

MEDICAL DEVICES: MANAGING THE Mismatch

An outcome of the Priority Medical Devices project

Building bridges between diseases, disabilities and assistive devices: linking the GBD, ICF and ISO 9999

Background Paper 2

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Preface

In 2007, at the request of the Government of the Netherlands, the World Health Organization launched the *Priority Medical Devices (PMD)* project to determine whether medical devices currently on the global market are meeting the needs of health-care providers and patients throughout the world and, if not, to propose remedial action based on sound research.

The project gathered the information required by conducting literature reviews and surveys, and by convening meetings of specialist consultants.

The project addressed various complementary issues:

- the global burdens of disease and disability;
- guidelines on clinical procedures for the management of diseases and disabilities;

- projections of future burdens of disease and disability in the context of demographic trends;
- cross-cutting issues, such as the training of medical device users, medical device design, contextual appropriateness of medical devices, and regulatory oversight;
- catalysts of, and barriers to medical device innovation and research.

The original objective of the *PMD* project was to identify gaps in the availability of medical devices. The findings of the project showed that gaps in the availability of medical devices is not the primary issue, but rather a number of shortcomings spanning several facets of the medical device sphere. This result prompted a change of direction in which the project shifted its focus onto the many shortcomings related to medical devices.

These problems, challenges, and failures amount to a mismatch, rather than a gap, that prevents medical devices from achieving their full public health potential.

The *PMD* project also produced a report *Medical Devices: Managing the Mismatch* aimed at achieving two objectives: the first, to inform national health policy-makers, international organizations, manufacturers and other stakeholders of the factors preventing the current medical device community from achieving its full public health potential; the second, to provide a basis on which all players in the medical device scene can together use the findings and recommendations of the *PMD* project to make public health the central focus of their activities.

This paper is part of a series of documents produced as background material for the *PMD* project report. The following papers are available as part of this series:

- 1 A stepwise approach to identifying gaps in medical devices (Availability Matrix and survey methodology)
- 2 Building bridges between diseases, disabilities and assistive devices: linking the GBD, ICF and ISO 9999
- 3 Clinical evidence for medical devices: regulatory processes focussing on Europe and the United States of America
- 4 Increasing complexity of medical devices and consequences for training and outcome of care
- 5 Context dependency of medical devices
- 6 Barriers to innovation in the field of medical devices
- 7 Trends in medical technology and expected impact on public health
- 8 Future public health needs: commonalities and differences between high- and low-resource settings

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The named authors alone are responsible for the views expressed in this publication.

Introduction

An objective of the *Priority Medical Devices (PMD)* project is to identify gaps in the availability of medical devices in the scope of public health. To assess public health need, the burdens of diseases are measured. The World Health Organization's (WHO's) *Global Burden of Disease (GBD)* project is used as a baseline. Preventive, diagnostic and therapeutic medical devices have a direct relation to the diagnosis of a specific disease and can be prioritized according to burden of disease. Assistive devices are generally not used for medical diagnosis but to address problems with functioning.

Diseases are classified according to the International Statistical Classification of Diseases and Related Health Problems (ICD-10). The ICD-10 is the international standard diagnostic classification for all

general epidemiological purposes, many health management purposes and clinical use (1). The International Classification of Functioning, Disability and Health (ICF) is a classification of functioning and disability used to describe (problems in) human functioning (2). The ICF complements the ICD-10, which contains information on diagnosis and health condition, but not on functional status.

Assistive products needed by a patient to improve functioning are classified by the International classification of assistive products for persons with disability, the ISO 9999.¹ Assistive products are used

mainly in relation to human functioning, irrespective of origin. They are used to maintain or enhance functioning and minimize disability of the person using them, rather than to cure a disease or condition (3). Currently, a 'bridge' between diseases, expressed in the GBD, disability according to the ICF, and assistive products according to the ISO 9999 is lacking.

This paper aims to provide that bridge and to identify the assistive products needed by persons with disabilities resulting from a selection of high-burden diseases. It does not aim to prioritize or describe the accessibility of these assistive products.

¹ Medical devices according to the definition of the Global Harmonization Task Force (GHTF) and assistive products according to ISO 9999 partly overlap. In the ISO 9999 (*Assistive products for persons with disability – Classification and terminology*), the term 'assistive products' is used instead of assistive medical devices. Many but not all of the assistive products are assistive medical devices. In the context of this paper, the terminology of ISO 9999 is used.



Steps to bridge disease, functioning and assistive products

The paper outlines the following steps.

1. Identification of 15 high-burden diseases by using the GBD.
2. Description of ICD-10 and ICF as complementary systems.
3. Bridging the GBD and ICF through core sets and functioning profiles.
4. Delineating the ISO 9999.
5. Relating the ICF to the ISO 9999. The ICF core sets and functioning profiles are linked to assistive products according to ISO 9999 through the ISO/WHO N19 rev. working document.

Step 1. The Global Burden of Disease project

The GBD, based on the ICD-10, measures the gap between the current health status and an ideal – where everybody lives to old age free of disease and/or disability. The overall burden is divided into three broad groups of causes (4).

1. Group I Communicable, maternal, perinatal and nutritional conditions
2. Group II Noncommunicable diseases
3. Group III Injuries

The GBD is expressed in a time-based metric called disability-adjusted life years (DALYs). One DALY represents one lost year of equivalent full health due to mortality, morbidity and/or disability (5). DALYs are calculated as the sum of the years of life lost (YLL) due to premature mortality and the years lived with a disability (YLD). YLL are expressed in the number of deaths multiplied by the standard life expectancy at the age at which death occurs. To estimate the YLD, the number of cases in a certain period is multiplied by the average duration of a disease and a weight factor that reflects the severity of the disease (4).

The selected high-burden diseases discussed in this paper are included in Table 1.

Step 2. ICD-10 and ICF as complementary systems

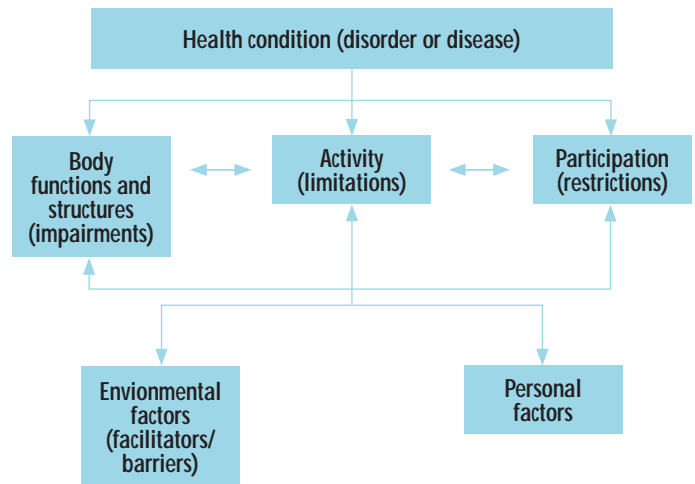
The ICD-10 and the ICF are complementary systems. The ICD is the international standard diagnostic classification for all general epidemiological purposes, many health management purposes and clinical use (1). Published by WHO (2), the ICF allows for description of functioning and disability, although it is not a measurement instrument (6). Currently there are few data available on the burden of disability.

ICF describes the inter-individual differences that exist in the functioning status of two people that suffer from the same disease. The origin of the disability or functioning problem is irrelevant in the description of functioning problems. People using assistive products often do not have a medical diagnosis (2).

Table 1. The 15 selected high-burden diseases

U003	Tuberculosis
U009	HIV/AIDS
U010	Diarrhoeal diseases
U020	Malaria
U039	Lower respiratory infections
U050, U051, U052	Low birth weight, birth asphyxia and birth trauma, other perinatal conditions
U067	Malignant neoplasms
U079	Diabetes mellitus
U082	Unipolar depressive disorders
U100	Cataracts
U102	Hearing loss, adult onset
U107	Ischaemic heart disease
U108	Cerebrovascular disease
U112	Chronic obstructive pulmonary disease
U150	Road traffic accidents

Figure 1. Interactions between components of the ICF



Source: WHO (2).

The ICF describes the functioning of an individual from three perspectives: the perspective of the body (functions and structures), the perspective of the individual (activities) and the perspective of society (participation) (Figure 1).

Functioning is an umbrella term encompassing all body functions and structures, activities and participation. Similarly, disability – problems in functioning – serves as an umbrella term for impairments (in body functions and structures), activity limitations and participation restrictions. Factors influencing functioning are the disease/disorder (not included in the ICF), environmental factors and personal factors.

The lists included in the ICF (body functions and structures, activities and participation, and environmental factors) are hierarchically organized and consist of chapters and two-level, three-level and four-level classes. Each class has a unique code; the codes of the classification of functions start with a ‘b’ (body), structures with a ‘s’ (structure), activities and participation with a ‘d’ (domain) and environmental factors with an ‘e’.

A generic example is described below:

Chapter level	d4	Mobility
Two-level class	d450	Walking
Three-level class	d4500	Walking short distances

Step 3. Bridging the GBD and ICF through core sets and functioning profiles

To bridge a disease to a functioning problem, ICF core sets and functioning profiles for 15 high-burden diseases are selected.

Core sets

The ICF contains over 1450 classes. An ICF core set is a selection of ICF classes representing relevant aspects in the functioning of people with a specific disease or health problem. Core sets delineate functioning problems that are likely to be related to a specific chronic condition. Core sets based on the ICF have been developed for a number of chronic conditions (see Table 2) (7).

The development of core sets involves a formal decision-making process by a group of international experts from various

backgrounds. Evidence is gathered by way of the Delphi method, systematic reviews and empirical data. Core sets are mainly developed by a group chaired by Professor Gerold Stucki at the University of Munich, Germany.¹

An ICF core set is available for 5 of the 15 high-burden diseases selected by the PMD project (Table 3). Some core sets are available only for a specific category of disease (e.g. there is no general ICF core set for malignant neoplasms, but there are two specific ICF core sets for the disease: for breast cancer and for head and neck cancer).

Functioning profiles

For those high-burden diseases for which a general core set is not available, functioning profiles are developed. This is done through an advisory panel or a selection of relevant ICF classes based on existing guidelines and literature references² or through consultation of two or more international specialists for a specific disease. The

¹ There are many publications available about core sets. For more information, see the ICF Research Branch of the WHO Collaborating Centre for the Family of International Classifications (FIC), Institute for Health and Rehabilitation Sciences, Ludwig-Maximilians University (<http://www.icf-research-branch.org>)

² With respect to guidelines and literature, it was decided to omit classes from chapters 6–9, because the domains of these chapters (e.g. work, recreation) are mentioned only in global terms, which does not allow for sufficient specificity.

Table 2. Core sets for chronic conditions

ICF core sets for chronic conditions already developed	ICF core sets for chronic conditions under development
Ankylosing spondylitis	Bipolar disorders
Breast cancer	Dementia
Chronic ischaemic heart disease	Multiple sclerosis
Chronic widespread pain	Psoriatic arthritis
Depression	Scleroderma
Diabetes mellitus	Sleep disorders
Head and neck cancer	Systemic lupus erythematosus
Low back pain	Traumatic brain injury
Obesity	–
Obstructive pulmonary diseases	–
Osteoarthritis	–
Osteoporosis	–
Rheumatoid arthritis	–
Spinal cord injury	–
Stroke	–

specialist identifies the selection of relevant classes from the ICF for that specific disease (Annex 4).¹

Table 3 lists the 15 high-burden diseases and the associated ICF core sets and functioning profiles. The functioning profile for malignant neoplasms is a combination of two core sets for special forms of cancer (breast cancer and head and neck cancer) and two functioning profiles based on guidelines for colon cancer and lung cancer.

Step 4. Delineating the ISO 9999

ISO 9999 is the international standard that establishes a classification of assistive products for persons with disabilities (8). The most recent version is the one published in

2007 (see www.rivm.nl/who-fic).² The ISO 9999 (2007) defines an assistive product as follows:

An assistive product is any product (including devices, equipment, instruments, technology and software) especially produced or generally available, for preventing, compensating, monitoring, relieving or neutralizing impairments, activity limitations and participation restrictions.

In November 2009, Working Group ISO TC173/SC2/WG 11³ agreed upon a slightly adapted version⁴:

An assistive product is any product (including devices, equipment, instruments

and software) especially produced or generally available, used by or for persons with disability

- for participation;
- to protect, support, train, measure or substitute for body functions/structures and activities; or
- to prevent impairments, activity limitations or participation restrictions.

ISO 9999 describes assistive products at three levels of detail (indicated as first, second and third level: classes, subclasses and divisions), each with two digits (xx.xx.xx). An example:

Class (first level)	22	Assistive products for communication and information
Subclass (second level)	2.230	Assistive products for reading
Division (third level)	223.012	Page turners

¹ With respect to consultation with experts, it was decided to omit classes from chapters 6–9, as these chapters contain general activities like housekeeping and recreation. Including these chapters would disproportionately increase the amount of assistive products.

² ISO is the abbreviation of the International Organization for Standardization. The ISO 9999 is controlled and updated by ISO's Subcommittee 2 (responsible for classification and terminology) of Technical Committee 173 (responsible for assistive products for persons with disability).

³ Working Group ISO TC 173/SC2/wg 11 consists of international experts involved in the continuous revision process of ISO 9999.

⁴ This definition is included in the Draft International Standard (DIS) of ISO 9999 – version 2011, published in February 2010.

Table 3. Selected high-burden diseases and their associated core sets or functioning profiles

GBD code	GBD cause/sequela	ICF core set available for the disease		No ICF core set available for the disease	
		ICF core set for the general disease	ICF core set available for one or more forms of the disease	Functioning profile based on expert opinions	Functioning profile based on guidelines and literature
U003	Tuberculosis	No	No	Yes	No
U009	HIV/AIDS	No	No	Yes	No
U010	Diarrhoeal diseases	No	No	No	Yes ^a
U020	Malaria	No	No	Yes	Yes ^b
U039	Lower respiratory infections	No	No	No	Yes ^c
U050, U051, U052	Low birth weight, birth asphyxia and birth trauma, other perinatal conditions	No	No	Yes	No
U067	Malignant neoplasms	No	Yes, for breast cancer, and head and neck cancer	No	Yes, for colon cancer ^d and lung cancer ^e
U079	Diabetes mellitus	Yes	No	No	No
U082	Unipolar depressive disorders	Yes, for depression	No	No	No
U100	Cataracts	No	No ^f	No	Yes ^g
U102	Hearing loss, adult onset	No	No	No	Yes ^h
U107	Ischaemic heart disease	Yes	No	No	No
U108	Cerebrovascular disease	Yes, for stroke	No	No	No
U112	Chronic obstructive pulmonary disease	Yes	No	No	No
U150	Road traffic accidents	No	No	Yes, for lower extremity, and upper extremity	No

^a Based on the NHG-standard acute diarree [Guidelines for acute diarrhoea]. Huisarts & Wetenschap 2007, 50(3):103–113.

^b WHO/UNICEF. World Malaria Report 2005. Geneva, World Health Organization, 2005.

^c Based on Diagnostiek en antimicrobiële behandeling van recidiverende lagere luchtweginfecties (Diagnostics and antibiotic treatment of recurring infections of the lower respiratory tract). Den Bosch, Nederlandse Vereniging van Artsen voor Longziekten en Tuberculose, 2005.

^d Based on Colonicarcinoom: landelijke richtlijn, versie 2.0 (National guidelines for colon carcinoma). Utrecht, CBO/Landelijke werkgroep Gastro Intestinale Tumoren, 2008.

