

# ICF concepts and their applications in real life

## to valorise to valo-raise

### THE HIDDEN TREASURE OF PROJECTS ON DISABILITIES

Barriers and Facilitating factors for an effective  
valorisation of EU initiatives in the field of disability

**BRUXELLES NOVEMBER 4<sup>TH</sup> 2009**

Regione Umbria Office  
Rond Point Schuman, 14  
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ENEVA PROJECT  
ENhance Efficacy through VALorisation  
LIFELONG LEARNING PROGRAMME 2007  
2013 KA4 Multilateral Project

Mauro Zampolini

Disability Italian Network

# Health as a global notion

health = absence of disease

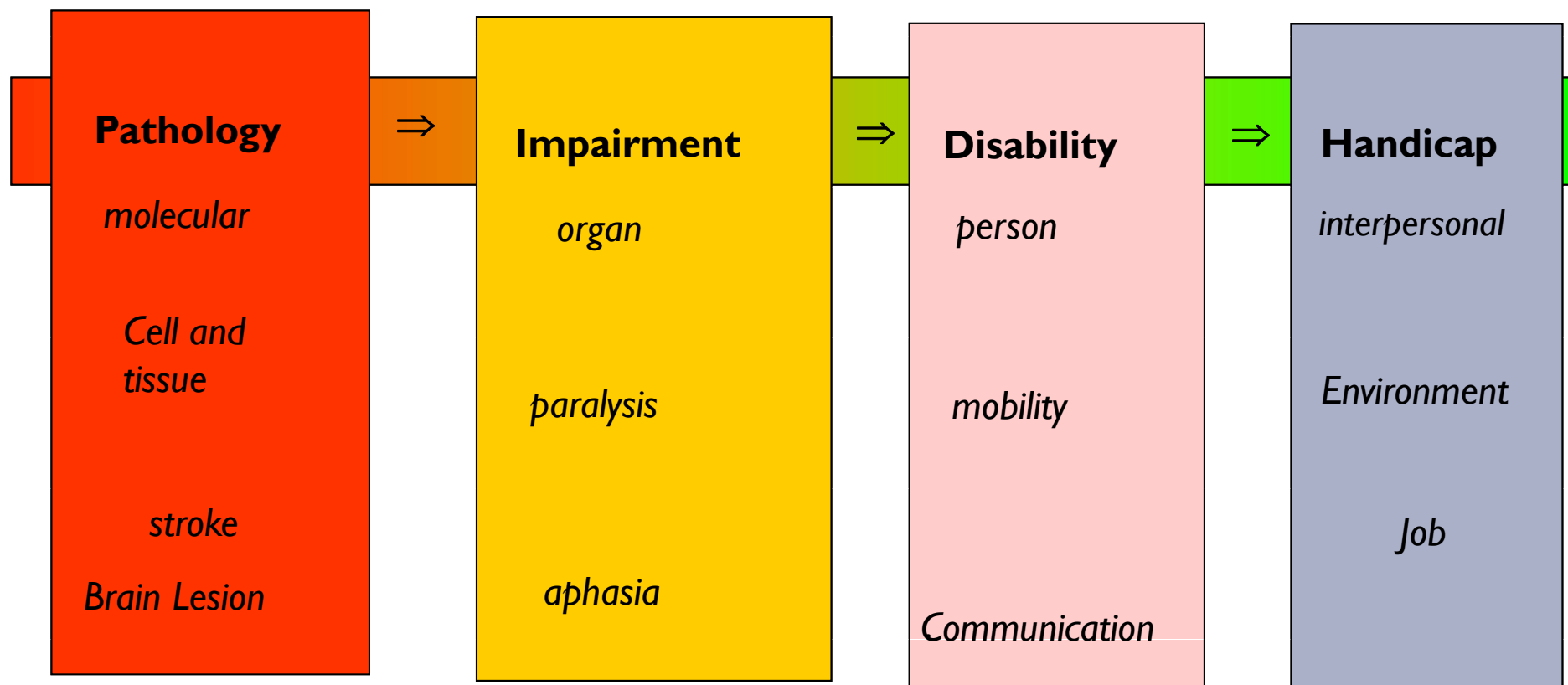


health = absence of disease **and** complete physical, psychological, and social well being

