

ANNEX E

Classifying Health Care Products

Introduction

The health system provides health care goods and services to the population in the form of health care products. Health products are repeatedly referred to throughout the SHA 2011 Manual and, as such, a standardised concept of what a health product is should be established as a basis for any analysis of the production and consumption processes. This annex discusses the development of a classification of health care products based on their composition and characteristics. The categories presented are not intended as a definitive classification at this stage. The annex also includes an initial overview of the potential uses of such a classification and a brief reference to products as mentioned in the main chapters.

In SHA 2011, the functional classification aims at grouping together health care products according to their purpose, with the purpose categories relating to the natural history of disease (see Chapter 5). The content of the functional classes, which is the various health care goods and services, is further categorised by the Mode of Provision (MoP). A product classification may thus enable a deeper analysis of the consumption of health care products according to the type of MoP and the purpose.

The boundary of the health accounts is set according to the functions of health care. The basic feature of a functional approach concerns final consumption expenditure, which refers to the health goods and services purchased by households, NPISH and government for a health purpose (see Chapter 4 for a description of the boundary setting).

The health care provider (HP) classification in SHA 2011 is organised around the health care functions, so that its equivalence with regard to the underlying health care products is to be expected, at least implicitly: that is, the health care consumed has also been provided (see Chapter 6). There is, however, no one-to-one relationship of the provider to the type of product; usually providers generate a mix of products. A product classification may allow a definition of the profile of the health care mix by provider. It may also support an easier identification of provision outside of the health care boundary. For example, health care technology can be used for non-health care purposes, as is the case in some cosmetic procedures, as well as for the provision of non-health goods and services in pharmacies.

The product classification may be used to identify the quantity¹ of health care goods and services produced and consumed in a country and to see how much is spent on specific items. This may enable an examination of whether a country is achieving better

performance indicators because of differences in the quantities consumed/provided or due to price changes. In order to monitor changes in consumption/provision over time, one strategy frequently used is to monitor price dynamics for a health care basket selected on a country-by-country basis. Several international initiatives have targeted comparable price monitoring through purchasing power parities for a selected basket of inputs and products. The development of a health care product classification could assist in the construction of health specific PPPs² (see Chapter 13 for a description of price and volume analysis).

Uses of a product classification³

As with any classification, standardisation enables international comparability as well as comparison over time. The definition of health care products and their characteristics can help reduce any ambiguity with regard to decisions about classifications.

A primary use of a product classification should therefore be to facilitate the boundary-setting in each health system and to select what should be considered as health care expenditure. The international use of an explicit listing of health care products should improve the comparability of expenditure on health. To achieve this clarity, the expectation is not that a Health Accounting table using the product classification as an axis can be generated, but only that the scope of the accounts can be selected in a standardised way.

The development of a standard classification of products would also help make the content of each of the various functional classes more explicit. Many products may be labelled in a generic way, but it is only the use of the purpose of the consumption that allows them to be integrated into a specific function. For example, the same transportation service may be linked to education or leisure, but only in some specific conditions classified as health care. The health care products target health needs, but they do not have a one-to-one relationship in most cases: different products can target the same need, or one product can target multiple needs. The same health care contact can be considered preventive or curative based on its purpose. It is clear that the classification of health care products and functions are related. In fact, the value of functions is established as equivalent to the value of the groups of products consumed with a specific health purpose. To this end, one expected use of the product classification is to elaborate the content of the HC classes and not necessarily to generate a table of products cross-classified by HC. An explicit listing of products can contribute to identifying the primary product characteristics of health care providers and thus can support decision-making when classifying the health care providers.

Measurement of the consumed quantities of products appears to be a basic though not yet fully standardised process in most of the world's countries. The reporting services among a country's provider institutions may be improved if there is agreement on a selection of products to monitor, so that the identification of the most important ones is comparable. Some products have already been used in an extensive way as indicators of health system practices, such as the number of caesarean sections.

Information on products may be used as an input into more complex analyses, such as productivity and effectiveness. For this purpose, the classification can be adjusted to select the relevant products in the appropriate level of aggregation so that the measurement is made on a comparative basis. The level of product aggregation should be explicit and adjusted for the purpose of the measurement. That is, products may be expressed as

individual goods or services, or as a composite or a bundle (see definitions and specific uses below).

The level of aggregation of products to be used is very much dependent on the analysis to be performed. The specific uses of the product classification can be linked to the analysis of specific types of provider and by type of product, such as hospitals and hospital services or nursing homes and LTC services. However, a more detailed level can be required for an analysis by beneficiary, in which case a treatment or type of disease or patient is the level to consider. Each of these uses may lead to different levels of aggregation of products, as appropriate.

A classification of products can be used in the data collection of price statistics. A consumer price index measures the prices paid at the retail sale level. The collection of such prices involves a detailed specification of each representative product. As regular price surveys are expensive, only a selection of products is priced. In some cases, products are grouped at a higher level of aggregation to reduce the cost of the data collection. One example of this is inpatient care, which contains a bundle of products, including those related to diagnosis and treatment as well as nursing and food provision during the stay. An average amount would be generated instead of capturing the amount for each product contained. On the other hand, a larger level of detail could be required for specific areas of interest, in which case the product level needs to be more detailed. Selected health care products are part of the Consumer Price Index (CPI), which is measured on a recurrent basis in many countries.⁴

In summary, a classification can contribute to the framework for international comparison of health care products and should promote the harmonisation of the various types of statistics that deal with goods and services and should strengthen the role of national health accounts as an instrument for co-ordination so as to provide the basis for preparing production and consumption statistics on health care.

Definition of a health care product

A health care product is the result of the interaction of capital, labour and entrepreneurship in the production process which has the primary purpose of improving, maintaining or preventing the deterioration of the health status of persons or mitigating the consequences of ill-health.

Products can consist of both goods and services. Goods are physical objects over which ownership rights can be established and whose ownership can be transferred from one institutional unit to another by engaging in transactions on markets. Goods are in demand either because they may satisfy the needs or wants of households or the community or because they can be used to produce other goods or services. The production and exchange of goods are quite separate activities. The separation of the production of a good from its subsequent sale or resale is an economically significant characteristic of a good (not a characteristic of services). Goods can be stored.

Services are products over which ownership rights cannot be established, although they typically generate changes in the conditions of the consuming units, including health benefits for the receiving individuals. They cannot be traded separately from their production, and they are the result of the activities of producers at the demand of consumers. By the time their production is completed, the services must have been provided to the consumers. Goods may have a very constant set of characteristics depending on the way they are produced, whereas services are heterogeneous outputs as

they are linked to the situation when they were provided/consumed. SNA 2008 (paragraphs 6.10-6.22) provides a further discussion of products as goods and services.

- *Products for final and intermediate consumption*

Products can be used for final consumption and intermediate consumption. The focus in the classification of health care products is on products used for final consumption. Products for the intermediate consumption of providers are included in this classification only when these products relate to health care as defined in the functional classification, such as laboratory diagnosis and imaging, medicine provision and patient transport whenever these are provided for final consumption. Other intermediate consumption products, such as electricity, paper and food, are not presented in the classification.

To correctly define the product(s) of a service industry, it is essential to specify exactly what the producer agrees to sell and what the customer agrees to buy. That is, a determination must be made of what is implicitly or explicitly “contracted for” when a transaction takes place. The final service products may include one or more of the following broad types:

- *Simple service*: a standard service whose real output can often be measured in physical units or counts, e.g., a vaccination.
- *Composite service*: a product that embodies several distinct services that are produced together (by virtue of regulations, production process, safety or hygiene requirements, or industry practice). The customer is not free to pick and choose among the several services in the composite – the consumer buys all or none, e.g., a conventional outpatient visit includes diagnosis services as well as a therapeutic plan by a health worker.
- *Service bundle*: a product containing a collection of services negotiated between the service provider and the customer whose composition may vary by customer, e.g. a hospital admittance can contain some nursing, medical and “hotel” services and goods. When products reach the level of disease treatments, they implicitly deal with a bundle or a composite service set.

Product identification is easier at a level of detail that accords with prevailing marketing practices and record-keeping practices in the industry. Composite and bundled products are usually integrated in a cost centre and/or in a billing system. A progressive agreement on recording and reporting practices may be advantageous for both health comparisons and the use of health accounts.

- *Criteria used in the construction of the classification*

The product classification is designed to categorise health goods and services that have common characteristics. The classes proposed are a first attempt to cover all the health goods and services, notably in alignment with the purpose (functions) and the provider classifications (by type of services provided), and linked to the mode of provision. This classification is also linkable to the nationally and internationally used product classifications,⁵ which could facilitate the use of national accounts data for health accounts.

In order to generate the various categories, differences in technology have been taken into account to delineate the various products. Products defined according to technology can help health care providers to assess the optimality of the methods being used and of health care quality.