^e Based on Richtlijn Niet-kleincellig longcarcinoom: stadiëring en behandeling (Guidelines for indicating the stage and treatment of carcinoma of the lung). Utrecht, CBO/Vereniging van Integrale Kankercentraal, 2004.

^f The core set for visual impairment is not yet available.

^g Based on the Definitief concept cataract richtlijn (Final draft guidelines for cataract). Nijmegen, Nederlands Oogheelkundig Genootschap, 2006.

^h Based on NHG-standaard slechthoördheid (Guidelines for hearing loss). Utrecht, Nederlands Huisartsen Genootschap, 2005.

ISO 9999 contains the following classes (first level):

- 04 Assistive products for personal medical treatment
- 05 Assistive products for training skills
- 06 Orthoses and prostheses
- 09 Assistive products for personal care and protection
- 12 Assistive products for personal mobility
- 15 Assistive products for housekeeping
- 18 Furnishings and adaptations to homes and other premises
- 22 Assistive products for communication and information
- 24 Assistive products for handling objects and devices
- 27 Assistive products for environmental improvement, tools and machines
- 30 Assistive products for recreation

problems it is necessary to map ICF classes to the ISO 9999 (8, 9).

This was performed by using the N19 rev.¹ This working document outlines conversion of ISO 9999 subclasses (second level) or divisions (third level) according to their intended use,² to ICF classes (ISO 9999 → ICF). Table 4 shows some examples.

To know the assistive products needed for ICF classes for high-burden diseases, the reverse link is needed (ICF classes → ISO 9999). To allow for that reverse linking, ICF classes and ISO divisions are processed in an Access database. Table 5 shows some examples.

Linking ICF classes to ISO subclasses and divisions was performed for the core sets and functioning profiles of each of the selected high-burden diseases. The list of assistive products for each high-burden disease was then reviewed by the authors of this background paper to delete overlapping assistive products.

In summary: high-burden diseases are mapped to ICF classes (based on core set or functioning profile), and the ICF classes are mapped to ISO 9999 subclasses and divisions.³ The overall result is a list of assistive products according to ISO classification for 15 selected high-burden diseases.

Step 5. Relating the ICF to the ISO 9999

To identify assistive products related to diseases and their associated functioning

¹ The N19 rev. is a product of the ISO/TC173/SC2. The document is on the web site of the WHO Collaborating Centre for the Family of International Classifications (FIC) in the Netherlands (<http://www.rivm.nl/who-fic/in/ISO9999withICReferences.pdf>, accessed 22 March 2010).

² Product-related intended use is an intrinsic characteristic of assistive products which indicates what the user of the assistive product can and may expect of the assistive product. It describes the product rather than the user. For example, the product-related intended use of an assistive product to help blind people in their communication is 'communication' and not '(an impairment in) seeing functions'.

³ Excluded from this list are assistive products from class 30 (assistive products for recreation), all subclasses containing only accessories (such as 12.24 wheelchair accessories) and the items related exclusively to work (mainly in class 24 and 27) and vocational training (subclass 05.21).

Table 4. Examples from the N19 rev: linking of ISO 9999 divisions to ICF classes

ISO 9999 divisions	ICF classes
04.48.03 Training and ergometer cycles Stationary cycles for physical exercise	Exercise tolerance functions (b455) Muscle functions (b730–749) Structure of cardiovascular system (s410) Structures related to movement (s7) Managing diet and fitness (d5701)
12.31.09 Free-standing rails for self-lifting Devices to support a person to rise from a bed or chair, etc.	Lying down (d4100) Sitting (d4103) Standing (d4104)
22.12.06 Writing, drafting and drawing boards	Writing (d170) Producing signs and symbols (d3351) Producing drawings and photographs (d3352) Writing messages (d345)

Table 5. Examples of linking ICF classes to ISO divisions

ICF classes	ISO 9999 divisions
b235 Vestibular functions	04.48.24 Biofeedback devices for movements, strength and balance training 05.18.21 Assistive products for training in sensory integration 09.06.09 Assistive products for ear protection of hearing protection
d630 Preparing meals	05.33.12 Assistive products for training in housekeeping 15.03.03 Assistive products for weighing and measuring 15.03.06 Assistive products for cutting, chopping and dividing 15.03.09 Assistive products for cleaning and peeling 15.03.12 Assistive products for baking 15.03.15 Machines for food preparation 15.03.18 Assistive products for cooking and frying 15.03.21 Cooking units 15.09.03 Assistive products for serving food and drink 15.09.06 Food dispensers 15.09.09 Stoppers and funnels

Results

Steps 1 through 5 result in a list of assistive products by subclass (second level) or division (third level) for 15 high-burden diseases. To avoid long lists of assistive products only the results at subclass (second) level are presented in the tables included in Annex 3 of this report.

To link disease to functioning and to assistive products, two basic steps were taken: linking ICF classes to the disease and linking ICF classes to ISO 9999. Both steps have their limitations. ICF core sets are developed by a large group of experts according to a detailed procedure, which provides a consensus for the description of the functioning of patients with the disease. Several core sets were used without knowing whether the core sets have been validated. Further, use of a core set does not fully reflect the ICF approach, which focuses on the description of functioning problems independent of their cause. It is however to be expected that the most important problems will be represented in the core set.

The greatest limitation of this mapping exercise, however, rests in the use of the functioning profiles.

The functioning profiles used are based on the opinion of one or two experts (or on one or more guidelines) making them less universally well-defined.

The linking of ISO 9999 subclasses and divisions to ICF classes is based on document N19 rev.¹

The number of subclasses and divisions of ISO 9999 assistive products selected for

each disease varies. As may be expected, limitations in functioning associated with systemic diseases or conditions (e.g. ischaemic heart disease) generate more ISO subclasses and divisions than do specific conditions (e.g. hearing loss). The number of ISO subclasses or divisions explicitly does not reflect the impact or the priority of the assistive products.

Table A1.1 in Annex 1 lists the diseases according to GBD code and ISO 9999 classes. The diseases are subdivided into the following categories:

- ‘system diseases’ (sys). These include diseases that influence all body systems, such as HIV/AIDS, cerebrovascular disease and malaria. The results for the four types of malignant neoplasms are taken together as one ‘system disease’. Perinatal conditions were subdivided in two groups: conditions causing mental problems and those causing complex physical problems. The latter group was indicated as a ‘systemic disease’. By the broad range of causes and consequences concerning functioning (see Annex 2), this was the disease with the highest number of ISO classes.
- ‘lesions of the upper and lower extremity’ (mot). Although there is only one GBD code (U150), it was decided to make a distinction between these conditions, as the consequences of both are markedly different (see Annex 2). Persons with severe lesions of the lower extremities have problems in walking and other forms of transportation. Persons with severe lesions of the upper extremity have problems in daily care, household, communication and a range of other problems.
- diseases of one organ or organ system (org). These include diseases like chronic obstructive pulmonary disease.

- diseases of one of the senses (vision and hearing) (sens).
- diseases producing mainly cognitive problems (cogn). These include depressive disorders and perinatal conditions with only problems in mental functioning.
- The sequence of the ISO 9999 classes has been changed to form more coherent groups.
 - Class 04 and 05
 - Class 09 and 15: self-care and household
 - Class 06 and 12: orthoses and prostheses, and assistive products for mobility and
 - Class 22: communication
 - Class 18, 24, 27: other classes
 - Class 30 was left out.

Table A.1.2 lists the diseases according to their GBD code and the ISO 9999 subclasses.

For malignant neoplasms, the results are presented separately for each form of neoplasm. For road traffic accidents the assistive products are presented separately for the upper and lower extremity. For perinatal conditions mental and physical problems are also shown separately.

Annex 2 lists the ICF codes for each of the 15 high-burden diseases, based on the core set or functioning profile associated with it.

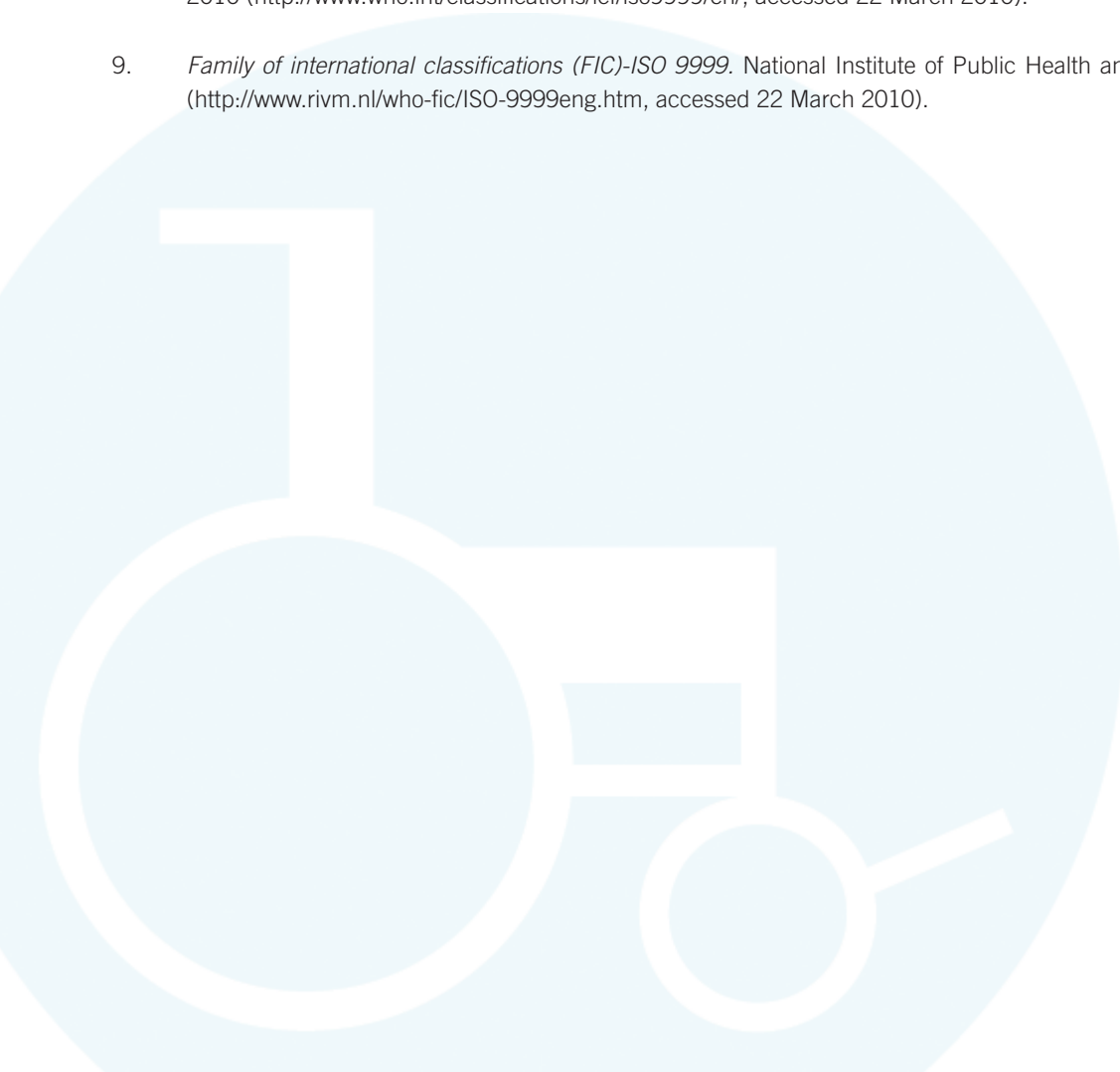
Annex 3 lists the ISO 9999 subclasses selected for each of the 15 high-burden diseases.

Annex 4 describes the approach for establishing functioning profiles of four diseases.

¹ The N19 rev. is a product of the ISO/TC173/SC2. The document is on the web site of the WHO Collaborating Centre for the Family of International Classifications (FIC) in the Netherlands (<http://www.rivm.nl/who-fic/in/ISO9999withICReferences.pdf>, accessed 22 March 2010).

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Annex 1. Tables showing the ISO 9999 classes and subclasses, by disease

Number of subclasses for each class

Class 04	Assistive products for personal medical treatment	15 subclasses
Class 05	Assistive products for training skills	11 subclasses
Class 06	Orthoses and prostheses	12 subclasses
Class 09	Assistive products for personal care and protection	19 subclasses
Class 12	Assistive products for personal mobility	14 subclasses
Class 15	Assistive products for housekeeping	5 subclasses
Class 18	Furnishings and adaptations to homes and other premises	11 subclasses
Class 22	Assistive products for communication and information	13 subclasses
Class 24	Assistive products for handling objects and devices	13 subclasses
Class 27	Assistive products for environmental improvement, tools and machines	5 subclasses
Class 30	Assistive products for recreation	11 subclasses

Of 129 ISO subclasses, 103 have been used in mapping to ICF classes. The subclasses that not have been used are indicated with Δ.

In the mapping procedure all subclasses of ISO 9999 were used with the exception of:

- One subclass of class 05: 05.21 Assistive products for vocational training
- Two subclasses of class 12: 12.07 Accessories for assistive products for walking and 12.24 Wheelchair accessories
- Two subclasses of class 18: 18.03 Tables; and 18.15 Assistive products for height adjustment of furniture
- Six subclasses of class 24 (all used mainly in the work place): 24.27

Assistive products for fixation; 24.30 Assistive products for repositioning and hoisting; 24.36 Assistive products for carrying and transporting; 24.39 Industrial transportation vehicles; 24.42 Conveyors; and 24.45 Cranes

- All subclasses of class 27 except 27.03 Assistive products for environmental improvement
- All 11 subclasses of class 30

Notes: The number of subclasses (second level) relevant for each class (first level) of assistive products is listed for each disease. The total number of subclasses for each disease can be found under 'Total per illness'; the % total indicates how many subclasses there are as a percentage of all

subclasses indicated for all the diseases together; this indicates the variety of assistive products needed for that specific disease relative to other diseases. When a core set is available for a disease there is an 'X' under 'Core sets'; when use is made of more than one core set (malignant neoplasms) there is a XX.

Abbreviations: 'Sys' indicates a systemic disease; 'Mot' indicates lesions of the extremities (locomotor system); 'Org' indicates diseases of one organ or organ system; 'Sens' indicates a disease of one of the senses; and 'Cogn' indicates problems in cognitive functioning.