WHO, 1947



# International Classification of Impairment, Disability and handicap (ICIDH)



WHO 1980

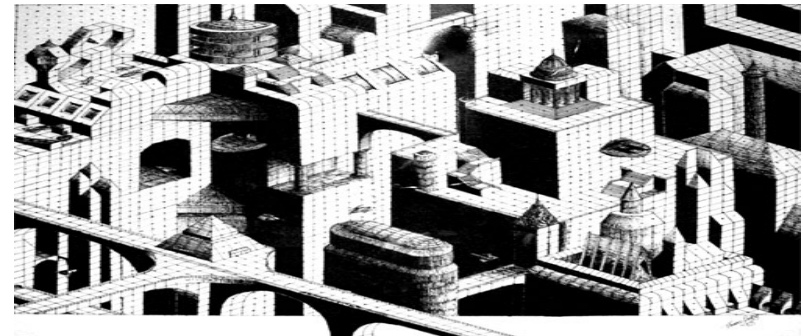
# Disability: Where is it?



*Inside the person?*



▶ *In the environment?*



# Disability: Where is it?

▶ *Person in an environment?*



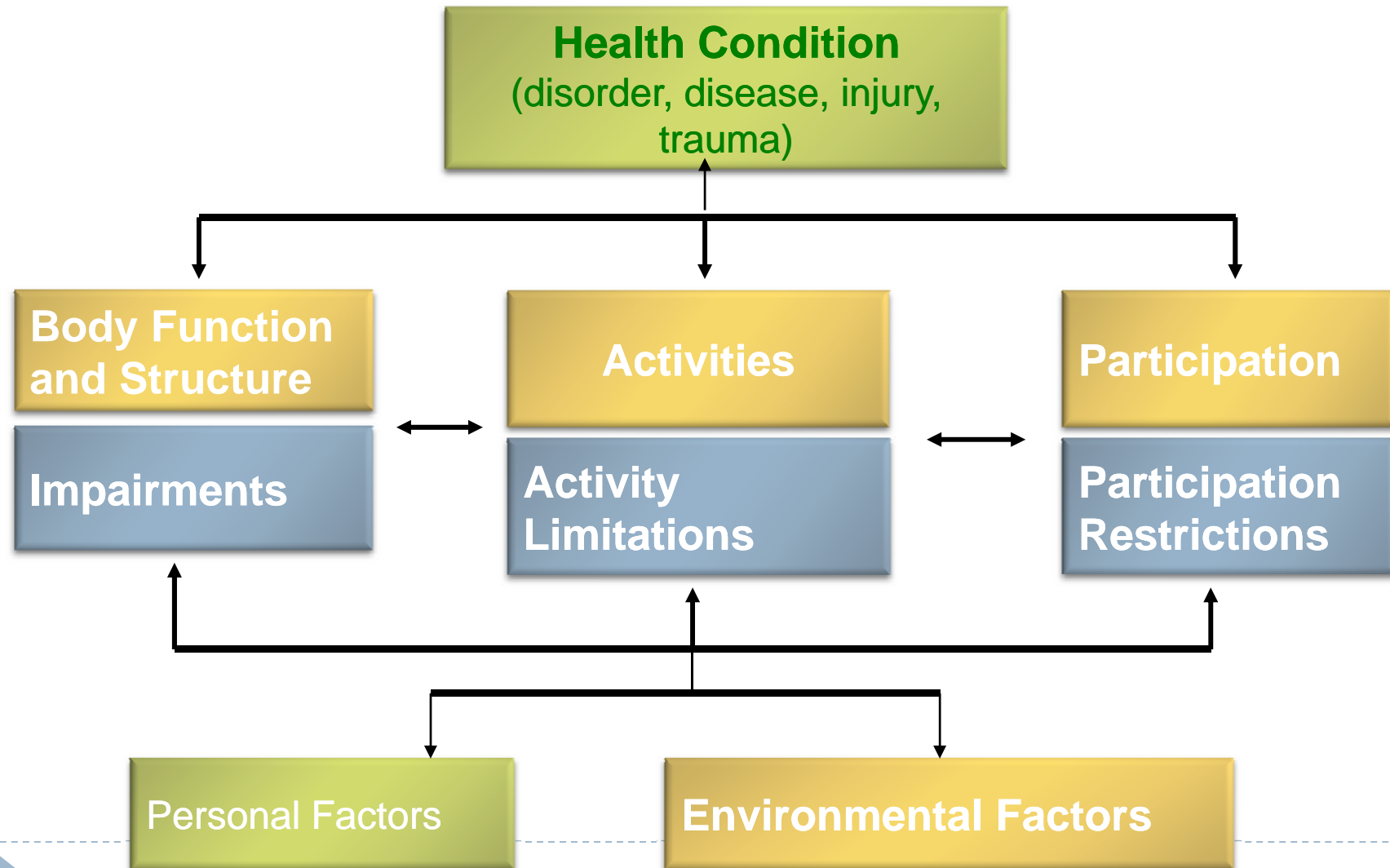
**ICIDH → ICF**

***Principles of the Revision***

- ▶ **UNIVERSALISM**
- ▶ **ENVIRONMENT**
- ▶ **NEUTRAL LANGUAGE**
- ▶ **PARITY**
- ▶ **BIOPSYCHOLOGICAL MODEL**



# ICF's Biopsychosocial Model



# ICIDH → ICF: consensus

- Functioning → not *only disability*
  - Universal model → not *minoritario model*
  - Integrated model → not *only medical or social*
  - Interactive model → not *linear*
  - Inclusive model → not *only the person*
  - Transcultural model → not *“western”*
  - Life span coverage → not *adult alone*
- 



## ICF is a Classification

- ▶ ICF is not an measurement, assessment or evaluation tool...
- ▶ ...it classifies health and health-related states.



# Why an International Classification of Functioning?

Transition in health epidemiology: from **acute** to **chronic diseases**.

Change in public health focus: from **pathology** to **the consequences** of pathology.

Need for a “**common language**” to describe functioning for interdisciplinary and international use.

**Answering the needs** of persons with disability and defining areas and parameters of disability to streamline interventions.



# Why an International Classification of Functioning?

- ▶ **Diagnostic information alone can not predict...**
  - ✓ **Service utilization**
  - ✓ **Level of assistance required**
  - ✓ **Receipt of disability subsidies**
  - ✓ **Labour capacity**
  - ✓ **Social integration**



# Why an International Classification of Functioning?

- ▶ **Diagnosis and Functional Status CAN predict:**
  - ✓ **Utilization of health services**
  - ✓ **Planning and development of training and educational courses**
