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## How poor are People with Disabilities around the Globe? A Multidimensional Perspective

Mónica Pinilla-Roncancio\* and Sabina Alkire\*\*

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### Abstract

People with disabilities and their families have been recognised as a high risk population and are particularly likely to be poor and deprived ([Mitra, Posarac, & Vick, 2013](#)). Although the number of studies analysing the levels of poverty of this group has increased in the last decade, there is still a lack of empirical evidence that establishes whether and how people with disabilities are significantly poorer ([Groce, Kembhavi, et al., 2011](#)). This study aims to analyse the levels of multidimensional poverty of people living in households with members with disabilities, in 11 developing countries from different regions of the world. Using the Global Multidimensional Poverty Index (Global MPI), the incidence and intensity of multidimensional poverty of people living in households with and without members with disabilities were calculated and rigorously compared the poverty levels experienced by people living in households in which no member has disabilities. In addition, it studies the levels of destitution and the percentage of individuals living in households with members with disabilities facing severe multidimensional poverty. The results reveal that people living in households with disabled members in four countries face significantly higher levels of multidimensional poverty. These households also contribute more to the national levels of multidimensional poverty than their share in the population. More worryingly, a large percentage of households are not only severely multidimensionally poor but also destitute. It is important to highlight that if disability questions are consistently included in future international multi-topic surveys, these kinds of empirical explorations could become widespread, providing the information required to support households whose members have disabilities and are multidimensionally poor.

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\* Oxford Poverty and Human Development Initiative (OPHI), University of Oxford.

\*\* Oxford Poverty and Human Development Initiative (OPHI), University of Oxford. [sabina.alkire@qeh.ox.ac.uk](mailto:sabina.alkire@qeh.ox.ac.uk)

## 1. Introduction

Disability is a complex situation that affects individuals and families around the world. According to the World Health Organization (WHO) and the World Bank (WB), 15% of the world's population live with some type of disability. This percentage is expected to be higher in developing countries, whose characteristics of poverty, conflict and fragile welfare states increase the risk of people having a health condition that becomes a disability (WHO & WB 2011).

Currently the Convention on the Rights of Persons with Disabilities (CRPD) defines persons with disabilities as *“those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others”*(United Nations (UN), 2008). Those barriers are mainly associated with exclusion from basic services and opportunities related to education, health, labour and social or political participation. In addition, those barriers negatively affect the living standards of people with disabilities and their families and the type of lives this group can enjoy.

People with disabilities and their families may face difficulties in obtaining optimal levels of income. They may also have additional indirect, direct and opportunity costs and characteristics that increase their vulnerability to become poor or chronically poor. Sen (2005, 2009) has called these two situations an *“earning handicap”* and a *“conversion handicap”*. The first type of handicap is related to the disadvantage of people with disabilities in obtaining an income (lack of opportunities in the labour market or a reduction of income because of health problems). A conversion handicap is associated with difficulties converting income into a good living. Indeed, people with disabilities usually have a reduced set of functionings, a feature that limits the type and quality of opportunities they have access to and the final functioning that they can achieve. In general, people with disabilities not only face disadvantages in obtaining income that covers their needs, but also have additional and more expensive needs compared with those of people without disabilities. Consequently, people with disabilities and their families appear to be at higher risk of becoming poor and of facing severe levels of deprivation.

Social exclusion from health care, education, labour and participation are fundamental aspects in the creation of the bidirectional relationship between disability and poverty (Braithwaite & Mont, 2008; Elwan, 1999; Yeo & Moore, 2003). Low levels of nutrition, limited access to preventive health care, violence and low access to sanitation and to clean sources of water are some of the factors that increase the risk of becoming chronically ill for poor populations. People with impairments face extra costs and barriers in their access to health care services; they are socially excluded from education and employment and have to assume direct, indirect and opportunity costs, which negatively affect their income and consumption (Barnes & Sheldon, 2010; Barron & Ncube, 2010; Elwan, 1999; Filmer, 2008; Groce, Kembhavi, et al., 2011; Groce, Kett, Lang, & Trani, 2011; Loeb, Eide, Jelsma, Toni, & Maart, 2008; Mitra, Posarac, et al., 2013; Mont & Cuong, 2011; Palmer, 2012; Pinilla-Roncancio, 2015a; Trani & Loeb, 2012; WHO & WB2011; Yeo, 2005; Yeo & Moore, 2003).

