



Learning ICF




The diagram illustrates the structure of an ICF code. It shows the code 's73020.423' with arrows pointing to its components: 's' is the Component, '73020' is the Chapter (2nd level), '4' is the 3rd level, '2' is the 3rd level, and '3' is the 4th level. A blue box highlights the digits '423', with arrows pointing to them labeled '1st qualifier' (pointing to '4'), '2nd qualifier' (pointing to '2'), and '3rd qualifier' (pointing to '3'). A blue arrow also points from the top right towards the '1st qualifier'.


1

After completing this section, you will be able to..

- rate the extent of a person’s problem in a specific ICF category
- document health and health-related information using the ICF



As a trainer, you will be able to..

- explain what the qualifiers for each of the component are and how to use them
- introduce basic concepts of classification scoring and measurement
- provide exercises that enable participants to practice rating ICF categories using qualifiers

ICF Research Branch

Coding with ICF qualifiers

The use of any ICF category should be accompanied by **at least one qualifier**. Without qualifiers, codes have no inherent meaning.

Qualifiers denote the **magnitude of the level of health or severity of the problem** at issue. Qualifiers are coded as one, two or more numbers after a point.

1st qualifier
↓
2nd qualifier ←
s73020.423 ← 3rd qualifier

Having a **problem** may mean an **impairment, limitation or restriction or barrier** depending on the ICF construct.

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4

Coding with ICF qualifiers

```

graph TD
    ICF[ICF] --> FD[Functioning and Disability]
    ICF --> CF[Contextual factors]
    FD --> BFS[Body functions and Structures]
    FD --> AP[Activities and Participation]
    BFS --> BF[Body functions]
    BFS --> BS[Body structures]
    CF --> EF[Environmental factors]
    CF --> PF[Personal factors]
        
```

The ICF Qualifiers for the **Body Functions and Structures**, **Activities and Participation** components classified in the ICF are quantified using the **same generic scale**.

ICF Research Branch 5

Coding with ICF qualifiers

```

graph TD
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    FD --> BFS[Body functions and Structures]
    FD --> AP[Activities and Participation]
    BFS --> BF[Body functions]
    BFS --> BS[Body structures]
    CF --> EF[Environmental factors]
        
```

XXX.0	NO problem (none, absent, negligible,...)	0 – 4%
XXX.1	MILD problem (slight, low,...)	5 – 24%
XXX.2	MODERATE problem (medium, fair...)	25 – 49%
XXX.3	SEVERE problem (high, extreme,...)	50 – 95%
XXX.4	COMPLETE problem (total,...)	96 – 100%
XXX.8	not specified (the available information does not suffice to specify the severity of the problem)	
XXX.9	not applicable (it is inappropriate or not possible to apply the code)	

ICF Research Branch 6

Coding with ICF qualifiers

ICF

Functioning and Disability Contextual factors

Body functions and Structures Activities and Participation Environmental factors Personal factors

Body functions Body structures

In the case of **environmental factors** the first qualifier can be used to denote either the extent of positive effects of the environment, i.e. **facilitators**, or the extent of negative effects, i.e. **barriers**. To denote facilitators the point is replaced by a plus sign.

ICF Research Branch 7

Coding with ICF qualifiers

ICF

Functioning and Disability Contextual factors

Body functions and structures Activities and Participation Environmental factors





Body functions Body structures

<p>XXX.0 NO barrier</p> <p>XXX.1 MILD barrier</p> <p>XXX.2 MODERATE barrier</p> <p>XXX.3 SEVERE barrier</p> <p>XXX.4 COMPLETE barrier</p> <p>XXX.8 barrier, not specified</p> <p>XXX.9 not applicable</p>	<p>XXX+0 NO facilitator</p> <p>XXX+1 MILD facilitator</p> <p>XXX+2 MODERATE facilitator</p> <p>XXX+3 SUBSTANTIAL facilitator</p> <p>XXX+4 COMPLETE facilitator</p> <p>XXX+8 facilitator, not specified</p> <p>XXX+9 not applicable</p>
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ICF Research Branch 8

Coding with ICF qualifiers

Here are some examples of the use of the generic ICF Qualifier:

	<p>Eating is pretty problematic (it takes much more time)</p> <p>d550.2</p>		<p>Mobility in the ankle joints is severely impaired</p> <p>b7101.3</p>
	<p>I am able to work only part-time as a translator</p> <p>d850.2</p>		<p>My mother is extremely supportive of me</p> <p>e310+4</p>

ICF Research Branch 9

Coding with ICF qualifiers

An ICF code is composed of a prefix, the numeric code and at least one **ICF Qualifier**.

