rehabilitative or long term care;
- Monitor and assess the clinical evolution.

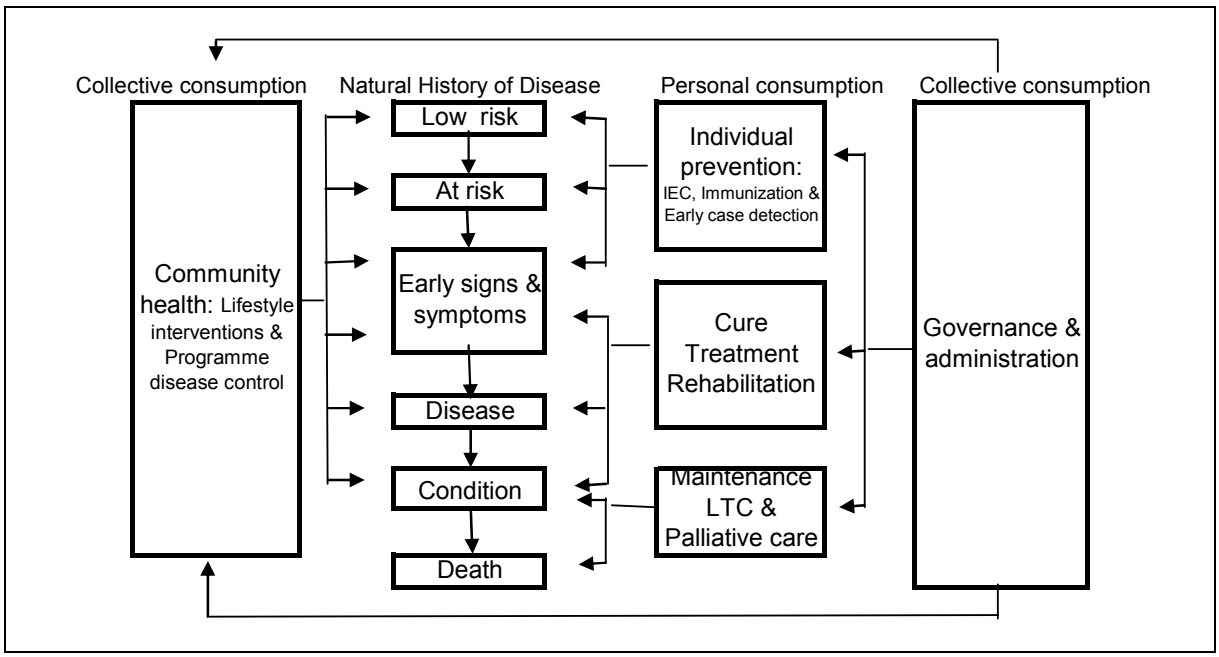
163. An **episode** is an event including one or more of the components described above and can be considered according to the specific need for which the sequence is initiated. The approach of an episode in this framework is that of each contact with the health system, not that of the whole duration of the disease or health condition. That would mean, for example, that in a pregnancy, each antenatal visit and all the related components and services consumed should be accounted for as one episode, for example each visit to the medical officer with the laboratory service and the associated provision of medicines. The totality of the expected number of antenatal visits and the delivery are not integrated into a single episode.

164. The **natural history of disease** qualifies the health system contact components. It displays a rationale of the uninterrupted progression of the disease, from the moment of exposure to the causal agents until recovery or death and determines the purpose of each contact with the health system (see Figure 5.1).[66]

[65] Although according to SNA rules, the bulk of consumption is allocated to households.

[66] A specific description or "natural history of a disease" may exist by disease, adjusted alongside causal understanding in importance for prevention and control of disease.

Figure 5.1 The natural history of the disease and the purpose of health care goods and services



Modified from: Norman, G (2003) *New Strategies in Disease and Utilization Management*. Society of Actuaries: San Francisco Spring Meeting, June 24-22, 2002. Proceedings in: Record 28(2), 2003.

165. The starting point is a disease free condition. Interventions in this case aim to enhance the health status and to maintain the **low risk** condition of acquiring diseases, to prevent their occurrence. **Preventive** interventions (both personal and on a community health level, HC.4) also cover those individuals **at specific risk** and in an asymptomatic stage of the disease or of **early signs** and symptoms, in which an **early case detection** is key to reducing the potential damage through a more successful intervention.

166. From the onset a **disease** or disorder is identified by the emergence of **symptoms** or signs resulting in the search of an appropriate **treatment** by the patient. These usually correspond to an acute nature, and a remission or **cure** (HC.1) is desirable and expected. Some diseases cannot be really cured and become chronic **conditions**. Treatment involves recurring visits to health services for control as well as a personal involvement of the patient to monitor and control symptoms and treatment. In most countries each visit for a chronic disease management is treated as a separate episode.

167. Co-morbidity may also occur. When an additional morbid process emerges while the first one is still active, this usually entails new treatment for the new acute condition. Other possible events during an episode are iatrogenic episodes, that is, a disease generated due to the treatment received, which also requires treatment. Complications frequently imply a more complex treatment. A relapse or recurrence is another potential outcome in which case the treatment has to be re-established or modified. Sequelae, which are the negative effects of a condition, can persist.

168. **Disability and other sequelae** may be **rehabilitated** (HC.2) and, when rehabilitation is not feasible a **long term care** (HC.3) option to **maintain** best quality of life and to reduce suffering and limit deterioration is pursued. **Palliative** care is a component of this final stage.

Collective health care goods and services

169. Collective services are those provided for the health system as a whole or consumed by the community as a whole and are also part of the first level. These refer notably to preventive services (part of HC.4) and to governance and health system administration (HC.7).

Personal health care goods and services not specified by function

170. Some services consumed on a personal basis for a health purpose are linked to retailers and to separate ancillary service providers. These services can be related to preventive, curative care, rehabilitation, long-term or palliative care. They can also be related to various modes of provision, as they are frequently consumed by outpatients but also as part of home-based services. They may even be part of inpatient and day care, as a second opinion consultation. Two classes group them: ancillary services (HC.5) and medical goods (HC.6).

The second digit: Mode-of-Provision classes

171. For the personal care categories the second level of the classification introduces a Mode-of-provision approach. Each mode of provision involves a specific organisational arrangement. However, all personal health care functions can be delivered in each MoP. MoP represents the entry point to the health care system's benefits. Once in the system, the consumer-provider interaction will lead to a customized mix of services for each patient, in each episode. There is no unique block of goods and services to be consumed by type of MoP. It can correspond to a single product or a group of health care goods and services to cope with an individual's health condition. The services consumed by type of MoP vary according to characteristics of the structure of the system and to preferences of the consumer and those of the prescribing health personnel[67].

172. This approach responds to particular policy interests and is also a statistical convenience which fits available national data sources. It is also meant to discriminate similar products frequently displaying a different quality, notably related to the technology surrounding the service and the length and continuity of the health care interaction. MoP classifies health care consumption as a second digit, which implicitly indicates that the boundary to be classified follows the health purpose consumption thus, provision characteristics become relevant once the health care consumption boundary is satisfied.

173. The identified classes are: **inpatient**, **day care, outpatient**, and **home-based care.** Personal services provided by self standing units, such as ancillary providers and retailers are part of the first level and highlighted as "personal consumption not identified by function".

Inpatient care

174. An inpatient care episode is consumed by a beneficiary formally admitted into an institution for treatment and/or care and constitutes an overnight stay. The stay can be in a hospital or related institution providing care, such as nursing and residential care establishments, or facilities classified to ambulatory care which perform occasional procedures demanding inpatient care. It also comprises prisons or armed forces facilities which accommodate patients justifying one or more overnight stay in an ad hoc facility. Tuberculosis hospitals and sanatoriums are often organised to include accommodation provided in combination with medical treatment, this being the predominant purpose provided during the stay in those facilities.

[67] *Information asymmetry* between the health provider and the consumer is the main reason why consumers accept in most cases the provider indicated therapeutic package.

175. Episodes lasting less than 24 hours in which the beneficiary leaves the institution the day following the day of admission are normally counted as inpatient care. An exception is the overnight-treatment of mental patients lasting less than 24 hours, which is usually treated as a day-case.

176. Accommodation is mostly required because hospitals deal with more complex medical cases requiring longer diagnostic procedures and pre or post operative surveillance; care with accommodation typically translates into a relatively greater severity of medical cases.

177. The inclusion of accommodation with medical & paramedical care constitutes the main distinction between outpatient and inpatient care. The hotel sub-function of a hospital stay becomes more apparent when patients are transferred to post-acute hospital wards or to "hostels" providing less intensive and limited medical attention though still functionally integrated in the provision of hospital care.

178. In the case of developing countries the cost of services provided by patients' relatives in hospitals – including food, basic nursing care, and cleaning – should be recorded under this heading, if these are not provided by the health facility.

179. The treatment episode is the basis of the mode of provision consideration. The expenditure embracing all benefits received during an inpatient episode of care should be included regardless of the provider or the payer, e.g. when pharmaceuticals are provided by health professionals or by relatives who had to acquire them in a pharmacy whether hospital-based or elsewhere.

> Includes episodes lasting 24 hours or more and an overnight stay regardless of the type of facility in which the services are provided and regardless of the different types of health care provided.
>
> Excludes episodes lasting less than 24 hours without an overnight stay. Accommodation where social services are the predominant consumption: Examples such as stays in nursing homes, homes for disabled persons, orphanages, where health care is an important component but is only normally provided when an episode raises the need of a continued surveillance.
>
> Borderline cases: An overnight stay of less than 24 hours should be recorded as inpatient care. An overnight stay in an outpatient unit with beds: should be recorded as inpatient care. An admission intended to be inpatient care which is discharged the same day should not be recorded as inpatient stay.

Day care

180. Inpatient and outpatient services are practically universal. However, day care involves a strategy still in its development stage in many countries and is linked to specific objectives such as cost containment and waiting list reduction. Day care is a mode of provision involving a specific organization of staff and equipment to deal with a selectively chosen set of procedures. Day care comprises medical and paramedical services, which have a planned nature in most cases, delivered to patients formally admitted for diagnosis, treatment or other types of health care with the intention to discharge the patient on the same day. Day care is usually performed in institutions or wards specialised in planned services comprising a recovery episode, for example some types of elective surgery.

181. The difference between day care and outpatient care is that outpatient care is organised to cope with acute or short term episodes, regardless of the nature of the need. Day care can involve either acute cases, or chronic needs and recurrent consumption but in all cases the organization of the resources is prepared to discharge the patients on the same day.

182. An episode of care for a patient who is admitted as a day-care patient but due to a complication is retained is, to the extent feasible, to be re-classified as an inpatient case. Services for non-admitted patients that are extended to formal admission for day-care are considered as day care. A day patient (or "same-day patient") is usually admitted and then discharged after staying between 3 and 8 hours on the same day.

183. Day care services can be delivered in hospitals, ambulatory premises or self standing centres. Ideally, a classification of functions should not discriminate by provider but privilege the purpose of the goods and services consumed. In some countries Day care services are, for reporting purposes, often aggregated with outpatient or inpatient services. Hospitals may provide day care, outpatient and inpatient services, and this should be registered in the provider's cross-classification with functions.

> Includes: Services consumed by admitted patients and discharged the same day, regardless whether they are provided in part of a hospital, or a self standing type of day care facilities: ambulatory surgery day care, which includes any elective invasive therapies provided, under general or local anaesthesia, to day-care patients whose post-surveillance and convalescence stay requires no overnight stay as an inpatient.
>
> Excludes outpatient services that do not involve a specific organisational difference from outpatient care provision.
>
> Borderline cases: A planned same-day-patient in an outpatient unit without any specific organization of the service involve for these type of cases or units, should be recorded as outpatient care.

Outpatient care

184. Outpatient care comprises medical and paramedical services delivered to a patient in a facility not normally providing inpatient accommodation. An outpatient is not formally admitted to the facility (physician's private office, hospital outpatient centre or ambulatory-care centre) and does not stay overnight. An outpatient is thus a person who goes to a health care facility for a consultation/treatment, and who leaves the facility within hours of the start of the consultation without being "admitted" to the facility as a patient. The term "outpatient" has a wider meaning than in many national reporting systems in which this term is limited to care in outpatient wards of hospitals. All patients treated in ambulatory care facilities that are not day cases or overnight cases should be considered outpatients.

185. The evolution of health services have included a set of miscellaneous non-admitted services which can be classified as atypical outpatient care, such as telephone and e-mail consumed services e.g. consultation and group support services.

> Includes any consumption of health care, without an overnight stay in the health facility. Includes non- inpatient care services consumed at a distance, e.g. through e-mail or phone provided services.
>
> Excludes: Direct outpatient consumption of pharmaceuticals, medical goods and ancillary services; services consumed at home or in a day care premises.
>
> Borderline cases: An outpatient service which turns into an admission to a hospital should be modified and recorded as inpatient care.

Home based care

186. Home based care comprises medical and paramedical services delivered to patients at home. Included are obstetric services at home, home dialysis, telematic services and all health care services provided in a home-setting regardless the provider, which can be either a relative or a health professional or a community trained worker. It is recorded as home based regardless the length of the service duration. [*Ed: Are telephone consultations outpatient or home-based?]*

> Includes health services consumed at the family home and in other personal or collective residences, in which the individual is located on a permanent basis.
>
> Excludes social care and services that are consumed, without a primary health purpose, regardless of the technical profile of the provider.
>
> Borderline cases: Consumption of health services in a health facility within a residence, e.g. medical centre in a prison, should be re-classified as inpatient or outpatient according to the length of the service for that episode.

The third level, detailed functional groupings

187. The third level aims to presenting greater detail for selected first and second level functional categories.

Table 5.1 Classification of health consumption by function

Health Functions SHA.2	SHA.1 codes
HC 1 Curative care	**HC.1**
HC.1.1 Inpatient care	HC1.1
HC.1.1.1 General	
HC.1.1.2 Specialised	
HC.1.2 Day care	HC1.2
HC.1.2.1 General	
HC.1.2.2 Specialised	
HC.1.3 Outpatient care	HC1.3
HC.1.3.1 General	HC.1.3.1
HC.1.3.2 Dental	HC.1.3.2
HC.1.3.3 Specialised	HC 1.3.3
HC.1.4 Home based care	HC1.4
HC 2 Rehabilitative care	**HC.2**
HC.2.1 Inpatient care	HC2.1
HC.2.2 Day care	HC2.2
HC.2.3 Outpatient care	HC2.3
HC.2.4 Home based care	HC2.4
HC 3 Long-term Personal Care	**HC.3**
HC.3.1 Inpatient care	HC.3.1
HC.3.2 Day care	HC.3.2
HC.3.3 Home based care	HC.3.3
HC 4 Preventive care	**HC.6**
HC 4.1 Epidemiologic surveillance & disease control programme management	part of HC.6.1-HC.6.9
HC 4.1.1 Surveillance of communicable and non-communicable diseases, injuries, and exposure to environmental health risks	part of HC.6.1-HC.6.5
HC 4.1.2 Information gathering and support services for disease control management	part of HC.6.1-HC.6.5
HC 4.2 Collective preventive programmes	part of HC.6.1-HC.6.5
HC 4.2.1 Education and information mass campaigns	part of HC.6.1-HC.6.5
HC 4.2.2 Regulation enforcement programmes	part of HC.6.1-HC.6.5, HCR.4, HCR.5
HC 4.2.3 Disaster and emergency response programmes	part of HC.6.1-HC.6.5
HC 4.3 Personal preventive programmes	part of HC.6.1-HC.6.5
HC 4.3.1 Information, Education and Communication (IEC)	part of HC.6.9
HC 4.3,2 Immunization	part of HC 6.3
HC 4.3.3 Early disease detection	part of HC.6.1-HC.6.9
HC 4.4 All other preventive care nsk	part of HC.6.1-HC.6.9
HC 5 Consumption of auxiliary services non specified by function	HC.4
HC 5.1 Laboratory services	HC.4.1
HC.5.1.1 Laboratory diagnostics	
HC.5.1.2 Clinical and other functional tests	
HC.5.1.3 Blood, sperm and organ bank services	
HC 5.2 Imaging services	HC.4.2
HC 5.3 Patient transportation	HC.4.3
HC 6 Consumption of medical goods non specified by function	**HC.5**
HC 6.1 Pharmaceuticals and other non durable goods	HC 5.1
HC 6.1.1 Prescribed medicines	HC 5.1.1
HC 6.1.2 Over the counter medicines	HC 5.1.2
HC 6.1.2 Other medical non-durable goods	HC 5.1.3
HC 6.2 Therapeutic appliances and other medical goods	HC 5.2
HC 6.2.1 Glasses and other vision products	HC 5.2.1
HC 6.2.2 Orthopaedic appliances, orthesis and prosthetics	HC 5.2.2
HC 6.2.3 Hearing aids	HC 5.2.3
HC 6.2.4 All other medical durables, including medical technical devices	HC 5.2.4- HC.5.2.9
HC 7 Governance, management and health system administration	**HC 7**
HC 7.1 Governance and health system administration	HC 7.1
HC 7.2 Administration of health financing	HC 7.2
HC 7.3 Other administrative costs not specified by kind (n.s.k.)	
Health Care Related	
HCR 1 Long Term Social Care	
of which administration and provision of Long term care in kind benefits	part of HCR 6
of which administration and provision of Long term care cash benefits	part of HCR 7
HCR 2 Traditional, Complementary and Alternative Medicines (TCAM)	
HCR.2.1 Inpatient TCAM	
HCR.2.2 Outpatient, home based and TCAM retailers	
of which Expenditure on TCAM services	
of which Expenditure on TCAM goods	
HCR 3 Non-health consumption	
Reporting Items	
RI 1 Total pharmaceutical expenditure (TPE)	
of which Pharmaceutical consumption as inpatient treatment	
RI 2 Expenditure on health research & development within health care	
RI 3 Expenditure on the job trainning of health personnel	

[Apart from questions on the appropriateness of changes to the HC classification, a number of questions need to be discussed with countries about HCR categories and Reporting Items. Examples are the addition of a possible Reporting item on Prevention following the same logic as Pharmaceuticals, but also whether the proposed HCR and RI categories are appropriate, and sufficiently well-defined. RI2 and RI3 may look like resource costs. Are there any other HCR's or RIs to be included (such as Exports)]. Is the name Reporting Item appropriate?]

VI. Explanatory notes

Personal health care

188. Personal health care is consumed individually, usually in an integrated provision system involving a customised selection of one or more services of personal preventive, curative and rehabilitative services. Differentiating the components of such package of services is a challenge and can only be feasible in clearly identified functional classes through clear conceptual and classificatory criteria.

189. The integrated provision and consumption of a bundle of services is frequently found in inpatient care. However, the consumption decision to follow up the required pharmaceutical, rehabilitative and diagnostic and monitoring services means they are recorded as independent episodes regardless of the mode of provision. For example, although the orthodontic and prosthetic prescription is offered as part of the curative care, the actual acquisition can be separately recorded by self standing retailers and any training on how to adjust and properly use the orthotics and prostheses is recorded as part of rehabilitative care.

HC 1 Services of curative care[68]

190. Curative care comprises health care services consumed during an episode, in which the principal intent is to relieve symptoms of illness or injury, to reduce the severity of an illness or injury or to protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal function.

191. Curative care can involve consumption of one or more customised services of the standard components of an individual contact with the health system linked to an episode and may be disaggregated into a sequence of components designed to establish a diagnosis, formulate a prescription and therapeutic plan, monitor and assess the clinical evolution, complement the process by imaging, laboratory and functional tests for diagnosis and evolution assessment. The prescription can involve various therapeutic means including the acquisition of pharmaceuticals and other medical goods (such as orthodontic and prosthetic appliances), as well as therapeutic components, such as surgical, rehabilitative or long term care, which require additional follow-up and consumption.

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[68] Personal care classes involve final consumption and include all cost components e.g. E-medicine, is expected to be included in the resources accounted for. E-medicine is the use, in the health system, of digital data— transmitted, stored and retrieved electronically— in support of health care, both at the local site and at a distance. A support to health care, involves information-intensive means for management, for hospital care, day care, outpatient care, for medical goods retailing, immunization & other programmes, for monitoring and evaluation, for clinical information, for surveillance and epidemiological work, know-how and knowledge, health education, cross-border trade, the analysis and dissemination of medical data. It includes Tele-radiology, the transmission of radiographic images from one location to another for interpretation by a radiologist. It is most often used to allow rapid interpretation of emergency room, ICU and other emergent examinations after hours of usual operation, at night and on weekends. In these cases the images are often sent across time zones (Spain, Australia, India) with the receiving radiologist working his normal daylight hours. Tele-radiology can also be utilized to obtain a consultation with an expert or sub-specialist.

Includes: All components of the curative care of illness or the treatment of injury; the performance of surgery; diagnostic or therapeutic procedures; and obstetric services.

Excludes: Preventive, rehabilitative and long-term care services.

Borderline cases: Tertiary prevention which is aimed to avoid complications can be represented as curative care. Treatment and disease management episodes for chronic diseases for which a cure is not feasible or expected should be recorded as curative care.

Curative care by mode of provision

192. The second level refers to the inpatient, day care, outpatient and home based classes (see description of modes of production above). In all cases the main purpose remains the same but in case of an overnight stay the record is inpatient, when the admission does not involve an overnight stay refers to a day case. An outpatient case does not involve an admission, and when the provider goes to the consumer's home, it is referred as a home based case.

Third level of curative care

193. Personal care may be broken down further at a third digit level to identify the consumption by type of service in each function and mode of provision:

- General care. This includes the consumption of any health care components which do not limit their coverage to a particular condition, disease, or class of patient. These include routine examinations, medical assessments, prescription of pharmaceuticals, routine counselling of patients, dietary regime, injections and vaccination (only if not covered under public-health prevention programmes). It includes maternity care. They can be part of initial medical attention and consultation or of follow-up contacts. Routine administrative procedures like filling in and updating patients' records are usually an integral part of basic medical services.

- Dental care. This includes general or specialised (e.g. orthodontic) dental and oral care, notably as part of outpatient care. It includes the whole range of services performed usually by medical specialists of dental care in an outpatient setting such as tooth extraction, fitting of dental prosthesis and dental implants[69]. Dental surgery is classified as a specialised service.

- Specialised services. These include the consumption of any health care components which focus their coverage to a particular condition, disease, or class of patient. Included are mental health and substance abuse therapy, gynaecologic and outpatient surgery. Specialised services can typically be performed using sophisticated medical equipment.

194. In a functional perspective, all goods and services consumed with a health purpose should be considered in the measurement, and when relevant, identified explicitly. In line with this idea, the breakdown in greater detail could involve the various services included in a service group. For example, an optional 4th digit could be added for surgery, pharmaceuticals and consumption of ancillary services which may be included in a curative inpatient service.

195. Surgical and some medical non surgical procedures within inpatient and outpatient settings may be identical in all but one respect: a hotel service with some nursing care is added in the former. The role

[69] Dental prostheses are treated in the SHA as intermediate products to the production of services of dental care and thus are always included under expenditure on dental care.

of ancillary services and medical goods are the same regardless of whether they are provided to an inpatient or an outpatient.

196. **Surgical services** involve the use of operative manual and instrumental techniques on a patient to investigate and/or treat a pathological condition such as disease or injury, to help improve bodily function.

197. Surgical services involve:

- Elective surgery, to correct a non-life-threatening condition, and is carried out at the patient's request, subject to the surgeon's and the surgical facility's availability,
- Emergency surgery, must be done quickly to save life, limb, or functional capacity,
- Exploratory surgery is performed to aid or confirm a diagnosis,
- Therapeutic surgery treats a previously diagnosed condition.

198. All types of surgery with a primary health purpose are to be included,

- Minimally invasive surgery involves smaller outer incision(s) to insert miniaturized instruments within a body cavity or structure, as in laparoscopic surgery or angioplasty,
- Open surgical procedure requires a large incision to access the area of interest.
- Laser surgery involves use of a laser for cutting tissue.
- Microsurgery involves the use of an operating microscope for the surgeon to see small structures.
- Robotic surgery makes use of remote control of the instrumentation operated under the direction of the surgeon.

199. Other therapeutic processes, which should also be included such as chemotherapy and radiotherapy, which widely accompany oncologic treatment, are classified under this class of curative care with all their costs and subcomponents.

HC 2 Rehabilitative care

200. Rehabilitation is an integrative strategy which aims at empowering persons with health conditions who are experiencing, or are likely to experience disability, to achieve and maintain optimal functioning, quality of life and inclusion in the community and society. Rehabilitation services are voluntary and are person-centred and goal oriented.

Rehabilitation in a functional approach

201. Whereas curative services are focused primarily on the health condition, rehabilitation services focus on the functioning associated with the health condition. Rehabilitation services stabilize, improve or restore impaired body functions and structures, compensate for the absence or loss of body functions and structures, improve activities and participation, and prevent impairments, medical complications and risks. Functioning and disability are conceived as a continuum on which all people can be described at some time during the life course[70]. Functioning is a dynamic interaction between health conditions, environmental

[70] http://www.wcpt.org/node/27545

factors, and personal factors. Rehabilitation is relevant over the course of the health condition, along a continuum of care from the hospital to rehabilitation facilities and to the community and across sectors from health, education, and labour to social affairs.

202. Rehabilitation services are consumed by individuals experiencing difficulties in functioning associated with a broad range of health conditions (disease, disorder and injury) which may be acute or chronic, congenital or acquired, by people with disabilities[71] of all ages, independent of or in conjunction with specialist health care services (e.g. hip replacement, heart transplant, specialist eye treatment, or treatment for acute depression). The various rehabilitation fields are wide and include: psychological, assistive technological, environmental, cardiopulmonary, geriatric, neurological, orthopaedic and paediatric rehabilitation, among others.

203. Rehabilitation services are based (where possible) on the assessment of functioning and diagnosis, to determine the goals and plan for rehabilitation. These are followed by agreed interventions (including biomedical and technological approaches as well as peer support) to optimize a person's capacity. Rehabilitation plans are monitored and adapted in accordance with the individual's needs and resources. Outcome measures relevant to the intervention are used to determine change requirements on interventions to optimise functioning and minimize disability.

Functioning refers to all body functions, activities and participation
Disability is an umbrella term for impairments, activity limitations and participation restrictions.
Impairments are problems in body function or structure such as a significant deviation or loss.
Body Functions are physiological functions of body systems (including psychological functions).
Body Structures are anatomical parts of the body such as organs, limbs and their components.
Activity is the execution of a task or action by an individual.
Participation is involvement in a life situation.
Activity Limitations are difficulties an individual may have in executing activities.
Participation Restrictions are problems an individual may experience in involvement in life situations.
Environmental Factors make up the physical, social and attitudinal environment in which people live and conduct their lives.

204. Rehabilitation includes several specialised types of services:

a) **Occupational Therapy** The services enhance the individual's skills, capacity and performance in interaction with their personal and environmental contexts. Services may be directed at the individual or the environment to improve activities (e.g. activities of daily living) and participation (e.g. education, work, play and leisure). Occupational therapy is centred around the individual, but also when and where relevant involves the family, carers, and the broader community. The occupational therapy services include, among others:

- Therapeutic use of meaningful and purposeful occupations (occupation understood as any activity on which time is spent by a person),
- Adaptation of environments and processes to enhance functioning and participation,
- Programmes involving graded tasks and activities as prerequisites to engagement in occupations or functional training for activities of daily living (including self care), productivity roles (work, education and domestic), play and leisure

[71] Disabilities are not necessarily implying a permanent condition. E.g. the sequelae of a stroke can be fully recovered after rehabilitation.

- Prescription or design, fabrication, application, adaptation and training in the use of assistive technology or orthotic or prosthetic devices.

b) **Physical therapy** 'involves services to 'develop and maintain maximum movement potential and functional ability throughout the lifespan'[72]. This includes services to restore integrity of body systems essential to movement, maximise functional ability and recuperation, minimise incapacity, and enhance the quality of life in individuals and groups of individuals, functional limitations, disabilities, in relation to the spheres physical, psychological, emotional, and of social well being. Circumstances where movement and function are threatened include congenital, age, injury, disease or determined environmental factors. Services are adapted on an ad-hoc basis and may include, among others:

- Manual therapy techniques, electrotherapeutic, physical agents and mechanical modalities[73]
- Prescription, application, and, as appropriate, fabrication of devices and equipment
- Skin repair and protection techniques, airway clearance techniques (e.g. in obstructive respiratory diseases) and therapeutic exercise

c) **Physical and rehabilitation medicine** (PRM) involves services to diagnose health conditions, assess functioning and prescribe biomedical and technological interventions that treat health conditions and optimize functional capacity. The services include among others:

- prescription of an integrated range of biomedical, psychological and social interventions, e.g. drug treatment, physiotherapy, occupational therapy, speech and language therapy, dysphagia management, rehabilitation nursing, neuropsychological interventions, psychological interventions, nutritional therapy, provision of assistive technology, prosthetics and orthotics, education of patients and families.

d) Psychological and behavioural rehabilitation (PBR) is a collection of services to diagnose impairments in cognitive functions and other psychosocial functional limitations that affect the life and well being of individuals and the manner and effectiveness of dealing with their health conditions and disability. Among PBR services are:

- individual psychotherapy, including cognitive behavioural therapy and neurocognitive therapy to improve self-recognition of health condition related psychological and behavioural problems and empowering skills to manage them for increased quality of life
- psychoeducation and adaptive strategies, reduction of expressed emotion, behavioural management and for primary care-givers, including the family, services to improve supportive social networks.

e) Prosthetics and orthotics rehabilitation aims to enhance the quality of life for people with physical disabilities who require improvements in mobility or independence, through practices associated with the provision of prosthetic and orthotic care, rehabilitation engineering and related areas such as wheeled mobility.[74] The technological devices to complement the function (orthotics) or substitute the structure (prostheses) of the human body are a key component of these services, which include, among others:

- Formulation of treatment through examination, prescription of devices and related rehabilitation
- Ensure fabrication and fit of the device including instructing the user of the use and care of the device

[72] WCPT 2007

[73] (WCPT 2007)

[74] http://www.ispo.ws/index.php?option=com_content&view=article&id=72&Itemid=56

- Evaluation and follow up including maintenance repairs and replacement of the device

f) Speech and language therapy aims at restoring people's capacity to communicate effectively and to swallow safely and efficiently. It aims at identifying types of communication problems and the best way to treat them. As such, the services include, among others:

- Clinical and/or instrumental screening, assessment, identification, diagnosis, treatment, and management of disorders related to speech, voice, language, fluency, swallowing, literacy, cognition that impact on the individual's ability to communicate.
- Selection and development of augmentative and alternative communication systems and devices for individuals who are limited in their ability to communicate verbally, and provision of education and training in their use.

Rehabilitation by mode of provision

205. The services provided by rehabilitation are divided into the same four modes of provision distinguished by the organization of the provider related to its location or setting, and in particular whether the patient has been formally admitted to care and is therefore (for short- or long-term) residing at the premises where the services are provided. The four modes of production can be further specified into the various specialised rehabilitation types, such as occupational, physical, psychological and behavioural, speech and language therapy, physical and rehabilitation medicine and prosthetics and orthotics.

Rehabilitation includes: Consumption of services aiming at reaching, restoring and/or maintaining their optimal physical, sensory, intellectual, psychological and social functional levels.

Rehabilitation excludes: The prevention, curative and LTC services. Excluded too are the rehabilitative services with a primary social or labour purpose. Some examples of the social focus are those linked to a primary purpose of creative leisure and social insertion, as well as vocational training and re-training and education and job placement.

Borderline cases: There can be a borderline timing to set when the curative treatment on a case, e.g. of stroke, is complemented with an early rehabilitation treatment, e.g. for speech therapy and physiotherapy. Both functions can be run in parallel. Another case is the rehabilitation services within a LTC framework, e.g. of physiotherapy, which are part of the personal components to be consumed on a continued or recurrent basis.