The integrated system of statistical classifications includes a classification of products. The health care product classification is based upon CPC Ver. 2 and CPA Rev. 2, adjusted to cover the scope of SHA.⁶ Both the CPC and the CPA classify products based on the physical properties of the product, their intrinsic nature as well as the principle of industrial origin. The link between the CPA and the harmonised commodity description and coding system (HS) is less strict than the link between the CPC and the HS, since the CPA gives a high priority to industrial origin. Industrial origin may be very useful for production statistics, but it is not so relevant for other types of statistics, such as those by purpose. For health care products, these criteria can be translated as follows:

- The physical properties of the goods (these cannot be applied to services) relate to their health care purpose and their durability, meaning the medical goods can be non-durable, such as consumables like pharmaceuticals and other medical inputs as well as durable goods, such as medical tools and equipment and prostheses and orthoses whose usability is more than a year.
- The intrinsic nature applies both for goods and services, which in principle must also have a primary purpose of health and must deal with health technology to various extents, and thus has a character of being general or specialised, *e.g.* surgery, a minor procedure, a consultation, a community visit or counselling, for which the human resources and equipment involved can be radically different.
- The industrial origin should be in agreement with the providers as specified in the provider classification.⁷ Whether a surgery is in an outpatient unit, a day care centre or a hospital may imply different levels of technology and complexity.

The basic criteria set out in the internationally-used product classifications are supplemented by a specific set of criteria that is necessary for the delineation of health care products:

- The classes at the more aggregated level deal with one of the bundles by purpose that is listed in the functional classification, and can include the simplest aggregation, such as the name of a medicine or medical good, or the specific intervention performed, such as a vaccination (see Box E.1.1 below);
- For the various functional classes split by MoP, the classification of products follows that split;
- When a greater detail in the level of aggregation is required, the proposal is to split by technology levels and differentiate them as general or specialised;
- Specialised services can be further detailed by type of specialty, such as an otolaryngologist consultation/admittance or a gynaecologist consultation/admittance-stay;
- The content of the composite product or contact can then be used to label the product, *e.g.* an ophthalmologist sight test examination, or a cardiologist consultation with an electro-cardiograph diagnosis.

The content of the contact can be a combination of any of the following activities:

- Establish a diagnosis;
- Formulate a prescription and therapeutic plan;
- Complement the process by imaging, laboratory and functional tests for diagnosis and clinical evolution assessment;

- Complement the therapeutic plan to include pharmaceuticals and other medical goods, as well as procedures, such as surgery;
- Monitor and assess the clinical evolution.

Products that are excluded from the health care boundary but are relevant for analytical purposes can also be included in the classification as memorandum items.

- *Adaptations and changes to the basic classifications*

The classification as presented in this chapter is based on both the CPC and the CPA,⁸ including the health classes and those components external to the human health branch used to cover the scope of SHA 2011. The starting point is the health functions, which also underlie the provider categories in the classification to set the area of health and the purpose they serve. They also include the products non-specified by functions (contained as retail trade and laboratory services as well as ancillary services such as the transportation of patients) and governance products and some products related to the secondary production of providers. The secondary production of providers could include in-house education programmes for specialisation in the medical and nursing professions. Another example could be services that prepare a hospital's dietetic meals delivered *e.g.* to a nursing home. Many groups and classes are expanded with additional digit groups to create a more complete overview of the products of health care.

A classification of products

The classification of products at its most detailed level contains up to six digits. While for some uses of the classification this might not be detailed enough (*e.g.* for a specific price survey on a selected section of products), for other uses the level of detail may be too large.

An example of the level of detail in the classification is presented in Box E.1.1, where the retail trade in pharmaceuticals and medical non-durables is provided for the issue of "other articles for medical purposes". For general purpose statistics, the detail could be too high, but for a specific survey on wound dressings the level of detail might need to be expanded greatly.

Box E.1.1. An example of the possible level of detail in wound dressings and other medical non-durables

07.1	Retail trade services of pharmaceutical goods and medical non-durables
07.1.3	Other articles for medical purposes
07.1.3.1	wound dressing (excl bandages)
07.1.3.1.1	Classic wound dressings
07.1.3.1.1.1	dry wound dressings
07.1.3.1.1.2	Moisture-keeping wound dressings
07.1.3.1.2	bioactive dressings & skin substitutes
07.1.3.2	other medical non-durables
07.1.3.2.1	adhesive and non-adhesive bandages
07.1.3.2.2	hypodermic syringes, first-aid kits, and ice bags (disposables)
07.1.3.2.3	medical hosiery items such as elastic stockings and knee supports
07.1.3.2.4	pregnancy tests
07.1.3.2.5	condoms and other mechanical contraceptive devices

In the health care branch, many products are delivered as composite services or as bundles of services. The distinction is important in understanding the classes proposed below. A composite service is a combination of activities that cannot be separated, i.e. they are inseparable. One cannot exist without the other. A bundle of services is a combination of services that depends on the specific intervention needed. Each package of services is customised to the health need and the resource availability, and thus may involve different product bundles, different combinations of the components in the same product aggregate. A bundle can be a combination of composite services and simple services.

Overview of health care products

01 Hospital services (CPC/CPA 9311, 86.1)

This category includes bundles of services for:

- Short- or long-term hospital services for patients admitted for a minimum of 24 hours, i.e. medical, diagnostic and treatment services, of general hospitals (e.g. community and regional hospitals, hospitals of non-profit organisations, university hospitals, military-base and prison hospitals) and specialised hospitals (e.g. mental health and substance abuse hospitals, hospitals for infectious diseases, maternity hospitals, specialised sanatoriums).

The services are directed to inpatients and are carried out under the direct supervision of medical doctors (ISCO groups 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) and contain:

- Medical, rehabilitative, nursing day care services;
- Emergency room, operating room, etc., services;
- Laboratory, imaging and all other ancillary services.

This also includes pharmaceutical services and laboratory and technical services delivered to inpatients as part of the bundle of services.

This category excludes:

- Services delivered by hospital outpatient wards (03.2, 03.3), services delivered to day care patients (02), and laboratory, imaging, transport and other ancillary services for outpatients (04.5).

- **01.1 Hospital surgical services (CPC/CPA 93111, 86.10.11)**

This subcategory includes:

- Surgical services delivered under the direction of medical doctors (ISCO group 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to inpatients, principally aimed at curing and restoring the health of a patient. Surgical services involve the use of operative manual and instrumental techniques on a patient to investigate and/or treat a pathological condition such as a disease or injury or to help improve bodily function. It also includes pharmaceutical services, nursing services and laboratory and technical services delivered to inpatients as part of the bundle.

Rehabilitative and preventive services are included only if these are part of the bundle of services supplied.

This subcategory excludes day care surgical services (02.1); small surgery services provided in general and specialised practice (03.1 and 03.2); dental surgery in hospitals

(03.3). This type of service also excludes surgery related to the field of gynaecology and obstetrics (01.2).

- *01.2 Hospital gynaecological and obstetrical services (CPC/CPA 93112, 86.10.12)*

This subcategory includes:

- Gynaecological and obstetrical services delivered under the direction of medical doctors (ISCO group 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to inpatients, aimed at the health of a patient. It also includes pharmaceutical services, nursing services and laboratory and technical services delivered to inpatients as part of the bundle.

This subcategory also includes family planning services, including medical treatment such as sterilisation or the termination of pregnancy, with accommodation. Also included are preventive services provided as part of the bundle.

This category excludes gynaecological and obstetrical services delivered in day care (02.2), by independent specialists to outpatients (03.2.2.3) and by independent midwives (not being part of the bundle) (04.1).

- *01.3 Hospital rehabilitation services (CPA 86.10.13)*

This subcategory includes:

- Rehabilitation services delivered under the direction of medical doctors (ISCO group 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to inpatients, aimed at restoring and/or maintaining the health of a patient. Rehabilitation is a process intended to enable people with functional limitations to reach and maintain optimal physical, sensory, intellectual, psychological and/or social function. It also includes pharmaceutical services, nursing services and laboratory and technical services delivered to inpatients as part of the bundle.

Preventive activities provided as part of the bundle are included.

Rehabilitation products include:

- Physical, psychological, speech, and occupational therapy and support services.

This category excludes rehabilitation services provided in day care (02.3), in general practice (03.1) and in other human health services (04), such as physiotherapy services for outpatients.

- *01.4 Hospital psychiatric services (CPC/CPA 93113, 86.10.14)*

This subcategory includes:

- Psychiatric services delivered under the direction of medical doctors (ISCO group 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to inpatients, aimed at curing or maintaining the mental health of a patient. It also includes pharmaceutical services, nursing services and laboratory and technical services delivered to inpatients. Included is also the preventive services provided as part of the service bundle.

This category excludes mental health services delivered in day care settings (02.4) and specialist practices services (03.2.3)

- *01.5 Intensive care services*

Intensive care includes extensive medical and continuous care and treatment provided for an acutely ill patient, in a specially designated section (intensive care unit) of a hospital. It includes nursing, ancillary, laboratory, imaging, prevention and all other services provided as part of the bundle.