For different users, it might be appropriate and helpful to add other kinds of information. There are a **variety of additional component-specific qualifiers** that could be useful

1st qualifier
↓
2nd qualifier
←
s73020.423 ← 3rd qualifier

ICF Research Branch 10

Coding with ICF qualifiers

ICF qualifier for **body functions**



1st qualifier = Extent of impairment
↓
b7101.3 *only one qualifier

Mobility of several joints
Functions of the range and ease of movement of more than one joint

XXX.0 No impairment
 XXX.1 Mild impairment
 XXX.2 Moderate impairment
 XXX.3 Severe impairment
 XXX.4 Complete impairment

XXX.8 not specified
 XXX.9 not applicable

ICF Research Branch 11

Coding with ICF qualifiers

ICF qualifier for **body structures**



1st qualifier = Extent of impairment
↓
s7302.423 ← **2nd qualifier = Nature of impairment**
← **3rd qualifier = Location of impairment**

Structure of hand

XXX.0 No impairment	XXX.1 Total absence	XXX.2 Partial absence	XXX.3 Additional part	XXX.4 Aberrant dimensions	XXX.5 Discontinuity	XXX.6 Deviating position	XXX.7 Qualitative changes in structure	XXX.8 not specified	XXX.9 not applicable
XXX.0 More than one region	XXX.1 right	XXX.2 left	XXX.3 both sides	XXX.4 front	XXX.5 back	XXX.6 proximal	XXX.7 distal	XXX.8 not specified	XXX.9 not applicable

XXX.0 No impairment
 XXX.1 Mild impairment
 XXX.2 Moderate impairment
 XXX.3 Severe impairment
 XXX.4 Complete impairment

XXX.8 not specified
 XXX.9 not applicable

ICF Research Branch 12

Coding with ICF qualifiers

ICF qualifier for activities and participation



1st qualifier = Performance

↓

2nd qualifier = Capacity

d550.23

Eating
Carrying out the coordinated task and actions of eating food that has been served, bringing it to the mouth and consuming it in culturally acceptable ways, cutting or breaking food into pieces, opening bottles and cans, using eating implements, having meals, feasting or dining

Performance
Describes what an individual does in his current environment. This takes into account the environmental factors – all aspects of the physical, social and attitudinal world.

XXX.0 **No** difficulty
 XXX.1 **Mild** difficulty
 XXX.2 **Moderate** difficulty
 XXX.3 **Severe** difficulty
 XXX.4 **Complete** difficulty

XXX.8 not specified
 XXX.9 not applicable

Capacity
Describes an individual's ability to execute a task or an action in a standard environment. This indicates the highest probable level of functioning that a person may reach.

ICF Research Branch
13

Coding with ICF qualifiers

ICF qualifier for activities and participation

Performance
Describes what an individual does in his current environment. This takes into account the environmental factors – all aspects of the physical, social and attitudinal world.

Capacity
Describes an individual's ability to execute a task or an action in a standard environment; this indicate the highest probable level of functioning that a person may reach.



s750.411
 =**Complete** impairment with **total absence** of **right** lower extremity



d4552.04

=Running

ICF Research Branch
14

Coding with ICF qualifiers

ICF qualifier for **activities and participation**

Performance
Describes what an individual does in his current environment. This takes into account the environmental factors – all aspects of the physical, social and attitudinal world.