  - ✓ **Return to work potential**
  - ✓ **Labour capacity**
  - ✓ **Recovery of social integration**



# WHO Family of International Classifications

## RELATED Classifications

*International Classification of Primary Care (ICPC)*

*International Classification of External Causes of Injury (ICECI)*

*The Anatomical, Therapeutic, Chemical (ATC) classification system with Defined Daily Doses (DDD)*

*ISO 9999 Technical aids for persons with disabilities – Classification and Terminology*

## REFERENCE Classifications

**I**nternational  
**C**lassification of  
**D**iseases

**I**nternational  
**C**lassification of  
**F**unctioning,  
**D**isability & Health

**I**nternational  
**C**lassification of  
**H**ealth  
**I**nterventions  
*(under development)*

## DERIVED Classifications

International Classification of Diseases for **Oncology**, Third Edition (ICD-O-3)

The ICD-10 Classification of **Mental and Behavioural Disorders**

Application of the International Classification of Diseases to **Dentistry** and Stomatology, Third Edition (ICD-DA)

Application of the International Classification of Diseases to **Neurology** (ICD-10-NA)

ICF, **Children & Youth Version** (ICF-CY)

# ICF and ICD – Overlap?

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## ▶ Impairments

### ▶ ICD

▶ *Set of signs and symptoms that defines a disease*

### ▶ ICF

▶ *Problems with body functions or structures, related to health conditions*




*Complementary information*

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# ICF and ICD – *TOGETHER*

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▶ **ICD** 

Mortality data and Morbidity data

▶ **ICF** 

Functioning and disability data

▶ **ICD + ICF**



▶ **Health and health-related data**

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## **ICF tool box:**

- ▶ **ICF: full version**
- ▶ **ICF checklist**
- ▶ **WHO-DAS II**
- ▶ **Core Sets**



