WHO – Japan Forum 2018 – Opening the door to significant use of ICD-11 and ICF,
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ICF Lecture

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World Health Organization

Overview

- **Where do we come from?**
  - History (genesis) of ICF and disability/functioning
- **Where are we?**
  - Current status and use of ICF
- **Where are we going?**
  - Outlook on further development and use of ICD-11

Evolution of the disability category

The disabled include "the sick, insane, defectives, aged and infirm"
English Poor Law 1834, 1601, 1388

A disabled person is someone who "because of his physical or mental condition is neither in a position to perform regularly his previous work nor to earn the minimum invalidity pension through other work corresponding to his strengths and capabilities and existing job opportunities".
German Invalidity and Pension Law 1889

Medical determination of disability by applying the clinical concept of impairment
20th century

Evolution of the disability category

"Disability refers to the physical or organic handicap of a person due to natural deformity or deficient functioning of any limb resulting from accident, disease, etc. It includes blind, deaf and dumb, crippled, mentally retarded and insane."

Disability definition used in 1981 census

"In the context of health.
Disability is an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors)."

(ICF 2001)

Evolution of the health category

19th Century and before

Health = absence of death & disease
Classification of Causes of Death (ICD)

20th Century

*WHO Constitutional Definition: "a state of **complete** mental and social well-being **not merely the absence of disease** or infirmity."*

BUT operationalisation focused on

- *Mortality & morbidity (ICD)*
- *Consequences of disease (ICIDH 1980)*

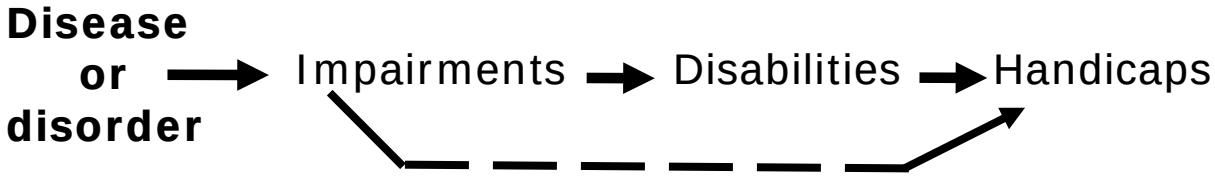
21ST Century

Health operationalised with ICF
ICF classifies health and health related domains

International Classification of Impairments, Disabilities, and Handicaps (ICIDH)

Philip Wood

- Conceptual model of disablement in the ICIDH disentangled disability from disease



- Published by WHO in 1980 for field testing

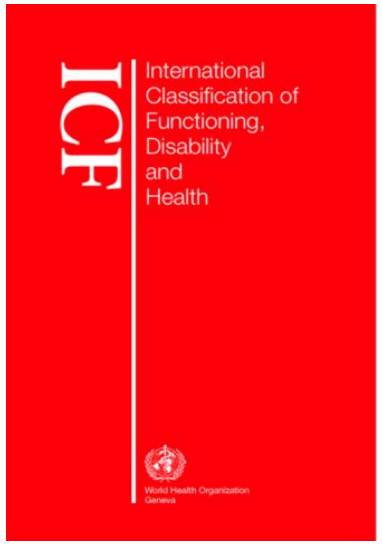
Historical significance of ICF
Conversion point for Health and Disability

- Health and Disability categories have different origins and have taken different evolutionary lines.
- ICF has brought the two lines in consilience.
- Non-fatal Health Outcomes = DISABILITY = Health State less than Perfect Health

Development of the International Classification of Functioning, Disability and Health (ICF)

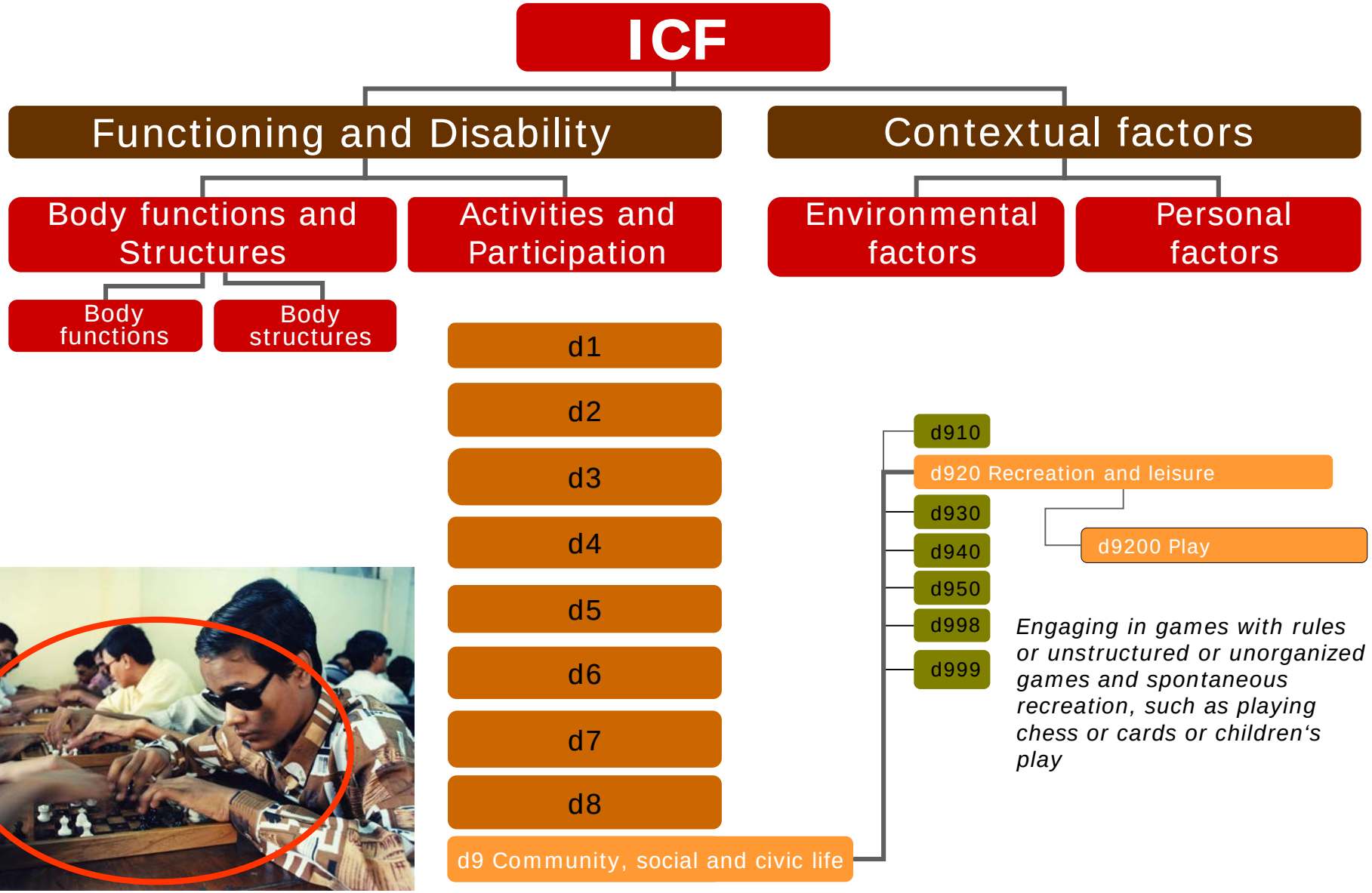
- Pre-Alpha Draft Development 1990-1995
  - Needs and scoping assessment (update vs. revision)
  - Setting up governance structure (WHO CC NCHS, Canada, France, Nordic Centre, Dutch; DPI, Tasks Forces)
- Alpha Drafting and testing 1996
  - Development of main components: Impairment, Disability, Social Participation, Environmental Factors
  - Testing via In-house and expert consultation
- Beta 1 Drafting and testing 1997 – 1999
  - Definitions added, Neutral language: BF,BS, A&P, P, EF
  - Empirical testing (CAR study) in 15 countries: Translation/linguistic analysis, Basic questions, Item Evaluation, Concept mapping, Pile sorting, Focus groups
- Beta 2 Drafting and testing 1999-2000
  - Uniform qualifier for severity provided, Use of blocks, and residuals throughout, EF chapters reordered
  - Field testing: Translation and linguistic evaluation, Basic Questions, Feasibility and Reliability
- Pre-Final, Final draft, WHA approval 2000-2001
  - Revision Meeting with WHO Member States
  - Change in the name of the classification to “International Classification of Functioning, Disability and Health”

What is the ICF?