- *01.9 Other hospital services (CPC/CPA 93119, 86.10.15, 86.10.19)*

This subcategory includes:

- Other hospital services delivered under the direction of medical doctors (ISCO group 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to inpatients, aimed at curing, restoring and/or maintaining the health of a patient, not mentioned separately above. It also includes other hospital services (radiotherapy, chemotherapy, dialysis services, etc.) delivered to inpatients as part of the bundle of services.

This subcategory excludes specialist medical practice services to inpatients (03.2, and specialised dental services (03.3.1) that are not part of the bundle. Day care services (02) are also excluded. Also excluded are ambulance services (04.4) and medical laboratory services for outpatients (04.5) that are not part of the bundle.

01.9.1 Radiotherapy services

Radiotherapy is the treatment of disease by means of ionising radiation; tissue may be exposed to a beam of radiation, or a radioactive element may be contained in devices (*e.g.*, needles or wire) and inserted directly into tissue (interstitial radiotherapy), or it may be introduced into a natural body cavity (intracavitary radiotherapy).

This category includes these services only if they can be separately identified.

01.9.2 Chemotherapy services

Chemotherapy is the treatment of disease using chemical agents or drugs that are selectively toxic to the causative agent of the disease, such as a virus, bacterium or other microorganism.

This category includes these services only if they can be separately identified.

01.9.3 Dialysis service

A procedure for removing metabolic waste products or toxic substances from the bloodstream by dialysis (either Haemodialysis, Peritoneal dialysis, Haemofiltration, Haemodiafiltration or Intestinal dialysis).

This category includes these services only if they can be separately identified.

01.9.9 Other hospital services n.e.c.

All services delivered in a hospital environment relating to admitted patients including those by medical doctors (ISCO groups 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) or under the supervision of medical doctors not elsewhere classified are to be included here.

02 Day care services

This category includes:

- Short-term “hospital” services for admitted patients for less than 24 hours (day care), i.e. medical, diagnostic and treatment services. The delivery of day care services is not limited to hospitals, but can also be delivered in ambulatory premises or self-standing centres.

This also includes pharmaceutical services, nursing services and laboratory and technical services delivered to day care patients as part of the bundle of services.

The services are directed to day care patients and are carried out under the direct supervision of medical doctors (ISCO groups 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) and contain:

- Medical, rehabilitative, nursing day care services;
- Emergency room, operating room, etc., services;
- Laboratory, imaging and all other ancillary services.

This category excludes services delivered by hospital to inpatients (01) and outpatients (03, 04), laboratory services for outpatients (04.5).

- *02.1 Day care surgical services*

This subcategory includes:

- Surgical services delivered under the direction of medical doctors (ISCO groups 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to day care patients, aimed at curing or restoring the health of a patient. It also includes pharmaceutical services, nursing services and laboratory and technical services delivered to day care patients, when these are part of the bundle.

Rehabilitative and preventive services are included only if these are part of the bundle of services supplied.

This type of service also excludes surgery related to the field of gynaecology and obstetrics (02.2) and dental surgery in hospitals (03.3).

- *02.2 Day care gynaecological and obstetrical services*

This subcategory includes:

- Gynaecological and obstetrical services delivered under the direction of medical doctors (ISCO group 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to day care patients, aimed at the health of a patient. It also includes pharmaceutical services, nursing services and laboratory and technical services that are delivered to day care patients as part of the bundle.

This subcategory also includes family planning services, including medical treatment such as sterilisation or the termination of pregnancy, without accommodation (with admission but a stay of less than 24 hours).

Also included are preventive services provided as part of the bundle.

- *02.3 Day care rehabilitation services*

This subcategory includes:

- Rehabilitation services delivered under the direction of medical doctors (ISCO group 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to day care patients, aimed at restoring and/or maintaining the health of a patient.

Rehabilitation products include:

- Physical, psychological, speech, and occupational therapy and support services as part of the bundle.

It also includes pharmaceutical services, nursing services and laboratory and technical services delivered to day care patients as part of the bundle.

Preventive activities provided as part of the bundle are included.

- *02.4 Day care psychiatric services*

This subcategory includes:

- Psychiatric services delivered under the direction of medical doctors (ISCO groups 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) to day care patients, aimed at curing the health of a patient. It also includes pharmaceutical services, nursing services and laboratory and technical services delivered to day care patients as part of the bundle.

Included is also the preventive services provided as part of the service bundle.

- *02.5 Other day care services*

This subcategory includes:

- Other day care services (radiotherapy, chemotherapy, dialysis services, etc.) delivered to day care patients as part of the bundle.

This subcategory excludes laboratory testing/checking and inspection services for all types of materials and products, except medical, ambulance services (04.4), medical laboratory services (04.5).

02.5.1 Day care radiotherapy services

This subcategory includes radiotherapy services provided in day care.

This category includes these services only if they can be separately identified.

02.5.2 Day care chemotherapy services

This subcategory includes chemotherapy services provided in day care.

This category includes these services only if they can be separately identified.

02.5.3 Day care dialysis services

This subcategory includes dialysis services provided in day care (either Haemodialysis, Peritoneal dialysis, Haemofiltration, Haemodiafiltration or Intestinal dialysis).

This category includes these services only if they can be separately identified.

02.5.9 Other day care services n.e.c.

All services delivered in a day care environment relating to patients, including those by medical doctors (ISCO groups 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) or under the supervision of medical doctors not elsewhere classified, are to be included here, as long as these services are provided as part of the bundle.

03 Medical and dental practice services (CPC/CPA 9312, 86.2)

The medical services subcategory includes:

- General and specialised medical services consisting in the diagnosis and treatment by medical doctors (ISCO groups 2211 Generalist medical professionals, 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) of physical and/or mental diseases or health needs, such as:
 - ❖ Consultations, visits, house calls, telephone services for aiding a patient and establishing a diagnosis;
 - ❖ A prescription and therapeutic plan;
 - ❖ Diagnostic tests and clinical evolution assessment;
 - ❖ Prescription of pharmaceuticals and other medical goods, as well as medical procedures, such as surgery;
 - ❖ Monitoring and assessing the clinical evolution, etc.

Included are preventive services that are part of the composite package provided, meaning these services cannot be separated from the other services delivered at the same time.

Excluded are check-ups in the case that these can be separately identified, when they are not part of the composite package (see 08.4).

The dental services subcategory includes:

- Diagnosis and treatment services of diseases affecting the patient's teeth or mouth or aberrations in the cavity of the mouth, and services aimed at the prevention of dental diseases, including orthodontic services and jaw surgery services. Services aimed at prevention are included only if these services cannot be separately identified in the accounts and are provided as part of the composite package.

The dental services can be delivered in health clinics, such as those attached to schools, firms, homes for the aged, etc., as well as in own consulting rooms.

They cover services in the field of general dentistry, such as routine dental examinations, preventive dental care, treatment of caries, etc., as well as services in the specialised dental area.

When the medical or dental service has as part of the composite the delivery of medical goods, they are included. Whenever the consumption of goods and ancillary services linked to these subcategories is made as an outpatient final consumption, they are excluded. The consumption of pharmaceuticals and therapeutic appliances is an essential component of the health care process, but the retail distribution records are distinct from the health services records. This means that these goods and services are in that case not a part of the composite package.

- *03.1 General medical practice services (outpatient) (CPC/CPA 93121, 86.21)*

The medical services subcategory includes:

- General medical services that consist of the diagnosis and treatment by medical doctors (ISCO groups 2211 Generalist medical professionals, as well as group 2230 Traditional and complementary medical professionals) of physical and/or mental diseases and health needs, such as:
 - ❖ Consultations, visits, house calls, telephone services for aiding a patient and establishing a diagnosis;
 - ❖ A prescription and therapeutic plan;
 - ❖ Diagnostic tests and clinical evolution assessment;
 - ❖ Prescription of pharmaceuticals and other medical goods, as well as medical procedures, such as surgery;
 - ❖ Monitoring and assessing the clinical evolution, etc.

These services are not limited to specified or particular conditions, diseases or anatomical regions. They can be provided in general practitioners' practices and also delivered by outpatient clinics, at home, in firms, schools etc., or by phone, Internet or other means.

Included are preventive services that are part of the composite package provided, meaning these services cannot be separated from the other services delivered at the same time.

Excluded are check-ups whenever these can be separately identified, i.e. they are not part of the composite package (part of 08.4).

The composite package can contain any of the following activities, but any of these can also be delivered as a simple product.

03.1.1 Diagnosis

The act or process of identifying or determining the nature and cause of a condition, disease or injury through evaluating the patient's history, considering signs, symptoms and/or the results of various diagnostic procedures, such as examination and laboratory and imaging data.

03.1.2 Providing medication/prescription of medication/renewal of prescription

This class involves ordering the use of a medicine or other treatment. Preventive activities provided as part of the composite package are included.

