

Proposal Unit 8

ICHA-HP CLASSIFICATION OF HEALTH CARE PROVIDERS

Summary

The ICHA-HP Classification of Health Care Providers serves the following objectives:

- 1) to provide a complete classification of all units producing health services and goods,
- 2) to structure the units of health care delivery by their main characteristics of producing health services and goods, and
- 3) to show the related structure of economic units which support the processes and development of health care delivery.

This proposal for Unit 8 discusses the ICHA-HP classification as a part of a classification all actors of the health system. This allows together with the definition of the accounts and the definition of the transactions a comprehensive and more flexible presentation of the production within the health care system. In comparison to SHA1.0 some reclassifications of the classes HP.6 General health administration and insurance, and HP.7 Other industries (rest of the economy) has been made to make these part more transparent.

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Preamble

This proposal outlines the ICHA-HP classification from the perspective of “economic units” in SHA. The idea is to improve the consistency of the accounts by the definition of the actors (consumers, providers, and financing agents) as economic units. Together with the definition of transactions¹ and the definition of accounts² the classifications shape the accounting space of health accounts. The tables HPxHC, HPxHF, or HPxRC are special views on the space of accounts.

1. Introduction

1. Why needs SHA 1.0 a revision of the HP classification? There are several issues to be mentioned from conceptual viewpoints but also from the practical experience with SHA1.0. Central issues of the discussion for the revision of ICHA-HP are:

- The definition of the universe of health care providers which is lacking in SHA1.0
- The distinction between providers of health care and industries which support health care providers
- The distinction between providers of the core³ and the extended framework
- The interface to NACE, ISIC
- The distinction of ownership (public vs. private) and its economic characteristics (market vs. non-market)
- The distinction of integrated care units (see paragraph 3.1.3)
- The interface to SNA
- The proposed implementation of mode of production in the provider classification (proposal of unit 7.)

2. The classification of health care providers serves the purpose to classify all economic units, which contribute to production of health care goods and services and by this the purpose of arranging country-specific production units into common, internationally applicable categories. In health systems, economic units engaged in the provision of health care goods and services vary in their legal, accounting, organizational and operating structures. SHA1.0 has provided the international

¹ 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 the main types of transactions see SNA 2008: 2.26ff. (and ESA 1.33): a) transaction in products; b) distributive transactions; c) financial transactions; and d) transactions not included in the three groups above.

² Accounts capture the transactions relevant to one stage or another of the process by which goods and services are produced and ultimately consumed.

³ See Unit 2. The core framework focuses on the triaxiality of consumption, provision and financing. The extended framework might enlarge the production boundary by including other types of goods and services directly delivered to consumers, e.g. social care.

classification of health care providers (ICHA-HP), which was derived from NAICS⁴, but adapted for the purposes of health accounts. ICHA-HP of SHA1.0 is roughly structuring provider entities into five groups:

- Providers mainly delivering inpatient services (HP.1 Hospitals, HP.2 Long-term care nursing facilities)
- Providers mainly delivering outpatient services or medical goods for outpatients (HP.3 HP.4)
- Providers of public health and administration (HP.5, HP.6)
- Other providers (HP.7)
- Rest of the World (HP.9).

3. Combining the ICHA-HP with ICHA-HC adds substantial richness to health expenditure information about the structure of health care delivery.⁵ In fact, the classification of health providers should help to answer the question: “What are the organisational structure which is characteristic to the delivery of health care within a country?” SHA1.0 has made the important step to distinguish between the type of service provided and the entity that provides it. This is very important and is sometimes the source of some confusion. Health care services can often be provided in a wide range of settings. For example, outpatient treatment of an acute episode of a common infectious disease (such as malaria) may occur in clinics of community-based paramedical workers, in district-level health centres, in the offices of private physicians or in hospital outpatient departments. In this case, the type of service does not coincide with one specific type of provider. Therefore, it makes sense to distinguish between the HC-classification and the HP-classification.

Principally other presentations of the structure of production of health care are also possible. One could emphasis the homogeneity of the production process, the input structure, the settings, the legal framework, or the diseases treated. Obviously, production is a multi-dimensional concept. Therefore, it is necessary to give understandable criteria for the accounting of economic flows (transactions) in the production sphere of health systems. It is apparent that it is difficult to compare the various paths of health provision among countries due to different institutional structures of the organisation of health care delivery. However, it is also true that the institutional structure is one of the backbones of health accounts.

2. Concept of the classification of health care providers

4. The concept for the international comparison of health care production should be plain about the objectives of the classification and about the criteria for the classification of economic units as health care providers. Comparability, it is not the main intention of the HP-classification. Comparability relates to the classification characteristics of health care defined by the functional classification HC.

⁴ North American Industry Classification System.

⁵ The combination with Unit 13: Classification of Health Care Products would give further insight. This relation is here not considered.

2.1 Objectives

5. The main objectives of the classification of the HP health care provider classification are

- (1) to provide a complete classification of all units producing health services and goods
- (2) to structure the economic units of health care delivery by their main characteristics, and
- (3) to show the related structure of economic units which support the processes and development of health care delivery.

The HP classification has to structure the specialized units for health care provision into meaningful homogeneous groups within classes and heterogeneity between classes from international perspectives. Countries might deviate from this classification for national purposes in order to adapt better their national institutional arrangements.

6. The classification of health care providers of SHA should be integrated in the general classification of economic units of the health system. Although the perspective of providers or industries focusing on production is traditionally different from the perspective of products focusing more on consumption one has to consider that health care provision involves health care consumption.⁶ (See also Unit 2).

7. In SNA/ESA two views are distinguished for the classification of economic units:

- the classification into institutional sectors
- the classification into industries / branches.

Both classifications serve different purposes in SNA/ESA. What are the objectives of the classification of economic units in SHA? Should it include all economic units of the health system? Or, should it include only those economic units directly involved in delivery health care to patients? From a theoretical perspective it is essential to include within the ICHA-HP Classification of Health Care Providers all economic units in relation to the different dimensions of the health system: consumption, provision, financing, and stewardship. The relations among the different units are captured by the set of included accounts: delivery account, financing account, and resource cost account.

2.2 Economic units

8. Economic units in SHA are centres of decision-making for transactions within the health system. Within the core health care system they decide about consumption, provision and financing of health care services. In the extended framework they may provide also fulfil additional activities as e.g. training of health personnel, supplying services to provider, research and development, and financial assets. Economic units are grouped according to their main activities into actor groups. As economic units may

⁶ This holds in core accounting framework (see unit 2). See *van Tongeren 2006* for a different explanation: “The industry scope of the health sector can be related in analysis to GDP by economic activities; thus it can be shown what the value added contribution of the health sector is to the GDP of a country. On the other hand, the product scope is related to the expenditures of GDP; thus expenditures on health products can be related in analysis to the total expenditures of GDP, and more in particular to household final consumption.”

perform several economic activities it is important to acquire an overall picture about all economic units in the health system involved in different activities of health care delivery and financing. It is important to note that only households can perform all three types of activities: consumption, provision, and financing.⁷ Only households can consume services and goods in SHA.

Figure 1 provides an overview about a possible classification of economic units involved in different health systems' dimensions by their principal and secondary activities.

Figure 1: Possible classification of economic units in health accounts and dimensions of health systems

Health Systems' dimensions*	Economic Units			
	Households	Providers	Corporations (other economic units)	Purchasing/ Financing agents
1 Consumption	Principal activity			
2 Provision				
2.1 Health care incl. prevention	Home care	Principal activity all types of health care	Secondary activity	Secondary activity
2.2 Provision related activities	Volunteering	Secondary activity	Principal or secondary activity provision related	Secondary activity
3 Administration (Stewardship and management)		Secondary activity	(Principal activity)	Secondary activity
4. Financing				
4.1 Co-financing	Cost-sharing	Cost-sharing	Cost-sharing	
4.2 Resource allocation, purchasing, collecting, and pooling				Principal activity

* An additional dimension is resource generation as capital formation or education.

9. *Mutual exclusiveness* means that an actor is counted only ones in a group of economic units. This criterion might be violated when an economic unit fulfil several functions in the health system. In the case of health insurance or health services financing, administration is a secondary activity to the principal activity of health care financing via collecting premiums, contributions or taxes, risk pooling, redistribution, and purchasing. To keep consistency of the tri-axial system of the total amounts for transactions of HP, HC, and HF it is necessary to separate the cost of administration of health care financing. Administration of health programs, e.g. by the Ministry of Health,

⁷ Households do also provide "sources" as defined in the Producers Guide. However, one might discuss whether "sources" can be a separate dimension of the system or is part of the function of "financing". Hernandez et al (2007) distinguish four types of financial interventions: resource allocation, regulation, purchasing, pooling.

are at least related to “resource allocation” even if no direct relation is to the other health care financing activities.⁸

2.3 Criteria for classification of economic units in SHA

10. The classification must be *comprehensive*. All economic units of an economy can provide some form of health care, which consequently means the classification of health care providers must be able to include all types of economic units. SHA1.0 has fulfilled this condition by the group HP.7 “Other industries (rest of the economy)”.⁹

11. The classification must take into account the particular *role of households in the production of health*. Households (as producers of home care HP.7.2) and financing agents (as producers of administrative services of health insurance HP.6) are different economic units as compared to the particular groups of providers of health care. It is important to note that households are first and foremost consumers of health care, even if they are fundamentally involved in the production process, and also if they provide home care. For example, the compliance of patients is often mentioned as precondition for successful treatments. In an extended health accounting framework special attention might be given to the health production by individuals. It is therefore, necessary to make the HP-classification in SHA2.0 more precise with respect to the production of health than in SHA1.0. Also for analytical reasons (breakdown of beneficiary groups, cost-of-illness accounts, etc.) it is desirable to distinguish consumers at the 1st digit level as main group of economic units from the group of health care providers.

12. In the core framework and the extended framework of SHA the HP- classification of health care providers must be able to link data

- on provision of health care goods and services by economic groups of providers and functions (branch outputs and functional outputs)
- on purchases of services to health care goods and services (financial inputs);
- on personnel and other resource cost (factor inputs)

to health care providers. The breakdown of the health care providers also serves as a basic building block of an economic model of the health care system as discussed in Unit 1. As consequence, the classification of health care providers should be able to structure all economic units who are producing health care either as principal activity or secondary activity.¹⁰

⁸ In the WHO Health system model, there is a further dimension the management of resource generation, e.g. patent regulation of pharmaceutical products. The WHO.model used in the HC Classification of functional expenditures does not bring up this dimension of stewardship: HC3.1 Health Programmes' Administration, HC3.2 System's Financial Administration (see Proposal for Unit 7).

⁹ There is also a different interpretation by Jeong (2008): The current SHA classification, “Rest of the economy” (HP.7) contains only providers that provide health care as secondary activity. Therefore, providers of health related functions do not belong to it, and a new category has been prepared outside of the current provider classification in practice. In this concept the economy is divided for 3 main categories; Providers with a primary activity of providing health services or distributing health care goods (HP.1-6), Rest of the economy (HP.7) and Providers of health related functions (M1(HP)). This classification principle is violating the triaxiality.

