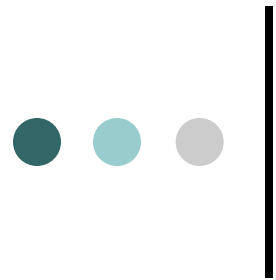




# Disability and the Evaluation of Public Health Interventions

**Daniel Mont, PhD**

Disability and Development Team,  
The World Bank, Washington, DC  
[dmont@worldbank.org](mailto:dmont@worldbank.org)



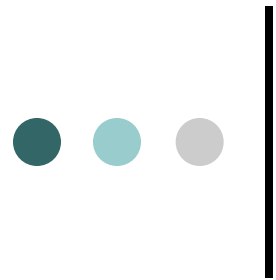
# Disability-adjusted life years

## **Background:**

DALYs - a frequent indicator for assessment of the relative effects of public-health interventions - explicitly incorporate disability.

DALYs are calculated by adding together years lost from premature mortality and the loss experienced by living a certain number of years with a disability

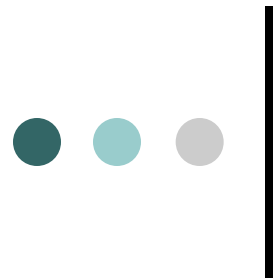
The overriding goal was to create a measure that could help enhance the allocation of resources battling poor health.



# Disability-adjusted life years

## **Advantages:**

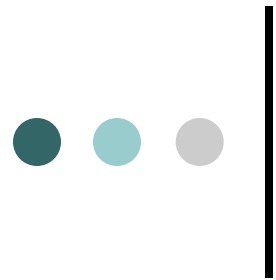
- Incorporates the effect of disabling conditions into the evaluation of public health
- Decouples epidemiological assessment from advocacy
- Creates a standardized measure that can be used in benefit-cost analyses



# Disability-adjusted life years

## Disadvantages:

- Based on a medical model which:
  - Is at odds with the social model of disability that is incorporated into the WHO's International Classification of Functioning, Disability, and Health
  - Ignores the impact of environmental factors, and thus the difference of how people experience disability in different cultures