- Classification & metrics for organizing & reporting health and disability data
- Conceptual model for understanding health and disability

The structure and codes of the classification



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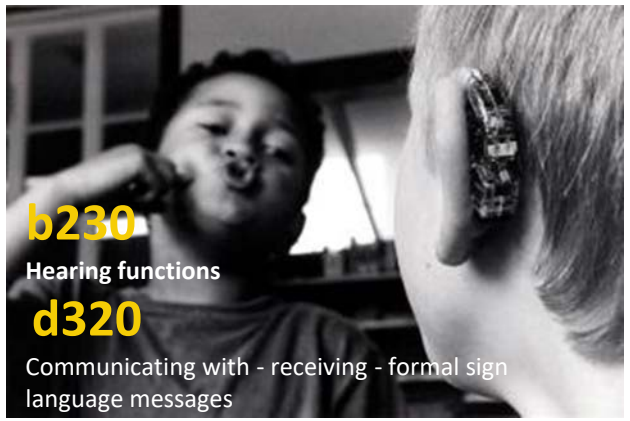
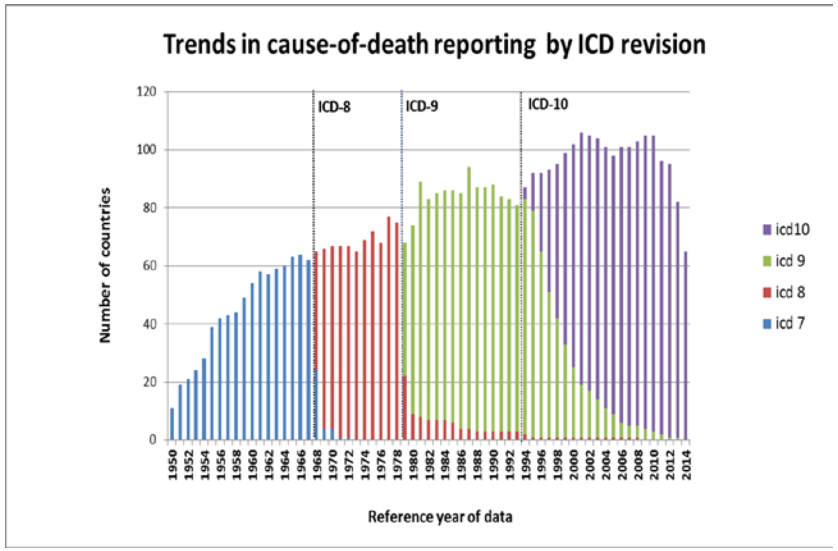
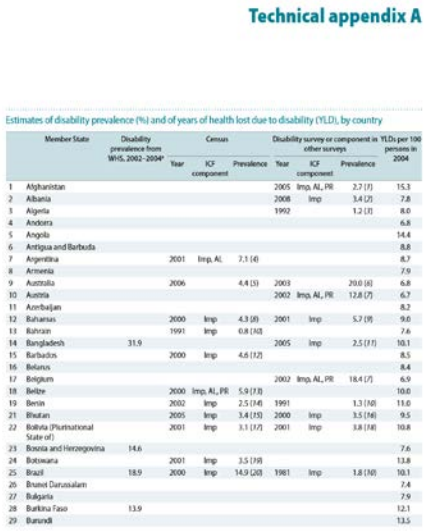
Counting and Reporting starts with a code….

Mortality **Morbidity** **Functioning / Disability**





Title of GBD cause		ICD-9 4digit	ICD-10 4digit
Noncommunicable diseases		140-242, 244-259, 270-279 (minus 279.5),282-285 (minus 285.9), 286-319, 324-380, 383-459, 470-478, 490-611, 617-629, 680-759, 7980	C00-C97, D00-D48,D55-D64 (minus D 64.9) D65-D89, E03-E07, E10-E16, E20-E34, E65-E88, F01-F99, G06-G98 (minus G14), H00-H61, H68-H93, I00-I99, J30-J98, K00-K92, N00-N64, N75-N98, L00-L98, M00-M99, Q00-Q99, X41, X42, X45, R95
A.	**Malignant neoplasms**	140-208	C00-C97
1.	Mouth and oropharynx cancers	140-149	C00-C14
	a. Lip and oral cavity	140-145	C00-C08
	b. Nasopharynx	147	C11
	c. Other pharynx	146, 148, 149	C09-C10, C12-C14
2.	Oesophagus cancer	150	C15
3.	Stomach cancer	151	C16
4.	Colon and rectum cancers	153, 154	C18-C21
5.	Liver cancer	155	C22
6.	Pancreas cancer	157	C25
7.	Trachea, bronchus, lung cancers	162	C33-C34
8.	Melanoma and other skin cancers	172-173	C43-C44
	a. Malignant skin melanoma	172	C43
	b. Non-melanoma skin cancer	173	C44
9.	Breast cancer	174, 175	C50
10.	Cervix uteri cancer	180	C53
11.	Corpus uteri cancer	179, 182	C54-C55
12.	Ovary cancer	183	C56
13.	Prostate cancer	185	C61
14.	Testicular cancer	186	C62
15.	Kidney and ureter cancer	189	C64-C66
16.	Bladder cancer	188	C67



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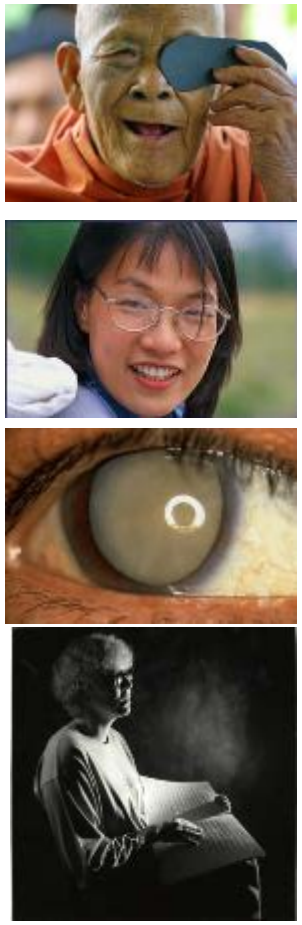
ICF conceptual model
Functioning/Disability is UNIVERSAL not minority
not a dichotomy (black/white) it is a placed on CONTINUUM

Who is disabled?



Single domain **Multiple domains**

Seeing Functions

10/20

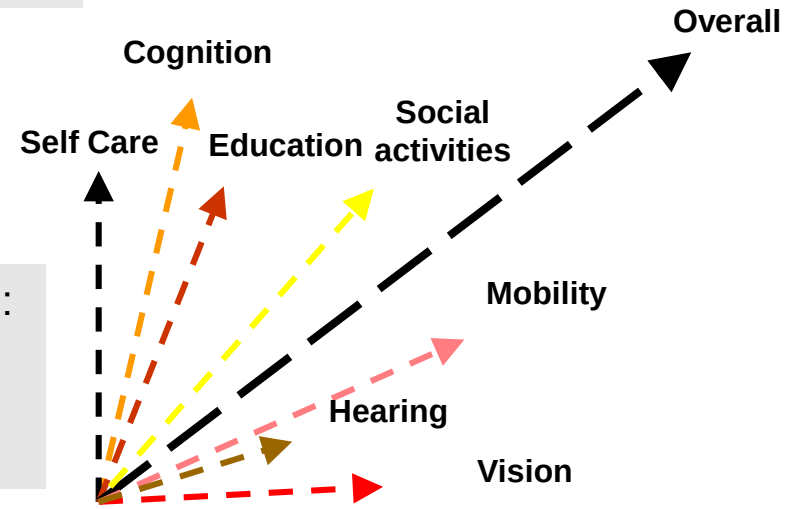
Mild-Moderate vision impairment:
Needs eye glasses, contact lenses…

2/20

Severe vision impairment:
Needs operation

1/20

Complete vision impairment (blind):
Needs assistance –
pension, device, assistant
environmental modifications



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التقييم الوظيفي للكبار

Functional Assessment Profile for Adult

Serial number: [redacted]
Name: [redacted]
Date of birth: [redacted]
Area: [redacted] Block: [redacted] Street: [redacted] House No: [redacted]
Job:

Civil ID: [redacted]
Sex: ذكر
Nationality: كويتي
Tel No: [redacted]

1. Communication:
1) No communication
2) Needs Interpreter
3) Communication — one Way (receives or expresses)
4) Communicates understandably (verbally or non-verbally)

2. Battling:
1) Dependent
2) Needs physical help of another person
3) Independent In alternate way (bed bath)
4) Independent In routine way (bathroom bath)

3. Dressing:
1) Dependent
2) Needs physical help from other person
3) Needs other's supervision
4) Independent

4. Toilet Activities:
1) Dependent
2) Needs help
3) Independent In alternate way (bed pan etc...)
4) Independent In routine way (as done by the society)

5. Eating:
1) Dependent
2) Does not use the affected upper extremity at all
3) Use the affected extremity also as aid along with the unaffected side
4) Independent

(Bladder/Bowel) 6. Sphincter Control
1) IncontInent-socially unacceptable (passes urine in Diwaniya or marriage parties)
2) IncontInent-socially acceptable (use collective devices)
3) Immobility producing Incontinence
4) Continent

7. Locomotion
1) Immobile and passive locomotion
2) Active-trunk parallel to ground (crawling, rolling, etc.)
3) Active-trunk vertical to ground (wheelchair, crutch, etc.)
4) Normal ambulation

Dr. Comments:

8. Mobility:
1) No transfer activities
2) Needs help
3) Transfer at same level of surface
4) Transfer at' 'different. Level from basic position

9. Social Obligation
1) Unable to take part
2) Needs assistance
3) Independent in alternate way (does not sit on ground in Diwaniyas)
4)Independent in routine way

10. Religious Obligation:
1) Unable to perform
2) Needs help
3) Perform in alternate way
4) Perform in routine way

11. Vocational Performance:
1) Unemployed, lost the job, u nab led to perform the present job
2) Changed the profession
3) Regained the same profession in alternate department or job
4) Regained the original profession

12. Visual Performance:
1) Total blind
2) Can visualise objects but does not perceive
3) Needs aids
4) Normal vision

13. Locomotor Performance for Bidlorespiralary faigjilnuent
1) Confined to one position
2) Dysphnoea during routine ADL
3) Dysphnoea during walking
4) No Dysphnoea

14. Sexual Activities (when applicable)
1) Unable to indulge
2) Not interested
3) Alternate methods
4) Routine methods

15. Satisfaction of Life
1) Not satisfied
2) Satisfied but complains
3) Not satisfied but does not complain
4) Fully.satlsfied

ICF conceptual model

Functioning is MULTI-DIMESIONAL not uni-dimensional

BODY
Function/ Structure
(impairment)

PERSON
Activities
(limitation)

SOCIETY
Participation
(restriction)

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ICF conceptual model

Functioning/Disability: Context inclusive not person alone

نموذج طلب تقرير طبي / فحوصات طبية
Medical Report & Investigation Request

• **Employee Name:** .....