¹⁰ 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

13. Financing agents are the second particular group of the core accounting framework of SHA, which must be distinguished from providers. From an analytical point of view financing agents fulfil both the purchasing and the insurance function, which means to pay in the case of financial losses.¹¹ But, the transaction costs of this purchasing and insurance function are recorded as provision of administration.¹²

14. The development of the classification of economic units in SHA2.0 should consider the main criteria driving the revision were in ISIC/NACE:

- relevance to the actual world economy,
- better comparability with other national and international classifications, and
- continuity with their previous versions.

15. SHA1.0 is referring to the criteria of ISIC for classification of health care providers. ICHA-HP provider classification is a refined and modified version of the health-relevant parts of the International Standard Industrial Classification, ISIC, Rev. 3 (United Nations, 1990), and more specifically of the North American Industry Classification System (NAICS).¹³ These two industry classifications define and delineate standard statistical units (whether as observation units or analytical units) based on certain criteria related to the production process.¹⁴ The criteria used by ISIC Rev.4 (see United Nations 2) are

- all categories at each level of the classification are mutually exclusive;
- the characteristics of outputs; and
- the use to which the outputs are put;
- similarity of the inputs of goods, services and factors of production; and
- similarity of the process and technology of production.

In ISIC, at the most detailed level of the classification, preference has been given to the process and technology of production to define individual ISIC classes, particularly in the classes related to services. At higher levels, characteristics of outputs and the use to which outputs are put become more important to create analytically useful aggregation categories. For many analytical purposes and for reasons of historical continuity, a strict application of these criteria has not proven useful. The weight that has been applied to each of these criteria will therefore invariably change throughout the classification. In addition, practical considerations, such as the organization of economic production in most countries and the need for stability of the classification, are factors that have also

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.

¹¹ Other insurance functions are to prevent losses and to develop savings and investments against risks.

¹² To reach comparability the transaction cost of all financing functions (resource allocation, purchasing, pooling, collecting) should be included.

¹³ Mixed health care institutions, for example for institutional and ambulatory health care services, or integrated care units like community health centres do not easily fit into the ISIC. Therefore, the North American Industry Classification System (NAICS) has been used as a starting point for classifying health care institutions providing both sufficient details to map fast changing and complex health care systems and general definitions to be used for health care systems in a wider range of countries. The ICHA-HP classification of SHA1.0 is essentially a modification of this classification for the purposes of OECD countries (SHA1.0: Table 4.1).

¹⁴ The importance of the interface of SHA to ISIC/NACE is not questioned here. We question only whether the fundamental rules for applying the institutional classification will be identical for both the ICHA-HP and ISIC (see SHA1.0).

influenced the way categories have been defined at different levels of the classification.¹⁵

2.4 Functions and products

16. Health care providers are defined based on their principal activities in the health system. These activities are defined in SHA by the functional classification that is focusing on the health of individuals, groups of the population, or the population as whole. Activities for health care delivery include in the broader perspective also the products of intermediate consumption and investments into the system, e.g. e-health technology between laboratories and hospitals, or nursing schools. This means that the criteria “provision of services to consumers”, “provision of intermediate consumption services”, and “provision of investment goods” are significant criteria for the classification.

17. The distinction between “principal activity” and “secondary activity” is a guiding principle to group separate of providers into classes of ICHA-HP (see for example the decision tree used in ISIC/NACE in annex 7.1).¹⁶ Precondition for the grouping in principal and secondary providers is the ability to distinguish between activities and clear borderlines what is inside and what is outside the health production boundary.

18. In SHA1.0, the functional classification is defined by the purpose of the provision.¹⁷ Behind the same purpose of provision, e.g. prevention, might be quite different technologies with different involvement of individuals and use of production factors. Often, health care providers provide both preventive and curative and rehabilitative services. It is of special interest to see how different providers provide these activities, what is in SHA 1.0. applicable by crossing HPxHC. Therefore, the classification of health providers should be independent of the functional classification (HC).

19. In ISIC, an industry consists of a group of establishments engaged in the same, or similar, kinds of activity. Activities in detail are captured by transactions in goods and services. The Central Product Classification provides the most comprehensive internationally agreed list of services (CPC/CPA)¹⁸ that is, unfortunately, not very detailed in health care. Occupation and professional education are criteria for the classification of activities in health care.

The industry and product-classification are not rigorously based on theoretical notions, e.g. the notion of a production function, which links inputs, technology, and outputs. This mainly reflects that a classification of economic units for statistical purposes should also be practical and balanced across different units.

¹⁵ NAICS is more strict. It is based on a single production-oriented concept. Producing units are grouped into industries according to similarities in their production processes. The boundaries between industries demarcate, in principle, differences in production processes and production technologies. This means that, in the language of economics, producing units within an industry have similar production functions that differ from those of producing units in other industries (see *Statistics Canada 2008*).

¹⁶ See also Liwendahl, Skygge 2008.

¹⁷ One might interpret the functional classification as classification of “products” of SHA.

¹⁸ In the development of the CPC, it is intended that each good or service distinguished in the CPC is defined in such a way that it is normally produced by only one activity as defined in ISIC.

20. Figure 2 provides both a draft classification of economic units (EU) and of health care providers (HP*) for the SHA2.0. Main groups of classification and sections will be explained in the following paragraphs.

Figure 2: Draft classification of providers in SHA2.0 (Part I)

Type of economic unit	Providers			Financing units
	SHA2.0	SHA1.0	NACE Rev 2	SHA1.0
Health care providers				HF.2.5
Hospitals	HP*.10	HP.1	86	
General hospitals	HP*.10.1	HP.1.1	8610	
University hospitals	HP*.10.2	HP.1.1	8610	
Mental hospitals	HP*.10.3	HP.1.2	8610	
Spezialised hospitals other than mental hospitals	HP*.10.4	HP.1.3	8610	
Other hospitals	HP*.10.5	HP.1.4	8610	
Residential / LTC providers	HP*.11	HP.2	87	
Nursing care facilities	HP*.11.1	HP.2.1	8710	
Residential mental health care facilities	HP*.11.2	HP.2.2	8720	
Residential facilities for the elderly / disabled	HP*.11.3	HP.2.3	8730	
All other residential care facilities	HP*.11.9	HP.2.9	8790	
Ambulatory medical care providers	HP*.12	HP.3	862	
General medical practice	HP*.12.1	HP.3.1	8621	
Specialist medical practice	HP*.12.2	HP.3.1	8622	
Dental practice	HP*.12.3	HP.3.2	8623	
Medical care centers	HP*.12.4	HP.3.4.5,3.4.9	8622	
Dialysis centres	HP*.12.5	HP.3.4.4	8690	
All other medical providers	HP*.12.9	HP.3.9.9	8690	
Other health care providers	HP*.13	HP.3.4.2		
Health practioners (non-medical)	HP*.13.1	HP.3.3	8690	
Home care providers	HP*.13.2	HP.2.3,3.6	88.1, 88.9	
Out-patient mental health centres	HP*.13.3	HP.3.4.	8690	
Integrated care providers	HP*.13.4	HP.3.4.5,3.4.9	8622, 87	
Social care providers	HP*.13.5		88.1	
Other care providers	HP*.13.9	HP.3.9	8690	
Providers of preventive programs	HP*.14	HP.5		
Public health centres	HP*.14.1	HP.5	8412	
Other preventive care units	HP*.14.2	HP.5		
Patient transportation	HP*.15	HP.3.9.1	8690	
Emergency ambulances	HP*.15.1	HP.3.9.1	8690	
Other specialised transportation in health care	HP*.15.2	HP.3.9.1	8690	
Retailers and other providers of medical goods	HP*.16	HP.4		
Pharmacies	HP*.16.1	HP.4.1	4773	
Retailers of optical glasses	HP*.16.2	HP.4.2	4774	
Retailers of hearing aids	HP*.16.3	HP.4.3	4774	
Other retailers of medical goods	HP*.16.9	HP.4.4,4.9	4774	

Figure 3: Draft classification of providers in SHA2.0 (Part II)

Draft classification of Health care providers in SHA2.0 (Unit 8) continuation

Type of economic unit	Providers			Financing units
	SHA2.0	SHA1.0	NACE Rev 2	SHA1.0
Households	HP*.20	HP.7.2	9820	HF.2.3
Health and Financial Administration	HP*.30			HF.1
Government units	HP*.30.1	HP.6.1	8412	HF.1.1
Social Insurance units	HP*.30.2	HP.6.2,6.3	8430	HF.1.2
				HF.2
Private Insurance units	HP*.30.3	HP.6.4	6512	HF.2.1, 2.2
NPISH	HP*.30.4	--	8899	HF.2.4
Other administrative units	HP*.30.9	HP.6.9		HF.2.5
Provision related producers				HF.2.5
Education and Training	HP*.40			
Medical education and training	HP*.40.1		8540	
Other education and training	HP*.40.2		8500	
Research	HP*.41			
Scientific research	HP*.41.1		7200	
Market research	HP*.41.2		7320	
Laboratories	HP*.42	HP.3.5, 3.9.2	8690	
Industries	HP*.43			
Pharmaceutical Industry	HP*.43.1		2100, 2060	
Manufacture of medical supplies	HP*.43.2		3250	
Manufacture of denture	HP*.43.3	HP.4.4	3250	
Installation of medical equipment	HP*.43.4		3320	
Wholesale retailers	HP*.44		4646	
Reinsurance	HP*.45		6520	
Others	HP*.49			
Other institutions (rest of the economy)	HP*.50			HF.2.5
Rest of the world	HP*.90	HP.9		HF.3

2.5 Groups of economic units

2.5.1 Providers of health care (provision principal activity)

21. The ICHA-HP of SHA1.0 provider classification comprises and distinguishes between principal producers of health care (health care providers) and secondary producers. The principal activity performed by primary producers is health care services. Examples are hospitals or doctors' offices. Secondary producers provide health care services beside their principal activity as secondary activity. Examples are residential care institutions that provide mainly social services such as sheltered houses but in combination with geriatric health care services, or services of occupational medicine. Consequently, the ICHA-HP includes both principal and secondary producers of health care. But only producers with the principal activity of health care provision are

named health care providers. HP* catalogues¹⁹ units with the activity of health care provision as health care providers (HP*.2 - HP*.7). A precondition for these units is the direct contact with patients. One question that here arises is, where to classify institutions with health care services as secondary activity, e.g. fire brigades, which provide rescue transport services as secondary activities.²⁰ If there is no item for their principal activity then it is proposed that these secondary providers are classified as HP*30 Other institutions (rest in the economy).

2.5.2 Financing agents, households, and rest of the world

22. As mentioned households as producers of home care (HP.7.2) and financing agents as producers of administrative services of health insurance (HP.6) form main economic groups and have therefore to be classified at 1st digit level.²¹ Rest of the world has been already separated in SHA1.0.

2.5.3 Health related producers of health care in SHA1.0

23. In SHA1.0, the term “health related services and goods” of the functional classification encloses a broad set of activities. Some of these services do not involve consumers, e.g. research, environmental health activities. The proposal of Unit 7 Functional classification of health expenditures does not more distinguish between “health” and “health related” activities. In SHA 2.0 health related activities as environmental health are classified in the core framework (see proposal for Unit 7). As it was pointed by Jeong 2008 "the term “health-related” is originally used for the functional classification. It was used to fix the boundary for health expenditure by sorting out the “health-related” from the “core” functions. It would cause confusion to add such concept as ‘providers of health-related function’ into the provider classification. However, it is important to distinguish between activities from which consumers directly benefit (provider to consumer transactions) and transactions that support providers without involvement of consumers. Schools for medical education are typically for the second group as well as professional organisations. This second group of transaction we call “provision related transactions”. In fact, this group of transactions is quite large and likely growing as consequence of specialisation and outsourcing of activities by health care providers.