Table A1.1. Amount of subclasses of assistive products, by disease. On the horizontal axis are 15 high-burden diseases, organized according to categories (like systemic diseases). On the vertical axis the classes (first level) of the ISO 9999 are listed. The number of subclasses reflects the diversity in classes of assistive products; it does not reflect the priority or impact of the assistive product for a given disease

	%	Total	Disease																
			Perinatal conditions – physical	Cerebrovascular disease	Tuberculosis	HIV/AIDS	Malignant neoplasms	Malaria	Diabetes mellitus	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity	Chronic obstructive pulmonary disease	Lower respiratory infections	Ischaemic heart disease	Diarrhoeal diseases	Cataracts	Hearing loss, adult onset	Perinatal conditions – mental	Unipolar depressive disorders
ISO 9999 classes (first level)			U050	U108	U003	U009	U067	U020	U079	U150	U150	U112	U039	U107	U010	U100	U102	U050	U080
04	18%	133	14	11	13	11	9	6	9	6	5	8	8	6	8	1	2	7	9
05	9%	65	9	9	5	2	3	3	2	2	2	3	2	2	1	4	3	8	5
09	19%	143	18	16	13	16	13	12	4	13	10	4	5	0	7	1	1	9	1
15	4%	26	1	5	0	1	5	1	0	5	1	1	0	2	0	3	0	1	0
06	6%	47	9	5	5	1	5	6	3	5	6	0	2	0	0	0	0	0	0
12	13%	99	11	12	11	11	4	7	8	4	11	10	3	6	0	1	0	0	0
22	14%	102	9	12	10	8	10	6	3	8	1	4	1	1	1	10	10	7	1
18	10%	72	8	8	8	8	3	7	3	2	7	7	4	2	1	2	0	1	1
24	6%	41	6	7	6	6	3	4	0	6	0	0	0	0	0	3	0	0	0
27	1%	8	1	1	0	0	1	0	0	0	0	1	1	0	0	1	1	0	1
Total		736	86	86	71	64	56	52	32	51	43	38	26	19	18	26	17	33	18
% Total			12%	12%	10%	9%	8%	7%	4%	7%	6%	5%	4%	3%	2%	4%	2%	4%	2%
Core set (CS) Functioning profile (FP)			FP	CS	FP	FP	CS/FP	FP	CS	FP	FP	CS	FP	CS	FP	FP	FP	FP	FP
Type of illness			Sys	Sys	Sys	Sys	Sys	Sys	Sys	Mot	Mot	Org	Org	Org	Org	Sens	Sens	Cogn	Cogn

Table A1.2. ISO 9999 subclasses (second level), by disease. The number of subclasses reflects the diversity in classes of assistive products; it does not reflect the priority or impact of the assistive product for a given disease

ISO 9999 subclasses (second level)	Disease																				
	Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Malaria	Lower respiratory infections	Perinatal conditions – mental	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	Diabetes mellitus	Unipolar depressive disorders	Cataracts	Hearing loss, adult onset	Ischaemic heart disease	Cerebrovascular disease	Chronic obstructive pulmonary disease	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity
04	U003	U009	U010	U020	U039	U050/051/052	U067	U067	U067	U067	U067	U067	U079	U082	U100	U102	U107	U108	U112	U150	U150
04.03	13	11	8	6	8	7	14	6	8	3	5	9	9	9	1	2	6	11	8	6	5
04.06	X	X	X	—	X	X	X	—	X	—	X	X	—	X	—	—	X	—	X	—	—
04.09	X	X	—	—	—	X	X	—	—	—	—	—	—	X	—	—	—	X	—	—	—
04.15	X	X	X	—	—	—	X	—	—	—	—	—	X	—	—	—	—	X	—	—	—
04.19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
04.22	X	X	X	X	X	—	X	X	X	—	X	X	X	X	—	—	—	X	X	—	—
04.24	X	X	X	X	X	X	X	X	X	—	—	—	X	X	—	—	X	X	X	X	X
04.25	—	—	—	—	—	X	X	—	—	—	—	—	—	X	—	—	—	X	—	—	—
04.27	X	X	—	X	X	X	X	X	X	X	X	X	—	X	—	X	—	X	X	X	X
04.30	X	X	X	—	X	—	X	—	—	—	—	—	—	X	—	—	—	—	X	—	—
04.33	X	X	X	X	—	—	X	—	—	—	—	—	X	—	—	—	—	X	—	—	X
04.36	—	—	—	—	—	—	X	—	X	—	—	—	X	—	—	—	—	X	—	—	—
04.39	X	—	—	—	—	—	X	—	—	—	—	—	X	—	X	—	—	X	—	X	—
04.45	X	—	—	—	—	—	X	—	X	—	—	X	—	—	—	—	—	X	—	—	—
04.48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	—	—	X	X	X	X	X

X Medical device is represented

— Not applicable

		Disease																					
		U003	U009	U010	U020	U039	U050/051/052	U050/051/052	U067	U079	U082	U100	U102	U107	U108	U112	U150						
		Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Malaria	Lower respiratory infections	Perinatal conditions – mental	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	Diabetes mellitus	Unipolar depressive disorders	Cataracts	Hearing loss, adult onset	Ischaemic heart disease	Cerebrovascular disease	Chronic obstructive pulmonary disease	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity	
	ISO 9999 subclasses (second level)	U003	U009	U010	U020	U039	U050/051/052	U050/051/052	U067	U079	U082	U100	U102	U107	U108	U112	U150						
05	Assistive products for training in skills (total)	5	2	1	3	2	8	9	1	3	1	1	3	2	9	3	2				2	2	
05.03	Assistive products for communication therapy and training	X	—	—	X	—	X	X	—	—	—	—	X	—	X	X	—	—	—	—	—	—	
05.06	Assistive products for training in alternative and augmentative communication	X	—	—	—	—	X	X	—	X	—	X	—	—	X	—	—	—	—	—	—	—	
05.09	Assistive products for continence training	X	—	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	—	—	—	
05.12	Assistive products for training in cognitive skills	—	—	—	—	—	X	X	—	—	—	—	—	—	X	—	—	—	—	—	—	—	
05.15	Assistive products for training in basic skills	—	—	—	—	—	X	X	—	—	—	—	—	—	X	—	—	—	—	—	—	—	
05.18	Assistive products for training in various educational subjects	—	—	—	—	—	X	X	—	—	—	—	—	—	X	—	—	—	—	—	—	—	
05.21	Assistive products for vocational training	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	
05.24	Assistive products for training in the arts	—	—	—	—	—	X	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
05.27	Assistive products for training in social skills	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
05.30	Assistive products for training in control of input units and handling products and goods	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—	—	—	—	X	—	
05.33	Assistive products for training in daily living activities	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

X Medical device is represented
 — Not applicable
 △ Subclass excluded

ISO 9999 subclasses (second level)	Disease																				
	Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Malaria	Lower respiratory infections	Perinatal conditions – mental	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	Diabetes mellitus	Unipolar depressive disorders	Cataracts	Hearing loss, adult onset	Ischaemic heart disease	Cerebrovascular disease	Chronic obstructive pulmonary disease	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity
	U003	U009	U010	U020	U039	U050/051/052	U050/051/052	U067	U067	U067	U067	U067	U079	U082	U100	U102	U107	U108	U112	U150	U150
06	5	1	0	6	2	0	9	1	5	1	0	5	3	0	0	0	0	5	0	5	6
06.03	X	—	—	X	X	—	X	—	X	—	—	X	—	—	—	—	—	—	—	X	X
06.04	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
06.06	X	—	—	X	—	—	X	—	X	—	—	X	—	—	—	—	—	X	—	X	—
06.09	—	—	—	X	—	—	X	—	—	—	—	—	—	—	—	—	—	X	—	X	—
06.12	X	—	—	X	—	—	X	—	X	—	—	X	—	—	—	—	—	X	—	—	X
06.15	X	X	—	X	X	—	X	—	X	—	—	X	—	—	—	—	—	X	—	—	X
06.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—
06.21	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	X	—
06.24	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	X
06.27	—	—	—	—	—	—	X	—	—	—	—	—	X	—	—	—	—	—	—	—	X
06.30	—	—	—	—	—	—	X	—	X	—	—	X	—	—	—	—	—	—	—	—	—
06.33	—	—	—	X	—	—	X	—	—	—	—	—	X	—	—	—	—	X	—	—	X

X Medical device is represented
 — Not applicable

ISO 9999 subclasses (second level)	Disease																				
	Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Malaria	Lower respiratory infections	Perinatal conditions – mental	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	Diabetes mellitus	Unipolar depressive disorders	Cataracts	Hearing loss, adult onset	Ischaemic heart disease	Cerebrovascular disease	Chronic obstructive pulmonary disease	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity
	U003	U009	U010	U020	U039	U050/051/052	U052	10	10	5	2	13	U079	U082	U100	U102	U107	U108	U112	U150	U150
09	13	16	7	12	5	9	18	10	10	5	2	13	4	1	1	1	0	16	4	13	10
09.03	X	X	—	X	—	X	X	X	X	X	—	X	—	—	—	—	—	X	—	X	X
09.06	X	X	X	X	X	—	X	X	X	X	X	X	X	—	X	—	—	X	X	X	X
09.07	X	X	—	X	X	—	—	—	—	—	—	X	—	—	—	—	—	X	—	X	X
09.09	X	X	—	X	X	X	X	X	X	—	—	X	—	—	—	—	—	X	—	X	X
09.12	X	X	X	X	—	—	X	—	—	—	—	—	—	—	—	—	—	—	—	—	—
09.15	—	—	—	—	—	—	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—
09.18	—	—	—	—	—	—	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—
09.21	X	X	X	X	—	—	X	X	X	X	—	X	X	—	—	—	—	X	—	X	X
09.24	X	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	X	—	—	—
09.27	X	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	X	—	—	—
09.30	X	X	X	—	—	—	X	—	—	—	—	—	—	—	—	—	—	X	—	—	—
09.31	X	X	X	—	—	—	X	—	—	—	—	—	—	—	—	—	—	X	—	—	—
09.33	X	X	X	X	X	X	X	X	X	X	X	X	—	—	—	—	—	X	X	X	X
09.36	X	X	—	X	—	—	X	X	X	—	—	X	X	—	—	—	—	X	—	X	X
09.39	—	X	—	X	—	—	X	X	X	—	—	X	—	—	—	—	—	X	—	X	—
09.42	—	X	—	X	—	—	X	X	X	—	—	X	—	—	—	—	—	X	—	X	—
09.45	X	X	—	X	—	—	X	X	X	—	—	X	—	—	—	—	—	X	—	X	—
09.48	—	—	X	X	X	X	X	X	X	—	—	X	X	—	—	—	—	X	—	X	X
09.54	—	X	—	—	—	X	X	—	—	—	—	—	—	—	—	—	—	X	—	X	X

X Medical device is represented

— Not applicable

		Disease																					
ISO 9999 subclasses (second level)		U003	U009	U010	U020	U039	U050/051/052	U050/051/052	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	U079	U082	U100	U102	U107	U108	U112	U150	
12	Assistive products for personal mobility (total)	11	11	0	7	3	0	11	0	0	2	0	2	4	8	0	1	0	6	12	10	4	11
12.03	Assistive products for walking, manipulated by one arm	X	X	—	X	X	—	X	—	—	—	—	—	—	X	—	—	—	X	X	X	—	X
12.06	Assistive products for walking, manipulated by both arms	X	X	—	X	X	—	X	—	—	—	—	—	—	X	—	—	—	X	X	X	—	X
12.07	Accessories for assistive products for walking	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
12.10	Cars	X	X	—	—	—	—	—	—	—	—	—	—	—	X	—	—	—	X	X	X	—	X
12.12	Car adaptations	—	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	X	X	—	X
12.16	Mopeds and motorcycles	X	X	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	X	X	X	—	X
12.18	Cycles	X	X	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	X	X	X	—	X
12.22	Human-driven wheelchairs	X	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	X	X	—	X
12.23	Powered wheelchairs	X	X	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	—	X	X	—	X
12.24	Wheelchair accessories	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
12.27	Vehicles	X	X	—	—	—	—	X	—	—	—	—	—	—	X	—	—	—	X	X	X	—	X
12.31	Assistive products for transfer and turning	X	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	X	X	—	X
12.36	Assistive products for lifting	X	X	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	X	X	—	X
12.39	Assistive products for orientation	X	—	—	—	—	—	X	—	—	—	—	—	—	—	—	—	—	—	X	X	—	—

X Medical device is represented

— Not applicable

△ Subclass excluded

		Disease																
ISO 9999 subclasses (second level)		U003	U009	U010	U020	U039	U050/051/052	U050/051/052	U067	U079	U082	U100	U102	U107	U108	U112	U150	
15	Assistive products for housekeeping (total)	0	1	0	1	0	1	1	5	2	0	3	0	2	5	1	5	1
15.03	Assistive products for preparing food and drink	—	—	—	—	—	—	—	—	—	—	X	—	—	X	—	X	—
15.06	Assistive products for dishwashing	—	—	—	—	—	—	—	X	—	—	—	—	—	X	—	—	—
15.09	Assistive products for eating and drinking	—	X	—	—	—	X	—	—	X	—	—	—	—	X	—	X	—
15.12	Assistive products for house-cleaning	—	—	—	—	—	—	—	—	X	—	X	—	X	X	X	X	X
15.15	Assistive products for making and maintaining textiles	—	—	—	—	—	—	—	—	—	—	—	—	X	X	—	X	—

X Medical device is represented

— Not applicable

		Disease																	
ISO 9999 subclasses (second level)		U003	U009	U010	U020	U039	U050/051/052	U050/051/052	U067	U079	U082	U100	U102	U107	U108	U112	U150		
18	Furnishings and adaptations to homes and other premises (total)	8	8	1	7	4	1	8	0	2	0	1	2	0	2	8	7	2	7
18.03	Tables	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
18.06	Light fixtures	X	X	—	—	—	—	X	—	—	—	X	—	—	X	—	—	—	—
18.09	Sitting furniture	X	X	—	X	X	—	X	—	—	—	—	—	—	X	X	—	—	X
18.12	Beds	X	X	X	X	X	—	X	—	—	—	—	—	—	X	X	—	—	X
18.15	Assistive products for height adjustment of furniture	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
18.18	Support devices	X	X	—	X	X	—	X	—	—	—	—	—	—	X	—	—	—	X
18.21	Gate, door, window and curtain openers/closers	X	X	—	X	—	—	X	—	—	—	—	—	—	X	X	—	—	X
18.24	Construction elements in the home and other premises	X	X	—	X	—	—	X	—	—	—	—	—	—	X	X	—	—	X
18.30	Assistive products for vertical accessibility	X	X	—	X	X	—	X	—	—	—	—	—	—	X	X	—	—	X
18.33	Safety equipment for the home and other premises	X	X	—	X	—	—	X	—	—	—	X	—	X	X	X	—	—	X
18.36	Furniture for storage	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

X Medical device is represented
 — Not applicable
 △ Subclass excluded

ISO 9999 subclasses (second level)	Disease																				
	Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Malaria	Lower respiratory infections	Perinatal conditions – mental	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	Diabetes mellitus	Unipolar depressive disorders	Cataracts	Hearing loss, adult onset	Ischaemic heart disease	Cerebrovascular disease	Chronic obstructive pulmonary disease	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity
	U003	U009	U010	U020	U039	U050/051/052	U052/051/052	0	10	0	0	10	U079	U082	U100	U102	U107	U108	U112	U150	U150
22	10	8	1	6	1	7	9	0	10	0	0	10	3	1	10	10	1	12	4	8	1
22.03	X	X	—	—	—	—	X	—	—	—	—	—	X	—	X	—	—	X	—	—	—
22.06	X	—	—	—	—	—	X	—	X	—	—	—	—	—	—	—	—	—	—	—	—
22.09	X	—	—	—	—	—	—	—	X	—	—	—	—	—	—	—	—	X	X	—	—
22.12	X	X	—	—	—	X	X	—	X	—	—	X	—	—	X	—	—	X	—	X	—
22.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—	—
22.18	X	X	—	X	—	X	X	—	X	—	—	X	—	—	X	—	—	X	—	X	—
22.21	X	X	—	X	—	X	X	—	X	—	—	X	—	—	X	—	—	X	X	—	—
22.24	X	X	—	X	—	X	X	—	X	—	—	X	—	—	X	—	—	X	X	X	—
22.27	X	X	X	X	X	X	X	—	X	—	—	X	X	X	X	X	X	X	X	X	X
22.30	X	X	—	X	—	X	X	—	X	—	—	X	X	—	X	—	—	X	—	X	—
22.33	—	—	—	—	—	—	—	—	X	—	—	—	—	—	X	—	—	X	—	X	—
22.36	—	—	—	—	—	—	—	—	X	—	—	X	—	—	X	—	—	X	—	X	—
22.39	X	X	—	X	—	X	X	—	X	—	—	X	—	—	X	—	—	X	—	X	—

