



# Disability and equity in global health

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## GLOBAL HELSE

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Persons with disabilities have greater health needs and challenges in accessing health care. In poor countries this is aggravated by constraints in health care and by poverty. In order to achieve equity in health, it is necessary to address the additional challenges faced by persons with disabilities.

Persons with disabilities are among the poorest and most disadvantaged in any population, with the worst health and poverty outcomes, and the lowest access to health and social services (1). Defining equity as 'the absence of avoidable or remediable differences among groups of people' (2), implies that equity in health cannot be achieved without addressing the needs of persons with disabilities (3, 4). It is therefore necessary to act on the challenges persons with disabilities face in accessing health care, particularly in poor societies, as an essential part of addressing equity in the global health agenda. This article discusses the interaction between disability, poverty and equity in health, and a new agenda for practice and research.

Lately, addressing the needs of persons with disabilities and other vulnerable and disadvantaged groups has been emphasised as a prerequisite to eradicating poverty (5). The 2030 Sustainable Development Agenda (6), reflected in the Sustainable Development Goals (SDGs) (7), states that addressing the needs of and barriers faced by disadvantaged groups is a prerequisite for an inclusive and equitable society, further reflected in the pledge to 'leave no one behind'.

*Disability* is a contested concept. The dominant understanding today is based on the International Classification of Functioning, Disability and Health (ICF) (8), which understands disability as linked to health and functioning and as being created in the interaction between an individual and society. The classification provides a framework for understanding and describing disability and the disablement process, and comprises the components of bodily functions and structure, health, contextual factors, activity and participation. The model presented in the International Classification of Functioning, Disability and Health represents an amalgamation of a medical model linking disability

primarily to the body, and a social model depicting context as the primary source of disability. Disability is seen as the outcome of the interaction among the components in the model and may be operationalised as limitations to activity and/or restrictions in social participation. Taking this as its framework, the World Health Organization (WHO) has estimated that more than 1 billion people globally have disabilities (1), of which 80 % live in poor countries.

The International Classification of Functioning, Disability and Health provides a tool for understanding and analysing disability as strongly influenced by a range of social and environmental determinants. The determinants interacting to create disability need to be addressed to reduce or eradicate barriers to equity in health (9). Individuals with disabilities face a number of environmental and social challenges that not only impact directly on their health, but also on their access to health services. This may for instance be an inappropriate wheelchair that leads to further and more serious health problems, or it could be the absence of access to mobility devices, reducing a person's ability to move from the home to the health facility. Another example could be maltreatment at home, for instance skewed distribution of food and family resources and denial of education and other forms of participation. A third example may be health workers with discriminatory practices denying access to persons with disabilities.

Disability is associated with a diverse range of primary health conditions, higher risk of developing secondary conditions, and higher risk of comorbid conditions (1). Additionally, persons with disabilities have higher rates of health risk behaviour, are more exposed to violence and have higher risk of premature death. Bearing in mind that persons with disabilities have more health needs than the non-disabled, it follows that they need more attention from health services than the general population to reduce the consequences of ill health. Distributing health services according to needs is referred to as *vertical equity* as opposed to *horizontal equity* where everybody gets the same (health services) (10).

*Access to health services* has been suggested as comprising five dimensions that may be useful for analysing barriers to health care for vulnerable groups. Firstly, *availability* concerns whether services are within reachable distance from where people live. Secondly, *accessibility* has to do with the structure of entrances and buildings. Thirdly, *accommodation* is about the services adapting to the needs of their clients. Fourthly, *affordability* is about the individual cost for someone to obtain services. Finally, *acceptability* is about services given in a way that is ethically sound and does not infringe on the integrity of the patients (11). If any of these dimensions are compromised, access is reduced. The dimensions may be used to disaggregate the concept of access and to compare between groups.

## Developing countries

Most developing countries are committed to the Sustainable Development Goals. They are thus obliged to produce accessible and quality services for vulnerable groups. Even though individuals with disabilities require more and specific attention from health services, current evidence clearly indicates substantial access barriers (1). For instance, in one study persons with disabilities living in rural Namibia faced a major barrier in obtaining and paying for transport (12). Walking was often out of the question due to long distances and mobility problems. Paying for consultations and treatment was often impossible due to lack of money. Other barriers mentioned were negative attitudes and lack of knowledge about disability from health providers. A multitude of barriers interact for persons with disabilities living in poverty (13). People with disabilities have been shown to face the same barriers as non-disabled, but the consequences of the barriers are aggravated due to their disabilities (14). A large-scale WHO multi-country study showed that around 80 % of persons with severe mental health problems in developing countries had no access to treatment (15). A series of studies implemented by SINTEF and including data from nine countries in southern Africa, revealed that 10–40 % of persons with disabilities do not access general health care when they need it (16). The same studies revealed large gaps in medical