# ICF

International  
Classification of  
Functioning,  
Disability  
and  
Health



World Health  
Organization  
Geneva

# ICF

International  
Classification of  
Functioning,  
Disability  
and  
Health

Short version



World Health Organization  
Geneva

# ICF

International  
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and  
Health

Short version



World Health Organization  
Geneva

# ICF

**Main volume with  
glossary:**

- ✓ Full version
- ✓ Short version
- ✓ CD-ROM

# ICF Checklist

## Part 1 b: IMPAIRMENTS with BODY STRUCTURES

- *Body structures are anatomical parts of the body such as organs, limbs and their components.*
- *Impairments are problems in body function or structure as significant deviation or loss.*

| <i>First Qualifier:<br/>Extent of impairment</i> | <i>Second Qualifier:<br/>Location</i> |
|--|---------------------------------------|
| 0 No impairment                                  | 0 More than one region                |
| 1 Mild impairment                                | 1 right                               |
| 2 Moderate impairment                            | 2 left                                |
| 3 Severe impairment                              | 3 both sides                          |
| 4 Complete impairment                            | 4 front                               |
| 8 Not specified                                  | 5 back                                |
| 9 Not applicable                                 | 6 proximal                            |
|  | 7 distal                              |

| <i>Short List of Body Structures</i>   | <i>First Qualifier<br/>extent of impairment</i> | <i>Second Qualifier<br/>location</i> |
|--|---|--------------------------------------|
| <b>s1. STRUCTURE OF THE NERVOUS SYSTEM</b>   |   |                                      |
| s110 Brain   |   |                                      |
| s120 Spinal cord and peripheral nerves   |   |                                      |
| <b>s2. THE EYE, EAR AND RELATED STRUCTURES</b>                                     |   |                                      |
| <b>s3. STRUCTURES INVOLVED IN VOICE AND SPEECH</b>                                 |   |                                      |
| <b>s4. STRUCTURE OF THE CARDIOVASCULAR, IMMUNOLOGICAL, AND RESPIRATORY SYSTEMS</b> |   |                                      |
| s410 Cardiovascular system   |   |                                      |
| s430 Respiratory system  |   |                                      |
| <b>s5. STRUCTURES RELATED TO THE DIGESTIVE, METABOLISM AND ENDOCRINE SYSTEMS</b>   |   |                                      |
| <b>s6. STRUCTURE RELATED TO GENITOURINARY SYSTEM</b>                               |   |                                      |
| s610 Urinary system  |   |                                      |
| s630 Reproductive system   |   |                                      |
| <b>s7. STRUCTURE RELATED TO MOVEMENT</b>   |   |                                      |
| s710 Hand and neck region  |   |                                      |
| s720 Shoulder region   |   |                                      |
| s730 Upper extremity (arm, hand)   |   |                                      |
| s740 Pelvis  |   |                                      |
| s750 Lower extremity (leg, foot)   |   |                                      |
| s760 Trunk   |   |                                      |
| <b>s8. SKIN AND RELATED STRUCTURES</b>   |   |                                      |
| <b>ANY OTHER BODY STRUCTURES</b>   |   |                                      |
|  |   |                                      |
|  |   |                                      |

*One page for each component*

**Selected categories:**

Body Function

Body Structures

Activities & Participation

Environmental Factors

**Other contextual information**



**WORLD HEALTH ORGANIZATION  
DISABILITY ASSESSMENT SCHEDULE  
WHO-DAS II**

Field Trials Fase 2 - Ricerca Servizi Sanitari  
Versione 36 Item somministrata dall'intervistatore, codici giorni  
Febbraio 2000

# WHO-DAS II

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Assessment tool,  
validated on the adult  
population, using ICF  
domains

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# ICF CORE SETS for chronic conditions