X Medical device is represented

— Not applicable

		Disease																				
		U003	U009	U010	U020	U039	U050/051/052	U052	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	U079	U082	U100	U102	U107	U108	U112	U150	
		Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Malaria	Lower respiratory infections	Perinatal conditions – mental	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	Diabetes mellitus	Unipolar depressive disorders	Cataracts	Hearing loss, adult onset	Ischaemic heart disease	Cerebrovascular disease	Chronic obstructive pulmonary disease	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity
ISO 9999 subclasses (second level)		U003	U009	U010	U020	U039	U050/051/052	U052	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	U079	U082	U100	U102	U107	U108	U112	U150	
24	Assistive products for handling objects and devices (total)	6	6	0	4	0	0	6	3	0	0	0	3	0	0	3	0	0	7	0	6	0
24.04	Marking materials and marking tools	X	X	—	—	—	X	X	—	—	—	—	—	—	—	X	—	—	X	—	—	—
24.06	Assistive products for handling containers	X	X	—	X	—	—	X	—	—	—	—	—	—	—	X	—	—	X	—	X	—
24.09	Assistive products for operating and/or controlling devices	X	X	—	X	—	—	X	X	—	—	—	X	—	—	—	—	—	X	—	X	—
24.13	Assistive products for controlling from a distance	—	—	—	—	—	—	—	—	—	—	—	—	—	—	X	—	—	X	—	X	—
24.18	Assistive products to assist and/or replace arm and/or hand and/or finger function	X	X	—	X	—	—	X	X	—	—	—	X	—	—	—	—	—	X	—	X	—
24.21	Assistive products for extended reach	X	X	—	X	—	—	X	—	—	—	—	—	—	—	—	—	—	X	—	X	—
24.24	Assistive products for positioning	X	X	—	—	—	—	X	X	—	—	—	—	—	—	—	—	—	X	—	X	—
24.27	Assistive products for fixation	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
24.30	Assistive products for repositioning and hoisting	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
24.36	Assistive products for carrying and transporting	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
24.39	Industrial transportation vehicles	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
24.42	Conveyors	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
24.45	Cranes	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△

X Medical device is represented

— Not applicable

△ Subclass excluded

ISO 9999 subclasses (second level)	Disease																				
	Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Malaria	Lower respiratory infections	Perinatal conditions – mental	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	Diabetes mellitus	Unipolar depressive disorders	Cataracts	Hearing loss, adult onset	Ischaemic heart disease	Cerebrovascular disease	Chronic obstructive pulmonary disease	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity
27	U003	U009	U010	U020	U039	U050/051/052	U052	U067	U067	U067	U067	U067	U079	U082	U100	U102	U107	U108	U112	U150	U150
27.03	0	0	0	0	1	0	1	0	0	0	1	1	0	1	1	1	0	1	1	0	0
27.06	—	—	—	—	x	—	x	—	—	—	x	x	—	x	x	—	—	x	x	—	—
27.09	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
27.12	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△
27.15	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△

x Medical device is represented
 — Not applicable
 △ Subclass excluded

ISO 9999 class (first level)	Disease																				
	Tuberculosis	HIV/AIDS	Diarrhoeal diseases	Malaria	Lower respiratory infections	Perinatal conditions – mental	Perinatal conditions – physical	Breast cancer	Neck cancer	Colon cancer	Lung cancer	Cancer collectively	Diabetes mellitus	Unipolar depressive disorders	Cataracts	Hearing loss, adult onset	Ischaemic heart disease	Cerebrovascular disease	Chronic obstructive pulmonary disease	Road traffic accidents, upper extremity	Road traffic accidents, lower extremity
30	U003	U009	U010	U020	U039	U050/051/052	U052	U067	U067	U067	U067	U067	U079	U082	U100	U102	U107	U108	U112	U150	U150
Assistive products for recreation	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△	△

△ Class excluded

Annex 2. ICF titles of the ICF core set or functioning profile for selected high-burden diseases

U003	Tuberculosis
U009	HIV/AIDS
U010	Diarrhoeal diseases
U020	Malaria
U039	Lower respiratory infections
U050, U051, U052	Low birth weight, birth asphyxia and birth trauma, other perinatal conditions
U067	Malignant neoplasms: breast cancer, head and neck cancer, colon cancer, lung cancer
U079	Diabetes mellitus
U082	Unipolar depressive disorders
U100	Cataracts
U102	Hearing loss, adult onset
U107	Ischaemic heart disease
U108	Cerebrovascular disease
U112	Chronic obstructive pulmonary disease
U150	Road traffic accidents: lower extremity & upper extremity

Notes: For diseases that have a core set available, both the short and extended versions are included; the ICF classes of the short versions are indicated in bold. In some core sets only 2nd level classes have been listed. In other core sets and in many of the functioning profiles, 3rd and 4th level classes are included (when only 3rd or 4th level classes are included, the 2nd level classes are added in red). ICF codes in italics come from the ICF-CY, the children and youth version of the ICF published in 2007.

U003 Tuberculosis – functioning profile

ICF code		ICF title
1st level	2nd level	
	b110	Consciousness functions
	b114	Orientation functions
	b117	Intellectual functions
	b130	Energy and drive functions
	b134	Sleep functions
	b140	Attention functions
	b144	Memory functions
	b152	Emotional functions
	b156	Perceptual functions
	b164	Higher-level cognitive functions
	b167	Mental functions of language
	b210	Seeing functions
	b230	Hearing functions
	b235	Vestibular functions
	b280	Sensation of pain
	b310	Voice functions
	b410	Heart functions
	b420	Blood pressure functions
	b435	Immunological system functions
	b440	Respiration functions
	b515	Digestive functions
	b525	Defecation functions
	b530	Weight maintenance functions
	b555	Endocrine gland functions
	b620	Urination functions
	b640	Sexual functions
	b660	Procreation functions
	b710	Mobility of joint functions
	b730	Muscle power functions
	b735	Muscle tone functions
	b840	Sensation related to the skin
	s110	Structure of brain
	s120	Spinal cord and related structures
s2		The eye, ear and related structures
s3		Structures involved in voice and speech
	s410	Structure of cardiovascular system
	s430	Structure of respiratory system
s5		Structures related to the digestive, metabolic and endocrine systems
	s610	Structure of urinary system
	s630	Structure of reproductive system
	s710	Structure of head and neck region
	s720	Structure of shoulder region
	s730	Structure of upper extremity
	s740	Structure of pelvic region
	s750	Structure of lower extremity
	s760	Structure of trunk
s8		Skin and related structures
	d110	Watching
	d115	Listening

ICF code		ICF title
1st level	2nd level	
	d140	Learning to read
	d145	Learning to write
	d150	Learning to calculate
	d175	Solving problems
	d210	Undertaking a simple task
	d220	Undertaking multiple tasks
	d230	Carrying out daily routine
	d310	Communicating with – receiving – spoken messages
	d315	Communicating with – receiving – nonverbal messages
	d330	Speaking
	d335	Producing nonverbal messages
	d350	Conversation
	d410	Changing basic body position
	d415	Maintaining a body position
	d430	Lifting and carrying objects
	d440	Fine hand use
	d450	Walking
	d465	Moving around using equipment
	d470	Using transportation
	d475	Driving
	d510	Washing oneself
	d520	Caring for body parts
	d530	Using the toilet
	d540	Dressing
	d550	Eating
	d560	Drinking
	d570	Looking after one's health

U009 HIV/AIDS – functioning profile - AIDS

ICF code		ICF code	
2nd level	ICF title	2nd level	ICF title
b110	Consciousness functions		
b114	Orientation functions		
b117	Intellectual functions		
b130	Energy and drive functions	b130	Energy and drive functions
		b134	Sleep functions
b140	Attention functions		
b144	Memory functions		
b152	Emotional functions	b152	Emotional functions
b156	Perceptual functions	b156	Perceptual functions
b164	Higher-level cognitive functions		
b167	Mental functions of language		
b210	Seeing functions		
b235	Vestibular functions		
b280	Sensation of pain	b280	Sensation of pain
b410	Heart functions	b410	Heart functions
b430	Haematological system functions	b430	Haematological system functions
b435	Immunological system functions	b435	Immunological system functions
b440	Respiration functions		
b515	Digestive functions	b515	Digestive functions
b525	Defecation functions	b525	Defecation functions
b530	Weight maintenance functions		
b555	Endocrine gland functions		
b620	Urination functions		
b640	Sexual functions	b640	Sexual functions
b710	Mobility of joint functions		
b730	Muscle power functions	b730	Muscle power functions
b735	Muscle tone functions		
b765	Involuntary movement functions		
b840	Sensations related to the skin	b840	Sensations related to the skin
s110	Structure of brain		
s120	Spinal cord and related structures	s120	Spinal cord and related structures
s210	Structure of eye socket		
s220	Structure of eyeball		
s230	Structures around eye		
s240	Structure of external ear		
s250	Structure of middle ear		
s260	Structure of inner ear		
s410	Structure of cardiovascular system	s410	Structure of cardiovascular system
s420	Structure of immune system		
s430	Structure of respiratory system		
s510	Structure of salivary glands	s510	Structure of salivary glands
s520	Structure of oesophagus	s520	Structure of oesophagus
s530	Structure of stomach	s530	Structure of stomach
s540	Structure of intestine	s540	Structure of intestine
s550	Structure of pancreas	s550	Structure of pancreas
s560	Structure of liver	s560	Structure of liver
s570	Structure of gall bladder and ducts	s570	Structure of gall bladder and ducts
s580	Structure of endocrine glands	s580	Structure of endocrine glands
s610	Structure of urinary system	s610	Structure of urinary system

ICF code		ICF code	
2nd level	ICF title	2nd level	ICF title
s630	Structure of reproductive system		
s710	Structure of head and neck region		
s720	Structure of shoulder region		
s730	Structure of upper extremity		
s740	Structure of pelvic region		
s750	Structure of lower extremity	s750	Structure of lower extremity
s760	Structure of trunk		
s810	Structure of areas of skin	s810	Structure of areas of skin
s820	Structure of skin glands	s820	Structure of skin glands
s830	Structure of nails	s830	Structure of nails
s840	Structure of hair	s840	Structure of hair
d110	Watching		
d140	Learning to read		
d145	Learning to write		
d150	Learning to calculate		
d175	Solving problems		
d210	Undertaking a single task		
d220	Undertaking multiple tasks		
d230	Carrying out daily routine		
d310	Communicating with - receiving - spoken message		
d315	Communicating with - receiving - nonverbal message		
d335	Producing nonverbal messages		
d350	Conversation		
d410	Changing body position		
d415	Maintaining a body position		
d430	Lifting and carrying objects	d430	Lifting and carrying objects
d440	Fine hand use	d440	Fine hand use
d450	Walking	d450	Walking
d465	Moving around using equipment	d465	Moving around using equipment
d470	Using transportation	d470	Using transportation
d475	Driving	d475	Driving
d510	Washing oneself		
d520	Caring for body parts		
d530	Using the toilet		
d540	Dressing		
d550	Eating		
d560	Drinking		
d570	Looking after one's health		

U010 Diarrhoeal diseases – functioning profile

ICF title	ICF code		ICF title
	2nd level	3rd level	
	b110		Consciousness functions
Clouding of consciousness		b1100	State of consciousness
	b130		Energy and drive functions
Thirst		b1302	Appetite
	b147		Psychomotor functions
Apathy		b1470	Psychomotor control
	b240		Sensations associated with hearing and vestibular function
Dizziness		b2401	Dizziness
	b280		Sensation of pain
Cramps stomach		b28012	Pain in stomach or abdomen
	b410		Heart functions
Tachycardia		b4100	Heart rate
Blood pressure	b420		Blood pressure functions
	b435		Immunological system functions
Reduced immune response		b4350	Immune response
	b440		Respiration functions
Abnormal respiratory pattern		b4401	Respiratory rhythm
Physical condition	b455		Exercise tolerance functions
	b510		Ingestion functions
Vomiting		b5106	Regurgitation and vomiting
	b515		Digestive functions
Passage through intestines		b5150	Transport of food through stomach and intestines
Absorption		b5152	Absorption of nutrients
Lactose intolerance		b5153	Tolerance to food
	b525		Defecation functions
Fluid faeces		b5251	Faecal consistency
Frequent defecation		b5252	Frequency of defecation
Blood in faeces		b5258	Defecation functions, other specified
Dehydration	b545		Water, mineral and electrolyte balance functions
	b550		Thermoregulatory functions
Increased body temperature		b5500	Body temperature
Urine production	b610		Urinary excretory functions
Reduced turgor	b830		Other functions of the skin
	s540		Structure of intestine
Size of resorbing surface		s5400	Structure of small intestine
	d530		Using the toilet
Hygiene		d5301	Regulating defecation
	e110		Products or substances for personal consumption
Food		e1100	Food
Structure of respiratory system			
Structure of salivary glands	s510		Structure of salivary glands
Structure of oesophagus	s520		Structure of oesophagus
Structure of stomach	s530		Structure of stomach
Structure of intestine	s540		Structure of intestine
Structure of pancreas	s550		Structure of pancreas
Structure of liver	s560		Structure of liver
Structure of gall bladder and ducts	s570		Structure of gall bladder and ducts
Structure of endocrine glands	s580		Structure of endocrine glands
Structure of urinary system	s610		Structure of urinary system

U020 Malaria – functioning profile

	ICF code		ICF title
	2nd level	3rd level	
Haemiplegia			
Reduced muscle power	b730		Muscle power functions
Reduced muscle tone	b735		Muscle tone functions
	b740		Muscle endurance functions
	b750		Motor reflex functions
	b755		Involuntary movement reaction functions
	b760		Control of voluntary movement functions
	b765		Involuntary movement reaction functions
	b770		Gait pattern functions
	b780		Sensations related to muscles and movement functions
	d415		Maintaining a body position
Maintaining standing		d4154	Maintaining a standing position
	d440		Fine hand use
	d445		Hand and arm use
	d450		Walking
	d455		Moving around
	d455		Moving around in different locations
Self-care	d510		Washing oneself
	d520		Caring for body parts
	d530		Using the toilet
	d540		Dressing
	d550		Eating
	d560		Drinking
	d570		Looking after one's health
Aphasia			
Articulation	b320		Articulation functions
	b330		Fluency and rhythm of speech functions
	d330		Speaking
	d350		Conversation
Ataxia			
	b235		Vestibular functions
Balance		b2351	Vestibular function of balance
	d415		Maintaining a body position
Maintaining standing		d4154	Maintaining a standing position
		<i>d4155</i>	<i>Maintaining head position¹</i>
	d440		Fine hand use
	d445		Hand and arm use
	d450		Walking
Cortical blindness			
[See Cataract]			