2.5.4 Provision related producers in SHA 2.0

24. Although intermediate consumption is not part of the core health accounting framework –except occupational health -, one has to consider specialised intermediate producers of health care goods and services because they might also deliver services directly to patients (e.g. services and products in the case of incontinence). A second

¹⁹ To avoid any confusion we add an asterisk * to the HP code, if it is proposed for SHA2.0 (HP*).

²⁰ These are classified as HP.3.9.1 in SHA1.0.

²¹ Here, financing agents are not seen as institutional sectors of SNA; see the discussion in OECD Health division (2008b); van Mosseveld (2009).

reason is the consistency with the extended accounting framework of SHA and the external consistency with SNA.

25. From the outline above one might conclude that there are two types of health provision related economic units.

- Producers of human resource capital of health professionals and of medical and health knowledge
- Producers of specialised health services and products for health care providers (producers of intermediate products).

Research institutes and schools for medical education could be part of the first group and professional organisations of the second group.

2.5.5 Relation to institutional units of SNA

26. SHA1.0 does not use the concept of institutional sectors of SNA in the case of the HP classification, but also not in the case of the HF classification. However, as Figure 6 exhibits, one can interpret the above-presented economic units used in SHA as basic economic categories of the health systems:

- providers
- financing agents
- households,
- corporations, and
- (rest of the world)²².

In SNA, the classification by sector gives one view on the major actors in the national economy.²³ Sectors are mutually exclusive subsets of the sets of institutions that form the economy. The classification by sectors groups producers on the basis of the type of organisation that is producing, e.g. a corporation, the government, or a household. The classification by industry (ISIC/NACE) gives an alternative view with respect to the producers. It groups producers by their major product/activity.

27. The proposed classification of economic units of SHA can be aggregated into actor groups²⁴, or groups of producers (in SNA industries / ESA branches). However, there is a fundamental difference because

- a) consumers are at the same time producers of health, and
- b) financing agents are providers of administration.

²² It is not the intention to group it as institutional sectors of SNA. Strictly speaking, the rest of the world is the account of transactions occurring between resident and non-resident units, but it may also be seen as the whole group of non-resident units that enter into transactions with resident units. The rest of the world plays a role in the accounting structure of SNA similar to that of an institutional sector (*SNA2008*: 2.20; *ESA* 1.30)

²³ In SNA, the total economy is defined in terms of institutional units. It consists of all the institutional units which are resident in the economic territory of a country.

²⁴ SNA/ESA distinguishes between the following institutional sectors:

- Non-financial corporations;
- Financial corporations;
- General government;
- Households (as consumers or entrepreneurs);
- Non-profit institutions serving households.

Source: European System of Accounts (ESA) 1995, [2.17-2.20]

As a consequence the classification of health care providers includes all economic units of the universe of health accounts. This allows creating a mutually exclusive classification of economic units that allows analysing both actor groups and industries.

28. In the SNA, production consists of processes or activities carried out under the control and responsibility of institutional units that use inputs of labour, capital, goods and services to produce outputs of goods and services. There are three criteria used in SNA 1993 to classify institutional units – asset and liabilities, activities, and transactions. – which must together form an institutional unit. The corporate enterprise is typical example. It owns assets and liabilities, engages in production, and sells to other enterprises (Reich 2001: 33). In the SHA, production implies to major activities: delivery of services and provision of insurance and administration. Consumption of services mirrors the delivery of services. Assets and liabilities are presently not incorporated (at least in the core accounting framework).

2.6 Boundary issues

29. The boundary of SHA is defined by the functional classification. The classification of providers should be independent of functional classification. Providers are economic units that receive money in exchange for or in anticipation of producing the activities inside the health accounts boundary that serve the purposes defined in the functional classification. Health services provision for final use in a country differs from the consumption by the resident population by the external trade in final health services and goods. It comprises the sum of services and goods consumed by individuals in order to secure or develop health through the application of medical, paramedical and nursing knowledge and technology plus the exported health provision minus the imported health services and goods for final use. Health goods and services are often provided for non-resident individuals. As a consequence, domestic provision of health care services differs from domestic consumption. In order to balance demand and supply by products or providers exports should to be included.

2.7 Flexibility

30. In the practical application of SHA not all of the ICHA-HP categories might be of use in any given country, and others may require greater detail. For example, there may be few nursing and residential care facilities (HP.2) or those facilities may be integrated with hospitals. In contrast, there may be a greater variety of outpatient community centres and other integrated care centres (HP.3.4.9) that would be of interest to assess in greater detail, such as those owned by non-profit organizations, government, and others.

31. As discussed in Unit 2 *Boundary of the health accounts*, countries might be also interested to expand the consumption boundary. This will lead to the consideration of additional activities of production and will give economic units more weight which are not directly deliver health services. The intention of the extended boundaries is to give countries some flexibility to include additional variables in a consistent way with the consumption framework as regarding health-related activities and supporting activities including investment outlays of health care providers

3. Types of economic units in health care

32. The ICHA-HP classification of SHA2.0 is following the basic criteria defined already in SHA1.0 “include all economic units that are either engaged in the provision of health care services and goods (defined by ICHA-HC) and administration of health financing”. Additionally included are producers engaged in the production and distribution which support the activities of providers, here referred as provider related producers. It is proposed to separate households as own category of providers because of their particular role as consumers. To sum up, the classification makes a difference between health care activities, administration of health programs and of the purchasing / insurance function as well as of activities of intermediate consumption and capital formation.

Additional criteria are external consistency with other statistical systems and homogeneity of classes. SHA1.0 has mentioned producers of intermediate goods and services and capital formation as a part of a health satellite account.²⁵ In SHA2.0, in the class HP*.10 “Providers of health care” all institutions are included which deliver services directly to patients. Producers of intermediate consumption and capital formation are separately grouped in the HP*.40 “Provision related producers”.

3.1 Providers of health care

3.1.1 HP*.10 Hospitals

33. Hospitals provide the largest group of principal providers and a further sub-sectoring might be useful. Hospitals provide in-patient health services as primary activity. The activities of hospitals are carried out under the direct supervision of medical doctors and other health professional include:

- services of medical and paramedical staff
- services of laboratory and technical facilities, including radiological and anaesthetic services
- emergency room services
- provision of operating room services, pharmacy services, food and other hospital services
- other health services (services of family planning centres providing medical treatment such as sterilization and termination of pregnancy, with accommodation) ISIC 8610.

34. SHA1.0 distinguishes between general hospitals, psychiatric hospitals, and specialist hospitals (other than mental health and substance abuse). Results of the hospital expenditure data collection by the JHAQ in Europe exhibit that most countries distribute hospital expenditures to general hospitals. The other two items are sometimes

²⁵ “For health satellite accounts, the production side of the economy can be divided into three kinds of activities: health care provider industries, other medical industries, other industries. Other medical industries are mainly acting as producers for intermediate consumption and for capital formation in the health care system, or for export. Part of final consumption in health care goods and services as well as part of intermediate products and gross capital formation is in turn imported” (SHA1.0: 8.21).

not compiled and therefore difficult to compare. Another split of hospital expenditures could be to distinguish between university and teaching hospitals on the one side and other hospitals on the other side. This distinction would also be useful for the compilation of expenditures for education and research, which are closely connected. However, NACE Rev.2 does not further classify hospitals into subgroups.

35. In the Producer Guide, a category has been added for hospitals of non-allopathic systems of medicine (PG: HP.1.4). This is an important category of providers in some countries, especially in South and East Asia. This category is introduced to capture expenditures for hospitals of medical systems such as Ayurveda or traditional Chinese medicine, which are not part of the regular allopathic systems of hospitals.

3.1.2 HP.11 Nursing and residential care facilities*

36. Providers of long-term nursing care have to consider the wide variation of institutional arrangements. This item comprises establishments primarily engaged in providing residential 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. The proposal for SHA2.0 is following SHA1.0 which has distinguished

- Nursing care facilities,
- Residential mental retardation, mental health and substance abuse facilities,
- Community care facilities for the elderly
- All other residential care facilities.

The breakdown is identical with NACE Rev.2 . Assisted living arrangements are covered under HP.2.3 under NACE.

88.1 Social work activities without accommodation for the elderly and disabled

88.10 Social work activities without accommodation for the elderly and disabled

88.9 Other social work activities without accommodation.

3.1.3 HP.12 Ambulatory medical care providers*

37. The item comprises establishments primarily engaged in providing medical care services directly to outpatients who do not require in-patient services. This item is made of six subcategories including offices of physicians, offices of dentists, medical care centres, dialysis centres, and other medical providers of ambulatory care. Medical and diagnostic laboratories are only included in this class when services are directly delivered to patients, otherwise laboratories are a part of the group HP*.40.

NACE Rev.2 is distinguishing between

86.21 General medical practice activities

86.22 Specialist medical practice

86.23 Dental medical practice.

As most countries have implemented some form of primary care system it would be functional to show explicitly primary care in health accounts. NACE Rev.2 is supporting this by the separation between General medical practice 86.12 and specialist medical practice 86.22. However, the primary care is a wider concept than General

medical practice and it can be only defined together with the functional classification of health expenditures.

38. The Producers Guide proposes that the ICHA-HP must be extended to the extent that the health accounts include traditional forms of medicine. Suggested extensions are beside the above-mentioned clinics alternative or traditional providers providing outpatient care (SHA1.0: HP.3.9.3). As above, this is intended to capture expenditures for providers of systems of medicine not part of the allopathic tradition. A further proposal is that the category for providers of all other ambulatory health care services (SHA1.0: HP.3.9.9) should include the wide variety of informal and less-than-fully-qualified health care providers operating in many low-income countries, regardless of whether these services are sanctioned by the legal system. In connection with HP 3.3. Offices of other health care practitioners SHA1.0 offered already the possibility to have a comprehensive classification of paramedical practitioners providing different forms of traditional medicine with a minimum of public control.

3.1.4 HP.13 Other health care providers*

39. Establishments of independent non-medical health practitioners (other than physicians, and dentists), such as chiropractors, optometrists, mental health specialists, physical, occupational, and speech therapists and audiologists establishments primarily engaged in providing care to out-patients for an important part of the health system, particularly for the treatment of chronic diseases.

40. Integrated care refers usually to the vertical integration of activities along the treatment pathway, which means integration of different specialities as well as outpatient and inpatient treatment. There is no clear definition across countries. One viewpoint of integrated care is to close the traditional division between health and social care.²⁶ In the context of the classification of health care providers the organisational integration into single economic unit is of interest - – for example, the structural integration of primary, community and secondary care achieved by hospitals expanding their scope. In this case, either the classification as hospital or the classification as ambulatory care unit is misleading. There is similarity to a “value chain” of SNA/ESA. It occurs where the different stages of production are carried out in succession by the same unit and where the output of one process serves as input to the next. Examples of common vertical integration include mammography screening, breast cancer surgery

²⁶ 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.
- 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.

and treatment as well as rehabilitation, or pharmaceutical production and distribution. In health care, outpatient diagnostic of hospitals often serves for admission to inpatient departments. Vertically integrated units are regularly difficult to classify because of their comprehensive services.²⁷ Costing information, if available, can be used to split up integrated care units into analytical economic units. But then the information about the national institutional structure is lost.

