



# **Towards a common understanding of the health sciences based on WHO's ICF**

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# Health Sciences

- Defining the field of study of “health”
- Defining “sciences”

# Field of Study - Health

- Is it futile to **define** health?
  - Jadad AR, O'Grady L. How should health be defined? BMJ 2008; 337: a2900.
- What we need is not a definition but an **operationalization** suitable for the scientific study of health

# Normative Definition of Health

## Aspiration

- Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Preamble to the Constitution of the World Health Organization April 1948.  
The Definition has not been amended since 1948.

# Operationalization of Health Purpose

**Describing, understanding, influencing health**

## **1. Conceptualization**

- NOT a theory, NOT true or false

## **2. Classification**

- Domains
  - universal, etiologically neutral
  - mutually exclusive and cumulative exhaustive

# WHO's Operationalizations

- Traditional focus
  - **compression of morbidity**
    - “absence of disease or infirmity”
  
- New focus
  - **optimal functioning**
    - “complete physical, mental and social well-being”



# **Is the ICF a suitable Operationalization of Health?**

## **Jerome Bickenbach's claim**

The ICF is the best model for operationalizing the complete domain of the lived experience of health by an individual, and by extension a population, understood in terms of the outcome of an interaction between biological health status and the environment, and personal resources.

# Rethinking the Health Strategies in light of the ICF

Strategy	Health Goal	Indicator	Classification
Preventive	Disease prevention	<b>Morbidity</b>	<b>ICD</b>
Promotive	Opt. biological health	<b>ICF-Capacity</b>	<b>ICF</b>
Curative	Disease control	<b>Mortality</b>	<b>ICD</b>
		<b>ICF Capacity &amp; Performance</b>	<b>ICF</b>
Rehabilitative	Optimal functioning	<b>ICF Capacity &amp; Performance</b>	<b>ICF</b>
Supportive	Optimal lived health	<b>ICF Performance</b>	<b>ICF</b>
Palliative	Well-being	Quality of Life	?

**Optimal Functioning**

**The health goal of the 21<sup>st</sup> century**



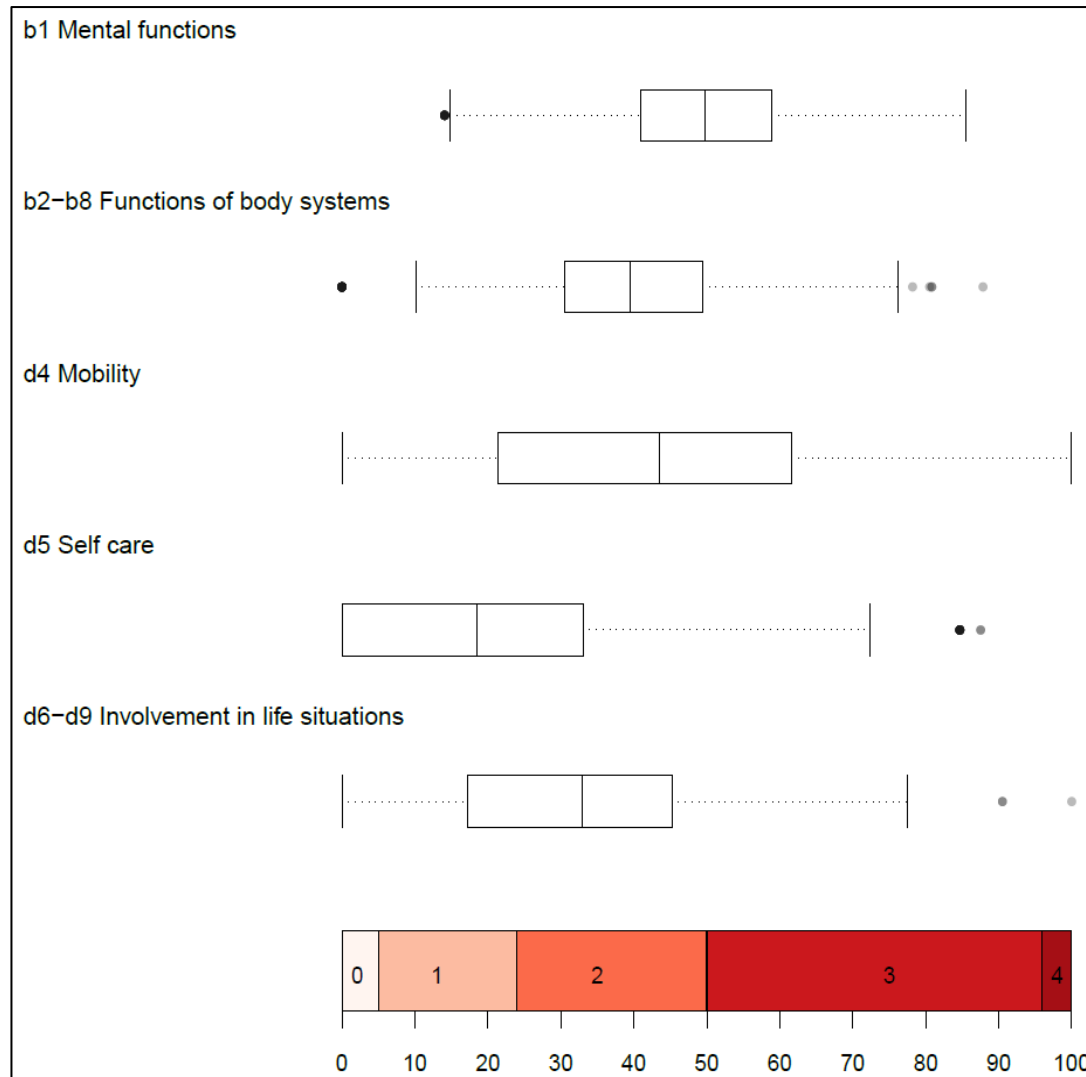
# Is the ICF a suitable Operationalization of Health?