HC 3 Services of Long Term (Nursing) Care (LTC)

206. Long-term nursing care consists of a range of medical and personal care services consumed with the primary goals of alleviating pain and suffering and reducing or managing the deterioration in health status in patients with a degree of long-term dependency.

207. To date, estimates of spending on services of long-term care has been mostly limited to higher income countries. This is due to the fact that in most low and middle income countries (LMIC) much of the care is informal care, usually consumed at home, provided by relatives and without any transaction involved[75]. However, emerging and increasing needs in all countries are evident, associated with increasing life expectancy, epidemiologic transition and an increasing involvement of health systems to cope with

[75] In 2010, it has been estimated that approximately 35 million of deaths a year involve chronic life limiting illnesses, of which less than 8% have access to LTC. Caring for people suffering from life-limiting conditions. Dr Stephen Connor. WHO seminar 4th March 2010. http://www.thewpca.org/about-hospice-and-palliative-care/the-need/

them, following social and economic changes: dependency cases with long care needs associated with communicable diseases such as HIV/AIDS, malaria and TB, consequences of increasing rates of cerebrovascular disease, congestive heart failure, traffic accidents, mental health disorders and other chronic diseases, such as diabetes, musculoskeletal diseases, congenital and respiratory diseases, all of which can also show an improved survival rate. Dependency needs in early childhood aside, the increase of long-term care needs with age is remarkable, with typically around 50% of the population over 65 years requiring some form of long-term care.

208. Due to the strong link between long-term care and the ageing process, policy interest in many countries is centred on elderly age groups. Therefore, a differentiation of long-term care by dependency level and cross-classified by age is likely to be of significant policy relevance, e.g. if health promotion for the aged is successful, the need for long-term care services should be delayed until more advanced ages. A breakdown according to payment strategies related to ageing can be important. A breakdown to ensure that the various layers are linked to public and private payments as well as their public private mix in provision has been also recognised as desirable[76].

LTC as a functional class

209. From a final use point of view, long-term care typically comprises an integrated package of services and assistance to patients with some level of dependency, understood as impairment, activity limitation and/or participation restriction, on a continued or a recurrent basis, and over an extended period of time. The greater the dependency level, the more comprehensive the set of services included in the package. A continuum of care can be tracked from intensive medical or nursing services, and services linked to activities of daily living (ADL), to lower level care linked to instrumental activities of daily living (IADL) and other social care. Such care is aimed at the dependent population with chronic or recurrent psychiatric conditions such as physically disabled, mental health and substance abuse patients.

210. The continuum of medical and nursing care is, however, not necessarily one that requires the whole range of services offered or the same delivery path. For example, care may consist of regular short-term health interventions over a long period, or recurrent and chronic consumption over extended periods. In some cases long-term care implies supportive care, offered to people at any stage of their disease, or palliative care, when cure is not possible. It also includes terminal care, understood as the management of patients during the last months of life, when the disease stage allows no genuine curative treatment. Even with incurable diseases, many people may live with a functional impairment for many years, and in some cases lead a largely normal life. Terminal cancer patients from time to time have radiotherapy or chemotherapy treatment courses, to keep their condition under control. Palliative care works alongside these 'active' treatments to promote comfort and well-being.

211. Note that when a need emerges for an episode of curative acute care, unrelated to the chronic dependence condition, this should be considered as acute health care and not long-term nursing care. However, in frail patients an acute health episode can evolve into a chronic condition, and because of the dependence condition, can result in more complex long-term needs.

212. The distinct components of long-term care can be distinguished as follows:

- Medical and nursing care includes the management of symptoms involving medical, paramedical and nursing care services such as relieving pain, and other symptoms, administering medication,

[76] Long term care for older people. Bulletin Luxembourgeois des questions sociales. Vol 19, 2005. Luxembourg; Huber M and Rodrigues R. 2008 A framework for measuring long-term care expenditure in Europe. IARIW presentation.

medical diagnosis and minor surgery, wound dressing, health counselling to families, and on providing emotional and spiritual support for the patient and their family members. Such care includes a) a range of preventive services, notably to avoid a greater deterioration of the patient's frail health condition, b) a range of chronic disease management situations, c) a fair amount of rehabilitative care, to recover a functionality, d) care aimed at retarding or maintaining functionality and reducing deterioration: in short, a high level of quality of life assurance regardless of the degree of dependency or health condition.

- Personal care services (ADL) is the core of self-care activities that a person must perform every day, such as: eating, bathing, washing, dressing, getting in and out of bed, getting to and from the toilet and continence management. Most inpatient care as well as some day care and home based services, will include personal care services as part of the package of services consumed. These services are typically administered directly or under the supervision of nursing staff. The inclusion of these services within the health care boundary is due to the purpose of this type of care being linked to survival and maintenance of health status. Additionally, the need for personal care services is more often linked to some underlying medical condition.

- Assistance services (IADL) relates to care that enables a person to live independently in a house or apartment, such as shopping, laundry, vacuuming, cooking and performing housework, managing finances, using the telephone, etc. These services are typically provided under home help services, assisted living arrangements, etc.

- Other social care involves community activities and occupational support given on a continued or a recurrent basis to individuals, such as those with a primary purpose of social and leisure.

Health care boundaries and long term care

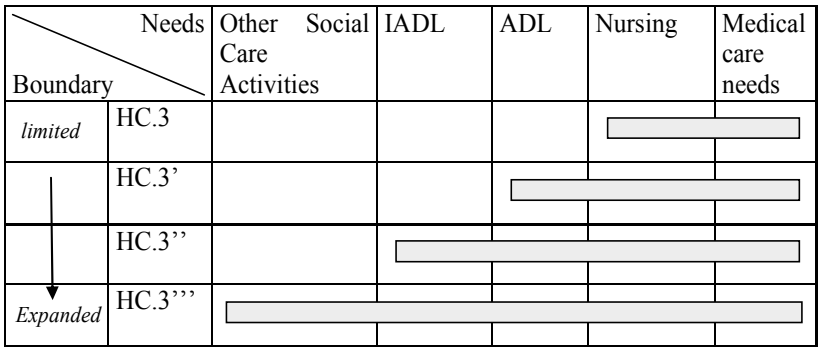
213. In response to national administrative, financing and provision standards, the boundaries of long-term care may be interpreted differently across countries. However, from an international point of view, the function (purpose of care) defines the boundary. The function should therefore be irrespective of the provider, which can be, as in other functional classes, a health professional or a trained or supervised relative or community worker; or an administrative worker dealing with insurance funds.

214. The continuum of care involved in long-term care can be approached from two different angles: In terms of the need for care it can have a primary purpose as well as a content to be handled. If we adopt a consistent approach, based on the purpose of an episode of care, which in the case of long-term care may be over a long or indefinite period, then medical and nursing care services and/or personal care services, as the dominant component, would be the cause for inclusion within the health boundary. An episode of care based predominantly on activities where the prime purpose is to enable independent living and interaction with the environment, as in the case of home help or assisted living, such care should be outside the health boundary (See Long-term social care HC.R.1). Figure 5.2 below aims to describe in a simplified way the proposed approach.

215. Further criteria to handle the functional boundaries of long-term care within health care are:

- A medical or health condition: When consequences of a disease, regardless of their length and severity are not associated to dependency, such as hearing disabilities, they are not included.
- The need for continual or recurrent health care. If there is a need for continual care to handle a dependency, then it is included within the health care boundary, e.g. care of persons with a mental disability and drug abuse recovery.

Figure 5.2 Boundary Options of Long Term Care (LTC) [To be reviewed against final text on LTC]



In practice what is frequently found is that nursing care, ADL and IADL are home based provided in various combinations. In day care packages, usually nursing care and ADL are provided combined. Only in inpatient services, is the full package provided jointly as the usual combination.

Practical problems in applying long-term care boundaries

216. The level of dependency has been traditionally measured by the difficulty of performing activities of daily living (ADL) and instrumental activities of daily living (IADL). The International Classification of Functioning, disability and health (ICF)[77] has been used for this purpose. The ICF describes human functioning and problems related to health problems, classified in a systematic way. Human functioning can be described using three basic different perspectives: human organism, human action and participation in social life. All terms are classified using external and personal factors that influence human functioning and their problems. These are classified starting at the individual and ending at the general surroundings. These components can be used to describe the disability, limitation and participation problems.

217. Some operational limitations in applying dependency levels (e.g. according to ICF) to SHA classifications of long-term care are likely since records linking severity index and spending are unlikely to be available in the majority of countries. Moreover, any severity index should ideally be standardised to ensure comparable results across countries. The standardisation of the index requires complementary guidelines. Furthermore, the application of such a classification of dependence, designed primarily for elderly long-term care patient, to persons in many low and middle income countries afflicted by chronic conditions linked to AIDS, malaria, tuberculosis, etc may not be fully appropriate. The composition of LTC linked to a severity classification could lead to several layers of consumption, for which the composition mix varies on an ad-hoc basis.

218. Another relevant issue is the threshold to set the "length" of the care to be classified as long-term care. In an ideal case, this should be adjusted on an ad hoc basis pending on the expected average length of stay or treatment of a certain condition and circumstances. However, records on all these characteristics may require a survey based measurement. In principle accounting for LTC should be irrespective of financing or provision, but in practice payments in some countries for identified long-term care services may be set, for example, beyond six months, regardless of the condition. In other countries the payments start on the first day but are restricted to certain conditions. Other country's records would allow measurement only based on the primary purpose of the provider.

[77] WHO, 2001

219. One of the main issues though is the complexity due to the joint consumption with social care services. The grouping and relative importance of health and nursing care, ADL, IADL and other social services are not always easy to identify. In fact, in many cases, as in the inpatient services, the basket of services is measured in time (e.g. days of stay) regardless of the type of services. This makes it necessary to use additional information and data sets to get an idea of the dominant nature of care provides, which would certainly require a more complex process of accounting and an allocation to health or health-related long-term care.

220. All countries have different reporting systems with a different content of LTC. Shared accounting rules require standardisation of health and of social services. Reporting the LTC expenditure as a social or as a health class implies that the various levels may actually involve different boundaries in LTC. ISIC Rev. 4 may support, to some extent, the reporting basis to expand a more detailed breakdown. The principle activity concept, in which the unit is classified based on the main type of service provided, is not the best to sustain a functional approach, which aims at accounting for these services regardless the provider and the purchaser entity, as well as the level of activity in which the selected services are performed.

221. Records and reporting strategies are as in other cases, quite limited on LTC household consumption. Although some programmes support carer's skills and compensate them for their work, these may not be specific to health and they may be recorded under social care. Specific recording should be promoted. Moreover, all the effort by relatives is outside the SHA boundary due to the absence of a valued transaction.

222. In most middle- and low- per capita income countries the care of the dependent members of the family is taken as part of the normal daily life, as homecare. In a few higher income countries a trend to institutionalise the assistance is found, notably among the increasing share of eldest population.

223. From the provision point of view there is an emerging continuum in many countries from residential homes and assisted living to “nursing” home type settings. The health component of LTC is performed as a usual combination, by the same person that provides the nursing activities. ADL and IADL can also be provided by trained personnel without a formal health formation.

224. LTC can involve a specific mode of financing once the care process continues beyond a threshold period, frequently 6 months. Insurance protection typically covers only part of the LTC and sometimes relative carers receive some compensatory transfers, which may include a training process. In most countries, this is a care that is fully covered by relatives at home without any type of compensation, either in kind- or in-cash, and therefore often outside the SHA boundary. Nonetheless, the specific needs of carers have been recognised.

225. In summary, given the lack of ad hoc records by purpose, decisions need to be made on how to apportion and approach the measurement in a standard way. Unless records at individual level are used, which is not feasible in most countries, an alternative way should be progressively developed, to ensure the reporting as required. Requirements differentiate health and social care for some data users and require the whole LTC for some other users. Planning requires a differentiated reporting of the health and the social care according with the purpose:

- if the ADL and IADL are due to a severe dependency level, they are reported as health care;
- Personal care services (ADL) are frequently linked to health conditions and thus reported as health care;

- Services linked to IADL on their own are not part of the health boundary. [some of the above possibly to be transferred later to the chapter 15 on accounting and compilation guidelines]

Long term nursing care by mode of provision

226. Long-term nursing care is an organized delivery process of a broad range of health care services and assistance to people who are limited in their ability to function independently on a continued or recurrent basis over an extended period of time. Delivery modes result from the structure of the health system as well as of the epidemiologic profile. Increasingly the dependent and general population are living longer, together with increasing expectations of the dependent population that they will be supported by the community. Modes of coping with LTC needs are evolving over time.

227. In principle the greater the dependency, the more specialised are the services that are likely to be consumed. Institutions either for medical or social care provide inpatient care patients with greater needs and day case treatment for lesser needs. Complementary home based services, often informal, have acquired relevance.

HC 3.1 Inpatient long-term nursing care

228. The inpatient mode of provision is characterised by an admission with an overnight stay. This item comprises a package of services consumed by residents with a high level of dependency and functional limitation, who require ongoing care, including regular medical and/or personal care together with lower level services such as help with IADL.

> Includes: long-term health and personal care for severely dependent needs, such as elderly or quadriplegic or insufficient respiratory patients or end-of-life care. Inpatient long-term nursing care for mental health and substance abuse patients are included where the care need is due to chronic or recurrent psychiatric conditions and a prolonged degree of functional limitations and/or need for help or surveillance. It includes long-term care services provided to inpatients in long-stay hospital wards, or other hospital care settings. Services of accommodation are in these cases considered part of long-term nursing care provision.

HC.3.2 Day cases of long-term nursing care

229. This item comprises services of long-term nursing care consumed by people who need assistance on a continuing basis due to chronic impairments and a reduced degree of independence and activities of daily living, without being admitted and staying overnight.

230. This type of care has several special cases. Often neglected in formal treatment are night cases, e.g. elderly patients with a disturbed sleeping pattern but normal behaviour during day, living with relatives during the day, admitted into an institution at night. A parallel form is that of mentally unstable persons, which may even pursue a profession during normal business hours, but stay in a psychiatric institution at night. Another case consists in elderly patients living with relatives during much part of the year, but "admitted" during the family's vacation period.

HC.3.3 Home based long term nursing care

231. Home based long term care comprises care services consumed by patients who need assistance on a continuing basis due to chronic impairments and a reduced degree of independence and activities of daily living within their own home, or in residential settings such as adapted housing that can be considered to be a person’s home rather than an “institution”. These residential options include community based setting, such as adapted housing, which provide an individual housing environment in combination

with a certain degree of services such as health protection and surveillance basis, often for elderly with growing severity level on dependence. It can involve specialised health care at home and services in support of informal (family or community) care.

232. A further breakdown into predominantly long-term medical care and long-term personal care services under each of the modes of provision may also be desirable.

HC 4 Preventive services[78]

233. Prevention is any measure aiming at avoiding or reducing the number or the severity of injuries and diseases, their sequelae and complications[79]. Prevention involves a health promotion strategy, as the process of enabling people to improve their health through the control over some of the immediate determinants of health. It includes a wide range of expected outcomes, which are covered through a diversity of interventions, organised as primary, secondary and tertiary prevention levels.

234. Primary prevention involves specific benefits aimed at avoiding contact with particular disease producing risk factors in order to reduce the onset of a disease, to diminish the number of new cases, to anticipate the emergence and to lessen the severity of diseases. Most population-based health promotion activities are primary preventive measures, such as vaccination.

235. Secondary prevention involves specific benefits aimed at early disease detection. Secondary intervention thereby increases opportunities for less costly and invasive interventions in order to prevent progression of the disease and the emergence of symptoms, and to reduce the prevalence, or "stock of illness"[80]. Examples include screening for Tb, diabetes, and breast cancer, and so on.

236. Tertiary prevention reduces the negative impact of an already established disease by restoring function and reducing disease-related complications.

237. Within the functional approach of this Manual, prevention is limited to primary and secondary prevention. The rationale of excluding the tertiary prevention is that it overlaps with the curative and rehabilitative purposes, aiming at restoring function and reducing disease-related complications. A focus on primary and secondary prevention ensures that all interventions covering the risks and early detection will be recorded only under one preventive heading. Advances in imaging technology and molecular biology are dramatically increasing this field. *[Ed A question is should there not be a Reporting item for prevention as for pharmaceuticals to bring together HC 4 with prevention implicitly included in curative care to the extent possible.]*

[78] The HC ICHA classification in SHA 1.0 *HC 6 Prevention and public health services* includes a similar content, but is organised by type of programme, beneficiary or place of execution. The revised classification involves two major differences: it allows for a programme breakdown on an ad-hoc basis by country, and aims at a progressive comprehensive accounting by including the expenditure on an individual basis for which a part of the services organised by programme is currently already accounted for as well as that personal consumption, for which a lack of records or due to individual initiated demand are included as curative or rehabilitative care. As a result, the reported amount in principle remains similar to SHA 1.0 initially but a progressive refinement over time is expected.

[79] Pommey MP, Poullier JP, Lejeune B Editors. Santé Publique. Ellipses. 2000 Paris, France. P 338

[80] The provision of an effective treatment in the secondary prevention means not the provision itself but all the measures supporting the provision in the system, notably through measures such as enforcement of regulation and quality assurance of the services. Pommier MP et al. Santé Publique p 339-344.

238. Preventive services can be consumed as individual, community based or collective services. Measurement involves different strategies for each case. The first step is to identify the scope of each of them.

239. The example of a programme of screening for breast cancer, a typical early detection intervention and thus a preventive effort, can illustrate the various components and the classification choices. The programme is organised to inform and guide women of certain age groups to perform a mammography every two years. Let us consider the following components of this example:

- The initiative is the result of a **governance** effort, which has identified this priority and promoted a systemic response to cope with it and establishes the legislative support. Thus this is *not a preventive component.*
- The programme design, including the rationale and technical knowledge and evidence sustaining each programme component; the compliance enforcement; as well as the monitoring and evaluation of the programme, should be proposed as a result of an **epidemiologic surveillance and disease control programme management** intervention, with a preventive focus integrating technical epidemiologic, demographic and health systems knowledge.
- The initial interaction with potential consumers is made through social marketing, by advertising and informing society, and specifically women, through a mass information, education and communication (IEC) campaign, which is **community prevention**.
- The actual consumption of the early case detection services is made by specific women in the health care system premises. This screening service is conceived as a secondary prevention, which is a **personal preventive service**.
- When a woman undergoes a screening and a cancer is discovered or dysplasia is required, she should obtain a **curative treatment**. This would imply at the same time a tertiary prevention, and thus is recorded as curative care.

Boundary setting considerations

240. The determinants of health involve a very wide range of factors. The health boundary has to be interpreted according to the primary purpose principle, in which, for preventive services, the reduction of the risk of acquiring diseases or suffering injuries is the primary purpose and the preventive services refer to the immediate interaction of the consumer individuals / groups with the causal agents. This immediate interaction does not reduce the spectrum of coverage of factors but the conditions in which those factors are included in health prevention. The primary purpose of ensuring a health promotion is a key definition as the economy has branches to deal with most of the health determinants, but with a social and economic primary purpose involved. The same risks can be the subject of a social control policy with an economic or safety purpose not involving a health purpose. Thus a dual reporting could be generated both outside of the health boundary and within the health boundary, for most risks.

241. Some examples of these boundary issues are prevention interventions to avoid immediate risks, such as: substance abuse and alcohol consumption as part of health prevention IEC campaigns; appropriate safety behaviour to avoid road accidents as part of health prevention IEC campaigns; and proper monitoring and surveillance of immediate health risks of an environmental nature, such as the monitoring of persistent organic pollutants[81] in human milk and of the quality of the human drinking water.

[81] Environmental health components are related to regulation enforcement and monitoring related to any agent with evidence based human immediate risk e.g. persistent organic pollutants and heavy metals, which are air, water and food borne, transferred across borders and generations, most of them through the human milk and other cancer generating paths.

These are examples of a clear set of components to be measured as part of the health expenditure. Some of them are developed through personal and collective health care preventive and others through curative components. Outside the boundary remain all interventions lacking the primary health purpose but with another clear social and economic purpose[82]:

242. The environmental field in the economy has a primary focus on ensuring a sustainable development, reducing the environmental risks to society and their policy involves a legal as well as set of technical contents for collection, treatment and remediation of these risks. The relevance of such policies to health is clear. However, their execution does not involve an immediate purpose of improving health in most cases. Thus the health components are limited to the regulation and monitoring and surveillance of the demonstrated environmental risks with health purpose, to specialised IEC and to the treatment of their effects to reduce the sequelae and damage in affected human groups, through health care and early case detection.

243. The criminal justice system seeks to prevent, control and manage risks of injuries, through legal, judicial, police and other sector interventions. These interventions have a purpose which goes beyond health, although it is relevant to health, and so they are not part of the preventive component. Examples may include weapons, drugs and violence control, which have a focus external to health. However, the prevention of injuries by individuals and the health information to reduce drug consumption are certainly part of the information provided within the IEC, as well as the programmes to treat each of the diseases and injuries related to those risks within the health system.

244. The transportation and traffic policies regulating and controlling the relevant sectors involve also a set of interventions with a primary focus related to transportation, which are also related but external to health prevention. For example public safety involves the prevention of and protection from events that could endanger the safety of the general public from significant danger, injury/harm, or damage, such as crimes or disasters (natural or man-made) by specific non-health system interventions to ensure safety of transportation systems, roads and the social behaviour associated to them. These safety measures refer to a social level beyond the health system, thus external to the health boundary. However, the prevention would include the IEC to direct health education to ensure a health purpose protection e.g. information and programmes to promote the use of crash helmets, respect to speed limits and traffic rules, etc. In many cases, the self protection may not involve a valued transaction thus there is no accounting content in SHA. Frequently behaviour involves the compliance with legal statements as a primary purpose, and no health principle is applicable. Thus, no real accounting content is included in prevention. However, all the epidemiologic studies to ensure appropriate information and responses that are provided by the health system should be considered as part of the health programmes to avoid accidents and injuries. A clear example of the health approach to these problems can be analysed from the Global Status Report on Road Safety released by WHO in 2009.[83]

[82] Safety involves all activities that seek to minimize or to eliminate hazardous conditions that can cause bodily injury. Occupational safety is concerned with risks in areas where people work: offices, manufacturing plants, farms, construction sites, and commercial and retail facilities. Public safety is concerned with hazards in the home, in travel and recreation, and in other situations that do not fall within the scope of occupational safety. Although safety involves a risk relationship linkable to health and to prevention, its uses are not universally included in that boundary but go to a collective nature in such a way that specialised principles, structures and social involvement generate a field itself handling each of those risks. Thus the health related management is restricted to components with an implicit mention of health purpose. Public safety involves the prevention of and protection from events that could endanger the safety of the general public from significant danger, injury/harm, or damage, such as crimes or disasters (natural or man-made) but notably linkable to police, fire, disaster areas, where health has a minimal component.

[83] (http://whqlibdoc.who.int/publications/2009/9789241563840_eng.pdf).

Epidemiologic surveillance and disease control programme management (HC.4.1)

245. Preventive services imply different types of consumption. Epidemiologic surveillance and disease control programme management involves the technical effort to manage the knowledge and resources with a preventive focus through the planning, monitoring and evaluation of interventions to prevent and control diseases, including measures supporting the provision of the system, such as enforcement of regulation and quality assurance programmes. Also included are operational activities for immediate improvement of the programme, such as hands on training and operational research[84].

246. This class is expected to group the components of programme design, management, implementation, monitoring and evaluation. Programmes have either a centralised or a decentralised management and have a preventive focus. Generic content includes[85]:

- Conducting surveillance of outbreaks and patterns of communicable and non-communicable diseases, injuries, and exposure to environmental agents harmful to health, as well as investigating their patterns and appropriate responses;
- Undertake case finding, ensuring diagnosis and treatment of diseases of public health significance, such as tuberculosis;
- Preparing for disaster and emergency response by the health system;
- Ensuring enforcement of health care regulations;
- Defining appropriate standards for the quality of both personal and population-based health services;
- Accessing information and support services for better surveillance systems and disease prevention and control, and an overall management of programmes related to health problems of interest;
- Using evidence on safety, effectiveness and cost effectiveness to assess the utility of health technology and interventions;
- Developing competence in evidence-based decision-making that incorporates resource management, leadership capacity, and effective communication;
- Overcoming barriers to access to health services by individuals and communities.

247. This class is expected to group the preventive organised component of programmes regardless of their delivery location, such as schools, prisons, workplaces or health facilities. Further detail can be reported through a third digit, for which two major classes are proposed:

HC 4.1.1 Surveillance of communicable and non-communicable diseases, injuries and exposure to environmental health risks

[84] WHO. 2002, Essential Public Health Functions: The Role of Ministries of Health. WPRO WPR/RC53/10. Mainly tasks associated to EPHF 2, Epidemiological surveillance/disease prevention and control

[85] WHO. 2002, Essential Public Health Functions: The Role of Ministries of Health. EPHF 2, Epidemiological surveillance/disease prevention and control & EPHF 8, Ensuring the quality of personal and population-based health services. WPRO WPR/RC53/10.

248. This class can be further divided to disaggregate the country specific opening by programme offering flexibility to specific needs. Comparative purposes would require a proper classificatory metadata due to the fact that progressive etiology knowledge has shifted some diseases from one class to another one, e.g. as in the case of neurological and cancer cases which are now identified diseases due to viral infections or in the cases where some communicable diseases have been modified in their geographical distribution due to environmental factors.

HC 4.1.2 Information gathering and support services for disease control management

249. Several systemic services are provided en bloc to cover various health programmes at a time. This is the case of information systems for monitoring disease, systems to facilitate supervision, quality control, regulatory enforcement as well as evaluation of the ongoing services. The various components can be further disaggregated according to policy needs and information availability in each country.

Collective Preventive Programmes (HC.4.2)

250. Collective preventive services[86] contribute to the improvement in the health condition of population groups by reducing their risk of acquiring a disease and through the prevention of their progression to a clinical stage. Consumption of collective prevention cannot be assigned to specific individuals[87]: Some of this consumption can be made without a specific interest by consumers, such as a mass information campaign provided to the whole community as part of the publicity on television or radio channels.

251. Collective preventive programmes include any intervention in which the primary objective is to maintain and / or improve the health condition of individuals and population groups. The preventive strategy in health systems involving a health promotion allows the boundary of collective services to be set in relation to the immediate and direct interaction of individuals with the health risks and the health systems. Thus, the involvement of social and economic branches highlighting selected potential health risks impose a boundary restriction, where compliance with the specific regulation and principles of those sectors, which impacts health as a result but not as a primary purpose, is excluded from SHA. The classes for a detailed disaggregation of the expenditure have a more strategic focus than a disease focus, which can be obtained through the ICD in the distribution by beneficiary (see Chapter 10).

252. At a third digit level this type of collective prevention can be further divided in:

- Mass education and information campaigns (IEC) (HC.4.2.1). This class is expected to account for all the mass IEC consumed campaigns with a major focus on primary and secondary prevention. Included are benefits inducing and inviting individual behaviour change by improving knowledge, beliefs, attitudes and behaviour in a direction which is conducive to improvements in health. Information is focused on the promotion of habits that can help to reduce specific risks, notably related to tobacco consumption, diet, physical activity, salt consumption, alcohol drinking habits, sexual behaviour, etc. e.g. informing about health consequences of smoking.

[86] Accounting characteristics of collective services are: to be consumed simultaneously by every member of the community or by particular sections of the community, such as those in a particular region of a locality; their use is often passive and does not require the explicit agreement or active participation of all the individuals concerned; and the consumption of a collective service by one individual does not reduce the amount available to others in the same community or section of the community. There is no rivalry in consumption (SNA 2008, paragraph 9.96).

[87] Valuation of these collective preventive services is typically approached through the weighted sum of inputs e.g. sum of the time and number of personnel devoted to all specific programmes such as reproductive health, malaria, alert and response operations, etc.

- Regulation enforcement programmes (HC.4.2.2). These programmes notably include activities to promote the implementation of health laws and regulations and to develop capacity to enforce regulation and assess and promote compliance. For example the control of the fluoridation of water and the control of quality of drinking water. In areas where malaria is endemic, the promotion of the compliance of drains to reduce the reproduction of mosquitoes or the distribution of bed nets should be included here.

- Disaster and emergency response programmes (HC.4.2.3). This class can be adjusted to country specific needs, as in specific areas the health risks can be different. However, in all cases health rules and a health infrastructure as well as social health structure should be prepared to cope with expanded health care needs.

Personal preventive programmes (HC.4.3)

253. These preventive programmes are consumed on a personal or individual basis[88]. The increasing awareness of health information and of personal preventive opportunities has increased the involvement of individuals in these activities, in order to protect themselves and to take care of their own risks and specific needs. Thus this category is expected to increase over time, and be reflected in the utilization of selected health services, both as part of organised programmes, or as a result of an individually initiated demand. Individual prevention is often integrated with curative and rehabilitative services.

254. Individual prevention includes:

- Information, education and communication (IEC) (HC.4.3.1). These services consist of informing and orienting individuals about specific health problems, their conditioning factors and particular risks. They are usually part of control programmes, in which case are disease oriented, such as medication adherence, self management guidelines of diseases, preoperative education, or discharge plans. They can also be related to self-applied tests to know their health status, orienting individuals on how stay well if the results are negative, and orienting and referring them for follow up, if positive. This expenditure may involve information dissemination as well as the time and skills of the specialised personnel providing the advice.

- Immunization (HC.4.3.2), in order to prevent the development of a disease, before or after exposure, through the use of pharmaceutical products, such as vaccines. It is a primary prevention in most cases, except for rabies or exposure to tetanus. It can involve consumption both as a control programme and individual demand. Examples include diphtheria, hepatitis, influenza, measles, meningococcal infections, mumps, pertussis (whooping cough), pneumococcal infections, polio, rabies, rubella, tetanus and HPV, varicella (chicken pox), yellow fever, herpes zoster and so on. The expenditure involved in the consultation, both for the time and skills of the personnel and the purchase of the vaccine itself should be accounted for.

Early disease detection (HC.4.3.3)

[88] Individual consumption in accounting involves three main characteristics: it is an identifiable event, the consumer agrees to participate in the supply-demand process and the acquisition of the good or service by one household or person, precludes its acquisition by other households or persons (SNA 2008, paragraph 9.92). Operational issues related to preventive services. This class has traditionally been excluded of health accounts because it is difficult to track. Often, the only records available on individual prevention are limited to those on a programmatic basis. Progressive record development to ensure their appropriate monitoring is desirable.

255. This item concerns the active search for a disease or other health condition early in its course, before symptoms appear. They can involve screening, diagnostic tests and medical examinations. These can target, for example, breast cancer, cervical cancer, colon rectal cancer, diabetes, HIV/AIDS, malaria, tuberculosis, and so on. Only the transaction component would be accounted, e.g. a breast examination for early case detection would lead to expenditure when a mammography is made but not when a self-exam is performed without expenditure involved, though in both cases the purpose and behaviour is the same. Self examination can generate expenditure in cases such as self performed tests, e.g. of levels of sugar in blood or urine, which may involve the purchase of tests.

All other preventive care n.s.k. (HC.4.4)

256. This class would allow the inclusion of the relevant prevention expenditure components and programmes available in countries but which are cannot be disaggregated. It is expected to include benefits listed in budgetary and other records not identifiable by class.

Consumption not specified by function

257. Not all services consumed on an individual basis can be easily recognised by their function. Notably, because these services are often provided by retailers or separate providers, such as clinical laboratories, imaging centres, or laboratories or imaging centres which are located within the premises of other health care facilities, but separately administered. These services can involve self-prescribed consumption such as over the counter medicines and they may lack records linkable to their purpose in accounting terms. To indicate clearly this situation two classes have been created.

Consumption of ancillary services not specified by function (HC.5).

258. Ancillary services are frequently an integral part of the package of services related to diagnosis and monitoring. For inpatient, day care and hospital outpatient services they are not identified as a separate class, unless a more detailed level were to be introduced. Only a part of the total consumption of ancillary services is made apparent by reporting this consumption not identified by function component.