03.1.3 Physical medicine/rehabilitation services/physiotherapeutic services

The treatment and diagnosis of a condition, disease or injury by essentially physical means, including manipulation, massage and exercise, often with mechanical devices, and the application of heat, cold, electricity, radiation and water. Rehabilitation products include:

- Physical, psychological, speech, and occupational therapy and support services as part of the composite.

Prevention is included only if it is part of the composite package and cannot be separately identified.

03.1.4 *Minor surgery services*

Restricted to the management of conditions, diseases or injuries by operative procedures not involving anaesthesia or respiratory assistance.

03.1.5 *Evaluation and analysis of medical images and tests*

This subcategory includes:

- The analysis and interpretation of medical images (X-rays, electrocardiograms, endoscopies and the like) and all other laboratory test results by medical generalists.

Preventive activities provided as part of the composite package are included. Separately identifiable preventive services are classified in 08.4.

03.1.9 *All other general medical practice services (outpatient)*

This subcategory includes all services not mentioned above and it excludes inpatient hospital services (01); day care services (02); services of medical laboratories (04.5).

- *03.2 Specialist medical practice services (CPC/CPA 93122, 86.22)*

This category includes:

- Specialist medical practice services that can be provided in specialised practitioners' practices and also delivered by outpatient clinics, at home, in firms, schools, etc., or by phone, Internet or other means. There are four basic medical specialised fields separately mentioned: internal medicine, gynaecology and obstetrics, surgery and paediatrics. Specialised services often involve a further breakdown of each of those fields, as surgery (such as neurosurgery), internal medicine (such as allergology), paediatrics (such as paediatric allergology), and gynaecology and obstetrics (such as reproductive medicine, genetics), etc.
- ❖ Specialised medical services consisting in diagnosis and treatment by medical doctors (ISCO groups 2212 Specialist medical professionals as well as group 2230 Traditional and complementary medical professionals) of physical and/or mental diseases and health needs, such as:
 - ❖ Consultations, visits, house calls, telephone services for aiding a patient and establishing a diagnosis;
 - ❖ A prescription and therapeutic plan;
 - ❖ Diagnostic tests and clinical evolution assessment;
 - ❖ Prescription of pharmaceuticals and other medical goods, as well as medical procedures, such as surgery;
 - ❖ Monitoring and assessing the clinical evolution, etc.

This subcategory includes:

- Specialised medical services provided to inpatients in case these services can be separately identified and are not part of the composite package of services delivered.

The analysis and interpretation of medical images (X-rays, electrocardiograms, endoscopies and the like) and all other laboratory test results by medical specialists as part of the composite package.

Included are the preventive services as part of the composite package provided, meaning that these services cannot be separated from the other services delivered at the same time.

This subcategory excludes inpatient hospital services (01); day care services (02); services of medical laboratories (04.5).

Excluded are check-ups in case these can be separately identified, i.e. they are not part of the composite package (part of 08.4).

Excluded are the services of specialised medical practice as part of a bundle of inpatient or day case services.

03.2.1 *Internal medicine*

This is the branch of medicine that deals with the diagnosis and (nonsurgical, non-gynaecologic, or paediatric) treatment of diseases of the internal organs.

The composite package can contain any of the below-mentioned activities, but any of these can also be delivered as a simple product.

Excluded are the services of internal medicine practice as part of a bundle of inpatient or day case services.

03.2.1.1 *Diagnosis*

The act or process of identifying or determining the nature and cause of a condition, disease or injury in internal medicine practice through the evaluation of a patient's history, considering signs, symptoms and/or the results of various diagnostic procedures, such as examination and laboratory and imaging data.

03.2.1.2 *Providing medication/prescription of medication/renewal of prescription*

Ordering the use of a medicine or other treatment in internal medicine practice. Preventive activities provided as part of the composite package are included.

03.2.1.3 *Physical medicine/rehabilitation services/physiotherapeutic services*

The treatment and diagnosis of a condition, disease or injury in internal medicine practice by essentially physical means, including manipulation, massage and exercise, often with mechanical devices, and the application of heat, cold, electricity, radiation and water.

Rehabilitation products include:

- Physical, psychological, speech and occupational therapy and support services as part of the composite.

Prevention is included only if it is part of the composite package and cannot be separately identified.

03.2.1.4 *Minor surgery services*

Restricted to management of conditions, diseases or injuries in internal medicine practice by operative procedures not involving anaesthesia or respiratory assistance.

03.2.1.5 Evaluation and analysis of medical images and tests

Analysis and interpretation of medical images (X-rays, electrocardiograms, endoscopies and the like) and all other laboratory test results by medical specialists in internal medicine practice.

03.2.1.9 All other internal medicine services

This subcategory includes all services not mentioned above and excludes:

- Inpatient hospital services (0.1), day care services (0.2), services of medical laboratories (04.5).

03.2.2 Surgery (excluding surgery in gynaecology and obstetrics), excluding minor surgery in other fields (outpatient)

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

Surgical services involve:

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

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

- Minimally invasive surgery involves smaller outer incision(s) to insert miniaturised instruments within a body cavity or structure, as in laparoscopic surgery or angioplasty;
- Open surgical procedures require a large incision to access the area of interest.
- Laser surgery involves the use of a laser to cut tissue.
- Microsurgery involves using an operating microscope so that the surgeon can see small structures.
- Robotic surgery makes use of remote control of the instrumentation operated under the direction of the surgeon.

Excluded are the services of specialised surgical practice as part of a bundle of inpatient or day case services.

03.2.2.1 Diagnosis

The act or process of identifying or determining the nature and cause of a condition, disease or injury in surgical medicine practice through the evaluation of a patient's history, considering signs, symptoms and/or the results of various diagnostic procedures, such as examination and laboratory and imaging data.

03.2.2.2 Providing medication/prescription of medication/renewal of prescription

Ordering the use of a medicine or other treatment in surgical medicine practice. Preventive activities provided as part of the composite package are included.

03.2.2.3 Evaluation and analysis of medical images and tests

Analysis and interpretation of medical images (X-rays, electrocardiograms, endoscopies and the like) and all other laboratory test results by medical specialists in surgical medicine practice.

03.2.2.9 All other surgical specialist services

This subcategory includes all services not mentioned above and excludes:

- Inpatient hospital services (0.1), day care services (0.2), services of medical laboratories (04.5).

03.2.3 Gynaecology and obstetrics

This is the specialty dealing with the care of women, including the health of the female reproductive system (uterus, vagina and ovaries) and of their children during pregnancy, childbirth and postnatal. Midwifery is the non-surgical equivalent.

The composite package can contain any of the below-mentioned activities, but any of these can also be delivered as a simple product.

Excluded are the services of specialised gynaecological and obstetric practice as part of a bundle of inpatient or day case services.

03.2.3.1 Diagnosis

The act or process of identifying or determining the nature and cause of a condition, disease or injury in gynaecological and obstetric medicine practice through the evaluation of a patient's history, considering signs, symptoms and/or the results of various diagnostic procedures, such as examination and laboratory and imaging data.

03.2.3.2 Providing medication/prescription of medication/renewal of prescription

Ordering the use of a medicine or other treatment in gynaecological and obstetric medicine practice. Preventive activities provided as part of the composite package are included.

03.2.3.3 Physical medicine/rehabilitation services/physiotherapeutic services

The treatment and diagnosis of a condition, disease or injury in gynaecological and obstetric medicine practice by essentially physical means, including manipulation, massage and exercise, often with mechanical devices, and the application of heat, cold, electricity, radiation and water.

Rehabilitation products include:

- Physical, psychological, speech, and occupational therapy and support services as part of the composite.

Prevention is included only if it is part of the composite package and cannot be separately identified.

03.2.3.4 *Surgery services related to gynaecology and obstetrics*

Surgical services involve the use of operative manual and instrumental techniques on gynaecology and obstetric patients to investigate and/or treat a condition, disease or injury to help improve bodily function.

03.2.3.5 *Evaluation and analysis of medical images and tests*

Analysis and interpretation of medical images (X-rays, electrocardiograms, endoscopies and the like) and all other laboratory test results by medical specialists in gynaecological and obstetric medicine practice.

03.2.3.9 *All other gynaecological and obstetrical services (outpatient)*

This subcategory includes all services not mentioned above and excludes:

- Inpatient hospital services, day care services, services of medical laboratories (04.5).

03.2.4 *Paediatrics*

This specialty is concerned with the treatment of conditions, diseases and injuries in infants and children.

The composite package can contain any of the below-mentioned activities, but any of these can also be delivered as a simple product.

Excluded are the services of specialised paediatric practice as part of a bundle of inpatient or day case services.

03.2.4.1 *Diagnosis*

The act or process of identifying or determining the nature and cause of a condition, disease or injury in paediatric medicine practice through the evaluation of a patient's history, considering signs, symptoms and/or the results of various diagnostic procedures, such as examination and laboratory and imaging data.

03.2.4.2 *Providing medication/prescription of medication/renewal of prescription*

Ordering the use of a medicine or other treatment in paediatric medicine practice. Preventive activities provided as part of the composite package are included.