## Practical Requirements

- A **conceptual framework** that specifies relevant dimensions of health;
- A **classification** of the mutually exclusive and cumulatively exhaustive entities representing the ontological domain of health
- Availability of suitable **data collection tools**
- **Common metrics** for the standardized description and comparative analysis of data collected by the wide range of currently used data collection tools

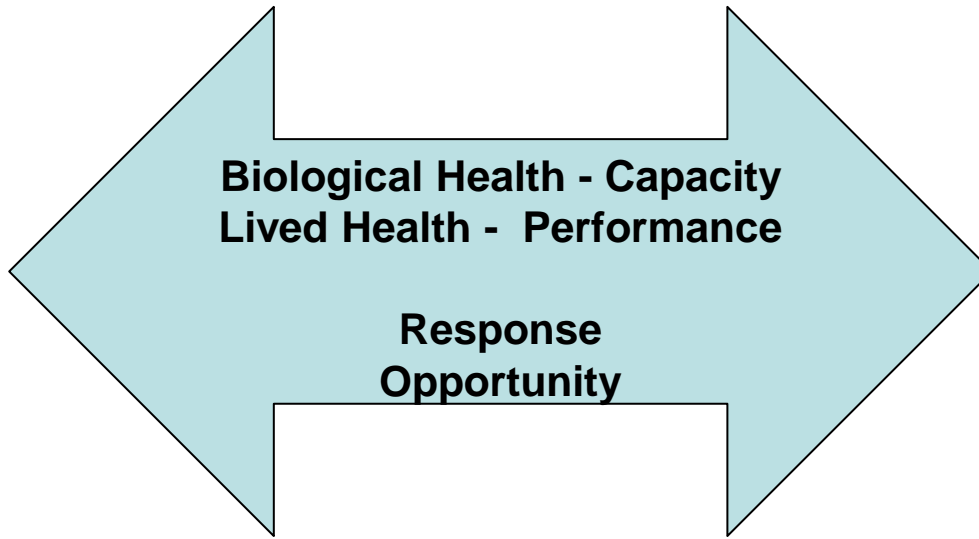
# Functioning profile of the SwiSCI study population

0=no problem; 1=mild problem; 2=moderate problem; 3=severe problem; 4=complete problem