¹ Italics indicate that this information is extracted from ICF-CY

U039 Lower respiratory infections – functioning profile

ICF title	ICF code		ICF title
	2nd level	3rd level	
	b110		
Consciousness		b1100	State of consciousness
Disorientation	b114		Orientation functions
	b125		
Reduced responsivity (double)		b1251	<i>Responsivity</i>
	b140		
Concentration (double)		b1400	Sustaining attention
Memory	b144		Memory
	b235		
Equilibrium		b2351	Vestibular function of balance
Taste	b250		Taste function
Smell	b255		Smell function
	b280		
Muscle pain		b2801	Pain in body part
Headache		b28010	Pain in head and neck
Sore throat		b28010	Pain in head and neck
Pain in joints		b28016	Pain in joints
Heart murmurs	b410		Heart functions
Heart rate		b4100	Heart rate
Hemoptoe (double)	b415		Blood vessel functions
Blood pressure	b420		Blood pressure functions
Immunological impairments	b435		Immunological system functions
Decreased lung function	b440		Respiration
Respiration rate		b4400	Respiration rate
Cough	b450		Additional respiratory functions
Hemoptoe (double)		b4500	Production of airway mucus
Production of sputum		b4500	Production of airway mucus
Running nose		b4500	Production of airway mucus
Reduced exercise tolerance function / malaise	b455		Exercise tolerance functions
Dyspnea	b460		Sensations associated with cardiovascular and respiratory functions
Foetor ex ore	b535		Sensations associated with cardiovascular and respiratory functions
Distension of joints			Cannot be coded by ICF (ICF problem)
	b550		Thermoregulatory functions
Fever		b5501	Maintenance of body temperature
	b610		
Reduced diuresis		b6100	Filtration of urine
Muscle power	b730		Muscle power functions
Muscle endurance	b740		Muscle endurance functions
Reduced coordination	b760		Control of voluntary movement functions
Discolouring of skin	b810		Protective functions of the skin
	s320		
Condition of teeth		s3200	Teeth
	s420		
Size of spleen		s4203	Spleen
	s430		
Obstruction of the lung		s4301	Lungs
Dilated bronchia		s4301	Lungs
Size of liver	s560		Liver

ICF title	ICF code		ICF title
	2nd level	3rd level	
Concentration (double)	d161		<i>Directing attention</i>
Handling stress	d240		Handling stress and other psychological demands
	d410		
Limitations in bending, kneeling, keeping position of head		d4102	Kneeling
		d4104	Standing
		d4105	Bending
	d415		
Sitting during a long period		d4153	Maintaining a sitting position
Standing during a long period		d4154	Maintaining a standing position

U050/ U051/ U052 Perinatal conditions – functioning profile

Mental		Complex physical	
2nd level	ICF title	2nd level	ICF title
b110	Consciousness functions		
b114	Orientation functions		
b117	Intellectual functions		
b122	global psychological functions	b122	Global psychological functions
b130	Energy and drive functions	b130	Energy and drive functions
b140	Attention functions	b140	Attention functions
b144	Memory functions		
b152	Emotional functions	b152	Emotional functions
b156	Perceptual functions	b156	Perceptual functions
b164	Higher-level cognitive functions		
b167	Mental functions of language	b167	Mental functions of language
		b210	Seeing functions
		b230	Hearing functions
		b235	Vestibular functions
		b280	Sensation of pain
b3	Voice and speech functions	b3	Voice and speech functions
		b440	Respiration functions
		b515	Digestive functions
b525	Defecation functions	b525	Defecation functions
b530	Weight maintenance functions	b530	Weight maintenance functions
b620	Urination functions	b620	Urination functions
b640	Sexual functions	b640	Sexual functions
		b710	Mobility of joint functions
		b730	Muscle power functions
		b735	Muscle tone functions
		b765	Involuntary movement functions
		b8	Functions of the skin and related structures
d110	Watching	d110	Watching
d115	Listening	d115	Listening
d140	Learning to read	d140	Learning to read
d145	Learning to write	d145	Learning to write
d150	Learning to calculate	d150	Learning to calculate
d175	Solving problems	d175	Solving problems
d210	Undertaking a simple task	d210	Undertaking a simple task
d220	Undertaking multiple tasks	d220	Undertaking multiple tasks
d230	Carrying out daily routine	d230	Carrying out daily routine
d310	Communicating with - receiving - spoken messages	d310	Communicating with - receiving - spoken messages
d315	Communicating with - receiving - nonverbal messages	d315	Communicating with - receiving - nonverbal messages

Mental		Complex physical	
2nd level	ICF title	2nd level	ICF title
d330	Speaking	d330	Speaking
d335	Producing nonverbal messages	d335	Producing nonverbal messages
d350	Conversation	d350	Conversation
d410	Changing basic body position	d410	Changing basic body position
		d415	Maintaining a body position
		d430	Lifting and carrying objects
d440	Fine hand use	d440	Fine hand use
d450	Walking	d450	Walking
		d465	Moving around using equipment
d470	Using transportation	d470	Using transportation
d475	Driving	d475	Driving
d510	Washing oneself	d510	Washing oneself
d520	Caring for body parts	d520	Caring for body parts
d530	Using the toilet	d530	Using the toilet
d540	Dressing	d540	Dressing
d550	Eating	d550	Eating
d560	Drinking	d560	Drinking
d570	Looking after one's health	d570	Looking after one's health

U067 Malignant neoplasms – two core sets & two functioning profiles

	ICF code		ICF title
	2nd level	3rd/4th level	
Breast cancer – core set			
	b126		Temperament and personality functions
	b130		Energy and drive functions
	b134		Sleep functions
	b152		Emotional functions
	b180		Experience of self and time functions
		b1801	Body image
	b265		Touch function
	b280		Sensation of pain
		b2801	Pain in body part
	b435		Immunological system functions
		b4352	Functions of lymphatic vessels
		b4353	Functions of lymph nodes
	b455		Exercise tolerance functions
	b530		Weight maintenance functions
	b640		Sexual functions
	b650		Menstruation functions
	b660		Procreation functions
	b670		Sensations associated with genital and reproductive functions
	b710		Mobility of joint functions
	b720		Mobility of bone functions
	b730		Muscle power functions
	b740		Muscle endurance functions
	b780		Sensations related to muscles and movement functions
	b810		Protective functions of the skin
	b820		Repair functions of the skin
	b840		Sensation related to the skin
	s420		Structure of immune system
		s4200	Lymphatic vessels
		s4201	Lymphatic nodes
	s630		Structure of reproductive system
		s6302	Breast and nipple
	s720		Structure of shoulder region
	s730		Structure of upper extremity
	s760		Structure of trunk
	s810		Structure of areas of skin
	d177		Making decisions
	d230		Carrying out daily routine
	d240		Handling stress and other psychological demands
	d430		Lifting and carrying objects
	d445		Hand and arm use
	d510		Washing oneself
	d520		Caring for body parts
	d540		Dressing
	d550		Eating
	d560		Drinking
	d570		Looking after one's health
	d620		Acquisition of goods and services
	d630		Preparing meals

	ICF code		ICF title
	2nd level	3rd/4th level	
	d640		Doing housework
	d650		Caring for household objects
	d660		Assisting others
	d720		Complex interpersonal interactions
	d750		Informal social relationships
	d760		Family relationships
	d770		Intimate relationships
	d850		Remunerative employment
	d920		Recreation and leisure
Head and neck cancer – core set			
	b117		
	b126		Temperament and personality functions
	b130		Energy and drive functions
	b134		Sleep functions
	b152		Emotional functions
	b180		Experience of self and time functions
		b1801	Body image
	b230		Hearing functions
	b240		Sensation associated with hearing and vestibular function
	b250		Taste function
	b255		Smell function
	b280		Sensation of pain
	b310		Voice functions
	b320		Articulation functions
	b435		Immunological system functions
	b440		Respiration functions
	b455		Exercise tolerance functions
	b510		Ingestion functions
		b5100	Sucking
		b5101	Biting
		b5103	Manipulation of food in the mouth
		b5104	Salivation
		b51050	Oral swallowing
		b51051	Pharyngeal swallowing
		b51052	Oesophageal swallowing
		b51058	Swallowing, other specified
		b51059	Swallowing, unspecified
	b530		Weight maintenance functions
	b535		Sensations associated with the digestive system
	b555		Endocrine gland functions
	b640		Sexual functions
	b710		Mobility of joint functions
	b730		Muscle power functions
	b810		Protective functions of the skin
	b820		Repair functions of the skin
		s1105	Structure of brain stem
	s320		Structure of mouth
		s3200	Teeth
		s3201	Gums
		s32020	Hard palate
		s32021	Soft palate

ICF code		ICF title
2nd level	3rd/4th level	
	s3203	Tongue
	s3204	Structure of lips
	s3208	Structure of mouth, other specified
	s3209	Structure of mouth, unspecified
s330		Structure of pharynx
	s3300	Nasal pharynx
	s3301	Oral pharynx
	s3308	Structure of pharynx, other specified
	s3309	Structure of pharynx, unspecified
s340		Structure of larynx
	s3400	Vocal folds
	s3408	Structure of larynx, other specified
	s3409	Structure of larynx, unspecified
s410		Structure of cardiovascular system
s420		Structure of immune system
s430		Structure of respiratory system
	s4300	Trachea
	s4301	Lungs
s510		Structure of salivary glands
s520		Structure of oesophagus
s710		Structure of head and neck region
	s7101	Bones of face
	s7103	Joints of head and neck region
	s7104	Muscles of head and neck region
	s7105	Ligaments and fasciae of head and neck region
	s7108	Structure of head and neck region, other specified
	s7109	Structure of head and neck region, unspecified
s720		Structure of shoulder region
s730		Structure of upper extremity
	s7301	Structure of forearm
s750		Structure of lower extremity
s760		Structure of trunk
s810		Structure of areas of skin
d230		Carrying out daily routine
d240		Handling stress and other psychological demands
d330		Speaking
d350		Conversation
d360		Using communication devices and techniques
d415		Maintaining a body position
d430		Lifting and carrying objects
d460		Moving around in different locations
d470		Using transportation
d475		Driving
d510		Washing oneself
d520		Caring for body parts
d550		Eating
d560		Drinking
d570		Looking after one's health
d640		Doing housework
d710		Basic interpersonal interactions
d720		Complex interpersonal interactions

	ICF code		ICF title
	2nd level	3rd/4th level	
	d750		Informal social relationships
	d760		Family relationships
	d770		Intimate relationships
	d845		Acquiring, keeping and terminating a job
	d870		Economic self-sufficiency
	d910		Community life
	d920		Recreation and leisure
	d930		Religion and spirituality
Colon cancer – functioning profile			
	b130		Energy and drive functions
<i>Fatigue</i>		b1300	Energy level
	b152		Emotional functions
	b180		Experience of self and time functions
<i>Impairment of body image</i>		b1801	Body image
<i>General condition</i>	b455		Exercise tolerance functions
	s540		Structure of intestine
		s5401	Large intestine
Lung cancer – functioning profile			
	b126		Temperament and personality functions
<i>Helpless</i>		b1266	Confidence
	b130		Energy and drive functions
<i>Fatigue</i>		b1300	Energy level
<i>Anorexia</i>		b1302	Appetite
	b147		
<i>Tense</i>		b1470	Psychomotor control
<i>Emotional wellbeing / fear / depressive feelings</i>	b152		Emotional functions
	b164		High-level cognitive functions
<i>Problem solving</i>		b1646	Problem solving
	b280		Sensation of pain
<i>Thoracic pain / pain in chest</i>		b28011	Pain in chest
<i>Pain in shoulder</i>		b28016	Pain in joints
<i>Function loss in lungs</i>	b440		Respiration functions
<i>Cough</i>	b450		Additional respiratory functions
<i>General condition</i>	b455		Exercise tolerance functions
<i>Short of breath</i>	b460		Sensations associated with cardiovascular and respiratory functions
	b510		Ingestion functions
<i>Vomiting</i>		b5106	Regurgitation and vomiting
	b535		Sensations associated with the digestive system
<i>Nauseous</i>		b5350	Sensation of nausea
<i>Daily functioning</i>	d230		Carrying out daily routine
	d240		Handling stress and other psychological demands
<i>Stress management</i>		d2401	Handling stress

U079 Diabetes mellitus – core set

ICF code		
2nd level	3rd level	ICF title
b110		Consciousness functions
b130		Energy and drive functions
	b1300	Energy level
	b1302	Appetite
b134		Sleep functions
b140		Attention functions
b152		Emotional functions
b210		Seeing functions
b260		Proprioceptive function
b265		Touch function
b270		Sensory functions related to temperature and other stimuli
b280		Sensation of pain
b410		Heart functions
b415		Blood vessel functions
b420		Blood pressure functions
b430		Haematological system functions
b435		Immunological system functions
b455		Exercise tolerance functions
	b4550	General physical endurance
	b4551	Aerobic capacity
	b4552	Fatigability
b515		Digestive functions
b530		Weight maintenance functions
b540		General metabolic functions
b545		Water, mineral and electrolyte balance functions
b555		Endocrine gland functions
b610		Urinary excretory functions
b620		Urination functions
b630		Sensations associated with urinary functions
b640		Sexual functions
b660		Procreation functions
b710		Mobility of joint functions
b730		Muscle power functions
b810		Protective functions of the skin
b820		Repair functions of the skin
b840		Sensation related to the skin
s140		Structure of sympathetic nervous system
s150		Structure of parasympathetic nervous system
s220		Structure of eyeball
s410		Structure of cardiovascular system
	s4100	Heart
	s4101	Arteries
	s4102	Veins
	s4103	Capillaries
s550		Structure of pancreas
s610		Structure of urinary system
	s6100	Kidneys
s630		Structure of reproductive system
s750		Structure of lower extremity

ICF code		
2nd level	3rd level	ICF title
	s7502	Structure of ankle and foot
s810		Structure of areas of skin
s830		Structure of nails
d240		Handling stress and other psychological demands
d440		Fine hand use
d450		Walking
d455		Moving around
d475		Driving
d520		Caring for body parts
d570		Looking after one's health
d620		Acquisition of goods and services
d630		Preparing meals
d750		Informal social relationships
d760		Family relationships
d770		Intimate relationships
d845		Acquiring, keeping and terminating a job
d850		Remunerative employment
d920		Recreation and leisure
	d9201	Sports
	d9204	Hobbies
	d9205	Socializing

U082 Unipolar depressive disorders – core set

ICF code		
2nd level	3rd level	ICF title
b117		Intellectual functions
b126		Temperament and personality functions
	b1260	Extraversion
	b1261	Agreeableness
	b1262	Conscientiousness
	b1263	Psychic stability
	b1265	Optimism
	b1266	Confidence
b130		Energy and drive functions
	b1300	Energy level
	b1301	Motivation
	b1302	Appetite
	b1304	Impulse control
b134		Sleep functions
	b1340	Amount of sleep
	b1341	Onset of sleep
	b1342	Maintenance of sleep
	b1343	Quality of sleep
	b1344	Functions involving the sleep cycle
b140		Attention functions
b144		Memory functions
b147		Psychomotor functions
b152		Emotional functions
	b1520	Appropriateness of emotions
	b1521	Regulation of emotion
	b1522	Range of emotion
b160		Thought functions
	b1600	Pace of thought
	b1601	Form of thought
	b1602	Content of thought
	b1603	Control of thought
b164		Higher-level cognitive functions
	b1641	Organization and planning
	b1642	Time management
	b1644	Insight
	b1645	Judgement
b180		Experience of self and time functions
	b8100	Experience of self
	b8101	Body image
b280		Sensation of pain
b460		Sensations associated with cardiovascular and respiratory functions
b530		Weight maintenance functions
b535		Sensations associated with the digestive system
b640		Sexual functions
b780		Sensations related to muscles and movement functions
d110		Watching
d115		Listening
d163		Thinking
d166		Reading