Patient Name: [redacted]		Date: 2018-09-02 24
Civil ID: [redacted]	Sex: انثى	O.F.N:
Mobile No: [redacted]	Tel No: [redacted]	Nationality: كويتي

• **Clinical Diagnosis & Examination:**

She was in special needs school.
I. Q 45
Significantly depends on her family in managing basic life needs.

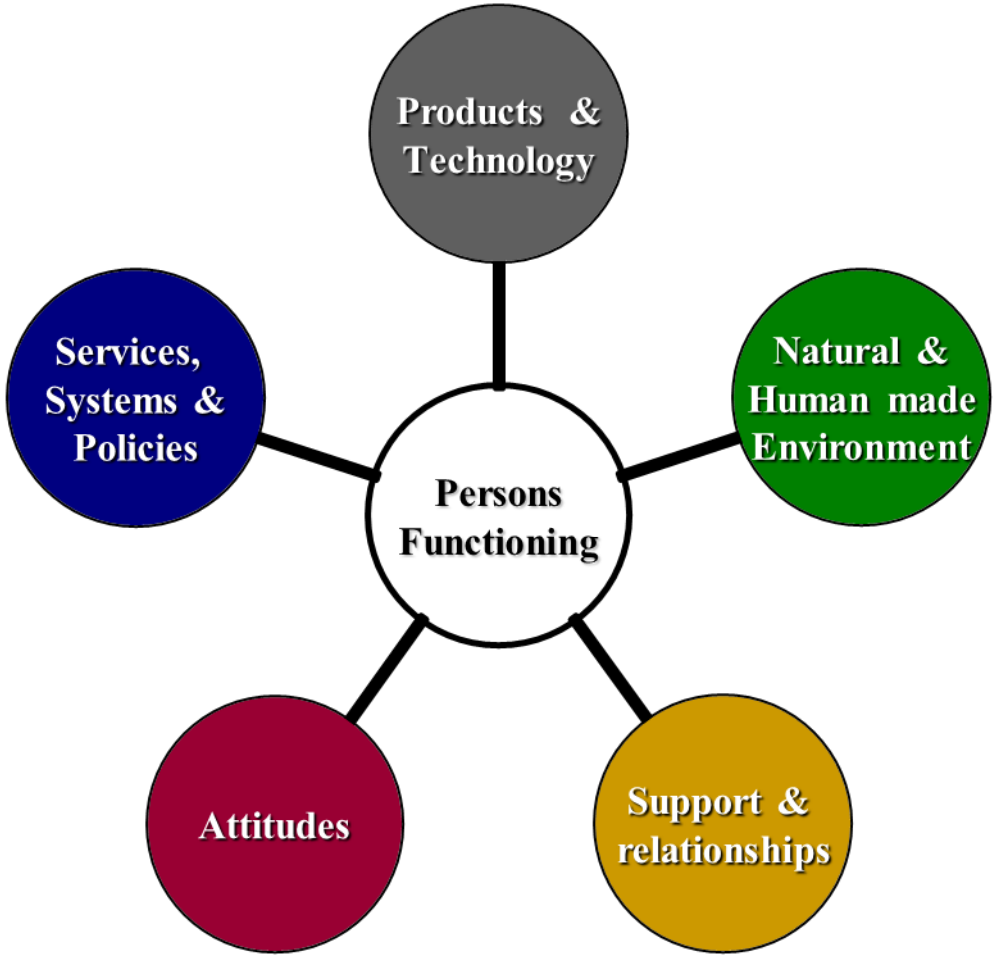
• **Diagnosis:**	**ICF:**

• **Disability:** Moderate Intellectual Disability.

No	learning	intellectual	motor	physical	psychological	developmental	visual	hearing
لا يوجد	تعلمية	ذهنية	حركية	جسدية	نفسية	تطورية	بصرية	سمعية

• **Severity:**

Mild - بسيطة	Moderate - متوسطة	Severe – شديدة	unclassified



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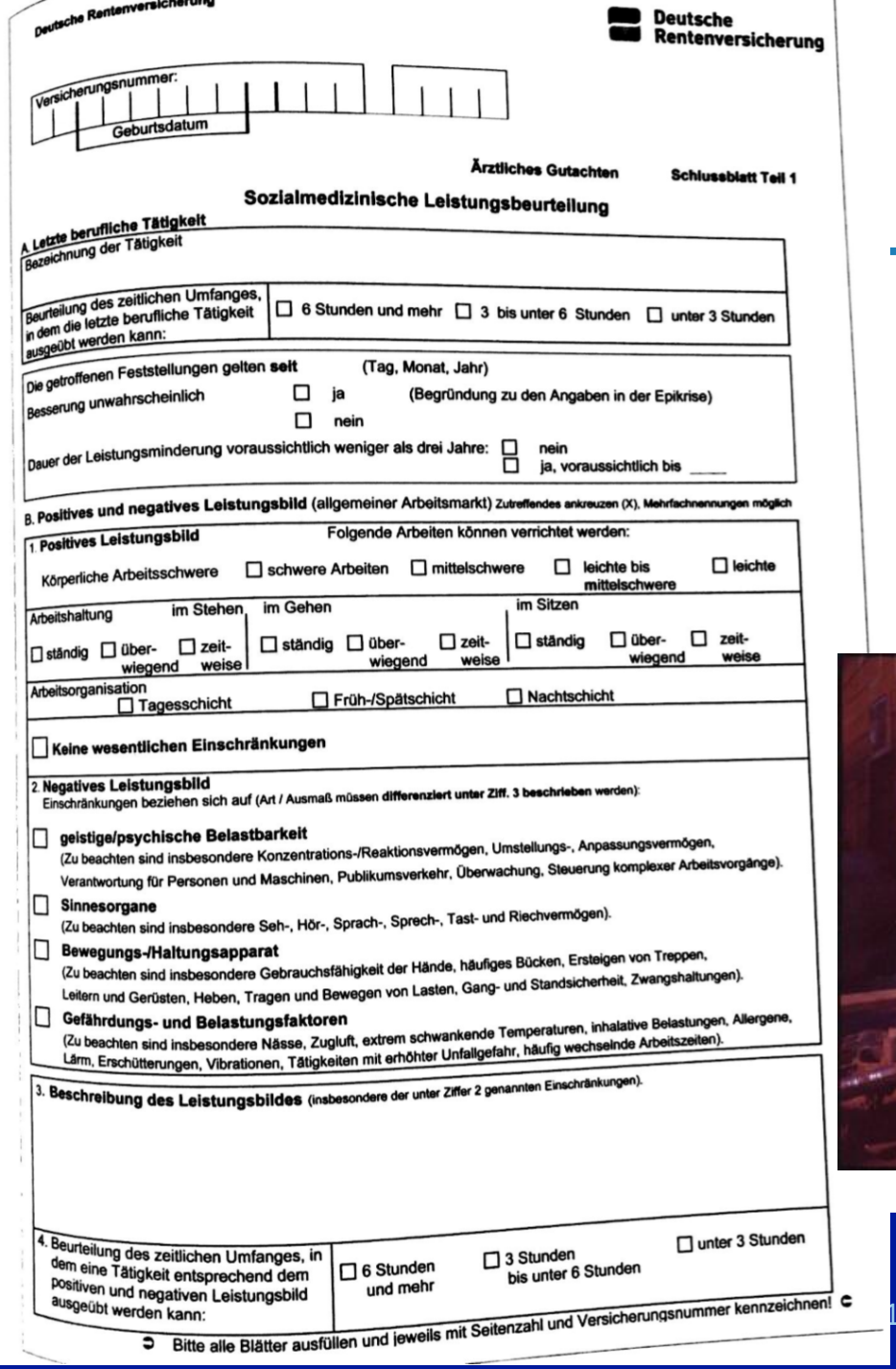
ICF conceptual model:
Functioning is not only about what a person can't do but also what the person can do



Deutsche Rentenversicherung

Deutsche Rentenversicherung

Versicherungsnummer:

Geburtsdatum

Ärztliches Gutachten — Schlussblatt Teil 1

Sozialmedizinische Leistungsbeurteilung

A. Letzte berufliche Tätigkeit

Bezeichnung der Tätigkeit

Beurteilung des zeitlichen Umfanges, in dem die letzte berufliche Tätigkeit ausgeübt werden kann: ☐ 6 Stunden und mehr ☐ 3 bis unter 6 Stunden ☐ unter 3 Stunden

Die getroffenen Feststellungen gelten **seit** (Tag, Monat, Jahr)

Besserung unwahrscheinlich ☐ ja (Begründung zu den Angaben in der Epikrise) ☐ nein