259. The content of this class corresponds to an outpatient MoP delivered directly as diagnoses and monitoring, in independent providers of **laboratory services (HC.5.1)**, and **imaging services (HC.5.2).** It also includes **patient transportation (HC.5.3).**

260. Separate providers are related to consumption without records linked to their purpose, as medical tests can be linkable to early case detection, monitoring a treatment or a health condition. These services are also related to consumption without any identified mode of provision. For example laboratory tests and interpretation of imaging can be purchased at self standing medical test centres for second opinion for inpatient cases, for outpatient cases or home base care.

Laboratory services (HC.5.1)

261. This entry comprises a variety of tests of clinical specimens in order to get information about the health of a patient. Laboratory tests are an integral part of the consumption of any patient, and constitute a guide for diagnosis and treatment choice. A further level of disaggregation can be defined as follows: Laboratory diagnostics (HC.5.1.1), Clinical and other functional tests (HC.5.1.2), and Blood, sperm and organ bank services (HC.5.1.3)

262. Laboratory diagnostics (HC.5.1.1) includes the areas of:

- Anatomic Pathology (histopathology, cytopathology);

- Clinical Microbiology (bacteriology, virology, parasitology, immunology, and mycology);
- Clinical Biochemistry (enzymology, toxicology and endocrinology);
- Haematology (coagulation and blood banks);
- Cytology (semen and organ banks);
- Genetics (cytogenetics).

263. Clinical and other functional tests (HC.5.1.2) include clinical tests directed to specific organs and requiring additional technology to measure the activity, are linked to most of medical specialties: cardiovascular: e.g. electrocardiographic diagnosis; allergy: e.g. allergy test, food sensitivity tests; audiology, etc. Other diagnostic services include tests such as electrocardiographic diagnosis, effort assessment.

264. Blood, sperm and organ bank services (HC.5.1.3). This subclass includes: services provided by blood, semen, embryo, tissue and transplant organ banks, including storing and cataloguing of available specimen, matching of donated specimen and potential recipients etc.

Imaging diagnosis (HC.5.2)

265. This item comprises a variety of services applying imaging technology like x-ray and radiation to diagnosing and monitoring patients. Includes an array of imaging technologies to diagnose and treat diseases, such as:

- Plain X-ray, bone; Soft tissue imaging,
- Contrast X-rays or photo-imaging
- Diagnostic ultrasound,
- Computed tomography (CT)
- Computer Assisted Tomography,
- Nuclear medicine,
- Nuclear magnetic imaging; Nuclear scanning
- Positron Emission Tomography (PET)
- Magnetic resonance imaging (MRI).
- Other miscellaneous diagnostic imaging (arteriography using contrast material, angiocardiography, phlebography, thermography, bone mineral density studies).

Patient transportation (HC 5.3)

266. This item comprises transportation of patients to the health care premises or as a necessary inter-facility transfer to complement a bundle of services. An example is emergency transportation to health facilities and transportation between health facilities to complement imaging diagnosis or rehabilitative

treatment. The transportation can be delivered in a specially-equipped surface vehicle or in a designated air or water ambulance to and from facilities for the purposes of receiving medical and surgical care. It also includes transportation in conventional vehicles, such as a taxi, when either there is a transaction involved or there is an overhead e.g. in the case of an inter hospital diagnosis imaging procedures. The boundary should correspond to the criteria in Chapter 3.

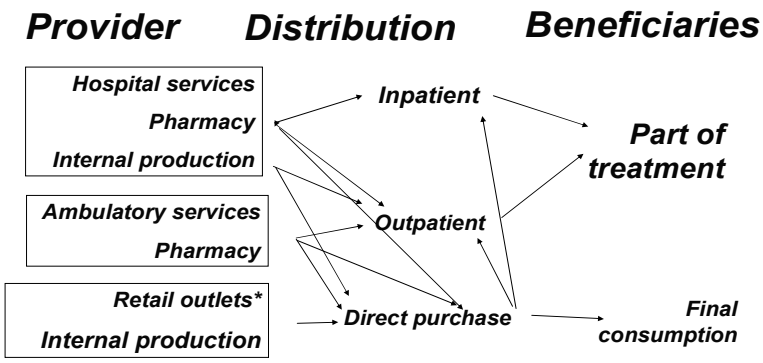
267. The transport service may be specialized, with or without resuscitation equipment or medical personnel. It can be billed as part of the related benefits (e.g. imaging diagnosis, etc).

> Includes: Emergency transport services of public fire rescue departments or defence that operate on a regular basis for civilian emergency services (not only for catastrophe medicine).

Consumption of medical goods not specified by function (HC.6)

268. The same case holds for purchases of medical goods in self standing retailers. These can be within a hospital or medical centre but operating as an independent entity, or outside of any medical facility but purchased for an inpatient, outpatient, day case or home based patient. It can also cover the purpose of preventive, curative, or rehabilitative treatment. The diversity of distributional mechanisms is simplified in Figure 5.3.

Figure 5.3. Distribution mechanisms of medicines



269. This class distinguishes **pharmaceuticals (HC.6.1)**, **therapeutic appliances and other medical goods (HC.6.2)**, such as optical or hearing aids.

270. Medicines and other medical non durable goods are also frequently a component of the package of services with preventive, curative, rehabilitative or LTC purpose. In the inpatient, outpatient and day case consumption these are not separately identified except possibly at a more detailed level. However, the diversification of distributional channels has increased the need to recognise the mixed role of retailers in healthcare provision within the various modes of provision in many countries. By convention, the purchase of medicines is taken to equal their consumption.

Pharmaceuticals and other non durable goods HC.6.1

271. This class comprises pharmaceutical products dispensed to outpatients. Pharmaceuticals are substances intended for use in the diagnosis, cure, mitigation, or treatment of disease such as medicinal preparations, branded and generic medicines, drugs, patent medicines, serums and vaccines, and oral

contraceptives. Fluids required for dialysis, as well as gases used in health care such as oxygen should be also included. This class is further divided into the following sub-classes:

- Prescribed medicines (PM) HC.6.1.1 comprises branded and generic products, which are only deliverable by a licensed medical practitioner.
- Over-the-counter drugs (OTC) HC.6.1.2, comprises branded and generic products, which may be available without prescription.
- Other medical non durable goods HC.6.1.3, such as adhesive and non-adhesive bandages, hypodermic syringes, first-aid kits, hot-water bottles and ice bags, medical hosiery items such as elastic stockings and knee supports, condoms and other mechanical contraceptive devices.

272. All pharmaceuticals goods acquired for a patient regardless whether they were acquired in a pharmacy or the pharmacy in a hospital or through the healer or any other distribution mean are to be included.

273. Further distinctions are desirable (which may evolve subsequently into subclasses), such as branded and generic medicines, hospital own manufactured supply. Subclasses such as "essential medicines" are operational distinctions already institutionalized in some countries for routine monitoring, which could be also included as a detailed breakdown. Eventually, a therapeutic breakdown based on the Anatomic Therapeutic Chemical classification is also desirable. A detailed compilation is required to establish appropriate price and volume indices.[89]

Excludes: Veterinary products; articles for personal hygiene such as medicinal soaps.

Borderline cases: The TCAM medical goods should be included, except those products known as healthy food.

Therapeutic appliances and other medical goods HC.6.2

274. This item comprises a wide range of medical durable goods received by outpatients.

- Orthoses (devices that support or correct deformities and/or abnormalities of the human body) and
- Prostheses (artificial extension that replaces a missing body part). E.g. corrective eye-glasses and contact lenses, hearing aids, orthopaedic appliances such as orthopaedic shoes, artificial limbs and other prosthetic devices, orthopaedic braces and supports, surgical belts, trusses and supports, neck braces and other prosthetics including implants. Implant is a medical device made to replace (or supplement the functionality) and act as a missing biological structure (as compared with a transplant, which indicates transplanted biomedical tissue*).[Ed: Are these all prostheses?]*
- Equipment comprises a variety of medico-technical devices such as powered and unpowered wheelchairs and invalid carriages, "special" beds, crutches, electronic and other devices for monitoring blood pressure.

[89] Essential medicines are the medicines that address the priority health care requirements of a population. These medicines are selected through an evidence-based process with due regard to public health relevance, quality, safety, efficacy and comparative cost-effectiveness. The WHO Essential Drugs List was first published in 1977 and is updated every 2 years. It has proved to be a powerful tool for the promotion of primary health care by rationalizing the selection and use of medicines as well as their cost. Hogerzeil 2004. The concept of essential medicines: lessons for rich countries. BMJ 329: 1169-72.

275. These medical goods can be further identified by type in third digit classes:

276. Glasses and other vision products HC.6.2.1, which should have a health purpose. This item comprises corrective eye-glasses and contact lenses as well as the corresponding cleansing fluid and the fitting by opticians.

- Excludes: sunglasses not fitted with corrective lenses.

277. Orthopaedic appliances and other prosthetics HC.6.2.2, This item comprises orthopaedic appliances and other prosthetics: orthopaedic shoes, artificial limbs and other prosthetic devices, orthopaedic braces and supports, surgical belts, trusses and supports, neck braces.

- Excludes: implants (HC.1, Curative care).

- Borderline cases: implants with a non health primary purposes, such as aesthetic purpose, should be excluded. Canes for the blind and dogs for the blind should be included.

278. Hearing aids HC.6.2.3. This item comprises all kinds of removable hearing aids (including cleaning, adjustment and batteries).

- Excludes: audiological diagnosis and treatment by physicians (HC.1.3.3); implants (HC.1, curative care); audiological training (HC.1.3.9).

279. All other medical durables including medical technical devices HC.6.2.4. This item comprises a wide variety of a variety of medico-technical devices such as wheelchairs (powered and unpowered) and invalid carriages, as well as miscellaneous durable medical products not elsewhere classified such as blood pressure instruments.

> Includes: Specialised telematic equipment for emergency calls from the patient's home and/or for the remote monitoring of medical parameters.
>
> Excludes: Automatic staircase lifts; bathtub lifts and similar devices for adapting the housing situation of patients with transitory or chronic impairments and hire of therapeutic equipment; protective goggles, belts and supports for sport.

Governance, management and health system administration (HC.7)

280. These services are also considered to be collective, as they may not be allocated to individuals, however they have a health system focus rather than a direct health care one. Thus they may not necessarily meet the health knowledge criterion directly. These services are expected to cover interventions to maintain and increase the effectiveness and efficiency of the health system and may enhance its equity.

281. These expenditures are incurred mostly but not exclusively by governments. Included are the formulation and administration of government policy, the setting and enforcement of standards, the regulation, licensing or supervision of producers, etc.

Governance and health system administration (HC.7.1)

282. Governance and health system administration together form a single function class. Although these cover more than a single function, one class is proposed at the first digit level due to its relatively low share of spending and the low feasibility to be split.

283. Governance[90] includes planning, policy formulation and information intelligence for the entire health system, such as

- The monitoring of health needs[91] and health care interventions
- Health accounting and specific resource monitoring[92] and auditing
- Development of policies and planning[93]
- Health promotion partnership, social participation and empowerment[94]
- Research, development and implementation of innovative interventions to set standards[95].

284. Administration involves a management focus, on the design of measures to regulate, generate incentives, and to control organizations and resources in the system, such as general and specialized medical establishments, including dental services, hospitals and clinics, nursing and convalescent home services as well as independent practice. Directive and operational roles as well as the resources involved in such operation are to be contained.

- Strategic management of health systems and services for population health gain
- Regulation to protect public health, including accreditation and quality assurance
- Human resources development and planning

Excluded are: any overhead expenses connected with the administration or functioning of health providers: hospitals, or other providers, which are to be included in individual expenditures. For example, if a group of public or private hospitals has a central unit that provides certain common services such as purchasing, laboratories, ambulances, or other facilities, the value of these common services would be taken into account in the value of the personal services.

Borderline cases: the regulatory function is part of the governance function and it includes the setting of modalities to enforce regulations. However, each programme technical board, included in the preventive classes, has the responsibility to ensure the enforcement at operational level. Thus the formulation of regulation and their enforcement mechanisms are part of governance and the operation of the enforcement of the regulations is part of prevention. The operational level is likely to be separable through specific programme focused bodies.

[90] Governance is the careful and responsible management of something entrusted to one's care. In the context of health systems, it involves influencing policies and actions in all sectors that may affect the health of the population. The governance function therefore implies the ability to formulate strategic policy direction, to ensure good regulation and the tools for implementing it, and to provide the necessary intelligence on health system performance in order to ensure accountability and transparency. (WHO Europe)

[91] WHO 2002, op cit. EPHF 1

[92] WHO, 2002, op cit EPHF 6

[93] WHO, 2002, op cit EPHF 3

[94] WHO 2002, op cit. EPHF 7

[95] WHO, 2002, op cit EPHF 9

285. **Administration of health financing (HC.7.2)** involves a subcomponent specific both to health financing regardless of their public and private origin and their public and private provision[96], e.g. budgeting and fund raising. It contains the management of the fund collection, administration and monitoring and evaluation of such resources. Among the specific services linked to resource mobilization are the member identification of the scheme, their enrolment, billing and collection of the contributions, as well as managing the exemptions. Within the pooling function, the risk equalization is one important service. Among the purchasing function the services included are selecting, negotiating with health providers and purchasing and contracting, as well as the claim processing system including the gatekeeping, provider payment and patient reimbursement.

Health care related classes

286. A selected group of classes involving joint products, with health care and non health care components, is proposed to be reported when relevant at country level. The amounts of expenditure reported in these groups are thus to be considered an expanded value of the expenditure on health. There are two types of care which are included: a) Long Term Care, expected to contain the expenditure both on personal care and on social care, given the relevance of having a total value for allocation of resources and planning; b) Traditional, Complementary and Alternative Medicines (TCAM), which include goods and services able to be classified in all health care functions, but which include few components which are not really part of the health care boundary.

Long Term Social Care (LTSC) HCR.1.

287. This item comprises the expenditure on social services related to long term care. As the medical and personal classes are contained in HC.3, the proposal is to include as health care related components the explicit value of social care, notably differentiated through the in-kind and in-cash components. Both components, HC.3 and HCR.1 could be added to obtain a total value of Long Term Care (LTC). The missing components are notably focused on the assistance which are predominantly aimed at providing help with instrumental activities of daily living (IADL) restrictions to persons with functional limitations and a limited ability to perform these tasks on their own without substantial assistance, including supporting residential services (in assisted living facilities and the like). Home help or, more generally, help with IADLs (such as help with activities of home making, meals etc., transport and social activities) may be provided and remunerated as a package of services with long-term nursing and personal care services. Among these resources, a component to consider is the expenditure on training carers, not only their remuneration for the services delivered.

288. It also includes social services that aim predominantly to prevent and combat social isolation of persons with functional limitations (body/mental functioning).

> Includes: Subsidies to residential services (including expenditure on accommodation) in assisted living arrangements and other kinds of protected housing for persons with functional limitations (including residential services to people with mental retardation, mental illness or substance abuse problems and homes for the physically and mentally handicapped); services of housekeeping, social services of day care such as social activities for dependent persons; transport to and from day-care facilities or similar social services for persons with functional limitations.

[96] For a comprehensive list see Administration costs of health insurance: Where and what do they hide? by Nicolle E and Mathauer I. WHO Discussion Paper 2010.

Excludes: All services which are predominantly related to providing long-term medical and nursing services with activities of daily living (ADL) which are included in the function HC.3: Long-term health (nursing) care (LTHC). Also excludes: Services of surveillance of persons with mental deficits such as dementia patients; medical and services of assessment, case management and co-ordination between health and long-term care services (included under HC.3).

289. The ground rule should be to report institutional care under health care where institutionalisation is necessary for the person's health or where the health care component in question is most efficiently provided in an institutional setting. For other forms of care, where the medical component is important but not dominant (less than half of the total cost), a health care component could be separated by estimating genuine health care resources by evaluating their input in the form of labour and (intermediate) or final use of medical goods. Only labour input of medical professions performing medical functions (in the sense of the ICHA functional classification) would be counted as a first approximation. In these cases, the accommodation function in these institutions would be excluded from the health care function.

HC.R.1.1 Administration and provision of Long-term social care servicess in kind to assist living with disease and impairment

290. This item comprises long-term social care services in kind provided to persons with health problems and functional limitations or impairments where the primary goal is the social and vocational rehabilitation or integration. These are included transportation, services to avoid isolation and IADL and the training of carers.

HC.R.1.2 Administration and provision of Long-term social care cash-benefits

291. This item comprises the administration and provision of long-term social care benefits by social protection programmes in the form of transfers provided to individual persons and households. Included are collective services such as the administration and regulation of these programmes. It would include mainly the remuneration of IADL providers.

Traditional, Complementary and Alternative Medicines (TCAM) HCR.2.

292. This breakdown has been highlighted as policy relevant in many countries, due to its high growth rate, both in high- and middle-per capita income countries. Policies related to TCAM are emerging and need to be monitored. Due to the mixture of purposes and practices and financing profiles, TCAM systems, therapies and disciplines (including the medical goods) are a *de facto* sub-class of hospitals and ambulatory services, and retailers. It is proposed that SHA 2.0 recognises this *explicitly*.

Defining the scope of traditional, complementary and alternative medicine (TCAM).

293. Broadly stated, health care can be divided into modern (mainstream[97], conventional, orthodox, Western or allopathic) and traditional (indigenous, complementary, alternative or integrative) approaches, differing across nations.

[97] Mainstream medicine (MM), allopathic medicine, allopathy, conventional medicine, modern medicine, orthodox medicine, traditional medicine, Western medicine Clinical medicine The approach to health care practiced in developed nations, based on scientific data for diagnosing and treating disease; MM assumes that all physiologic and pathological phenomena can be explained in concrete terms; tools of MM include nonhuman model systems, blinded studies, statistical analysis, to ensure reproducible results.

294. Non allopathic[98] care includes all services from any practice with a health intent that does not fall within the realm of allopathic medicine. The generic term in use is Traditional, Complementary and Alternative medicines (TCAM).

> *As defined by WHO, "Traditional medicine" is an amorphous concept that comprises a range of long-standing and still evolving practices based on diverse beliefs and theories[99]. These services involve medical knowledge systems, developed over centuries within various societies before or during the development of modern medicine.*
> *"Complementary and alternative" services are those used together with or instead of allopathic health care and they are not yet incorporated into the established international medical system, even when at national level they are extensively used.*

295. TCAM is common in most countries and is prevalent in countries representing more than half of the world's population[100,101]. The reporting of TCAM does not contravene the legislative and regulatory control advocated in countries where allopathic medicine is the dominant form. TCAM class is included in the functional classification HC merely to describe and classify actual financing flows, use of production factors and consumption patterns. TCAM is intrinsically challenging to monitor as supplies and uses are often informal, notably in the LMIC. Moreover, an attribute supporting the comparability of data between countries is institutional neutrality, typically used for monitoring and analysing related resource mobilization and effective consumption. Differences in TCAM providers between countries are therefore complicating the tracking of comparable information.

296. There is a wide diversity and continued emergence of new practices within this class. The most common types are summarized as[102]:

- alternative health systems; among which the most disseminated are acupuncture, homeopathy, chiropraxy, osteopathy;
- complementary therapies; such as Alexander therapy, aromatherapy, Bach therapy and other flower therapies, body therapy, Ayurvedic, herbal medicine, naturopathy, nutritional therapy, yoga, spa therapy;
- alternative disciplines; such as crystal therapy, iridology, kinesiology, and radionics;

[98] " Allopathic medicine, in this document, refers to the broad category of medical practice that is sometimes called Western medicine, biomedicine, scientific medicine, or modern medicine. This term has been used solely for convenience and does not refer to the treatment principles of any form of medicine described in this document." WHO, Legal Status of Traditional Medicine and Complementary/Alternative Medicine: A Worldwide Review.

[99] Charlie Changli Xue. Traditional, complementary and alternative medicine: policy and public health perspectives. Bulletin of the World Health Organization. Volume 86: Number 1, January 2008, pp 1-80.

[100] WHO. National policy on traditional medicine and regulation of herbal medicines. Report of WHO global survey. WHO Geneva, 2005.

[101] Bodeker, G., Ong, C.K., Grundy, C., Burford, G., Shein, K. WHO Global Atlas of Traditional, Complementary and Alternative Medicine. World Health Organization, Centre for Health Development, Kobe, Japan. 2005.

[102] Agnete Egilsdatter Kristoffersen, M.A., Vinjar Fønnebø, M.D., M.Sc., Ph.D., and Arne Johan Norheim, M.D., Ph.D. Use of Complementary and Alternative Medicine Among Patients: Classification Criteria Determine Level of Use. The Journal of Alternative and Complementary Medicine. Volume 14, Number 8, 2008, pp. 911–919. p 912.

- spiritual and esoteric practices.

297. Essentially, differences between traditional medicine systems and traditional medicine therapies comprise the exhaustiveness of the reach. For example, traditional Chinese medicine is a system which includes the use of Chinese traditional therapies such as needling, herbal medicines, tuina, and son on. Chiropraxy is in itself a system and may include therapies such as manual joint manipulation, nutritional therapy, and exercise prescription. Herbal medicine, on the other hand, is a therapeutic ingredient which any system can include, when the practitioners are trained to do so.

298. Spiritual and esoteric components such as religious and astrological practices are related to an individual holistic sphere of self for which health knowledge and practice is difficult to identify and isolate from other purposes, e.g. spiritual and esoteric practices for wellbeing, improvement in social success or sport or educational performance. Thus although part of the TCAM scope, they are not part of the health care components.

299. The range of purposes of the services provided within the TCAM is similar to that observed for allopathic practice:

- preventive curative, rehabilitative, or maintenance in nature;
- diagnostic, surgical and prescriptive procedures.

300. Non allopathic goods include a huge diversity of products and can be acquired during treatment and from retailers, both specialized and non-specialised[103]:

a) Types of herbal medicines;

b) Prescription medicines: medicines that can only be purchased with a prescription (e.g. physician's order)

c) Over the counter medicines: medicines that can be purchased without a prescription from a physician

d) Dietary supplements: a product intended to increase the total daily intake of a concentrate, a metabolite, constituent, extract or combination of these ingredients. A substance which contains, for instance, a vitamin, a mineral, an herb or other botanical or an amino acid.

e) Health food: products that are presented with specific health claims and therefore regulated differently from other foods.

f) Functional foods: products which are offered with specific health claims and therefore regulated differently from other foods.

301. Food has a primary alimentary purpose which puts it outside of the health care content. Thus health foods and functional foods are to be accounted for outside the health care boundary. Some of the therapies, e.g. yoga, can also be consumed with a wellbeing purpose, thus they can also be external to the health care boundary (see Chapter 3).

[103] See WHO 2005. Op cit

- Examples of TCAM are: - Acupuncture, Ayurveda, Chiropraxy, Herbal Medicines, Homeopathy, Naturopathy, Osteopathy, Traditional African medicines (Muti, Yoruba Ifa), Traditional Chinese medicine (Tuina, Unani), Shiatsu, Mind-Body Intervention, Biologically Based Therapy, Manipulative and body-based methods, Energy Therapy. The various therapies are also included such as Qi Gong, Tai ji, Thermal therapy, Yoga, Magnetic Therapy, Reiki, Therapeutic Touch, Aromatherapy, Art / music therapy, Biofeedback, Hypnosis, Meditation, Mental imagery, Prayer, Spiritual healing.

Boundaries related to TCAM

302. Being the centre of many systems which deal with health by the enhancement of energy more than treating each ailment individually, a boundary with wellbeing can be difficult to set. This problem is not exclusive to TCAM but also affects allopathic practices (e.g. diet and physical activity recommendations for prevention in the cardiovascular field).

303. Although the purpose of TCAM spending is in principle the same as in allopathic practice, some of the components can be difficult to separate from other purpose of consumption such as wellbeing, including therapies as yoga and consumption of food products. There is also a complexity of measurement. In many countries it is integrated with allopathic practice sub-aggregates. In the absence of specific records, it is neither identified nor accounted for. SHA 1.0 recommended the exclusion of illegal or non certified health interventions[104] (SHA 1.0 paragraph 5.15). Social and regulatory stigma as well as selective survey and administrative recording should be progressively treated to increase comparability and to reduce the "statistical ignorance". To sum up, boundaries between TCAM and allopathic practices are not easy to set and monitor.

304. The volume of resources to produce TCAM estimates is not negligible. Some criteria to produce fairer accountability are discussed below:

- Effectiveness. The health benefits of TCAM have so far not been fully assessed in ways that can be universally accepted as being evidence based. However, also many of the procedures in allopathic medicine continue to lack a validation assessment of the technology used. Thus, the effectiveness criteria may be difficult to use for ranking TCAM and for setting a boundary as health services. "Health accounts do neither aim to measure the impacts on welfare nor the effectiveness of health services"[105].
- Provision. Although TCAM have the same purpose as allopathic practice, the technology contained is different and the personnel in charge can have different qualifications. Thus, an analysis by provider (public and private) would also be appropriate to measure expenditure on TCAM. One difficulty already identified for doing so is the coexistence of TCAM practices in the same locations as allopathic provision, which may hamper a distinction. Hospitals may have a specific TCAM department or may mix these services with allopathic provision. The outpatient offices can also present a similar situation. Direct provision by ministerial services can also mix allopathic and non allopathic services. Thus, in countries with mixed practices, expenditures may be better allocated to specific personnel rather than facility type structures. Such a break down has already been expressed as desirable, e.g. to highlight traditional birth attendants.
- Qualifications. Within most of the individual TCAM professions there are defined minimal standards but many TCAM schools are not yet able to meet these standards due to limited resources. For

[104] TCAM services are performed on a regular and legal basis while they are non-certified or illegal in another. In our viewpoint all TCAM should be included.

[105] As stated in unit 2 paragraph 25.

example, within chiropractic, out of the several hundred schools which claim to teach these practitioners, only 34 meet the minimum standards set out in the WHO Guidelines on basic training and safety in chiropractic[106].

- Registration and legislation. Around two thirds of WHO Member States (193 in 2010) still do not have a specific national policy on TCAM, though in 56% of them, regulations are under development. Procedures to register TCAM providers are similar to those for allopathic practitioners: e.g. in South Africa all health care practitioners must be registered in order to practice and to qualify for registration, a practitioner must have achieved a minimum standard of training at an institution accredited by the relevant council set up by the Department of Health (DoH). Councils are responsible for the registration of practitioners, the establishment of educational standards for registration and the general regulation of the health care professions. In South Africa, out of 190,000 traditional health practitioners, there are currently about 3,600 registered Allied Health Care Professionals[107].
- A product registration is also set in place. For most countries laws or regulations are the same or partly the same as for conventional pharmaceuticals, but not yet developed for most functional food, health food and herbal medicines: e.g. in South Africa, a list of products has been compiled by technical specialists representing each of the complementary medicine modalities. Substances which have been rigorously tested for safety and efficacy in other parts of the world will not have to be re-tested in South Africa. As long as a product contains substances from accepted pharmacopoeia, at safe dosages, the product will undergo testing to ascertain that it is produced under good manufacturing procedures and to verify the contents. So far, it is estimated that there are about 25 000 complementary medicines, including traditional medicines, that have been submitted for registration. The global market for TCAM products has been estimated as USD 83 billion annually in 2008[108].
- Financing schemes or payments of TCAM may not be different from allopathic medicine. Current reporting practices include already this class in most countries without any specific marker, e.g. they are partially reimbursed by public and private insurance schemes and regularly reported aggregated by those schemes. In fact, many insurance schemes reimburse partly or totally various TCAM services, among which acupuncture and spa as well as chiropractic are frequent. However, tracking through insurance billing system would require a minimal verification of the content to ensure that the non health components be left out.
- Household surveys in many countries include questions about these types of consumption and they are reported as part of OOPS. In the USA for example, 83 million adults spent $33.9 billion out-of-pocket on CAM, which represents 11.2% of total out-of-pocket expenditures on health care[109]. In many countries, household payments may involve also in kind transactions for which a record system may not be set. Notably, the valuation criteria should be made explicit.

106 http://apps.who.int/medicinedocs/en/m/abstract/Js14076e/: WHO Guidelines on Basic Training and Safety in Chiropractic (2005; 51 pages)

107 Nceba Gqalen, Indres Moodley, Heidi Kruger, Abigail Ntuli, Heather McLeod. Traditional and Complementary medicine. Health Systems Review. SA.

108 Robinson M, Xiaori Zhang . Traditional Medicines, Self-Medication, and OTC. World medicines Situation. WHO. 2010.

109 NIH. The Use of Complementary and Alternative Medicine in the United States: Cost Data. US DHSS. NCCAM Clearinghouse 2009 www.nccam.nih.gov

Towards a classificatory scheme for TCAM

305. The proposal is that these services be classified as one Health Care Related class, named as TCAM, for which, in the case of sufficient interest, a further breakdown could be made[110]. The displayed detail in Table 5.2 proposed involves aggregated MoP classes as well as type of consumption as goods and services.

Table 5.2 TCAM entries as a Health Care Related class

HCR 2 Traditional, Complementary and Alternative Medicines (TCAM)
HCR.2.1 Inpatient TCAM
HCR.2.2 Outpatient, home based and TCAM retailers
of which Expenditure on TCAM services
of which Expenditure on TCAM goods

Non-health care consumption HCR.3

306. Health systems provide a huge diversity of goods and services**,** most of which are part of health care consumption. However, in most cases there is a part of the production which is not within the health care boundary. In most cases it is difficult to identify the various components appearing to be within the boundary but actually falling outside of it. Such is the case of services with a primary cosmetic purpose which are generated with medical technology and resources. Clinics may perform plastic surgery to patients, such as plus epilation services - botox - that fail to satisfy the criteria of repairing a lost health status or enhancing that status, yet the activity statistics of hospitals and clinics fails to dissociate the health and non-health purposes. A large share of, say, medications designed for erectile dysfunctions (therefore prescribed), is acquired over-the-counter for sexual performance.

307. Better accounting of health systems that improves the accounting of such products in a separate class can be useful to report non-health consumption and aid health care spending analysis.

308. Inadequacies in recording procedures may lead to the actual inclusion of misuses of medical and paramedical technology. Audits of health services in systems with reimbursement identify part of the misuse of resource and waste. These audits are conducted, necessarily, after the close of accounting period; they seldom permit a desirable correction of the revealed gross consumption

Reporting items

309. The selected categories proposed to be included as additional ***Reporting items*** have been identified as potentially relevant functions for policy analysis and for the accounting process. These selected classes are included across the reported HC categories but without a label or class to be specifically identified.

Total pharmaceutical expenditure (TPE) RI.1

310. A total amount reflecting the pharmaceutical consumption is quite desirable for planning and decision making. Currently only the direct purchases by the consumer are reported as a separate class (HC.6). A total expenditure figure on pharmaceutical consumption is feasible, through the summing the explicitly reported part (HC 6.1) and the components of pharmaceutical consumption implicitly within treatment packages, notably as part of the inpatient treatment. This is displayed as a reporting item to

[110] Countries, in which this practice has been reported such as Indonesia, include a class for Modern and another for Traditional care. Reference to Statistics Indonesia 2007, pp 133.

facilitate estimation of total pharmaceuticals consumption in health care regardless of the consumption path.

Expenditure on health research & development within health care RI.2

311. Health research and development is reported as part of the capital account. This is in line with the SNA 2008 guidelines. Health research and development however, has two components: one generating a separate set of products with an identity potentially able to generate additional income to the owner, and another meant to be immediately integrated as an input to enrich the production process in which it was generated: "R&D that does not provide an economic benefit to its owner should be treated as intermediate consumption" (SNA 2008 p 10.133).

312. The former asset generation is to be part of the capital account, whereas the other component, whose value is already expected to be represented within the expenditure on health, is reported under thid item item.

Expenditure on the job training of health personnel RI.3

313. Education and training of health personnel also has two components. It is a way of ensuring the required resource formation for a future period, as well as an immediate input process to enrich the current production. According to SNA rules "when training is given by an employer to enhance the effectiveness of staff, the cost is treated as intermediate consumption" (SNA 2008 p 1.54). Much of the expenditure devoted to an immediate improvement of the various services is already accounted for in current expenditure on health. However, an explicit figure of the amount devoted to these services is relevant for planning and allocation of resources in most health systems. The expected content of this class as a reporting item corresponds to the one of intermediate consumption, thus, to the immediate enhancement of the provision/consumption.