ICF code		
2nd level	3rd level	ICF title
d175		Solving problems
d177		Making decisions
d210		Undertaking a simple task
d220		Undertaking multiple tasks
d230		Carrying out daily routine
	d2301	Managing daily routine
	d2302	Completing the daily routine
	d2303	Managing one's own activity level
d240		Handling stress and other psychological demands
d310		Communicating with - receiving - spoken messages
d315		Communicating with - receiving - nonverbal messages
d330		Speaking
d335		Producing nonverbal messages
d350		Conversation
d355		Discussion
d470		Using transportation
d475		Driving
d510		Washing oneself
d520		Caring for body parts
d540		Dressing
d550		Eating
d560		Drinking
d570		Looking after one's health
d620		Acquisition of goods and services
d630		Preparing meals
d640		Doing housework
d650		Caring for household objects
d660		Assisting others
d710		Basic interpersonal interactions
d720		Complex interpersonal interactions
d730		Relating with strangers
d750		Informal social relationships
d760		Family relationships
d770		Intimate relationships
d830		Higher education
d845		Acquiring, keeping and terminating a job
d850		Remunerative employment
d860		Basic economic transactions
d865		Complex economic transactions
d870		Economic self-sufficiency
d910		Community life
d920		Recreation and leisure
d930		Religion and spirituality
d950		Political life and citizenship

U100 Cataracts – functioning profile

ICF code		
2nd level	3rd level	ICF title
b210		Seeing functions
	b2100	Visual acuity functions
	b2102	Quality of vision
b545		Water, mineral and electrolyte balance functions
	b5450	Water balance
s220		Structure of eyeball
d166		Reading
d230		Carrying out daily routine
d315		Communicating with - receiving - nonverbal messages
d350		Conversation
d360		Using communication devices and techniques

U102 Hearing loss, adult onset – functioning profile

ICF code			
ICF title	2nd level	3rd level	ICF title
	b126		Temperament and personality functions
Irritability		b1263	Psychic stability
	b130		Energy and drive functions
Fatigue		b1300	Energy level
	b156		Perceptual functions
Loss of perception		b1560	Auditory perception
Language	b167		Mental functions of language
Loss of hearing	b230		Hearing functions
	b240		Sensations associated with hearing and vestibular functions
Tinnitus		b2400	Ring of ears or tinnitus
	b280		Sensation of pain
Ear pain		b28010	Pain in head and neck
Speech	b320		Articulation functions
Itching	b840		Sensation related to the skin
	s250		Structure of middle ear
	s260		Structure of inner ear
Communication	d310		Communicating with - receiving - spoken messages
	d330		Speaking
	d350		Conversation
	d355		Discussion
	d360		Using communication devices and techniques
Reading lips		d3602	Using communication techniques

U107 Ischaemic heart disease – core set

ICF code	
2nd level	ICF title
b130	Energy and drive functions
b134	Sleep functions
b152	Emotional functions
b280	Sensation of pain
b410	Heart functions
b415	Blood vessel functions
b420	Blood pressure functions
b440	Respiration functions
b455	Exercise tolerance functions
b460	Sensations associated with cardiovascular and respiratory functions
b530	Weight maintenance functions
b640	Sexual functions
b730	Muscle power functions
b740	Muscle endurance functions
s410	Structure of cardiovascular system
d230	Carrying out daily routine
d240	Handling stress and other psychological demands
d430	Lifting and carrying objects
d450	Walking
d455	Moving around
d460	Moving around in different locations
d470	Using transportation
d475	Driving
d480	Riding animals for transportation
d570	Looking after one's health
d620	Acquisition of goods and services
d630	Preparing meals
d640	Doing housework
d760	Family relationships
d770	Intimate relationships
d850	Remunerative employment
d920	Recreation and leisure

U108 Cerebrovascular disease – core set

ICF code	ICF title
b110	Consciousness functions
b114	Orientation functions
b117	Intellectual functions
b126	Temperament and personality functions
b130	Energy and drive functions
b134	Sleep functions
b140	Attention functions
b144	Memory functions
b152	Emotional functions
b156	Perceptual functions
b164	Higher-level cognitive functions
b167	Mental functions of language
b172	Calculation functions
b176	Mental functions of sequencing complex movements
b180	Experience of self and time functions
b210	Seeing functions
b215	Functions of structures adjoining the eye
b260	Proprioceptive function
b265	Touch function
b270	Sensory functions related to temperature and other stimuli
b280	Sensation of pain
b310	Voice functions
b320	Articulation functions
b330	Fluency and rhythm of speech functions
b410	Heart functions
b415	Blood vessel functions
b420	Blood pressure functions
b455	Exercise tolerance functions
b510	Ingestion functions
b525	Defecation functions
b620	Urination functions
b640	Sexual functions
b710	Mobility of joint functions
b715	Stability of joint functions
b730	Muscle power functions
b735	Muscle tone functions
b740	Muscle endurance functions
b750	Motor reflex functions
b755	Involuntary movement reaction functions
b760	Control of voluntary movement functions
b770	Gait pattern functions
s110	Structure of brain
s410	Structure of cardiovascular system
s720	Structure of shoulder region
s730	Structure of upper extremity
s750	Structure of lower extremity
d115	Listening
d155	Acquiring skills
d160	Focusing attention
d166	Reading

ICF code	
2nd level	ICF title
d170	Writing
d172	Calculating
d175	Solving problems
d210	Undertaking a simple task
d220	Undertaking multiple tasks
d230	Carrying out daily routine
d240	Handling stress and other psychological demands
d310	Communicating with - receiving - spoken messages
d315	Communicating with - receiving - nonverbal messages
d325	Communicating with - receiving - written messages
d330	Speaking
d335	Producing nonverbal messages
d345	Writing messages
d350	Conversation
d360	Using communication devices and techniques
d410	Changing basic body position
d415	Maintaining a body position
d420	Transferring oneself
d430	Lifting and carrying objects
d440	Fine hand use
d445	Hand and arm use
d450	Walking
d455	Moving around
d460	Moving around in different locations
d465	Moving around using equipment
d470	Using transportation
d475	Driving
d510	Washing oneself
d520	Caring for body parts
d530	Using the toilet
d540	Dressing
d550	Eating
d570	Looking after one's health
d620	Acquisition of goods and services
d630	Preparing meals
d640	Doing housework
d710	Basic interpersonal interactions
d750	Informal social relationships
d760	Family relationships
d770	Intimate relationships
d845	Acquiring, keeping and terminating a job
d850	Remunerative employment
d855	Non-remunerative employment
d860	Basic economic transactions
d870	Economic self-sufficiency
d910	Community life
d920	Recreation and leisure

U112 Chronic obstructive pulmonary disease – core set

ICF code		
2nd level	3rd level	ICF title
b130		Energy and drive functions
b134		Sleep functions
b152		Emotional functions
	b1522	Range of emotion
b280		Sensation of pain
	b2801	Pain in body part
b310		Voice functions
b410		Heart functions
b430		Haematological system functions
b435		Immunological system functions
b440		Respiration functions
b445		Respiratory muscle functions
b450		Additional respiratory functions
b455		Exercise tolerance functions
b460		Sensations associated with cardiovascular and respiratory functions
b530		Weight maintenance functions
b730		Muscle power functions
b740		Muscle endurance functions
b780		Sensations related to muscles and movement functions
s410		Structure of cardiovascular system
s430		Structure of respiratory system
s710		Structure of head and neck region
s720		Structure of shoulder region
s760		Structure of trunk
d230		Carrying out daily routine
d240		Handling stress and other psychological demands
d330		Speaking
d410		Changing basic body position
d430		Lifting and carrying objects
d450		Walking
d455		Moving around
d460		Moving around in different locations
d465		Moving around using equipment
d470		Using transportation
d475		Driving
	d4750	Driving human-powered transportation
d510		Washing oneself
d540		Dressing
d570		Looking after one's health
d620		Acquisition of goods and services
d640		Doing housework
d650		Caring for household objects
d660		Assisting others
d770		Intimate relationships
d845		Acquiring, keeping and terminating a job
d850		Remunerative employment
d910		Community life
d920		Recreation and leisure

U150 Road traffic accidents – functioning profile

Upper extremity			Lower extremity		
2nd level	3rd level	ICF title	2nd level	3rd level	ICF title
b130		Energy and drive functions	b130		Energy and drive functions
b134		Sleep functions	b134		Sleep functions
b152		Emotional functions	b152		Emotional functions
b280		Sensation of pain	b280		Sensation of pain
			b530		Weight maintenance functions
b640		Sexual functions	b640		Sexual functions
b710		Mobility of joint functions	b710		Mobility of joint functions
b715		Stability of joint functions	b715		Stability of joint functions
b720		Mobility of bone functions	b720		Mobility of bone functions
b730		Muscle power functions	b730		Muscle power functions
b735		Muscle tone functions	b735		Muscle tone functions
b740		Muscle endurance functions	b740		Muscle endurance functions
b760		Control of voluntary movement functions	b760		Control of voluntary movement functions
b765		Involuntary movement functions	b765		Involuntary movement functions
b770		Gait pattern functions	b770		Gait pattern functions
b780		Sensations related to muscles and movement functions	b780		Sensations related to muscles and movement functions
b810		Protective functions of the skin	b810		Protective functions of the skin
b820		Repair functions of the skin	b820		Repair functions of the skin
b830		Other functions of the skin	b830		Other functions of the skin
b840		Sensations related to the skin	b840		Sensations related to the skin
s120		Spinal cord and related structures	s120		Spinal cord and related structures
	s1201	Thoracic spinal cord		s1201	Thoracic spinal cord
s410		Structure of cardiovascular system	s410		Structure of cardiovascular system
	s4101	Arteries		s4101	Arteries
	s4102	Veins		s4102	Veins
s420		Structure of immune system	s420		Structure of immune system
	s4200	Lymphatic vessels		s4200	Lymphatic vessels
s720		Structure of shoulder region			
s730		Structure of upper extremity			
			s740		Structure of pelvic region
			s750		Structure of lower extremity
s770		Additional musculoskeletal structures related to movement	s770		Additional musculoskeletal structures related to movement
s810		Structure of areas of skin	s810		Structure of areas of skin
	s8101	Skin of the shoulder region			
	s8102	Skin of upper extremity			
				s8103	Skin of pelvic region
				s8104	Skin of lower extremity
d170		Writing			
d210		Undertaking a single task	d210		Undertaking a single task
d220		Undertaking multiple tasks	d220		Undertaking multiple tasks
d230		Carrying out daily routine*	d230		Carrying out daily routine
d335		Producing nonverbal messages	d335		Producing nonverbal messages
d345		Writing messages			
d360		Using communication devices and techniques			
d410		Changing body position	d410		Changing body position
d415		Maintaining a body position	d415		Maintaining a body position
d420		Transferring oneself	d420		Transferring oneself
d430		Lifting and carrying objects	d430		Lifting and carrying objects

Upper extremity			Lower extremity		
2nd level	3rd level	ICF title	2nd level	3rd level	ICF title
			d435		Moving objects with lower extremities
d440		Fine hand use			
d445		Hand and arm use			
			d450		Walking
d455		Moving around	d455		Moving around
			d460		Moving around in different locations
d465		Moving around using equipment	d465		Moving around using equipment
			d470		Using transportation
d475		Driving	d475		Driving
d480		Riding animals for transportation	d480		Riding animals for transportation
d510		Washing oneself	d510		Washing oneself
d520		Caring for body parts	d520		Caring for body parts
d530		Using the toilet	d530		Using the toilet
d540		Dressing	d540		Dressing
d550		Eating			
d560		Drinking			

Annex 3. A list of diseases and the relevant subclasses (second level) of the ISO 9999

U003	Tuberculosis
U009	HIV/AIDS
U010	Diarrhoeal diseases
U020	Malaria
U039	Lower respiratory infections
U050, U051, U052	Low birth weight, birth asphyxia and birth trauma, other perinatal conditions
U067	Malignant neoplasms: breast cancer, head and neck cancer, colon cancer, lung cancer
U079	Diabetes mellitus
U082	Unipolar depressive disorders
U100	Cataracts
U102	Hearing loss, adult onset
U107	Ischaemic heart disease
U108	Cerebrovascular disease
U112	Chronic obstructive pulmonary disease
U150	Road traffic accidents: lower extremity & upper extremity

U003 Tuberculosis

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.06	Assistive products for circulation therapy
04.09	Assistive products for light therapy
04.15	Assistive products for dialysis therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and materials
04.27	Stimulators
04.30	Assistive products for heat or cold treatment
04.33	Assistive products for pressure-sore prevention (antidecubitus)
04.39	Assistive products for visual training
04.45	Assistive products for spinal traction
04.48	Equipment for movement, strength and balance training
05.03	Assistive products for communication therapy and training
05.06	Assistive products for training in alternative and augmentative communication
05.09	Assistive products for continence training
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
06.03	Spinal orthoses
06.04	Abdominal orthoses
06.06	Upper limb orthoses (body-worn)
06.12	Lower limb orthotic systems
06.15	Functional neuromuscular (electrical) stimulators (FNS) and hybrid orthotic systems
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.07	Assistive products for stabilization of the body (non-body-worn)
09.09	Assistive products for dressing and undressing
09.12	Assistive products for using the toilet
09.21	Products for skin protection and skin cleaning

09.24	Urine diverters
09.27	Urine collectors
09.30	Assistive products for absorbing urine and faeces
09.31	Assistive products to prevent involuntary urine and/or faeces leakage
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure
09.45	Assistive products for facial care/skin care
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.10	Cars
12.12	Car adaptations
12.16	Mopeds and motorcycles
12.18	Cycles
12.22	Human-driven wheelchairs
12.23	Powered wheelchairs
12.27	Vehicles
12.31	Assistive products for transfer and turning
12.36	Assistive products for lifting
12.39	Assistive products for orientation
15.09	Assistive products for eating and drinking
18.06	Light fixtures
18.09	Sitting furniture
18.12	Beds
18.18	Support devices
18.21	Gate, door, window and curtain openers/closers
18.24	Construction elements in the home and other premises
18.30	Assistive products for vertical accessibility
18.33	Safety equipment for the home and other premises
22.03	Assistive products for seeing
22.06	Assistive products for hearing
22.09	Assistive products for voice production
22.12	Assistive products for drawing and writing
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.39	Output devices for computers
24.04	Marking materials and marking tools
24.06	Assistive products for handling containers
24.09	Assistive products for operating and/or controlling devices
24.18	Assistive products to assist an/or replace arm and/or hand and/or finger function
24.21	Assistive products for extended reach
24.24	Assistive products for positioning
24.30	Assistive products for repositioning and hoisting
24.36	Assistive products for carrying and transporting

U009 HIV/AIDS

ISO 9999 code

Name of the subclass

04.03	Assistive products for respiratory therapy
04.06	Assistive products for circulation therapy
04.09	Assistive products for light therapy
04.15	Assistive products for dialysis therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment

04.24	Physical, physiological and biochemical test equipment and material
04.27	Stimulators
04.30	Assistive products for heat or cold treatment
04.33	Assistive products for pressure-sore prevention (antidecubitus)
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
06.15	Functional neuromuscular (electrical) stimulators (FNS) and hybrid orthotic systems
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.07	Assistive products for stabilization of the body (non-body-worn)
09.09	Assistive products for dressing and undressing
09.12	Assistive products for using the toilet
09.21	Products for skin protection and skin cleaning
09.24	Urine diverters
09.27	Urine collectors
09.30	Assistive products for absorbing urine and faeces
09.31	Assistive products to prevent involuntary urine and/or faeces leakage
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure
09.39	Assistive products for hair care
09.42	Assistive products for dental care
09.45	Assistive products for facial care/skin care
09.54	Assistive products for sexual activities
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.10	Cars
12.12	Car adaptations
12.16	Mopeds and motorcycles
12.18	Cycles
12.22	Human-driven wheelchairs
12.23	Powered wheelchairs
12.27	Vehicles
12.31	Assistive products for transfer and turning
12.36	Assistive products for lifting
15.09	Assistive products for eating and drinking
18.06	Light fixtures
18.09	Sitting furniture
18.12	Beds
18.18	Support devices
18.21	Gate, door, window and curtain openers/closers
18.24	Construction elements in the home and other premises
18.30	Assistive products for vertical accessibility
18.33	Safety equipment for the home and other premises
22.03	Assistive products for seeing
22.12	Assistive products for drawing and writing
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.39	Output devices for computers
24.04	Marking materials and marking tools
24.06	Assistive products for handling containers
24.09	Assistive products for operating and/or controlling devices
24.18	Assistive products to assist an/or replace arm and/or hand and/or finger function

24.21	Assistive products for extended reach
24.24	Assistive products for positioning
24.30	Assistive products for repositioning and hoisting
24.36	Assistive products for carrying and transporting

U010 Diarrhoeal diseases

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.09	Assistive products for light therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.30	Assistive products for heat or cold treatment
04.33	Assistive products for pressure-sore prevention (antidecubitus)
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
09.06	Assistive products for protecting the body (body-worn)
09.12	Assistive products for using the toilet
09.21	Products for skin protection and skin cleaning
09.30	Assistive products for absorbing urine and faeces
09.31	Assistive products to prevent involuntary urine and/or faeces leakage
09.33	Assistive products for washing, bathing and showering
09.48	Assistive products for measuring human physical and physiological properties
18.12	Beds
22.27	Assistive products for alarming, indicating and signalling

U020 Malaria

ISO 9999 code	Name of the subclass
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.27	Stimulators
04.33	Assistive products for pressure-sore prevention (antidecubitus)
04.48	Equipment for movement, strength and balance training
05.03	Assistive products for communication therapy and training
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
06.03	Spinal orthoses
06.06	Upper limb orthoses (body-worn)
06.09	Upper limb orthoses (non-body-worn)
06.12	Lower limb orthotic systems
06.15	Functional neuromuscular (electrical) stimulators (FNS) and hybrid orthotic systems
06.33	Orthopaedic footwear
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.07	Assistive products for stabilization of the body (non-body-worn)
09.09	Assistive products for dressing and undressing
09.12	Assistive products for using the toilet
09.21	Products for skin protection and skin cleaning
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure

09.39	Assistive products for hair care
09.42	Assistive products for dental care
09.45	Assistive products for facial care/skin care
09.48	Assistive products for measuring human physical and physiological properties
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.22	Human-driven wheelchairs
12.23	Powered wheelchairs
12.31	Assistive products for transfer and turning
12.36	Assistive products for lifting
12.39	Assistive products for orientation
15.09	Assistive products for eating and drinking
18.09	Sitting furniture
18.12	Beds
18.18	Support devices
18.21	Gate, door, window and curtain openers/closers
18.24	Construction elements in the home and other premises
18.30	Assistive products for vertical accessibility
18.33	Safety equipment for the home and other premises
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.39	Output devices for computers
24.06	Assistive products for handling containers
24.09	Assistive products for operating and/or controlling devices
24.18	Assistive products to assist an/or replace arm and/or hand and/or finger function
24.21	Assistive products for extended reach

U039 Lower respiratory infections

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.09	Assistive products for light therapy
04.19	Assistive products for administering medicines
04.24	Physical, physiological and biochemical test equipment and material
04.27	Stimulators
04.30	Assistive products for heat or cold treatment
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
06.03	Spinal orthoses
06.15	Functional neuromuscular (electrical) stimulators (FNS) and hybrid orthotic systems
09.06	Assistive products for protecting the body (body-worn)
09.07	Assistive products for stabilization of the body (non-body-worn)
09.33	Assistive products for washing, bathing and showering
09.48	Assistive products for measuring human physical and physiological properties
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.23	Powered wheelchairs
12.27	Vehicles
18.09	Sitting furniture
18.12	Beds

18.18	Support devices
18.30	Assistive products for vertical accessibility
22.27	Assistive products for alarming, indicating and signalling
27.03	Assistive products for environmental improvement

U050/U051/U052 Perinatal conditions

Mental

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.09	Assistive products for light therapy
04.19	Assistive products for administering medicines
04.24	Physical, physiological and biochemical test equipment and materials
04.25	Cognitive test and evaluation materials
04.27	Stimulators
04.48	Equipment for movement, strength and balance training
05.03	Assistive products for communication therapy and training
05.06	Assistive products for training in alternative and augmentative communication
05.12	Assistive products for training in cognitive skills
05.15	Assistive products for training in basic skills
05.18	Assistive products for training in various educational subjects
05.24	Assistive products for training in the arts
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
09.03	Clothes and shoes
09.09	Assistive products for dressing and undressing
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure
09.39	Assistive products for hair care
09.42	Assistive products for dental care
09.45	Assistive products for facial care/skin care
09.48	Assistive products for measuring human physical and physiological properties
09.54	Assistive products for sexual activities
18.33	Safety equipment for the home and other premises
22.12	Assistive products for drawing and writing
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.39	Output devices for computers

Complex physical

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.06	Assistive products for circulation therapy
04.09	Assistive products for light therapy
04.15	Assistive products for dialysis therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and materials
04.25	Cognitive test and evaluation materials

04.27	Stimulators
04.30	Assistive products for heat or cold treatment
04.33	Assistive products for pressure-sore prevention (antidecubitus)
04.36	Assistive products for perceptual training
04.45	Assistive products for spinal traction
04.48	Equipment for movement, strength and balance training
05.03	Assistive products for communication therapy and training
05.06	Assistive products for training in alternative and augmentative communication
05.09	Assistive products for continence training
05.12	Assistive products for training in cognitive skills
05.15	Assistive products for training in basic skills
05.18	Assistive products for training in various educational subjects
05.24	Assistive products for training in the arts
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
06.03	Spinal orthoses
06.06	Upper limb orthoses (body-worn)
06.09	Upper limb orthoses (non-body-worn)
06.12	Lower limb orthotic systems
06.15	Functional neuromuscular (electrical) stimulators (FNS) and hybrid orthotic systems
06.18	Upper limb prosthetic systems
06.24	Lower limb prosthetic systems
06.30	Prostheses other than limb prostheses
06.33	Orthopaedic footwear
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.09	Assistive products for dressing and undressing
09.12	Assistive products for using the toilet
09.15	Assistive products for tracheostomy care
09.18	Assistive products for ostomy care
09.21	Products for skin protection and skin cleaning
09.24	Urine diverters
09.27	Urine collectors
09.30	Assistive products for absorbing urine and faeces
09.31	Assistive products to prevent involuntary urine and/or faeces leakage
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure
09.39	Assistive products for hair care
09.42	Assistive products for dental care
09.45	Assistive products for facial care/skin care
09.48	Assistive products for measuring human physical and physiological properties
09.54	Assistive products for sexual activities
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.12	Car adaptations
12.16	Mopeds and motorcycles
12.18	Cycles
12.22	Human-driven wheelchairs
12.23	Powered wheelchairs
12.27	Vehicles
12.31	Assistive products for transfer and turning
12.36	Assistive products for lifting
12.39	Assistive products for orientation
15.09	Assistive products for eating and drinking
18.06	Light fixtures
18.09	Sitting furniture
18.12	Beds

18.18	Support devices
18.21	Gate, door, window and curtain openers/closers
18.24	Construction elements in the home and other premises
18.30	Assistive products for vertical accessibility
18.33	Safety equipment for the home and other premises
22.03	Assistive products for seeing
22.06	Assistive products for hearing
22.12	Assistive products for drawing and writing
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.39	Output devices for computers
24.04	Marking materials and marking tools
24.06	Assistive products for handling containers
24.09	Assistive products for operating and/or controlling devices
24.18	Assistive products to assist an/or replace arm and/or hand and/or finger function
24.21	Assistive products for extended reach
24.24	Assistive products for positioning
27.03	Assistive products for environmental improvement

U067 Malignant neoplasms

Breast cancer

ISO 9999 code	Name of the subclass
04.06	Assistive products for circulation therapy
04.09	Assistive products for light therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.27	Stimulators
04.48	Equipment for movement, strength and balance training
05.33	Assistive products for training in daily living activities
06.30	Prostheses other than limb prostheses
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.09	Assistive products for dressing and undressing
09.21	Products for skin protection and skin cleaning
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure
09.39	Assistive products for hair care
09.42	Assistive products for dental care
09.45	Assistive products for facial care/skin care
09.48	Assistive products for measuring human physical and physiological properties
15.03	Assistive products for preparing food and drink
15.06	Assistive products for dishwashing
15.09	Assistive products for eating and drinking
15.12	Assistive products for house-cleaning
15.15	Assistive products for making and maintaining textiles
24.09	Assistive products for operating and/or controlling devices
24.18	Assistive products to assist an/or replace arm and/or hand and/or finger function
24.21	Assistive products for extended reach
24.24	Assistive products for positioning
05.27	Assistive products for training in social skills

Head and neck cancer

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.27	Stimulators
04.36	Assistive products for perceptual training
04.45	Assistive products for spinal traction
04.48	Equipment for movement, strength and balance training
05.06	Assistive products for training in alternative and augmentative communication
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
06.03	Spinal orthoses
06.06	Upper limb orthoses (body-worn)
06.12	Lower limb orthotic systems
06.15	Functional neuromuscular (electrical) stimulators (FNS) and hybrid orthotic systems
06.30	Prostheses other than limb prostheses
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.07	Assistive products for stabilization of the body (non-body-worn)
09.15	Assistive products for tracheostomy care
09.21	Products for skin protection and skin cleaning
09.33	Assistive products for washing, bathing and showering
09.39	Assistive products for hair care
09.42	Assistive products for dental care
09.45	Assistive products for facial care/skin care
09.48	Assistive products for measuring human physical and physiological properties
12.16	Mopeds and motorcycles
12.18	Cycles
15.03	Assistive products for preparing food and drink
15.09	Assistive products for eating and drinking
18.09	Sitting furniture
18.12	Beds
22.06	Assistive products for hearing
22.09	Assistive products for voice production
22.12	Assistive products for drawing and writing
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.33	Computers and terminals
22.36	Input devices for computers
22.39	Output devices for computers

Colon cancer

ISO 9999 code	Name of the subclass
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.27	Stimulators
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
06.30	Prostheses other than limb prostheses

09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.18	Assistive products for ostomy care
09.21	Products for skin protection and skin cleaning
09.33	Assistive products for washing, bathing and showering

Lung cancer

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.27	Stimulators
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
09.06	Assistive products for protecting the body (body-worn)
09.33	Assistive products for washing, bathing and showering
12.23	Powered wheelchairs
12.27	Vehicles
18.30	Assistive products for vertical accessibility
27.03	Assistive products for environmental improvement

U079 Diabetes mellitus

ISO 9999 code	Name of the subclass
04.06	Assistive products for circulation therapy
04.15	Assistive products for dialysis therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.33	Assistive products for pressure-sore prevention (antidecubitus)
04.36	Assistive products for perceptual training
04.39	Assistive products for visual training
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
06.24	Lower limb prosthetic systems
06.27	Cosmetic lower limb prostheses
06.33	Orthopaedic footwear
09.06	Assistive products for protecting the body (body-worn)
09.21	Products for skin protection and skin cleaning
09.36	Assistive products for manicure and pedicure
09.48	Assistive products for measuring human physical and physiological properties
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.10	Cars
12.12	Car adaptations
12.16	Mopeds and motorcycles
12.18	Cycles
12.27	Vehicles
12.39	Assistive products for orientation
18.12	Beds
18.18	Support devices
18.30	Assistive products for vertical accessibility

22.03	Assistive products for seeing
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading

U082 Unipolar depressive disorders

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.09	Assistive products for light therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.25	Cognitive test and evaluation materials
04.27	Stimulators
04.30	Assistive products for heat or cold treatment
04.48	Equipment for movement, strength and balance training
05.12	Assistive products for training in cognitive skills
05.15	Assistive products for training in basic skills
05.24	Assistive products for training in the arts
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
09.48	Assistive products for measuring human physical and physiological properties
18.06	Light fixtures
22.27	Assistive products for alarming, indicating and signalling
27.03	Assistive products for environmental improvement

U100 Cataracts

ISO 9999 code	Name of the subclass
04.39	Assistive products for visual training
05.06	Assistive products for training in alternative and augmentative communication
05.18	Assistive products for training in various educational subjects
05.27	Assistive products for training in social skills
05.30	Assistive products for training in control of input units
09.06	Assistive products for protecting the body (body-worn)
12.39	Assistive products for orientation
15.03	Assistive products for preparing food and drink
15.09	Assistive products for eating and drinking
15.12	Assistive products for house cleaning
18.06	Light fixtures
18.33	Safety equipment for the home and other premises
22.03	Assistive products for seeing
22.12	Assistive products for drawing and writing
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.33	Computers and terminals
22.36	Input devices for computers
22.39	Output devices for computers
24.04	Marking materials and marking tools
24.06	Assistive products for handling containers
24.13	Assistive products for controlling from a distance
27.03	Assistive products for environmental improvement

U102 Hearing loss, adult onset

ISO 9999 code	Name of the subclass
04.27	Stimulators
04.36	Assistive products for perceptual training
05.03	Assistive products for communication therapy and training
05.06	Assistive products for training in alternative and augmentative communication
05.18	Assistive products for training in various educational subjects
05.27	Assistive products for training in social skills
09.06	Assistive products for protecting the body (body-worn)
22.06	Assistive products for hearing
22.09	Assistive products for voice production
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.33	Computers and terminals
22.36	Input devices for computers
22.39	Output devices for computers
27.03	Assistive products for environmental improvement

U107 Ischaemic heart disease

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.06	Assistive products for circulation therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
09.48	Assistive products for measuring human physical and physiological properties
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.10	Cars
12.16	Mopeds and motorcycles
12.18	Cycles
12.27	Vehicles
15.12	Assistive products for housecleaning
15.15	Assistive products for making and maintaining textiles
18.30	Assistive products for vertical accessibility
18.33	Safety equipment for the home and other premises
22.27	Assistive products for alarming, indicating and signalling

U108 Cerebrovascular disease

ISO 9999 code	Name of the subclass
04.06	Assistive products for circulation therapy
04.09	Assistive products for light therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.25	Cognitive test and evaluation materials