Dauer der Leistungsminderung voraussichtlich weniger als drei Jahre: ☐ nein ☐ ja, voraussichtlich bis ____

B. Positives und negatives Leistungsbild (allgemeiner Arbeitsmarkt) Zutreffendes ankreuzen (X), Mehrfachnennungen möglich

1. Positives Leistungsbild Folgende Arbeiten können verrichtet werden:

Körperliche Arbeitsschwere ☐ schwere Arbeiten ☐ mittelschwere ☐ leichte bis mittelschwere ☐ leichte

Arbeitshaltung	im Stehen		im Gehen		im Sitzen	
☐ ständig	☐ überwiegend	☐ zeitweise	☐ ständig	☐ überwiegend	☐ zeitweise	☐ ständig	☐ überwiegend	☐ zeitweise

Arbeitsorganisation ☐ Tagesschicht ☐ Früh-/Spätschicht ☐ Nachtschicht

☐ **Keine wesentlichen Einschränkungen**

2. Negatives Leistungsbild

Einschränkungen beziehen sich auf (Art / Ausmaß müssen **differenziert unter Ziff. 3 beschrieben** werden):

☐ **geistige/psychische Belastbarkeit**
(Zu beachten sind insbesondere Konzentrations-/Reaktionsvermögen, Umstellungs-, Anpassungsvermögen, Verantwortung für Personen und Maschinen, Publikumsverkehr, Überwachung, Steuerung komplexer Arbeitsvorgänge).

☐ **Sinnesorgane**
(Zu beachten sind insbesondere Seh-, Hör-, Sprach-, Sprech-, Tast- und Riechvermögen).

☐ **Bewegungs-/Haltungsapparat**
(Zu beachten sind insbesondere Gebrauchsfähigkeit der Hände, häufiges Bücken, Ersteigen von Treppen, Leitern und Gerüsten, Heben, Tragen und Bewegen von Lasten, Gang- und Standsicherheit, Zwangshaltungen).

☐ **Gefährdungs- und Belastungsfaktoren**
(Zu beachten sind insbesondere Nässe, Zugluft, extrem schwankende Temperaturen, inhalative Belastungen, Allergene, Lärm, Erschütterungen, Vibrationen, Tätigkeiten mit erhöhter Unfallgefahr, häufig wechselnde Arbeitszeiten).

3. Beschreibung des Leistungsbildes (insbesondere der unter Ziffer 2 genannten Einschränkungen).

4. Beurteilung des zeitlichen Umfanges, in dem eine Tätigkeit entsprechend dem positiven und negativen Leistungsbild ausgeübt werden kann: ☐ 6 Stunden und mehr ☐ 3 Stunden bis unter 6 Stunden ☐ unter 3 Stunden

➲ Bitte alle Blätter ausfüllen und jeweils mit Seitenzahl und Versicherungsnummer kennzeichnen! ➲

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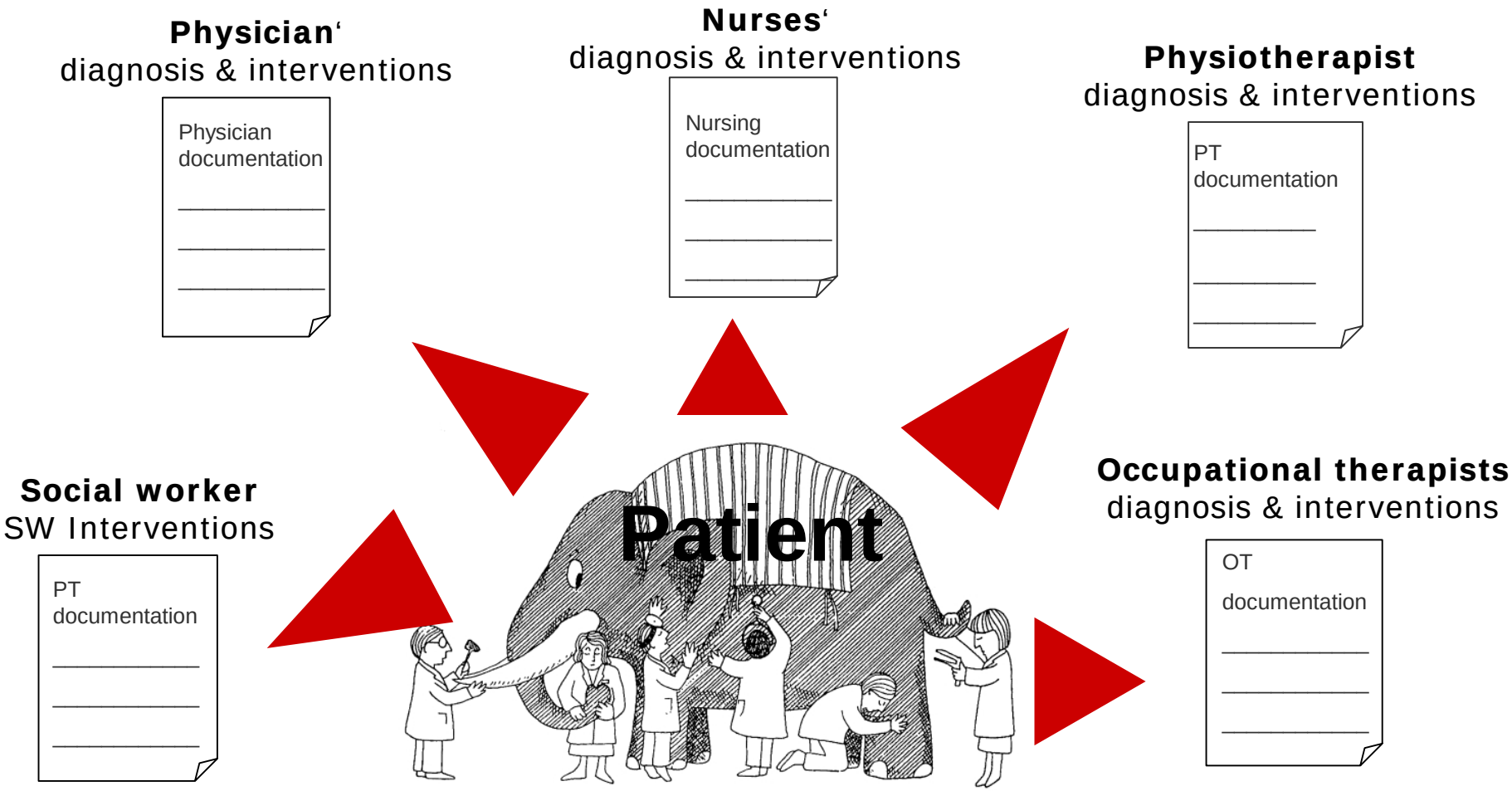
Using ICF: Specify the purpose

Level	Information need
System	**Is the population in better health, have Equalization of Opportunities improved?** • plan policies, set priorities, allocate resources • monitor population health and health goals • health states impact on work productivity • determine benefits & payment rates
Service	**Is the service effective?** • determine treatment/care needs • resource utilization pattern • evaluate of quality of care • successfulness of assistive technology and universal design • matching types of patients and resources consumption for reimbursement purposes
Individual Patient	**Is the person getting better?** • assess problems & potentials • set treatment goals & plan interventions • monitor change overtime

Documentation of functioning information at in health care settings



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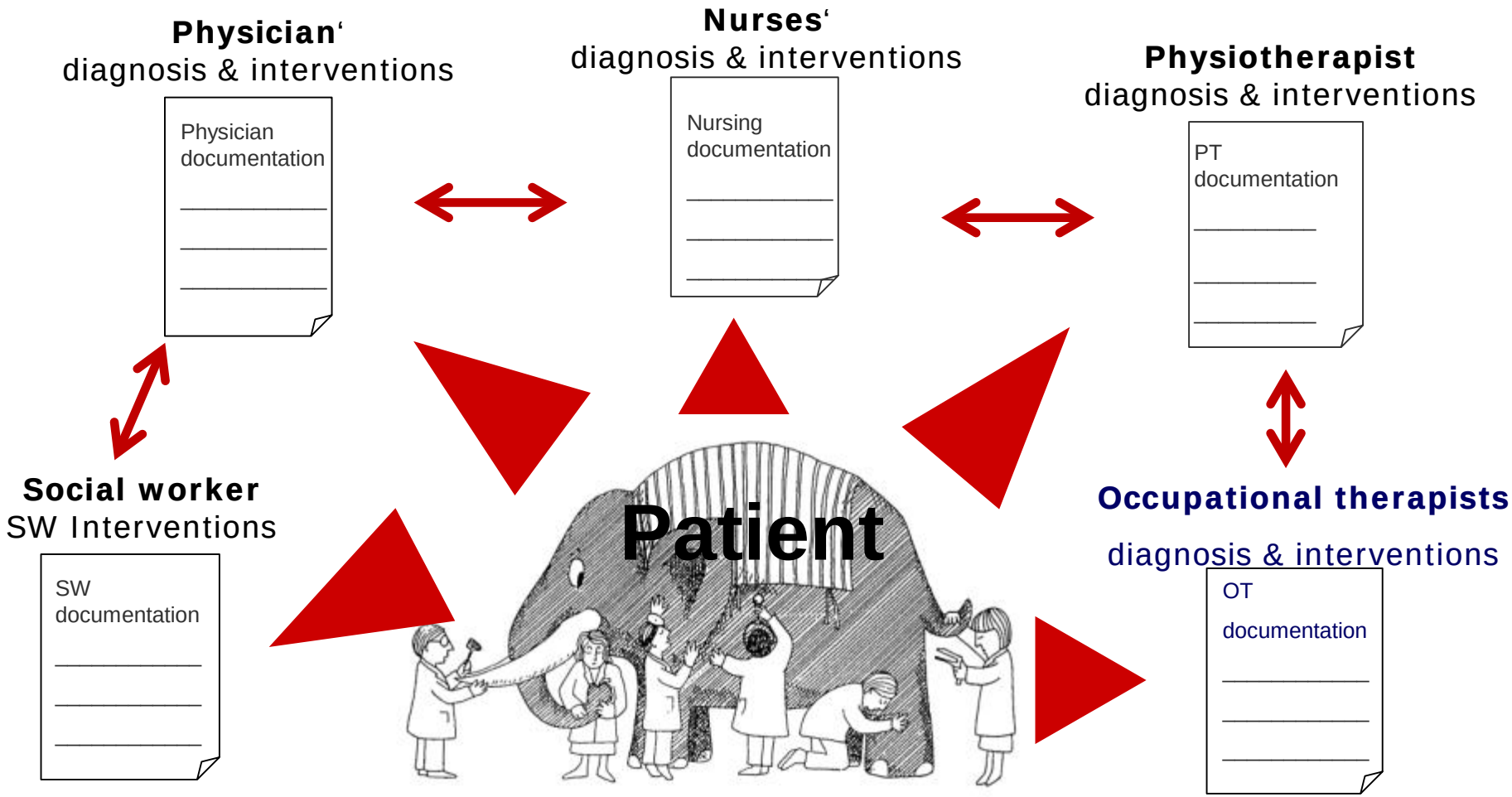
ICF provides a common language to improve communication across the continuum of care



