

PART II
INTERNATIONAL CLASSIFICATION
FOR
HEALTH ACCOUNTS (ICHA)

9. ICHA-HC FUNCTIONAL CLASSIFICATION OF HEALTH CARE

OVERVIEW

- 9.1. The one-digit level of the functional classification (introduced in Chapter 3) is extended in this chapter by items at the two- and the three-digit level (Table 9.1) complemented by explanatory notes. The development of a fine structure of functions of health care at the three-digit level and beyond is, however, still experimental (see also the recommended additional dimensions for reporting under various functions of personal care that are outlined in Chapter 3, Table 3.2 and 3.3).
- 9.2. Annex 9.1 to this chapter discusses selected boundary issues of health care. Cross-classifications of the ICHA-HC with the functional classifications in the System of National Accounts are provided in Annex 9.2 to encourage the reconciliation of health accounting with the System of National Accounts and its accompanying classifications. A cross-classification of public health functions of the ICHA-HC is presented in Annex 9.3.

FUNCTIONS OF PERSONAL HEALTH CARE

- 9.3. Functions of personal health care comprise functions HC.1 to HC.5. These are services and goods that can be directly allocated to individuals as distinct from services provided to society at large (HC.6, Prevention and public health services; and HC.7, Health administration and health insurance). Functions of personal health care are both classified by *basic functions of care* (curative, rehabilitative and long-term nursing care) and by *mode of production* (in-patient, day care, out-patient, home care).

Curative, rehabilitative and long-term nursing care

- 9.4. The basic criterion for classifying health care services is the *type of episode of care* provided (curative, rehabilitative and long-term nursing care). Definitions developed by the Australian Health Data Committee, and by the US Joint Commission on Accreditation of Healthcare Organisations have been used as a model.

Modes of production

- 9.5. The following definitions of *mode of production* are used throughout the ICHA-HC classification for defining categories of personal health care services at the two-digit level.

In-patient care

- 9.6. An *in-patient* is a patient who is formally admitted (or “hospitalised”) to an institution for treatment and/or care and stays for a minimum of one night in the hospital or other institution providing in-patient care. In-patient care is mainly delivered in hospitals, but partially also in nursing and residential care facilities or in establishments that are classified according to their focus of care under the ambulatory-care industry but perform in-patient care as a secondary activity. It should be noted that the term “in-patient” used in the SHA has a wider meaning compared to some national reporting systems where this term is limited to in-patient care in hospitals. Included are services delivered to in-patients in prison and army hospitals, tuberculosis hospitals, and sanatoriums. In-patient care includes accommodation provided in combination with medical treatment when the latter is the predominant activity provided during the stay as an in-patient.
- 9.7. Providing patients and patients’ relatives with accommodation is considered an integral part of in-patient care. The hotel function of hospital care becomes apparent when patients are transferred to post-acute hospital wards or “hostels” providing less intensive and limited health care but which are functionally integrated in the provision of hospital care.
- 9.8. A stay in “hotel wards” is part of the therapeutic course and warrants to be recorded under total expenditure on health. This includes the hosting of patients’ relatives whose presence is an indispensable part of therapy, for example in the case of severe treatment episodes of children; in particular those performed in highly specialised hospitals far away from the patient’s hometown. In the case of developing countries the imputed or actual cost of services performed by patients’ relatives in hospitals – including cooking, basic nursing care, and cleaning – would be included under this heading.

- 9.9. On the other hand, accommodation in institutions providing social services, where health care is an important but not predominant component should not be included in the health function. Examples might include institutions such as homes for disabled persons, nursing homes, and residential care for substance abuse patients.

Day care

- 9.10. Day care comprises medical and paramedical services delivered to patients that are formally admitted for diagnosis, treatment or other types of health care with the intention of discharging the patient on the same day. An episode of care for a patient who is admitted as a day-care patient and subsequently stays overnight is classified as an overnight stay or other in-patient case. Services for non-admitted patients that are extended to formal admission for day-care are considered as day care. A day patient (or “same-day patient”) is usually admitted and then discharged after staying between 3 and 8 hours on the same day. Day care is usually performed in institutions or wards specialised for this kind of care (for example elective surgery).

Out-patient care

- 9.11. This item comprises medical and paramedical services delivered to out-patients. An out-patient is not formally admitted to the facility (physician’s private office, hospital out-patient centre or ambulatory-care centre) and does not stay overnight. An out-patient is thus a person who goes to a health care facility for a consultation/treatment, and who leaves the facility within several hours of the start of the consultation without being “admitted” to the facility as a patient. It should be noted that the term “out-patient” used in the SHA has a wider meaning compared to some national reporting systems where this term is limited to care in out-patient wards of hospitals. In the SHA, all visitors to ambulatory care facilities that are not day cases or over-the-night cases, are considered out-patients.

Home care

- 9.12. This item comprises medical and paramedical services delivered to patients at home. It excludes the consumption of medical goods (pharmaceuticals, other medical goods) dispensed to out-patients as part of private household consumption. Included are obstetric services at home, home dialysis, telematic services and the like.

Table 9.1. ICHA-HC classification of functions of health care: three-digit level

ICHA code	Functions of health care
HC.1	Services of curative care
HC.1.1	In-patient curative care
HC.1.2	Day cases of curative care
HC.1.3	Out-patient curative care
HC.1.3.1	Basic medical and diagnostic services
HC.1.3.2	Out-patient dental care
HC.1.3.3	All other specialised health care
HC.1.3.9	All other out-patient curative care
HC.1.4	Services of curative home care
HC.2	Services of rehabilitative care
HC.2.1	In-patient rehabilitative care
HC.2.2	Day cases of rehabilitative care
HC.2.3	Out-patient rehabilitative care
HC.2.4	Services of rehabilitative home care
HC.3	Services of long-term nursing care
HC.3.1	In-patient long-term nursing care
HC.3.2	Day cases of long-term nursing care
HC.3.3	Long-term nursing care: home care
HC.4	Ancillary services to health care
HC.4.1	Clinical laboratory
HC.4.2	Diagnostic imaging
HC.4.3	Patient transport and emergency rescue
HC.4.9	All other miscellaneous ancillary services
HC.5	Medical goods dispensed to out-patients
HC.5.1	Pharmaceuticals and other medical non-durables
HC.5.1.1	Prescribed medicines
HC.5.1.2	Over-the-counter medicines
HC.5.1.3	Other medical non-durables
HC.5.2	Therapeutic appliances and other medical durables
HC.5.2.1	Glasses and other vision products
HC.5.2.2	Orthopaedic appliances and other prosthetics
HC.5.2.3	Hearing aids
HC.5.2.4	Medico-technical devices, including wheelchairs
HC.5.2.9	All other miscellaneous medical durables
HC.6	Prevention and public health services
HC.6.1	Maternal and child health; family planning and counselling
HC.6.2	School health services
HC.6.3	Prevention of communicable diseases
HC.6.4	Prevention of non-communicable diseases
HC.6.5	Occupational health care
HC.6.9	All other miscellaneous public health services

Table 9.1. ICHA-HC Classification of functions of health care (cont.)