Given the complexity of disability, the effect of this situation is not only on the levels of income of a person and her/his family, but also on the type of opportunities they are able to access. Monetary metrics of poverty usually do not capture all the effects that direct, indirect and opportunity costs of disability have on an individual and her/his family. Income measures of poverty only reveal reductions in labour income; these measures do not capture the extra costs that disability brings with it (e.g. medical expenses, technical aids, equipment) (Kuklys, 2005). Nor does it capture other negative aspects that affect people with disabilities and their families, such as social exclusion. Therefore, it is fundamental to analyse the levels of poverty of this group from a multidimensional perspective that allows the study of the interaction between indicators and dimensions.

In the last five years the number of studies analysing the levels of multidimensional poverty of people with disabilities using the Alkire-Foster methodology has increased (Igei, 2017; Mitra, Jones, et al., 2013; Mitra, Posarac, et al., 2013; Pinilla-Roncancio, 2015b; Trani, Bakhshi, Myers Tlapek, Lopez, & Gall, 2015; Trani, Biggeri, & Mauro, 2013; Trani & Cannings, 2013). Most studies have concluded that people with disabilities have higher levels of multidimensional poverty and face a larger number of deprivations compared to people without disabilities. Mitra, Posarac, et al. (2013) is the only study using information from a set of 15 developing countries that compares the levels of multidimensional poverty of people with and without disabilities. Their results revealed that the incidence of multidimensional poverty was higher for people with multiple impairments and that people with disabilities face higher levels of deprivation in indicators related to education, health expenditure and employment.

Although the empirical evidence in this topic has grown, still there is a lack of high quality empirical evidence in the analysis of the relationship between disability and poverty (Groce, Kembhavi, et al., 2011; Morgon-Banks & Polack, 2014; Simkiss, Blackburn, Mukoro, Read, & Spencer, 2011). In some cases, assumptions related to the levels of poverty of people with disabilities and their families are based on anecdotal evidence and in some countries, studies on this topic have not yet been conducted. Some of the major limitations of conducting research in this area is the insufficient number of household surveys including validated questions on disability. Since 2001, the Washington Group on Disability Statistics (WG) has been working in the design and validation of short and long questionnaires on disability, which can be used by governments or other international agencies. In December 2016, the Demographic and Health Survey (DHS) Programme presented a new module on disability, which was design with the WG which will be reported for each member of the household aged 5 years and older. Questions ask about difficulties in six domains (seeing, hearing, communication/understanding, memory or concentration, walking and the capacity to undertake basic activities) and a 4-item severity scale from no difficulty to not be able to do the activity at all (Demographic and Health Survey Programme (DHS), 2016). This module has been implemented by five developing countries (Angola, Haiti, South Africa, Timor Leste, and Uganda) (DHS 2017). This agreement suggests that the number of countries including comparable and validated questions on disability in their main surveys is about to increase. Such information will enable future researchers to conduct a more detailed analysis of their levels of poverty and their standards of living.

The aim of this article is to use existing data to analyse the levels of multidimensional poverty of people with disabilities and their families in developing countries. At the same time, it demonstrates the types of disaggregated analyses that could be mainstreamed as disability data become available. Using the Global MPI, the paper analyses the levels and composition of multidimensional poverty – and of destitution – of individuals living in households with disabled members and compares it with those of people living in households without members with disabilities in eleven developing countries.

## 2. Methodology

### 2.1 Alkire-Foster Methodology (A-F)

Using a counting and an axiomatic approach to construct poverty measures, Alkire and Foster (2011) developed one of the most widely-used methodologies to measure multidimensional poverty. This methodology uses a double cutoff, meaning that it identifies individuals who are deprived in each dimension and those who are multidimensionally poor. At the first stage, people with achievements below a “deprivation” threshold in each indicator are identified as deprived or non-deprived in that indicator. Then a second cross-dimensional “poverty” cutoff is applied. This cutoff represents the minimum percentage of weighted deprivations that a person must be deprived in to be considered multidimensionally poor (Alkire & Foster, 2011; Alkire & Santos, 2010, 2013b).

The axiomatic properties of this index include: decomposability; ordinality, dimensional breakdown, replication invariance, poverty focus; monotonicity; dimensional monotonicity; nontriviality; normalisation; weak transfer and weak rearrangement (Alkire & Foster, 2011, 2016). These properties permit a better and more in-depth analysis of the situation of multidimensional poverty in a country and have been taken up extensively, for example in the construction of official national multidimensional poverty measures.