## ▶ **Musculoskeletal**

Rheumatoid Arthritis

Osteoarthritis

Osteoporosis

Back Pain

## **Internal medicine**

Coronary heart disease

COPD/Asthma

Diabetes

Breast cancer

## **Neurology and mental problems**


Stroke

Depression

Chronic pain

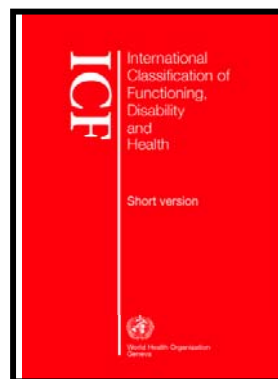
Obesity

# ICF Tool Kit



**WORLD HEALTH ORGANIZATION**  
**DISABILITY ASSESSMENT SCHEDULE**  
**WHO-DAS II**

Field Trials Fase 2 - Ricerca Servizi Sanitari  
 Versione 36 Item somministrata dall'intervistatore, codici giorni  
 Febbraio 2000



**Part 1b: IMPAIRMENTS with BODY STRUCTURES**

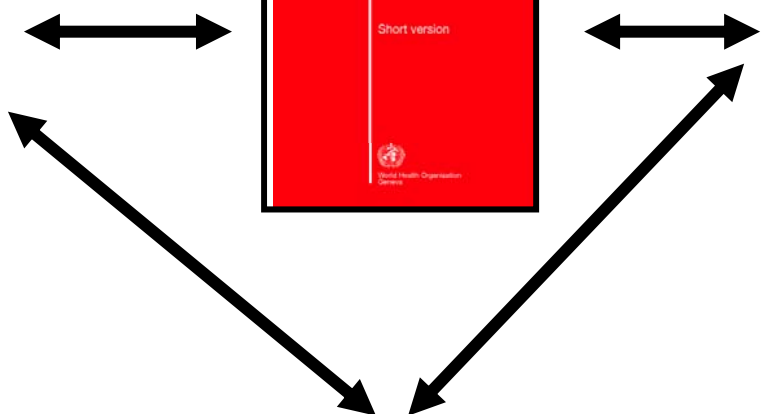
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- Impairments are problems in body function or structure as significant deviation or loss.

| First Qualifier       | Second Qualifier       |
|-----------------------|------------------------|
| Extent of impairment  | Location               |
| 1 Not applicable      | 9 More than one system |
| 2 Mild impairment     | 1 Right                |
| 3 Moderate impairment | 2 Left                 |
| 4 Severe impairment   | 3 Both sides           |
| 5 Complete impairment | 4 Front                |
| 6 Not specified       | 5 Back                 |
| 9 Not applicable      | 6 proximal             |
|                       | 7 distal               |

| Short List of Body Structures   | First Qualifier<br>extent of impairment | Second Qualifier<br>location |
|---|---|------------------------------|
| 01 STRUCTURE OF THE NERVOUS SYSTEM  |   |                              |
| 0101 Brain  |   |                              |
| 0102 Spinal cord and peripheral nerves                                    |   |                              |
| 02 THE EYE AND RELATED STRUCTURES   |   |                              |
| 03 STRUCTURES INVOLVED IN HEARING AND SPEECH                              |   |                              |
| 04 STRUCTURE OF THE CARDIOVASCULAR, IMMUNOLOGICAL AND RESPIRATORY SYSTEMS |   |                              |
| 0401 Circulatory system   |   |                              |
| 0402 Respiratory system   |   |                              |
| 05 STRUCTURE RELATED TO THE DIGESTIVE, METABOLISM AND ENDOCRINE SYSTEMS   |   |                              |
| 06 STRUCTURE RELATED TO GENITOURINARY SYSTEM                              |   |                              |
| 0601 Reproductive system  |   |                              |
| 07 STRUCTURE RELATED TO MOVEMENT  |   |                              |
| 0701 Muscles  |   |                              |
| 0702 Connective tissue, ligaments   |   |                              |
| 0703 Joints   |   |                              |
| 0704 Bones  |   |                              |
| 0705 Cartilage  |   |                              |
| 0706 Tendons  |   |                              |
| 08 SKIN AND RELATED STRUCTURES  |   |                              |
| 09 OTHER BODY STRUCTURES  |   |                              |