03.2.4.3 *Physical medicine/rehabilitation services/physiotherapeutic services*

The treatment and diagnosis of a condition, disease or injury in paediatric medicine practice by essentially physical means, including manipulation, massage and exercise, often with mechanical devices, and the application of heat, cold, electricity, radiation and water.

Rehabilitation products include:

- Physical, psychological, speech, and occupational therapy and support services as part of the composite.

Prevention is included only if it is part of the composite package and cannot be separately identified.

03.2.4.4 *Minor surgery services*

Restricted to the management of conditions, diseases or injuries in paediatric medicine practice by operative procedures not involving anaesthesia or respiratory assistance.

03.2.4.5 *Evaluation and analysis of tests*

Analysis and interpretation of medical images (X-rays, electrocardiograms, endoscopies and the like) and all other laboratory test results by medical specialists, in paediatric medicine practice.

03.2.4.9 *All other paediatric services*

This subcategory includes all services not mentioned above and excludes:

- Other hospital services (0.1), other day care services (0.2), services of medical laboratories (04.5).

03.2.5 *All other specialisations*

This subcategory includes all services not mentioned above.

The composite package can contain any of the below-mentioned activities, but any of these can also be delivered as a simple product.

Excluded are the services of all other specialised medical practices as part of a bundle of inpatient or day case services.

03.2.5.1 *Diagnosis*

The act or process of identifying or determining the nature and cause of a condition, disease or injury in all other specialised medicine practice through the evaluation of a patient's history, considering signs, symptoms and/or the results of various diagnostic procedures, such as examination and laboratory and imaging data.

03.2.5.2 *Providing medication/prescription of medication/renewal of prescription*

Ordering the use of a medicine or other treatment in all other specialised medicine practice. Preventive activities provided as part of the composite package are included.

03.2.5.3 *Physical medicine/rehabilitation services/physiotherapeutic services*

The treatment and diagnosis of a condition, disease or injury in all other specialised medicine practice by essentially physical means, including manipulation, massage and exercise, often with mechanical devices, and the application of heat, cold, electricity, radiation and water.

Rehabilitation products include:

- Physical, psychological, speech, and occupational therapy and support services as part of the composite.

Prevention is included only if it is part of the composite package and cannot be separately identified.

03.2.5.4 Minor surgery services

Restricted to management of conditions, diseases or injuries in all other specialised medicine practice by operative procedures not involving anaesthesia or respiratory assistance.

03.2.5.5 Evaluation and analysis of medical images and tests

Analysis and interpretation of medical images (X-rays, electrocardiograms, endoscopies and the like) and all other laboratory test results by medical specialists in all other specialised medicine practice.

03.2.5.9 All other services by other medical specialisms

This subcategory includes all services not mentioned above and excludes:

- Other hospital services (0.1), other day care services (0.2), services of medical laboratories (04.5).

- 03.3 Dental practice services (CPC/CPA 93123, 86.23)

The dental services subcategory includes:

- Diagnosis and treatment services of diseases affecting the patient's teeth or mouth or aberrations in the cavity of the mouth, and services aimed at the dental diseases and dental health needs, including orthodontic services and jaw surgery services.

The dental services can be delivered in health clinics, such as those attached to schools, firms, homes for the aged, etc., as well as in own consulting rooms.

Dental services consist in diagnosis and treatment by the dentist (generalists and specialists), such as:

- Consultations, visits, house calls, telephone services for aiding a patient and establishing a diagnosis;
- A prescription and therapeutic plan;
- Diagnostic tests and clinical evolution assessment;
- Prescription of pharmaceuticals and other medical goods, as well as medical procedures, such as surgery;
- Monitoring and assessing the clinical evolution, etc.

They cover services in the field of general dentistry, such as routine dental examinations, treatment of caries, etc., as well as services in the specialised dental area.

Included are preventive services included as part of the composite package provided, meaning these services cannot be separated from the other services delivered at the same time.

Excluded are the services of dental practice as part of a bundle of inpatient or day case services.

03.3.1 Orthodontic services (CPA 86.23.11)

This subcategory includes:

- Orthodontic services, e.g., treatment of protruding teeth, crossbite, overbite, etc., including dental surgery; services in the field of oral surgery; other specialised dental services, e.g., in the field of periodontics, paedodontics, endodontics and reconstruction.

This subcategory includes:

- Preventive services included as part of the composite package provided, meaning these services cannot be separated from the other services delivered at the same time.

Excluded are the services of orthodontic dental practice as part of a bundle of inpatient or day case services.

03.3.9 Other dental practice services (CPA 86.23.19)

This subcategory includes:

- Diagnosis and treatment services of diseases affecting the patient or aberrations in the cavity of the mouth, and services aimed at dental diseases.

These dental services can be delivered in health clinics, such as those attached to schools, firms, homes for the aged, etc., as well as in own consulting rooms.

This subcategory includes:

- Specialised dental services including dental surgery provided to inpatients in case these services can be separately identified and are not part of the bundle of services delivered.

They cover services in the field of general dentistry, such as routine dental examinations, treatment of caries, etc. Preventive dental care is included only when part of the composite package provided, meaning these services cannot be separated from the other services delivered at the same time.

04 Other medical services (CPC/CPA 9319, 86.9)

This subcategory includes:

- Services provided by authorised persons, other than medical doctors in the fields of Midwives' services, Nursing services, Physiotherapeutic services, Ambulance services and Medical laboratory services delivered as part of the composite package.

This subcategory excludes all the services delivered to inpatients and day cases as part of the package of services, i.e. the service bundle consumed.

● 04.1 Midwives' services (CPC/CPA 93191, 86.90.11)

This subcategory includes:

- Services provided by authorised persons, other than medical doctors:
 - ❖ Supervision and delivery services during pregnancy and childbirth; supervision of the mother after birth; family planning services involving medical treatment.

This subcategory includes the midwifery services delivered to inpatients and day care cases, which are not part of the bundle of inpatient services.

This subcategory excludes day cases if these are part of a bundle delivered by a medical specialist. However, in case the midwife conducts a delivery in a hospital setting on her own authority, these services are included in this subcategory.

● 04.2 Nursing services (CPC/CPA 93192,86.90.12)

This subcategory includes:

- Services provided by authorised persons other than medical doctors:
 - ❖ Services in the field of nursing care (without admission), advice and prevention for patients at home, the provision of maternity care, children's hygiene, etc.

This subcategory excludes residential nursing care facility services (05). This subcategory also excludes all services delivered in an inpatient or day case setting delivered as part of the bundles of services mentioned in inpatient and day cases.

- 04.3 *Physiotherapeutic services (CPC/CPA 93193, 86.90.13)*

This subcategory includes:

- Services provided by authorised persons, other than medical doctors:
 - ❖ Services in the field of physiotherapy, ergotherapy, etc.

Excluded are the services provided to inpatients and day case as part of the bundles of services.

- 04.4 *Patient transport services, among others Ambulance services (CPC/CPA 93194, 86.90.14)*

This subcategory includes:

- Transportation of patients to the health care premises or a required inter-facility transfer to complement a bundle of services, *e.g.* emergency transportation to health facilities and transportation between health facilities to complement imaging diagnosis or rehabilitative treatment. The transportation can be delivered in a specially-equipped surface vehicle or in a designated air or water ambulance (with or without resuscitation equipment or medical personnel) to and from facilities for the purpose of receiving medical and surgical care.

This also includes transportation in conventional vehicles, such as a taxi, when there is either a transaction involved or an overhead *e.g.* in the case of inter-hospital diagnosis imaging procedures.

Excluded are the transportation services provided to inpatients and day cases as part of the bundle of services.

- 04.5 *Medical laboratory services (CPC/CPA 93195, 86.90.15)*

This entry comprises a variety of tests of clinical specimens in order to get information about the health of a patient. Laboratory tests are an integral part of the workup of any patient, and constitute a guide for diagnosis and treatment choice. This class involves all prescribed tests that are not part of a bundle of services (inpatient and day case) or of a composite service for outpatient. Laboratory diagnosis includes the areas of Anatomic Pathology (histopathology, cytopathology); Clinical Microbiology (bacteriology, virology, parasitology, immunology and mycology); Clinical Biochemistry (enzymology, toxicology and endocrinology); Haematology (coagulation and blood bank); Cytology (semen and organ banks); and Genetics (cytogenetics).

Also included are clinical tests that are directed to specific organs and require additional technology to measure the activity, which are linked to most medical specialties: cardiovascular: *e.g.* electrocardiographic diagnosis; allergy: *e.g.* allergy test, food sensitivity tests; audiology, etc. Other diagnostic services include tests such as electrocardiographic diagnosis and effort assessment.

Excluded are all laboratory services provided as part of the bundle of services delivered during an inpatient stay or day case treatment as well as laboratory services that are part of the composite service for outpatients.