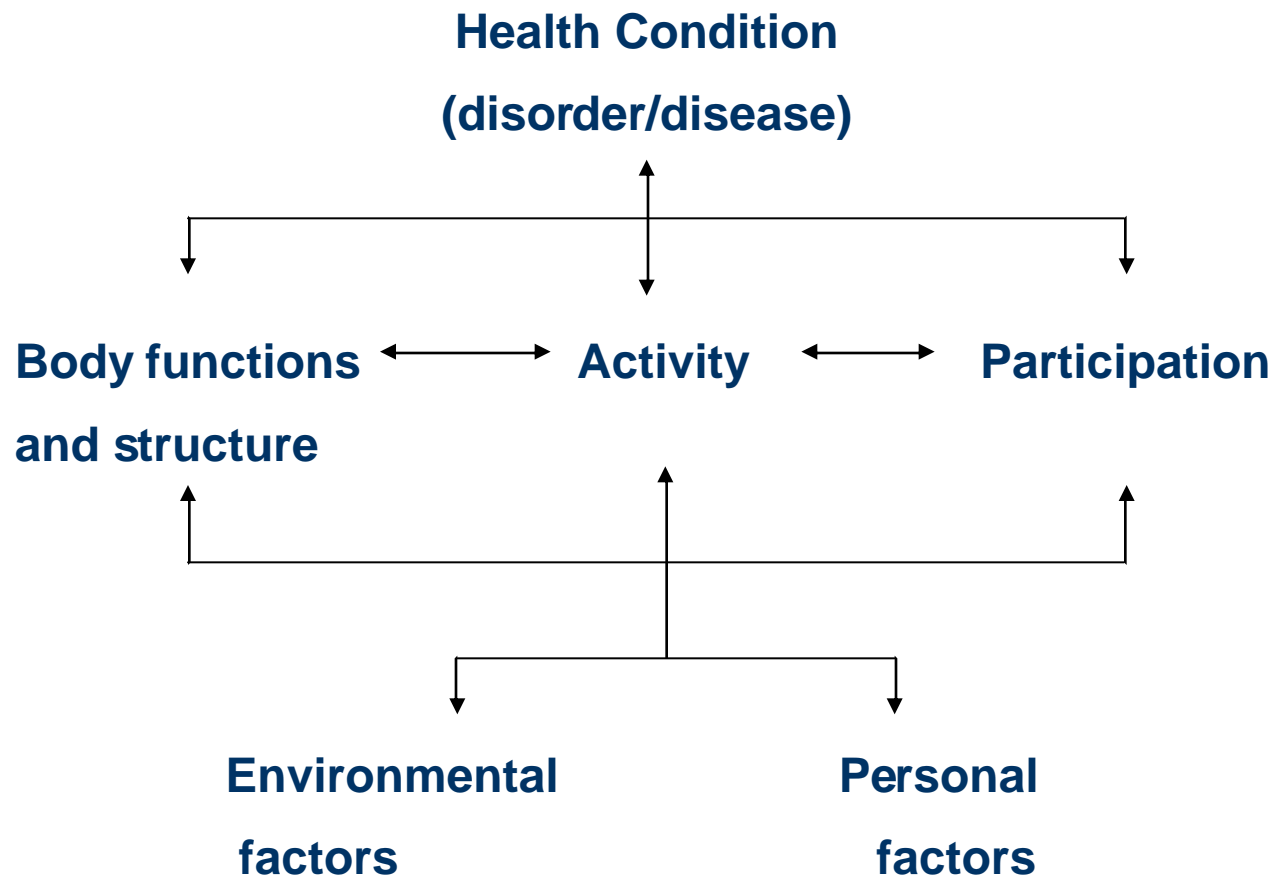
# Disability-adjusted life years

## **Disadvantages:**

- Do not register improvements in people's health, lives, and functional status from interventions – such as rehabilitation services – that do not prevent or cure underlying medical conditions
- Based on weights which do not adequately incorporate the experience of people with disabilities
- Implicitly devalue the lives of people with disabilities.



# The ICF Model of disability





# The questionnaire

## **Part 1a: Household survey (individuals)**

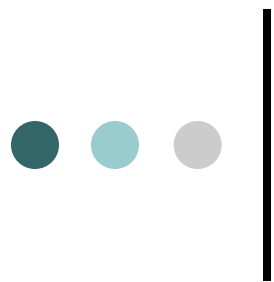
- composition of household
- education
- economic activity
- reproductive health

## **Part 1b: Household survey (households)**

- income, expenses, ownership of land and assets
- housing and physical environment
- transport and communication

## **Part 2: Detailed disability survey**

- activities and participation matrix



# Number of households and individuals in the study

Number of:

<b>Source:</b>	<b>Households</b>	<b>Individuals</b>	<b>Persons with disabilities</b>
<b>Households having a person with disability</b>	<b>2885</b>	<b>15210</b>	<b>2898</b>
<b>Households without a person with disability (Controls)</b>	<b>2866</b>	<b>12979</b>	<b>192*</b>
<b>Total</b>	<b>5751</b>	<b>28189</b>	<b>3090</b>





# 9 Domains & 44 Activities

1. Sensory experiences: *watching, listening*
2. Basic learning & applying knowledge: *reading, writing*
3. Communication: *producing and receiving messages*
4. Mobility: *walking, moving around*
5. Self-care: *washing, dressing*
6. Domestic life: *shopping, preparing meals*
7. Interpersonal relations: *making friends, interacting with strangers*
8. Major life areas: *going to school, getting a job*
9. Community, social and civic life: *clubs, religious, politics*



# Activity Limitation (a measure of *capacity*)

**How DIFFICULT it is for you to perform  
this activity WITHOUT ASSISTANCE?**

- 0 - no difficulty
- 1 - slight difficulty
- 2 - moderate difficulty
- 3 - severe difficulty
- 4 - unable to carry out the activity