ICHA code	Functions of health care
HC.7	Health administration and health insurance
HC.7.1	General government administration of health
HC.7.1.1	General government administration of health (except social security)
HC.7.1.2	Administration, operation and support activities of social security funds
HC.7.2	Health administration and health insurance: private
HC.7.2.1	Health administration and health insurance: social insurance
HC.7.2.2	Health administration and health insurance: other private
ICHA code	Health-related functions
HC.R.1	Capital formation of health care provider institutions
HC.R.2	Education and training of health personnel
HC.R.3	Research and development in health
HC.R.4	Food, hygiene and drinking water control
HC.R.5	Environmental health
HC.R.6	Administration and provision of social services in kind to assist living with disease and impairment
HC.R.7	Administration and provision of health-related cash-benefits

EXPLANATORY NOTES TO THE ICHA-HC CLASSIFICATION OF FUNCTIONS

HC.1 Services of curative care

This item comprises medical and paramedical services delivered during an episode of curative care. An *episode of curative care* is one in which the principal medical intent is to relieve symptoms of illness or injury, to reduce the severity of an illness or injury or to protect against exacerbation and/or complication of an illness and/or injury which could threaten life or normal function.

Includes: obstetric services; cure of illness or provision of definitive treatment of injury; the performance of surgery; diagnostic or therapeutic procedures.

Excludes: palliative care.

HC.1.1 In-patient curative care

In-patient curative care comprises medical and paramedical services delivered to in-patients during an episode of curative care for an admitted patient.

Includes: overnight stays. During an *overnight stay*, in-patients leave the hospital or other institutions the day following the day of admission but usually not less than twelve hours after admission.

Note: the SHA suggests to further disaggregated this category by ICD and DRG groups, where available (see Chapter 3, Table 3.3).

HC.1.2 Day cases of curative care

Services of curative day care comprise medical and paramedical services delivered to day-care patients

during an episode of curative care such as ambulatory surgery, dialysis, and oncological care.

Includes: ambulatory surgery day care, which is all elective invasive therapies provided, under general or local anaesthesia, to day-care patients whose post-surveillance and convalescence stay requires no overnight stay as an in-patient.

Note: for countries using ICD-9-CM coding (International Classification of Disease, Clinical Modification), surgical procedures are defined by the codes 01 to 86. Ambulatory surgery procedures constitute a subclass of surgery amenable to ambulatory care.

HC.1.3 Out-patient curative care

Services of out-patient curative care comprise medical and paramedical services delivered to out-patients during an episode of curative care. Out-patient health care comprises mainly services delivered to out-patients by physicians in establishments of the ambulatory health care industry. Out-patients may also be treated in establishments of the hospital industry, for example in specialised out-patient wards, and in community or other integrated care facilities.

HC.1.3.1 Basic medical and diagnostic services
This item comprises services of medical diagnosis and therapy that are common components of most medical encounters and that are provided by physicians to out-patients. These include routine examinations, medical assessments, prescription of pharmaceuticals, routine counselling of patients, dietary regime, injections and vaccination (only if not covered under public-health prevention programmes). They can be part of initial medical attention and consultation or of follow-up contacts. Routine administrative procedures like filling in and updating patients' records are usually an integral part of basic medical services.

Excludes: home visits by general practitioners and primary care physicians; paramedical services prescribed by physicians and performed under their own responsibility by paramedical professionals, either in their own practice or in a setting affiliated with physicians, or group practices.

Note: most items under Section 5 (Therapeutic Procedures) and many of the items of Section 8 (Clinical and Administrative Services) of the IC-Process-PC fall under this category (see IC-Process-PC, 1986). Exceptions to this rule are physical therapy (IC-Process-PC, 55), reproductive and urologic system procedures (56), obstetrical procedures (57) and psychological counselling/assessment and health education (82, 84).

Basic medical services are distinct from more specialised services in that they can typically be performed without using sophisticated medical equipment. When medical records do not allow for a separation of activities by physicians into the components defined under HC.1.3, a separation of services according to professions should be used as a first approximation.

HC.1.3.2 Out-patient dental care

This item comprises dental medical services (including dental prosthesis) provided to out-patients by physicians. It includes the whole range of services performed usually by medical specialists of dental care in an out-patient setting such as tooth extraction, fitting of dental prosthesis and dental implants.

Note: dental prostheses are treated in the SHA as intermediate products to the production of services of dental care and thus are always included under expenditure on dental care.

HC.1.3.3 All other specialised health care

This item comprises all specialised medical services provided to out-patients by physicians other

than basic medical and diagnostic services and dental care. Included are mental health and substance abuse therapy and out-patient surgery.

HC.3.1.9 All other out-patient curative care

This item comprises all other miscellaneous medical and paramedical services provided to out-patients by physicians or paramedical practitioners. Included are services provided to out-patients by paramedical professionals such as chiropractors, occupational therapists, and audiologists. Included are also paramedical mental health and substance abuse therapy, and speech therapy. This item includes paramedical traditional health care services.

Includes: diagnostic physical therapy, physical therapy exercise and other therapeutical procedures, such as hydrotherapy and heat therapy; orthotic and prosthetic care; attention to wounds; osteopathic treatment; speech therapy; training and medical rehabilitation for the blind.

HC.1.4 Services of curative home care

This item comprises all medical and paramedical curative services provided to patients at home.