ICHD-2 Checklist © World Health Organization, 1989. Page 3

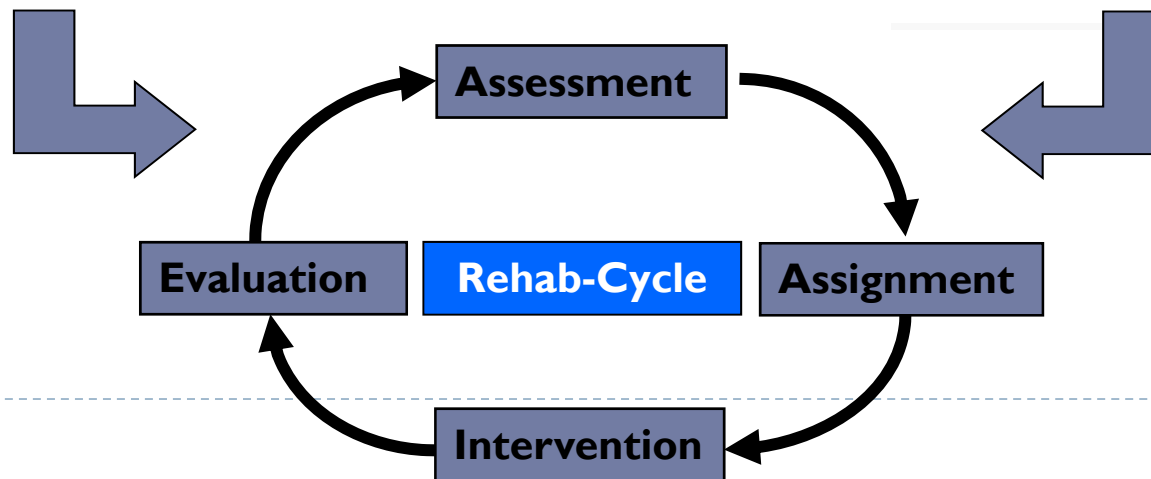
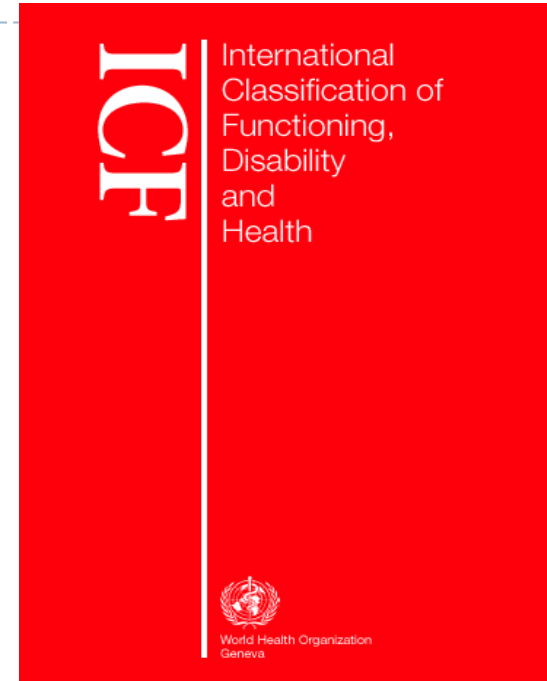
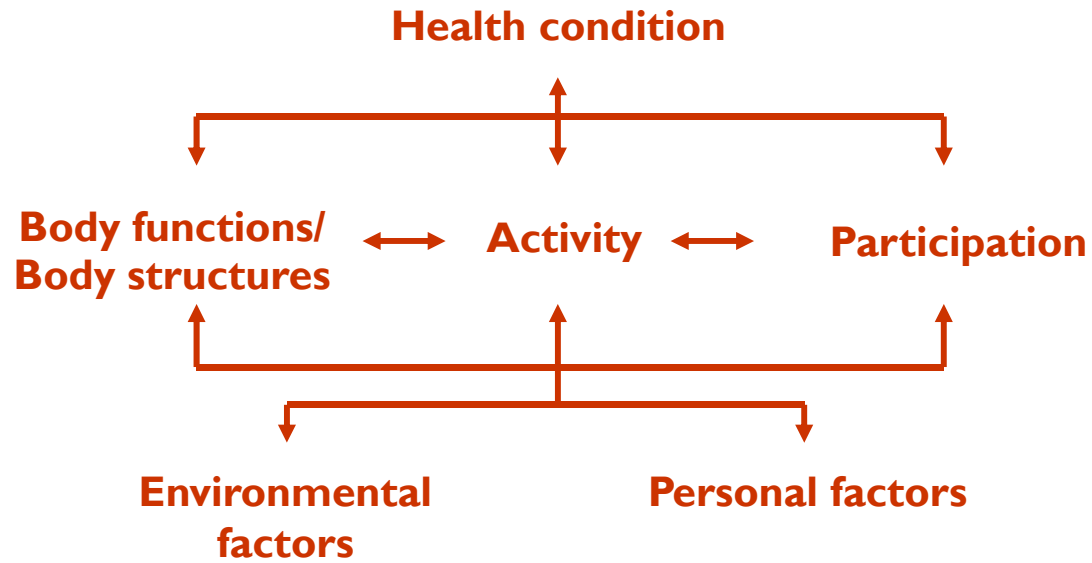


