

# Disability Data: Measurement and Analysis

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# Overview of the State of Disability Data

- In the past, disability data was of poor quality and varied dramatically
- Recent international efforts have improved our ability to collect reliable, meaningful disability data
- The population of people with disabilities is very heterogeneous, and this must be accounted for in data analysis

# Greatly Undercount People with Disabilities

- **“Do you have a disability?”**
  - Stigma
  - Only severe conditions
  - Can miss elderly
- **“Do you have (medical condition)?”**
  - Incomplete list of conditions
  - Only those with education and access to doctors know diagnosis
  - Great variance among people with same diagnosis
  - Completely divorced from the environment

# Functional Approach

- We want to ask questions that get at the difficulty people have doing various activities
  - e.g., Do you have difficulty walking?
- Want to ask across a range of activities, and want to get the level of difficulty
- We are concerned with what people can do, not what people “have”.

**Identifying people with functional limitations who are at risk of not participating because of environmental barriers**





## Census-based Disability Prevalence by Type of Question

Do you have a disability		List of conditions		Functional approach	
Nigeria	.05	Colombia	1.8	Poland	10.0
Jordan	1.2	Chile	2.2	UK	12.2
Philippines	1.3	Uganda	3.5	Brazil	14.5
Ethiopia	3.8	Hungary	5.7	Canada	18.5

# The Washington Group (WG)

- June 2001: UN International Seminar on the Measurement of Disability
- WG established as a City Group under the aegis of the UN Statistical Commission to:
  - address the need for population based measures of disability
  - foster international cooperation in the area of health and disability statistics
  - produce internationally tested measures to monitor status of persons with disability
  - incorporate disability into national statistical systems

# The WG is Country driven

- Countries have ownership
  - Representatives include the national statistical offices of 133 countries and territories, 7 international organizations, 6 organizations that represent persons with disabilities
- The Secretariat for the WG is located at NCHS
- A Steering Committee oversees the WG work plan
- Workgroups carries out the work plan with input from all members
- Emphasis on evidence and transparency – extensive testing of data collection tools in multiple countries

# WG Short Set

- **Ask about difficulties in six core basic activities**
  - Seeing, hearing, walking, communicating, cognition, and self-care
  - Initially designed for censuses
- **Scaled responses**
  - For UNSD measure of disability prevalence use “a lot” or “unable” but possible to look at wider range
- **Identify people at risk of social exclusion**
  - To be used to disaggregate indicators by disability status



# WG Short Set of Disability Questions

- Do you have difficulty seeing even if wearing glasses?
- Do you have difficulty hearing even if using hearing aid/s or are you deaf?
- Do you have difficulty walking or climbing stairs?
- Do you have difficulty remembering or concentrating?
- Do you have difficulty (with self-care such as) washing all over or dressing?
- Do you have difficulty communicating (for example, understanding or being understood by others)?

**Question response categories: No, Some, A lot, and Unable.**

*Source: <http://www.cdc.gov/nchs/citygroup.htm>*



# Advantages

- Functional approach
  - Tested successfully in many countries
- Widely adopted
- Designed to be internationally comparable
- Identifies most people with disabilities
- Can easily be added to existing censuses and surveys or to project based data.
  - About 1.25 minutes to administer

# Shortcomings

- Not appropriate for children under age 5, and misses some children with developmental issues
- Misses those with psychosocial issues that do not affect communication or self-care
- Does not capture age of onset
- Does not capture environmental barriers

# Actions to fill the gaps

- WG Extended Set includes questions:
  - to get at psychosocial issues
  - to get at the use of assistive devices
  - that are widely tested
- UNICEF/WG Children questions
  - appropriate for children age 2-17
  - get at full range of childhood disability
  - undergoing final field test
- Environment
  - UNICEF/WG educational environmental module (being tested)
  - ILO/WG employment – basic questions being tested, more extended set under development
- WG working group on mental health (early stages)



# Analytical Issues

- Age of Onset
- Heterogeneity
  - Type of disability
  - Degree of disability
- Capacity (“in the skin”) vs. Performance (“in the environment”)
- Interaction with environment

# Example: Disability and Poverty

- Most people assume there's a clear correlation between disability and poverty (as measured by consumption or income)
- Confounded factors
  - Heterogeneity of disabled populations
  - Appropriate measure of poverty
- Sometimes no relationship found or is underestimated

# Heterogeneity of Population

- Age of Onset
  - Most people become disabled when older
  - Accumulated wealth and skills; children to rely on
- As countries get richer, people live longer, and age is correlated with disability
- Poor people w/ disabilities may have higher mortality rates and so “disappear” from data
- Type of Disability
  - Environmental barriers can differ by type of disability
  - Causes (and their relation to poverty) can differ by type of disability

# Appropriate Measure of Poverty

- Extra costs of living, so standard consumption measures of poverty inadequate
- Discrimination of allocation of resources within the household
- In fact, disability more correlated with multi-dimensional measures of poverty than with consumption measures



# Example of poverty rates from Vietnam

Age	Non-Disabled People	Disabled People	Disabled People with adjusted poverty line
5-18	19.3	31.1	36.2
19-40	15.1	24.7	31.4
41-62	9.2	11.9	15.3
Older than 62	14.5	17.0	22.8

Source: Mont and Cuong (2011)

# Multi-dimensional poverty

When we measure poverty by multiple deprivations...

- Income
- Assets
- Education
- Employment
- Health (e.g., life expectancy, HIV infection, victim of violence),etc.