314. Formation of health personal as being outside of the consumption boundary of HA, which is obtained in specialised school for health professionals, including universities, can be seen as an investment in human capital. Although human capital cannot be sold in the market, SHA2.0 includes this investment as a separate part of the capital account.

CHAPTER 6: A CLASSIFICATION OF HEALTH CARE PROVIDERS ICHA-HP

1. INTRODUCTION

315. In health care systems, health care providers vary in their legal, accounting, organizational and operating structures. The health care provider industry encompasses organisations and actors that are primarily engaged in delivery of health care goods and services, as well as those for which health care provision is only one among other activities performed. Typical providers of the first group include primary and specialised care doctors, emergency ambulance services, acute and psychiatric hospitals, health centres, laboratories, nursing care facilities, pharmacies and so on. Examples of the latter group are community care centres and supermarkets providing medical goods. Although huge differences exist in the way health care provision is organized, there is a set of common approaches and technologies that all health systems share that helps to structure them. The classification of health care providers (ICHA–HP) serves therefore the purpose to classify all organisations, which contribute to the provision of health care goods and services and by arranging country-specific provider units into common, internationally applicable categories.

316. The principal activity of providing health care goods and services is the basic criterion for classifying health care providers. This does not mean, however, that providers classified under the same category perform exactly the same set of activities. Hospitals, which are the major health care providers, usually offer not only inpatient health care services, but depending on specific country arrangements, may also offer other activities such as outpatient, rehabilitation or long-term care services and so on. For the purpose of international comparison the value added of the ICHA-HP classification lies particularly in its connection with the functional classification which gives an insight into the variety of countries' specific settings of health care services provision, as well as its combination with the financing classification, which sheds light on the various mechanisms of funding health care in countries.

317. This chapter introduces the classification of health care providers (ICHA-HP), and describes its main elements. It addresses the question: *What is the organisational structure which is characteristic to the provision of health care within a country?* Together with the classification of health care functions (ICHA-HC)[111] and the classification of financing schemes (ICHA-HF)[112] the HP-classifications shape the accounting space of the current core health expenditure accounts.

111 Transactions in core accounting framework of SHA take place between providers and consumers, providers and financing units, and financing units and consumers on markets or quasi markets. For further information about types of transactions see Chapter X.

112 Accounts capture the transactions relevant to one stage or another of the process by which goods and services are produced and ultimately consumed.

2. CONCEPT OF THE CLASSIFICATION OF HEALTH CARE PROVIDERS

2.1 Objectives

318. The main objective of the classification of health care providers is to be comprehensive and complete which means to be able to capture all organisations and actors involved in the provision of health care goods and services. Secondly, all providers should be structured by their main characteristics into classes that enable their linkages with the related structures of health care functions (HC) and health care financing (HF). And third, the classification should be described in a way that it will help both data compilers and its users to match national organisations and actors with HP categories.

319. The Classification of Health Care Providers introduced by SHA 1.0 used the North American Industry Classification System (NAICS) as a starting point[113]. The revised providers classification proposed under SHA 2.0 follows SHA 1.0 with some modifications being driven by countries experiences of SHA implementation on the one hand and the recommendations of International Standard Industrial Classification (ISIC Rev. 4) on the other hand. Both factors contribute to consideration of the changes in health provision, better comparability with other national and international classifications, and continuity with the previous version.

2.2 The universe of health care providers

320. Comprehensiveness with respect to the classification of health care providers means, that it should cover all organisations in the field of interest, while completeness, that all activities in the field of interest should be compiled irrespective of the type of organisation. Therefore however many organisations of the domestic economy can provide some form of health care, the classification of health care providers must be able to capture all of them irrespective of whether health care is their primary or secondary activities.

321. *Primary providers* are those whose principal activity is to deliver health care goods and services as defined in the functional classification (ICHA-HC). Examples are hospitals or physicians' offices. *Secondary providers* are those that deliver health care services in addition to their principal activities which might be partially related to health or not at all. Examples for secondary providers are residential care institutions, whose main activities might be provision of accommodation with other social services but with some elements of medical services like nursing supervision, or supermarkets selling some over the counter pharmaceuticals. Figure 6.1 presents an overview of primary and secondary providers encompassed by ICHA-HP. Two special classes of secondary providers are: i) Providers of health administration and financing (HP7); and ii) households (HP8). The former plays an important role in management of health care systems, carrying out collective services related to health care provision and to its financing[114]. The latter often provides health care services/assistance directly to family members. The set of activities performed by both providers (mentioned above) are defined by the functional classification, and fit within the health care boundary under the proposed criteria and circumstances (see Chapters 3 and 5).

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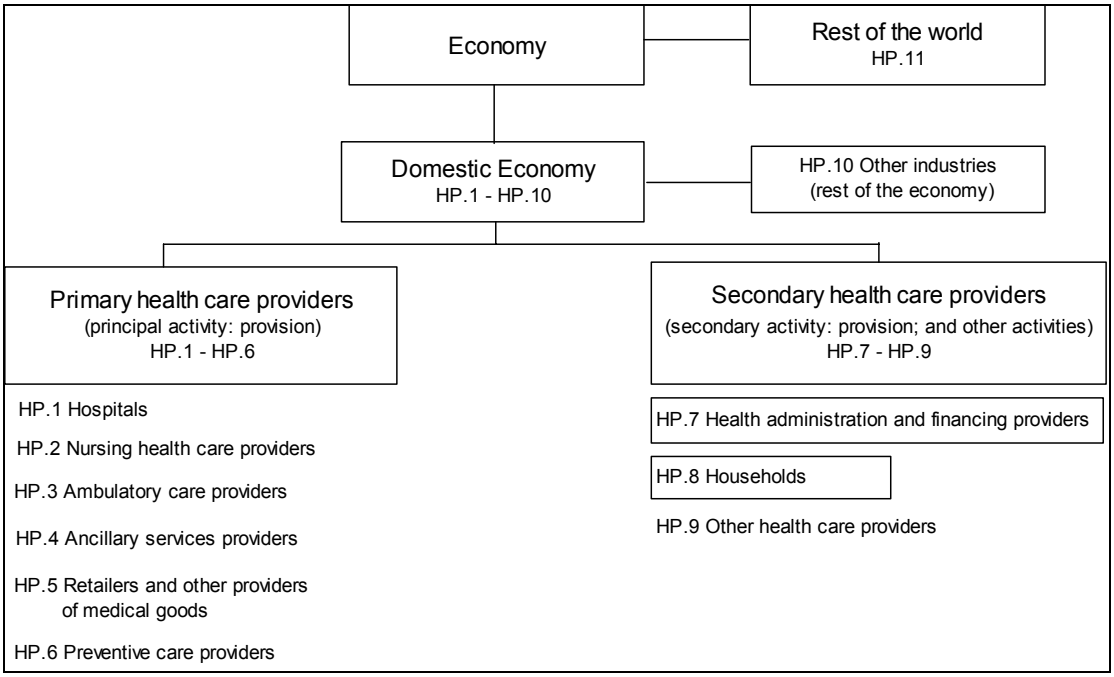
113 NAICS, compared to International Standard Industrial Classification (ISIC) or NACE, is more based on a single production-oriented concept under which the boundaries between industries demarcate, in principle, differences in production processes and production technologies.

114 Ministry of Health or health insurance may provide also some functionally defined health care goods and services directly to the patients/population

Figure 6.1: Health care providers in SHA



322. SHA focuses on the final consumption[115] of health care goods and services by residents. This approach has consequences for both data compilation and the provider classification itself. Firstly, it delimits the universe of health care providers mainly to those that deliver final health care goods and services directly to their consumers and users. As a result manufacturers of intermediate products that are further transformed or used in the provision of health care services are not taken into consideration unless they deliver some of their products directly to patients (HP.9 Other health care providers). Secondly, the health care goods and services consumed by non-residents are excluded and those consumed abroad by resident units should be included[116]. Therefore, pharmaceuticals bought or physicians visited by non-residents are not to be taken into account while the same consumption by residents travelling abroad is included. As a result, in addition to domestic health care providers, the classification includes also an aggregate entry for all health care providers abroad (HP.11 Rest of the world). In order to complete the picture of the domestic economy for industries with health related activities which do not provided health care goods and services directly to patients (either as primary or secondary activities) the class (HP 10 Other industries - Rest of economy) is proposed.

115 See Chapter 4

116 The expenditure for health care goods and services by the resident population (consumption) must not equal the total sales (outputs) of the health care providers. One reason is that health care goods are provided for non-residents (exports). Another reason could be that the services provided do not qualify the criteria of health care goods and services, e.g. in the case of social care. In order to keep the coherence of the compilation of the total expenditures with the other two classifications in the core health accounts both non-health outputs and exports have to be separated.

2.3 The structure of health care providers

323. The classes of the provider classification must be *mutual exclusive*. Consequently the HP classification tries to structure health care providers into meaningful homogeneous groups within classes and heterogeneity between classes. The criterion *type of health care activity* is relevant when the providers are grouped into certain classes of the HP-classification.[117] When classifying an actor or organisation the first question usually is: does the economic unit provide health care? If the answer is positive, the next step is the identification of its main characteristics. This can be derived from the activities performed and the legal requirements for the provision of these activities. Examples are national standards for performing inpatient services as hospitals. Most countries keep registers of various health care providers because of the special conditions which these units must fulfil to provide quality health care. These conditions are usually related to requirements on medical professionals, equipment and technology involved, but also other factors such as sanitation regimes. The registers are one of the main information sources that help to structure primary providers into classes.

324. In general, a precondition for the grouping into principal and secondary providers is the ability to distinguish between activities performed and then an identification of those which fall inside the health care boundary. With respect to the health care activities performed the operational rule is that:

- an organisation with health care outputs of which more than 50 per cent of value-added results from health care activities is to be classified and allocated - based on the type of the principal health care activity into one of the HP.1 – HP.6 classes.[118]
- Those, with less than 50 per cent output of health care activities to be classified under HP.9 *Other health care providers.*

325. In the case that value-added is not available ISIC proposes other criteria related to outputs or inputs, as a substitute for value added:

- Substitutes based on output, such as the production value or the turnover that is attributable to the goods or services associated with each activity. Examples are the revenue shares of hospitals from the purchases of inpatient and outpatient services.
- Substitutes based on input, such as wages and salaries or hours worked attributable to the different activities; or employment according to the proportion of people engaged in the different activities of the unit. Examples are staff ratios of labour working in inpatient and outpatient departments.

326. Regarding the inclusion or exclusion of certain activities, reference is made to the functional classification of health care (ICHA-HC). It delimits the type of health care goods and services included in the health care boundary for the purpose of international data comparison. Under the functional classification the various health care goods and services are structured into aggregated groups of functions. Some of them can be directly allocated to individuals like curative or rehabilitative services others such as preventive programmes or health system administration to society at large. Functions of personal health care are in addition classified by mode of provision (inpatient, day care out patient and home care). The mode of provision underlines the technical and managerial organisation of health care provision. Together, types of function and its mode of provision, by referring to certain characteristics of health care goods and services delivered, offer guidance for classifying the various national health care providers into more

117 In SNA/ESA, the principal activity of a statistical unit is the activity which contributes most to the total value added of that unit. The principal activity is identified according to the top-down method and does not necessarily account for 50% or more of the unit's total value added. A secondary activity is any other activity of the unit, whose outputs are goods or services which are suitable for delivery to third parties. The value added of a secondary activity must be less than that of the principal activity.

118 See also Liwendahl, Skygge 2008.

homogenous groups. For example, providers like hospitals and long term nursing care facilities, both provide services under the inpatient mode as principal activity but they differ due to the level of care intensiveness (acute versus nursing care), medical personnel employed (physicians with specialisation versus nurses or physiotherapists), and technological support (operating theatre versus nursing room).

327. The interrelation between the functional and the provider classification requires that the latter should be complete in the sense that all functions included are to be linked with its providers. This implies, for example, that long term nursing home care, which can be provided either by a nurse or in some cases by family members, has to be exhibited in the providers' classification. Therefore, although the principal activity attributed to households would be rather consumption than health care provision, households are identified as special class of secondary providers of health care goods and services (HP.8). Another example is the function of governance, management and health care system administration.. Although the primary purpose of these activities is not provision of health care goods and services directly to the patients its role in pursuing these goals can't be neglected Respectively, providers such as Ministries of Health or Health Insurance Funds are captured under the provider classification being identified as secondary health care providers as their principle activities are related to administration and/or financing of health care activities in the whole system.

328. In practice, all industries with principal activities other than health care, irrespective of whether these activities are related to health or not, can be classified as secondary providers in ICHA-HP, under the condition that they do provide some health care goods and services directly to individuals or population groups. Included are social care facilities with some elements of medical care provision, prison health services, or occupational medicine if delivered respectively in house, or research institutes involved in health promotion campaigns. The principal activity of the research institute can be related to health, i.e. study and research on development of new generation antibiotics thus important for the purpose of resource generation for health care in future, but this activity should be out of the core health care accounts as it does not fall under the consumption boundaries. The table below shows the relation between different functions and health care providers both primary and secondary, with reference to health systems' dimensions in addition.

Table 6.1: Classification of actors / organisations of health care provision and health systems' dimensions

Health systems' dimension	Activities within the functional classification	Provision of health care services and goods			
		As principal activity	as secondary activity		
		HP.1.-HP.6	HP.7	HP.8	HP.9
Provision *Modes of provision:* ▪ *Inpatient* ▪ *Day care* ▪ *Outpatient* ▪ *Home care*	Curative services Rehabilitative services Long-term nursing care services	Hospitals HP.1 Nursing care facilities HP.2 Ambulatory care providers HP.3		Households as home care providers HP.8	Other providers HP.9
	Ancillary services	Ancillary services providers HP.4			
	Medical goods.	Retailers HP.5			
	Preventive care services	Preventive care providers HP.6			
	TCAM services	x			x
Governance /administration	Governance Management and health system administration		Principal activity of Providers of Governance and financing HP.7		
Consumption				Principal activity of Households HP.8	
Financing			Principal activity of Providers of Governance and financing HP.7		
Health related provision	R&D Education and Training				Principle activities of providers of other industries (Rest of economy) HP10

2.4 Description and guidelines for compilers

329. In the following section of this chapter the main changes of the HP classification of SHA 2.0 as compared to SHA 1.0 are highlighted. Furthermore, specific issues relevant for compilation are outlined.

2.4.1 Changes as compared to SHA 1.0

330. For almost all provider categories at both the 1st-digit level and 2nd-digit level the HP-classification of SHA 2.0 keeps continuity with that of SHA1.0. The majority of categorises were kept although partly under different codes. In total, the items of the classification were reduced from 35 to 29 entries whereas the following specific changes were made:

a. Under HP.1 Hospitals, the subclass "Mental and substance abuse hospitals" has been subsumed into "Specialised hospitals" because the subclass of mental hospitals would make an exemption for a group of certain medical conditions. The expenditure by medical conditions is better compiled by disease accounts (see chapter 10). As a consequence, SHA 2.0 distinguishes between general hospitals and specialised hospitals (including psychiatric hospitals, mental health and substance abuse hospitals).

b. Under HP.2 Nursing health care providers, the two sub-classes "Residential mental retardation, mental health and substance abuse facilities" and "Community care facilities for the elderly" were shifted to the new category HP.9 Other health care providers. The reason is that the expenditure share for long-term health care in social care institutions is in general less that 50 per cent. Now, the class HP.2 Nursing health care providers consists of two sub-categories: long-term nursing care facilities and other providers of long-term nursing health care.

c. Under HP.3 Providers of ambulatory care, the subclass "offices of doctors" was split into general medicine and medical specialists following the revision of NACE.[119] As most countries have implemented some form of primary care system, it would be useful to show it explicitly in health accounts. The HP-Classification proposes a further breakdown at the 3-digit level. Furthermore, following the experience from international data collection, the "outpatient health care centres" are not further disaggregated. Providers like family planning centres or dialysis centres are now a part of the *ambulatory health care centres*, if they are not integrated into other classes; e.g. hospitals.

d. Under HP.4 providers of ancillary services have been separated from HP.3 because of the special characteristics of their services. Providers of ancillary services: comprises specialized organizations which provide specific ancillary services directly to patients under supervision of health professions not covered by hospitals, nursing care facilities, ambulatory care providers, or other providers. Included are providers of patient transportation and providers of diagnostic centres as well as dental laboratories.

e. Under HP.5 Retailers of medical goods, the two subclasses "retail sale and other suppliers of medical appliances and (other than optical glasses and hearing aids) and "all other miscellaneous sale and other suppliers of pharmaceuticals and medical goods" has been merged.

f. The class of HP.6 Providers of preventive programs addressed to groups of the population was kept. The total value of preventive care (both individual and collective) is captured by the functional classification HC.4 Preventive Care.

g. The class of HP.7 Providers of administration and financing, Follows in SHA1.0, the structure of the subclasses at 2nd digit that refer to the institutional structure of the financing agents and not the structure of financing schemes (Chapter 7). This means for example, that in the provider classification compulsory private insurance schemes (HF.1.2.2) and voluntary private health insurance HF.2.1 are classified as being provided by private health insurance administration (HP.7.3) following the criterion of ownership instead of coverage (compulsory vs. voluntary). **To be discussed with country experts**.

[119] NACE Rev.2 supports this by the separation between General medical practice 86.21 and specialist medical practice 86.22; unfortunately, ISIC does not.

h. The class HP.8 Households emphasises the special position of households as secondary providers. This class is raised up to a first digit category as compared to SHA 1.0.

i. Under HP.9 Other health care providers all secondary providers of health care are comprised except HP7 and HP8. Establishments of occupational health care are not separated anymore. In SHA 2.0, the provision of occupational medicine would be either recorded under providers of preventive programs (HP.6) in the case of specialised work & safety institutes/Occupational Medicine Institute, or under ambulatory health care providers, e.g. specialists offices (HP.2.1.2) if outsourced by enterprises to special medical providers, or under Other health care providers HP.9. if provided by enterprises in-house as ancillary activity.

j. HP.10 Other industries (rest of the economy) is reserved for all organisations not providing health care directly to consumers and not classified as provider because of activities of governance, management, and administration of health care financing. This class comprises organisation with health related activities, e.g. health care research centres or health education.

2.4.2 Specific issues of compilation

331. *University hospitals:* The experience from the compilation of hospital expenditure data by SHA1.0 shows that most countries distribute hospital expenditures to general hospitals which include basic departments such as internal medicine, obstetrics, and surgery. University and teaching hospitals are usually classified as general hospitals, except specialised university hospitals. Countries might separate university hospitals for further analysis of expenditures for education and research, which are often closely connected to the expenses for treatment, by adding categories at the 3rd-digit level.

332. Independent doctors working in hospitals: One particular issue of health care provision of services in hospitals concerns individual doctors performing a specific service to patients in the framework of hospitals as subcontractor (integrated as offices in hospitals). In SHA2.0 offices of independent doctors working in hospitals are recorded under hospitals in the same way as services of employed doctors. Only, if the provision is clearly independent from the activities of the hospital, it should be separated as provider of ambulatory care.

333. *Long term nursing care providers*: The proposal for SHA 2.0 is closely related to SHA 1.0. Providers of long-term nursing care with dominant health care activities are classified, depending on mode provision, either under nursing health care providers (HP.2) as dominant inpatient care provider, or Home health care providers (HP.3.5) if long-term care services provided at home dominates, or under Ambulatory health care centres (HP.3.4) if ambulatory long-term care services are provided by health care centres, or under Other health care practitioners (HP.3.3) in the case of independent nurses. Institutions with dominant social services are classified under HP.9 Other health care providers, e.g. residential care homes for the elderly, or providers of meals-on-the wheals (providers of IADL services).

334. *Less-than-fully-qualified health care providers*: In ambulatory care, a wide variety of informal and less-than-fully-qualified health care providers might exist. SHA 2.0 proposes that these categories operating in many countries should be recorded depending on their qualification. In SHA 2.0, HP.3.3 *Other health care practitioners* offers the possibility to include paramedical practitioners providing different forms of traditional medicine. This item, however, should be restricted to providers with special medical education and training (such as nurses, midwives, physiotherapists). Those without

education/license such as traditional healers with a minimum of public control should be classified under HP.3.9 Other ambulatory providers**.** [120]

335. *Public / private ownership*: The ICHA-HP classification of SHA 2.0 does not distinguish between public or private ownership and the legal status of establishments. It is proposed that an additional breakdown, according to these dimensions, has to be decided on a case-by-case basis by Health Accountants. As the public /private ownerships breakdown has most value for national type of analysis it is recommend to apply the criteria public / private ownership depending on the rules of SNA.[121] Subcategorising providers within the ICHA-HP by *type of ownership* might be useful for analytical purposes related to efficiency and quality of health care provision of public vs. private owners of health premises.

336. *Statistical unit*: The reporting unit is the entity from which the recommended items of data are collected. It will vary between groups of providers and from country to country, depending on institutional structures, the legal framework for data collection, traditions, national priorities, and survey resources. It may be an enterprise of health care organisations on which information is received or a government unit. Often health care statistics are compiled on an analytical unit created by splitting or combining observation units with the help of estimations or imputations in order to supply more detailed and/or homogeneous data than would otherwise be possible.

337. *Household own accounts*: The own-account provision of home health care services by members of the household for their own final consumption is excluded from measured production in conventional national accounting practice.[122] In contrast to SNA, SHA explicitly recognises that the work devoted to the home care of household members has an economic value, which is measured in monetary terms. Cash allowances granted to households for home health care, such as nursing allowance, is considered as "paid" household provision.[123] For the detailed guidelines what is included and what not, see Chapter 3.

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120 WHO Nairobi: Create a special subcategory (digit3) for independent traditional midwife under "other care providers".

121 For a discussion of this issue see Kawiorska D. (EUROSTAT) and Quintela I. (Statistics Portugal): Draft Guidelines for the Delineation into Public and Private Units at: http://www.oecd.org/dataoecd/38/14/40191715.pdf.

122 In SNA, the provision of services by members of the household for their own final consumption has traditionally been excluded from measured production. One main reason is that labour force would include inactive household members if household production would be considered. Entries as care of sick, infirm or old people are not recorded in SNA when they are produced by household members and consumed within the same household.

123 However, not all countries have implemented this guideline because of difficulties to measure home health care provision. Home health care provision is actually not integrated in the Spanish, UK and the Swiss health accounts. According to a recent academic study in Switzerland, the costs of unpaid work for care to dependent persons can be estimated at 0.3% of GDP or nearly 3% of the total expenditure on health.

Table 6.2: Classification of providers in SHA2.0

Type of economic unit	**Providers**	
	SHA2.0	*SHA1.0*
Hospitals	**HP.1**	HP.1.0
General hospitals	HP.1.1	HP.1.1
Specialised hospitals	HP.1.2	HP.1.3, HP.1.2
Nursing health care providers	**HP.2**	
Long-term nursing care facilities	HP.2.1	HP.2.1
Other providers of nursing health care	HP.2.9	HP.2.9
Providers of ambulatory health care	**HP.3**	HP.3
Medical practice	HP.3.1	HP.3.1
Offices of general medicine	HP.3.1.1	HP.3.1
Offices of medical specialists	HP.3.1.2	HP.3.1
Dental practice	HP.3.2	HP.3.2
Other health care practitioners	HP.3.3	HP.3.3,3.9
Ambulatory health care centres	HP.3.4	HP.3.4.4, 3.4.5, 3.4.9
Home nursing care providers	HP.3.5	HP.3.6
Other providers of ambulatory health care	HP.3.9	HP.3.9.9
Providers of ancillary services	**HP.4**	
Providers of patient transportation	HP.4.1	HP.3.9.1
Medical and diagnostic centres	HP.4.2	HP.3.5, 3.9.2
Dental laboratories	HP.4.3	HP.4.4
…..Other providers of ancillary services	HP.4.9	
Retailers and other providers of medical goods	**HP.5**	HP.4
Pharmacies	HP.5.1	HP.4.1
Retailers of vision products	HP.5.2	HP.4.2
Retailers of hearing aids	HP.5.3	HP.4.3
Other retailers of medical goods n.e.c.	HP.5.9	HP.4.4,4.9
Providers of preventive care	**HP.6**	HP.5
Providers of health administration and financing	**HP.7**	HP.6
Government health administration	HP.7.1	HP.6.1
Social health insurance administration	HP.7.2	HP.6.2
Private health insurance administration	HP.7.3	HP.6.3, 6.4
NPIsH health administration	HP.7.4	HP.6,4
Other health administrative units	HP.7.9	HP.6.9
Households	*HP.8*	HP.7.2
Other health care providers	**HP.9**	HP.2.2, 2.3, 2.9, 7.1
Rest of Economy	**HP10**	HP.7.9
Rest of the world	**HP.11**	HP.9

*not complete

3. EXPLANATORY NOTES TO THE ICHA-HP CLASSIFICATION OF HEALTH CARE PROVIDERS [124]

Health care providers

HP.1 Hospitals

338. Hospitals comprise licensed establishments primarily engaged in providing medical, diagnostic, and treatment services that include physician, nursing, and other health services to inpatients and the specialised accommodation services required by inpatients. Hospitals provide in-patient health services, many of which can only be provided using the specialised facilities and equipment that form a significant and integral part of the production process. Although the principal activity is the provision of inpatient medical care they may also provide day care, outpatient and home health care services. Their tasks vary by country and may be defined by legal requirements. In some countries, health facilities need in addition a minimum size (such as number of beds) in order to be registered as a hospital. SHA 2.0 distinguishes depending on the scope of medical disciplines and variety of diagnoses treated between general hospitals and specialised hospitals (including psychiatric hospitals, mental health and substance abuse hospitals).

HP.1.1 General hospitals

339. This subclass comprises licensed establishments primarily engaged in providing general diagnostic and medical treatment (both surgical and non-surgical) to inpatients *with a wide variety of medical conditions*. These establishments may provide other services, such as outpatient services, anatomical pathology services, diagnostic X-ray services, clinical laboratory services, operating room services for a variety of procedures, and pharmacy services. Illustrative examples are:

- general acute care hospitals;
- community, county, and regional hospitals (other than specialised hospitals);
- army, veterans, and police hospitals (other than specialised hospitals);
- general university hospitals
- prison hospitals.[125]

Note: University hospitals comprise licensed tertiary hospitals engaged in academic medical education, clinical research and patient care as teaching hospitals. In case there are specialized university hospitals which activities relate to certain type of treatment /disease they should be recorded under HP.1.2.

340. In a change from SHA 1.0 integrated community care centers providing both inpatient and outpatient services are excluded. These centers are either to be recorded under HP.3.4 *Ambulatory health care centre* or HP.9 *Other health care providers* depending on their principal activity.

NOTE: In some countries, Traditional, Complementary and Alternative Medicine (TCAM) hospitals are a broad domain of resources which can be classified under general and specialised hospitals. Regulation of TCAM practitioners varies widely and in most countries only registered health

[124] After approval HP-classification, the further development and explanations of provider categories will be developed consider both the detailed description and the linkage to ISCED and ISCO. Countries are invited to pay a special attention to this part of the unit 8 in order to improve it by corrections and country examples.

[125] In the case of army or prison hospitals the criterion of principal activity might be violated.

professionals may practice. The following list gives illustrative examples of recognized TCAM specialties:

Medicines, therapies and health techniques include: Ayurveda, Acupuncture, Traditional Medicine, Osteopathy, Chiropraxy, Homeopathy, Naturopathy, Phytotherapy, Aroma therapy, Massage Therapy, Reflexology.

Health products: Herbal medicines, Nutritional supplements.

Exclusions: Foods, Magic and esoteric support.

The World Health Organization (WHO) defines traditional medicine TM as "health practices, approaches, knowledge, and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singular or in combination, to treat, diagnose and prevent illnesses or maintain well-being" (see Chapter 5).

HP.1.2 Specialised hospitals

341. This subclass comprises licensed establishments primarily engaged in providing diagnostic and medical treatment to inpatients *with a specific type of disease or medical condition* (including mental health or substance abuse hospitals, maternity clinics). Hospitals providing long-term care for the chronically ill and hospitals providing rehabilitation, and related services to physically challenged or disabled people are included in this item. Illustrative examples are

- specialised hospitals or university hospitals (oncology, gastroenterological, paediatric, orthopaedic, cardiology, etc);
- specialised emergency centres;
- maternity clinics;
- specialised sanatoriums (primarily engaged in medical post-acute, rehabilitative and preventive services);
- thermal health care centres and SPAs;
- specialised oriental (traditional) medicine hospitals;
- special hospitals for infectious disease (tuberculosis hospitals; hospitals for tropical diseases).
- mental health and substance abuse hospitals
- aesthetic clinics.

Cross-references

- establishments licensed as hospitals primarily engaged in providing diagnostic and therapeutic in-patient services for a variety of medical conditions, both surgical and non-surgical, are classified under HP.1.1 *General hospitals*,
- establishments referred to as hospitals but primarily engaged in providing in-patient long-term nursing and rehabilitative services to persons requiring convalescence are classified under HP.2.1 *Long-term nursing care facilities*;
- establishments primarily engaged in providing treatment of mental health and substance abuse illnesses on an outpatient basis are classified under HP.3.4 *Ambulatory health care centres*;
- establishments referred to as hospitals but primarily engaged in providing residential care of persons diagnosed with mental retardation, or establishments referred to as hospitals but primarily engaged in providing in-patient treatment for mental health and substance abuse illnesses with the emphasis on counselling rather than medical treatment are classified under HP.9.1 *Social care providers*.

HP.2 Nursing health care providers

342. The class of Nursing health care providers comprises establishments primarily engaged in providing residential long-term nursing care combined with either nursing, supervisory or other types of care as required by the residents. In these establishments, a significant part of the production process and the care provided is a mix of health and social services with the health services being largely at the level of nursing services. As a general rule, in HP.2 all those organisation units should be listed, where a dominant share of all activities performed in that organisation have a long-term health nursing care component, usually performed by health personnel acting as employees of the organisation.

HP.2.1 Long-term nursing care facilities

343. This subclass comprises establishments primarily engaged in providing in-patient nursing and rehabilitative services. The care is generally provided for an extended period of time to individuals requiring nursing care. These establishments have a permanent core staff of registered or licensed practical nurses who, along with other staff, provide nursing and continuous personal care services. They provide predominantly long-term care but also occasionally acute health care and nursing care in conjunction with accommodation and other types of social support such as assistance with day-to-day living tasks and assistance towards independent living. Included are various establishments that provide long-term care involving regular basic nursing care to chronically ill, frail, disabled or convalescent persons or senile persons placed in an in-patient institution. Health care and treatment have to constitute an important part of the activities provided to be included in the SHA. The exact classification in the corresponding types of institutions (Skilled nursing care facilities, Residential mental retardation facilities, Other residential nursing care facilities) depends on the country-specific division of labour in the care process, especially in long-term care. Illustrative examples are

- convalescent homes or convalescent hospitals (other than mental health and substance abuse facilities);
- homes for the elderly with nursing care;
- in-patient care hospices;
- palliative care establishment for terminally ill;
- nursing homes;
- rest homes with nursing care;
- skilled nursing facilities (USA);
- teaching nursing homes.

Cross-references:

1. Institutions where nursing care interventions are more of an incidental character or are performed by visiting nurses should be reported under HP.9. This should also apply to institutions specialized in residential care for handicapped persons, where medical and nursing care accounts for only a small share of the overall activity of that institution. Another example of institutions of this type is residential homes for the elderly with visiting nurses. Nurses visiting these institutions should be reported separately as a corresponding category of ambulatory care (HP.3.5).

HP.2.9 Other providers of nursing health care

344. This subclass comprises establishments primarily engaged in providing residential long-term nursing care (other than described under HP.2.1) with predominant medical component Illustrative examples are day and night care institutions providing for limited time long-term nursing care for persons who cannot live alone, persons with dementia, etc.