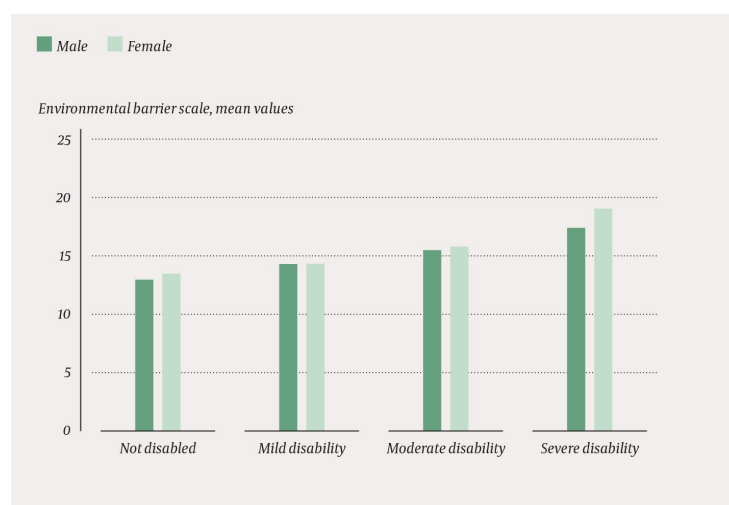
rehabilitation and assistive device services. Thus, bearing in mind the greater health needs, the extent of both general and specific barriers to disability, and existing evidence that persons with disabilities receive less health care in poor countries, it is clear that health services are far from delivering equitable services.

The recognition of poverty as a key ingredient in producing and maintaining health inequity, and the increased negative consequences for persons with disabilities (17, 18), invite particular efforts to eradicate avoidable differences in addition to the broad poverty eradication programmes (19). With regard to health and health services, this implies firstly that we need to identify and target the mechanisms creating the additional health burden for persons with disabilities, secondly that we should improve access to health services, and finally that health services need to adapt to the needs of persons with disabilities. Mainstream policies and action to improve services thus need to be supplemented with specific efforts that accommodate the needs of persons with disabilities. For health services this means reducing barriers such as physical access, negative attitudes and low awareness – and increasing the competence of healthcare workers to treat persons with disabilities in an equitable way.

## Research

WHO, UNICEF, the UN and the World Bank are all involved in developing a new generation of standards for disability statistics. The need for statistics on disability is explicitly mentioned in the Sustainable Development Goals (Goal 17). Capacity-building in the least developed countries (LDCs) is required to enable monitoring and accountability of efforts towards sustainable development. Accessibility and quality of health services for vulnerable groups is one key area where data are needed.

A comprehensive study carried out by SINTEF and partners (3), including household and individual survey data from more than 9000 respondents in four African countries (South Africa, Namibia, Malawi and Sudan), examined a range of barriers to accessing health care known from previous studies (figure 1). These barriers reflected the five dimensions of access to health services as mentioned above (11). Disability was measured by means of a short set of questions developed by the Washington Group on Disability Statistics (20), and the threshold for qualifying as a person with disability was set low in order to include individuals with ‘mild’, ‘moderate’ and ‘severe’ disability. The results revealed a consistent pattern with a higher proportion of individuals with than without disabilities reporting serious or insurmountable access problems (3). The main barriers are associated with transport, availability of services, costs, and inadequate medicine and equipment.



**Figure 1** Environmental barriers by disability severity and sex (equitable data, N = 5484) (3)  
Environmental barriers are analysed with respect to severity of disability, based on different cut-off points on the scale produced by means of the six questions used for screening of disability.  
Environmental barriers were measured by means of an established and validated scale (Craig

*Hospital Inventory of Environmental Factors*) (21), including ten questions about environment and five response categories for each item indicating frequency of experiencing the various items as barriers. The range of the scale was 10–50, and higher scale values imply higher levels of environmental barriers. The figure reveals a clear pattern showing more environmental barriers with increasing severity of disability. Increased access problems among those with greater health needs is clearly problematic from an equity perspective.

## Towards a new agenda for practice and research

The current international momentum regarding disability issues (UN Convention on the Rights of Persons with Disabilities and the Sustainable Development Goals) promises to influence health policy and the development of equitable services also in poor countries. The situation for individuals with disabilities in this regard can be seen as a marker for vulnerable groups in general and for the quality and equity of services more broadly (4). Disability has not, however, attracted the same type of interest as has been the case for specific diseases, such as HIV/AIDS, tuberculosis and malaria. A range of humanitarian initiatives that raise and disburse additional funds for infectious diseases (Global Health Initiatives) have yielded substantial and measurable progress in reducing the burden of specific diseases and disabling conditions in low-income countries. The danger is, however, that strengthening and developing health systems may be sidelined due to the pressure that large international health initiatives put on health services and systems that are already under strain due to lack of resources (21). For health services to be equitable in practice requires the ability to operate strategically, identify and sufficiently service individuals that may be hard to reach due to a range of barriers. Social and environmental determinants of health, for instance discrimination, negative attitudes and low awareness of needs and rights, availability of services, dangerous or inaccessible transport, may be even more important as targets for interventions than health service reforms and development (22). It will be necessary to make transport available and affordable, educate both families and individuals with disabilities, ensure access to basic services for all, promote disability as a human rights issue, empower vulnerable groups, generate relevant data, etc. The foundation for such a development is inherent in the Sustainable Development Goals, which should be seen as a golden opportunity to promote equitable health and inclusive societies. Giving priority to disability in global health research is one important step in this direction.