**Musculoskeletal** Internal medicine  
 Rheumatoid Arthritis    Coronary heart disease  
 Osteoarthritis    COPD/Asthma  
 Osteoporosis    Diabetes  
 Back Pain    Breast cancer

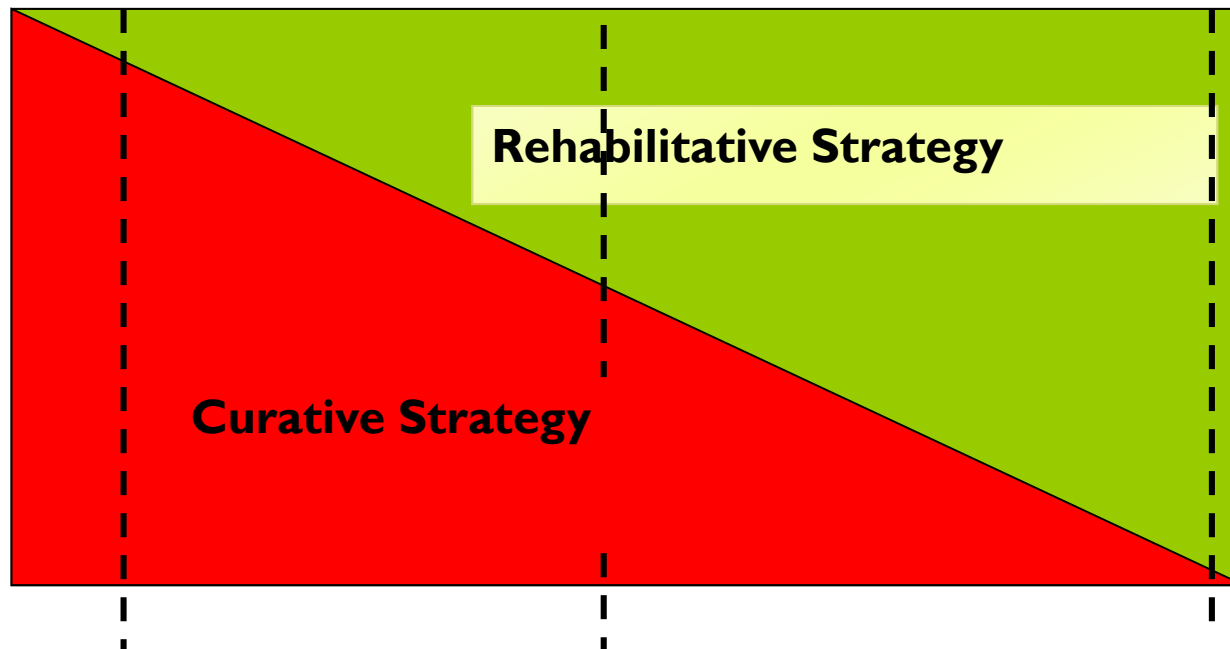
**Neurology and mental problems**

**CORE SETS**

# Applying the ICF in Rehabilitation management



# Specific ICF Core Sets for the Health and Rehabilitation Services Continuum



## Acute context

Acute curative care

Acute rehabilitation

## Post-acute context

Subacute supportive care

Postacute rehabilitation

## Long-term context

Primary care

Community based Rehabilitation  
Lifetime support



# ICF AIMS

- Provide a scientific and research basis for understanding health and health-related states, outcomes, and determinants;
- Establish a common language to improve communication between disciplines and sectors;
- Stimulate the development of services to increase levels of social participation among people with disabilities;