Cross-references

- residential mental retardation facilities are classified under HP.9, Residential mental retardation, mental health and substance abuse facilities;

- continuing-care retirement communities and homes for the elderly without nursing are classified under HP.9 Other health careproviders;

- establishments primarily engaged in providing in-patient nursing services are classified under HP.2.1, Long-term nursing care facilities.

HP.3 Providers of ambulatory medical care

345. This item comprises establishments primarily engaged in providing health care services directly to outpatients who do not require in-patient services. This includes both offices of general and specialists physicians, establishments specialised in the treatment of day-cases and in the delivery of home care services. Health practitioners in ambulatory health care primarily provide services to patients visiting the health professional's office or the practitioners visit the patients at home. Consequently, these establishments do not usually provide in-patient services. This item is made of six subcategories including: medical practices, dental practices, other health care practitioners, ambulatory health care centres, home nursing care providers, and other providers of ambulatory health care.

HP.3.1 Medical practices

346. This subclass comprises both offices of medical practitioners and medical specialists (other than dental practice) in which medical practitioners holding the degree of a doctor of medicine (Code 2210 ISCO-08, ISCED-97 level 5 and 6), primarily engaged in the independent practice of general or specialised medicine (including psychiatry, psychoanalysis, osteopathy, homeopathy) or surgery working as individual practitioner or in a group practice. This group includes also offices of TCAM professionals with corresponding education level.

HP.3.1.1 Offices of general medical practitioners [126]

347. This item comprises establishments of health practitioners holding the degree of a doctor of medicine or a corresponding qualification primarily engaged in the independent practice of general medicine (including psychoanalysis, osteopathy, and homeopathy). Usually these practitioners operate in individual or group practices in their own facilities. Illustrative examples include:

general practitioners in private offices;

paediatricians providing general medicine in private offices (general practitioner for children and adolescents);

independent practising general practitioners and general paediatricians within the public system (The role of paediatrician varies considerably across countries, therefore their appropriate classification under offices of general medicine - primary care physicians - or specialists has to be decided by countries).

Cross-references

[126] It needs a clarification whether expression "general medical practice" is used as in NACE 86.21 or "offices of medical practitioners" as preferred by France (see comment of M. Duee).

free-standing medical centres primarily engaged in providing emergency health care for accident or catastrophe victims and free-standing ambulatory surgical centres are classified under HP.3.4 *Ambulatory health care centres*.

HP.3.1.2 Offices of medical specialists

348. This item includes medical practices in the field of specialised medicine by medical specialists and surgeons. Illustrative examples are

- Offices of surgeons, aesthetic surgeons, gynaecologists, endocrinologists, ENT, gastroenterologists, infection specialists, nephrologists, orthopaedists, paediatricians for specialised care (e.g. oncological treatment), pathologists, preventive medicine specialists, psychiatrist, radiologist, and radiotherapist, rheumatologists, etc.

- Establishments known as medical clinics, which are primarily engaged in the treatment of outpatients (Korea, Japan).

Cross-references

- Paediatricians and other physicians in private practice who are working in primary care are classified under HP.3.1.1 *Offices of general medical practitioners.*

Note: This item excludes:

Specialists that are self-employed providing services within inpatient hospital activities in hospitals, see HP.1.1 General hospitals.

Offices of midwives, physiotherapists and other paramedical practitioners, see HP.3.3 Other health care practitioners.

HP.3.2 Offices of dentists / dental practice

349. This subclass comprises establishments of health practitioners holding a degree in dental medicine or a qualification at a corresponding level (ISCO-88 fourth degree level), primarily engaged in the independent practice of general or specialised dentistry or dental surgery. These practitioners operate private or group practices in their own offices (e.g., centres, clinics). Stomatologists are included. They can provide dental practice activities of a general or specialised nature, e.g. dentistry, endodontic and paediatric dentistry; oral pathology and orthodontic activities.

Cross-references

- dental laboratories primarily engaged in making dentures, artificial teeth, and orthodontic appliances for dentists are classified under HP.4.3 Dental laboratories;

- establishments of dental hygienists primarily engaged in cleaning teeth and gums or establishments of denturists primarily engaged in taking impressions for and fitting dentures are classified under HP3.3 *Other health care practitioners*.

- Dentists working as employees in other types of organisations, such as hospitals or HMO medical centres are not separated, but included in the respective organisations.

HP.3.3 Other health care practitioners

350. This subclass comprises the group of paramedical and other independent health practitioners (other than medical professions: physicians, and dentists), such as chiropractors, optometrists, mental health specialists, physical, occupational, and speech therapists and audiologists establishments primarily engaged in providing care to outpatients. These practitioners operate as individual or group practices in their own offices (e.g., centres, clinics) or independently in the facilities of others, such as hospitals or HMO medical centres.

351. Some form of legal registration and licensing (implying a minimum of public control over the contents of care provided) is regarded as a necessary condition in order to be reported as paramedical practitioner in many countries. The item comprises furthermore health practitioners primarily engaged in providing physical therapy; medical social services; support in medications, use of medical equipment and supplies; counselling; occupation and vocational therapy; dietary and nutritional services; speech therapy; audiology; and high-tech care, such as intravenous therapy.

352. Illustrative examples are:

- independent midwives; acupuncturists'
- offices (other than physicians): chiropractors; physiotherapists and physical therapists; occupational and speech therapists; audiologists; dental hygienists'; denturists'; dieticians'; homeopaths'; inhalation or respiratory therapists'; naturopaths'; podiatrists'
- offices; practitioners of Chinese medicine and other forms of traditional medicine;

  Note: formal licensing may not be required as criteria for recognition as a health practitioner in countries where these forms of medicine have been an integral part of medical practice for a long time; oriental (traditional) medicine clinics (Korea).

Cross-references

- the independent practice of medicine and mental health by physicians is classified under HP.3.1.1 Offices of general medical practitioners, HP.3.1.2 Offices of medical specialists;
- the independent practice of dentistry is classified under HP.3.2 Offices of dental practice;
- the dependent practice of home health care services is classified under HP.2.2 Nursing home health care centres.

HP.3.4 Ambulatory health care centres

353. This subclass comprises establishments such as medical multi-specialist centres, dialysis care centres, and community health care centres. These establishments generally treat patients who do not require in-patient treatment.

a) Medical multi-specialist centres: This item comprises establishments engaged in providing a wide range of outpatient services, by a team of medical, paramedical and often also support staff, usually bringing together several specialities and/or serving specific functions of primary care. These establishments generally treat patients who do not require in-patient treatment. This item comprises also establishments with physicians and other medical staff primarily engaged in providing surgical services (e.g., orthoscopic and cataract surgery) on an outpatient basis. Outpatient surgical establishments have specialised facilities, such as operating and recovery

rooms, and specialised equipment, such as anaesthetic or X-ray equipment. Centres or clinics of health practitioners with different degrees from more than one speciality practising within the same establishment (i.e., physician and dentist) are included in this item.

Note: included are health maintenance organisation (HMO) medical centres and clinics. HMO type medical centres comprise establishments with physicians and other medical staff primarily engaged in providing a range of outpatient health care services to the HMO subscribers with a focus generally on primary health care. Cross-references:
physician walk-in centres are classified under HP.3.1.1 Offices of medical practitioners, HP.3.1.2 Offices of medical specialists;
hospitals that also perform ambulatory surgery and emergency room services are classified under HP.1.1 General Hospitals
centres and clinics of medical practitioners primarily engaged in the independent practice of their profession are classified under HP.3.1.1 Offices of medical practitioners, HP.3.1.2 Offices of medical specialists, and HP.3.2 Offices of dentists;
HMO establishments (other than those providing health care services) primarily engaged in underwriting health and medical insurance policies are classified under HP.7 General health administration and insurance.

b) Dialysis care centres: This item comprises establishments with medical staff primarily engaged in providing outpatient kidney or renal dialysis services.

c) Community health care centres: This item comprises establishments with various types medical providers such as family planning centres providing a range of family planning services on an outpatient basis, such as contraceptive services, genetic and prenatal counselling, voluntary sterilisation, and therapeutic and medically indicated termination of pregnancy.

Illustrative examples are

1. pregnancy counseling centres;
2. birth control clinics;
3. childbirth preparation classes;
4. fertility clinics;

- outpatient alcoholism treatment centres and clinics (other than hospitals);
- outpatient drug addiction treatment centres and clinics (other than hospitals);
- outpatient mental health centres and clinics (other than hospitals);
- outpatient substance abuse treatment centres and clinics (other than hospitals).

Note: Mixed health and social care: In some health systems "*integrated care"* refers to the inclusion of social care elements.[127] It can be classified under HP.3.4 *Ambulatory health care centres* if ambulatory health care dominates, or otherwise under HP.9 *Other health care providers,* if social care dominates.[128] However, there is no common definition across countries.[129] Countries might add categories at the 3rd-digit level if necessary.

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127 In economic integration refers usually to horizontal or vertical integration of activities along the treatment pathway, which means integration of different specialities as well as outpatient and inpatient treatment.

128 In SHA1.0 HP. integrated care units are classified as 3.4.5 *all other outpatient multi-speciality and co-operative service centres*, and HP.3.4.9 *all other outpatient community and other integrated care centres*.

129 The World Health Report 2003 proposed integrated care as one of the key pathways to improve primary care. In 2004, the European Commission declared integrated care as vital for the sustainability of social protection systems in Europe. Contandriopoulos 2001, Delnoij 2002 distinguish four different levels at which integration can occur:

- Functional integration occurs at the macro level of the care system, i.e. through the mainstreaming of the financing and regulation of cure, care, prevention, and social services.

HP.3.5 Home nursing care providers

354. This subclass comprises establishments providing skilled nursing services in patients' homes, along with a range of the following: personal care services: medical social services; support in medications, use of medical equipment and supplies; counselling; 24-hour home care; it includes offices of nurses; community nurses and domiciliary nursing care (including child day-care in the case of sickness); home health care agencies; in-home hospice care services; visiting nurse associations; Illustrative examples are

- community nurses and domiciliary nursing care (including child day-care in the case of sickness);
- home health care agencies;
- in-home hospice care services;
- visiting nurse associations.

Note: Not included are providers of IADL services together with home nursing care services, which captured under HP.9.1 *Social care providers*.

HP.3.9 Other providers of ambulatory health care

355. This item comprises establishments primarily engaged in providing ambulatory health care services (other than offices of physicians, dentists, and other health practitioners; outpatient care centres; and blood and organ banks). Illustrative examples are

- health screening services (except by offices of health practitioners);
- hearing testing services (except by offices of audiologists);
- pacemaker monitoring services;
- physical fitness evaluation services (except by offices of health practitioners);
- smoking cessation programs.

HP.4 Providers of ancillary services

356. This class comprises specialized organizations which provide specific ancillary services directly to patients under supervision of health professions not covered by hospitals, nursing care facilities, ambulatory care providers, or other providers. Included are providers of patient transportation, diagnostic centres, as well as dental laboratories.

HP.4.1 Providers of patient transportation

357. This subclass comprises establishments primarily engaged in providing transportation of patients by ground or air in the case of emergency. The vehicles are equipped with lifesaving equipment operated by medically trained personnel. Transportation of patients might be carried out by different types of organisations. Transportation in specially-equipped vehicles or in a designated air ambulance to and from facilities for the purposes of receiving medical and surgical care are often delivered by particular ambulance services such as the Red Cross or Red Crescent. These specialised providers of transportation are listed under HP.4. But, not all transportation is included under this item as transportation also includes transportation in conventional vehicles, such as taxis, when the latter is authorised and the costs are reimbursed to the patient (e.g. for patients undergoing renal dialysis or chemotherapy). In this case, the

- Organisational integration acts at the meso level of systems, e.g. in the form of mergers, contracting or strategic alliances between health and social care institutions.
- Professional integration is also at the meso level, e.g. in the form of mergers (e.g. group practices), contracting or strategic alliances between health care professionals.
- Clinical integration acts at the micro level, i.e. by providing continuity, co-operation and coherence in the primary process of care delivery – integration is thus at the individual level of care.

organisations of providers are classified under HP.9.9 Other industries. For national purposes a further split of HP.4.1 might be made into "Ambulance services", and "Other specialized transportation in health care".

> *Note:* this subclass includes ambulance services provided in peacetime, non-disaster situations by the army, police or fire brigade. Establishments primarily engaged in providing specialized patient transport which is not rescue service along with health care are e.g. transport services for dialysis.

Cross-references

2. Establishments primarily engaged in providing transportation of the disabled or elderly (without providing health care, such as taxi drivers) are classified under HP.9.9 Other industries.

HP.4.2 Medical and diagnostic laboratories

358. This subclass comprises establishments primarily engaged in providing analytic or diagnostic services, including body fluid analysis and diagnostic imaging, generally to the medical profession or the patient on referral from a health practitioner. Illustrative examples are

- diagnostic imaging centres;
- dental X-ray or medical X-ray laboratories;
- medical testing laboratories;
- medical pathology laboratories[130];
- medical forensic laboratories / legal forensic institutions.;

> *Note*: Medical and diagnostic laboratories of hospitals or medical centres are not included in this item.
>
> Establishments, such as optical and orthopaedic laboratories, primarily engaged in providing the following activities to the medical profession, respectively: making lenses to prescription; and making orthopaedic or prosthetic appliances to prescription are classified under HP.5 Retail sale and other providers of medical goods. Establishments, such as dental, laboratories making dentures, artificial teeth, and orthodontic appliances to prescription are included under HP.4.3 *Dental laboratories*.

HP.4.3 Dental laboratories

359. Dental laboratories: This subclass comprises special laboratories that manufacture dental fillings and cements (except denture adhesives), dental wax and other dental plaster preparations, orthodontic goods and orthodontic appliances.

HP.4.9 Other providers of ancillary services

360. This subclass comprises other providers of ancillary services not explicitly listed above. Illustrative examples are:

- hearing testing services (except by offices of audiologists);
- pacemaker monitoring services;
- physical fitness evaluation services (except by offices of health practitioners).

130 In NACE Rev.2 establishments primarily engaged in collecting, storing and distributing blood and blood products are part of the pharmaceutical industry.

HP.5 Retailers and other providers of medical goods

361. This class comprises specialized establishments whose primary activity is the retail sale of medical goods to the general public for personal or household consumption or utilisation. It is made up of four subcategories: pharmacies, retailers of vision products, retailers of hearing aids, and other retailers of medical goods.

HP.5.1 Pharmacies

362. This subclass comprises establishments primarily engaged in the retail sale of pharmaceuticals to the population for prescribed and non-prescribed medicines. Instances when the processing of medicine may be involved should be only incidental to selling. This includes both medicines with and without prescription. An illustrative example is public pharmacies.

Cross-references

- pharmacies in hospitals serving mainly outpatients are part of establishments classified under HP.1 Hospitals;

- specialised dispensaries where the continuous monitoring of compliance and treatment plays an important role (such as for diabetes patients), are classified under HP.3.9 Other providers of ambulatory care;

- Dispensed medicines in doctors' offices are recorded under HP.3.1 Medical practice.

HP.5.2 Retail sale and other suppliers of optical glasses and other vision products

363. This item comprises establishments primarily engaged in the retail sale of optical glasses and other vision products to the general public for personal or household consumption or utilisation. This includes the fitting and repair provided in combination with sales of optical glasses and other vision products.

HP.5.3 Retail sale and other suppliers of hearing aids

364. This item comprises establishments primarily engaged in the sale of hearing aids to the general public for personal or household consumption or utilisation. This includes the fitting and repair provided in combination with the sale of hearing aids.

> *Note: Renting and repair of medical equipment*: In some countries the renting, and repair of medical equipment, for example wheelchairs, are a normal part of the health care goods delivery process. In SHA 2.0 it is recommended as in SHA 1.0 to include the fitting and repair provided in combination with sales of prostheses, hearing aids, vision products under the corresponding providers.[131]

HP.5.9 All other miscellaneous sale and other suppliers of pharmaceuticals and medical goods

365. This item includes all other principal activity retail suppliers of medical goods not elsewhere classified, excluding pharmacies and the specialised supply of optical goods and hearing aids, to the general public with or without prescription for personal or household consumption or utilisation. Included are establishments primarily engaged in the manufacture of medical appliances but where the fitting and repair is usually done in combination with manufacture of medical appliances. This item comprises

[131] This corresponds with COICOP, where renting and repair of therapeutic appliances and equipment is reported under the corresponding categories of goods.

establishments engaged in the sale of other miscellaneous retail sale of medical goods to the general public for personal or household consumption or utilisation (included are sales other than by shops, such as electronic shopping and mail-order houses). Illustrative examples are

- sale of fluids (e.g. for home dialysis);
- all other miscellaneous health and personal care stores;
- all other sale of pharmaceuticals and medical goods;
- electronic shopping and mail-order houses specialised in medical goods.

> *Note:* It should be noted that pharmaceutical distribution by supermarkets, if it cannot be separated in special retail units of pharmaceuticals, is included in HP.9.9 *Other industries*. In general, special licenses are given so that these units are included under HP.5.9. In Portugal, e.g. it is only possible to have the sales of non- prescribed medicines in supermarkets with the legal status of parapharmacy. The opening of a parapharmacy is licensed by INFARMED (regulator and supervisory of the market of pharmaceuticals products). The parapharmacies sell non-prescribed medicines, cosmetics, dietetic products, small medical appliances and natural products. Depending on the representativeness in value of its sales of non-prescribed medicines and other products, these establishments should be classified in HP.5.1 or HP.5.9. In Portugal, INFARMED collects the information on the market of non-prescribed medicines, on a monthly basis, sold by pharmacies and parapharmacies, in particular, the amount of sales and the number of packages, at district level and per enterprise, making possible a correct allocation of expenditure to HP.5.1.

HP.6 Providers of preventive care

366. This class comprises organisations of provision of public health programmes such as health promotion and protection agencies or public health institutes as well as specialised establishments providing primary preventive care as principal activity. Illustrative examples are

- government provision and administration of preventive health care programs ;
- public health institutes/departments (USA: local health agency);
- epidemiologic surveillance and disease control centres;
- institutes administering health registers;
- institutes for communicable diseases;
- health promotion agencies;
- occupational health centres;
- offices for drinking water and food control;
- centres for drug control inspections;
- centres for medical device control;
- centres of public health education.
-

Cross references:

- Preventive programs provided in schools are classified under HP.9 Other health care providers;

- Preventive programs such as mammography, screening provided by institutes specialised in providing health screening services are recorded either under HP.4.2 Medical diagnostic centres and laboratories, or under HP.3.9 Other providers of ambulatory health care, other health care providers;

- The administration of public health programmes by the Ministry of health is recorded under HP.7.1 Government health administration.

HP.7 Providers of governance and administration of health and financing

367. This class comprises units with activities of governance and administration of health financing. The first subclass covers government units primarily engaged in the overall governance of the health

system as well as in the financing of public health services. The second subclass includes social health insurance agencies that primarily provides the administration of social insurance schemes (HF.1.2.1.), but also may administer voluntary private health insurance schemes (HF.2.1). Further subclasses are private health insurance corporations that primarily provides the administration of voluntary private health insurance schemes (HF.2.1) and compulsory private insurance schemes (HF.1.2.2), but also may provide the administration of social insurance schemes (HF.1.2.1.); NPISH that primarily provides the administration of their own financing programs (HF.2.2), but also may provide the administration of governmental financing schemes (HF.1.1.), and other providers of administration of health financing. Financing units form a special class of providers of administration. The main reason for inclusion of financing units in the HP classification is to keep the consistency of the tri-axial system of the total amounts for transactions. However, the relevant cells of the HPxHF tables can provide policy relevant information about the difference in the administrative costs of insurance across the particular types of organisations providing the administration of insurance.

> *Note:* Providers of administration of health financing are named as Financing agents in Chapter 7. The role and definition of health insurance and other forms of financing health care are discussed in more detail in Chapters 7 and 8.

HP.7.1 Government health administration

368. Government health administration: This subclass comprises government administration (excluding social security) primarily engaged in the formulation and administration of government policy in health and in the setting and enforcement of standards for medical and paramedical personnel and for hospitals, clinics, etc., including the regulation and licensing of providers of health services. This item covers also statistical institutes of ministry of health; but not institutes administering health registers. Health departments of regional or municipal governments should be included. Illustrative examples are Ministry of Health; Board of Health; Food and drug regulation agencies; Agencies for the regulation of safety on the workplace; Institute of Health System Information and other institutes affiliated with Ministry of Health).

Cross references

3. Government health agencies mainly engaged in providing public health services even if predominantly of a collective nature (surveillance, hygiene), are classified under HP.6 Providers of preventive care.

> *Note*: *Government administration of employees schemes*: The subclass also includes administration of compulsory employer's based health insurance covering various groups of state employees (army, veterans, railroad and other public transport, police, state officials, etc). It excludes universal social health insurance administration.

HP.7.2 Social health insurance agencies

369. This subclass comprises the social health insurance agencies (sickness funds) providing the administration of social health insurance schemes. Illustrative examples are administration of compulsory social health insurance schemes; Sickness funds may also provide the administration of employer's health insurance schemes not offered by the government, but for example by enterprises. Social health insurance agencies may also administer voluntary private health insurance schemes.

HP.7.3 Private health insurance administration

370. This subclass comprises insurance corporations that may manage more than one type of health insurance schemes at the same time (for example, compulsory private health insurance and voluntary health insurance). . This subclass includes establishments primarily engaged in activities involved in or closely related to the management of insurance (activities of insurance agents, average and loss adjusters, actuaries, and salvage administration. It comprises the administration of private health insurance. It covers administration of all types of compulsory and voluntary private health insurance. Illustrative examples are insurance corporations providing the administration of compulsory health insurance; administration of private health insurance funds; administration of complementary health insurance (e.g. mutualité); administration of employer's private health insurance programmes (other than government social security and government health programmes for state employees).

> *Note*: The logic of the subclasses does not follow the classification of financing schemes but the logic of financing agents.

HP.7.4 NPISH Health Administration

371. This subclass of non-profit institutions serving households (other than social insurance) typically brings together a range of heterogeneous institutions. An important role might be played by charities that provide health services for free (recorded under other current transfers, not as social benefits). They are financed by transfers from private households and enterprises, and might get additional funding from government and/or from the rest of the world. Primarily the health administration of the NPISH has to be covered here, if administration of financing is not covered by the other health provider categories. However, NPISHs may also administer governmental health financing schemes. For example, the central government can contract out the implementation of a public health campaign to a NPISHs. In this case the HF category is: governmental financing scheme, the HP category is HP.7.4 NPISH Health Administration (and the NPISH is also regarded as the Financing agent).

HP.7.9 Other administration

372. This subclass is important for organisations or administrative units which cannot be clearly classified in the above categories, for example with the administration of resources generation or generation of financial sources as medical savings accounts.

HP.8 Private households as providers of home health care

373. The boundary line drawn in the SHA includes personal health services provided within households by family members, in cases where they correspond to social transfer payments granted for this purpose. This item, therefore, comprises private households as providers of home health care. Unpaid care by household members are not included in the core health accounts of SHA.

HP.9 Other health care providers

374. This class includes organisations which predominantly offer health care as secondary activity, e.g. providers of social care with occasional health services, emergency transport services providers as secondary activity as fire brigades. This class of secondary providers, after HP.7 Governance and administration of health care financing and HP.8 Households, varies greatly among countries depending on accreditation and licensing rules. The secondary activity of Health care is a minority share of the output. Therefore, this item comprises all other organisation and industries that deliver health care goods and services as secondary activity not classified above. Illustrative examples are:

a. occupational health care services provided in-house and not by health care establishments;
b. taxis that provide patient transport under the supervision of health personnel;
c. prison health care services not provided in independent health care establishment;
d. manufacturers of medical goods delivering medical goods directly to consumers;
e. wholesale retailers delivering medical goods directly to consumers.
f. Residential mental retardation facilities which offer : incidental health care services to the counselling, and social support services offered. Illustrative examples are alcoholism or drug addiction rehabilitation facilities (other than licensed hospitals); mental health halfway houses (USA); mental health convalescent homes; residential group homes for the emotionally disturbed.
g. Home social care providers e.g. specialised in IADL services, e.g. home care, meals-on-the-wheels, etc. with additional nursing care services
h. Other social care providers primarily engaged in providing residential and personal care services for elderly and other persons (1) unable to fully care for themselves and/or (2) unwilling to live independently. Health and long-term care is not a dominant part of the output.

Cross-references:

- establishments primarily engaged in providing in-patient long-term nursing and rehabilitative services are classified under HP.2.1 *Long-term nursing care facilities*.
- establishments primarily engaged in providing treatment of mental health and substance abuse illnesses on a predominantly out-patient basis are classified under HP.3.4. *Ambulatory health care centres*;
- establishments known and licensed as hospitals primarily engaged in providing in-patient treatment of mental health and substance abuse illnesses with an emphasis on medical treatment and monitoring are classified under HP.1.2 *Specialised hospitals.*

HP.10 Other industries (rest of the economy)

375. This subclass comprises other industries (rest of economy) which do not provide health care, but are specialised in health related activities included inin extended health accounts, e.g. centres for education and research which do not provide health care.. There are many organisations in the health care system whose primary activity is not the provision of health care, but health related activities of resources generation for the health system – investments in personnel as well as in knowledge; e.g. education and training at any level or for health professions, health care research and development, manufacturers of healthcare goods. Illustrative examples of this subgroup are:

a. *Medical education and training institutions*: specialised institutions which provide medical education and training at any level or for medical professions. Medical education and training corresponds at the tertiary level of education and is usually provided by university hospitals. To secure mutual exclusiveness one should here exclude university hospital. As consequences, this item includes education by the different academic institutions as medical schools not included in HP.1. The section includes institutions of public as well as private medical education. It includes also general continuing education and continuing vocational education and training for medical professions.

b. *Other education and training institutions:* institutions of education and training at any level or for other health professions, e.g. nurses. Education and training within hospitals are accounted for under HP.1 Hospitals

c. *Schools as health care providers*: schools as providers of health care e.g. prevention programs for children; see also HP.6 Providers of preventive programs.

d. *Research centres:* specialised establishments which provide research about health care as primary activity. Medical research is usually classified as secondary activity of university hospitals. It includes both scientific research and market research:

e. *Scientific research*: basic clinical research, applied clinical research, experimental development in health sciences and engineering. It comprises experimental development on biotechnology, e.g. DNA/RNA sequencing/synthesis/ amplification, genomics, and pharmacogenomics; sequencing/synthesis/engineering of proteins and peptides; cell and tissue culture and engineering; process biotechnology techniques; gene and RNA vectors: gene therapy, viral vectors; bioinformatics; nanobiotechnology.

f. *Market research centres:* institutions investigating into health market development, acceptance and familiarity of goods and services and buying habits of consumers for the purpose of development of new health care goods and services, including statistical analyses of the results; and institutions investigating into collective opinions of the public about political, economic and social issues and statistical analysis of the health system.

HP.11 Rest of the world

376. This item comprises all non-resident units providing health care for the final use by resident units.[132]

[132] The further breakdown of ROW providers can be same as the other parts of the HP Classification for more detailed information on imports. i.e. HP.11.1 ROW Hospitals, HP.11.2 ROW Nursing health care, etc…

CHAPTER 7 CLASSIFICATION OF FINANCING SCHEMES (ICHA-HF)

INTRODUCTION

377. Health financing systems mobilise and allocate money to cover the health needs of the population, both individually and collectively, in the health system. Basic health financing functions are: raising and collecting revenues, pooling resources and purchasing (paying for) services[133]. The proposed accounting framework for health care financing encompasses two classifications:

- Classification of Health Financing Schemes: ICHA-HF
- Classification of Financing Sources, interpreted as revenues of financing schemes: ICHA-FS

378. The health financing system of a country consists of several sub-systems or schemes, such as, compulsory social insurance, voluntary insurance, out-of-pocket payments, and so on. These schemes, in turn, have different characteristics related to the participation of individuals, benefit entitlement, revenue-raising, pooling and purchasing. The aim of comprehensive health accounts should be to provide a clear and transparent picture and information relevant to health policy on the structure and operation of the health financing system of a country, including indicators that are comparable across countries and over time, in particular:

- The role (share) of the main health financing schemes[134] in a country's health care sector [HF table];
- How the particular health care services or goods are financed. For example, what share of the spending on inpatient care is covered by compulsory insurance, voluntary insurance and out of pocket (OOP) payments [HC x HF table];
- What kinds of services are ensured (purchased) under the different financing schemes? How the resources of the different financing schemes are allocated among the different services? [HC x HF table];
- How the resources of the different financing schemes are allocated among the different groups of beneficiaries, such as different groups of diseases [Beneficiaries x HF table];
- "Where does the money go to?" (From which providers are the services purchased under the particular health financing schemes) [HP x HF table];
- How a particular health financing scheme (sub-system) collects its revenues (Financing sources) [HF x FS tables]; and
- Some countries have found it also useful to identify who is purchasing the various production factors. Some non resident entities in the rest of the world (RoW) may supply specific equipment. Central government may concentrate on the payment of human resources. For these countries, an HF x RC table may be considered as an optional national table.

133 WHO, 2000

134 Government financing programmes, compulsory social insurance, voluntary insurance, out-of-pocket payments, foreign aid programmes, etc.

379. This chapter presents the summary of a concept of the accounting framework for health financing and proposes the new Classification of Health Financing Schemes (ICHA-HF) as one of its main component[135]. This summary also serves as an introduction to Chapter 8 in which the classification of Financing Sources (Revenue of Financing Schemes): ICHA-FS is presented.

MAIN CONCEPT

Summary of the accounting framework for health care financing

380. The proposed accounting framework for health financing consists of the following main components:

- Key concepts and definitions
- Classifications (Chapter 7 and 8)
- Accounts (basic and optional tables): accounts for allocation of resources; and accounts for revenue-raising (Chapter 15/xxx)
- Key indicators
- Accounts for sectoral analysis of the main health financing schemes and institutional sectors - as optional tools (Annex 7.3.)

381. Key concepts for describing the structure of the financing system under SHA 2.0 are as follows:[136]

- **Health financing schemes** as the main "building blocks" of a country's health financing system (For example, social health insurance, voluntary health insurance, etc. See Table 7.2)
- **Financing sources: Types of revenues** of health financing schemes. (For example, social insurance contributions, grants, etc. See Chapter 8.)
- **Financing agents** are institutional units[137] realizing or managing health financing schemes (For example, local governments, social insurance agencies, private insurance companies, non-profit organizations and so on. See Annex 7.2).

382. The key concept for describing the structure of the health financing system under SHA 2.0 is based on measuring the expenditure of **Health financing schemes** under which goods and services are purchased directly from health care providers on the one hand, and balancing these expenditures by various type of revenues of Health financing schemes on the other hand (such as taxes, premiums, donations, and so on). Health financing schemes are perceived here as the main "building blocks" of a country's health financing system for example: governmental schemes (with the government as agent) social insurance and voluntary insurance. Financing agents are perceived here as institutional units realizing or/operating the health financing schemes in practice. There is not necessarily a one-to-one correspondence between

135 The main problems of the Classification of Health Care Financing (ICHA-HF) in SHA 1.0 are discussed in Annex 7.1

136 Definitions of these concepts are provided in the next section of the paper.

137 **Institutional units** that play several roles in a health system. As to health financing, institutional units may play the role of financing agents and the providers of revenues for financing schemes.

financing schemes and financing agents. Take an example in Slovakia, the compulsory social insurance (HF.1.2.1) is managed by two government-owned agencies (FA.1) and four commercial insurance companies (FA.2). Another case in the Netherlands, private insurance companies (FA.2) operate compulsory private insurance schemes (HF.1.2.2) and voluntary insurance (HF.2.1) at the same time.