Capacity
Describes an individual's ability to execute a task or an action in a standard environment; this indicates the highest probable level of functioning that a person may reach.



b230.2
 = **Moderate** problem in Hearing functions



d310.02
 Communicating with – receiving – spoken messages




Source: Testimonials ADHEAR (MedEI), <http://www.medel.com/int/adhear#testimonials>


15

Coding with ICF qualifiers

ICF qualifier for **environmental factors**




1st qualifier = Extent of barrier or facilitator

↓

e310+4

Immediate family
Individuals related by birth, marriage or other relationship recognized by the culture as immediate family, such as spouses, partners, parents, siblings, children, foster parents, adoptive parents and grandparents

XXX.0 No barrier	XXX+0 No facilitator
XXX.1 MILD barrier	XXX+1 MILD facilitator
XXX.2 MODERATE barrier	XXX+2 MODERATE facilitator
XXX.3 SEVERE barrier	XXX+3 SUBSTANTIAL facilitator
XXX.4 COMPLETE barrier	XXX+4 COMPLETE facilitator
XXX.8 not specified	XXX+8 not specified
XXX.9 not applicable	XXX+9 not applicable


16

Coding with ICF qualifiers

ICF Body Functions

BODY FUNCTIONS

Definitions: *Body functions are the physiological functions of body systems (including psychological functions).*
Impairments are problems in body function or structure as a significant deviation or loss.

Qualifier

Generic qualifier with the negative scale, used to indicate the extent or magnitude of an impairment:

xxx.0 NO impairment	(none, absent, negligible,...)	0-4 %
xxx.1 MILD impairment	(slight, low,...)	5-24 %
xxx.2 MODERATE impairment	(medium, fair,...)	25-49 %
xxx.3 SEVERE impairment	(high, extreme, ...)	50-95 %
xxx.4 COMPLETE impairment	(total,...)	96-100 %
xxx.8 not specified		
xxx.9 not applicable		

Broad ranges of percentages are provided for those cases in which calibrated assessment instruments or other standards are available to quantify the impairment in body function. For example, when "no impairment" or "complete impairment" in body function is coded, this scaling may have margin of error of up to 5%. "Moderate impairment" is generally up to half of the scale of total impairment. The percentages are to be calibrated in different domains with reference to population standards as percentiles. For this quantification to be used in a uniform manner, assessment procedures need to be developed through research.

For a further explanation of coding conventions in ICF, refer to Annex 2.

ICF

Research Branch

17

At the beginning of each component in the detailed classification

Body functions: P. 47

Body structures: P. 105-106

A&P: P. 123-124

EF: P. 171-172

Coding with ICF qualifiers

ICF Body Functions

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ICF


Research Branch

18

If time allows, participants should go to the ICF book to see the descriptions of the qualifiers

Also emphasize that the percentages are not reliable

Coding with ICF qualifiers




Exercise: "Understanding ICF codes"


,De-code' the ICF codes provided in your materials. Identify what the code is under the photo, and based on the photo, describe in words what the qualifiers mean.

ICF Research Branch 19


Coding with ICF qualifiers




d4154.23




d550.23




s73000.451




e1500.4



b530.4



d450.23



e320+4

ICF Research Branch 20


Coding with ICF qualifiers

Using the ICF Qualifiers a **functioning profile** can be created. This gives a description of the complete experience of functioning.

ICF categories		ICF Qualifier				
		problem				
		0	1	2	3	4
b134	Sleep functions					1
b152	Emotional functions					1
b28013	Pain in back					1
b4350	Immune response					1
b610	Urinary excretory functions					4
b710	Mobility of joint functions					1
b735	Muscle tone functions					3
b755	Involuntary movement reaction functions					2
b810	Protective functions of the skin					2
s810	Structure of areas of skin					2
d230	Carrying out daily routine					2
d240	Handling stress and other psychological demands					2
d410	Changing basic body positions					2
d4153	Maintaining a sitting position					2
d420	Transferring oneself					2
d465	Moving around using equipment					2
d475	Driving					2
d540	Dressing					2
d920	Recreation and leisure					2
		facilitator		barrier		
		4+	3+	2+	1+	0
e110	Products or substances for personal consumption					1
e115	Assistive products...for personal use in daily living					1
e120	Assistive products...for personal mobility					1
e155	Design, construction...of buildings for private use					1
e310	Immediate family					1