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What is Rehabilitation?

http://www.who.int/rehabilitation/en/

WHO Definition of Rehabilitation

"Rehabilitation is a set of **interventions** designed to **reduce disability** and **optimize functioning** in **individuals with health conditions** in interaction with their **environment**."

REHABILITATION 2030

a call for action

1. Creating strong leadership and political support for rehabilitation at sub-national, national and global levels.
2. Strengthening rehabilitation planning and implementation at national and sub-national levels.
3. Improving integration of rehabilitation into the health sector to effectively and efficiently meet population needs.
4. Incorporating rehabilitation in Universal Health Coverage.
5. Building comprehensive rehabilitation service delivery models to progressively achieve equitable access to quality services, including assistive products, for all the population.
6. Developing a strong multidisciplinary rehabilitation workforce that is suitable for country context, and promoting rehabilitation concepts across all health workforce education.
7. Expanding financing for rehabilitation through appropriate mechanisms.
8. Collecting information relevant to rehabilitation to enhance health information systems including system level rehabilitation data and information on functioning utilizing the International Classification of Functioning, Disability and Health (ICF).
9. Building research capacity and expanding the availability of robust evidence for rehabilitation.
10. Establishing and strengthening networks and partnerships in rehabilitation, particularly between low-, middle- and high-income countries.

Health information systems and rehabilitation

Key messages

- Health information systems (HIS) underpin decision-making in health policy, management and clinical care through the collection, standardization, coding and management of information relevant to indicators of health status, determinants of health, and health systems.
- Improving the capacity of national HIS to collect reliable and comprehensive information is crucial for health systems strengthening, both nationally and internationally.
- WHO has developed a framework and standards for national HIS and a global reference list of 100 core health indicators to support countries to strengthen their HIS. There are opportunities to further expand this framework to capture the information needs of rehabilitation.
- Including information on functioning in HIS is essential for strengthening rehabilitation in the health system. "Functioning", as introduced in WHO's *International classification of functioning, disability and health* (ICF), refers to the impact of health conditions (injuries, diseases, ageing) on a person's experience in every aspect of his/her life.
- As well as information on functioning, systems level information about all aspects of the delivery and financing of rehabilitation services is necessary. This includes inputs (e.g. policy, financing, human resources and infrastructure) to, and outputs (e.g. service availability and quality) and outcomes (e.g. service coverage and utilization) of, rehabilitation.
- The WHO meeting on Rehabilitation 2030: A call for action calls for stakeholders to enhance HIS by including system level rehabilitation data and information on functioning, utilizing the ICF.

Disease & Disorders are ICD coded…

D. Wurde ein Auftrag auf Pflegebedürftigkeit nach dem Pflege-Versicherungs-Gesetz gestellt?

Pflegestufe _____ Schwerbehinderung anerkannt nein ☐ ja ☐ GdB _____ Merkzeichen _____

II. Klinische Anamnese — Clinical Anamnesis

Beschwerden des Versicherten (seit wann?) und Verlauf

Diabetes mell. seit Jahren bekannt. Vor 1/2 Jahr Myokardinfarkt, AHB/AR nicht durchgeführt.
Seit MI Luftnot beim Treppensteigen und langsamen Spazierengehen. Kann keine Einkaufstaschen mehr tragen. Hat seine Erkrankung noch nicht verarbeitet und ist depressiv gestimmt. Auch in der Familie zieht er sich zurück und spielt beispielsweise nicht mehr mit den Enkeln, weil es ihm zu anstrengend ist.

III. Rehabilitaionsrelevante und weitere Diagnosen — Diagnoses relevant for Rehabilitation

	nach ICD 10
1. Chronische ischämische Herzkrankheit	I25.8
2. Diabetes mellitus	E11
3. Leichte depressive Episode	F32.0

Diagnose(n) Nummer(n) _____ **ist/sind zurückzuführen auf** _____

Arbeitsunfall, Schulunfall ☐ sonstiger Unfall ☐ Berufskrankheit ☐ Gesundheitsschaden nach dem BVG ☐

Original für die Krankenkasse
Durchschlag zum Verbleib beim Vertragsarzt

Quelle: Dr Wolfgang Seger

Functioning profiles are often “only” documented with ICF

Vorname, Name des Versicherten	Kassen-Nr.	Versicherten-Nr.
Albert Reiter		

61 Teil B

Verordnung von medizinischer Rehabilitation

IV. Rehabilitationsbedürftigkeit (medizinische Befunderhebung)

A. Rehabilitationsrelevante Schädigungen (ggf. Befundbögen als Anlage) Impairments of Body Functions and Structures

Hochgradig reduzierte linksventrikuläre Funktion (EF < 30%).

Mittelschwere Schädigung der kardiopulmonalen Funktion

Vorderwandaneurysma mit Thrombus, deshalb Marcumarisierung

Diabetes mellitus mäßig eingestellt

B. Nicht nur vorübergehende alltagsrelevante Beeinträchtigungen der Aktivitäten und/oder Teilhabe

Activity Limitations and Participation

Restrictions with Qualifiers

	keine Beeinträchtigungen	Schwierigkeiten (verlangsamt mit Hilfsmittel)	persönliche Hilfe nötig	nicht durchführbar
Kommunikation (z. B. Sprechen, Sehen, Hören, Schreiben) Communication	☒	☐	☐	☐
Mobilität (z. B. Wechsel Körperhaltung, Tragen, Hand- und Armgebrauch, Gehen, Treppensteigen, Laufen, Bücken) Mobility	☐	☒	☐	☐
Selbstversorgung (z. B. Hygiene, An-/Auskleiden, Nahrungszubereitung/-aufnahme Self-Care	☐	☒	☐	☐
Häusliches Leben (z. B. Haushaltsführung) Domestic Life	☐	☒	☐	☐
Interpersonelle Aktivitäten (z. B. Verhalten, Aufrechterhalten der sozialen Integration) Interpersonal interactions and relationships	☐	☒	☐	☐
Bedeutende Lebensbereiche (z. B. Arbeit und Beschäftigung) Major Life Areas	☐	☐	☐	☒
Sonstiges Other Items				

No restrictions — Difficulties (retarded with Auxiliary devices) — Help by person necessary — No performance possible

Aktuelle Assessment-Ergebnisse soweit vorhanden (z. B. Barthel-Index)

Ergometrie: Abbruch durch Pat. bei 50 Watt

6-MGT: 180 m, HbA1c: 8,3 %, BMI 32 kg/m², PHQ-D*: 11 Punkte

* Patients-Health-Questionaire

C. Rehabilitationsrelevante positiv/negativ wirkende Kontextfaktoren, soweit noch nicht ausgeführt

Persönliches und familiäres Umfeld (z. B. familiäre Unterstützung, Wohnsituation, Beziehungskonflikte, Pflege eines Angehörigen, Tod eines nahe stehenden Angehörigen)

Eheprobleme seit MI, die Ehefrau ist zunehmend gereizt. Sie ist der Meinung, ihr Mann lasse sich zu sehr hängen.

Personal Factors and Familial Environment

Berufliches/schulisches Umfeld (z. B. drohender Arbeitsplatzverlust, Überforderungssituation)

Occupational / Scholastic Environment

Soziales Umfeld (z. B. Unterstützung durch soziale Dienste, sprachliche Verständigungsschwierigkeiten)

Pat. fühlt sich mit der Betreuung des Enkelkindes überfordert

Social Environment

Risikofaktoren

Nikotin ☒ Alkoholmissbrauch ☐ Übergewicht ☒ Bewegungsmangel ☒

Risk Factors

Drogenmissbrauch/Medikamentenmissbrauch ☐ Sonstiges ☐

Original für die Krankenkasse
Durchschlag zum Verbleib beim Vertragsarzt

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ICF in Social Medicine
Country Example: France

- The legal frame of the French disability policy is the **2005-102 Act "For equal rights and opportunities, participation and citizenship of persons with disabilities"**, based on two major principles: accessibility and disabled persons' support needs.