383. The proposed b**asic health accounts tables could** provide information on:

- *How the funds of particular health financing schemes are allocated;* What services are consumed, and from what providers they are purchased under the particular financing schemes (SHA Tables: HC x HF and HP x HF and HCxHPxHF).
- *How the revenues of particular health financing schemes are raised:* In what ways the particular financing schemes collect their revenues (SHA Table: HF x FS).

384. Sectoral accounts (See Annex 7.3) are offered as optional tools for country-specific analysis. Sectoral accounts make possible separate analysis of the main health financing schemes and institutional sectors of the health system. Sectoral accounts can provide important information from the perspective of a given financing scheme (e.g., social health insurance) or institutional sector (e.g., central government, households) that cannot be directly gained from any of the basic SHA tables[138]. (Annex 7.3. provides a few examples for sectoral accounts.) For example a sectoral account of the government presents in the form of T-account the total health-specific revenues (on the right-side of the T-account) and expenses of government, including transfers made by the government to other financing schemes (on the left-side of the T-account) (Table A1 in Annex 7.3).

385. The table below compares the revised framework with the current one:

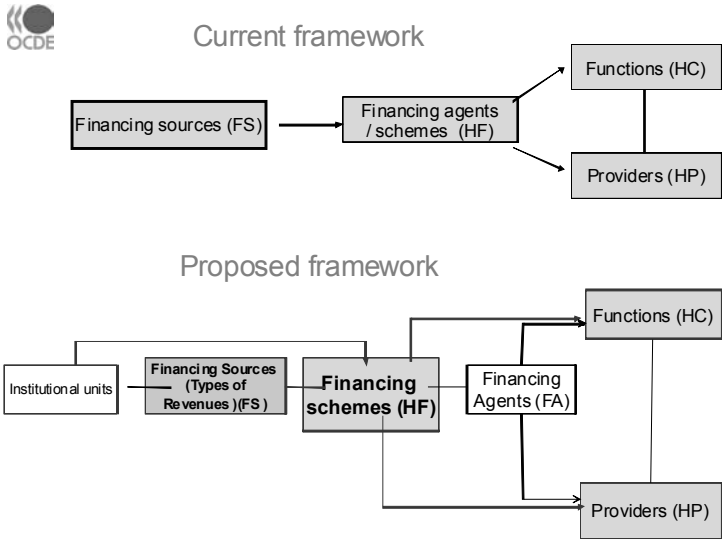
Table 7.1. Components of the revised accounting framework for health financing

Key concepts	
SHA 2.0	**SHA 1.0 / PG**
Health Financing Schemes **Financing Agent (institutional units realizing /managing financing schemes)**	**Health care financing (SHA 1.0)** **Source of funding (SHA 1.0)** **Financing Agent (PG)**
Financing Sources: Revenues of Health Financing Schemes	Financing Sources defined as institutional units (PG, JHAQ)
386. Classifications	
SHA 2.0	**SHA 1.0 / PG / JHAQ**
ICHA-HF **Classification of Health Financing Schemes** (proposed for international data collection)	**ICHA-HF** **Classification of Health Care Financing (SHA 1.0)** **387. Classification of Financing Agents (PG)** **388.**

138 The HF x FS matrix provides aggregate information about revenue collection in the whole health care sector. There may be a need for more in-depth information about the collection and use of resources (including the information on deficits /surpluses) concerning the major financing schemes separately. Sectoral accounts provide a tool for this.

Key concepts	
ICHA-FS **Classification of Financing Sources (Revenues of Health Financing Schemes)** (optional tool)	ICHA-FS Classification of Financing Sources (PG, JHAQ) defined as institutional units
ICHA-FA **Classification of Financing Agents** **(optional tool)**	

Figure 7.1 below provides a graphic presentation of the proposed framework.



The concept and main categories of Health financing schemes[139]

386. Each country's health financing system consists of several "building blocks" in the form of a set of sub-systems or financing arrangements. Key characteristics of a financing sub-system are its coverage (who is entitled to which services) and the characteristics of the basic health financing functions: collection and pooling of funds and purchasing (paying for) health services[140]. A financing sub-system may involve a mix of contribution mechanisms and a mix of purchasing organisations. For example, social insurance schemes may involve not only insurance contributions but also taxes as contribution mechanisms. Gottret and Schieber (2006) proposed the following financing arrangements involving different risk pooling mechanisms: Ministry of health / national health service systems, Social health insurance systems, Community-based health insurance, Private or voluntary health insurance.

Definition of health financing schemes[141]

Health financing schemes are the main sub-systems / components of a country's health financing system. Health financing schemes include direct payments by households for services and goods and third-party financing arrangements. Third party financing schemes are distinct bodies of rules, governing the mode of participation in the scheme, the basis for entitlement to health care and the rules of raising and pooling revenues of the given sub-system.

387. The main components of a health financing system can be as follows (See Table 7.2) [142]:

- Governmental schemes (with sub-categories),
- **S**ocial health insurance (with sub-categories),
- Compulsory private health insurance,
- Voluntary health insurance (with sub-categories),
- Non-profit Institutions[143] financing schemes (health programs),
- Enterprises financing schemes (health programs),
- Households out-of-pocket payments,
- Rest of the World financing schemes (programmes)

139 The term "health financing schemes" is widely used as a synonym for health financing sub-systems / financing arrangements (For example Thomson, S. et al (2009), Financing Health Care in the European Union. Observatory Studies Series No.17. WHO Regional Office for Europe, Copenhagen).

140 Kutzin,2001; Mossialos and Dixon, 2002;WHO,2000

141 Annex 3 provides a more detailed explanation on the terminology (e.g., scheme) and a more detailed definition.

142 Table 13 compares the proposed structure with ICHA-HF classification in SHA 1.0.

143 SNA distinguishes three types of Non-profit institutions: market producers, units of government and Non-profit institutions serving households (NPISHs). NPISHs are non-market producers and their operation is not controlled by the government. In this text "Non-profit Institutions" refer to NPISHs, if not indicated otherwise.

388. The definition of health financing schemes calls for further clarification. SHA 1.0 used 'health care financing' as the general term for labelling HF. 'Health care financing' proved to be too vague, as in a wider sense it may include financing sources, financing schemes and financing agents. Based on the relevant health policy literature and ESSPROS, 'health financing schemes' is regarded as a more suitable term for labelling HF.

389. In correspondence with ESSPROS, the body of rules referred to in this definition may be established de jure, by virtue of laws, regulation or contracts, or de facto, by virtue of administrative practice. De facto schemes are, for example, occupational health programmes set up by employers.

390. The proposed definitions of the categories of health financing schemes in ICHA-HF are intended to facilitate the reporting of comparable expenditure data across countries and over time. It should be emphasised that the interpretation of ICHA-HF as a classification of financing schemes that would not require major changes to the current reporting practice of countries. In fact, the revised categories of ICHA-HF in many cases provide a better alignment with the current country practice of reporting health expenditure. The proposed definition and categories of ICHA-HF are relevant from a health policy point of view and are in accordance with the dominant view of health financing in the health policy literature.

Table 7.2. Classification of Health Financing Schemes

HF.1	**Governmental schemes and compulsory health insurance**
HF.1.1	**Governmental schemes**
HF.1.1.1	Central governmental schemes
HF.1.1.2	State/regional/local governmental schemes
HF.1.2	**Compulsory contributory health insurance schemes**
HF.1.2.1	Social health insurance schemes
HF.1.2.2	Compulsory private insurance schemes
HF.2	**Voluntary private health care payment schemes**
HF.2.1	**Voluntary Private health insurance schemes**
HF.2.1.1	Primary /substitutory health insurance schemes
HF.2.1.1.1	Employer-based insurance (other than enterprises schemes)
HF.2.1.1.2	Community-based insurance
HF.2.1.1.3	Other primary coverage schemes
HF.2.1.2	Complementary / supplementary insurance schemes
HF.2.2	**NPISHs financing schemes**
HF.2.2.1	Resident foreign government development agencies schemes
HF.2.2.2	Other non profit (e.g., NGO) schemes
HF.2.3	**Enterprises financing schemes**
HF.2.3.1	Enterprises (except Health care providers) financing schemes
HF.2.3.2	Health care providers financing schemes
HF.3	**Household out-of-pocket payment**
HF.3.1	**Out-of-pocket excluding cost sharing**
HF.3.2	**Cost sharing with third-party payers**
HF.3.2.1	Cost sharing with government schemes and compulsory insurance schemes
HF.3.2.2	Cost sharing with voluntary insurance schemes

HF.4	**Rest of the world financing schemes (non resident)**
HF.4.1	**Compulsory schemes (non-resident)**
HF.4.1.1	Compulsory health insurance schemes (non-resident)
HF.4.1.2	Other schemes
HF.4.2	**Voluntary private schemes (non-resident)**
HF.4.2.1	Voluntary health insurance schemes (non-resident)
HF.4.2.2	Other schemes
HF.4.2.2.1	Philanthropy / international NGOs schemes
HF.4.2.2.2	Foreign development agencies schemes
HF.4.2.2.3	Schemes of Enclaves (e.g., international organizations or embassies)
Memorandum items	
	Governmental schemes and compulsory health insurance together with cost sharing (HF.1 + HF.3.2.1)
	Voluntary health insurance schemes together with cost sharing (HF.2.1+ HF.3.2.2)

The legal basis of financing schemes

391. The consideration of the legal basis of financing schemes is important for distinguishing compulsory social and compulsory private insurance. Third-party financing schemes may be established and operated as follows: through public law and publically operated; through private law and privately operated; or through public law and privately operated[144]:

- A third-party financing scheme may be established by a specific public law with the purpose of providing protection against the financial risks of ill-health for the society as a whole, or specific groups in society (employed persons, the most vulnerable groups, etc.). The operation of the financing scheme is also regulated by public law and the rules of the operation of the institutions involved differ in many respects from the operation of the market economy. (Governmental schemes, social health insurance.)

- A third-party financing scheme may be created by private actors of the economy and operated under private law. An example is voluntary health insurance.

- A third-party financing scheme may be established by a specific public law with the purpose of providing protection against the financial risks of ill-health for the society as a whole, or specific groups in society. However, the day-to-day operation of the financing scheme (many elements of the relationship between the insuree and the insurer) is regulated under private law. For example, compulsory private health insurance in the Netherlands.

Criteria for distinguishing the categories of financing schemes

392. The following list contains the main criteria for distinguishing the different health financing schemes[145]:

144 Generally speaking, public law governs the relationship between individuals (citizens, companies) and the state. Private law is the area of law that affects the relationships between individuals or groups without the intervention of the state or government. In many cases the public/private law distinction is confounded

145 The concrete health sub-systems of countries implementing the same health financing scheme (e.g., compulsory social health insurance) may exhibit considerable differences, in particular in the o*rganisation or management* arrangements**.** For example, compulsory social health insurance may be

- Mode of participation;
- Basis for benefit entitlement;
- Method for raising funds;
- Mechanism and extent of pooling and re-allocation of funds.

393. The key distinguishing characteristics, from a policy perspective, are:

4. (1) whether participation is mandatory or voluntary; and

- (2) whether or not entitlement is based on contribution (made by or on behalf of the covered individuals) or based on something else such as citizenship or residency.

394. However, there are some complex financing arrangements that require further categories of the participation and entitlement.

395. ***The Mode of participation*** refers to the relationship between the individuals (residents of a country) and the different financing schemes. Therefore the main categories are as follows:

- Coverage of the population is automatic, universal for all citizens / residents (e.g., national health services);
- Participation is mandatory by law (compulsory social insurance or compulsory private insurance);
- Eligibility defined by law, allowing for voluntary enrolment: the law defines the population groups eligible for the scheme, but the enrolment may remain voluntary[146]. (e.g., the Medicare programme in the United States);
- Mandatory by condition of employment (e.g., occupational health services);
- Voluntary (e.g., voluntary health insurance, NPISHs financing schemes). In the case of private insurance, the mode of participation may be conditional upon beneficiary's conditions, as eligibility criteria are reasons for signing, refusing, or terminating a contract;

396. ***The Basis for benefit entitlement*** refers to the general conditions (basic rules) for the access to care under the different financing schemes. An individual's access to health services under a financing scheme may be:

- defined by law (citizens / residents) and does not require a contribution payment (national health service);
- defined by law/government regulation; and requires a contribution payment (e.g., social health insurance);

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managed through a single-payer or multiple-payer system; multiple non-competing payers or multiple competing payers.

146 The government usually encourages enrolment by subsidizing the contributions/premiums. This may be when the intention is to achieve full enrolment of the eligible groups, but the capacity for revenue collection of the government is weak. For example, the New Rural Cooperative Medical Scheme (NRCMS) and Urban basic health insurance scheme in China: the schemes define the eligible groups, but the participation is voluntary, with the government subsidizing a substantial part (80 percent) of the premiums (Bhattacharjya and Sapra 2008).

- based on a contract between an insurance carrier and the individual (e.g., compulsory private insurance[147], voluntary health insurance);
- based on the discretion of a private entity (charity foundation, employer, foreign entity);
- based on the individual's willingness to pay (out-of-pocket payment).

397. It is important to note that the benefit package, that is the extent of health care goods and services covered under the particular entitlement, may be:

- the same for all eligible persons under the given scheme (national health service, social insurance, compulsory private insurance); National health services and compulsory insurance may define an open entitlement to all services not included in a 'negative' list, or define a standardised or minimum package ('positive list');
- such that the law requires the same basic package for all eligible persons, but allows differences in services outside the basic package. Decentralised social insurance, compulsory private insurance may offer additional services to the basic benefit packet in order to enhance participation in their scheme;
- such that private entities have freedom to design benefits. Private enterprises can offer special health care package to their employees. Voluntary insurance schemes may offer various health care services packages to individuals linking the scope of services with the price of the package (the premium paid).

398. ***The method for raising funds****:* the way by or the mechanism through which the revenues of a particular financing scheme are set and collected. The main categories are tax revenues, mandatory income-related insurance contribution, mandatory non income-related premium, voluntary insurance premiums (risk-related or non-risk related), out-of-pocket payments, voluntary transfers, foreign grants, and so on.

399. ***The mechanism and extent of pooling and re-allocation of funds*** are defined by the regulation of the given scheme. Main types may be income-related contributions pooled at national level; mandated community rating of premium at national level; community rating of premium at a local level (financing agent level); risk-related contributions; and households' direct payments. In the case of decentralised sub-systems (both health insurance and tax-financed systems) central government may re-allocate revenues among units of the given financing schemes.

400. Table 7.3 summarises the main characteristics of financing schemes according to the above criteria. Figure 7.2 presents a 'criteria-tree' showing how the combination of these criteria defines the main categories of health financing schemes. The 'criteria-tree' may help experts to categorise the components of a country health financing system.

401. Table 7.4 compares the revised ICHA-HF classification with ICHA-HF under SHA 1.0.

147 In this case the law requires all or some permanent residents to buy private insurance, but the entitlement is only generated when the contract is made between the individuals and the insurance company.

Table 7.3. Main categories of health financing schemes

	Mode of participation	Benefit entitlement	Basic method for fund-raising	Pooling
HF.1.1. Governmental schemes	automatic for all citizens/residents; or eligibility is defined by law/government regulation for a specific group of population (e.g., the poor	universal or available for a specific group of population defined by law	Budget revenues (primarily taxes)	National or local
HF.1.2.1 Social health insurance	usually compulsory for the eligible groups. In some cases, however, the law defines the eligible group(s), but the enrolment is voluntary for the eligible persons. (Persons with income above a defined level may not be included.)	entitlement based on contribution payment by or on behalf of the insured person	Non-risk related health insurance contribution. The insurance contribution may be paid by the government (from the state budget) on behalf of some non-employed groups of population	National or subnational
HF.1.2.2 Compulsory private insurance	All residents (or defined groups of residents) are obliged to purchase a health insurance policy (Persons with income above a defined level may not be included.)	based upon a contract between the individual and the selected health insurance company (or other agency involved)	Health insurance premiums. Tax credits may also be involved	depends on the extent of regulation of premium, standardisation of benefits and risk-equalising mechanisms
HF.2.1 Voluntary private health insurance	voluntary	based upon the purchase of voluntary health insurance policy (usually on the basis of a contract)	usually non-income related premium (often directly or indirectly risk-related	depend on regulation and existence of group policies
HF.2.2 Non-profit Institutions financing schemes	voluntary	discretionary	donations from the general public, governments (budget of national government or foreign aid) or corporations	varies across programmes
HF.2.3 Enterprise financing schemes (other than employer-based insurance)	based on employment at a particular corporation or employment status in general (e.g., compulsory occupational health care)	Type of services: discretion of the corporation or specified by law	revenues of the enterprise	at an individual corporation level
HF.3 Household out-of-pocket expenditure	Discretion of the household	individual willingness to pay	Households disposable income and saving	No pooling
HF.4 RoW financing schemes	voluntary	criteria set by foreign entities	grants and other voluntary transfers by foreign entities	varies across programmes

Figure 7.2 Criteria – tree for health financing schemes

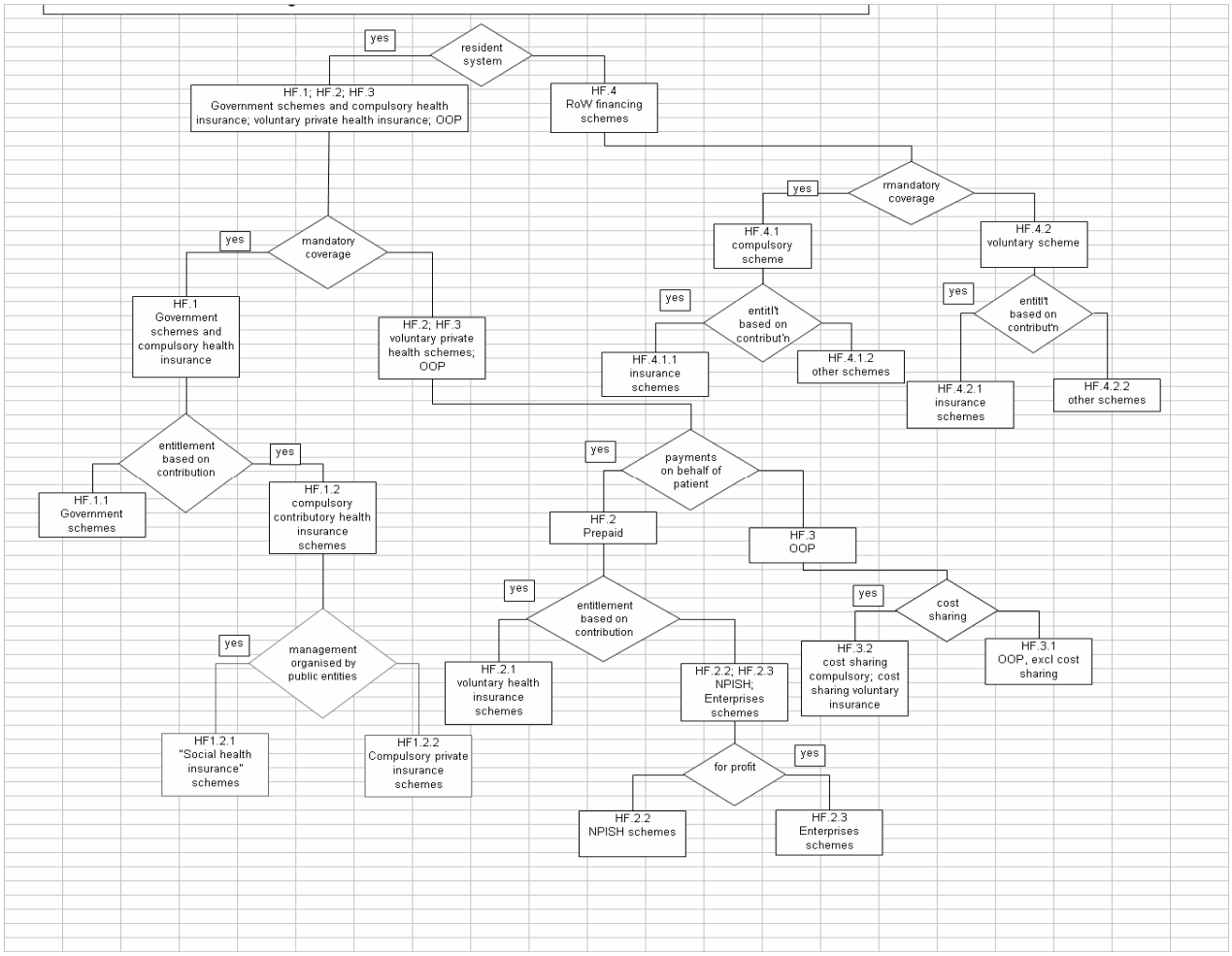


Table 7.4. The proposed revised ICHA-HF(2.0) in comparison to ICHA-HF(1.0)

ICHA-HF classification of health financing schemes		**ICHA-HF classification of health care financing**	
Revised ICHA-HF		**SHA Manual (current Version 1.0)**	
HF.1	**Governmental schemes and compulsory health insurance**	**HF.1**	**General government**
HF.1.1	**Governmental schemes**	**HF.1.1**	**General government excluding social security funds**
HF.1.1.1	Central governmental schemes	HF.1.1.1	Central government
HF.1.1.2	State/regional/local governmental schemes	HF.1.1.2	State/provincial government
		HF.1.1.3	Local/municipal government
HF.1.2	**Compulsory health insurance schemes**	**HF.1.2**	Social security funds
HF.1.2.1	**Social health insurance**		
HF.1.2.2	**Compulsory private insurance**		
		HF.2	**Private sector**
HF.2	**Voluntary private health care payment schemes (other than OOP)**		
HF.2.1	**Voluntary Private health insurance**		
		HF.2.1	Private social insurance
		HF.2.2	Private insurance enterprises (other than social insurance)
HF.2.1.1	Primary/substitutory health insurance schemes		
HF.2.1.1.1	Employer-based insurance (other than enterprises schemes)		
HF.2.1.1.2	Community-based insurance		

HF.2.1.1.3	Other primary coverage schemes		
HF.2.1.2	Complementary /supplementary voluntary insurance schemes		
HF.2.2	**NPISHs financing schemes**	HF.2.4	NPISHs (other than social insurance)
HF.2.3	**Enterprises financing schemes**	HF.2.5	Corporations (other than health insurance)
HF.2.3.1	Enterprises (except Health care providers) financing schemes		
HF.2.3.2	Health care providers financing schemes		
HF.3	**Household out-of-pocket payment**	HF.2.3	Private household out-of-pocket expenditure
HF.3.1	Out-of-pocket excluding cost sharing	HF.2.3.1	Out-of-pocket excluding cost sharing
HF.3.2	Cost sharing with third-party payers:	HF.2.3.2	Cost sharing: central government
HF.3.2.1	Cost sharing with Government schemes and compulsory health insurance	HF.2.3.3	Cost sharing: State /provincial government
		HF.2.3.4	Cost sharing: Local /municipal government
HF.3.2.2.	Cost sharing with voluntary insurance schemes	HF.2.3.5	Cost sharing: Social security funds
		HF.2.3.6	Cost sharing: Private social insurance
		HF.2.3.7	Cost sharing: other private l insurance
		HF.2.3.9	All other Cost sharing
HF.4	**Rest of the world financing schemes**	**HF.3**	**Rest of the world**
HF.4.1	Compulsory schemes (non-resident)		
HF.4.1.1	Compulsory health insurance (non-resident)		
HF.4.1.2	Other schemes		
HF.4.2	Voluntary private schemes (non-resident)		
HF.4.2.1	Voluntary health insurance (non-resident)		
HF.4.2.2	Other schemes		
HF.4.2.2.1	Philanthropy / international NGOs' schemes		
HF.4.2.2.2	Foreign Development agencies schemes		
HF.4.2.2.3	Enclaves (e.g., international organizations or embassies)		

The information gained through two dimensional tables

402. A starting point to interpret HF is the following question: What is the key information we want to obtain for policy analysis from the HF x HC x HP table? What are the financing "units" HF should reflect? From the perspective of the main health policy goals (e.g., financial protection of the population), the answer is: how much is spent on the different types of services (inpatient care, outpatient care, pharmaceuticals, etc.) by the national health service, the compulsory insurance, voluntary insurance and OOP. Consequently, HF is interpreted as the main sub-systems / financing arrangements of a country's health system and is labelled as "Financing schemes".

403. A key "test" of the ICHA-HF classification is whether the basic SHA tables – built on the ICHA-HF classification - are able to provide the information expected for health policy analysis. Therefore, this section will briefly describe the main content of the relevant SHA tables.

Expenditure on Functions of Health Care by Health Financing Schemes (HCxHF)

404. This table presents the final use of different types of services and goods made available for individuals and population (at large) through the different financing schemes. A key question that can be analysed is how the different services are financed. For example, what share of inpatient care is available under compulsory insurance and what share of inpatient care people have to buy through voluntary insurance or have to pay out-of-pocket. Another issue that can be analysed is how the particular

financing scheme allocates its resources. For example, what share of the resources of the compulsory health insurance is spent on pharmaceuticals, inpatient care, outpatient care and prevention, etc.

Expenditure on Health Care Providers by Health Financing Schemes (HPxHF)

405. This table shows who provided, and which financing schemes made available the health services and goods for the consumers.

Expenditure by Diseases and Health Financing Schemes

406. This table shows the value of services and goods used for the treatment of the major disease groups under the different financing schemes. For example, how the resources of the compulsory insurance were allocated between the major disease groups.

SPECIFIC CONCEPTUAL ISSUES

407. As already discussed, there are great differences in the organisational settings of the basic health financing schemes across countries. In the case of countries with complex institutional settings, it is of great importance to clearly distinguish between financing schemes and financing agents, and unambiguously clarify the different possible roles of key institutional units involved in health financing (e.g., the Government, the Rest of the World). A few important issues are discussed in the following.

Relationship between financing schemes and financing agents

408. Financing agents are institutional units managing one or more financing schemes: collects revenues and / or purchases services under rules of the given health financing scheme(s). Included are households as financing agent for out-of-pocket payments. Annex 7.2 provides a classification of financing agents.

409. In several countries there is a one-to-one correspondence between financing schemes and financing agents (Figure 7.3). For example, in Country (A) with a simple organisational arrangement, all government financed care may be operated by local government units, and in addition voluntary insurance is offered by insurance companies, and households pay out-of-pocket for certain services.

410. The one-to-one correspondence is, however, not necessary from a theoretical point of view. Moreover, in reality, there are many countries where the relationship between financing schemes and financing agents is rather complex and has been considerably changed over the past few years (Figure 7.4). For example:

- The same actor can serve as a financing agent for more than one financing scheme (e.g., private insurance company, besides offering voluntary insurance, it may be involved in managing the social insurance scheme);

- Actors belonging to different institutional sectors of the economy can serve as a financing agent for the same financing scheme (e.g., the compulsory health insurance scheme can be managed - at the same time in a given country - by both a social insurance agency and private insurance corporations).

- The same actor (e.g., tax office) can act as a collecting organisation for more than one financing sub-system (e.g., central governmental scheme and social insurance); etc.

Figure 7.3 The relationship between financing schemes and financing agents: one-to-one correspondence

Country (A): One-to-one correspondence between financing schemes and financing agents					
Financing schemes	Financing agents (Institutional units)				
	Central government	Social security funds	Insurance corporations	Rest of the World	Households
Governmental schemes (programs)					
Compulsory social insurance					
Voluntary private insurance					
Foreign aid programmes					
Out-of-pocket payments					

Figure 7.4. The relationship between financing schemes and financing agents: an example for complex institutional settingCountry (B): Complex relationship between financing schemes and financing agents

Financing schemes	Financing agents (Institutional units)				
	Central government	Social security funds	Insurance corporations	Non-profit Institutions	Households
Governmental schemes (programs)					
Compulsory social insurance					
Voluntary private insurance					
Foreign aid programmes					
Out-of-pocket payments					

Expenditure by Health Financing Schemes and Financing Agents

411. This optional table presents important information about the institutional arrangements of the particular financing schemes (Table 7.5). The total spending by a financing scheme is shown under "All institutional units". When more than one type of institutional unit is involved in the operation of a given financing scheme, the table shows the role of these institutional units.

- For example, in the case of Country (A) in Table 7.5, central government health financing schemes (HF.1.1.1) are executed by the Ministry of Health (FA.1.1.1), other Ministries (FA.1.1.2) and NPISHs (FA.4). Foreign (RoW) financing schemes (HF.4) are carried out by government units (FA.1.2), domestic NPISHs (FA.4) and foreign NGOs (FA.6.3)

- In the case of Country B, compulsory social insurance (HF.1.1) is administered by social insurance funds (FA.1.3) and private insurance companies (FA.2). Private insurance companies (FA.2) also offer voluntary insurance (HF.2.1).

412. The expenditure of a financing scheme includes the spending on health services and goods and the administration of the given financing scheme. Administration of a given financing scheme includes expenses related to revenue-collection and purchasing. Therefore, if two different institutional units are involved in the revenue-collection and purchasing, administrative costs of both institutional units should be included.

413. This table may be used for cross-country comparison of institutional characteristics of health financing and also for monitoring changes in institutional arrangements of health financing schemes in countries with complex institutional arrangement. For example, the changes in the institutional arrangement of the compulsory insurance; or changes in the involvement of NGOs in managing government health programmes. Countries with simple institutional arrangement of health financing obviously do not need such table.

The relationship between financing schemes and financing agents from a data collection point of view

414. HF is an analytical unit (similarly to HC). The data collection units are the establishment units of financing agents or providers (depending on the statistical system of a country) - similarly to the data collection for HC that are also collected from providers (or financing institutions).

Table 7.4 Health expenditure by financing schemes and financing agents (Total current expenditure =100)

				County A	Country B
	Financing scheme		Financing agent		
HF.1.1	Governmental schemes			20	10
HF.1.1.1	Central Government financing schemes	All institutional units		20	5
		FA.1.1.1	Ministry of Health	10	
		FA.1.1.2	Other Ministries	5	
		FA.4	NPISHs	5	
HF.1.1.2	Regional/Local Government schemes	All institutional units			5
		FA.1.2	local government units		
		FA.4	NGOs		
HF.1.2	Social health insurance	All institutional units			60
		FA.1.3	social insurance funds		40
		FA.2	Insurance corporations		20
HF.1.3	Compulsory private insurance	FA.2	Insurance corporations		

HF.2.1	Voluntary private health insurance	All institutional units			10
		FA.2	Insurance corporations		10
		FA.2.1	Commercial insurance companies		5
		FA.2.2	Mutual and other non-profit entities	2	5
		FA.1.3	Social insurance funds		
HF.2.2	NPISHs financing schemes	FA.4	NPISHs	3	5
HF.2.3	Enterprises financing schemes	FA.3	Corporations (other than Insurance corporations)		5
HF.3	Households out-of-pocket payment	FA.5	Households	50	20
HF.4	RoW financing schemes	All institutional units		15	
		FA.4	NPISHs (Domestic)	5	
		FA.1.2	Local government units	5	
		FA.6.3	Other foreign entities	5	

Distinguishing governmental schemes and government as an institutional unit

415. The main forms of government involvement in health financing are as follows (Figure 7.5):

- Government as provider of revenues of several financing schemes;
- Governmental schemes;
- Government units acting as financing agents.

416. Health expenditure is a considerable component of public expenditure in many countries. As governmental schemes are only one component of the government spending on health, it is of vital importance to distinguish them from the other types of government health finance.

417. The main component of government finance on health may be the following:

- Government collects general revenues and part of that is allocated to governmental health financing schemes.
- Government provides revenues to financing schemes other than governmental schemes. (For example, government may pay social insurance contribution on behalf of the children and/or the elderly.)
- Governmental schemes ensure access to services and goods (relevant government units purchase services and goods.

418. Governmental schemes have the following characteristics:

- The scheme is initiated and the characteristics of the scheme are determined by the government.
- A separate budget is set for the scheme and a government unit has an overall responsibility for it.
- In many cases, but not necessarily all, governmental schemes are operated by government units, that is to say that government units play the role of financing agents.
- The governmental schemes may also be managed by a NPISHs or an enterprise. (E.g., the government may set up a screening programme and contract out the management to a NPISHs or a private organisation, which contract and remunerate the providers.)