# Participation Restriction (a measure of *performance*)

**Do you have any PROBLEMS  
performing this activity in your  
CURRENT ENVIRONMENT?**

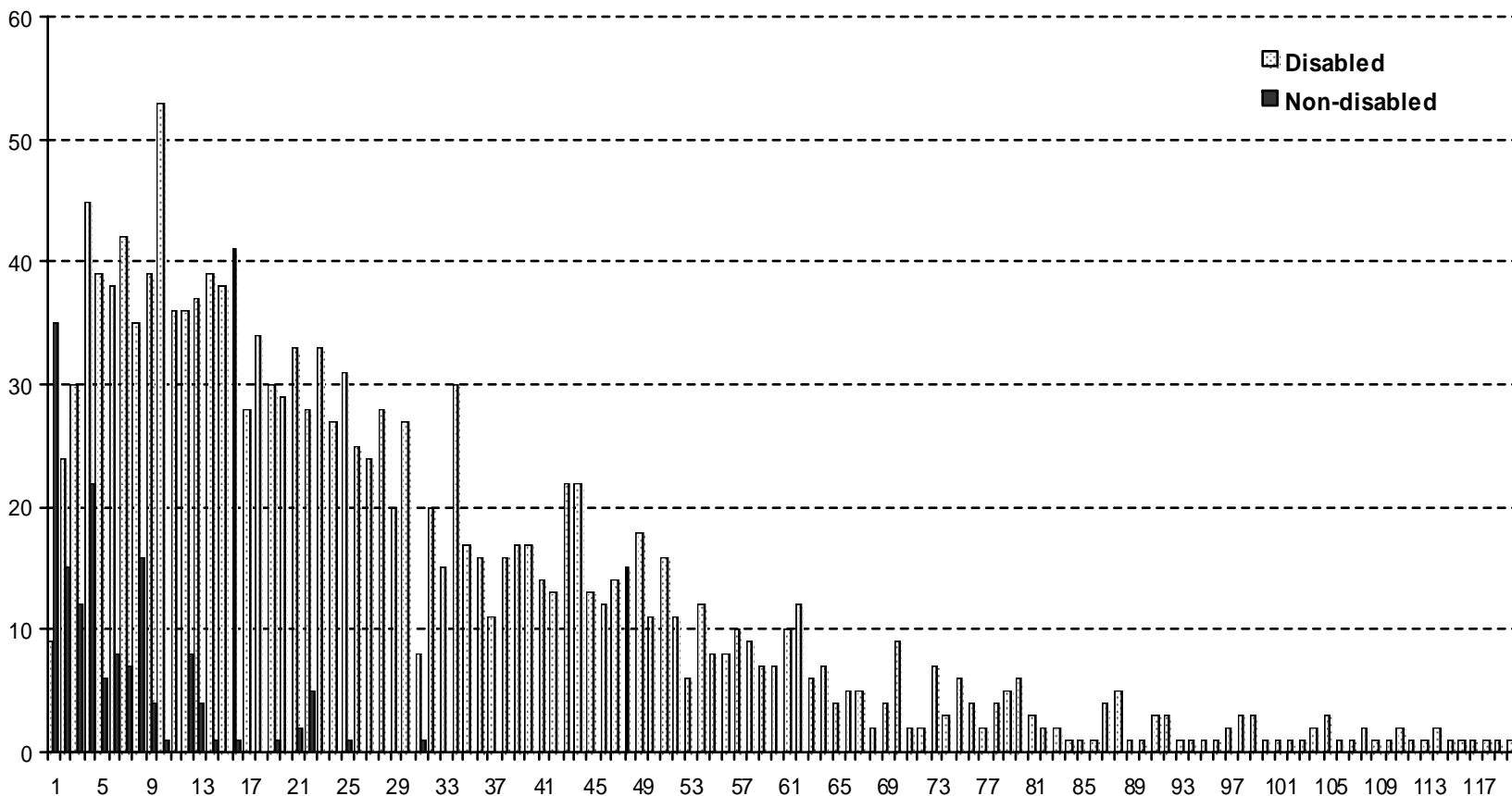
- 0 - no problem
- 1 - mild problem
- 2 - moderate problem
- 3 - severe problem
- 4 - complete problem (unable to perform)



# Activity Limitations

Score: Activity Limitations

Number





# Opportunities

- ***Disability* is no longer be defined according to one's physical impairment (the "What's wrong with you?" approach)**
- **Equality, Accessibility, Inclusion and Human Rights become key elements to the definition of *disability* (the "What do you need to become a fully active participant in your society?" approach)**



# Opportunities

- ***Disability* is thought of as a process rather than as a state or condition.**
- **Approach to dealing with *disability* shifts from fixing or repairing a deficit (physical impairment) to the removal of barriers (including attitudinal), thus creating better access and improving social participation.**
- **Domain of *disability* also shifts away from the medical realm to the socio-environmental.**



# Opportunities

- **Inclusion of people with disabilities becomes paramount to the approach.**
- **Thus, people with disabilities are no longer thought of as patients, beneficiaries, or research subjects - but become empowered peers, research participants and decision makers.**
- **The impact of interventions which improve people's functioning but do not change their "diagnosis" must be taken into account.**



# Challenges

- ***In Research:***

- **Change our way of thinking of *disability*:**
  - from a dichotomy: disabled versus not disabled
  - to a continuum: *degree* of activity limitation or *degree* of participation restriction
- **Develop indicators that reflect this continuum**

- ***In Society:***

- **Normalising or demystifying disability**