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### REFERENCES:

1. World Disability Report. Geneva: World Health Organisation and the World Bank, 2011.
2. World Health Organization. Health Systems. <http://www.who.int/healthsystems/topics/equity/en/> (29.09.17)
3. Eide AH, Mannan H, Khogali M et al. Perceived Barriers for Accessing Health Services among Individuals with Disability in Four African Countries. *PLoS One* 2015; 10: e0125915. [PubMed][CrossRef]
4. Maclachlan M, Mannan H, McAuliffe E. Access to health care of persons with disabilities as an indicator of equity in health systems. *Open Med* 2011; 5: e10 - 2. [PubMed]
5. United Nations. The Sustainable Development Goals Report 2016. Leaving no one behind. <https://unstats.un.org/sdgs/report/2016/leaving-no-one-behind> (17.8.2017)
6. United Nations. A/RES/70/1. Transforming our world: the 2030 Agenda for Sustainable Development. Resolution adopted by the General Assembly on 25 September 2015. <https://sustainabledevelopment.un.org/post2015/transformingourworld> (17.8.2017).
7. United Nations. Sustainable Development Goals. 17 goals to transform our world. <http://www.un.org/sustainabledevelopment/sustainable-development-goals/> (29.9.17)
8. WHO. International Classification of Disability, Functioning and Health. Geneva: World Health

9. Rasanathan K, Diaz T. Research on health equity in the SDG era: the urgent need for greater focus on implementation. *Int J Equity Health* 2016; 15: 202. [PubMed][CrossRef]
10. Starfield B. The hidden inequity in health care. *Int J Equity Health* 2011; 10: 15. [PubMed][CrossRef]
11. Penchansky R, Thomas JW. The concept of access: definition and relationship to consumer satisfaction. *Med Care* 1981; 19: 127 - 40. [PubMed][CrossRef]
12. van Rooy G, Amadhila EM, Mufune P et al. Perceived barriers to accessing health services among people with disabilities in rural northern Namibia. *Disabil Soc* 2012; 1: 15.
13. Grut L, Mji G, Braathen SH et al. Accessing community health services: challenges faced by poor people with disabilities in a rural community in South Africa. *Afr J Disabil* 2012; 1: 19. [PubMed][CrossRef]
14. Mji G, Braathen SH, Vergunst R et al. Exploring the interaction of activity limitations with context, systems, community and personal factors in accessing public health care services: A presentation of South African case studies. *Afr J Prim Health Care Fam Med* 2017; 9: e1 - 9. [PubMed][CrossRef]
15. Demyttenaere K, Bruffaerts R, Posada-Villa J et al. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. *JAMA* 2004; 291: 2581 - 90. [PubMed][CrossRef]
16. Eide AH, Neupane S, Hem K-G. Living conditions among people with disability in Nepal. SINTEF Report A 27656; 2016. Oslo: SINTEF Technology and Society.
17. Groce NE, Trani JF. Millennium Development Goals and people with disabilities. *Lancet* 2009; 374: 1800 - 1. [PubMed][CrossRef]
18. Engebretson J. Understanding stigma in chronic health conditions: implications for nursing. *J Am Assoc Nurse Pract* 2013; 25: 545 - 50. [PubMed]
19. Edmonds LJ. Disabled People and Development. Poverty and Social Development Papers No. 12//June 2005. Asian Development Bank: Manila. Accessed 28.9.17.
20. Madans JH, Altman BM, Rasch EK et al. Washington Group Position Paper: Proposed purpose of an internationally comparative general disability measure 2004. [https://www.cdc.gov/nchs/data/washington\\_group/wg\\_purpose\\_paper.pdf](https://www.cdc.gov/nchs/data/washington_group/wg_purpose_paper.pdf)(17.8.2017)
21. Biesma RG, Brugha R, Harmer A et al. The effects of global health initiatives on country health systems: a review of the evidence from HIV/AIDS control. *Health Policy Plan* 2009; 24: 239 - 52. [PubMed][CrossRef]
22. Marmot M, Friel S, Bell R et al. Closing the gap in a generation: health equity through action on the social determinants of health. *Lancet* 2008; 372: 1661 - 9. [PubMed][CrossRef]

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