419. Governmental schemes (programmes) may be as follows:

- National Health Service (e.g., United Kingdom, etc.);
- Universal health care as part of the responsibility of regional / local governments (e.g., Finland, etc.);
- Public health and prevention programmes;
- Financing of investment and R&D;
- Financing of medical education; etc.

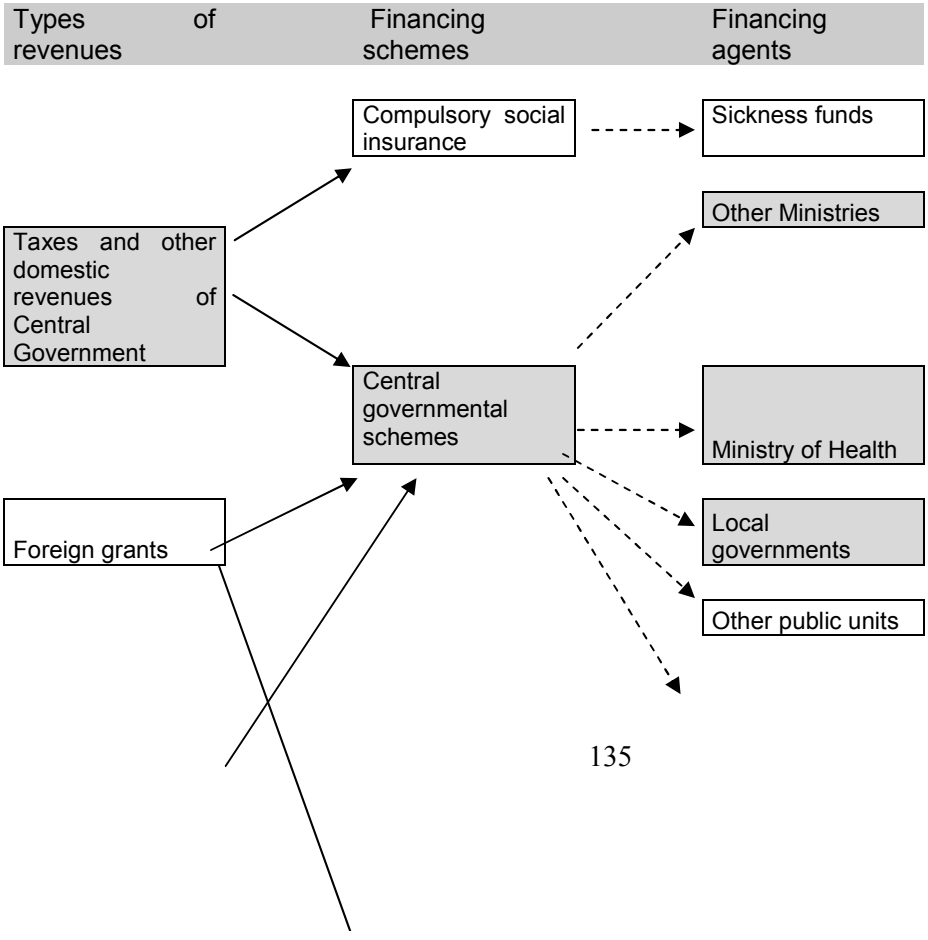
420. Figure 7.5 provides an example for the relationship between governmental schemes and the involvement of government as a provider of revenues and as a financing agent. The marked boxes in the second column indicate the governmental financing schemes (HF.1.1.1 and HF.1.1.2; the marked boxes in the first column indicate the revenues provided by the government; and the marked boxes in the third column indicate the government units acting as financing agents for HF.1.1.1 and HF.1.1.2.

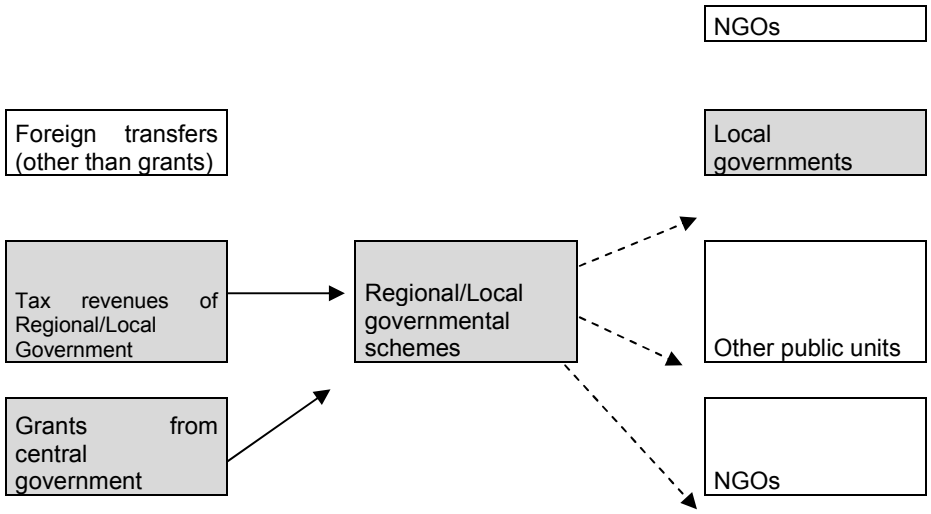
421. Figure 7.5 shows that:

- The government provides financial resources (revenues) not only for the governmental schemes, but for other financing schemes (e.g., compulsory social insurance);
- The governmental schemes may receive revenues from sources other than the general revenues of the government (e.g., foreign grants);
- The central governmental schemes may be managed by different government units and NGOs (as financing agents);
- Local governmental schemes, besides the general revenues of the local government may receive grants from the central government and foreign entities;
- Local governmental financing programmes may be managed by local government units, other public units and NGOs.

422. A similar qualitative description of the role of the government may help clarify the types of revenues, financing schemes and financing agents in a country's health system.

Figure 7.5. An example for the relationship between governmental schemes, government as a financing source and government as a financing agent




NGOs
Foreign transfers (other than grants)
Local governments
Tax revenues of Regional/Local Government
Regional/Local governmental schemes
Other public units
Grants from central government
NGOs

Distinguishing Rest of the World financing schemes, foreign entities as providers of financing sources and foreign entities as financing agents

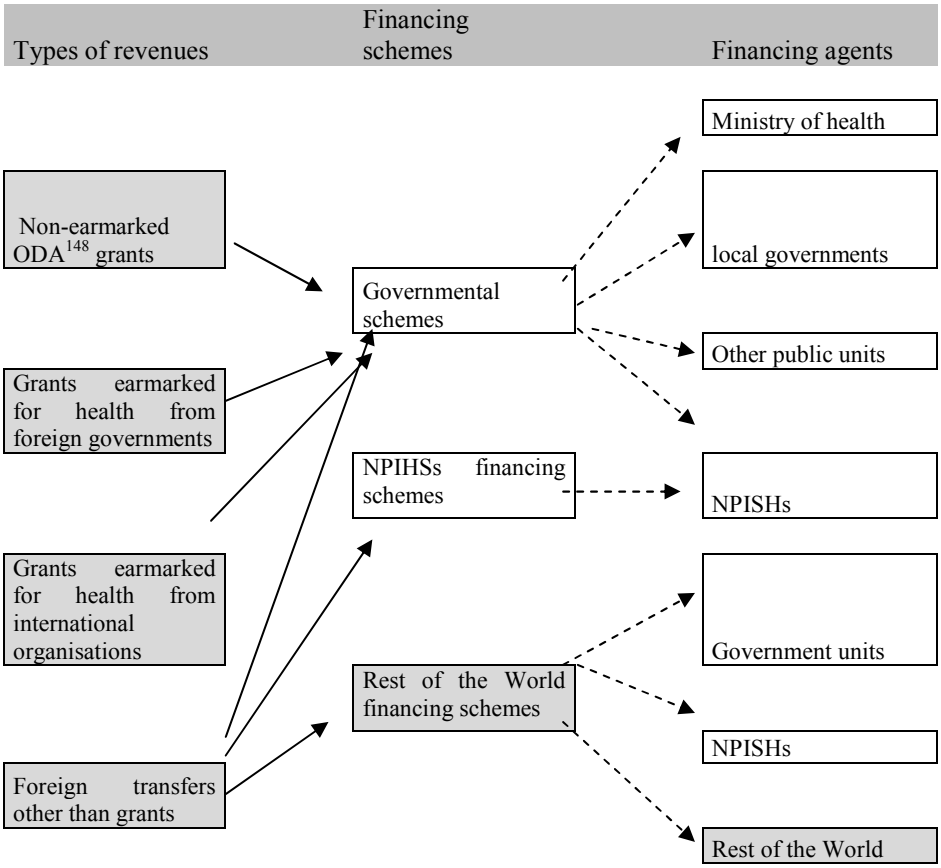
423. Chapter 8 discusses the most important issues regarding the accounting of foreign assistance. Here only the complex relationships between the health financing schemes and the institutional units are discussed. The marked boxes in Figure 7.6 indicate the different types of RoW involvement. Figure 7.6 illustrates:

- The main involvement of foreign entities is the provision of financial resources for domestic financial schemes. Rest of the World (as a provider of financing source) may include international organisations, foreign governments and other foreign entities (including family living abroad - remittances).

- RoW may provide revenues for governmental schemes or NPISH health programmes, or a foreign entity (e.g., a foundation) may set up a separate health programme (that – if meeting certain criteria - could be regarded as a financing scheme).

- A foreign institutional unit may be involved in managing RoW financing schemes (for example, foreign government financing schemes (programs) or foreign voluntary private insurance). However RoW financing schemes, may also be managed by government units or domestic NPISHs.

Figure 7.6 The possible role of foreign resources and foreign institutional units in health financing



148 *Official development assistance (ODA)* is defined by the Development Assistance Committee (DAC) of the OECD as grants and loans to countries and territories on Part I of the DAC list of aid recipients (developing countries), which are undertaken by the official sector, with promotion of economic development and welfare as the main objective, on concessional financial terms (if a loan, with a grant element of at least 25%).

How to treat surplus funds/ or deficits?

424. In the current NHA tables the total health expenditure is required to be equal in the HCxHF and FSxHF tables. The FSxHF table is expected to show the sources of the expenditure used for final consumption in the given accounting period.

425. This paper proposes a different interpretation of the FSxHF table. The proposed interpretation of the HFx FS tables refers to all revenues raised in a given period, which may be greater or smaller than the expenditure on health services and goods. Therefore, the total expenditure in HCxHF and the HPxHF tables does not necessarily equal the total revenues in FSxHF table. The differences show the surplus or deficit of the particular health financing schemes in a given accounting period.

426. An alternative tool for presenting the surplus or deficit is the sectoral accounts discussed in Annex 4.

Treatment of cost-sharing

427. Coverage by a third-party financing scheme (insurance or government scheme) has three components: population coverage, scope and depth of coverage: the scope refers to the service package covered and the depth refers to the share of the costs of the given services covered by the scheme. Consequently, cost-sharing by the patients should be considered as a component of out-of-pocket payment and should not be considered as expenditure by the third-party financing scheme. The concept and the monitoring and assessment of financial protection requires a clear distinction between the share of costs covered by compulsory insurance (or a government scheme) and the share of the costs paid by the patients. Obviously, high cost-sharing by the patients jeopardises financial protection. Thomson et al (2009) emphasized that: "Several countries have made efforts to expand population coverage.... However, the scope and depth of coverage are as important as its universality, and the trend in some countries to lower scope and depth undermines financial protection". (p.xxi)

428. Voluntary insurance may reimburse cost-sharing by the patient. This case should be treated similarly to the case when the voluntary insurance reimburses the bill of a service not covered by the compulsory insurance. The payment is considered expenditure by the voluntary insurance. Consequently, the part of cost-sharing reimbursed by voluntary insurance should be accounted as expenditure by voluntary insurance and should not be taken into consideration under OOP payment by the households. This treatment ensures that a proper picture of financial protection is provided.

The interpretation of "public" and "private"

429. The current practice in using the terms "public" and "private" in health financing has some ambiguity. It is partly due to the fact that the terms "public" and "private" can be (and are) used with different meanings in health statistics:

- Usually (including OECD Health Data) the term "public expenditure" is used referring to spending by government and social security funds and "private expenditure" referring to spending by households and voluntary pre-paid schemes. (However, there is no adequate category for compulsory private insurance.)

- SHA 1.0 defines private sector as follows: "This comprises all resident institutional units which do not belong to the government sector." If this definition were strictly applied, compulsory private insurance and social insurance schemes executed by private insurance companies would be reported under private expenditure, together with voluntary insurance and OOP. (This obviously would not be adequate.)

- "Public" and "private" may refer to institutions providing financial resources to health financing schemes.

- "Public" and "private" may refer to institutions managing financing schemes.

The proposed approach

430. Concerning the accounting of health financing, two possible approaches are proposed for the interpretations of the terms "public" and (vs.) "private" (with complementing a third category "compulsory private"):

- Expenditure by government schemes and compulsory health insurance and (vs.) expenditure by voluntary private (or voluntary) health financing schemes.
- Health spending from public (and compulsory private) funds and vs. health spending from voluntary private funds.

431. Tables 7.5 and 7.6 provide explanation for the proposed approaches and show the relevant categories:

Table 7.5 Expenditure by social, compulsory private and private health financing schemes

	Financing schemes	Major expenditure aggregates
HF.1	**Governmental financing schemes and compulsory health insurance**	**Expenditure by government schemes and compulsory health insurance (Or: public and compulsory private expenditure)**
HF.1.1	Governmental financing schemes	**Expenditure by government and social health insurance (Or: Public expenditure)**
HF.1.2.1	Social health insurance	
HF.1.2.2	Compulsory private health insurance	**Expenditure by compulsory private schemes (Or: Compulsory private expenditure)**
HF.2	**Voluntary private health care payment schemes (other than OOP)**	**Private expenditure**
	Voluntary private health insurance	
	NPISHs-financing schemes	
	Enterprises financing schemes	
HF.3	**Households out-of-pocket payment**	
HF.4	**Rest of the World financing programmes**	

432. Public versus private expenditure as defined above, however, does not take into consideration that voluntary private health financing schemes may receive revenues from government. For example, the whole spending by NPISHs financing schemes is accounted as private expenditure - although the revenue of NPISHs financing schemes may partly come from government transfers. Under the other approach (Table 7.6) all spending from government general revenues on health are accounted as spending from public funds, including transfers to private financing schemes

Table 7.6 Health spending from public, compulsory private and private funds

	Revenues of financing schemes	Major expenditure aggregates
FS.1	Taxes revenues allocated to health purposes	Public and compulsory private funds spent on health care
FS.1.1	Tax revenues allocated to governmental schemes	
FS.1.2	Transfers from government	
FS.2	Social insurance contributions	
FS.8.1	Foreign grants	
FS.3.	Compulsory private Insurance premiums	
FS 4.	Voluntary private Insurance premiums	Voluntary private funds spent on health care
FS 5	Households disposable income and saving	
FS.6.	Voluntary domestic transfers (excluding transfers by government)	
FS.8	Corporations own resources	
FS.8.2	Foreign transfers other than grants	

433. Under the above approach, the following categories are defined:

- **Public funds** include: (i) funds allocated from general revenues of government for governmental schemes; (ii) funds created from social insurance contributions; (iii) transfers allocated from general revenues of government to health financing schemes other than governmental schemes (grants, subsidies and transfers to NPISHs, etc.); and (iv) foreign revenues of government allocated to health care.

- **Mandatory (compulsory) private funds** are funds created from compulsory private insurance premiums;

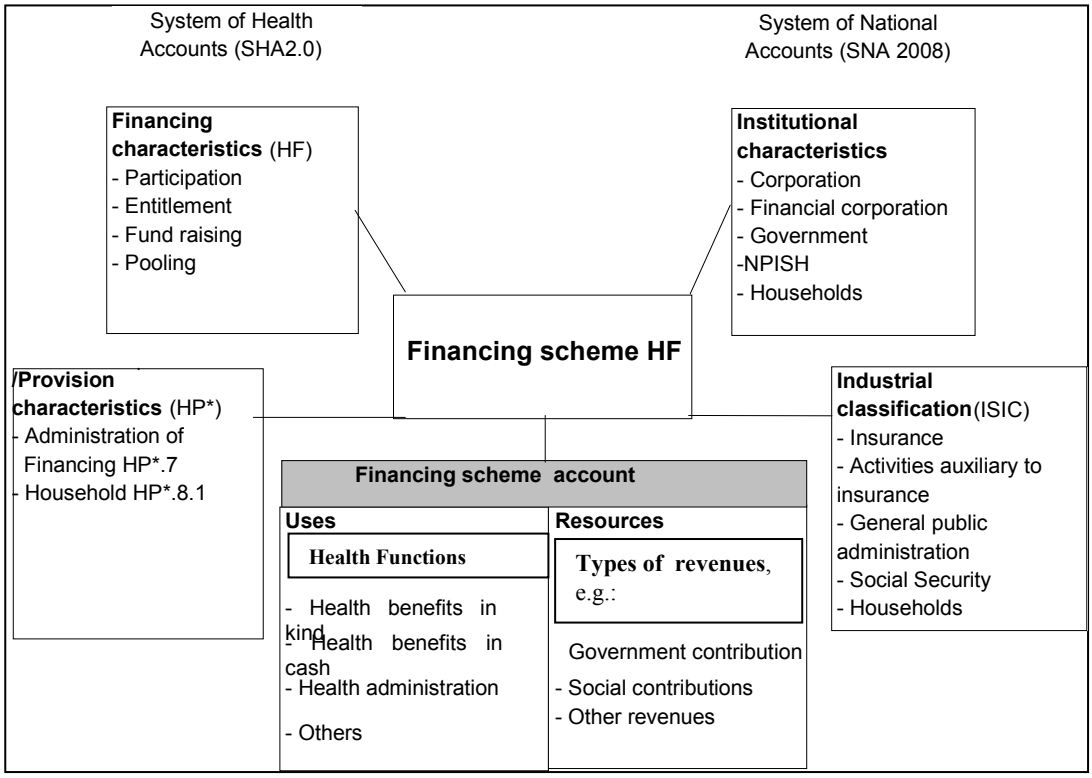
- **Voluntary private funds**, including all other funds (including households disposable income used for out-of-pocket purchase of health care and foreign non-ODA transfers).

434. As already noted, the main difference between the two possible approaches to the interpretation of public vs private expenditure is the treatment of transfers allocated from general revenues of government to health financing schemes (other than governmental schemes). It depends on the nature of the analysis that which approach can be considered more appropriate.

Relationship to other statistical systems

435. Figure 7.7 shows the concept of the financing scheme in the context of SHA 2.0 and 2008 SNA.

Figure 7.7. Financing schemes in the context of SHA 2.0 and 2008 SNA



THE CLASSIFICATION OF HEALTH FINANCING SCHEMES (ICHA-HF): DEFINITIONS AND EXPLANATORY NOTES

Governmental schemes and compulsory health insurance (HF.1)

436. This category includes all schemes aimed at ensuring access to basic health care for the whole society or large part or some vulnerable groups. Included are: Governmental schemes, Social health insurance and Compulsory private insurance.

437. A key rationale for government intervention in health systems is to ensure access to basic health care for the whole society (or vulnerable groups of society). This purpose can be pursued through different coverage schemes, implying differing level of redistribution among social groups and individuals. Health accounts are also expected to provide information to assess the performance of health systems in achieving this key policy goal. Therefore, for international comparability, it is important to have a general, aggregate category that includes all financing schemes serving this goal.

Governmental (health financing) schemes (HF.1.1)

438. Governmental health financing schemes are financing programmes initiated by the government. The characteristics of the programmes are determined by law or the government. A separate budget is set for the programme and a government unit has an overall responsibility for it.

Usually, but not necessarily, governmental schemes are operated by government unit(s). The governmental schemes may also be managed by a NPISHs or an enterprise.

439. The characteristics of Governmental (health financing) schemes are:

- Mode of participation: automatic for all citizens/residents; or eligibility is defined by law/government regulation for a specific group of population (e.g., the poor).
- Benefit entitlement: universal or available for a specific group of population defined by law
- Basic method for fund-raising: budget revenues (primarily taxes)
- Mechanism and extent of pooling funds: national or local level

440. A key distinguishing criterion of Governmental schemes is that general taxation serves as fund-raising and the funds are created through the general budget process.

> Includes: General government financing programmes providing primary coverage: National Health Services (e.g., in United Kingdom), and health care as part of local government services (e.g., Sweden) and programmes for specific groups of population (e.g., Medicaid in the United States, governmental schemes for the rural population in lower income countries, etc.).
>
> General government financing programmes in specific areas of the health sector, for example, prevention, investments, research, education, etc.
>
> Government expenditure on all functions of health care as defined under ICHA-HC, including administration of the health system and gross capital formation.
>
> Excludes: Transfers (revenues) provided by government to other third-party payers. (For explanation see the section on "Distinguishing governmental schemes and government as an institutional unit") For example, government transfers to NPISHs financing schemes are not accounted under HF.1.1. These transfers are accounted as HF.2.2.x FS.3.3 in the HFxFS table. xxx The qualitative description of a country health financing system, including the clear identification of the health financing schemes is required as a first step, in order to avoid double-counting in these cases (when government provides revenues to other third-party payers).

441. Governmental schemes aiming at universal coverage may need enrolment in order to participate, which may be voluntary. For example, Thailand has three social protection schemes in health: *Social Security Scheme (*funded by equal-share contributions by employers, employees, and the government), *Civil Servant Medical Benefit Scheme* paid totally from general tax revenue*, Universal Coverage Scheme* (UCS covers 74.6 percent of the population and financed solely from general tax revenue). The latter two schemes are to be classified as governmental schemes. To have access to health services under UCS, entitled persons need to register at a public hospital responsible for managing the program[149]. The enrolment is not obligatory, but anyone still uninsured can register at any time.

[149] The scheme is similar to HMOs: the public hospital is given a capitation after the enrolled person, and responsible for ensuring the health services covered by UCS.

Country examples

442. National Health Services or local government financed services were the major financing schemes in fifteen OECD countries in 2009 (e.g., Canada, Denmark, New Zealand, Spain, etc.). Governmental schemes' expenditure amounts to 55-85% of total health expenditure in these countries.

443. Most low-income countries have a national health service run by the ministry of health. In these countries national health service schemes finance a basic package of public health services for the entire population and some level of financial protection against catastrophic illness for at least some segments of the population. Governmental schemes' expenditure amounts only to xxxx % in low-income countries in Sub-Saharan Africa.

444. In OECD health systems primarily financed from the state budget (for example, the National Health Service of the United Kingdom or under the responsibility of the local/regional governments in the Scandinavian countries), universal entitlement of the population (or groups of the population) for a fairly comprehensive benefit package is defined by law. Purchase of services is usually, but not necessarily, managed by government units. Often, but not necessarily, services are also provided by public providers.

445. In countries with compulsory health insurance as a dominant way of financing, government may only finance some preventive programmes, investments and R&D.

Sub-categories of Governmental schemes

446. Sub-categories of Governmental schemes are:

- Central governmental schemes (HF.1.1.1)
- State/regional/local governmental schemes (HF.1.1.2)

447. Countries may want to distinguish the regional and local level governments for national data reporting. In this case they can create relevant sub-categories under the "State/regional/local governmental schemes".

448. Countries may want to create further sub-categories, e.g., by types of government programmes.

Government employees schemes

449. Government (or public) employees may have a separate arrangement: government may provide specific health programs for its employees or buy private insurance. In many African countries government reimburse its employees health care bills and pay for their care while abroad. For these cases it is proposed to account as a sub-category under governmental schemes as follows:

- HF.1.1.1.1 Central governmental schemes (excluding Government employees schemes)
- HF.1.1.1.2 Government employees schemes

450. The financing agent (e.g., government unit, private insurance corporation, etc.) will show the exact institutional form of the given governmental employees scheme.

451. It is not necessary to distinguish between government (or public) employees and other insurees in the case where government employees participate in the general social insurance scheme and government pays social insurance contribution, in the same way that other employers do.

Possible financing agents managing governmental schemes

452. Here it is important to distinguish between governmental schemes and the government units acting as one possible financing agent for government health programmes. Figure 7.8 shows the possible financing agents for the two sub-categories of governmental schemes.

Figure 7.8. Possible financing agents for the sub-categories of governmental schemes

Health Financing Schemes	**Financing agents (institutional units) managing governmental schemes**							
	MoH	Other Central Gov Units	NHSA	Regional government	Local governments	Other Public units	NPISH	Corporations
Central Gov financing schemes	x	x	x	x	x	x	x	x
Regional / local Gov financing schemes				x	x	x	x	x

"x" indicates the possible financing agents for the given government programme

453. For example France has a specific central government programme for poor people ("Couverture maladie universelle complémentaire" (CMUC)), which is managed by public social insurance ("Social security") for most of the beneficiaries, but for a few of them it is managed by private insurances.

Compulsory health insurance schemes (HF.1.2)

454. Compulsory health insurance is a financing arrangement ensuring access to basic health care for the whole or large part society, through compulsion of participation and eligibility based on payment of health insurance contribution by or on behalf of the individuals; or purchase of private coverage.

Social health insurance (HF.1.2)

455. Social health insurance is a financing arrangement ensuring access to basic health care for the whole or large part society, based on a payment of a non-risk related contribution by or on behalf of the eligible person. The social health insurance scheme is established by a specific public law, defining, among others, the eligibility, benefit package and rules for contribution payment.

456. Key characteristics of social health insurance:

- Mode of participation: usually compulsory for the eligible groups. In many countries social health insurance schemes provide universal or quasi-universal coverage of the population. In some cases, however, the law defines the eligible group(s), but the enrolment is voluntary for the eligible persons.

- Benefit entitlement: entitlement based on contribution payment by or on behalf of the insured person, and may also cover the dependents. The regulation on contribution payment may distinguish professional or income status, or other criteria (e.g., age or place of residence).

- Method for fund-raising: non-risk related health insurance contribution. The health insurance contribution traditionally (but not necessarily) income-related and paid by the employers and employees (or the other insured persons, such as pensioners, students or self-employed, etc.).

The health insurance contribution may be paid by the government (from the state budget) on behalf of some non-employed groups of population.

- Mechanism and extent of pooling funds: national or sub-national.

457. Traditionally, laws on social health insurance define the coverage of persons and the benefit basket to which the insured persons are entitled. Usually (but not necessarily) those who are entitled are also mandated. Entitlement for services originates from the law on social health insurance that, insurance is established automatically for all persons meeting the criteria. With some exceptions (e.g., non-residents), no individual contract between insurance fund and the insured is involved[150]. Membership may be legally assigned (even in the presence of more than one fund in a country), usually based on two criteria: (1) professional status or employer; and (2) place of residence. In some countries insurees may have the right to choose an insurance fund.

Country examples

458. Social health insurance systems have been established in more than 60 countries all over the world (Gottret and Schieber, 2006). Social health insurance was the major financing schemes in thirteen OECD countries in 2009 (e.g., Austria, France, Germany, Japan, Korea, Slovakia, etc.) Social health insurance schemes are more common in middle and higher income countries than in lower-income ones. In the 2000s, some low-income countries in Africa introduced social health insurance schemes. For instance, Tanzania implemented its National Health Insurance Fund in 2001, and Ghana passed a national health insurance law in 2003 (Gottret and Schieber, 2006).

Notes

459. In some countries the law defines the entitled groups, but it is not mandatory for the eligible persons to enrol in the program. For example, Medicare in the US: it is mandatory to pay payroll taxes for Medicare and every person above 65 is entitled to enrol in Medicare, but the enrolment is not compulsory.

460. In several countries the central budget pays contribution on behalf of certain population groups (e.g., people not having any income, the children, etc.) For example, in Moldova the contribution made by or on behalf of covered persons is the basis of entitlement, and the central budget transfers to the National Health Insurance Company account for about two-third of the social insurance fund, and the payroll tax only for about one third.

461. It may not always be clear how to categorize a financing scheme. For example, in Latvia general revenues pooled in an agency called the State Compulsory Health Insurance Agency. The entitlement is universal based on citizenship. In Estonia, the main source of the social insurance fund (EHIF), is a payroll tax. However, the government sets the budget for the EHIF as a means to keep the overall fiscal deficit of the government within the Maastricht criteria. Is the Latvian or the Estonian scheme a social insurance or a government scheme? As a general rule, a scheme is social insurance if a defined contribution is to be paid by or on behalf of the insured persons or at least the insured employees.

462. It may not always be clear whether to categorize a government initiated scheme in lower income countries as a governmental scheme or as social insurance. As a general rule, in the case of social insurance a defined contribution is to be paid by or on behalf of the insured person. Government may pay partly or fully the social insurance contribution for some social groups (the children, the poor,

150 Insured people enrol with a fund.

etc.). If no contribution is defined at all and the program is solely financed from general revenue of the government the program should be classified as a governmental scheme. (It may require enrolment without requiring contribution payment, e.g., when government pays capitation to the organisations managing the scheme.)

463. Social insurance in China includes three major schemes: (i) The Urban employees' basic medical insurance scheme. Under this scheme, employers and employees each pay a share of the premium, and enrolment is mandatory. (ii) The New Rural Cooperative Medical Scheme (NRCMS) for the rural population. (iii) The Urban basic health insurance scheme, covering elementary and middle school pupils, teenagers and young children, the elderly, the disabled, and other nonworking urban residents. For NRCMS and the Urban basic health insurance scheme, the participation is voluntary, with the government subsidizing a substantial part (80 percent) of the premiums.

464. In some countries, some groups of the population may have the option to join the social insurance fund or buy a private insurance policy (e.g., Germany).

465. A main characteristic of social insurance schemes is that contributions are not related to risk. Contributions are mainly raised through wage-related contributions which are shared between employers and employees. There are differences between countries relating to: the uniformity of the rate, the ratio of contributions from employers and employee; the existence of an upper contribution ceiling; the existence of additional non-wage-related revenues; the calculation of contributions for non-waged persons; and the role of general taxes in funding.

466. Traditionally, social health insurance schemes are operated by not-for-profit entities (e.g., sickness funds) under public law. The traditional management structure is based on representation of employers and employees. The management structure and the decision-making power are defined by law and funds are subject to control directly by the government or by a government agency. (Due to government control, health insurance (sickness) funds are classified under the general government sector by SNA.)

467. Recent reforms, however, have brought considerable changes. In some countries for-profit insurance companies may also be allowed to participate in the operation of the social insurance scheme. Thus, both non-profit sickness funds and for-profit insurance companies may take part in the operation of the social insurance scheme (e.g., Slovak Republic).

468. The main distinction between NHI and the other social health insurance (SHI) lies in the rules of entitlement and level of pooling: entitlement for NHI is universal (based on citizenship or resident status), while traditionally the entitlement for SHI is connected to professional or income status, or other social characteristics. NHI has a single national health insurance fund managed by a single, centralised organisation (for example in Korea[151]).

Compulsory private insurance (HF.1.3)

469. Compulsory private insurance is a financing arrangement under which all residents (or a great part / group of residents) are obliged to take out health insurance with a health insurance company or health insurance fund: i.e. the purchase of private coverage is mandatory. The insurance is established by (entitlement for services is based on) an insurance contract/ agreement/ between the individual and the insurer.

470. The key characteristics of Compulsory private insurance are:

[151] In Korea, 139 insurance societies for enterprises and 227 insurers for the self-employed, civil servant and school teachers were integrated into the National Health Insurance Corporation (that is a single payer system) in 2000 (Sang-Yi Lee, et al., 2008).

- Mode of participation: all residents (or defined groups of residents) are obliged to purchase a health insurance policy.

- Benefit entitlement: based upon a contract between the individual and the selected health insurance company (or other agency involved)

- Method for fund-raising: health insurance premiums. Tax credits[152] may also be involved.