Note: this includes home visits to provide curative care, including diagnostic procedures by general practitioners; specialised services such as home dialysis; obstetric services; telematic services. When curative home care is provided in combination with social services such as homemaking or “meals on wheels”, these services should be recorded separately as they are not part of expenditure on health in the definition of the SHA.

HC.2 Services of rehabilitative care

This item comprises medical and paramedical services delivered to patients during an episode of rehabilitative care. Rehabilitative care comprises

services where the emphasis lies on improving the functional levels of the persons served and where the functional limitations are either due to a recent event of illness or injury or of a recurrent nature (regression or progression). Included are services delivered to persons where the onset of disease or impairment to be treated occurred further in the past or has not been subject to prior rehabilitation services.

Note: rehabilitative care is generally more intensive than traditional nursing facility care and less than acute (curative) care. It requires frequent (daily to weekly) recurrent patient assessment and review of the clinical course and treatment plan for a limited (several days to several months) time period, until a condition is stabilised or a pre-determined treatment course is completed.

HC.2.1 In-patient rehabilitative care

This item comprises medical and paramedical services delivered to in-patients during an episode of rehabilitative care for an admitted patient.

HC.2.2 Day cases of rehabilitative care

This item comprises medical and paramedical services delivered to day-care patients during an episode of rehabilitative care.

HC.2.3 Out-patient rehabilitative care

This item comprises medical and paramedical services delivered during an episode of rehabilitative care to out-patients.

HC.2.4 Services of rehabilitative home care

This item comprises medical and paramedical services delivered to patients at home during an episode of rehabilitative care.

HC.3 Services of long-term nursing care

Long-term health care comprises ongoing health and nursing care given to in-patients who need assistance on a continuing basis due to chronic impairments and a reduced degree of independence and activities of daily living. In-patient long-term care is provided in institutions or community facilities. Long-term care is typically a mix of medical (including nursing care) and social services. Only the former is recorded in the SHA under health expenditure.

HC.3.1 In-patient long-term nursing care

This item comprises nursing care delivered to in-patients who need assistance on a continuing basis due to chronic impairments and a reduced degree of independence and activities of daily living. In-patient long-term nursing care is provided in institutions or community facilities. Long-term care is typically a mix of medical and social services. Only health care services are recorded in the SHA under personal health care services.

Includes: long-term health care for dependent elderly patients. This includes respite care and care provided in homes for the aged by specially trained persons, where medical nursing care is an important component. This type of care can be provided in combination with social services that should, however, be recorded separately, as they are not part of expenditure on health in the SHA.

This includes hospice or palliative care (medical, paramedical and nursing care services to the terminally ill, including the counselling for their families). Hospice care is usually provided in nursing homes or similar specialised institutions.

Also included is in-patient long-term nursing care for mental health and substance abuse patients where the care need is due to chronic or recurrent

psychiatric conditions as defined by the list provided in ICD-9-CM, code 94.

HC.3.2 Day cases of long-term nursing care

This item comprises nursing care delivered to day cases of patients who need assistance on a continuing basis due to chronic impairments and a reduced degree of independence and activities of daily living. Day-care nursing care is provided in institutions or community facilities.

Includes: day cases of long-term nursing care for dependent elderly patients.

HC.3.3 Long-term nursing care: home care

This item comprises ongoing medical and paramedical (nursing) health care provided to patients who need assistance on a continuing basis due to chronic impairments and a reduced degree of independence and activities of daily living. This type of home care can include social services such as homemaking and “meals on wheels” which should, however, be recorded separately, as they are not part of expenditure on health.

HC.4 Ancillary services to health care

This item comprises a variety of services, mainly performed by paramedical or medical technical personnel with or without the direct supervision of a medical doctor, such as laboratory, diagnosis imaging and patient transport.

HC.4.1 Clinical laboratory

This item covers the following services: urine, physical and chemical tests, blood chemistry, automated blood chemistry profiles, haematology, immunology, faeces, microbiologic cultures, microscopic examination, specialised cytology and tissue pathology, all other miscellaneous laboratory tests.

Note: this list is based on agreements reached under ICPM and IC-Process-PC, and comprises the families of clinical and pathology tests as listed in the IC-Process-PC (IC-Process-PC, 1986, Section 2). An alternative list is provided by ICD-9-CM: 90 Microscopic examination-I, 91 Microscopic examination-II.

HC.4.2. Diagnostic imaging

This item comprises diagnostic imaging services provided to out-patients.

Note: Diagnostic imaging comprises the following items described in the ICD-9-CM procedure component: 87 Diagnostic radiology, 88 Other diagnostic radiology and related techniques. The corresponding sub-headings given in the IC-Process-PC (IC-Process-PC, 1986, Section 3) are: Plain X-ray, bone; Soft tissue imaging, plain (excluding nuclear scanning, nuclear magnetic resonance, ultrasound); Contrast X-rays or photo-imaging; Computerised tomography and nuclear magnetic imaging; Nuclear scanning; Diagnostic ultrasound; All other miscellaneous diagnostic imaging (arteriography using contrast material, angiocardiography, phlebography, thermography, bone mineral density studies).

HC.4.3 Patient transport and emergency rescue

This item comprises transportation in a specially-equipped surface vehicle or in a designated air ambulance to and from facilities for the purposes of receiving medical and surgical care. It also includes transportation in conventional vehicles, such as taxi, when the latter is authorised and the costs are reimbursed to the patient (*e.g.* for patients undergoing renal dialysis or chemotherapy).

Includes: emergency transport services of public fire rescue departments or defence that operate on

a regular basis for civilian emergency services (not only for catastrophe medicine).

HC.4.9 All other miscellaneous ancillary services

This item comprises all other miscellaneous ancillary services to health care.

HC.5 Medical goods dispensed to out-patients

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

Note: the group of goods covered comprises essentially the products listed in the Classification of Individual Consumption by Purpose (COICOP, United Nations, 1998*b*) under 06.1, Medical products, appliances and equipment (see Annex A.6 to this manual).

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.

With COICOP being a one-dimensional classification, not primarily designed for the purposes of health accounting, a different regrouping was chosen for the proposed ICHA-HC. Renting and repair of therapeutic appliances and equipment is reported under the corresponding categories of goods. Also included is the service of dispensing medical goods, fitting of prostheses and services

like eye tests, in those cases where these services are performed by specially trained retail traders and not by medical professions.