- In each of the 101 French administrative territorial entities (departments), the authority competent to carry out the disability policy is the '**Departmental House for Disabled Persons**' (Maison Départementale des Personnes Handicapées).

In each Department two bodies are operating:

  - a **multidisciplinary team** (including medical doctors, occupational therapists, psychologists, social workers,...) in charge of assessing the difficulties the person faces and his/her needs;
  - an executive board, the '**Commission for the rights and autonomy of persons with disabilities'**, taking all decisions related to the provision of aids on the basis of the assessment. The network of local authorities is monitored by a national central authority (National fund of solidarity for autonomy – Caisse Nationale de Solidarité pour l'Autonomie, CNSA) in charge of the implementation of the disability policy throughout the country.

- In order to promote a uniform application of the law and assessment of the needs of persons the central authority has provided the local assessment teams with a **multidimensional assessment guide (called 'GEVA').**

ICF in Social Medicine
Country Example: France (2)

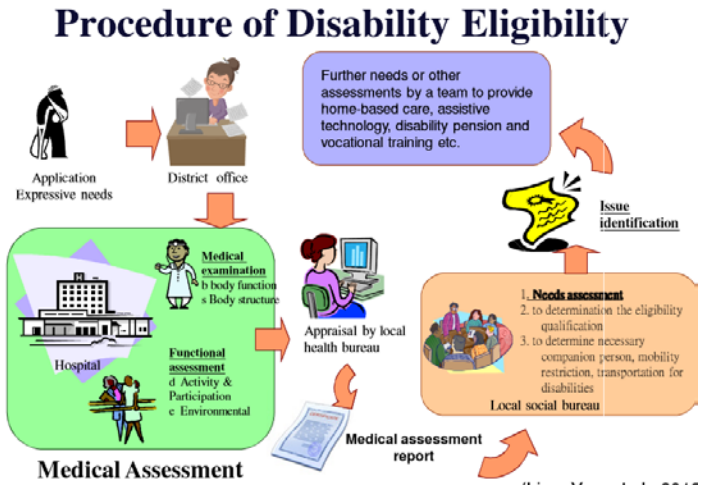
- **Multidimensional assessment guide (called 'GEVA')** entails 7 sections (touching upon the various components of a person's situation: social, financial, medical, etc.). The basic component related to 'activities and functional capacities' is composed of 8 ICF A&P domains and includes **142 ICF items**.

- Each item is **linked to a series of 5 environmental factors** (human environment, technical aids, animal aids, housing, services) assessed in terms of facilitator or obstacle/lack of).

- Thus each A&P item can be assessed (using the ICF 5 **grades generic scale**) in terms of Capacity and Performance.

- An additional qualifier of performance (activity performed alone; performed partially with human assistance; performed with continued assistance; not performed) allows to assess what performance would require in terms of environmental facilitators and support.

ICF in Social Medicine
Country Example: Taiwan



Assessment content (d, e) designed in 2011

- Five revisions of FUNDES adult-version (April to Sept.)
  - 14 expert meetings
  - Based on WHO DAS II
  - Suggestion by medical staffs and specialists in the training courses
  - Pilot tests
- First draft of FUNDES child-version
  - Translated and revised from Child and Family Follow-up Survey (CFFS) for eligibility determination use since July.
  - 3 expert meetings
  - Start training programs in Oct. 2011

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ORIGINAL ARTICLE

Development and validation of the ICF-CY-Based Functioning Scale of the Disability Evaluation System—Child Version in Taiwan

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KEYWORDS
disability evaluation; disabled children; eligibility determination; International Classification of

Background/Purpose: The International Classification of Functioning, Disability, and Health—Children and Youth version (ICF-CY) depicts human functioning [body functions (b), structures (s), and activities and participation (d) components] as the product of the interaction between health conditions and contextual factors [environmental factors (e) and personal factors]. In Taiwan, testers use the Functioning Scale of the Disability Evaluation System—Child version (FUNDES-Child) to collect information related to b, d, and e for children aged 6.0—17.9 years in the Disability Eligibility System (DES). The purpose of this study was to examine the content and construct validity of the FUNDES-Child.

Conflicts of interest: The authors have no conflicts of interest relevant to this article.
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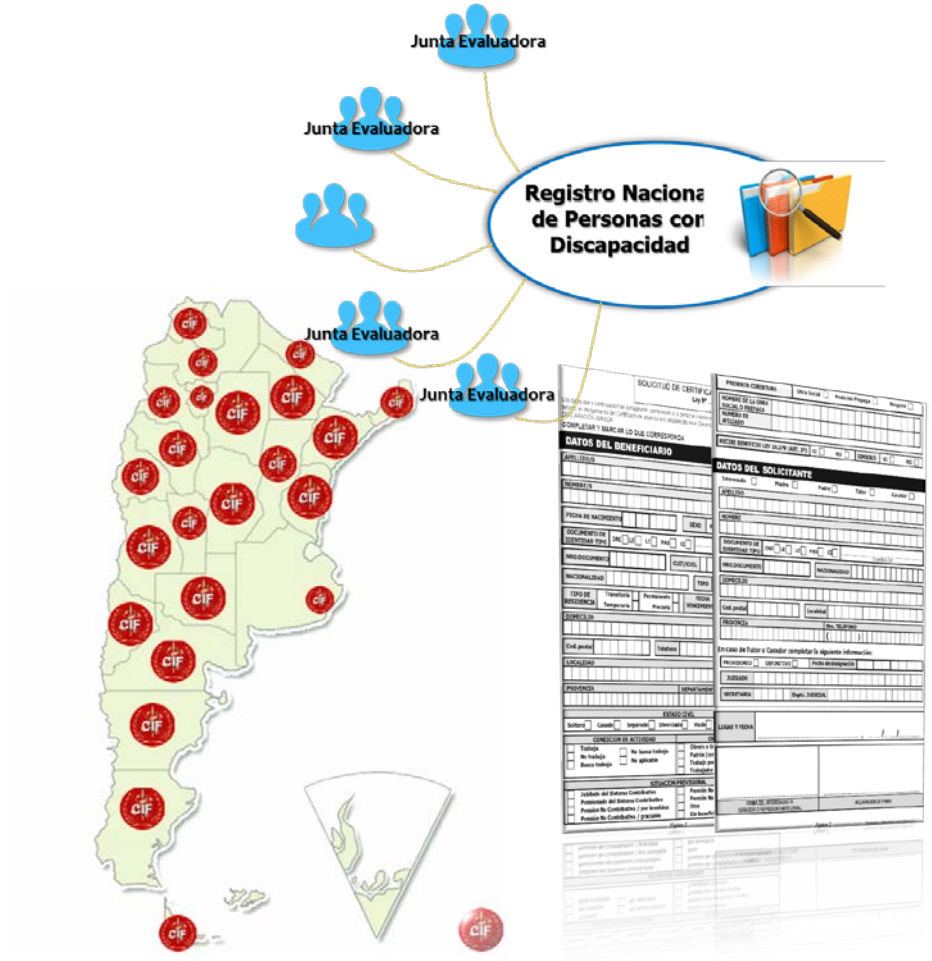
http://dx.doi.org/10.1016/j.jfma.2015.11.002

ICF in Social Medicine
Country Example: Argentina



- Enfoque bio-psico-social
- Equipo evaluador Interdisciplinario
- Normativas Específicas:
  - listas cortas por condición de salud
  - reglas de codificación generales y especificas por componente
  - Calibración de calificadores
  - Concepto: líneas de corte

World Health Organization

ICF in Social Medicine
Country Example: Cyprus - Reform of Disability Assessment System

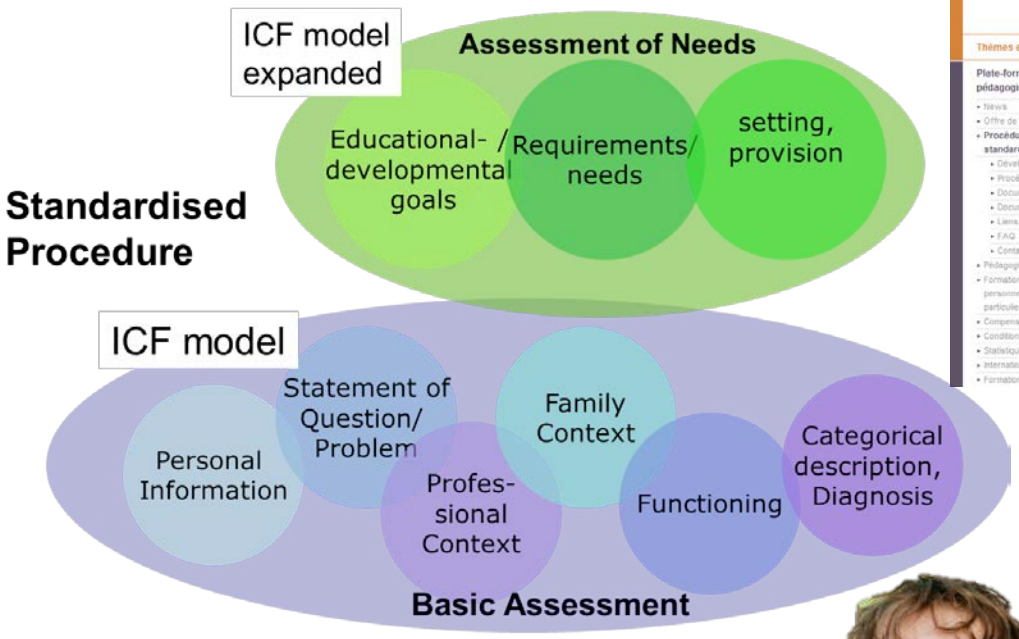
Situation **BEFORE** reform

- **Absence of clinical & functional assessment**
- **Multiple clinical assessments**
- **Absence of any protocols**
- **Delays between the application & the decision**
- **Decision only without rehabilitation plan**
- **Weak legislative platform**
- **Lack of data for disability population**
- **Lack for structuring policies**