ICF Research Branch21

Classification (Coding) versus Measurement




The ICF is a classification and NOT a measurement instrument

- ➔ Categories can be operationalized
- ➔ Can be used to develop ICF-based measurement instruments


ICF Research Branch22

Classification (Coding) versus Measurement



ICF Classification

- To **categorize** health related variables according to the biopsychosocial model.
- To **rate** and **describe** the amount of a problem using the ICF qualifiers.
- To create functioning profiles.



Measurement Instruments

- To **measure** aspects of health related variables.
- To measure change over time
- To compare individuals, health conditions or settings

ICF Research Branch

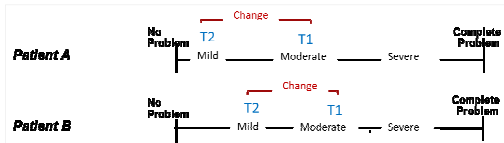
23

Classification (Coding) versus Measurement

The ICF qualifiers
 An **ordinal rating scale** – rank order of problems

Limitations

- ⇒ Comparing person A with person B is limited to indicating the range of severity level
- ⇒ When comparing improvement between person A and person B, cannot say that the extent of improvement is the same, since the interval between ordinal scale qualifiers may not be equal



⇒ Reliability may vary across settings and health conditions

Prodingr B, et al. The measurement of functioning using the ICF: comparing qualifier ratings with existing health status instruments. Disabil Rehabil. 2017. Early pub.

ICF Research Branch

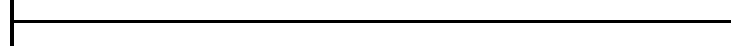
24

Classification (Coding) versus Measurement

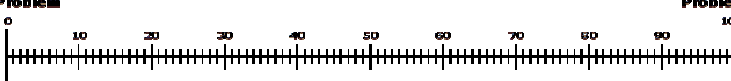
The extent of a problem in an ICF category can be assessed using alternative scales, e.g.:

- Visual analogue scales (0-100)
- Numeric rating scales (0-10)

No Problem | **Complete Problem**



No Problem | **Complete Problem**



No problem

0

1

2

3

4

5

6

7

8


9

10

Complete problem

ICF Research Branch 25

Classification (Coding) versus Measurement



Requirements of a measurement instrument

- Interval scale – equal intervals between thresholds
- Sound psychometric properties:
 - Reliability
 - Validity
 - Sensitivity to change

Raw scores of ordinal scales with good psychometric properties can be transformed into interval scales using Item Response Theory (e.g. Rasch Models)

The **ICF qualifier ordinal scale** ⇒ can be transformed to an **Interval Scale**

ICF Research Branch 26

Coding with the ICF



Take home message (for your workshop participants)

1. ICF Qualifiers are needed **to complete an ICF Code**
2. The ICF Qualifier denotes the **extent of a problem** in the respective component or category
For **environmental factors** ICF Qualifiers denote the existence of **facilitators**, followed by a "+" instead a "." after the ICF category
3. There are a **variety of additional component-specific qualifiers** that could be useful to code
4. To **measure** the extent of a problem, a psychometrically sound measurement instrument, based on a interval metric, is needed.
ICF Qualifiers can be replaced by alternative scales as VAS or NRS

Frequently Asked Questions in this Module

1. Can I use the ICF category without a qualifier?
2. How can capacity and performance be best differentiated?
3. Do we have to differentiate between capacity and performance?
4. When we only have one qualifier, should it be capacity or performance?
5. Do I have to use ICF qualifiers or another rating scale?
6. Can we score resources rather than only problems in the ICF categories?

Tips & Tricks on Training Methodology

- choose pictures that are appropriate for your audience and context
- If you are unfamiliar with the topic of measurement standards, it would be best to focus on the ICF qualifiers and get familiar with the basic concepts of scoring