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*. Therefore it is proposed to create an own subclass for this category, e.g. HP.*2.4 Integrated care providers.

3.1.5 HP.14 Providers of preventive programs*

41. In SHA1.0, the item ICHA-HP.5 Provision and administration of public health programmes comprises both government and private administration and provision of health programmes such as health promotion and prevention programmes. It is proposed to separate this activities by distinguishing “Providers of preventive programs” (HP*.14) and “Health program management by the Government”(part of HP*.30). The latter activity is part of the resource allocation, and as such recorded under administration.

42. Following SHA1.0 preventive activities comprise establishments providing occupational health care as ancillary production. An ancillary activity is a supporting activity undertaken within an enterprise in order to create the conditions within which the principal or secondary activities can be carried out. All enterprises require some basic, routine services to support their production activities. When they are provided in house they are called ancillary activities (SNA2008: 5.3). In SNA, the output of the ancillary unit is treated as intermediate consumption of the establishments it serves and should be allocated across them using an appropriate indicator such as the output, value added or employment of these establishments. SHA compiles occupational health care as health service delivered to the employed staff of the establishments and their dependents. As all enterprises provide some occupational health care, e.g. in the form of preventive premises, it is recommended to include occupational health care only within the functional classification but not following the rules of SHA1.0 (see also Annex 6.4 of this paper).

3.1.6 HP.16 Patient transportation*

43. Transportation of patients might be carried out by different types of economic units. 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 as the Red Cross. It also includes transportation in conventional vehicles, such as taxi, when the latter is authorised and

²⁷ When a vertically integrated enterprise spans two or more sections of the ISIC, at least one establishment must be distinguished within each section.

the costs are reimbursed to the patient (e.g. for patients undergoing renal dialysis or chemotherapy).

3.1.7 HP.17 Retailers and other providers of medical goods*

44. The item “Retailers and other providers of medical goods” 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 five subcategories: dispensing chemists, retailers of optical glasses and other vision products, retail salers of hearing aids, other suppliers of medical appliances, and other suppliers of pharmaceuticals and medical goods. More and more medical goods are also distributed among general retailers as well as e-health. In SHA 2.0 items for these types distribution units might be added in the respective parts of the HP-classification.

3.2 Health and financial administration

3.2.1 General administration and insurance

45. The item “Health Administration and Insurance” of SHA1.0 comprises rather different activities. The establishments primarily engaged in the regulation of activities of agencies that provide health care, overall administration of health policy (HP.6.1) are different from health insurance administration HP.6.2-HP.6.4. Five subcategories are included in SHA1.0:

HP.6.1 Government administration of health

HP.6.2 Social security funds

HP.6.3 Other social insurance

HP.6.4 Other (private) insurance

HP.6.9 All other providers of health administration.

HP.6.1 might be related to HP.5.²⁸ It is proposed that for consistency reasons this part of the classification is closely linked to the proposed structure of the HF-Classification (see van Mosseveld 2009).

46. Extra-budgetary units, such as social insurance, should be grouped under relevant items. According IMF instructions extra-budgetary entities or units and social security units operate under the authority of the central government but are not (fully) covered by the central government budget (“budgetary central government”). Typically, these units or entities have individual budgets, and their own-revenue sources may be supplemented by grants (transfers) from the budgetary central government or from other sources. In this context, it is proposed not to distinguish between HP.6.2 Social security funds and HP.6.3 Other social insurance, but to include all social security under one item.

²⁸ As *Jeong* (2008) mentioned: Factors of both function and provider are mixed. “Provision and administration of public health programs” or “General health administration and insurance” are not names for providers, but for functions.

3.2.2 Insurance corporations

47. SHA1.0 has not developed the accounting of premiums and claims. Here, administration is a term used to cover the overhead costs of production of insurance services. This includes the costs of activities such as ancillary services and personnel. SHA-Guidelines by ONS provide further information which could be useful in adapting the manual, e.g. “A way to allocate expenditure on administration in health insurance companies will be to use the ‘service charge’ given by: Administration in health insurance companies = Service charge = Sum of all premiums – Sum of all payouts.” Profit/losses have to be included as part of the cost of insurance.

3.3 Households

48. Individuals as consumers of health care are living in households. Households might be engaged in all three functions: consumption, provision, and financing. In SHA1.0 households are listed under HP.7.2 as providers of home care and under HF.2.3 Out-of pocket payment. 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. The following entries are not recorded in SNA when they are produced by household members and consumed within the same household:

- a. The cleaning, decoration and maintenance of the dwelling occupied by the household, including small repairs of a kind usually carried out by tenants as well as owners;
- b. The cleaning, servicing and repairing of household durables or other goods, including vehicles used for household purposes;
- c. The preparation and serving of meals;
- d. The care, training and instruction of children;
- e. The care of sick, infirm or old people;
- f. The transportation of members of the household or their goods.

They are only recorded if provided by other economic units when paid. Many households employ paid domestic staff to carry out these activities for them. Activities not included are activities that are not productive in an economic sense of SNA which include basic human activities such as eating, drinking, sleeping, taking exercise, etc., that it is impossible for one person to employ another person to perform instead. Paying someone else to take exercise is no way to keep fit.

49. It is furthermore important to note that in SNA, the principal roles of households differ. They are in SNA also employees and unincorporated producers²⁹. In SNA/ESA, the “sector households” includes a wide range of individuals and households. It includes:

- Individuals or households whose principal function is consumption;
- Persons living permanently in institutions, like old persons living in retirement homes and prisoners serving long sentences;

²⁹ In SNA/ESA, the entrepreneurial activities of a household consist of unincorporated enterprises that remain within the household except under certain specific conditions (SNA2008:2.17).

- Individuals or households that produce mainly for own consumption, e.g. self-subsistence farmers or those that own and occupy their own dwelling;
- Sole proprietorships and partnerships without independent legal status. However, quasi-corporations are excluded. This applies e.g. to a big textile company fully owned and controlled by one family.
- Non-profit institutions serving households without independent legal status or those are of minor importance.
- Seasonal workers who leave the country for several months;
- Tourists, patients, students, businessmen and crew members who travel abroad;
- The official representatives of the government working abroad, e.g. at embassies or military bases.

Any link between SHA and SNA has to consider this different definition of households in SNA.³⁰

50. The own-account production of home care services by members of the household for their own final consumption is excluded from measured production in conventional national accounting practice. 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 care is considered as “paid” household production. However, not all countries have implemented this guideline because of difficulties to measure home production. Home production 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. To give countries the possibility to include consistently such estimates in the accounts it is necessary to define explicitly the role of households.

3.4 Provision related producers

51. In SHA 1.0, ICHA.HP.7 embraces a set of very different economic units of the health system, among others establishments providing occupational health care as ancillary production, private households as providers of home care, and all other industries providing health care as secondary activities including school health services or military services.

52. The delivery of health care services and goods for final use require many ancillary activities and products as e.g. lab tests, blood products, tissues, bandages. An ancillary activity is a supporting activity undertaken within an enterprise in order to

³⁰ The guidelines recommend distinguishing six sub-sectors:

- Employers and own-account workers;
- Employees;
- Recipients of property incomes;
- Recipients of pensions;
- Recipients of other transfer incomes, e.g. social assistance benefits;
- Others.

Households are allocated to the six sub-sectors according to the largest income category of the household as a whole.

create the conditions within which the principal or secondary activities can be carried out. But, ancillary services are often outsourced to specialised producers. In such cases, these services are provided by specialised producers and are recorded as – intermediate consumption in the production account of a health care provider. In most countries, these specialised producers are growing part of the health system. The compilation of a production account implies that it must be feasible to calculate output and intermediate consumption and thus value added.

3.4.1 Production of specific goods and services related health care consumption

53. Another question is where to put those institutions with ancillary services as blood and organ banks SHA1.0: HP.3.9.2 or medical and diagnostic laboratories HP.3.5. It is proposed to classify these producers in the group of “provision related producers”. Typical provision related producers are the pharmaceutical manufacturer or the manufacturer of medical goods. In NACE Rev.2 establishments primarily engaged in collecting, storing and distributing blood and blood products are part of the pharmaceutical industry.

3.4.2 Production of specific goods and services related to the development of health care production

54. In the Producer Guide, HP.8 has been added to the ICHA-HP to capture institutions that do not provide health care services but which engage in health-related activities. Institutions providing health-related services (HP.8) include research centres, academic institutions, and similar entities. This category would be used if national health expenditure is defined more broadly than by the SHA definition (see paragraph 3.22).

55. Under the current SHA1.0 classification, “Rest of the economy” (HP.7) contains only providers that provide health care as secondary activity. Therefore, providers of health related functions do not belong to it, and a new category has been prepared outside of the current provider classification in practice. In this concept of SHA1.0, the economy is divided for 3 main categories: Providers with a primary activity of providing health services or distributing health care goods (HP.1-6), Rest of the economy (HP.7) and Providers of health related functions (M1 (HP)). This classification principle has some limits:

- (a) Firstly, providers cannot be categorized consistently based on their activity in SHA1.0. For example, a research institute providing prevention as secondary activity has been categorized under the Rest of Economy HP7.9 in SHA1.0 “All other secondary producers”). But a similar research institute that does only research has been categorised below the line in the providers of health related functions (M1 (HP)). It would be better to classify providers strictly by their primary activity.
- (b) Secondly, it does not make sense to put research institutes outside the table of providers, while putting secondary producers like taxi drivers inside.

In this respect, it is proposed that the category for Providers of health related functions (M1 (HP)) is removed and replaced by a detailed and consistent breakdown of the economic units as in Figure 2.

56. As was done with the ICHA-HC classification, in the Producers Guide, a category has been added (HP.nsk) for those entities that are known to be engaged in activity within the health accounts boundary but which cannot be allocated to any of the other categories in the HP schedule. There should be very few of these entities, as most of them can be identified by their name if nothing else. It is proposed to classify these economic unit depending on their principal activity in the HP* classification.

3.5 Rest of the world

57. The item ICHA.HP.9 Rest of the world comprises all units abroad providing health care for the final use by resident units. It depicts the health care imports. In SNA, the sector Rest of the World is broader; it displays the links between an economy and the rest of the world. It describes the roles played by non-residents in the national economy. These roles can be very diverse as the non-residents can be non-resident corporations, but also non-resident government or non-resident households. The delimitation of the Rest of the World is the mirror image of the delimitation of the national economy: those enterprises, institutions and persons not belonging to the national economy are by definition part of the Rest of the World. In SHA, Rest of the world contains all health care goods and services not provided by resident producers (imports). Borderlines of goods and services and the breakdown are defined by the functional classification HC. This means that imports of medical goods by wholesalers or the industry is not reported in the core framework of SHA.

4. Issues related to the classification of ICHA-HP

58. There are further issues related to classification of health accounts not discussed above, but important for the consistency of SHA as a whole. These are

- mode of production (inpatient, outpatient, others);
- ownership (private, non-for profit, public);
- market, non-market provision;
- renting and repair of medical equipment.

4.1 Mode of Production

59. In SHA1.0 mode of production is a part of the functional classification ICHA-HC. The items HC.1 until HC.4 contain as fourth dimension of SHA the “mode of production”. The basic subdivision into in-patient care, day care, outpatient and home care corresponds to an essential difference in the underlying technical and managerial organisation of care. As a result, these subsystems of care are typically governed by substantially different information systems. In-patient and day care involves the formal admission and discharge of patients involving a considerable amount of administrative paperwork and statistics. This has also led to the design in many countries of basic

standard datasets on patients and the treatments they receive with the goal of making them comparable across institutions.