Also excluded are the interpretation and evaluation of the laboratory testing results (0.1, 0.2 and 0.3).

04.5.1 Sensitivity tests

A sensitivity test is a procedure that determines how responsive the subject is to certain outside stimuli. Each test is performed differently and may help both the subject and those administering the test better understand certain behaviour patterns or symptoms and how to treat them.

04.5.2 Microbiological/immunological tests

Laboratory techniques involving the use of microorganisms and the interaction of antigens with specific antibodies.

04.5.3 Blood, urine and faeces tests

Laboratory diagnosis through the physical, chemical and microscopic examination of blood, urine and faeces samples.

04.5.4 Histological/exfoliative cytology

Study of changes caused by disease within cells.

04.5.5 Other laboratory tests NEC

This subcategory includes all laboratory tests not mentioned above.

04.5.6 Physical function tests

The physical function examination consists of exercises designed to measure particular aspects of musculoskeletal strength and flexibility in a standardised manner

04.5.7 Diagnostic endoscopy

Examination of the interior of a canal or hollow organ by means of an endoscope to reach a diagnosis. The endoscope usually has a fibre optic camera, which allows a greatly magnified image to be projected onto a video screen, to be viewed by the operator. Many endoscopes also allow the operator to retrieve a small sample (biopsy) of the area being examined, in order to more closely view the tissue under a microscope.

04.5.9 Other medical laboratory services n.e.c.

This subcategory includes all medical laboratory services not elsewhere classified.

• 04.6 Diagnostic imaging services without interpretation (CPC/CPA 93196, 86.90.17)

This subcategory includes:

- A variety of services applying imaging technology like X-rays and radiation to diagnose and monitor patients. Includes an array of imaging technologies to diagnose and treat diseases, such as plain X-rays, bone; Soft tissue imaging, contrast X-rays or photo-imaging, diagnostic ultrasound, computed tomography (CT), Computer Assisted Tomography, Nuclear medicine, Nuclear magnetic imaging; Nuclear scanning, Positron Emission Tomography (PET), Magnetic resonance imaging (MRI) and other miscellaneous diagnostic imaging (arteriography using

contrast material, angiocardiology, phlebography, thermography, bone mineral density studies).

Excluded are all imaging services provided as part of the bundle of services delivered during an inpatient stay or day case treatment as well as imaging services that are part of the composite service for outpatients.

Also excluded are the interpretation and evaluation of the imaging service results (0.1, 0.2 and 0.3).

04.6.1 Diagnostic radiology/imaging (CPC/CPA revised: 86.90.17)

Specialised study through the application of imaging technology such as X-rays to diagnose and monitor conditions, disease or injuries.

- *04.7 Blood, sperm and transplant organ bank services (CPC/CPA 93197, 86.90.16)*

This subcategory includes:

- Services provided by blood, semen, embryo, tissue and transplant organ banks, including storing and cataloguing available specimens, matching donated specimens and potential recipients, etc.

In the majority of cases, these services are not directly delivered to patients as final consumption but are used in the process of some medical procedure and as such are part of intermediate consumption.

- *04.9 Other medical services n.e.c. (CPC/CPA 93199, 86.90.19)*

This subcategory includes:

- Other paramedical human health services n.e.c., such as occupational therapy (ISCO 2263 occupational health professionals), speech therapy (ISCO 2266 Audiologists and speech therapists) and services of TCAM (traditional, complementary and alternative medicine), such as acupuncture, aroma therapy, homeopathy, nutrition therapy, services of traditional birth attendants, traditional healers (see description of ISCO group 2230 Traditional and complementary medicine professionals).

These services are provided by authorised persons other than medical doctors.

This subcategory excludes services such as physiotherapy and ergotherapy (04.3). Also excluded are these services whenever they are part of the bundle of services delivered to inpatients and day cases as well as the services part of the composite services delivered to outpatients.

05 Residential care services (CPC/CPA 932, 87)

This category includes:

- Services provided in nursing homes, homes for the elderly and disabled, services provided for mental retardation, mental health and substance abuse and other residential care services, with respect to the medical, nursing, ancillary and ADL components.

In principle, only the activities related to nursing, ancillary and ADL are to be recorded as part of the health care package.

Excluded are Nursing services (04.2) provided by independent qualified nurses.

- **05.1 Residential nursing care services (CPC/CPA 9321, 87.1)**

This subcategory includes:

- Combined accommodation and medical, nursing, ancillary and ADL services provided without the supervision of a medical doctor located on the premises, *e.g.* nursing homes, homes for the elderly with nursing care, convalescent homes and rest homes with nursing care.

In principle, only the activities related to nursing, ancillary and ADL are to be recorded as part of the health care package.

Excluded are nursing services (04.2) provided by independent qualified nurses.

- **05.9 Other residential care services (CPC/CPA 9330, 87.90)**

This category includes:

- Other social work services with accommodation, halfway group homes for persons with social or personal problems; other social rehabilitation services, in so far as medical, nursing, ancillary and ADL services are separable parts of the packages.

In principle only activities related to nursing, ancillary and ADL are to be recorded as part of the health care package.

Excluded are nursing services (04.2) provided by independent qualified nurses.

06 Nursing care services without accommodation (CPC/CPA 934, 88)

This category includes:

- All nursing, ancillary and ADL services provided by authorised and unauthorised persons delivered to children and adults with a large dependency for activities of daily living and instrumental activities of daily living (IADL). Included are services provided by volunteers (for their remunerated services).

In principle only activities related to nursing, ancillary and ADL are to be recorded as part of the health care package.

Excluded are nursing services (04.2) provided by independent qualified nurses.

- **06.1 Nursing care services without accommodation for the elderly and disabled (CPA 88.1)**

All nursing, ancillary and ADL services provided by authorised and unauthorised persons delivered to elderly and disabled with a large dependency for activities of daily living and instrumental activities of daily living (IADL), but without the supervision of a medical doctor located on the premises during a part of the day. Included are nursing care services delivered at the patient's home.

In principle only activities related to nursing, ancillary and ADL are to be recorded as part of the health care package.

Excluded are nursing services (04.2) provided by independent qualified nurses.

- **06.9 Other nursing care services without accommodation (CPC/CPA 935, 88.9)**

This subcategory includes all services not mentioned above.

07 Retail trade services in medical products (CPC/CPA Division 62, 47)

This item comprises medical goods dispensed to outpatients and the services connected with dispensing, such as retail trade, fitting, maintaining and renting of medical goods and appliances. Included are the services of public pharmacies, opticians, sanitary shops and other specialised or non-specialised retail traders, including mail ordering and teleshopping.

This group covers medicaments, prostheses, medical appliances and equipment and other health-related products provided to individuals, either with or without a prescription, usually from dispensing chemists, pharmacists or medical equipment suppliers, and intended for consumption or use by a single individual or household outside a health facility or institution.

Included is the information and education service provided as part of the (simple) product delivery.

- *07.1 Retail trade services of pharmaceutical goods and medical non-durables (CPC/CPA 62273, 47.00.74)*

This item comprises pharmaceuticals such as medicinal preparations, branded and generic medicines, drugs, patent medicines, serums and vaccines, vitamins and minerals and oral contraceptives. This item also comprises a wide range of medical non-durables such as bandages, elastic stockings, incontinence articles, condoms and other mechanical contraceptive devices.

Included is the information and education service provided as part of the (simple) product delivery.

07.1.1 Medicaments, for therapeutic or prophylactic uses

Medicaments are any chemical substance intended for use in the medical diagnosis, cure, treatment or prevention of disease. The level of detail in the category of medicaments for therapeutic and prophylactic use corresponds to the distinctions used in the Anatomical Therapeutic Classification.

07.1.1.1 Medicaments aimed at alimentary tract and metabolism

07.1.1.2 Medicaments aimed at blood and blood-forming organs

07.1.1.3 Medicaments aimed at cardiovascular system

07.1.1.4 Dermatologicals

07.1.1.5 Medicaments aimed at genito-urinary system and sex hormones

07.1.1.6 Systemic hormonal preparations, excluding sex hormones and insulins

07.1.1.7 Anti-infectives for systemic use

07.1.1.8 Antineoplastic and immunomodulating agents

07.1.1.9 Medicaments aimed at musculo-skeletal system

- 07.1.1.10 Medicaments aimed at nervous system
- 07.1.1.11 Antiparasitic products, insecticides and repellents
- 07.1.1.12 Medicaments aimed at respiratory system
- 07.1.1.13 Medicaments aimed at sensory organs
- 07.1.1.14 Various other medicaments
- 07.1.2 Other pharmaceutical products
 - 07.1.2.1 Serums and vaccines
 - 07.1.2.2 Vitamins and minerals
 - 07.1.2.3 Cod liver oil and halibut liver oil
 - 07.1.2.4 Oral contraceptives
 - 07.1.2.9 All other pharmaceutical products
- 07.1.3 Other articles for medical purposes
 - 07.1.3.1 Wound dressing (excluding bandages)
 - 07.1.3.1.1 Classic wound dressings
 - 07.1.3.1.1.1 Dry wound dressings
 - 07.1.3.1.1.2 Moisture-keeping wound dressings
 - 07.1.3.1.2 Bioactive dressings & skin substitutes
 - 07.1.3.2 Other medical non-durables
 - 07.1.3.2.1 Adhesive and non-adhesive bandages
 - 07.1.3.2.2 Hypodermic syringes, first-aid kits and ice bags (disposables)
 - 07.1.3.2.3 Medical hosiery items such as elastic stockings and knee supports
 - 07.1.3.2.4 Pregnancy tests
 - 07.1.3.2.5 Condoms and other mechanical contraceptive devices
- 07.1.9 All other retail trade services of pharmaceutical goods and medical non-durables
 - 07.2 Retail trade services of medical durables and orthopaedic products (CPC/CPA 62274, 7.00.75)

This item comprises a wide range of medical durable goods such as hearing aids and other medical devices.