04.27	Stimulators
04.33	Assistive products for pressure-sore prevention (antidecubitus)
04.36	Assistive products for perceptual training
04.39	Assistive products for visual training
04.48	Equipment for movement, strength and balance training
05.03	Assistive products for communication therapy and training
05.06	Assistive products for training in alternative and augmentative communication
05.09	Assistive products for continence training
05.12	Assistive products for training in cognitive skills
05.15	Assistive products for training in basic skills
05.18	Assistive products for training in various educational subjects
05.27	Assistive products for training in social skills
05.30	Assistive products for training in control of input units and hand
05.33	Assistive products for training in daily living activities
06.06	Upper limb orthoses (body-worn)
06.09	Upper limb orthoses (non-body-worn)
06.12	Lower limb orthotic systems
06.15	Functional neuromuscular (electrical) stimulators (FNS) and hybrid orthotic systems
06.33	Orthopaedic footwear
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.09	Assistive products for dressing and undressing
09.12	Assistive products for using the toilet
09.21	Products for skin protection and skin cleaning
09.24	Urine diverters
09.27	Urine collectors
09.30	Assistive products for absorbing urine and faeces
09.31	Assistive products to prevent involuntary urine and/or faeces leakage
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure
09.39	Assistive products for hair care
09.42	Assistive products for dental care
09.45	Assistive products for facial care/skin care
09.48	Assistive products for measuring human physical and physiological properties
09.54	Assistive products for sexual activities
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.10	Cars
12.12	Car adaptations
12.16	Mopeds and motorcycles
12.18	Cycles
12.22	Human-driven wheelchairs
12.23	Powered wheelchairs
12.27	Vehicles
12.31	Assistive products for transfer and turning
12.36	Assistive products for lifting
12.39	Assistive products for orientation
15.03	Assistive products for preparing food and drink
15.06	Assistive products for dishwashing
15.09	Assistive products for eating and drinking
15.12	Assistive products for house cleaning
15.15	Assistive products for making and maintaining textiles
18.06	Light fixtures
18.09	Sitting furniture
18.12	Beds
18.18	Support devices
18.21	Gate, door, window and curtain openers/closers

18.24	Construction elements in the home and other premises
18.30	Assistive products for vertical accessibility
18.33	Safety equipment for the home and other premises
22.03	Assistive products for seeing
22.09	Assistive products for voice production
22.12	Assistive products for drawing and writing
22.15	Assistive products for calculation
22.18	Assistive products for handling audio, visual and video information
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.33	Computers and terminals
22.36	Input devices for computers
22.39	Output devices for computers
24.04	Marking materials and marking tools
24.06	Assistive products for handling containers
24.09	Assistive products for operating and/or controlling devices
24.13	Assistive products for controlling from a distance
24.18	Assistive products to assist an/or replace arm and/or hand and/or finger function
24.21	Assistive products for extended reach
24.24	Assistive products for positioning
27.03	Assistive products for environmental improvement

U112 Chronic obstructive pulmonary disease

ISO 9999 code	Name of the subclass
04.03	Assistive products for respiratory therapy
04.09	Assistive products for light therapy
04.19	Assistive products for administering medicines
04.22	Sterilizing equipment
04.24	Physical, physiological and biochemical test equipment and material
04.27	Stimulators
04.30	Assistive products for heat or cold treatment
04.48	Equipment for movement, strength and balance training
05.03	Assistive products for communication therapy and training
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
09.06	Assistive products for protecting the body (body-worn)
09.33	Assistive products for washing, bathing and showering
09.48	Assistive products for measuring human physical and physiological properties
09.54	Assistive products for sexual activities
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.10	Cars
12.18	Cycles
12.22	Human-driven wheelchairs
12.23	Powered wheelchairs
12.27	Vehicles
12.31	Assistive products for transfer and turning
12.36	Assistive products for lifting
15.12	Assistive products for housecleaning
18.09	Sitting furniture
18.12	Beds
18.18	Support devices
18.21	Gate, door, window and curtain openers/closers

18.24	Construction elements in the home and other premises
18.30	Assistive products for vertical accessibility
18.33	Safety equipment for the home and other premises
22.09	Assistive products for voice production
22.21	Assistive products for face-to-face communication
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
27.03	Assistive products for environmental improvement

U150 Road traffic accidents

Lower extremities

ISO 9999 code

Name of the subclass

04.06	Assistive products for circulation therapy
04.24	Physical, physiological and biochemical test equipment and material
04.27	Stimulators
04.33	Assistive products for pressure-sore prevention (antidecubitus)
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
05.33	Assistive products for training in daily living activities
06.03	Spinal orthoses
06.12	Lower limb orthotic systems
06.15	Functional neuromuscular (electrical) stimulators (FNS) and hybrid orthotic systems
06.24	Lower limb prosthetic systems
06.27	Cosmetic lower limb prostheses
06.33	Orthopaedic footwear
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.07	Assistive products for stabilization of the body (non-body-worn)
09.09	Assistive products for dressing and undressing
09.12	Assistive products for using the toilet
09.21	Products for skin protection and skin cleaning
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure
09.48	Assistive products for measuring human physical and physiological properties
09.54	Assistive products for sexual activities
12.03	Assistive products for walking, manipulated by one arm
12.06	Assistive products for walking, manipulated by both arms
12.10	Cars
12.12	Car adaptations
12.16	Mopeds and motorcycles
12.18	Cycles
12.22	Human-driven wheelchairs
12.23	Powered wheelchairs
12.27	Vehicles
12.31	Assistive products for transfer and turning
12.36	Assistive products for lifting
15.12	Assistive products for housecleaning
18.09	Sitting furniture
18.12	Beds
18.18	Support devices
18.21	Gate, door, window and curtain openers/closers
18.24	Construction elements in the home and other premises
18.30	Assistive products for vertical accessibility
18.33	Safety equipment for the home and other premises
22.27	Assistive products for alarming, indicating and signalling

Upper extremity

ISO 9999 code	Name of the subclass
04.06	Assistive products for circulation therapy
04.24	Physical, physiological and biochemical test equipment and material
04.27	Stimulators
04.36	Assistive products for perceptual training
04.45	Assistive products for spinal traction
04.48	Equipment for movement, strength and balance training
05.27	Assistive products for training in social skills
05.30	Assistive products for training in control of input units
05.33	Assistive products for training in daily living activities
06.03	Spinal orthoses
06.06	Upper limb orthoses (body-worn)
06.09	Upper limb orthoses (non-body-worn)
06.18	Upper limb prosthetic systems
06.21	Cosmetic upper limb prostheses
09.03	Clothes and shoes
09.06	Assistive products for protecting the body (body-worn)
09.07	Assistive products for stabilization of the body (non-body-worn)
09.09	Assistive products for dressing and undressing
09.12	Assistive products for using the toilet
09.21	Products for skin protection and skin cleaning
09.33	Assistive products for washing, bathing and showering
09.36	Assistive products for manicure and pedicure
09.39	Assistive products for hair care
09.42	Assistive products for dental care
09.45	Assistive products for facial care/skin care
09.48	Assistive products for measuring human physical and physiological properties
09.54	Assistive products for sexual activities
12.12	Car adaptations
12.16	Mopeds and motorcycles
12.18	Cycles
12.31	Assistive products for transfer and turning
15.03	Assistive products for preparing food and drink
15.06	Assistive products for dishwashing
15.09	Assistive products for eating and drinking
15.12	Assistive products for housecleaning
15.15	Assistive products for making and maintaining textiles
18.24	Construction elements in the home and other premises
18.33	Safety equipment for the home and other premises
22.12	Assistive products for drawing and writing
22.18	Assistive products for handling audio, visual and video information
22.24	Assistive products for telephoning (and telematic messaging)
22.27	Assistive products for alarming, indicating and signalling
22.30	Assistive products for reading
22.33	Computers and terminals
22.36	Input devices for computers
22.39	Output devices for computers
24.06	Assistive products for handling containers
24.09	Assistive products for operating and/or controlling devices
24.13	Assistive products for controlling from a distance
24.18	Assistive products to assist an/or replace arm and/or hand and/or finger function
24.21	Assistive products for extended reach
24.24	Assistive products for positioning

Annex 4. Establishing functioning profiles of four diseases

Tuberculosis

Tuberculosis may induce impairments in body structure and function in the short-term (i.e. during the treatment period) or in the long-term (chronic). This paper only focuses on the chronic consequences of tuberculosis, which may be permanent.

The chronic consequences of tuberculosis may be due to the disease itself, through its attack of the organs, or due to treatment (drug treatment or surgery). The disease may have a direct effect or act through the development of a secondary disease, like chronic infection in a destroyed lung.

The impairment may be related to the pulmonary involvement or to the extrapulmonary forms of the disease. The lesion in one organ (impairment of structure) may lead to the impairment of a body function, then to a possible limitation of activity and a participation restriction. The impairment of structure, however, can give rise to a participation restriction without impairment of function or an activity limitation (e.g. skin deformity due to cervical lymphadenitis).

The main categories to be considered are:

1. Consequences of the disease:
 - a. Restriction of lung volumes by tissue destruction;
 - b. Chronic changes of joints, pleura, central nervous system, kidney, genitourinary tract, or digestive tract;
 - c. Spinal deformity with neurological disorder;
 - d. Paradoxical immunological reactions (e.g. immune reconstitution inflammatory syndrome, IRIS); and
 - e. Secondary diseases developed in relation to tuberculosis (e.g. chronic pulmonary infection: aspergillosis or bronchiectasis).
2. Consequences of treatment:
 - a. Drug treatment: hearing loss, neuropathy, renal failure, visual trouble; and

- b. Surgical procedures: reduction of lung volumes, limitation of the function of articulations.

HIV/AIDS

Today HIV infection does not necessarily lead to AIDS. Correct, timely treatment (e.g. with antiretroviral drugs) will prevent the infection from developing into AIDS (i.e. long-term consequences of the disease). Incorrect or incomplete treatment can lead to complications from AIDS. Therefore, the functioning profile developed includes a column for AIDS and for complications from treatment.

Generally speaking, the long-term consequences of HIV infection include impairments in body function and structure. These are related to the effects of the primary and secondary infections on various organs and side-effects of treatment, as well as psychological consequences associated with the infection/disease (stigma and discrimination).

The main categories to be considered are:

1. Consequences of the disease:
 - a. Problems of the central nervous system (including peripheral neuropathy, HIV dementia, visual disturbances, e.g. reduced contrast sensitivity and altered colour vision);
 - b. Malignancies (including Kaposi sarcoma and lymphoma, cervical cancer);
 - c. Complications secondary to opportunistic infections (including tuberculosis, chronic candidiasis, and cytomegalovirus retinitis);
 - d. Psychosis;
 - e. Pulmonary complications (including HIV-associated pulmonary hypertension, pulmonary malignancies, and inflammatory disorders).
 - f. Rheumatic complications (including non-infectious arthropathies, lupus-

like syndrome, and polymyositis);

- g. Cardiac complications (including heart muscle disease, myocarditis, dilated cardiomyopathy or isolated left or right ventricular dysfunction, opportunistic infections, viral infections, and autoimmune response to viral infection);
- h. HIV-associated nephropathy; and
- i. Digestive system abnormalities secondary to opportunistic infections and malignancies.

2. Consequences of treatment:

- a. Antiretroviral drugs have been associated with an increasing number of side-effects to many organs. They include
 - i. Hyperlipidaemia
 - ii. Fat redistribution syndrome
 - iii. Insulin resistance
 - iv. Cardiac toxicity
 - v. Liver toxicity
 - vi. Renal dysfunction
 - vii. Various types of anaemia
 - b. Side-effects related to radiotherapy for Kaposi sarcoma
3. Psychosocial consequences of infection; these include stigma, discrimination and feelings of isolation.

Perinatal conditions

Perinatal conditions include a broad range of causes and consequences concerning functioning of children.

Among the causes, three main groups can be distinguished:

- Causes arising during pregnancy (defects, preterm labour, intrauterine growth retardation, foetal distress, maternal diseases such as diabetes, maternal lifestyle such as alcohol abuse; and maternal-foetal problems such as rhesus incompatibility);
- Causes due to the delivery process (preterm birth and birth trauma); and
- Causes arising during the first week after birth (infections, oxygen deficiency, and jaundice).

The related sequelae arising due to the causes are:

- a. Mental retardation;
- b. Cerebral palsy;
- c. Microcephaly;
- d. Seizures;
- e. Hydrocephalus;
- f. Hearing impairment;
- g. Retinopathy;
- h. Brain damage;
- i. Chronic lung disease;
- j. Short bowel syndrome;
- k. Cirrhosis;
- l. Hepatic failure; and
- m. (Neonatal) Encephalopathy.

Consequences from the causes and sequelae regarding problems in functioning (disability) lead to the following general patterns:

1. Problems functioning due to impairments of mental functions (mental retardation and behavioural disorders such as autism);
2. A complex of problems in

functioning related to impairments of neuromusculoskeletal and movement-related functions (hearing loss, vision loss, and seizures); and

3. 1 and 2 combined.

A functioning profile has been developed for consequences falling under points 1 and 2.

Note: sequelae from birth defects (congenital malformations) are not taken into consideration here; neither are long-term sequelae, such as increased risk of adult cardiovascular disease in growth-retarded babies.

Road traffic accidents

The scope of injuries from road traffic accidents is very broad. Road traffic accidents lead to road traffic injuries, which can have long-term and short-term consequences. The long-term consequences can be divided into orthopaedic, neurological and other injuries (see Figure 2).

This document focuses on the following inclusion and exclusion criteria of consequences from road traffic accidents for the preparation of a functioning profile. Inclusions:

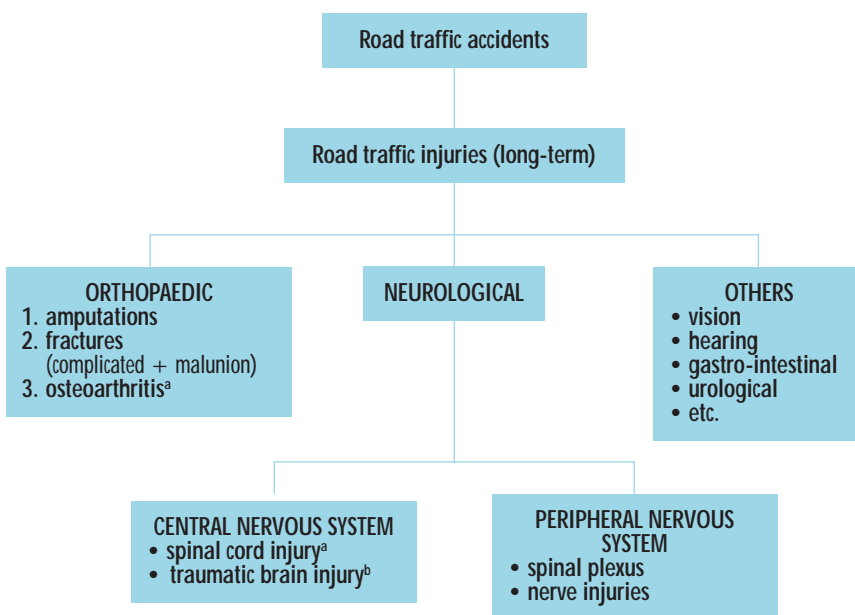
4. Long-term consequences of the injury.
5. Upper and lower extremity (including pelvis) injuries related to movement.

Exclusions:

6. Spinal cord injuries (core set already available)
7. Head injuries (core set under development)
8. Others not directly related to movement
9. Rare long-term consequences of the body

The diagnoses listed in the figure are very diverse (e.g. malunion after a fracture, plexus injury or peripheral nerve injury), but they all may lead to the same impairments of an extremity. That is why a choice is made to distinguish only between upper and lower extremity injuries.

Figure 2. Categorization of Road traffic accident sequelae



^a Core set existing
^b Core set under development