60. In practice, the compilation of mode of production as part of the functional classification brought up some conceptual issues and technical issues (Van Mosseveld 2003). In many countries the breakdown by mode of production is still incomplete since there is actually no reasonable way to estimate the day-care services on the basis of regular data sources. The acceptance of a workable definition of “day care” is not yet in sight on the national level. Mode of production is presently not implemented in all Member States as e.g. in the German Health Accounts and Dutch Health and Social Care Accounts.

61. Mode of production is a particular dimension of health care provision. It is more closely linked to production activity (input, process) and not to the function (purpose, output), e.g. cure or care.³¹ Hospitals, integrated care units, and health cents provide services for inpatients and outpatients. In the production process of both services ancillary services as imaging or laboratory test play an important role. In hospitals, imaging and laboratory test are provided in special departments. Although most countries might be able to provide costing information, a standardized concept is needed how to deal with non-patient related activities within an institution. In order to analyse the production process, it is crucial to select units which illustrate technical/economic relationships (i.e. kind-of-activity units at local level and units of homogeneous production).³²

4.2 Public / private ownership

62. The ICHA-HP classification of SHA 1.0 does not distinguish between public or private ownership and the legal status of establishments. SHA 1.0 proposes that an additional breakdown, according to these dimensions, has to be decided on a case-by-case basis by Health Accountants. In SNA, institutional units are defined by the legal status. Insofar the statistical process is organized in ways that reflect these criteria.

63. Subcategorising providers within the ICHA-HP by *type of ownership* might be useful for analytical purposes related to efficiency of health care provision of public vs. private owners of health premises and based on such analysis decision-makers might be interested in seeing whether private hospitals are replacing public of health hospitals as a locus of care, or they might be interested in the growth in the numbers of private-sector physicians relative to public-sector physicians. Health accounts can inform this debate by developing ownership subcategories that separate provider groups of interest. For example, the category for general hospitals (HP.1.1) could be subdivided as shown in Table 4.4. A similar type of sub categorization can be applied to other providers as needed for analytical purpose. It is recommend to apply the criteria public / private ownership only on a voluntary basis in the extended accounting framework.

³¹ See also the proposal to introduce a special classification for settings *Roubal* 2008.

³² In order to analyse flows involving income, capital, financial transactions and assets, it is essential to select units which depict the interaction between economic transactors (institutional units).

4.3 Market and non-market production

64. SNA makes a conceptual distinction between market, own final use and non-market goods and services, allowing in principle any kind of good or service to be any of these three types. In health care often quasi-markets exist where services are purchased based on complex pricing systems as DRGs. Any distinction between market and non-market product depends therefore very much on the national system. It is recommended not to apply the criteria market/non-market production compulsorily in SHA.³³

4.4 Renting and repair of medical equipment

65. In some countries, renting, and repair of medical equipment, e.g. wheelchairs, is a normal part of the health care goods delivery process. In COICOP, renting and repair of therapeutic appliances and equipment is reported under the corresponding categories of goods. Also in SHA1.0 it is recommended to include the fitting and repair provided in combination with sales of prostheses, hearing aids, vision products under the corresponding retailers of medical goods. However, under the class of intermediate providers of health care and goods one might distinguish a special economic unit for repair (Repair of other machinery and equipment is classified in group 331 ISIC/NACE, Repair of buildings and other structures is classified in division 43 ISIC/NACE).

4.5 The statistical unit

66. Following the SNA/ESA rules the smallest item for identifying the health care providers of SHA would ideally be the units producing a homogenous range of services (Units of Homogeneous Production - UHP). These UHP are parts of enterprises, in SNA defined as a "kind-of-activity unit" (KAU). Each enterprise must, by definition, consist of one or more kind-of-activity units. UHP is an enterprise, or a part of an enterprise, that engages in only one kind of productive activity or in which the principal productive activity accounts for most of the value added. The principal activity is the activity that contributes most to the value added of the unit.³⁴

67. SHA is using the idea of the principally activity. The assignment of providers to HP codes is according to its principal economic activity. The assignment of the HP code is most cases straightforward. In the simple case where a unit performs only one economic activity, the principal activity of that unit is determined by the HP category, which describes that activity. If the unit performs several economic activities (other than ancillary activities³⁵), the principal activity is determined on the basis of the value added

³³ For a discussion of this issue see *Quintela 2007, National Board of Health 2008*.

³⁴ The gross value added is defined as the difference between output and intermediate consumption. Value added is an additive measure of the contribution of each economic unit to gross domestic product (GDP).

³⁵ An activity is ancillary if it fulfils all the following conditions: (a) it serves only the unit or units referred to; (b) the inputs contribute to the costs of the unit; (c) the outputs (usually services, seldom goods) are not part of the unit's final product and do not generate gross fixed capital formation; (d) a comparable activity on a similar scale is performed in similar production units; *Eurostat, NACE Rev. 2 Introductory Guidelines*.

associated to each activity, according to the NACE rules. Value added is the basic concept for determining the classification of a unit according to economic activities.

68. The European System of Accounts (ESA) defines the term ‘Industry’ as consisting of a group of local KAUs engaged in the same, or similar, kind-of-activity. At the most detailed level of classification, an industry consists of all the local KAUs falling within a single class (4-digits) of NACE Rev. 1.1 and which are therefore engaged in the same activity as defined in the NACE Rev. 1.1. An industry by definition consists of a group of local KAUs engaged in the same type of productive activity, irrespective of whether or not the institutional units to which they belong produce market or non-market output. (Eurostat 1995: 2.108).

69. The industrial classification does not make a distinction based on institutional sector but rather brings together units engaged in similar activities, irrespective of ownership. However, the SIC code in conjunction with the legal status and UK/non-UK ownership status of a unit provides an approximation to the Sector code.

4.6 The reporting unit

70. The reporting unit is the entity from which the recommended items of data are collected. It will vary from sector to sector 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 or 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. However, this process is often very burdensome, and it is therefore necessary to have strong links to existing statistical systems. It is recommended that the reporting unit on health care expenditure data be closely linked with non-expenditure data.

4.7 Data issues

71. Country-specific listings of health care institutions are the starting point of grouping health care providers into ICHA-HP. EUCOMP tried to support countries by a standardized tool. Full consistency would require that the national expenditure series were cross-classified with the ICHA-HP institutional classification. Once a country-specific list of institutions and a cross-classification to the ICHA-HP classification has been established, it should not be too difficult to identify the relevant data accordingly.

72. If the providers do exist and are to be counted but data do not show them separately, the Producers Guide proposes to include them in the “residual” category HP.x.9 (for example HP.1.9 or HP.3.9).

4.8 Resident units

73. A health care provider is said to be a resident unit of a country when this unit engages for a year or more in provision activities on the economic territory of the country. In SNA/ESA, the establishment is defined by the locality and type of production. Locality is not explicitly considered as criteria in SHA, only the residence.

4.9 Links to other statistical systems

74. Many boundaries of SHA are interfaces to other statistical systems. The mapping of the classifications used in SHA and the classifications in the other statistical systems show these interfaces. In the SHA revision the link to SNA / ESA, ESSPROS and to the system of health non-expenditure data need special attention. In the following we discuss the link to supply and use tables used by SNA / ESA.

5. References

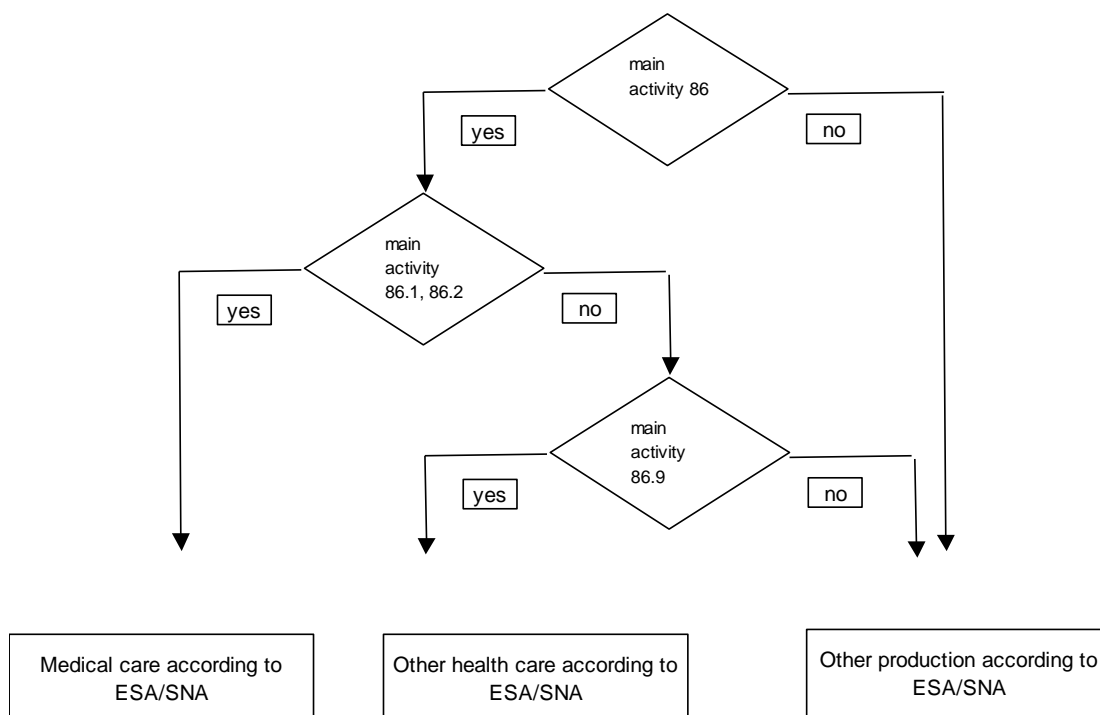
- Contandriopoulos, A. P., Denis, J. L., Touati, N. and Rodriguez, R. (2001) : Intégration des soins: dimensions et mise en oeuvre. *Ruptures, Revue Transdisciplinaire en Santé*, 8, 38-52.
- Delnoij D et al. (2002) “Integrated Care in an International Perspective” in *International Journal of Integrated Care*.
- Eurostat (1995), *European System of Accounts, ESA 1995*, Luxembourg.
- Eurostat (2008), *NACE Rev.2 Statistical classification of economic activities in the European Community European System of Accounts*, Luxembourg.
- Hernandez P., Poullier J-P, and van Mosseveld C. (2007) *Measuring Health Systems’ Financing Flows, Paper presented at the Eurostat SHA Workshop in Tallinn, May 2007*.
- Jeong HS (2008), *Proposals for the SHA classification: ICHAHP, Input Document Unit 8*, Yonsei Institute for Health and Welfare, OECD, Eurostat, WHO: SHA-REV-08001.
- Liwendahl Ch. and A. Skygge (2008), *Input paper to unit 8 “ICHA-HP classification of health care providers”*, Statistics Sweden, 2008-11-28.
- Mosseveld C.J.P.M. van (2003), *International Comparison of Health Care Expenditure, Existing Frameworks, Innovations and Data Use*, Voorburg.
- Mosseveld C.J.P.M. van (2009), *Comments on Unit 9 and 10*, OECD, Eurostat, WHO: SHA-Revision.