Included is the information and education service provided as part of the (simple) product delivery.

07.2.1 Medical durables for household use (such as clinical thermometers, hot-water bottles and (re-usable) ice bags

07.2.2 Hearing aids

07.2.3 Artificial limbs and other prosthetic devices

07.2.4 Orthopaedic braces and supports, surgical belts, trusses and supports, neck braces

07.2.5 Orthopaedic footwear

07.2.6 Wheelchairs and invalid carriages, crutches, electronic and other devices for monitoring blood pressure, etc.

Included in this item are also items such as walking canes (such as for the blind), wigs, etc.

07.2.7 Repair of such articles

07.2.9 All other retail trade services of medical durables and orthopaedic products and their repair

- *07.3 Retail trade services of optical goods and services of opticians*

This item comprises a wide range of medical durable goods such as glasses, rims, lenses, fluids and the fitting and related services to the sales of these items.

Included is the information and education service provided as part of the (simple) product delivery.

07.3.1 Spectacles, corrective eyeglasses and contact lenses and analogous articles for correction, protection, or of another type; lens fluids; frames for spectacles, eyeglasses and analogous articles; binoculars, monoculars.

07.3.2 Repair of such articles

- *07.4 Mail order or internet retail trade services in medical goods (CPC 623)*

- *07.9 All other retail trade services in medical products and their repair*

08 Preventive services

Prevention is any service that reduces the burden of mortality or morbidity from disease. This takes place at primary, secondary and tertiary prevention levels.

- Primary prevention anticipates the emergence and lessens the severity of diseases. Most population-based health promotion activities are primary preventive measures, *e.g.* vaccination.

- Secondary prevention activities are aimed at early disease detection, thereby increasing opportunities for less costly and invasive interventions to prevent progression of the disease and emergence of symptoms, *e.g.* screening for TB, diabetes, breast cancer, etc.
- Tertiary prevention reduces the negative impact of an already-established disease by restoring function and reducing disease-related complications.

In SHA, prevention is limited to primary and secondary prevention, that is to say, it involves specific benefits aimed at avoiding contact with disease-producing risk factors to reduce the onset of a disease and to detect diseases early.

Although most primary and secondary prevention services are offered as part of health care while delivering curative and rehabilitative services, in some cases they have a set of specific resources, as in the case of vaccination campaigns and screening campaigns, for which health services can be delivered outside the health care premises. These services are also provided by special teams or individual health professionals not connected with a hospital, clinic or practitioner, but in public health laboratories, by researchers, by toxicological experts and community health workers, among others.

Any preventive services provided as part of a bundle for inpatients and day cases as well as part of a composite service delivered to outpatients are not part of these (sub) categories.

- *08.1 Information and counselling programmes*

Information, education and communication (IEC) combines strategies, approaches and methods to enable individuals, families, groups, organisations and communities to play active roles in achieving, protecting and sustaining their own health. Embodied in IEC is the process of learning that empowers people to make decisions, modify behaviours and change social conditions, including better knowledge, beliefs, attitudes, use and interaction with the health system.

This includes products in the various formats:

- Printed documents, internet and other electronic formats;
- Media;
- Personal interaction.

Mass media content can cover movie, radio, theatre and TV advertisements and programmes, and flyers, posters, documents of all sizes, mass media publicity, interpersonal interaction and special dissemination activities at all levels of detail.

The content aims to inform individuals about specific health problems, their conditioning factors and particular risks. This can be related to risk-avoidance strategies, self-protection, medication adherence, self-management guidelines of diseases, pre-operative education, or discharge plans, self-applied tests to monitor health conditions, orienting individuals on how to stay well if the results are negative, and orienting and referring them for follow-up, if positive.

- *08.2 Immunisation programmes*

These aim to prevent the development of a disease, before or after exposure, through the use of pharmaceutical products, such as vaccines.

This involves consumption both as a control programme and upon individual demand. For accounting purposes, it is recommended that this class be further disaggregated as:

- Immunisation through mass vaccination campaign (intra- or extramural);
- Immunisation requested by individuals.

Vaccination can be related to a predefined package related to specific population groups (children, pregnant women, individuals at imminent risk, etc.).

Most frequent vaccines:

- Diphtheria, measles, mumps, pertussis (whooping cough), rubella, tetanus, varicella (chicken pox), polio;
- Hepatitis, herpes zoster, HPV, influenza, meningococcal infections, pneumococcal infections, rabies and yellow fever.

● 08.3 Early disease detection programmes

This item concerns the active search for a disease early in its course, before symptoms appear, within the risk groups. These are directed to specific diseases, such as breast cancer, cervical cancer, colon rectal cancer, diabetes, HIV/AIDS, malaria, tuberculosis, prostate cancer and so on.

This involves consumption both as a control programme and upon individual demand. For accounting purposes, it is recommended that this class be further disaggregated as:

- Early disease detection campaign (intra- or extramural);
- Early disease detection requested at the consumer's initiative.

These can involve one or more of the following services (not being part of a bundle of services delivered to inpatients or day cases or part of a composite service delivered to outpatients):

- Medical examinations;
- Laboratory and imaging diagnostic;
- Endoscopic and other procedures.

● 08.4 Healthy condition monitoring programmes

This item concerns the active monitoring of healthy conditions, not focused on specific diseases. These can target, for example, specific conditions such as pregnancy (antenatal and postnatal care), age groups such as children (*e.g.* child growth and development) or ageing groups and specific health domains, such as general health check-ups.

- General check-ups;
- Essential preventive interventions for healthy groups, *e.g.* distribution of contraceptive methods, including emergency contraception, anaemia prevention and control in maternal and child conditions: iron and folic acid supplementation;
- Monitoring growth and development, *e.g.* progress of pregnancy and assessment of maternal and foetal well-being, including nutritional status; monitoring child growth; post-abortion care and family planning;
- Support for routine care and follow-up visits;
- Recognition of problems, illness and timely care-seeking, *e.g.* for the elderly.

Includes early detection and management of common conditions of ageing groups; early identification and management of newborn problems, for pregnancy complications (e.g., anaemia, hypertensive disorders, bleeding, mal-presentations, multiple pregnancy).

- *08.5 Epidemiologic surveillance and risk and disease control programme*

This class involves the technical effort to manage knowledge and resources with a preventive and control focus. It can be developed through global, regional or national protocol-based programmes.

This includes:

- Programme control documents and related planning, monitoring and evaluation of interventions;
- Information systems for epidemiology and health and management to track cases, records and health system responses;
- Operational programme interventions, for improvement of the programme: supervision, hands-on training and operational research;
- Reports and systems for surveillance and analysis of communicable and non-communicable diseases, injuries and exposure to environmental agents harmful to health;
- Records to measure selected health conditions and diseases of community significance, such as tuberculosis.

- *08.6 Disaster and emergency response programmes of health systems*

Includes the preparation for an appropriate response in case of humanitarian emergencies whether of human or natural origin. The aim is to protect health and to reduce mortality and morbidity due to health hazards through, notably, field epidemiology and training to follow technical standards.

This involves:

- Documents with instructions and guidance;
- Training and exercises to set strategies;
- Generating and handling information during emergency periods to identify the nature of the emergency and the health effects as well as the magnitude and location of health damages;
- Strategies for the enlargement of resources on a very short-term basis;
- Preparation and adjustment strategies on operations and the referral of patients, such as reorganising triage and coverage based on the nature of the emergency.

This class can be adjusted to country-specific needs, as the health risks can differ in different areas. However, in all cases health rules and a health infrastructure should be prepared to cope with emergency health care needs.

09 Governance, management and health system administration (CPC/CPA Division 91, 84)

The focus of these services is on the health system rather than directly on health care. They are considered to be collective, as they may not be allocated to specific individuals but benefit all users. They direct and support the functioning of the health system. These

services are expected to maintain and increase the effectiveness and efficiency of the health system and may enhance its equity.

This category includes:

- The formulation and administration of government policy;
- The setting and enforcement of standards;
- The regulation, licensing or supervision of producers;
- The management of funds collection;
- The administration, monitoring and evaluation of these resources.