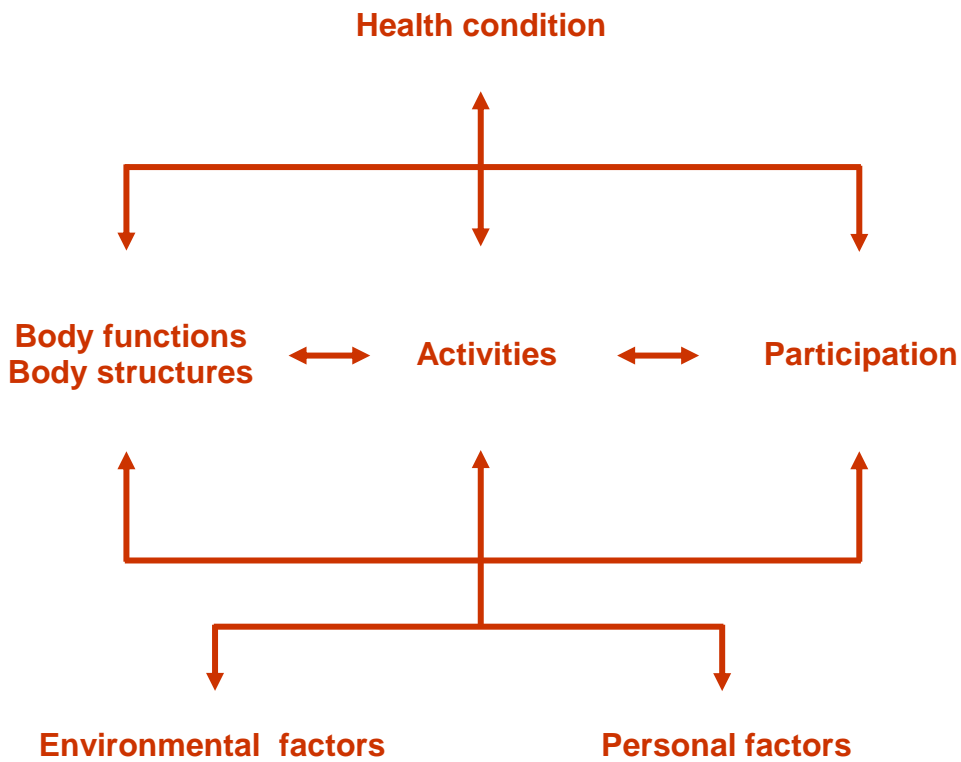


# Field of Study based on the ICF

**Person  
Health**



**Society  
Health System  
Related Systems**



**Macro**

Policies and  
Programs

Leadership/  
Governance

**Meso**

Service  
Provision and  
Payment

Financing  
Service  
Delivery

**Micro**

Products and  
Procedures  
applied in  
Professional-  
Person  
Interaction

Essential  
Interventions

**“The health sciences are a scientific field that studies**

**(I) the individual’s functioning in terms of health and lived health in interaction with the environment, in light of health conditions and given a person’s psychological resources, and**

**(II) the response by society to individual and population health needs through its health system and related social systems including labor, social affairs and education.”**