Situation **AFTER** reform

- **A home for ICF "Assessment Center"**
- **Assessment mechanism stages: Preparation (File / vignette , assessment (med/Func) & completion**
- **Six Focused protocols for disability assessment**
- **Medical assessment by disability physicians(30 min)**
- **Functional assessment by rehabilitators (80 min)**
- **Qualifiers Mechanism**
- **Final Report**
- **Medical & Rehabilitative equipment**

ICF in Social Medicine
Country example: Switzerland- ICF-based Eligibility Procedure for Education



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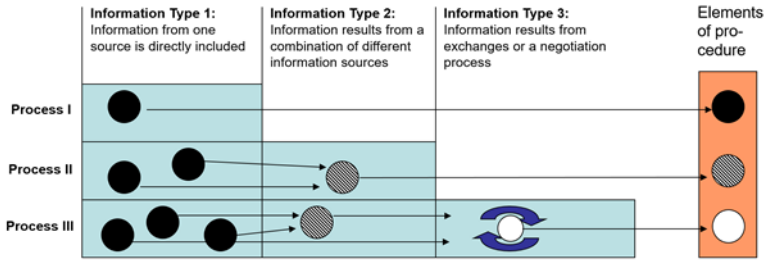
Transparency related to the generation of information



Example Type I: Categorical diagnosis, body functions
Example Type II: Activities and Participation
Example Type III: Educational goals, education setting, needs & requirements, provision

World Health Organization

Reasons for using ICF in social medicine

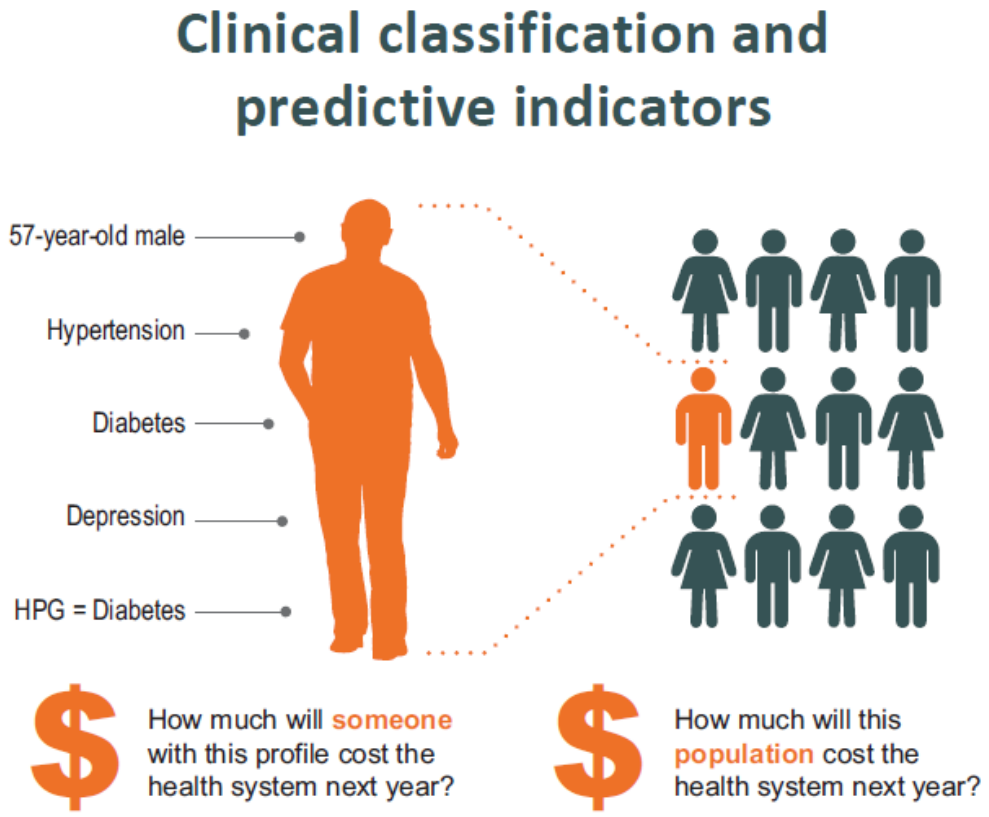
- ICF as an optimal reporting structure provides a
  - state of the art model of disability
  - structure and dimensions of what to measure
  - comprehensive platform to monitor UN-CRPD implementation
  - Rosetta stone for functioning and disability information
- ICF as the basis for process legitimacy
  - Fairness
  - Transparency
  - Impartiality
  - Comparability

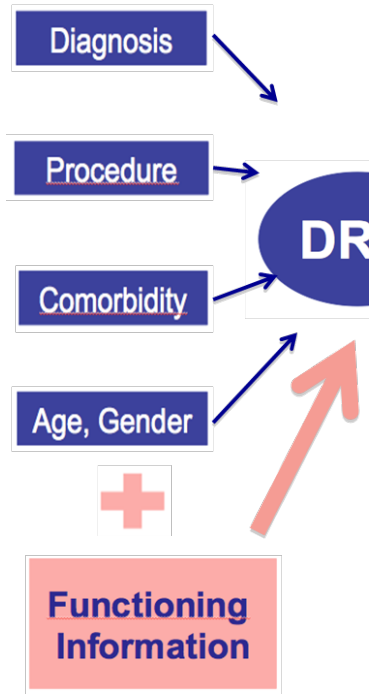
Lessons Learned from using ICF

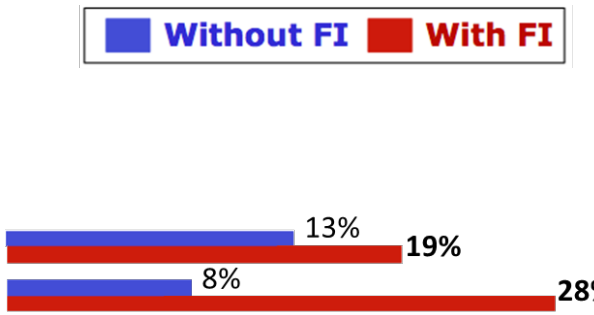
It entails a process of institutional and policy reform which requires:

- formal regulation and legislation
- Implementation through institutional and organizational structures
- involvement of a cadre of professionals implementing the rules and in response to legitimate interests of multiple stakeholders
- management of a technical and political process
- consideration of financial implication (i.e. disability assessment is an important fiscal "gate keeper")
- careful planning and persistent implementation

ICF & Case-mix







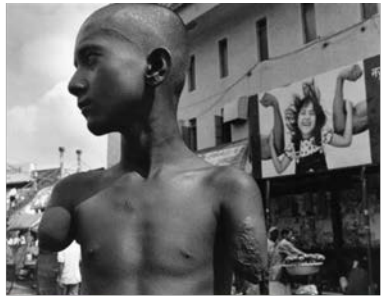
References:

Dunstan et al. 1996; Sahadevan et al. 2004; Covinsky et al. 1997; Chuang et al. 2003; Pilotto et al. 2011

Using ICF in health and disability statistics
Key questions

- How many disabled people in the world?
  - What is **“disability”** ?
- How can we **measure** disability ?
  - **completely** ?
  - **comparably** ?

Counting disability in the WDR
Achievements & Findings



- Disability is a **major public health issue**
  - **1,000,000,000 people** with disabilities (15% of global population)
  - **110-190 million (2%)** have **severe or extreme** difficulties in functioning
  - First global disability prevalence rate after 40 years

- Comparable measurement of disability
  - **using data standards -> ICF**

- To improve the quality & utility of national reported prevalence data **countries need to measure**
  - **functioning levels at multiple domains**
  - **use a comprehensive measures**

Disability data is multidimensional…

- Information about functioning of basic body parts or organs **IMPAIRMENT**

+

- Information about capacity of person to do basic or complex actions **ACTIVITY**

+

- Information about extent of person's participation in society **PARTICIPATION**

+

- Information about the impact of person's **ENVIRONMENT**

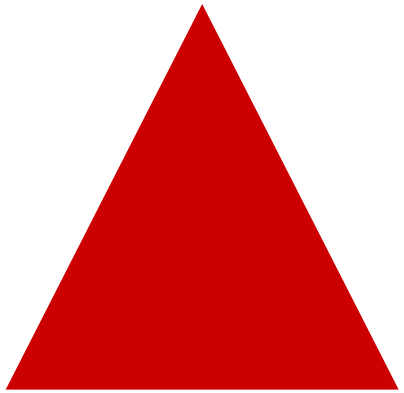
…but:

Only 70 out of 193 countries surveyed in 2011 collect A/P information in census and disability surveys

WRD 2011

Order & wording of Disability survey and census questions

Examples

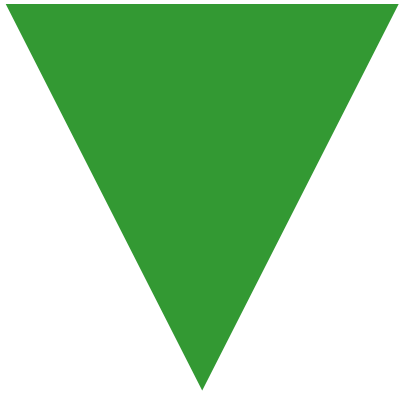


"God forbid someone should have a disability, but if they do are they: blind, deaf/dumb, crippled, mentally retarded/insane, multiple, other?