The A-F method to calculate multidimensional poverty indices follows a number of steps that can be summarized in the following way (Alkire & Santos, 2013a):

1. Defining the purpose of the measure
2. Defining the dimensions and indicators to be considered
3. Determining the deprivation cutoffs for each indicator
4. Applying the cutoffs to identify if each individual is deprived or not in each dimension
5. Selecting a relative weight for each dimension and each indicator (weights sum to 100%)
6. Determining the poverty cutoff, which is the proportion of weighted deprivations that a person (or household) needs to be considered poor
7. Creating a weighted deprivation score for each person. This score is the sum of their weighted deprivations, and will define who is poor according to the poverty cutoff

8. Computing the multidimensional incidence or headcount ratio ( $H$ )<sup>1</sup> and the intensity of poverty ( $A$ )<sup>2</sup>
9. Finally, computing the adjusted headcount ( $M_0$ )<sup>3</sup>, which is the product of the headcount and the intensity of poverty ( $M_0 = H \times A$ ).

### ***2.1.1 The Global Multidimensional Poverty Index (Global MPI) and destitution index***

The Global MPI measures acute multidimensional poverty. It was first presented in the Human Development Report (HDR) in 2010, and it is based on the A-F methodology. The MPI was estimated for 104 countries in 2010, and it has been continuously updated since. The MPI recognises that poverty is a multidimensional phenomenon, and aspects related to individual capabilities and functionings should be at the centre of the analysis (Alkire & Santos, 2013b). The household is used as the unit of identification, the individual as the unit of analysis and three dimensions and ten indicators are included (Table 1). A person is considered multidimensionally poor if s/he lives in a household whose weighted sum of deprivations is 33% or higher (Alkire, Roche, Santos, & Seth, 2011). In addition to this multidimensional poverty line, severe (50%) and vulnerable (20%) cutoffs are used, to calculate the percentage of people severely multidimensional poor and vulnerable to multidimensional poverty.

The destitution measure identifies people who are deeply deprived in the same indicators included in the Global MPI, using extreme deprivation cutoffs (Alkire, Conconi, & Seth, 2014). For example, instead of undernutrition, severe undernutrition is considered; instead of inadequate sanitation, it is open defecation. People who are destitute are already MPI poor and face more severe levels of deprivation in at least one-third of the dimensions.

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<sup>1</sup> The multidimensional headcount is the proportion of people whose weighted deprivation is  $c(k) \geq k$  and it is calculated  $H = \frac{q}{n}$  where  $q$  is the number of people who are multidimensionally poor, and  $n$  is the total population (Alkire and Santos, 2010; Alkire et al. 2011).

<sup>2</sup> The intensity of poverty is the average deprivation score of people who are multidimensionally poor, and it is expressed  $A = \frac{\sum_{i=1}^n c_i(k)}{q}$ , where  $c_i(k)$  is the censored deprivation score of individual  $i$ , and  $q$  is the number of people who are multidimensionally poor (Alkire and Santos, 2010; Alkire et al. 2011).

<sup>3</sup>  $M_0 = H * A$

**Table 1. Dimensions and deprivations cutoffs for Global MPI and Destitution measure**

Dimension	Indicator	Deprivation cutoffs Global MPI	Deprivation cutoffs Destitution
<b>Education</b>	Years of Schooling	No household member aged 10 years or older has completed five years of schooling	No household member aged 10 or older has completed at least one year of schooling
	Child school attendance	Any school-aged child is not attending school up to the age they would complete class 8	No children are attending school up to the age at which they should finish class 6
<b>Health</b>	Child mortality	Any child has died in the household in the past five years	Two or more children have died in the family
	Nutrition	Any adult under 10 years of age or any child for whom there is nutritional information is malnourished	Severe undernourishment of any adult (BMI<17) or any children (-3 standard deviation from the median)
<b>Living Standards</b>	Electricity	The household has no electricity	The household has no electricity
	Improved sanitation	The household's sanitation facility is not improved (according to MDG guidelines) or it is improved but shared with other households	There is no sanitation facility (open defecation)
	Safe drinking water	The household does not have access to safe drinking water or safe drinking water is at least a 30-minute walk from home round-trip	The household does not have access to safe drinking water or safe drinking water is more than a 45-minute walk from home round-trip
	Flooring	The household has a dirt, sand or dung floor	The household has a dirt, sand or dung floor
	Cooking fuel	The household cooks with dung, wood or charcoal	The household cooks with dung, wood or organic waste
	Assets ownership	The household does not own more than one of the following items: radio, TV, telephone, bike, motorbike or refrigerator and does not own a car or truck	The household has no assets and no car

Source: Adaptation from (Alkire et al., 2016)

### 3. Data

#### 3.1 Selection of the cases

The selection and inclusion of countries was based on the existence of information on questions on disability and on the main indicators of the global MPI being present in the same, publicly available, survey. Given the low number of countries that have included questions on disability in their Demographic and Health Surveys (DHS) or other surveys currently used to calculate the global MPI, it was only possible to

analyse eleven countries<sup>4</sup>. The number of countries including questions on disability in the DHS using the set of questions proposed by WG will increase in the near future, allowing a more extensive analysis of this topic (Demographic and Health Survey Programme (DHS), 2017).