# ICF AIMS

- **Enable data comparison between different countries and health care systems and services;**
- **Provide a systematic coding scheme for health care information systems;**
- **Collect data concerning facilitators and barriers that effect levels of participation in all areas of social life.**

# ICF APPLICATIONS

## ▶ ***Clinical:***

- ✓ **Patient needs assessment**
- ✓ **Treatment outcome assessment**
- ✓ **Clinical intervention decision-making**
- ✓ **Rehabilitation outcome evaluation**

# ICF APPLICATIONS

## ▶ **Statistical:**

- ✓ **Survey and questionnaire development**
- ✓ **Data collection and comparability**
- ✓ **Data analysis and evaluation**
- ✓ **Population studies**
- ✓ **Electronic information management**

# ICF APPLICATIONS

## ▶ **Health system management:**

- ✓ **Intervention quality control**
- ✓ **Matching treatment to health condition**
- ✓ **Measuring treatment effectiveness**
- ✓ **Costing treatments**
- ✓ **Resource management and allocation**

# ICF APPLICATIONS

## ▶ **Social Policy:**

- ✓ **Social security planning**
- ✓ **Employment planning**
- ✓ **Compensation system evaluation**
- ✓ **Policy design in health-related and non-health policy areas**
- ✓ **Policy implement and outcome evaluation**

# ICF APPLICATIONS

## ▶ **Research:**

- ✓ **Population health and epidemiology**
- ✓ **Health determinants research**
- ✓ **Health system performance research**
- ✓ **Disability policy outcome research**
- ✓ **Environmental factors research**



# CHALLENGES...

- ▶ **Structure and “field use” are not easy**

*Training is needed; costs of application and introduction into data systems are unknown*

- ▶ **2. Classification is not a “pass-partout”**

*Purely descriptive tool, neither diagnostic, assessment, or evaluative tool*

- ▶ **3. ICF not easily applicable to children**

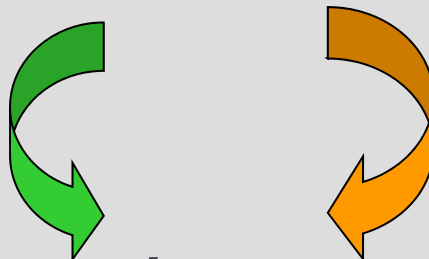
# CHALLENGES...

- ▶ *Political danger?*

- ▶ Does the ICF

- ▶ **biopsychosocial model** lead to

- ▶ ***DIFFUSION OF RESPONSIBILITY***



- ▶ ***“Change environment – no need for rehabilitation”***

- ▶ ***“Provide medical care – environment cannot be adapted”***

# THE POLITICAL CHALLENGE

**COMMITMENT** to inter-sectorial social responsibility

**COMMITMENT** to optimizing participation of persons with disabilities

**COMMITMENT** to resources to seek ways of improving independence and increasing effective choice

**COMMITMENT** to improvement of the conditions of life for person's with disabilities

**COMMITMENT** to effective response to discrimination and stigma

# ICF's future projects

- **National databases development**
- **Creation of an international service for data comparison**
- **Algorithm for benefits eligibility**
- **Personal factors development**
- **Assessment instrument development**
- **Links between ICF and Quality of Life and Subjective Wellness**



A scenic view of a waterfall cascading into a stream in a lush forest. The waterfall is on the left, with water flowing over a dark, rocky ledge. The stream flows towards the right, surrounded by large, mature trees with dense green foliage. In the background, a wooden walkway and a bench are visible, with a few people sitting on the bench. The overall atmosphere is peaceful and natural.

Thank you