Following COICOP recommendations, the following items are *excluded*: protective goggles, belts and supports for sport; veterinary products; sun-glasses not fitted with corrective lenses; medicinal soaps. The COICOP classifies all the medical products listed above as non-durables, whereas in several National Health Accounts, “Durable medical goods” are distinguished from consumable or disposable products.

Excludes: pharmaceuticals, prostheses, and other medical and health-related goods supplied to in-patients and day-care patients or products delivered to out-patients as part of treatment provided within the facilities of ambulatory care.

HC.5.1 Pharmaceuticals and other medical non-durables

This item comprises pharmaceuticals such as medicinal preparations, branded and generic medicines, drugs, patent medicines, serums and vaccines, vitamins and minerals and oral contraceptives.

HC.5.1.1 Prescribed medicines

Prescribed medicines are medicines, exclusively sold to customers with a medical voucher, irrespective of whether it is covered by public or private funding and include branded and generic products. In the SHA, this includes the full price with a breakdown for cost-sharing.

HC.5.1.2 Over-the-counter medicines

Over-the-counter medicines (OTC medicines) are classified as private households’ pharmaceutical expenditure of non-prescription medicines.

Note: non-prescription medicines are often called over-the-counter (OTC). They may be included in physician prescriptions, though not reimbursed.

HC.5.1.3 Other medical non-durables

This item comprises a wide range of medical non-durables such as bandages, elastic stockings, incontinence articles, condoms and other mechanical contraceptive devices.

HC.5.2 Therapeutic appliances and other medical durables

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

HC.5.2.1 Glasses and other vision products

This item comprises corrective eye-glasses and contact lenses as well as the corresponding cleansing fluid and the fitting by opticians.

HC.5.2.2 Orthopaedic appliances & other prosthetics

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

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

HC.5.2.3 Hearing aids

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

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

HC.5.2.4 Medico-technical devices, incl. wheelchairs

This item comprises a variety of medico-technical devices such as wheelchairs (powered and unpowered) and invalid carriages.

HC.5.2.9 All other miscellaneous medical durables

This item comprises a wide variety of miscellaneous durable medical products not elsewhere classified such as blood pressure instruments.

Includes: specialised telematic equipment for emergency calls from the patient's home and/or for the remote monitoring of medical parameters.

Excludes: automatic staircase lifts; bathtub lifts and similar devices for adapting the housing situation of patients with transitory or chronic impairments.

Note: the above list corresponds to recommendations in COICOP (United Nations, 1998*b*).

HC.6 Prevention and public health services

Prevention and public health services comprise services designed to enhance the health status of the population as distinct from the curative services, which repair health dysfunction. Typical services are vaccination campaigns and programmes.

Note: prevention and public health functions included in the ICHA-HC do not cover all fields of

public health in the broadest sense of a cross-functional common concern for health matters and public actions. Some of these broadly defined public health functions, such as emergency plans and environmental protection, are not part of expenditure on health. The most important of these public health functions are classified under various health-related functions in the ICHA-HC. A cross-classification of public health functions according to a broad WHO list of Essential public health functions [EPHFs, Bettcher (1998)] with ICHA-HC and COFOG (United Nations, 1998*b*) is provided in Annex 9.3 of this chapter.

HC.6.1 Maternal and child health; family planning and counselling

Maternal and child health covers a wide range of health care services such as genetic counselling and prevention of specific congenital abnormalities, prenatal and postnatal medical attention, baby

Table 9.2. Maternal and child health in the ICPM

ICPM code	Description
4.20	Prenatal screening investigation
4.21	Neonatal screening for abnormality
4.22	Other infancy screening examination
4.23	Childhood screening examination
(4-60 to 4.72)	Maternal and child health care
4.60	Initial ambulatory medical attention, current pregnancy
4.61	Initial medical ambulatory attention after delivery
4.62	Subsequent medical ambulatory, current pregnancy
4.63	Public health nurse (prenatal/postnatal care)
4.65	Contraceptive procedures
4.66	Eugenic procedures
4.67	Child medical guidance
4.69	Participation in other health activities of maternal and child care
4.70	Premature care at home
4.71	Well-baby health care
4.72	Pre-school child health care

Source: ICPM (WHO, 1978, Chapter 4).

health care, pre-school and school child health, and vaccinations.

Note: an illustration of the range of activities covered under this item is provided by the cross-classification with ICPM presented in Table 9.2.

HC.6.2 School health services

This item comprises a variety of services of health education and screening (for example, by dentists), disease prevention, and the promotion of healthy living conditions and lifestyles provided in school. This includes basic medical treatment if provided as an integral part of the public health function, such as dental treatment.

Includes: interventions against smoking, alcohol and substance abuse.

Excludes: vaccination programmes (HC.6.3).

HC.6.3 Prevention of communicable diseases

This item comprises compulsory reporting and notification of certain communicable diseases and epidemiological enquiries into communicable disease; efforts to trace possible contacts and origin of disease; prevention of tuberculosis and tuberculosis control (including systematic screening of high risk groups); immunisation/vaccination programmes (compulsory and voluntary); vaccination under maternity and child health care.

Excludes: vaccination for occupational health (HC.6.5); vaccination for travel and tourism on the patients' own initiative (HC.1.3.1).

HC.6.4 Prevention of non-communicable diseases

This item comprises public health services of health education, disease prevention, and the pro-

motion of healthy living conditions and lifestyles such as services provided by centres for disease surveillance and control; and programmes for the avoidance of risks incurred and the improvement of the health status of nations even when not specifically directed towards communicable diseases.

Includes interventions against smoking, alcohol and substance abuse such as anti-smoking campaigns; activities of community workers; services provided by self-help groups; general health education and health information of the public; health education campaigns; campaigns in favour of healthier life-styles, safe sex, etc.; information exchanges: *e.g.* alcoholism, drug addiction.

Excludes: public health environmental surveillance and public information on environmental conditions.

Note: health promotion and disease prevention presents a difficult boundary issue for which no international classification exists. The boundaries drawn in National Health Accounts are usually linked to the identification of specific programmes of screening and health check-ups with a legally or administratively defined, limited coverage reimbursed separately under public or private health programmes. Examples are screening of blood pressure, diabetes, and certain forms of cancer, dental health, and "health check-ups".