Excluded are: the administrative costs of the health providers and the health goods and services they provide. Also excluded are the opportunity costs of paperwork for consumers and the associated general revenue tax collection.

- *09.1 Governance and administrative health (excluding those for mandatory schemes) care services (CPC/CPA 911, 84.1)*

Governance and health system administration together form a single class. One class is proposed at the second-digit level due to its relatively low share of spending and the low feasibility of it being separated.

Governance has been defined as “the careful and responsible management of the population’s well-being”, and comprises three broad tasks: providing vision and direction, collecting and using intelligence and exerting influence through regulation and other means. It includes planning, policy formulation and information intelligence for the entire health system, such as:

- Monitoring of health needs and health care interventions;
- Specific resource monitoring and auditing;
- Research, development and implementation of innovative interventions to set standards;
- Development of policies and planning;
- Health promotion partnerships, social participation and empowerment.

Administration involves a management focus on the design of measures to regulate, to generate incentives and to control organisations and resources in the system, such as general and specialised medical establishments, including dental services, hospitals and clinics, nursing and convalescent home services as well as independent practices. This includes directive and operational roles as well as the resources involved in such operations.

- Strategic management of health systems and services to improve the population’s health;
- Regulation to protect public health, including accreditation and quality assurance;
- Human resources development and planning.

- *09.2 Administrative services regarding mandatory schemes (CPC/CPA 913, 84.3)*

Health administration and health insurance activities concern mandatory schemes that are executed by private insurers and central and local authorities and social security institutions. Included are the planning, management, regulation and collection of funds and the handling of claims by the delivery system.

This class involves a subcomponent specific to health financing. It includes management of fund collection and the administration, monitoring and evaluation of mandatory schemes. Among these are the specific services linked to:

- Resource mobilisation: Member identification of the schemes, their enrolment, billing and collection of contributions, as well as managing exemptions.
- Pooling: Risk equalisation is one important service;
- Purchasing function: Selecting, negotiating with health providers and purchasing and contracting;
- Claim processing system, gate-keeping, payments to providers and patient reimbursement.

09.2.1 Administration of governmental schemes and compulsory health insurance

09.2.1.1 Administration of governmental schemes

This subcategory includes:

- Administrative and operational services related to compulsory governmental health delivery schemes, involving the provision of benefits due to sickness, childbirth or temporary disablement.

09.2.1.2 Administration of compulsory health insurance schemes

This subcategory includes:

- Administrative and operational services related to compulsory health insurance schemes, involving the provision of benefits due to sickness, childbirth or temporary disablement.

10 Health insurance, except mandatory schemes (CPA 65)

- 10.1. Health insurance services (CPC/CPA 7132, 65.12.1)

The administration of private health insurance essentially involves the health insurance service and the service charge⁹ for this. This covers expenditure on sales, the enrolment and policy service, claim adjudication, actuarial functions, legal support services, investment functions, corporate overheads and risk charges.

Excluded are: the administrative costs of the health providers and the health goods and services they provide. Also excluded are the opportunity costs of paperwork for consumers and the associated general revenue tax collection.

11 Health and social care goods and services produced by households for own use

This item contains all services generated within the household for own final use, which are reimbursed or the subject of transfers. It usually refers to care provided on a long-term basis through relatives and friends.

All services that are not associated with a transaction lie outside the boundary, but they can be accounted for, when relevant, as a memorandum item.

Memorandum items

MP.1 Room or unit accommodation services for visitors (CPA 55.10.10)

This subcategory includes:

- Accommodation services consisting of rooms or units with daily housekeeping and other services, for persons away from their place of residence, in, for example, hospitals or other health care-type institutions offering accommodation, provided on a daily basis for relatives and others related to patients.

MP.2 Food and drink served to visitors

This subcategory includes:

- Food and drink preparation and supply services to visitors in hospitals and related health care-type institutions.

These services provide meals and drinks, usually at reduced prices, to groups of clearly defined persons who are usually linked to health care-admitted patients.

MP.3 Transportation of persons accompanying patients

This subclass includes the expenditure related to persons who need to accompany a patient seeking health care services.

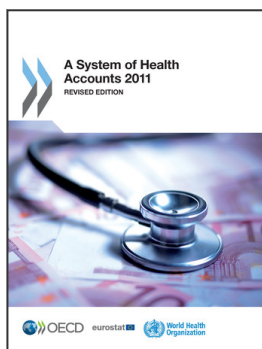
MP.4 Health and social care goods and services produced by households for own use, not associated with transactions.

This item contains all services generated within the household for own final use, which are not reimbursed nor the subject of transfers. It usually refers to care provided on an acute or long-term basis through relatives and friends.

Notes

1. For an explanation of the differences between quantity and volume see Chapter 13.
2. Although in some OECD/EU countries health-specific PPPs are constructed based on a DRG system, it should be noted that DRGs are usually valid only for inpatient care settings. In outpatient settings more use is made of bundles of products in the construction of internationally comparable data on the quantities provided (and consumed) in the health branch. The PPP strategy for middle- and low- income countries is also related to bundles of products. These goods and services are usually linked to the CPC/CPA. See Chapter 13.
3. The classification of products in the national statistical system is used for various purposes:
 - a) products provide the basis for preparing statistics on the production, distributive trade, consumption, foreign trade and transport of such products, of which a section pertains to health;
 - b) product data is used in the construction of the supply and use tables: health products are an important means for the construction of both economy-wide supply and use tables as well as health-specific supply and use tables. The comparison of products contributes to learning from best practices and links performance with institutional and health policy-related factors, and helps identify potential gains by improving performance.
4. Agreement on the basket and the ideal level of detail faces operational challenges in the various countries, depending on the statistical system and resources available for price surveys. In WHO, some of the recommendations involve *e.g.* 30 widely used medicines and their prices in the various sectors (public, private, and private not-for-profit), innovator brands, the most sold and lowest-priced generics as well as a parallel measurement of the reference international prices, see WHO (2011a).

5. Here the reference to linkages to CPC: Central Product Classification and CPA: Classification of Products by Activities is made, though health system statistics really rely on some modified version of SNA reference classifications, for purposes, industries and products. All of these in the health-related area have been used in SHA and all of them have been slightly modified for analytical purposes. The main characteristic of these classifications is that inpatient and outpatient services and medical good provision are seen from the various perspectives: the industry producing them, the purpose of consumption as well as the object of consumption. See Annex A for a detailed view of the interaction of SHA with the various reference classifications.
6. The integrated system of statistical classifications has a close connection with the harmonised commodity description and coding system, which makes it possible to compare statistics produced in different statistical domains. The CPA is the European counterpart of the CPC, although the components of the CPA are in a different structural order. The CPC structures products based on the physical properties and intrinsic nature of the products as well as on the principle of industrial origin; the CPA has the same criteria but gives first priority to industrial origin. Both the CPC and the CPA cover the entire economy, including the health care branch: in the CPC by section 93 Human health and social care services; in the CPA by section Q Human health and social work services. Although the two global classifications contain sections covering health care, this does not mean that the boundaries are identical to what is used in SHA. On the one hand, the CPC and CPA contain in these sections products that are not part of health care as defined in SHA (such as the majority of the social services). On the other hand, SHA covers areas that are treated elsewhere in the CPC and CPA (such as the delivery of medical goods and government services related to health care).
7. This means that all providers of health care are taken into consideration, not only the providers whose main activity is health care (as in the ISIC and NACE).
8. The basis for the classification of health care products is the CPC and CPA. A few additional sources of products are used to create more detail in specific classes. For general medical practice services, the classification of the International Classification of Primary Care (ICPC, 2005) is used. Government preventive programme services are supplemented by various services mentioned in the Essential Public Health publication of WHO (WHO, 2002). There are various sources for details on the retail trade services of pharmaceutical goods. First, some details of pharmaceutical production are added in the retail sales structure. The details are found in the Harmonised system (headings and subheadings of HS 2007). Some examples are the sale of vitamins, provitamins and antibiotics, vaccines and serums and oral contraceptives. For medicaments for therapeutic or prophylactic use, additions are found in the Anatomic Therapeutic Classification (ATC; WHO, 2011b) classification. Details for wound dressings and other medical non-durables can be found on various internet sites on wound repair and related products (see e.g. Derm Net NZ, 2011; MedScape, 2011). Also, some details for the heading of medical and orthopaedic goods are found in the Harmonised System. Details in the CPC and CPA that are not relevant for the classification of health products are not included.
9. SNA 2008 defines the value of an insurance service or insurance output in paragraph 6.185.



From:
A System of Health Accounts 2011
Revised edition

Access the complete publication at:
<https://doi.org/10.1787/9789264270985-en>

Please cite this chapter as:

OECD/Eurostat/World Health Organization (2017), “Classifying Health Care Products”, in *A System of Health Accounts 2011: Revised edition*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/9789264270985-23-en>

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