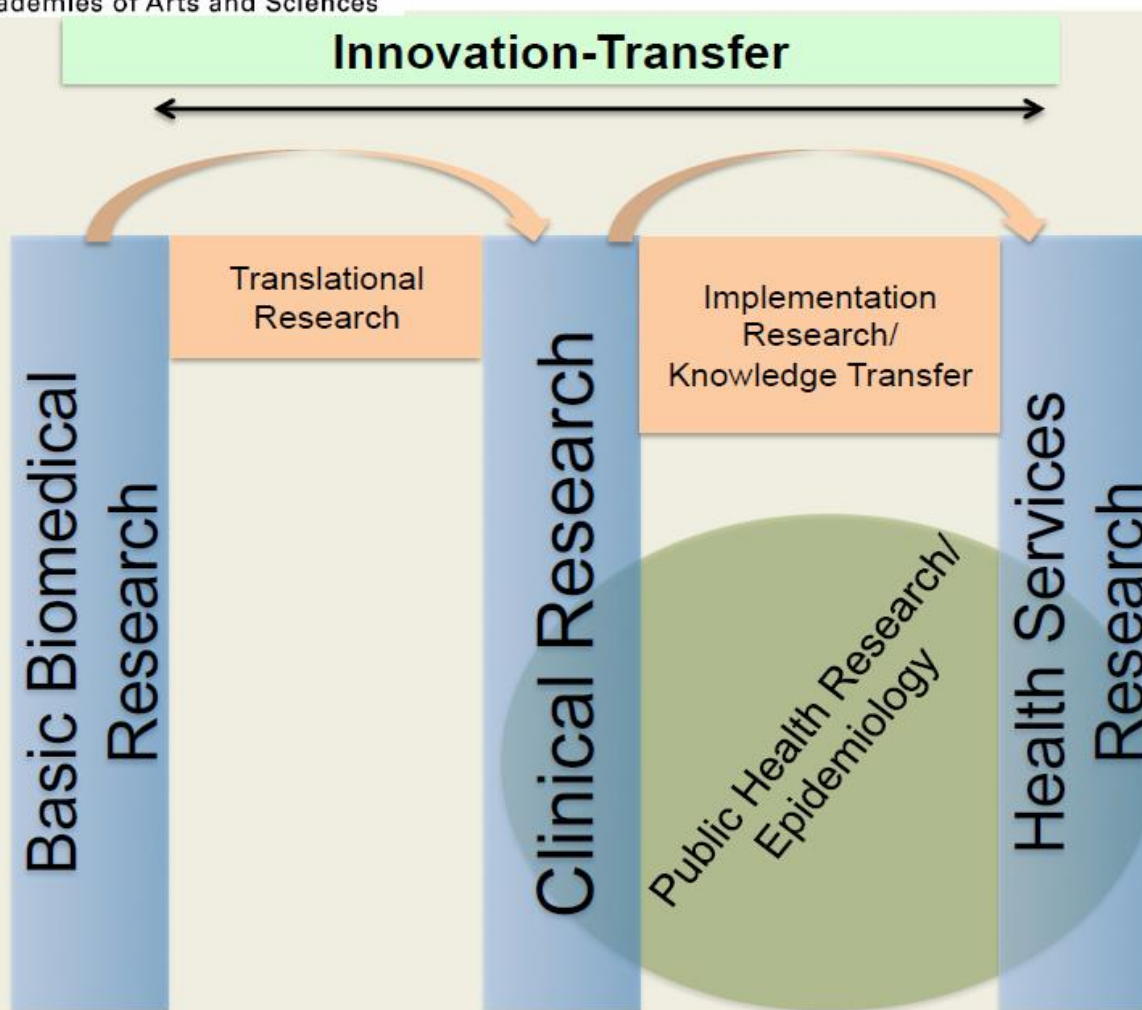
**Stucki G, Rubinelli S, Reinhardt J, Bickenbach J.  
Das Gesundheitswesen. 2016 (In press)**

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# 2 Organizing Principles

- **Scientific disciplines**
- **Shared methodological approaches**





# **3 Scientific Meta-Perspectives**

to categorize relevant disciplines contributing to  
the field of health research

- **Biological**  
e.g. Life Science, Pharmaceutical Sciences
- **Clinical**  
e.g. Physical Therapy, Speech therapy
- **Socio-humanistic**  
e.g. Economy, Political Sciences, Sociology

# 4 Methodological Approaches

- Critical thinking
- Research design
- Qualitative methods
- Quantitative methods

**“The health sciences are a scientific field that studies**

- (I) **the individual’s functioning** in terms of health and lived health in interaction with the environment, in light of health conditions and given a person’s psychological resources, and
- (II) **the response by society** to individual and population health needs through its health system and related social systems including labor, social affairs and education.

This is accomplished by

relying on and integrating mutually recognizable **scientific disciplines rooted in the biological, clinical and socio-humanistic meta-perspectives** and

applying a **shared set of methodological approaches**, specifically, critical thinking, research design, qualitative and quantitative methods.”

# Universität Luzern

## Der Mensch in der Gesellschaft

### Mensch

*Gesundheit, Funktionsfähigkeit, Well-being*

### Gesellschaft

*Gesundheitssystem, Sozialsystem,  
Bildungssystem*



# Master in Health Sciences



- **A common understanding of the health sciences based on the ICF can facilitate collaborative communication.**
- **It can help overcome both disciplinary and cultural barriers created by the increasing fragmentation of health research.**

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