Prevention is, in many instances, a reason for encounter in primary care and not a separate procedure. This means that the same procedure (for example, many diagnostic procedures) can be either performed as preventive measures for screening purposes or as diagnostic procedures in the case of an acute health problem. The criterion for including services under this item is whether prevention is provided as a social programme (public or private, including occupational health) or is requested on the patient's own initiative.

HC.6.5 Occupational health care

Occupational health care comprises a wide variety of health services such as surveillance of employee health (routine medical check-ups) and therapeutic care (including emergency health care services) on or off-business premises (including government and non-profit institutions serving households). This excludes, however, remuneration-in-kind of health services and goods that constitute household actual final consumption rather than intermediate consumption of business.

Note: occupational health care corresponds to class 05.2: Health in the Classification of the Outlays of Producers by Purpose (United Nations, 1998*b*) applied to intermediate consumption of producers. Occupational health care is an intermediate consumption within the business sector.

Occupational health care is only part of a broader range of activities that aim at improving the working environment in its relation to health. Occupational health activities to improve ergonomy, safety and health and environmental protection at the workplace, accident prevention, etc., should be distinguished from occupational health care. They are not to be recorded under health care activities in the SHA.

HC.6.9 All other miscellaneous public health services

This item comprises a variety of miscellaneous public health services, such as operation and administration of blood and organ banks, and the preparation and dissemination of information on public health matters not classified elsewhere.

Includes: public health environmental surveillance and public information on environmental conditions.

HC.7 Health administration and health insurance

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

HC.7.1 General government administration of health*HC.7.1.1 General government administration of health (except social security)*

This item comprises a variety of activities of overall government administration of health that cannot be assigned to HC.1-HC.6: activities such as formulation, administration, co-ordination and monitoring of overall health policies, plans, programmes and budgets (COFOG, class 07.6).

Includes: preparation and enforcement of legislation and standards for the provision of health services, including the licensing of medical establishments and medical and paramedical personnel; production and dissemination of general information, technical documentation and statistics on health (other than those classified under HC.6, Prevention and public health).

Excludes: compilation of health statistics by a central statistical agency (COFOG, division 01, General Public Services); administration of public security; law and order activities; fire service activities; defence activities; road traffic control (COFOG, division 03, Public Order and Safety).

HC.7.1.2 Administration, operation and support activities of social security funds

This item comprises the administration, operation and support of social security funds covering health services. Social security funds are defined in Chapters 6 and 11 on the financing of health care.

HC.7.2 Health administration and health insurance: private

HC.7.2.1 Health administration and health insurance: social insurance

This item comprises the administration and operation of private social health insurance. Private social insurance is defined in Chapters 6 and 11 on the financing of health care.

HC.7.2.2 Health administration and health insurance: other private

This item comprises the administration and operation of all other private health and accident insurance including private for-profit insurance (as defined in Chapters 6 and 11 on the financing of health care).

HC.R. Health-related functions

HC.R.1 Capital formation of health care provider institutions

This item comprises gross capital formation of domestic health care provider institutions excluding those listed under HP.4, Retail sale and other providers of medical goods.

HC.R.2 Education and training of health personnel

This item comprises government and private provision of education and training of health personnel, including the administration, inspection or support of institutions providing education and training of health personnel. This corresponds to post-secondary and tertiary education in the field of health (according to ISCED-97 code) by central and local government, and private institutions such as nursing schools run by private hospitals.

Note: if properly accounted for, education and training of health personnel is not an overlapping

function between health and education. In teaching hospitals, for example, it would be desirable to have separate budgets for care provided, R&D, and for training. Where detailed accounts are missing, statistical practice as designed for UNESCO/OECD/Eurostat data collections on education and training is an alternative option (UNESCO/OECD/Eurostat, 1995).

Education and training of health personnel takes place mainly at ISCED-levels 5 (non-university degree tertiary level) to 7 (university tertiary level of education, leading to a second or further university degree or equivalent). The following institutions are involved:

- paramedical schools (ISCED 5);
- undergraduate schools in medical/paramedical departments (ISCED 6);
- graduate schools in medical/biomedical departments (ISCED 7).

Medical education and training corresponds in the list of fields of study (at the tertiary level of education) provided by the ISCED manual (UNESCO, 1996) to the category Medical science and health-related (ISCED code 50). The ISCED manual, furthermore, has a category Health-related auxiliary programmes (ISCED 50) at the upper secondary level of education for vocational and technical programmes.

Complete costs would include expenditure for universities and other training institutions. Salaries of medical interns and residents or trainee nurses are reported under expenditure on health, for the services rendered. The training expenditure are also reported in the educational accounts. The intent of this category is to include expenditure for training that are closely linked to the care of patients in health care services rather than in expenditure on education and training. The following recommendation for university hospitals is taken from the UNESCO/OECD/Eurostat manual:

“Expenditure of or for teaching hospitals (sometimes referred to as academic hospitals or university hospitals) should not be included in education expenditure, except to the limited extent that they are directly and specifically related to the training of medical personnel. In particular, all costs of patient care other than general expenses of academic hospitals should be excluded from the education figures, even if the education authorities must pay such expenses.

Expenditure for research in academic hospitals should also be excluded, except that no attempt should be made to distinguish between the research and non-research portions of the time of teaching staff whose compensation is otherwise considered part of education expenditure.” (UNESCO/OECD/Eurostat, 1995)

HC.R.3 Research and development in health

This item comprises R&D in health according to the following definition:

“R&D programmes directed towards the protection and improvement of human health. It includes R&D on food hygiene and nutrition and also R&D on radiation used for medical purposes, biochemical engineering, medical information, rationalisation of treatment and pharmacology (including testing medicines and breeding of laboratory animals for scientific purposes) as well as research relating to epidemiology, prevention of industrial diseases and drug addiction.” (OECD, 1994*d*, *Frascati Manual*, p. 122)

Note: government involvement in health R&D is classified in the COFOG as part of the health function (COFOG, 07.5 R&D Health).

The *Frascati Manual* (OECD, 1994*d*) provides detailed definitions of R&D in business and government activities, including non-profit

institutions and institutions of higher education. The *Frascati Manual* is the joint product of national experts on R&D in OECD Member countries, the OECD Secretariat and other international organisations. These guidelines are consistent with UNESCO recommendations.