- OECD (2000), *A System of Health Accounts*, OECD, Paris.
- OECD Health Division (2008a), Integration of the SNA Sequence of Accounts into SHA, Input Document Unit 5, Submitted on 11/09/2008, Document code SHA-REV-05005.
- OECD Health Division (2008b), A Proposal for the Main Categories of the Classification of Financing Schemes (ICHA-HF), Input Document Unit 10, Submitted on 17/07/2008, Document code SHA-REV-10001.
- ONS (2004), *SHA Guidelines: Practical guidance for implementing A System of Health Accounts in the EU*, Eurostat grant number: 200135100019, London.
- Quintela I. (2007), Incorporating Input, Output and Productivity Measurements into the System of Health Accounts, *Paper presented at the 9th Meeting Of Health Accounts Experts And Correspondents For Health Expenditure Data*, Paris 8,9 October 2007, DELSA/HEA/HA(2007)5.
- Pan American Health Organisation (2005), *Manual de Cuenta Satélite de Salud (CSS)*, Version 1.
- Reich U.-P. (2001), *National Accounts and Economic Value. A Study in Concepts*. Palgrave: London.
- Roubal Th. (2008), Comment Various Units: Proposition of new dimensions into the new SHA, *SHA-revision document code 01103*, 28/11/2008
- Statistics Canada (2008), *North American Industry Classification (NAICS) 2007*.
- United Nations, Eurostat, International Monetary Fund, Organisation for Economic Co-operation and Development, World Bank (1993), *A System of National Accounts 1993* (Brussels/Luxembourg, New York, Paris, Washington, D.C.).
- United Nations (2005), *Government / Public Sector / Private Sector Delineation Issues*, AEG Meeting Task Force On Harmonisation Of Public Sector Accounting, 18 May 2005 , Update of the 1993 SNA - Issue No. 36, Issues Paper For The July 2005.
- United Nations (2008): International Standard Industrial Classification of All Economic Activities Revision 4, *Statistical papers Series M No. 4/Rev.4*, New York.
- Van Tongeren J.W. (2006), Review of OECD Health Accounts in Relation to SNA, *Paper presented at the 8th Meeting Of Health Accounts Experts And Correspondents For Health Expenditure Data*, Paris 5,6 October 2006 DELSA/HEA/HA(2006)6.
- WHO (2003a): *Guide to producing national health accounts: with special applications for low-income and middle-income countries*, Geneva.
- WHO (2003b): *The World Health Report 2003: Shaping the Future*, Geneva.

6. Annex I

6.1 Interface to SNA/ESA

Figure 4: Classifying economic units according to their activity in ESA / SNA



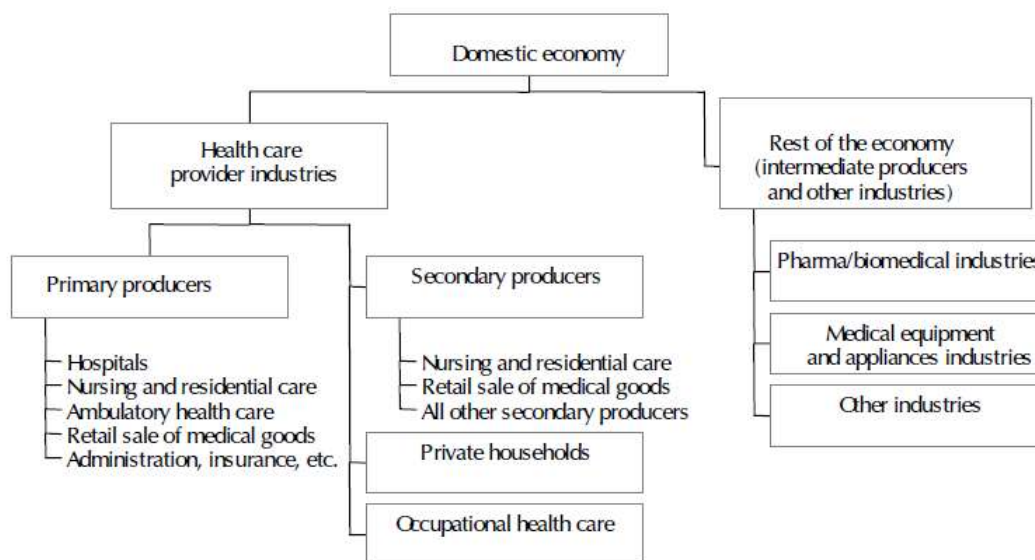
Source: Cor van Mosseveld

6.2 Structure of Health care industries in SHA1.0

The breakdown of the domestic economy into health care provider industries and other industries as shown in Figure 5 underlies the ICHA-HP of SHA1.0. If the criteria principal and secondary activity is applied to single units one would find residential care homes under both primary and secondary producers. To keep the homogeneity would require are further split of these institutions.

Pharmaceutical industries and other industries are not really considered in SHA1.0 although depicted in Figure 5.

Figure 5: Health care providers within the economy according to SHA1.0



Source: OECD 2000: Figure 4.1, p. 52.

6.3 Institutional units in SHA1.0 and in SNA/ESA

SHA1.0 is making a short introduction into the mapping between the basic institutional sectors used in the SNA and corresponding health care institutions used in SHA. This mapping is exhibited in Table 4.2 of SHA1.0. One can easily identify that the grouping of this table of SHA1.0 excludes financial institutions like banks and secondary providers of health care.

In SHA2.0, it is proposed to introduce actor groups which can provide the base for sector accounts and allows to link these accounts with SNA (see Figure 6):

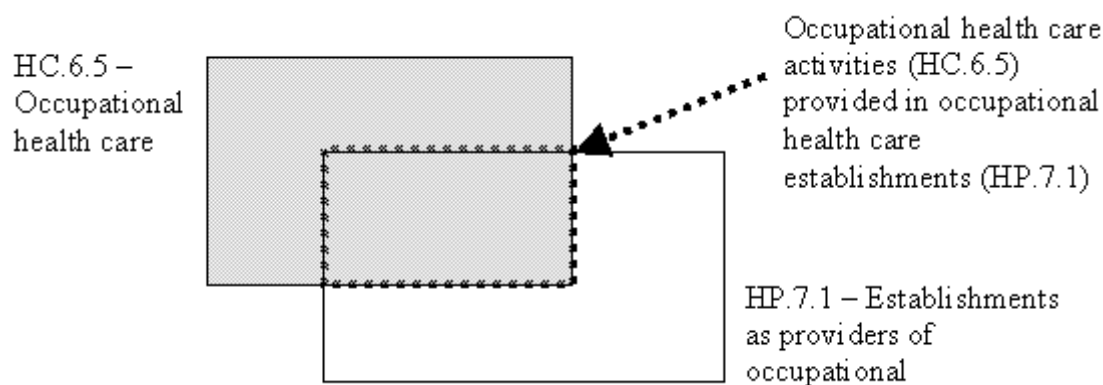
Figure 6: Actor groups of SHA and institutional sectors of SNA

Institutional sectors of SNA	Actor groups SHA 2.0			
	Households	Providers	Corporations	Financing agents
Non-financial corporations		Hospitals, providers of ambulatory care, pharmacies etc.	Pharmaceutical, medical device industry, occupational care	
Financial corporations			Banks	Private insurance
General government		Administration of insurance		Social insurance, government
Households	Provision of home care			
NPISHs		Non profit hospitals, providers of ambulatory care, pharmacies etc.		Non-profit insurance

6.4 Occupational health care

In SHA1.0 HC.6.5 – Occupational health care and HP.7.1 Establishments as providers of occupational health care services are not the same. One should avoid confusion by using categories with similar titles belonging to different classifications (e.g. provider and functional classifications).

Figure 7: Classification of occupational health care in SHA1.0



Source: ONS 2004.

Occupational health care can be provided internally in any corporation as an ancillary service or externally as an independent activity (or in combination with other workforce related activities). The grey area outside the dotted rectangle is occupational care provided internally.

7. Annex II: Explanatory notes to the ICHA-HP Classification of health care providers

Health care providers

HP*.10 Hospitals

This item comprises licensed establishments primarily engaged in providing medical, diagnostic, and treatment services that include physician, nursing, and other health services to in-patients and the specialised accommodation services required by in-patients. Hospitals may also provide out-patient services as a secondary activity. 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. In some countries, health facilities need in addition a minimum size (such as number of beds) in order to be registered as a hospital.

HP*.10.1 General hospitals

This item comprises licensed establishments primarily engaged in providing diagnostic and medical treatment (both surgical and non-surgical) to in-patients with a wide variety of medical conditions. These establishments may provide other services, such as out-patient services, anatomical pathology services, diagnostic X-ray services, clinical laboratory services, operating room services for a variety of procedures, and pharmacy services.

Illustrative examples

- general acute care hospitals;
- community, county, and regional hospitals (other than speciality hospitals);
- hospitals of private non-profit-organisations (e.g. Red Cross) (other than speciality hospitals);
- army, veterans, and police hospitals (other than speciality hospitals);
- prison hospitals.

Note: In contrast to SHA1.0 not included are integrated community care centres providing both in-patient and out-patient services but which are primarily engaged in in-patient services. Integrated community care centres providing both in-patient and out-patient services

HP*.10.2 University hospitals

This item comprises licensed tertiary hospitals engaged in academic medical education, clinical research and patient care as teaching hospitals and university hospitals (other than speciality hospitals).

HP*.10.3 Mental health and substance and abuse hospitals

This item comprises licensed establishments that are primarily engaged in providing diagnostic and medical treatment, and monitoring services to in-patients who suffer from mental illness or substance abuse disorders. The treatment often requires an extended stay in an in-patient setting including hostelling and nutritional facilities.

Psychiatric, psychological, and social work services are available at the facility. These hospitals usually provide other services, such as out-patient care, clinical laboratory tests, diagnostic X-rays, and electroencephalography services.

Cross-references

- establishments primarily engaged in providing treatment of mental health and substance abuse illnesses on an out-patient basis are classified under HP*.13.3 Out-patient mental health and substance abuse centres;
- establishments referred to as hospitals that are primarily engaged in providing in-patient treatment of mental health and substance abuse illness with the emphasis on counselling rather than on medical treatment are classified under HP*.11.2 Residential mental retardation, mental health and substance abuse facilities;
- establishments referred to as hospitals that are primarily engaged in providing residential care for persons diagnosed with mental retardation are classified under HP*.11.2 Residential mental retardation, mental health and substance abuse facilities.

HP*.10.4 Speciality hospitals

This item comprises licensed establishments primarily engaged in providing diagnostic and medical treatment to in-patients with a specific type of disease or medical condition (other than mental health or substance abuse). 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. These hospitals may provide other services, such as out-patient services, diagnostic X-ray services, clinical laboratory services, operating room services, physical therapy services, educational and vocational services, and psychological and social work services.

Illustrative examples

- specialised acute hospitals;
- specialised emergency centres;
- orthopaedic hospitals;
- speciality sanatoriums (primarily engaged in medical post-acute, rehabilitative and preventive services);
- oriental (traditional) medicine hospitals;
- special hospitals for infectious disease (tuberculosis hospitals; hospitals for tropical diseases).