How did they become disabled?"

"Are you blind?

If Yes, do you have any difficulty with the following activities…?"



Do you need someone to help with, or be with them for, self care activities?

For example: doing everyday activities such as eating, showering, dressing or toileting".

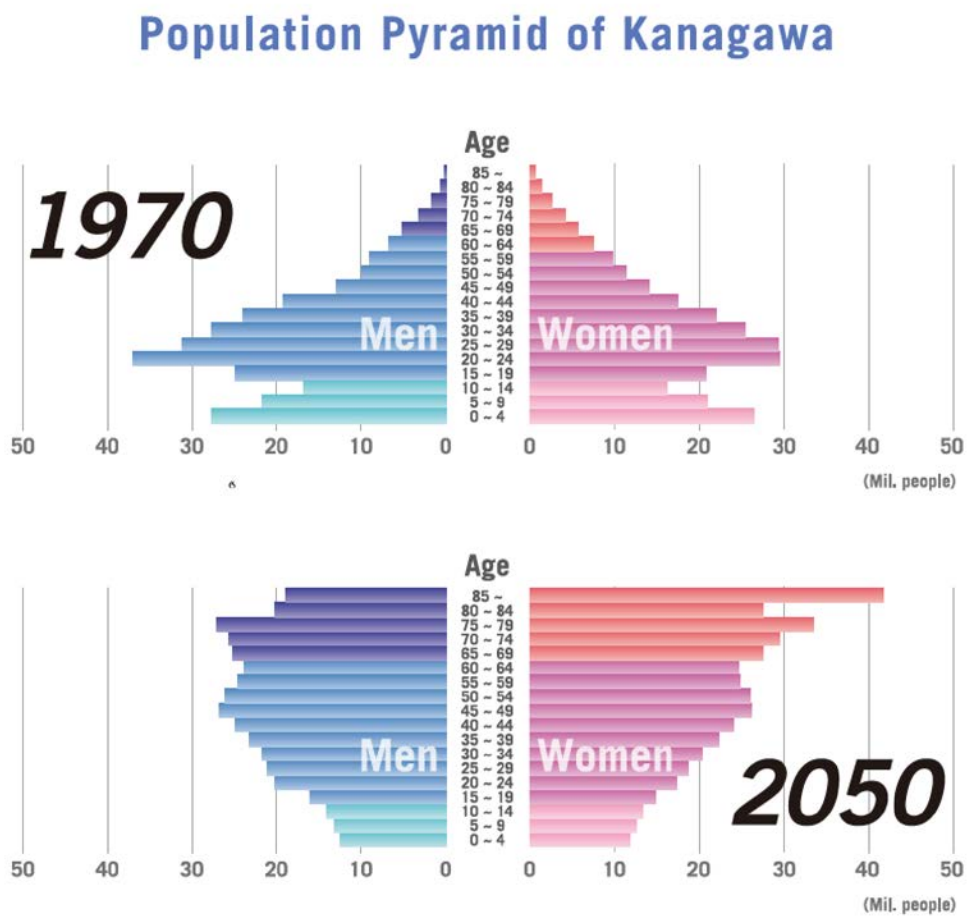
"Do you have any difficulty with the following activities…?

If Yes, are you blind?"

ICF: What difference does it make?
Identify and compare
where the problem is and where the solution lies

Body Functions & Structures	Activities & Participation	Environmental Factors
IMPAIRMENTS	*ACTIVITY LIMITATIONS PARTICIPATION RESTRICTION*	*Barriers & Facilitators*
✓Pain ✓Seeing ✓Breathing ✓Heart function	✓Walking ✓Communication ✓Washing ✓Domestic responsibilities ✓Work & Education ✓Community life	✓Buildings ✓Work equipment ✓Attitudes ✓Support & Relationships
Intervention: ✓Medication ✓Eye glasses ✓Surgery ✓Functional stimulation devices	**Intervention:** ✓Prostheses ✓Wheelchair ✓Rehab ✓Exercise	**Intervention:** ✓Ramps ✓Workplace modification ✓Destigma. Campaign

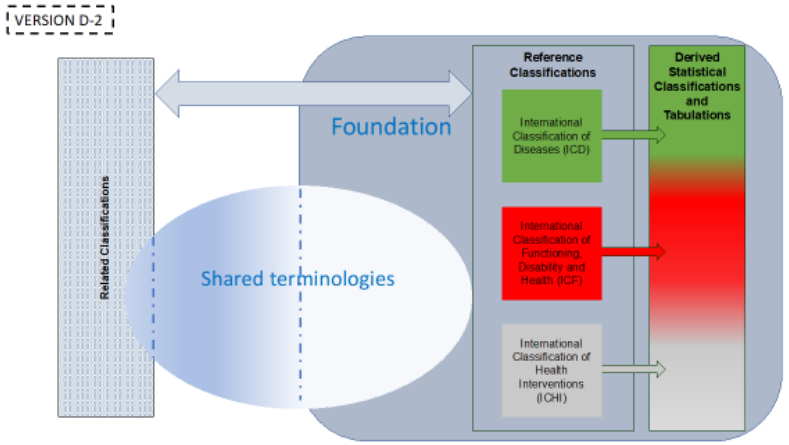
The need for ICF coded functioning data will increase because …



- **Epi transition**
  - Aging & Super-aging societies
  - Increased life expectancies & comorbidities and
  - Decline in infectious disease, raise in NCDs
  - Prolonged and alternating functioning (Me-Byo)
  - Personalised Medicine (Genetics & EF interaction)
- **Big data, technology & predictive analytics allows**
  - to **understand comorbidities** (pattern, drivers, causal mechanisms)
  - to **identify** an **individual's** disease and functioning trajectory
  - to **know where** on the trajectory an individual's is
  - to **change** an individual's disease and functioning trajectories

To respond to this needs ICF has to be digitalized and modernized

The Family – integrated health information



Reality 1:(individual detail)

↓

Free Text (Diagnostic information)

↓

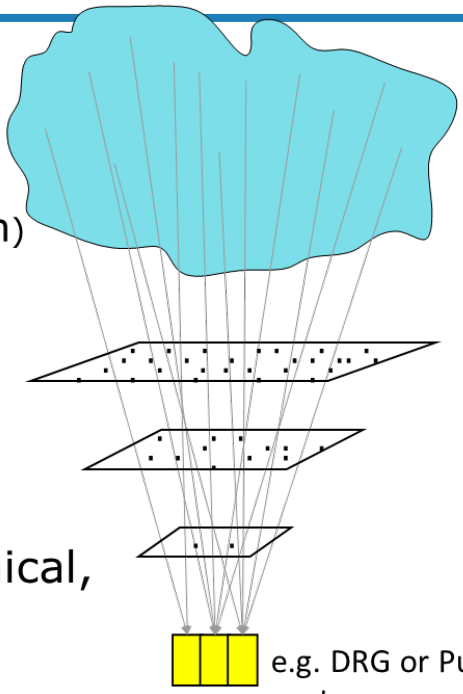
ICD-11 & ICF index terms

↓

ICD-11 & ICF Categories

↓

Reality 2: (public health, clinical, adminstrative needs)



e.g. DRG or Public Health intervention packages

Adapted from Straub

- **Needed ICF developments**
  - Foundation layer
  - Index terms
  - URIs
  - Tooling environment (e.g. coding tool, APIs)

World Health Organization

Criteria for consideration in disability measurement

1. Clarify

- purpose of measurement
- scope
- coverage
- duration
- use of assistive devices

2. Identify most relevant ICF domains:

selection criteria include:

- which explain most of the variation in disability
- Importance in terms of public health burden
- Psychometrics and feasibility
- Suitable for self-report
- Cross-Population Comparability

3. Question phrasing:

- Fit for purpose
- Simple
- Using non offensive language
- Include meaningful thresholds
- Avoid causal attributions
- Undergo cognitive testing
- established psychometric properties
- Use ICF compatible response scale

Disability assessment in the context of disability evaluation

- **Perspectives**
  - **Finality** (e.g. Rehab)-> Assessment of functional status independent of cause
  - **Causality** (e.g. Accidents) -> Assessment of relevant causal relationships between functional status and underlying health condition
- Needs **process legitimacy**
  - Fairness
  - Transparency
  - Impartiality
  - Comparability
- **Who is assessing**?
  - As disability assessors MDs have different roles (therapist vs neutral expert) and objectives (help and heal vs. make informed decision in a admin/legal context)
  - MDs vs interdisciplinary teams