The *Frascati Manual* discusses boundary problems between R&D, education, and health care and other industries providing guidelines for standard reporting in these and other fields, drawing the boundary line distinguishing the field from health care and from education and training of health personnel. The *Frascati Manual* provides the basic definitions of R&D:

“Research and experimental development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society and the use of this stock of knowledge to devise new applications.

R&D covers three distinct activities: basic research, applied research and experimental development. Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. Applied research is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective. Experimental development is systematic work, drawing on existing knowledge gained from research and/or practical experience that is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.” (OECD, 1994*d*, *Frascati Manual*, p. 29)

The basic criterion for distinguishing R&D from related activities is “the presence in R&D of an

appreciable element of novelty and the resolution of scientific and/or technological uncertainty, *i.e.* when the solution to a problem is not readily apparent to someone familiar with the basic stock of commonly used knowledge and techniques in the area concerned.” “... In the field of medicine, routine autopsy on the causes of death is simply the practice of health care and not R&D; special investigation of a particular mortality in order to establish the side effects of certain cancer treatments is R&D. Similarly, routine tests such as blood and bacteriological tests carried out for doctors, are not R&D but a special programme of blood tests in connection with the introduction of a new drug is R&D.” (OECD, 1994*d*, *Frascati Manual*, p. 33)

The following recommendation regarding the borderline between specialised health care and R&D from the *Frascati Manual* on R&D statistics should be adopted for the collection of health care statistics:

“In university hospitals where, in addition to the primary activity of health care, the training of medical students is of major importance, the activities of teaching, R&D and advanced as well as routine health care are frequently very closely linked. ‘Specialised health care’ is an activity which normally is to be excluded from R&D. However, there may be an element of R&D in what is usually called ‘advanced health care’, carried out, for example, in university hospitals. It is difficult for university doctors and their assistants to define that part of their overall activities which is exclusively R&D. If, however, time and money spent on routine health care are included in the R&D statistics, there will be an over-estimate of R&D resources in the medical sciences. Usually such advanced health care is not considered R&D and all health care not directly linked to a specific R&D project should be excluded from the R&D statistics.” (OECD, 1994*d*, *Frascati Manual*, p. 37)

R&D in health, when measured according to the rules of the *Frascati Manual*, excludes outlays by pharmaceutical firms, shown separately. For data collection on R&D, international standards exist. More details on data collection and international standards for reporting in R&D are documented in the *Frascati Manual* (OECD, 1994*d*).

Activities of R&D in health care should exclude all education and training of health personnel in universities and special institutions of higher and post-secondary education. However, research by postgraduate students carried out at universities and university hospitals in medical sciences should be counted, wherever possible, as part of R&D in health care. R&D outlays by pharmaceutical firms have to be distinguished from other related scientific and technological activities (*Frascati Manual*, p. 30-33), such as, for example, patent and licence work.

HC.R.4 Food, hygiene and drinking water control

This item comprises a variety of activities of a public health concern that are part of other public activities such as inspection and regulation of various industries, including water supply.

Note: activities under this item are part of various COFOG functions [COFOG, 04 Economic Affairs (various industries); and 06.3 Water supply which includes Supervision and regulation of water purity].

HC.R.5 Environmental health

This item comprises a variety of activities of monitoring the environment and of environmental control with a specific focus on a public health concern.

Note: lacking an agreed link to international standard definitions for environmental health, it is suggested that it should comprise various items under

Table 9.3. Selected environmental health functions

COFOG code	COFOG function	Examples of "Environmental health" items covered
05	<i>Environment protection</i>	
05.1	Waste management	Safety measures and monitoring of health hazards connected to these services
05.2	Waste water management	Safety measures and monitoring of environmental standards or other quality norms
05.3	Pollution abatement	Activities relating to the prevention, monitoring, abatement and control of noise and the pollution of air, water bodies and soil
05.5	R&D in environmental protection	R&D in public health issues of environmental protection
05.6	Environmental protection n.e.c	Production and dissemination of public information about health risks associated with environmental situation

Source: Adapted from United Nations (1998b).

COFOG function 05, Environment Protection. A list of such health-related functions is given in Table 9.3.

HC.R.6 Administration and provision of social services in kind to assist living with disease and impairment

This item comprises (non-medical) social services in kind provided to persons with health problems and functional limitations or impairments where the primary goal is the social and vocational rehabilitation or integration.

Includes: education of bed-bound children and special schooling for the handicapped (ICD-9-CM, 93.82); occupational therapy (ICD-9-CM, 93.83); vocational rehabilitation and sheltered employment (ICD-9-CM, 93.85).

Note: the provision of health care benefits in kind under social protection arrangements is in some cases closely intertwined with the provision of social benefits in kind to assist living with disease and medical impairment.

HC.R.7 Administration and provision of health related cash-benefits

This item comprises the administration and provision of health-related cash benefits by social protection programmes in the form of transfers provided to individual persons and households. Included are collective services such as the administration and regulation of these programmes.

Note: the provision of health care benefits in kind under social protection arrangements is in some cases closely intertwined with the provision of social protection in the form of transfers (cash benefits) to individual persons and households. The COFOG and the European System of integrated Social Protection Statistics (ESSPROS) use the list of social protection functions shown in Table 9.4 together with examples of health-related benefits.

The Sickness function refers to the provision of social protection in the form of cash benefits that replace in whole or in part loss of earnings during a temporary inability to work due to sickness or injury; administration and operation of such so-

Table 9.4. Health-related cash benefits

COFOG class	Social protection function	Examples of health-related cash benefits
10.1	Sickness and disability	Sickness and disability benefits
10.2	Old age	Health-related early retirement
10.4	Family and children	Maternity leave
10.5	Unemployment	Vocational rehabilitation
10.6	Social exclusion n.e.c.	Health care benefits to homeless people

Source: United Nations (1998*b*), ESSPROS MANUAL (1996).

cial protection programmes. This includes benefits in kind provided to help persons temporarily unable to work due to sickness or injury with daily tasks (home help, transport facilities, etc.) (COFOG, United Nations 1998*b*).

