

# Functional assessment based on ICF (International Classification of Functioning, Disability & Health)

Daffodil  Evora Summer School 5-11/9/2010

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## Session 9 Functional assessment based on ICF (International Classification of Functioning, Disability & Health)

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  Education and Culture DG

Jo Lebeer, Inge Van Trimpont, Adelinda A. Candeias, M.J. Saragoça

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 International Classification of Functioning, Disability and Health  
Children & Youth Version

## International Classification of Functioning, Disability & Health (ICF) of the World Health Organisation

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menu

1. Evolution in classification systems
2. Vision of disability: medical model: shortcomings
3. Social model; human rights paradigm
4. synthesis-model
5. ICF: underlying vision
6. ICF: chapters
7. ICF: coding
8. ICF: critical reflections

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# Functional assessment based on ICF (International Classification of Functioning, Disability & Health)

## Evolution in classification systems of disability parallel evolution in vision on disability

- 1948 UN Universal Declaration of Human Rights
- 1960 ILI (Independent Living International)
- 1993: UN Rules for Equal Opportunities
- 1993: Eur. Disability Forum
- 2006 UN Convention for the Rights of People with Disability
- 1893: classification of causes of death (Bertillon)
- 1948: classification of diseases ICD (etiology –pathology–manifestation of disease)
- 1980: ICIDH (Int. Class. Impairment, Disability & Handicap)
- 2001: ICF
- 2007: ICF-CY (for Children & Youngsters)

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## Medical model ??



- Disability as largely determined by a bodily defect




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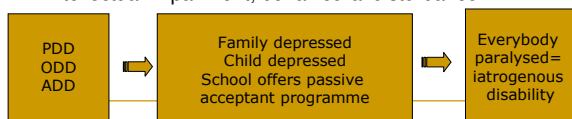
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## Medical model= deficiency model & individual model

DSM & ICD:  
Only give a deficiency  
Deficiency model leads to deficiency/correction-oriented intervention  
Disability situated within the individual  
Ex. Boy 9 years, hemiplegia, learning disability, intellectual impairment, behavioural disturbance




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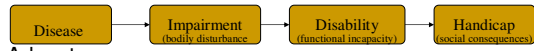
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# Functional assessment based on ICF (International Classification of Functioning, Disability & Health)

## Until 2000: ICIDH



### Advantage

- Conceptual model
- Innovative
- detailed
- Model of intervention
- First step towards an interdisciplinary concept of disability

### disadvantage

- Disability stays individual
- Reductionist vision on disability
- Causal linear model
- No evaluation of physical & social environment

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## Changing image of disability



- Disability varies with time
- And with context
- Child with Down syndrome, included in primary school, with IEP, classroom assistance & personal assistance; one year it went well, the other year it was a disaster; depended on the belief system + attitudes + approach by the teacher



To evaluate functioning & disability, one has to take account these factors

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## Citizenship model; civil rights



Canadian Down Syndrome Society:

- “Down syndrome is not a disease, not a defect, neither a medical condition, but a natural genetic variant”

CDSS. The CDSS Perspective – Redefining Down syndrome. The Canadian Down Syndrome Society Quarterly Newsletter 17(2004):1-3

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# Functional assessment based on ICF (International Classification of Functioning, Disability & Health)

## Where is the disability?



- Allison Lapper, phocomyely, pregnant, statue Trafalgar Square
- Severe impairment
- No restrictions in participation & activities

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## Facilitating external & personal factors



Engels, P. (2006), "It's a nice life." My Experiences with Inclusive Education, *Transylvanian Journal of Psychology - Erdélyi Pszichológiai Szemle*, in Lebeer, J. (Ed), Special issue on Inclusive & Cognitive Education, Vol. Supplement 2006, part.1, pp.25-30

- Individuals with the same genetic impairment display large differences in cognitive & social functioning
- This is no coincidence

Pablo Pineda, licenciado en psicopedagogía en la Universidad de Malaga (Prof. Lopez Mellero)

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## Level of functioning, activity & participation cannot be predicted on the basis of biological impairments alone



Ex. boy with Lesch-Nyhan Syndrome, Automutilation, aggression, impulsivity  
Serious intellectual impairment?

- La morte del passero (Ceballos)
- *Piangete, o Veneri e Cupidi, e quanto c'è di uomini più belli: il passero della mia ragazza è morto. Il passero, dolce della mia ragazza, che lei amava più dei suoi occhi. Era dolcissimo e la riconosceva proprio così bene come una ragazza la sua mamma, e non si muoveva dal suo grembo...*
- Dopo averla ascoltata con attenzione rispondi a queste domande:
  - Chi è morto? IL PASSERO
  - E chi è triste? L'AMATA
  - Perché è triste? PERCHE' VOLEVA TANTO BENE AL PASSERO
  - Che sensazione ti ha dato la poesia? UNA SENSAZIONE TRISTE. NON MI E' PIACIUTA.