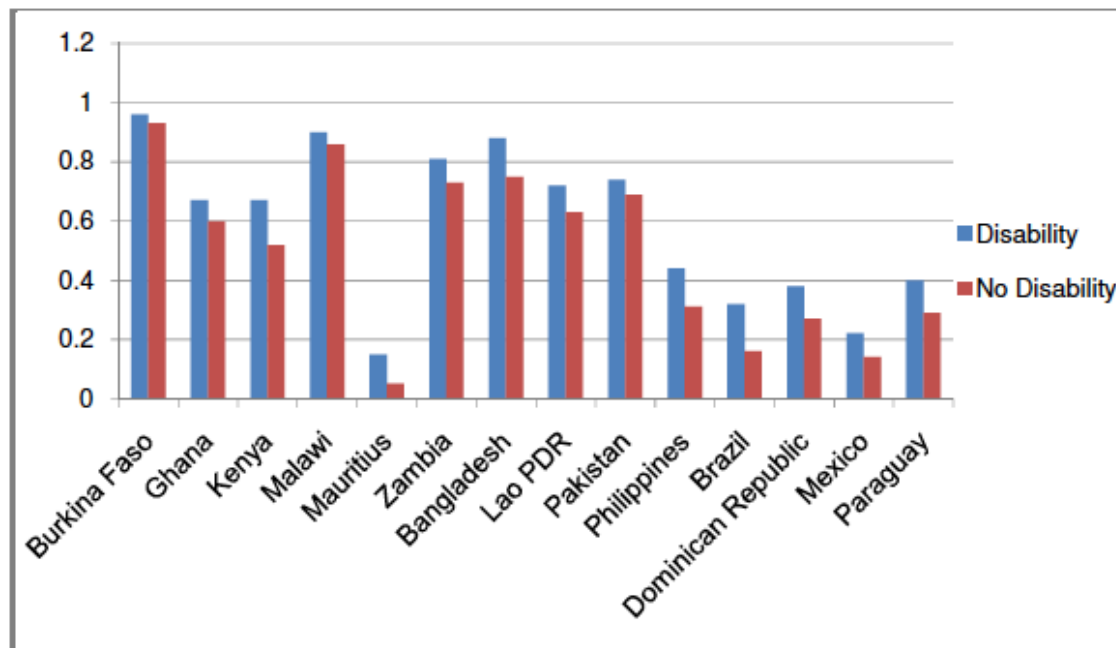
... we find a much stronger relationship

# Disability poverty gap rises with development

- In very poor countries, lots of people are poor, so poverty gap is smaller
- If development is not inclusive, then people with disabilities are left behind
- This leads to the **disability development gap**

# multidimensional poverty

Figure 4.10: Multidimensional Poverty Headcount Ratio across Disability Status (Base Measure)

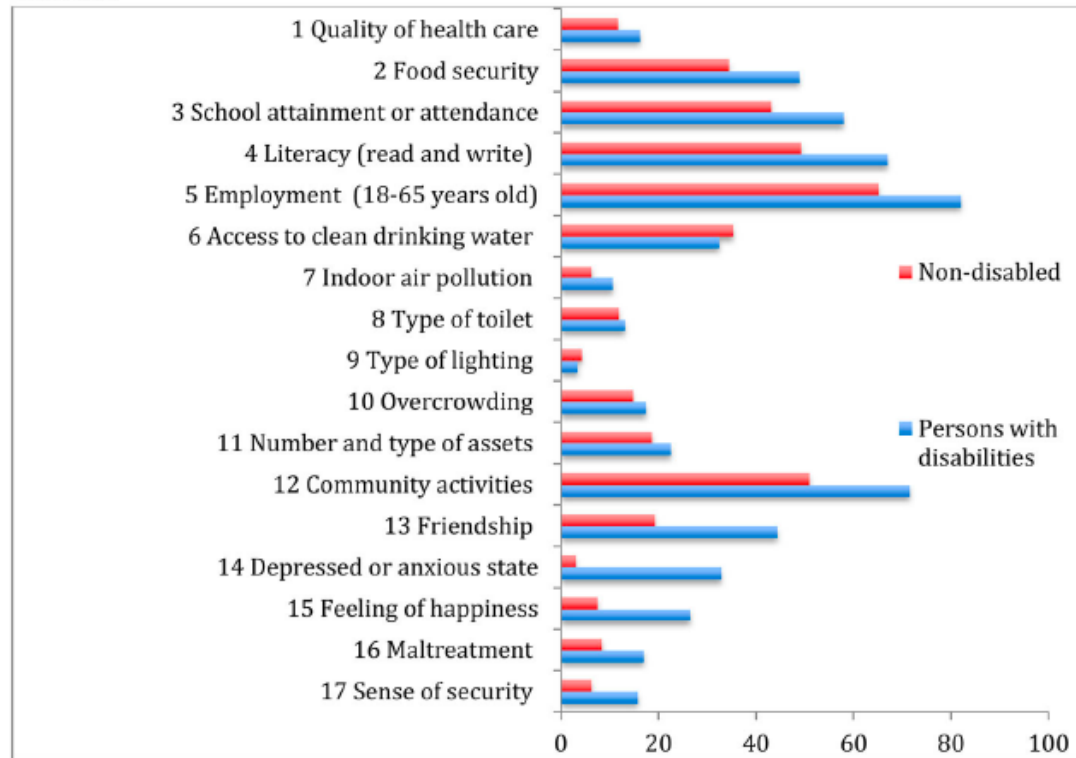


Source: Mitra, Posarac, and Vick, 2013

# Morocco: Deprivation Index

(Trani, et al., 2015)

Morocco



# Disability poverty gap depends on investment

The poverty gap between people with disabilities and people without disabilities is not the same everywhere within a country.

Previous example from Vietnam

# Take Home Messages

- Well tested questions for disability exist and are growing in use around the world
- Care should be taken to use high quality disability questions because poor questions can create misleading information
- Disability is complex and very heterogeneous and analysis should take that into account

THANK YOU