It is recommended to include under function HC.R.7 most payments falling under the Sickness function. The remaining items should be seen as a list of examples to be used in checking if cash benefits other than Sickness benefits are covered by health programmes (which is often the case for traditional social insurance countries with a historically grown complex mix of services covered by “health insurance”). It would be desirable that, for health accounting, these supplementary benefits be shown separately in order to interpret aspects of financing (such as contribution rates) correctly. ■

ANNEX 9.1. FURTHER BOUNDARY QUESTIONS OF HEALTH CARE

THE BORDERLINE BETWEEN HEALTH CARE AND OTHER SOCIAL SERVICES

National Health Accounts draw different borderlines between health care and other social services across countries and comprise grey areas when social services involve a significant but not dominant health care component in, *e.g.*, long-term care for dependent elderly people. This may be the case in home care, other forms of institutional care, such as protective custody in mental health institutions, homes and protected working places for disabled persons, and rehabilitation programmes for drug addicts.

The ground rule should be to report institutional care under health care where institutionalisation is necessary for the person's health or where the health care component in question is most efficiently provided in an institutional setting. For other forms of care, where the medical component is important but not dominant (less than half of the total cost), a health care component could be separated by estimating genuine health care resources by evaluating their input in the form of labour and (intermediate) or final use of medical

goods. Only labour input of medical professions performing medical functions (in the sense of the ICHA functional classification) would be counted as a first approximation. In these cases, the accommodation function in these institutions would be excluded from the health care function.

Non-medical components (in the above sense) of occupational and other rehabilitation programmes, with the goal of retraining and social and occupational integration, should not be reported as health expenditure. Spa therapy sessions for mainly medical and curative purposes should be distinguished from spa sessions for recreation or rehabilitation.

THE BORDERLINE BETWEEN HEALTH CARE AND OTHER MEDICAL INTERVENTIONS

The application of medical knowledge and technology pursued not for purposes of cure and relief but in the form of interventions aiming at enhancing human mental or physical capacity beyond natural limits or for other non-medical goals, may pose puzzling boundary issues in the future. Cosmetic surgery unrelated to the reconstruction of traumatic damages, in-vitro

fertilisation, and brain chips for other than medical-therapeutical or diagnostic purposes fall into this category. Doping and the intake of steroids in bodybuilding are other well-known examples.

At the moment, health statistics usually include all services that are legal medical intervention on humans performed by licensed health professionals. Thus, the decisive criterion is more whether the profession performing a task is officially recognised as belonging to the medical profession rather than whether the services rendered are health care in the sense of exclusively or predominantly aiming at enhancing the health of patients. For the time being, the quantities of resources involved may be negligible. In the future, more specific guidelines may have to be developed.

THE BORDERLINE BETWEEN PUBLIC HEALTH AND OTHER GOVERNMENT FUNCTIONS

A wide range of government functions outside of health care deal with public safety and the protection of population health. For health accounting, the organisation and performance of these services has to be separated from the health care function. Ambulance and rescue services of a general nature but organised by fire-protection services belong to health care. Base hospitals belong to the health care function, not the military and civil defence. Medical facilities reserved for war or peacetime disaster, on the other hand, belong to public safety or the military and defence function. A range of public safety measures (road and vehicle safety, construction and housing standards, veterinarian services and product safety monitoring) are in some countries administered by public health authorities but are not included in the SHA boundaries of health care. ■

ANNEX 9.2. CROSS-CLASSIFICATION WITH SNA CLASSIFICATIONS

This annex provides a cross-classification of the ICHA-HC with SNA 93 functional classifications (Table 9.5). Additional detail and explanatory notes on the SNA functional classifications are provided in Annex A.6 of this manual. ■

Table 9.5. Cross-classification of ICHA-HC and SNA 93 classifications

ICHA	Functions of health care	COICOP households	COICOP NPISHs	COICOP government	COFOG	COPNI
	ICHA-HC function is mainly part of SNA 93 code:					
HC.1	Services of curative care					
HC.1.1	In-patient curative care	06.3	13.2.7	14.2.7	07.3	02.3
HC.1.2	Day cases of curative care	06.3	13.2.7	14.2.7	07.3	02.3
HC.1.3	Out-patient curative care	06.2	–	–	07.2	02.2
HC.1.3.1	Basic medical and diagnostic services	06.2.1	13.2.4	14.2.4	07.2.1	–
HC.1.3.2	Out-patient dental care	06.2.2	13.2.5	14.2.5	07.2.3	02.2.2
HC.1.3.3	All other specialised health care	06.2.1	13.2.6	14.2.4	07.2.3	–
HC.1.3.9	All other out-patient curative care	06.2.3	13.2.6	14.2.6	07.2.4	02.2.3
HC.1.4	Services of curative home care	06.2.1 (06.2.3)	13.2.4 (13.2.7)	14.2.6	07.2.4 (07.3)	02.2
HC.2	Services of rehabilitative care	–	–	–	–	–
HC.2.1	In-patient rehabilitative care	06.3	13.2.7	14.2.7	07.3	02.2.3
HC.2.2	Day cases of rehabilitative care	06.3	13.2.7	14.2.7	07.3	02.2.3
HC.2.3	Out-patient rehabilitative care	06.2.3 (06.2.1)	13.2.6 (13.2.4)	14.2.6 (14.2.4)	07.2.4, 07.2.1	02.2.3
HC.2.4	Services of rehabilitative home care	06.2.3	13.2.6	14.2.6	07.2.4	02.2.3
HC.3	Services of long-term nursing care					
HC.3.1	In-patient long-term nursing care	06.3	13.2.7	14.2.7	07.3	02.3
HC.3.2	Day cases of long-term nursing care	06.3	13.2.7	14.2.7	07.3	02.2.3
HC.3.3	Long-term nursing care: home care	06.2.3	13.2.6	14.2.6	07.2.4	02.2.3
HC.4	Ancillary services to health care					
HC.4.1	Clinical laboratory	06.2.3	13.2.6	14.2.6	07.2.4	02.2.3
HC.4.2	Diagnostic imaging	06.2.3	13.2.6	14.2.6	07.2.4	02.2.3
HC.4.3	Patient transport and emergency rescue	06.2.3 (06.3)	13.2.6 (13.2.7)	14.2.6 (14.2.7)	07.2.4 (07.3)	02.2.3, (02.3)
HC.4.9	All other miscellaneous ancillary services	06.2.3	13.2.6	14.2.6	07.2.4	02.2.3
HC.5	Medical goods dispensed to out-patients					
HC.5.1	Pharmaceuticals and other medical non-durables					
HC.5.1.1	Prescribed medicines	06.1.1	13.2.1	14.2.1	07.1.1	02.1.1
HC.5.1.2	Over-the-counter medicines	06.1.1	13.2.1	14.2.1	07.1.1	02.1.1
HC.5.1.3	Other medical non-durables	06.1.2	13.2.2	14.2.2	07.1.2	02.1.2
HC.5.2	Therapeutic appliances and medical equip. (<i>durables</i>)	06.1.3	13.2.3	14.2.3	07.1.3	02.1.3
HC.5.2.1	Glasses and other vision products	06.1.3	13.2.3	14.2.3	07.1.3	02.1.3
HC.5.2.2	Orthopaedic appliances and other prosthetics	06.1.3	13.2.3	14.2.3	07.1.3	02.1.3
HC.5.2.3	Hearing aids	06.1.3	13.2.3	14.2.3	07.1.3	02.1.3
HC.5.2.4	Medico-technical devices, including wheelchairs	06.1.3	13.2.3	14.2.3	07.1.3	02.1.3
HC.5.2.9	All other miscellaneous medical goods	06.1.3	13.2.3	14.2.3	07.1.3	02.1.3
HC.6	Prevention and public health services	–	–	–	–	–
HC.6.1	Maternal & child health, family planning & counselling	–	–	14.2.8	07.4	02.4
HC.6.2	School health services	–	–	14.2.8	07.4	02.4
HC.6.3	Prevention of communicable disease	–	–	14.2.8	07.4	02.4
HC.6.4	Prevention of non-communicable disease	–	–	14.2.8	07.4	02.4
HC.6.4	Occupational health care	–	–	–	–	–
HC.6.9	All other miscellaneous collective health services	–	–	14.2.8	07.4, 07.6	02.4
HC.7	Health administration and health insurance	–	–	–	–	–
HC.7.1	Health administration and health insurance: public	–	–	–	07.6.0	–
HC.7.2	Health administration and health insurance: private	12.5.3	–	–	–	–