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*.10.1 General hospitals, (except university hospitals);
- establishments known and licensed as hospitals primarily engaged in providing diagnostic and treatment services for in-patients with psychiatric or substance abuse illnesses are classified under HP*.1.3, Mental health and substance abuse hospitals;
- establishments referred to as hospitals but primarily engaged in providing in-patient nursing and rehabilitative services to persons requiring convalescence are classified under HP*.11.1 Nursing care facilities;

- establishments referred to as hospitals but primarily engaged in providing residential care of persons diagnosed with mental retardation are classified under HP*.11.2 Residential mental retardation, mental health and substance abuse facilities;
- 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*.11.2 Residential mental retardation, mental health and substance abuse facilities.

HP*.10.9 Other hospitals

- military health services not provided in separate health care establishments;
- prison health services not provided in separate health care establishments;

HP*.11 Nursing and residential care facilities

This item comprises establishments primarily engaged in providing residential 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.

Note: a wide range of institutions providing long-term care (both health and social services) exists in most countries. The exact classification in the corresponding types of institutions (Nursing care facilities, Residential mental retardation, mental health and substance abuse facilities, Community care facilities for the elderly, Other residential care facilities) depends on the country-specific division of labour in the care process, especially in long-term care. As a general rule, in health accounting all institutions should be listed, where a considerable share of all activities performed in that institution have a medical component or consist of nursing care with a strong medical component, usually performed by medical personnel acting as employees of the institution. But only an estimate to the medical part of expenditure of the establishments under HP*.11

Nursing and residential care facilities is recorded in the expenditure accounts of the SHA.

Cross-references

Institutions where medical interventions are more of an incidental character or are performed by visiting doctors and/or nurses are excluded. This should also apply to institutions with a physician acting as director of e.g., a home 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*.12 Providers of ambulatory medical care).

HP*.11.1 Nursing care facilities

This item 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.

Note: medical nursing care facilities 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. Nursing homes 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.

Illustrative examples

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

Cross-references

- assisted-living facilities with on-site nursing care facilities are classified under HP*.11.3 Community care facilities for the elderly;
- mental health convalescent homes are classified under HP*.11.2 Residential mental retardation, mental health and substance abuse facilities.

HP*.11.2 Residential mental retardation, mental health and substance abuse facilities

This item comprises establishments (e.g. group homes, hospitals, intermediate care facilities) primarily engaged in providing in an in-patient setting domiciliary services for persons diagnosed with mental retardation. These facilities may provide some health care, though the focus is on room and board, protective supervision, and counselling. Residential mental health and substance abuse facilities comprise establishments primarily engaged in providing residential care and treatment for patients with mental health and substance abuse illnesses. These establishments provide room, board, supervision, and counselling services. Although health care services may be available at these establishments, they are incidental to the counselling, mental rehabilitation, and support services offered. These establishments generally provide a wide range of social services in addition to counselling.

Illustrative examples

- alcoholism or drug addiction rehabilitation facilities (other than licensed hospitals);
- mental health halfway houses (USA);
- mental health convalescent homes or hospitals;
- residential group homes for the emotionally disturbed;
- MENCARE (Sweden).

Cross-references

- establishments primarily engaged in providing treatment of mental health and substance abuse illnesses on a predominantly out-patient basis are classified under HP*.13.3 Out-patient mental health and substance abuse 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*.10.3, Mental health and substance abuse hospitals.

HP*.11.3 Community care facilities for the elderly

This item comprises establishments 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. The care typically includes room, board, supervision, and assistance in daily living, such as housekeeping services. In some instances these establishments provide skilled nursing care for residents in separate on-site facilities. Assisted living facilities with on-site nursing care facilities are included in this item. Homes for the elderly without on-site nursing care facilities are also included.

Illustrative examples

- assisted-living facilities;
- continuing-care retirement communities;
- homes for the elderly without nursing care.

HP*.11.9 All other residential care facilities

This item comprises establishments primarily engaged in providing residential care (other than residential mental retardation, mental health, and substance abuse facilities and community care facilities for the elderly) often together with supervision and personal care services.

Illustrative examples

- group homes for the hearing or visually impaired;
- group homes for the disabled without nursing care.

Cross-references

- residential mental retardation facilities are classified under HP*.11.2
Residential mental retardation, mental health and substance abuse facilities;
- continuing-care retirement communities and homes for the elderly without nursing are classified under HP*.11.3 Community care facilities for the elderly;
- establishments primarily engaged in providing in-patient nursing and rehabilitative services are classified under HP*.11.1 Nursing care facilities.

HP*.12 Providers of ambulatory medical care

This item comprises establishments primarily engaged in providing medical care services directly to out-patients. This includes establishments specialised in the treatment of day-cases and in the delivery of home care services. Consequently, these establishments do not usually provide in-patient services. Health practitioners in ambulatory health care primarily provide services to patients visiting the health professional's office except for some paediatric and geriatric conditions.

HP*.12.1 Offices of medical practitioners

This item comprises establishments of health practitioners holding the degree of a doctor of medicine or a qualification at a corresponding level (ISCO-88 fourth degree level), primarily engaged in the independent practice of general or specialised medicine (including psychiatry, psychoanalysis, osteopathy, homeopathy) or surgery. These practitioners operate private or group practices in their own offices (e.g., centres, clinics) or in the facilities of others, such as hospitals or health maintenance organizations (HMO) type medical centres.

Illustrative examples

- general practitioners in private offices;
- specialists of a wide range of specialities in private offices;
- establishments known as medical clinics which are primarily engaged in the treatment of out-patients (Korea, Japan).

Cross-references

- 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*.12.4, Medical care centres.

HP*.12.2 Offices of medical specialists

This class includes medical consultation and treatment in the field of specialised medicine by medical specialists and surgeons. This class also includes family planning centres providing medical treatment such as sterilisation and termination of pregnancy, without accommodation.

Illustrative examples

Cross-references

Note: This class excludes:

- Specialists providing as self-employed inpatient hospital activities in hospitals, see HP*.10.1 General hospitals.
- Offices of midwives, physiotherapists and other paramedical practitioners, see HP*.13.1 Offices of health practitioners (non-medical).

HP*.12.3 Offices of dentists

This item comprises establishments of health practitioners holding the degree of Doctor of 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) or in the facilities of others, such as hospitals or HMO medical centres. They can provide dental practice activities of a general or specialised nature, e.g. dentistry, endodontic and pediatric 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*.43.3, Manufacture of denture;
- 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 HP*.13.9.

HP*.12.4 Medical care centres

This item comprises establishments engaged in providing a wide range of out-patient 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 establishments with physicians and other medical staff primarily engaged in providing surgical services (e.g., orthoscopic and cataract surgery) on an out-patient basis. Out-patient 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 out-patient health care services to the HMO subscribers with a focus generally on primary health care. These establishments are owned by the HMO. Included are HMO establishments that both provide health care services and underwrite health and medical insurance policies. Included are integrated community care centres providing both in-patient and out-patient services primarily engaged in out-patient services.

Cross-references

- physician walk-in centres are classified under HP*.12.1 Offices of medical practitioners, HP*.12.2 Offices of medical specialists;
- hospitals that also perform ambulatory surgery and emergency room services are classified under HP*.10 Hospitals.
- out-patient community centres and clinics;
- multi-speciality out-patient polyclinics;
- multi-speciality HMO medical centres and clinics.

Cross-references

- centres and clinics of medical practitioners primarily engaged in the independent practice of their profession are classified under HP*.12.1 Offices of medical practitioners, HP*.12.2 Offices of medical specialists, and HP*.12.3 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*.30 General health administration and insurance.

HP*.12.5 Dialysis care centres

This item comprises establishments with medical staff primarily engaged in providing out-patient kidney or renal dialysis services.

HP*.12.9 All other medical providers

This item comprises establishments various types medical providers as family planning centers providing a range of family planning services on an out-patient basis, such as contraceptive services, genetic and prenatal counselling, voluntary sterilisation, and therapeutic and medically indicated termination of pregnancy.

Illustrative examples

- pregnancy counselling centres;
- birth control clinics;
- childbirth preparation classes;
- fertility clinics.

This item comprises establishments with medical staff primarily engaged in providing general or specialised out-patient care (other than family planning centres, out-patient mental health and substance abuse centres, free-standing ambulatory surgical centres and kidney dialysis centres and clinics) where the focus is not on care provided by multi-speciality teams.

Cross-references

- 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 classified under HP*.12.4, Medical care centres.

This item comprises establishments primarily engaged in providing ambulatory health care services (other than offices of physicians, dentists, and other health practitioners; out-patient care centres; medical and diagnostic laboratories; home health care providers; ambulances; and blood and organ banks).

Illustrative examples

- 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 programmes.

HP*13. Other health care providers

HP*.13.1 Offices of health practitioners (non-medical)

This item comprises establishments of independent health practitioners (other than physicians, and dentists), such as chiropractors, optometrists, mental health specialists, physical, occupational, and speech therapists and audiologists establishments primarily engaged in providing care to out-patients. These practitioners operate private or group practices in their own offices (e.g., centres, clinics) or in the facilities of others, such as hospitals or HMO medical centres.

Note: this item includes paramedical practitioners providing so-called “traditional medicine” without a doctor’s approbation. 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.

Illustrative examples

- nurses;
- acupuncturists' offices (other than physicians);
- chiropractors;
- physiotherapists and physical therapists;
- occupational and speech therapists;
- audiologists;
- dental hygienists' offices;
- denturists' offices;
- dieticians' offices;
- homeopaths' offices (other than physicians);
- inhalation or respiratory therapists' offices;
- midwives' offices;
- naturopaths' offices (other than physicians);
- podiatrists' offices;
- registered or licensed practical nurses' offices;
- practitioners of Chinese medicine and other forms of traditional medicine; formal licensing may not be required as criteria for recognition as 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*.12.1 Offices of medical practitioners, HP*.12.2 Offices of medical specialists;
- the independent practice of dentistry is classified under HP*.12.2 Offices of medical specialists;
- the independent practice of home health care services is classified under HP*.13.2, Providers of home health care services.

HP*.13.2 Providers of home health care services

This item comprises establishments primarily engaged in providing skilled nursing services in the home, along with a range of the following: personal care services; homemaker and companion services; physical therapy; medical social services; medications; medical equipment and supplies; counselling; 24-hour home care; occupation and vocational therapy; dietary and nutritional services; speech therapy; audiology; and high-tech care, such as intravenous therapy.

Illustrative examples

- 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.

HP*.13.3 Out-patient mental health and substance abuse centres

This item comprises establishments with medical staff primarily engaged in providing out-patient services related to the diagnosis and treatment of mental health disorders and alcohol and other substance abuse. These establishments generally treat patients who do not require in-patient treatment. They may provide a counselling staff and information regarding a wide range of mental health and substance abuse issues and/or refer patients to more extensive treatment programmes, if necessary.

Illustrative examples

- out-patient alcoholism treatment centres and clinics (other than hospitals);
- out-patient detoxification centre and clinics (other than hospitals);
- out-patient drug addiction treatment centres and clinics (other than hospitals);
- out-patient mental health centres and clinics (other than hospitals);
- out-patient substance abuse treatment centres and clinics (other than hospitals).

Cross-references

- hospitals primarily engaged in the in-patient treatment of mental health and substance abuse illnesses with an emphasis on medical treatment and monitoring are classified under HP*.1.3, Mental health and substance abuse hospitals;
- establishments primarily engaged in the in-patient treatment of mental health and substance abuse illness with an emphasis on residential care and counselling rather than medical treatment are classified under HP*.2.2, Residential mental health care facilities.

