Environmental factors: classifications and measurement

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UNSD invited us to present information in order to start the discussions on environmental factors when measuring functioning/disability.

We will share information regarding
1. Relevant classifications, standards
2. Examples of measurement

and end up with
3. Items for discussion
1 Relevant classifications/standards

• WHO ICF Environmental factors classification

• ISO9999

• Potential other standards e.g. on accessibility, health interventions
ICF Classification of Environmental Factors

- Least developed part of the ICF
- Definition: Environmental factors make up the physical, social and attitudinal environment in which people live and conduct their lives.
- They can act as facilitator and barrier
- The classification consists of 5 chapters
ICF E chapters

1 Products and technology (e.g. for daily living, mobility, communication, education, employment, culture/recreation/sport, religion, buildings for public use and private use).

2 Natural environment and human-made changes to environment (e.g. climate, light, time related changes, sound, air quality)

3 Support and relationships (e.g. family, friends, colleagues, professionals)
ICF E chapters (b)

4 Attitudes (e.g. family, friends, colleagues, strangers, professionals, societal attitudes)

5 Services, systems and policies (e.g. relating to architecture, communication, transportation, legal, media, economic, social security, health care, education, employment, political)
ISO 9999 Assistive products for persons with disability – Classification and terminology

Definition: Assistive product is any product (including devices, equipment, instruments and software), especially produced or generally available, used by or for persons with disability for participation, to protect, support, train, measure or substitute for body functions/structures and activities or to prevent impairments, activity limitations or participation restrictions
# Chapters ISO9999 - 2011

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## Chapters ISO9999 – 2011
### Relation with ICF – e1 Chapter

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Accessibility standards developed by organizations such as ISO e.g. accessibility of environment, public and private buildings, web, etc.

International Classification of Health Interventions (ICHI, WHO)

And other standards might be interesting for consideration later.
2 Examples of measurement

We found different types of items, questions and instruments relating to environmental factors, used in personal/household interview surveys.

Different type: check of accessibility at the level of public buildings

We show examples for both of them and do not pretend to present a complete overview.
Technical aids

The most simple questions relating to environmental factors: the use of
- glasses/contact lenses
- hearing aid

*Example: in several surveys incl WG SS, WG/UNICEF CF modules and a lot of other surveys*

Use of other technical aids for hearing/seeing
*(tv, telephone)*

*HIS NL*
Technical aids (2)

Mobility, use of
- cane/walking stick
- walker/zimmer frame
- crutches
- wheelchair/scooter
- artificial limb

- someone’s assistance

WG ES-F, HIS NL
Help/assistance

Relating to self care (e.g. eating, in/out bed, dressing, toilet, bathing) and domestic life (e.g. meals, telephone use, shopping, housework, managing finances)

- Do you usually have help for any of these activities
- Would you need more help

EHIS
Services

Which services, if any, are you 1 aware of and 2 have ever needed or 3 received?

A Medical rehabilitation
B Assistive devices
C Educational services
D Vocational training
E Counselling for persons with disability
F Counselling for parent/family

Zambia Living Standards Survey
Participation and barriers

Life areas, participation and barriers

- Mobility
- Transport
- Accessibility to buildings
- Education and training
- Employment
- Attitudes and behaviour
- Economic life
- Leisure pursuits
- Social contact and support
- Internet use

For each: *barriers, lack of aids and personal help restricting or preventing participation*

_EHSIS_
Craig Hospital Inventory of Environmental Factors (CHIEF) includes 5 experienced barrier factors:
1 attitude and support
2 services and assistance
3 physical and structural
4 policy
5 work and school

To be used in personal interviews, 25 questions, 10 items for children (2-12y)
WHO Model Disability Survey

- Most extensive measurement of environmental factors in personal/household surveys
- Two relevant modules
  - 3000A Environmental factors (35 questions)
  - 3000B Personal assistance, assistive products and facilitators (44 questions)
MDS (2)

- **Module 3000A** Hindering or facilitating environment, assistance, assistive products and medicines, support and relationships, attitudes of others, accessibility to information

- **Module 3000B** Personal assistance, assistive products and facilitators incl. personal assistance, assistive products and modifications relating to mobility and self-care, seeing, hearing & communication, cognition, work, education, at home, in the community (*use and need*)
Community Health Environment Checklist (CHEC)

- Different approach, checklist for objective description of the accessibility of buildings

- Consists of 5 sections
  - Reaching and entering building (e.g. parking, doors)
  - Use of building
  - Restrooms
  - Amenities
  - Usability and area of rescue assistance
3 Items for discussion (a)

Which **classifications** (and which parts) and other standards are relevant in the context of measuring functioning/disability?

- ICF Environmental factors

- ISO9999

- Other standards
3 Items for discussion (b)

Which items/aspects to be measured?

- Technical aids *(use/need)*
- Help/assistance *(use/need)*
- Services *(awareness/use/need)*
- Facilitators/barriers incl. accessibility
3 Items for discussion (c)

Which level of data collection for environmental factors do we need?

- Personal level - as experienced, subjective (e.g. census, general household survey, health interview survey, disability survey)

- Environmental level
  - direct, objective (e.g. check at the level of public buildings, transportation, etc.)
  - conditional, at the level of services, systems and policy – local, national
Thank You