HAZZUCHI-CARGIOLI P., *An (im)possible life. Stories of children whose life has been states "impossible"*. Vicenza: Associazione Malattie Rare Baschirotto, 2000

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# Functional assessment based on ICF (International Classification of Functioning, Disability & Health)

## ICF – International Classification of Functioning, Disability & Health

1. Explanatory model
2. Universal concept, not only for disability
3. Systemic, multidimensional model
4. No lineary causality
5. Social model of disability
6. Positive formulation of different dimensions
7. Hierarchical classification
8. External factors are also taken on board and classified
9. Personal factors are taken into account
10. Allows classification codes for universal communication

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## Goals of ICF

1. Offer a scientific basis to study health, outcome & determinants
2. Common language
3. Data-comparison
4. Common coding system for ICT applications relating to health

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## ICF use

1. Statistic tool – populationstudies
2. Research – outcome measures, QOL
3. clinical tool: evaluation of needs, technical aids, outcome
4. Policy-making instrument
5. education: curriculum adaptations, functional aids, social action (cf. Inge VT)

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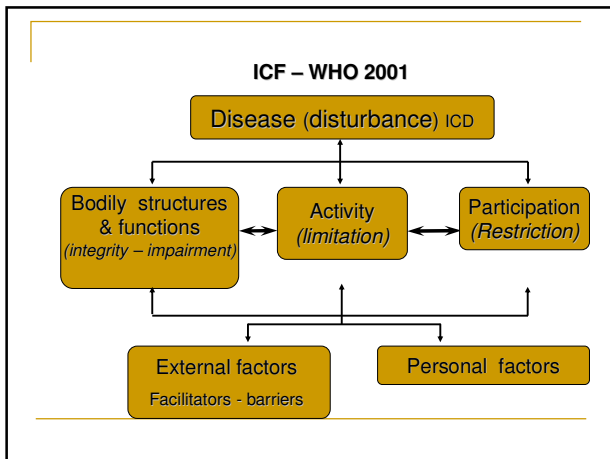
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# Functional assessment based on ICF (International Classification of Functioning, Disability & Health)




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- ## ICF-definitions
- **Body functions:** physiological functions of bodily systems (inclusive psychological functions)
  - **Body structures:** anatomical parts: organs, limbs & parts
  - **(Impairment):** anomaly or loss of functions or anatomical properties
  - **Activity:** execution of a task of action by an individual
  - **Participation:** participating in some aspect of social life
  - **Limitations:** difficulties someone has in executing activities
  - **External factors:** physical, social & attitudes- in which people live – 2 levels (individual & societal)
  - **Personal factors:** individual background, e.g. biographical circumstances, personality

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## Chapters of ICF:

### Functional & anatomical properties

|   |   |
|---|---|
| b1 Mental functions   | s1 Anatomical properties of the nervous system  |
| b2 sensory functions & pain   | s2 Anatomical properties of eye, ear & related structures                                     |
| b3 Voice & speech   | s3 Anatomical properties of structures involved in voice & speech                             |
| b4 Functions of cardiovascular, hematological, immunological & respiratory system | s4 Anatomical properties of cardiovascular, hematological, immunological & respiratory system |

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# Functional assessment based on ICF (International Classification of Functioning, Disability & Health)

Chapters of ICF:  
Functional & anatomical properties

|  |  |
|--|--|
| b5 Functions of digestive, metabolic & hormonal system | s5 Anatomical properties of digestive, metabolic & hormonal system |
| b6 Functions of urogenital & reproductive system       | s6 Anatomical properties of urogenital system                      |
| b7 Functions of locomotor system                       | s7 Anatomical properties of structures related to locomotion       |
| b8 Functions of skin & related structures              | s8 Anatomical properties of skin & related structures              |

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Chapter: Activities & Participation

|                                  |
|----------------------------------|
| d1 learning & applying knowledge |
| d2 general tasks & requirements  |
| d3 Communication                 |
| d4 Mobility                      |
| d5 Self-care                     |
| d6 Household                     |
| d7 human relationships           |
| d8 important life areas          |
| d9 Society, social & civil life  |

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Chapter: External Factors

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| 1 Products & technology                    |
| 2 natural environment & human-made changes |
| 3 Support & relations                      |
| 4 Attitudes                                |
| 5 Services, systems & policies             |

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### Classification on 2<sup>nd</sup> & 3<sup>rd</sup> level

- Chapters = 1st level classification
- Every chapter is elaborated on 1nd level
- Detailed classification of functions
  - definitions, typology, in- & exclusion criteria, b-codes
- Detailed classification of anatomical properties
  - definitions, typology, in- & exclusion criteria, s-codes
- Detailed classification of Activities & participation
  - definitions, typology,, d-codes (+ a- & p-codes)
- Detailed classification of External factors
  - definitions, typology, e-codes

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### Personal factors

- No classification
- Politically delicate
  
- Studies are on their way
- Possibly in next version

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### Characteristics of ICF: qualification codes

- All componenten of the ICF have 1 of more qualification types: numbers after decimal point.
  
- In all componenten the *1<sup>st</sup> typing*, i.e. the first number after the decimal point, indicates the severity of the problem (activities & participation 1<sup>st</sup> & 2<sup>nd</sup>).

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### Typology of severity

|                    |           |
|--------------------|-----------|
| 0 no problem       | 0 - 4%    |
| 1 light problem    | 5 – 24%   |
| 2 moderate problem | 25 – 49%  |
| 3 severe problem   | 50 – 95%  |
| 4 complete problem | 96 – 100% |
| 8 Not specified    |           |
| 9 Not applicable   |           |

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### Criticisms on ICF

- P. Fougeryollas (Univ. Laval, Québec): Il n'y a pas de "personnes handicapées; il y a seulement des personnes en situation d'handicap"
- ICF: no dimension of modifiability
- Qualifications have not been standardized
- Time needed for making the file
- Time needed for training

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### referenties



- <http://www.who.int/classifications/icf/en/>
- <http://apps.who.int/classifications/icfbrowser/>

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Functional assessment based on ICF  
(International Classification of Functioning,  
Disability & Health)

Who has the disability?



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