HP*.13.4 Integrated care providers

HP*.13.5 Social Care providers

HP*.13.9 Other providers of ambulatory health care

This item comprises a variety of establishments primarily engaged in providing ambulatory health care services (other than offices of physicians, dentists, and other health practitioners; out-patient care centres; medical laboratories and diagnostic imaging centres; and home health care providers).

HP*.14 Providers of preventive programs

HP*.14.1 Provision and administration of health promotion and control programmes

This item comprises government administration and provision of public health programmes such as health promotion and protection programmes.

Illustrative examples

- government provision and administration of public health programmes (as part of ISIC class 7512);
- public health department/district (USA: local health agency).

HP*.14.2 Specialist providers of occupational health care services

This item comprises establishments providing occupational health care as ancillary production (see Chapter 5 for the corresponding definitions and accounting rules).

HP*.15 Patient transportation

HP*.15.1 Ambulance services

This item 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. In NACE Rev.2, ambulance services are recorded under 86.90 Other human health activities
ote: this item includes ambulance services provided in peacetime, non-disaster situations by the army, police or fire brigade.

HP*.15.2 Other specialized transportation in health care

This item comprises establishments primarily engaged in providing patient transport which is not rescue service along with health care.

Cross-references

Establishments primarily engaged in providing transportation of the disabled or elderly (without providing health care, such as taxi drivers) are classified under HP*.40, All other industries.

HP*.16 Retail sale and other providers of medical goods

This item comprises establishments whose primary activity is the retail sale of medical goods to the general public for personal or household consumption or utilisation. Establishments whose primary activity is the manufacture of medical goods for sale to the general public for personal or household use are also included as well as fitting and repair done in combination with sale.

HP*.16.1 Dispensing chemists

This item 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 medicine with and without prescription.

Illustrative example

- public pharmacies.

Cross-references

- pharmacies in hospitals serving mainly out-patients are part of establishments classified under HP*.10 Hospitals;
- specialised dispensaries where the continuous monitoring of compliance and treatment plays an important role (such as for diabetes patients), are classified under

HP*.16.2 Retail sale and other suppliers of optical glasses and other vision products

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*.16.3 Retail sale and other suppliers of hearing aids

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.

HP*.16.9 All other miscellaneous sale and other suppliers of pharmaceuticals and medical goods

other than 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 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

- 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.

Households

HP*.20 Private households as providers of home care

The boundary line drawn in the SHA includes personal 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 care.

For national purposes countries might classify households in a more detailed way.

Health and financial administration

HP*.30 General health administration and insurance

This item comprises establishments primarily engaged in the regulation of activities of agencies that provide health care, overall administration of health policy, and health insurance.

Note: the role and definition of health insurance and other forms of financing health care are discussed in more detail in Chapters 9 and 10.

HP*.30.1 Government health administration

This item 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.

Illustrative examples

- Ministry of Health;
- Board of Health;
- Food and drug regulation agencies;
- Agencies for the regulation of safety on the workplace.

Cross-references

Government health agencies mainly engaged in providing public health services even if predominantly of a collective nature (surveillance, hygiene), are classified under HP*.14.1 Provision and administration of health promotion and control programmes.

HP*.30.2 Social security funds

This item comprises the funding and administration of government-provided compulsory social security programmes compensating for reduction of loss of income or inadequate earning capacity due to sickness (as part of ISIC 7530).

Illustrative examples

- administration of compulsory social health insurance and sickness funds;
- administration of compulsory employer's sickness funds;
- administration of compulsory social health insurance covering various groups of state employees (army, veterans, railroad and other public transport, police, state officials, etc.).

HP*.30.3 Private insurance

This item comprises the funding and administration of social health insurance (other than government-provided compulsory social security programmes).

Illustrative examples

- administration of private social health insurance and sickness funds;
- administration of complementary social insurance (e.g. mutualité);
- administration of employer's social health insurance programmes (other than government social security and government health programmes for state employees).

HP*.30.4 Non-Profit-Organisations serving Households

This item comprises insurance of health other than by social security funds and other social insurance (as part of ISIC class 6603). This 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; as part of ISIC class 6720).

Provision related producers

This includes private establishments primarily engaged in supporting health care providers.

HP*.40 Education and Training

HP*.40.1 Medical education and training

This item includes education and training at any level or for medical professions. It includes education by the different academic institutions. Also included are military medical academies. The section includes public as well as private medical education. This group includes also general continuing education and continuing vocational education and training for medical professions.

HP*.40.2 Other education and training

This item includes education and training at any level or for other health professions.

HP*.41 Research

HP*.41.1 Scientific research

This item comprises basic clinical research, applied clinical research, experimental development in health sciences and engineering. It comprises experimental development on biotechnology, e.g.:

- DNA/RNA: genomics, pharmacogenomics, gene probes, genetic engineering, DNA/RNA sequencing/synthesis/ amplification, gene expression profiling, and use of antisense technology
- proteins and other molecules: sequencing/synthesis/engineering of proteins and peptides (including large molecule hormones); improved delivery methods for large molecule drugs; proteomics, protein isolation and purification, signalling, identification of cell receptors
- cell and tissue culture and engineering: cell/tissue culture, tissue engineering (including tissue scaffolds and biomedical engineering), cellular fusion, vaccine/immune stimulants, embryo manipulation
- process biotechnology techniques: fermentation using bioreactors, bioprocessing, bioleaching, biopulping, biobleaching, biodesulphurisation, bioremediation, biofiltration and phytoremediation
- gene and RNA vectors: gene therapy, viral vectors
- bioinformatics: construction of databases on genomes, protein sequences; modelling complex biological processes, including systems biology
- nanobiotechnology: applies the tools and processes of nano/microfabrication to build devices for studying biosystems and applications in drug delivery, diagnostics etc.

HP*.41.2 Market research

This item includes:

- investigation into health market development, acceptance and familiarity of goods and services and buying habits of consumers for the purpose of development of new goods and services, including statistical analyses of the results
- investigation into collective opinions of the public about political, economic and social issues and statistical analysis thereof

HP*.42 Laboratories

This item 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

- diagnostic imaging centres;
- dental or medical X-ray laboratories;
- medical testing laboratories;
- medical pathology laboratories;
- medical forensic laboratories.

Cross-references

Establishments, such as dental, optical, and orthopaedic laboratories, primarily engaged in providing the following activities to the medical profession, respectively: making dentures, artificial teeth, and orthodontic appliances to prescription; making lenses to prescription; and making orthopaedic or prosthetic appliances to prescription are classified under HP*.16 Retail sale and other providers of medical goods.

HP*.43 Industries

HP*.43.1 Pharmaceutical Industry

This item includes manufacture of medicinal active substances to be used in the manufacture of medicaments and the manufacture of medicaments.

Illustrative examples

- manufacture of medicinal active substances to be used for their pharmacological properties in the manufacture of medicaments: antibiotics, basic vitamins, salicylic and O-acetylsalicylic acids etc.
- processing of blood
- manufacture of medicaments: antisera and other blood fractions, vaccines, diverse medicaments, including homeopathic preparations
- manufacture of chemical contraceptive products for external use and hormonal contraceptive medicaments
- manufacture of medical diagnostic preparations, including pregnancy tests
- manufacture of radioactive in-vivo diagnostic substances
- manufacture of biotech pharmaceuticals

This class also includes:

- manufacture of chemically pure sugars
- processing of glands and manufacture of extracts of glands etc.
- manufacture of medical impregnated wadding, gauze, bandages, dressings etc.
- preparation of botanical products (grinding, grading, milling) for pharmaceutical use

This class excludes:

- manufacture of herb infusions (mint, vervain, chamomile etc.), see NACE rev.2 10.83
- manufacture of dental fillings and dental cement, see NACE rev.2 32.50
- manufacture of bone reconstruction cements, see NACE rev.2 32.50
- manufacture of surgical drapes, see NACE rev.2 32.50
- wholesale of pharmaceuticals, see NACE rev.2 46.46
- retail sale of pharmaceuticals, see NACE rev.2 47.73
- research and development for pharmaceuticals and biotech pharmaceuticals, see NACE rev.2 72.1
- packaging of pharmaceuticals, see NACE rev.2 82.92

HP*.43.2 Manufacture of medical supplies

This item includes the manufacture of laboratory apparatus, surgical and medical instruments, surgical appliances and supplies, dental equipment and supplies.. Included is the manufacture of medical, dental and similar furniture, where the additional specific functions determine the purpose of the product, such as dentist's chairs with built-in hydraulic functions.

Illustrative examples

- manufacture of surgical drapes and sterile string and tissue
- manufacture of dental fillings and cements (except denture adhesives), dental wax and other dental plaster preparations
- manufacture of bone reconstruction cements
- manufacture of dental laboratory furnaces
- manufacture of laboratory ultrasonic cleaning machinery
- manufacture of laboratory sterilisers
- manufacture of laboratory type distilling apparatus, laboratory centrifuges
- manufacture of medical, surgical, dental or veterinary furniture, such as: operating tables, examination tables, hospital beds with mechanical fittings, dentists' chairs
- manufacture of bone plates and screws, syringes, needles, catheters, cannulae, etc.
- manufacture of dental instruments (including dentists' chairs incorporating dental equipment)
- manufacture of artificial teeth, bridges, etc., made in dental labs
- manufacture of orthopedic and prosthetic devices
- manufacture of glass eyes
- manufacture of medical thermometers
- manufacture of ophthalmic goods, eyeglasses, sunglasses, lenses ground to prescription, contact lenses, safety goggles

This class excludes:

- manufacture of denture adhesives, see 20.42
- manufacture of medical impregnated wadding, dressings etc., see 21.20
- manufacture of electromedical and electrotherapeutic equipment, see 26.60
- manufacture of wheelchairs, see 30.92
- activities of opticians, see 47.78

HP*.44 Manufacture of denture

This item 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*.45 Installation and repair of medical equipment

This item includes the specialised repair of goods produced in the manufacturing sector with the aim to restore medical equipment and other health products to working order. The provision of general or routine maintenance (i.e. servicing) on such products to ensure they work efficiently and to prevent breakdown and unnecessary repairs is included. This item does only include specialised repair and maintenance activities. A substantial amount of repair is also done by manufacturers of medical equipment and other health goods, in which case the classification of units engaged in these repair and manufacturing activities is done according to the value-added principle which would often assign these combined activities to the manufacture of the good. The same principle is applied for combined trade and repair.

HP*.46 Wholesale retailers

This unit does usually not deliver services directly to patients. Wholesalers frequently physically assemble, sort and grade goods in large lots, break bulk, repack and redistribute in smaller lots, for example pharmaceuticals; store, deliver and install goods, engage in sales promotion for their customers and label design.

HP*.47 Reinsurance

This item includes activities of assuming all or part of the risk associated with existing insurance policies originally underwritten by other insurance carriers. This item is particularly relevant in countries with private insurance (see NACE rev.2 65.20)

HP*.49 Other industries

This item comprises industries not elsewhere classified which support health care providers.

Illustrative examples

Rest of the Economy

HP*.50 All other industries (rest of the economy)

This item comprises all other industries not providing health care as principal activity and not producers that support health care providers as principal activity.

Illustrative examples

- occupational health care services not provided in separate health care establishments (all industries);

HP*.90 Rest of the world

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