ANNEX 9.3. CROSS-CLASSIFICATIONS FOR PUBLIC HEALTH FUNCTIONS

Table 9.6. Cross-classification of EPHFs, ICHA-HC and COFOG

EPHF	Description	ICHA-HC	COFOG code
1	<i>Prevention, surveillance and control of communicable and non-communicable diseases</i>		
	Immunisation	6.3	07.4
	Disease outbreak control	6.3	07.4
	Disease surveillance	cross-funct. (6. and 7.)	cross-funct. (07.4 and 07.6)
	Prevention of injury	5.4 (and cross-funct.)	07.4 (and cross-funct.)
2	<i>Monitoring the health situation</i>		
	Monitoring of morbidity and mortality	cross-funct. (6. and 7.)	cross-funct. (07.4 and 07.6)
	Evaluation of the effectiveness of promotion, prevention and services programmes	cross-funct. (6. and 7.)	cross-funct. (07.4 and 07.6)
	Assessment of the effectiveness of public health functions	6. and 7.	0.7.4 and 0.7.6
	Assessment of population needs and risks to determine which subgroups require service	cross-funct. (6. and 7.)	cross-funct. (0.7.4 and 0.7.6)
3	<i>Health promotion</i>		
	Promotion of community involvement in health	6.9 and 7.	0.7.4 and 0.7.6
	Provision of information and education for health and life skill enhancement in school, home, work and community settings	cross-funct. (6. and 7.)	cross-funct. (0.7.4 and 0.7.6)
	Maintenance of linkages with politicians, other sectors and the community in support of health promotion and public health advocacy	strategic aspect	strategic aspect
4	<i>Occupational health</i>	(6.5)	–
	Setting occupational health and safety standards	7.	07.6.0

Note: cross-funct.: cross-functional issue; (R.x): WHO function overlaps with R.x (although not identical).

Table 9.6. Cross-classification of EPHFs, ICHA-HC and COFOG (cont.)

EPHF	Description	ICHA-HC	COFOG code
5	<i>Protecting the environment</i>		
	Production and protection of, and access to, safe water	(R.4)	06.3.0
	Control of food quality and safety	R.4	cross-funct. (04; 07.04.0)
	Provision of adequate drainage, sewerage and solid waste disposal services	R.4	05.1 and 05.2
	Control of hazardous substances and wastes	–	05.1 and 05.2
	Provision of adequate vector control measures	5.3.1	07.04.0
	Ensure protection of water and soil resources	(R.5)	(05.3; 05.4 and 05.6)
	Ensure environmental health aspects are addressed in development policies, plans, programmes and projects	strategic aspect	strategic aspect
	Prevention and control of atmospheric pollution	(R.5)	05.3
	Ensure adequate prevention and promote environmental services	strategic aspect	strategic aspect
	Ensure adequate inspection, monitoring and control of environmental hazards	strategic aspect	strategic aspect
	Controlling radiation	R.5	05.3
6	<i>Public health legislation and regulations</i>		
	Review, formulate and enact health legislation, regulations and administrative procedures	6.	07.6.0
	Ensure adequate legislation to protect environmental health	cross-funct. (1. - 4.)	cross-funct.
	Health inspection and licensing	6.	07.6.0
	Enforcement of health legislation, regulations and administrative procedures	cross-sectoral	cross-sectoral
7	<i>Public health management</i>		
	Ensuring health policy, planning and management	6.1.1 (and cross-sectoral)	07.6.0 (and cross-sectoral)
	Use of scientific evidence in the formulation and implementation of public health policy	strategic aspect	strategic aspect
	Public health and health systems research	R.3	07.4.0
	International collaboration and co-operation in health	6.1 (and cross-sectoral)	01.2 (and cross-sectoral)
8	<i>Specific public health services</i>		
	School health services	5.2	07.4.0
	Emergency disaster services	–	03.2.0 and 03.6.0
	Public health laboratory services	5.3.1	07.4.0
9	<i>Personal health care for vulnerable and high risk populations</i>	cross-funct. issue	cross-funct. issue
	Maternal health care and family planning	5.1	07.4.0 and 10.4.0
	Infant and child care	5.1.1	07.4.0

Note: cross-funct.: cross-functional issue; (R.x): WHO function overlaps with R.x (although not identical).
 Source: Adapted from Bettcher (1998) and United Nations (1998b).