- Mechanism and extent of pooling funds: depends on the extent of regulation of premium, standardisation of benefits and risk-equalising mechanisms

Country examples

471. The Dutch system introduced from 1 January 2006 serves as an example. The government heavily regulates the market of compulsory insurance: insurers are obliged to accept anybody and the insurance premium is unrelated to individual risks. At the same time, the day-to-day operation of health insurance is now organised under private law (Ministry of Health, Welfare and Sport, 2005)[153]. Entitlement for services is based upon a contract between the individual and the selected health insurance company. If a person fails to meet the obligation of buying insurance, s/he becomes uninsured. Insurers are allowed to remove the non-payers from their list and then those may become uninsured. The number of uninsured was estimated around 1.5% of the population in 2006[154].

Notes:

472. In countries where insurance companies are financing agents for compulsory insurance, insurance companies, at the same time, also offer voluntary, complementary insurance. In this case, an insurance company acts as financing agent for two different financing schemes. These schemes operate under different regulations.

473. If relevant, in the future sub-categories may be developed, for example: (HF.1.3.1): Compulsory private insurance with standard benefit package; and (HF.1.3.2): Compulsory private insurance without standard benefit package[155].

Voluntary private schemes (other than Households out-of-pocket payments)(HF.2)

474. This category includes all domestic pre-paid health financing schemes that are private initiatives, under which the access to health services is based on discretion of private actors. Included are: voluntary private health insurance, NPISHs financing schemes and Enterprises financing schemes.

475. The term "compulsory scheme" refers to schemes where membership is made compulsory by the government (by law). All other schemes are considered voluntary. For instance, an employer can decide to have a group insurance for all its employees: this is considered as a voluntary insurance, although for each employee the participation in the insurance can be imposed by the employer.

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152 Tax credits are amounts deductible from the tax that otherwise would be payable.

153 "Health Insurance in the Netherlands. The new health insurance system from 2006." Published by: Ministry of Health, Welfare and Sport, September 2005.

154 Maarse, 2007

155 Another option may be to distinguish compulsory private insurance with risk-related premium from compulsory private insurance with non-risk related premium. However, government may subsidise high risk individuals in the case of risk-related premium, blurring the difference between the two categories.

476. There are important differences between these schemes and households OOPs. In the case of OOPs households have to pay the whole or part of the cost of care at the time of the delivery of care. OOPs show the direct financial burden of medical care for households that may have catastrophic effect on the financial situation of households. This justifies a separate first-digit level category for voluntary private schemes (other than OOPs) and Out-of-pocket payments.

Voluntary private health insurance (HF.2.1)

477. Voluntary private health insurance is a financing scheme with the following key characteristics:

- Mode of participation: voluntary;
- Benefit entitlement: based upon the purchase of voluntary health insurance policy (usually on the basis of a contract);
- Basic method for fund-raising: usually non-income related premium (often directly or indirectly risk-related);
- Mechanism and extent of pooling funds: depend on regulation and existence of group policies.

478. Voluntary private health insurance is taken up and paid for at the discretion of individuals (or group of individuals). Voluntary private health insurance may also be purchased by the employers.

479. Premiums may be either risk-rated or community-rated, but in some countries (e.g. France) even income-related. Voluntary insurance is usually purchased from private insurance organisations, although in some cases it may also be purchased from public or quasi-public bodies. In several countries enterprises may also have their own insurance arrangements.

Country examples

480. There is large variation in the proportion of the population covered by voluntary private health insurance (VPHI) in OECD countries: from less than 5% to more than 90%. Complementary VPHI can cover services that are excluded from the statutory benefits package, as in Ireland, where it is combined with supplementary VPHI and covers about 50% of the population. Or it may reimburse the costs of statutory user charges, as in Slovenia and France, where it covers over 70% and 92% of the population respectively (Thomson and Mossialos, 2009)

481. Voluntary health insurance represents less than five percent of health expenditures in low-income countries, and it plays more of a role in supplementing private care for middle- and upper-income groups.

482. For example, in France, among the “mutuelles” (individual voluntary private non-profit health insurance), some have income related premiums. This is the case of several insurances for public servants, for instance MGEN (mutuelle générale de l'éducation nationale, which is the biggest “mutuelle”). This is also the case for some employer group insurance, where the premium increases with the salary.

Notes

483. Voluntary insurance may reimburse cost-sharing by the patient. This case should be treated similarly to the case when the voluntary insurance reimburses the bill of a service not covered by the compulsory insurance. The payment is considered expenditure by the voluntary insurance. Consequently, the part of cost-sharing reimbursed by voluntary insurance should be accounted as

expenditure by voluntary insurance and should not be taken into consideration under OOP payment by the households. This treatment ensures that a proper picture of financial protection is provided

484. Rresidents of Country A (e.g., living in frontier areas) may purchase health care in Country B and finance it through voluntary insurance bought also in Country B. This is also recorded under voluntary insurance in the financing scheme classification. In this case the foreign insurance company (non-resident institutional unit) is a financing agent, which specific feature is reflected in the tables that show both the financing schemes and financing agents. (Note: the provider category is: RoW.)

Sub-categories of voluntary private health insurance

485. There are several possible aspects to distinguish between different types of voluntary health insurance. These aspects may overlap each-other and may be combined when creating sub-categories of voluntary health insurance. For example, both group policies and individual policies can be primary coverage and complementary scheme. The type of coverage that is whether the private insurance is the primary coverage or a complementary coverage for the individual was considered the most important factor for defining the sub-categories.

486. The following sub-categories are proposed:

HF.2.1	Voluntary private health insurance schemes
HF.2.1.1	Primary /substitutory insurance schemes
HF.2.1.1.1	Employer-based insurance
HF.2.1.1.2	Community-based insurance
HF.2.1.1.3	Other primary coverage schemes
HF.2.1.2	Complementary / supplementary voluntary insurance schemes
HF.2.1.2.1	Complementary voluntary insurance: risk-rated premiums
HF.2.1.2.2	Complementary voluntary insurance: non-risk-rated premiums

Community-based voluntary health insurance (HF.2.1.1.2)

487. Community-based voluntary health insurance provides primary coverage in some lower and middle-income countries. Key characteristics of community-based health insurance:

- Mode of participation: voluntary;
- Benefit entitlement: based upon participation;
- Method for fund-raising: defined at local level;
- Mechanism and extent of pooling funds: at local community level.

488. Community-based health insurance is a special form (subcategory) of voluntary health insurance that has become widespread in Africa and Asia[156]. "These schemes exist within localised communities, most often in rural areas: members make small payments to the scheme, often annually and after harvest time, and the scheme covers the fees charged by local health services." [157]

489. Most community-based health insurance schemes in Sub-Saharan Africa are based on voluntary participation of individuals and have fewer than 500 members. The population covered by these schemes is still relatively small in most low-income countries[158].

490. Community-based voluntary health insurance may be subsidised by the central government from tax revenues and governments may have the goal of making the scheme quasi-universal.

Non-profit Institutions financing schemes (HF.2.2)

491. Financing arrangements / programmes of NPISHs consist of a 'quasi set' of rules defining mode of participation, entitlement and methods of fund-raising, and hence they can be treated as categories of financing schemes. Key characteristics of NPISHs financing schemes:

- Mode of participation: voluntary
- Benefit entitlement: discretionary
- Method for fund-raising: donations from the general public, governments (budget of national government or foreign aid) or corporations

156 Carrin, 2003; ILO

157 McIntyre, 2007,p.4

158 Gottret and Schieber, 2006.

- Mechanism and extent of pooling funds: varies across programmes

492. As mentioned, this category is in fact a mix of the two approaches: besides the rules of entitlement and that of raising and pooling revenues, the organisation of the scheme is important in defining it.

Notes

493. This category is proposed to replace the SHA 1.0 item "HF.2.4. Non-profit institutions serving households (other than social insurance)". The category of non-profit institutions has proved rather ambiguous during SHA implementation. The definition in SHA 1.0 was taken from SNA 1993: "Non-profit institutions serving households (NPISH) consist of non-profit institutions which provide goods or services to households free or at prices that are not economically significant." This definition does not allow for a clear distinction between non-profit institutions as third-party payers of health care and non-profit institutions as providers of care. For example, hospitals may have non-profit legal status and provide services to households free of charge under a social insurance scheme, in which case, of course, the social insurance is the financing scheme and the hospital (HP.1) is the provider. The unambiguous interpretation of ICHA-HF as a financing scheme provides a starting point.

494. It always requires a qualitative analysis of NGO's activity to decide whether the given activity can be regarded as the operation of a financing scheme. A few examples are given for the different functions of NPISHs.

- An NPISH may provide – besides their non-health activity – resources for other NPISHs that carry out the financing of special health programmes. The NPISH1 in question does not have a direct relationship with providers of care. In this case NPISH1 is a provider of resources ("financing source") and the programme of the NPISH2 is the financing scheme.

- A non-profit institution may create a special fund, usually through donations to finance special types of health services. For example, to operate special facilities for the homeless, or to provide care for households affected by natural disasters or war. Donations may be provided in cash or in kind from the general public, corporations or governments. During the implementation the NPISH may pay for its own staff and also for health care providers and other entities. (For example a charity organisation may pay for a special operation for a child abroad that is not available in the home country.) In these cases the NPISH programme is a financing scheme.

- The "non-profit" institution may be the legal form of providers receiving payment from other institutional units (for example, social security fund) as compensation for the services they provide. In this case the NPISH is a provider and compulsory insurance is the financing scheme.

Enterprise financing schemes (other than employer-based insurance) (HF.2.3)

495. This category primarily includes arrangements when enterprises provide or finance directly health services for their employees (such as occupational health services), without the involvement of an insurance-type scheme. This excludes employer-based insurance schemes.

496. Key characteristics of Enterprise financing schemes:

- Mode of participation: based on employment at a particular corporation or employment status in general (e.g., compulsory occupational health care); (Except the special case of health providers.)

- Type of services: discretion of the corporation or specified by law

- Method for fund-raising: revenues of the enterprise

- Mechanism and extent of pooling funds: at an individual corporation level

497. Compared to the practice under the JHAQ data collection, there is no change in the actual content of this category. The change is in the label (and the definition) which now reflects better the content of the data. The label in the SHA 1.0 Manual is: "Corporations (other than health insurance)". This label is not accurate as corporations may pay insurance contributions or voluntary insurance premiums. The proposed category would reflect better the actual role of enterprises accounted under this category.

498. A special case classified under this category: Health care providers may have special revenues from economic activities other than the provision of health services (for example, lending premises, providing laundry or catering services for other institutions, or private hospitals may have revenues from interest, etc.) and use these revenues for covering the costs of health services they provide. It is proposed to distinguish between two sub-categories: Enterprises financing schemes (except health care providers); and Health care providers financing schemes. (The term scheme is used here in a wider sense. The arrangement is interpreted as a special type of charity financed from the extra revenues from non-health activity of health care providers.)

Country examples

499. Occupational health services in several countries (e.g., in Hungary) are excluded from the benefit package of social health insurance, and employers are obliged to finance occupational health examinations specified by law.

Household out-of-pocket expenditure (HF.3)

500. Households' out-of-pocket expenditure by definition is regarded as a financing scheme. Its distinguishing characteristic is that it is a direct payment for services (no third party payer is involved): the payment is made by the user at the time of the use of services. Included are cost-sharing and informal payments (both in cash and kind).

501. Out-of-pocket payments (OOP) show the direct burden of medical costs that households bear at the time of service-use. (This is the reason to categorise OOP as a first-digit level category of ICHA-HF.) In lower income countries out-of-pocket expenditure is often the main form of health care financing. [159]

502. From a health policy perspective, three main types of out-of-pocket expenditure (OOP) are important to distinguish: OOP excluding cost-sharing, OOP cost sharing related to compulsory health protection schemes and OOP cost sharing related to voluntary insurance schemes. The role (share) of each of these sub-categories and the changes in the share over time provide a more detailed picture of the burden of health financing on households than the total OOP. Furthermore the three types may give important information about the effect of government intervention in health financing.

503. Households as an institutional sector are defined as financing agent for household out-of-pocket payment.

[159] Out-of-pocket payments are typically perceived as the most regressive form of financing. Their role however should be considered together with other factors. In lower income countries, the absence of health insurance means that the better-off must pay out-of-pocket for health care, while the poor simply cannot afford to pay and so go without treatment (O'Donnell et al., 2008).

Notes

504. It is important to distinguish households as an institutional sector and households OOP as a financing scheme. Households as an institutional sector play several roles in the health system: as beneficiaries, as providers of sources to third-party financing schemes (by paying taxes, and/or insurance contribution and/or insurance premium); as informal providers of care; and last but not least households act as a financing agent for OOP.

505. The special case of households' cost-sharing covered by voluntary insurance is discussed under voluntary health insurance and under "Specific conceptual issues".

Rest of the world financing schemes (HF.4)

506. This item comprises financial arrangements involving institutional units that are resident abroad, but who collect, pool and purchase health care services and goods on behalf of residents, without transiting their funds through a resident scheme. Their financing arrangements are defined according to the following possibilities:

- Collective and pooling mechanisms: funds are collected and pooled abroad;
- Mode of participation: 1) mandatory by condition of employment (e.g., foreign insurance), or 2) voluntary;
- Basis for entitlement: 1) a contract between an insurance carrier and the individual, 2) discretion of a private entity (charity foundation, employer, foreign entity);
- Coverage: usually foreign entities have the freedom to design benefits.

507. Note that the rest of the world usually contributes indirectly to the financing of health care in the example of a typical model economy, as international aid and other flows are usually channelled via government or resident NPISH agencies.

Main steps in adjusting the current national health accounts of a country to the revised accounting of health financing

508. A qualitative analysis can be a good basis for the adjustment of the National Health Accounts of a country to the new health financing framework. This may include:

- As a first step, the clarification of the types of health financing schemes (sub-systems) the country has (e.g., based on Table 7.3 and Figure 7.2)

- Defining the types of revenues and financing agents for each financing scheme. The clarification of all types of revenues and institutional units involved may require additional qualitative analysis in the case of Governmental schemes and the Rest of the World financing programmes (See Figure 7.5 and 7.6).

509. Based on this qualitative description:

- The correspondence between the current categories of ICHA-HF used in the NHAs of the given country and the revised categories of ICHA-HF can be made (See Table 7.4). In many cases it only requires changes in the naming.

- The county-relevant categories of the proposed Classification for Financing Agents and Classification of Revenues of Health Financing Schemes can be identified.

- It can be decided which optional tools may be relevant for the further development of the NHAs of the given country. (See proposed optional tables and sectoral accounts.)

- It can be decided whether a specific analysis of foreign assistance is desirable.

PART 2

FURTHER HEALTH ACCOUNTS CLASSIFICATIONS, APPLICATIONS AND METHODS

CHAPTER 8 CLASSIFICATION OF FINANCING SOURCES (REVENUES OF HEALTH FINANCING SCHEMES)

Introduction

510. This Chapter proposes a revised concept and classification of Financing Sources, based on comments received from health policy experts concerning the First IHAT Draft of Classifications of Health Financing [DELSA_HEA_HA(2009)10] presented at the 2009 Meeting of OECD Health Accounts Experts, as well as discussions within IHAT.

511. Financing sources are defined as the revenues of health financing schemes received or collected from institutional units of the economy. The categories of financing sources are the particular types of revenues of health financing schemes (e.g., social insurance contributions, grants, voluntary transfers, etc.).

Main concept

512. The accounting framework for health financing presented in Chapter 7 provides also the conceptual ground for this chapter. A key set of information for policy analysis is (i) how much revenue; (ii) in what ways; (iii) from which institutional units of the economy are raised for the particular financing schemes (compulsory insurance, voluntary insurance, etc.). Therefore, health accounts should provide information both about (i) the contribution mechanisms by which; and the institutional sectors of economy from which the particular financing schemes generate their revenues. As a consequence, Financing Sources (FS) can be interpreted in two ways: as types of revenues and as institutional units.

[DELSA_HEA_HA(2009)10] proposed the interpretation of FS as institutional units and provided the following definition: Financing Sources are institutional units of the economy from which health financing schemes collect revenues (through specific contribution mechanisms) for their operation. Government is treated as a financing source for governmental health financing schemes. Households are treated as the financing source for Households out-of-pocket payments.

513. The main arguments raised for the change in the interpretation of Financing Sources are as follows. For the classifications in health financing three viewpoints can be taken: where are the flows originating; where are the flows going to and most importantly what is the nature of the flows. The nature of the flows as being transaction is of key importance. For example, the Classification of FS should make the distinguishing of public and private funds of health care finance possible. Understanding how resources are raised by financing schemes is of key importance for many countries, as many health systems are struggling with the issue of funding, wanting to increase total funding, or using it better, keeping in mind that increasing funding needs to be both sustainable and equitable. There is a growing the need by policy makers to feed in their decision process with information on existing and on advocated contributory mechanisms to financing the health system. The revised classification presented in this draft is suitable for tracking the collecting mechanisms of a financing framework.

514. The interpretation of FS as institutional units does not allow for a distinction to be made between public and private finance, as there is no one-to-one correspondence between the public versus/ private split regarding institutional units of the health sector and the public / private split regarding the funds used for financing health care. This is a source of ambiguity around the interpretation of public / private. For example, "households", as an institutional sector, belongs to the private sector, while households contribute both to public and private funds (e.g., the funds of social health insurance and the funds of voluntary health insurance). Social health insurance contributions paid by households are considered as elements of public finance and voluntary health insurance fees paid by households are considered as elements of private finance. The FS categories, presented in the PG, do not show the types of transfers through which resources are channelled from financing sources to financing schemes. As a consequence, important information may not be transparent, such as different forms of household finance. It does not provide a full picture concerning households' involvement in health care financing.[160].

515. Nevertheless, understanding the total contribution by each institutional unit is also a vital set of information, as it indicates the respective financial burden of each institutional sector. For this reason, it is proposed to include institutional units as memorandum items in the Classification of FS, which would sum up the revenues by each unit from the types of revenues.[161]

160 For example, it is useful information to classify compulsory and voluntary households premiums separately as they imply different pooling/prepayment mechanisms. A classification of institutional units only would record any household contributions under the single group of households, providing no information on the way these households funds are pooled.

161 For example, all contributions by households (mandatory premiums, voluntary premiums, transfers, disposable income) would be added to evaluate total households contribution to the health system.

Table 8.1 Comparison of the proposed new concept of Financing Sources with FS under PG/JHAQ

	Financing Sources under SHA 2.0	**Financing Sources under PG /JHAQ[162]**
Definition of ICHA-FS	***Revenues of financing schemes* (e.g. taxes, social insurance contributions, etc.).**	***Institutional sectors of SNA*** whose resources are mobilized and managed by financing schemes (government, corporations, etc.)
Key Information	**"How" revenues are mobilised by financing schemes (type of transactions)**	"From whom" revenues are collected by financing schemes
Additional information	**"**From whom" revenues are collected (Sub-categories of the proposed classification)	"How" revenues are mobilised *(*Classification of Revenues of financing schemes)

Advantages of FS as types of revenues

516. The main advantages of the proposed ICHA-FS classification are as follows:

- It provides comprehensive information about revenue-raising (how and what type of revenues are raised by the financing schemes and from which institutional sectors of the economy).
- It allows for a sound interpretation of public and private finance (See Chapter 7)
- It is flexible: it gives the opportunity to decide whether only major aggregates are collected at international level or more detailed information (including detailed sub-categories).

Definition of Financing Sources

Financing sources are the revenues of health financing schemes received / collected from institutional units of the economy. The revenue is an increase in the funds of health financing schemes, through specific contribution mechanisms. The categories of financing sources are the particular types of revenues of health financing schemes (e.g., social insurance contributions, grants, voluntary transfers, etc.).

517. The objective of the Classification of FS is to group the types of revenues[163] of health financing schemes (e.g., compulsory insurance contributions, grants, out-of-pocket payments, etc.),

[162] Joint Health Accounts Questionnaire used under the joint data collection by OECD, ESTAT and WHO

[163] According to GFSM, revenue is an increase in net worth resulting from a transaction, including both monetary and non-monetary transactions**.** Every transaction is either an exchange or a transfer. A transaction is an exchange if one unit provides a good, service, asset or labour to a second unit and receives a good, service, asset or labour of the same value in return. A transaction is a transfer if one unit provides a good, service, asset, or labour to a second unit without receiving simultaneously a good, service, asset, or labour of any value in return.

into mutually exclusive classes. If appropriate, the revenue category has sub-categories defined according to, who provides the given revenue. (For example, voluntary private insurance premium as a category of Financing Sources has the sub-categories: voluntary private insurance premium paid by insurees and voluntary private insurance premium paid by employers, etc.)

Classification of Financing Sources (Types of Revenues)

Table 8.2 Classification of Financing Sources (Types of Revenues)

FS.1	Taxes and social insurance contributions
FS.1.1	Tax revenues
FS.1.1.1	Un-earmarked taxes
FS.1.2.1	Earmarked taxes
FS.1.2	Social insurance contributions
FS.1.2.1	Employee social insurance contributions
FS.1.2.2	Employer social insurance contributions
FS.1.2.3	Self-employed social insurance contributions
FS.1.2.5	Other social insurance contributions
FS.2	Compulsory private insurance premiums
FS.2.1	Compulsory private insurance premiums paid by insurees
FS.2.2	Compulsory private insurance premiums paid by employers
FS.2.3	Other compulsory private insurance premiums
FS.3	Voluntary private insurance premiums
FS.3.1	Voluntary private insurance premiums paid by insurees
FS.3.2	Voluntary private insurance premiums paid by employers
FS.4	Voluntary domestic revenues (other than voluntary insurance premiums)
FS.4.1	Voluntary domestic revenues from households
FS.4.2	Voluntary domestic revenues from corporations
FS.4.3	Voluntary domestic revenues from NPISHs
FS. 5	Foreign revenues
FS.5.1	Foreign revenues earmarked for health
FS.5.1.1	ODA revenues
FS.5.1.2	Non-ODA revenues
FS.5.2	Non-earmarked foreign revenues
FS.5.2.1	ODA revenues
FS.5.2.2	Non-ODA revenues
FS.6	Other revenue (not elsewhere classified)
	Memorandum items (1)
	Loans
	Domestic loans
	Foreign loans (ODA loans; Loans other than ODA)
	Memorandum items (2): Revenues by institutional units
	General government
	Corporations
	Households
	Non-profit Institutions Serving Households (NPISHs)
	Rest of the World

Treatment of loans

518. By definition, loans are changes in financial assets or liabilities. Loans are generally taken to cover the expenditure of the state budget that is not balanced by domestic revenues. The other category may be health sector specific loans, usually for investments in the health sector. It is proposed to present loans taken by the government as memorandum items.

519. As already discussed in Chapter 7, sectoral accounts are possible tools to account the deficit of health financing schemes and the role of loans in balancing the deficit.

520. Households may also take loans to pay for health care. It is, however, disregarded and not included in the memorandum item, as its estimation does not seem feasible.

Valuation of in kind assistance and technical support

521. According to GFS, assistance in kind should be valued at current market prices. If market prices are not available then the value should be the explicit costs incurred in providing the resources or the amounts that would be received if the resources were sold. In some cases, the donor and the recipient may view the value quite differently. In this case, according to GFS, the valuation from the viewpoint of the donor should be used.

Question for discussion: Should SHA 2.0 follow or deviate from this accounting rule and apply the valuation by the recipient or both?

DEFINITIONS OF THE CATEGORIES OF CLASSIFICATION OF FINANCING SOURCES

Taxes revenues

522. ***"Tax revenue***, which forms the dominant share of revenue for many government units, is composed of compulsory transfers to the general government sector. Refunds and corrections of erroneously collected tax revenue …… are treated as negative revenue". (GFS.5.2)

523. **All other types of revenue of the government are frequently combined into a heterogeneous category of non-tax revenue. For simplicity reasons, it is supposed that from its non-earmarked domestic revenues the government uses only tax-revenues for health purposes.**

524. Un-earmarked tax revenues (FS.1.1.1) refer to the portion of general tax revenues allocated to health purposes from the state budget.

525. Earmarked tax revenues (FS.1.1.2) refer to specific tax revenues that can only be used for health care finance.

Social insurance contributions

526. Social health insurance contributions are actual or imputed receipts either from employers on behalf of their employees or from employees, self-employed, or non-employed persons on their own behalf that secure entitlement to benefits of social health insurance. Sub-categories of social insurance contributions are classified by the type of institutional units paying the social insurance contribution on behalf of the insurees.

Employee social insurance contributions

527. This item is the social health insurance contribution received from households. In a technical sense, employees' contributions are either paid directly by employees or are deducted from employees' wages and salaries and transferred on their behalf by the employer.

Employer social insurance contributions

528. This item is the social health insurance contribution received from employers. Employers' contributions are paid directly by employers. This includes insurance contributions by the government as an employer, if public employees participate in the general social health insurance scheme (if there is no specific scheme for government employees).

529. In a macroeconomic sense, both employees' and employers' social insurance contributions are part of the compensation of employees (elements of labour costs). However, for health policy analysis, it is useful to make a distinction between them.

Self-employed social insurance contributions

530. This item is the social health insurance contribution received from self-employed persons.

Other social contributions

531. This item is the revenue of social health insurance schemes (HF.1.2) other than those classified under FS.1.2.1 to 1.2.3 (FS.2.1 to 2.3). It includes health insurance contributions paid by pension insurance funds on behalf of retired persons.

Compulsory private insurance premiums

532. Compulsory private insurance premiums are payments that secure entitlement to benefits of compulsory health insurance scheme, received from the insuree or other institutional units on behalf of the insuree. Under compulsory private health insurance, all residents (or defined groups of residents) are obliged to purchase a health insurance policy. The law may also define the rules for insurance premiums, for example to oblige insurance companies to apply community rating.

533. Sub-categories of compulsory private health insurance premiums are classified by the type of institutional units paying the premium, as follows:

- Compulsory private insurance premium paid by the insuree
- Compulsory private insurance premium paid by employers
- Other compulsory private insurance premium (received from institutional units other than households and employers)

Voluntary private insurance premiums

534. Voluntary private insurance premiums are payments that secure entitlement to benefits of the voluntary private health insurance scheme, received from the insuree or other institutional units on behalf of the insuree. Sub-categories of voluntary private health insurance premiums are classified by the type of institutional units paying the premium, as follows:

- Voluntary private insurance premium paid by the insurees
- Voluntary private insurance premium paid by employers

- Other voluntary private insurance premium (received from institutional units other than households and employers).

Methodological note

535. As already discussed, there exists a variety of types of voluntary health insurance across countries. Accordingly, the rules for setting their premiums also differ. Main types are: risk-rated individual premiums; group-rated premiums; and community-rated premiums. While it is not intended to use such detailed categories for international data collection, countries may find it useful to define sub-categories of voluntary insurance premiums according to these types for their National Health Accounts.

Voluntary domestic revenues (other than voluntary insurance premiums)

536. Voluntary revenues other than voluntary insurance premiums are revenues transfered to schemes or revenues raised by the schemes themselves. Voluntary revenues include voluntary donations and gifts from individuals, non-profit institutions, nongovernmental foundations, corporations, and any other domestic sources other than the government. They are classified by the unit providing these revenues, that is households, corporations, or NPISHs.

537. Voluntary domestic revenues from households include mainly the revenues that households will use themselves for their out of pocket spending, but also that households transfer to other schemes such as NPISHs.

538. Voluntary domestic revenues from corporations are revenues that corporations choose to transfer to schemes such as NPISHs or even an health insurance as long as it is not a premium but a voluntary transfer (e.g., a grant). They also include revenues from corporations to the enterprises financed schemes (HF.2.3).

Foreign revenues

539. Revenues from foreign entities may take the following major forms of transactions:

- Foreign revenues earmarked for health (FS.5.1). These revenues are usually grants by international agencies or foreign governments, contributing to the funding of governmental health financing schemes; or voluntary transfers (donations) by foreign NGOs or individuals, contributing to the funding of NPISHs health financing schemes or governmental health financing schemes.

- Non-earmarked foreign revenues (FS.5.2). These revenues are grants and voluntary transfers (other than grants) received by the government. A portion of these revenues are allocated by the government to health financing schemes (governmental schemes, NPISHs schemes, etc.)

Foreign revenues earmarked for health

ODA revenues earmarked for health

540. *Official development assistance (ODA)* is defined by the Development Assistance Committee (DAC) of the OECD as grants and loans to countries and territories on Part I of the DAC list of aid recipients (developing countries), which are undertaken by the official sector, with promotion of economic development and welfare as the main objective, on concessional financial terms (if a loan, with a grant element of at least 25%). This item includes only ODA revenues earmarked for health.

Non-ODA revenues earmarked for health

541. This item includes any other voluntary transfers (earmarked for health) from foreign entities other than governments and international organisations. Examples include donations by foreign NGOs or individuals, contributing to the funding of NPISHs health financing schemes or governmental health financing schemes.

Non-earmarked foreign revenues

542. These revenues are grants and voluntary transfers (other than grants) received by the government. A portion of these revenues are allocated by the government to health financing schemes (governmental schemes, NPISHs schemes, etc.) The two sub-categories are: General ODA revenues; and General Non-ODA revenues.

Other revenue (not elsewhere classified)

543. This category includes revenues of financing schemes not included in any other categories

544. A special entry is the revenue of private health care providers (e.g., private hospitals) and private insurance companies from private capital market interest payments and other income on their assets. Health care providers may use this revenue for health service provision. Similarly, private insurance corporations may use this type of revenue for activities related to provision of health insurance. (The relevant HF category: Enterprises funded programmes.) These receipts have to be included as expenditure for health care only when they are used for services.

SHA Tables on revenue-collection

Revenues of Health Financing Schemes by Financing Sources (HF x FS Table)

545. The Table *Revenues of Health Financing Schemes by Financing Sources (types of revenues)* (HFxFS) shows the revenue structure of the health financing schemes: the types of transfers through which resources are channelled from the institutional units of the economy to financing schemes. (See Table 8.3)

Table 8.3. Revenues of Health Financing Schemes (HF) by Financing Sources

		FS.1.1	FS.1.2	FS..1.2.1	FS.1.2.2	FS.2	FS.2.1	FS.2.2	FS.3	FS.3.1	FS.4	FS.5	FS.6	FS.7.1	FS.7.2	FS.8			
		Tax revenues	**Social insurance contributions**	Employee social insurance contribution	Employer social insurance contribution	**Compulsory private insurance premiums**	Compulsory private insurance premiums paid by insuree	Compulsory private insurance premiums paid by employers	**Voluntary private Insurance premiums**	Voluntary private Insurance premiums paid by insuree	**Households disposable income and saving**	**Voluntary domestic transfers** (other than grants)	**Corporations own resources**	**Foreign revenues earmarked for health**	**Non-earmarked foreign revenues**	**Other revenue** (not elsewhere classified)	**Total revenues**	**Total public and compulsory private funds used for healthcare finance**	**Total voluntary private funds used for healthcare finance**
HF.1	**Governmental schemes and compulsory private schemes**																		
HF.1.1	Governmental schemes																		
HF.1.2.1	Social health insurance																		
HF.1.2.2	Compulsory private health insurance																		
HF.2	**Voluntary private health care payment schemes**																		
HF.2.1.	Voluntary private insurance																		
HF.2.2	NPISH financing schemes																		
HF.2.3	Enterprises financing schemes																		
HF.3	**Households out-of-pocket payment**																		
HF.4	**Rest of the world financing schemes**																		

Annex 8.1

Classification of households own resources

546. Countries with very large proportions of OOP, such as many countries in Africa and Asia, may be interested in identifying which funds households are using from their own resources. The following table provides a detailed classification. Note: this is an optional tool for countries where the necessary information is available or can be made available at reasonable cost.

Table A.8.1 Classification of households own resources

income/revenue
savings
health savings accounts
micro savings (for health)
non health savings accounts
selling of goods/barter of goods
transfers (grants - no interests) / donations / gifts
conditional cash transfers from government
transfers from national NGOs
transfers from foreign philanthropic sources
remittances
loans (with or without interests)
possibly bank loans
micro credit loans
loans from traditional societies (cooperatives) other than micro-credit
loans from friends / families