### ***3.1.1 Data Sources***

The main sources of information used for the calculation of the Global MPI are the DHS and the Multiple Indicator Cluster Survey (MICS)<sup>5</sup>. The DHS is standardised across countries, and the main objective is to collect information on topics related to fertility, family planning, mortality, reproductive health, child health, nutrition, HIV/AIDS and sociodemographic characteristics of household members (ICF International, 2012b). DHS are nationally representative, with women aged 15-49 and children under five years living in residential households as their main target populations. However, some surveys also include men aged 15-59. All DHS follow a two stage probability sampling frame (ICF International, 2012a). Additionally to DHS, the ENSANUR from Mexico 2012 and the Quality of Life Survey (Encuesta de Condiciones de Vida (ECV)) from Ecuador 2014 were analysed.

Before the introduction of the new DHS module on disability on December 2016, just a few countries collected information on this topic using questions. But the disability questions were not standardized. Of the eleven countries analysed in this study, nine have included questions on limitations/difficulties in their DHS. To date only Uganda's DHS used the set of questions proposed by the WG and included a severity scale. Egypt's DHS asked questions on disability only about children nine years or younger and in Cameroon and Chad, questions on disability were asked at the household level, meaning the respondent answered whether any household member has a disability, without identifying the member(s) on the household roster (see Table A1 for details). The age groups of individuals whose disability was ascertained differs among surveys; in Cambodia, Ecuador and Uganda information was collected for individuals 5 years or older; in Gambia for members aged 7 to 69 years and in Mexico for members 6 years or older. In the rest of the countries, except Egypt, the information was gathered for all household members (Table 2). Finally, although all DHS surveys follow the same sampling framework, in the case of Dominican Republic and Cameroon, questions on disability were only asked to a subsample. For the first case, half of the sample

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<sup>4</sup> Countries such as Haiti, D.R Congo, Albania and Peru have included some questions on disability in their DHS. However, these questions aimed to identify risk of child disability (D.R Congo), or were collected for a small fraction of the population (Haiti and Albania) or the data is not yet available (Peru).

<sup>5</sup> MICS3 includes questions on disability for children aged 2 to 9 years. Nevertheless, these sources of information were not used given that they were older than 10 years in most cases. In a previous study the living conditions of children with disabilities were analysed using this source of information (United Nations Children's Fund (UNICEF), 2008).

answered the health and health expenses questionnaire (where questions on disability were included) and in Cameroon, the other subsample answered questions on disability.

**Table 2. Surveys used for the analysis**

Country	Region	Year	Survey	Level of identification of disability	Range of age	All sample or subsample
<b>Cambodia</b>	East Asia	2010	DHS	Individual	5 years or older	All sample: Household questionnaire
<b>Cameroon</b>	Africa	2011	DHS	Household	All individuals	Subsample: sample selected for HIV test
<b>Chad</b>	Africa	2014-2015	DHS	Household	All individuals	All sample: Household questionnaire
<b>Colombia</b>	Latin America	2010	DHS	Individual	All individuals	All sample: Household questionnaire
<b>Dominican Republic</b>	Latin America	2013	DHS	Individual	All individuals	Subsample, households no selected for men questionnaire: Health questionnaire
<b>Ecuador</b>	Latin America	2014	ECV	Individual	5 years or older	All sample
<b>Egypt</b>	Middle East	2014	DHS	Individual:	Children 0 to 9	Children questionnaire
<b>Gambia</b>	Africa	2013	DHS	Individual	7 to 69 years	All sample: Household questionnaire
<b>Mexico</b>	Latin America	2012	ENSANUR	Individual	6 years or older	All sample
<b>Uganda</b>	Africa	2011	DHS	Individual	5 years or older	All sample: Household questionnaire
<b>Yemen</b>	Middle East	2013	DHS	Individual	All individuals	All sample: Household questionnaire

Source: Author's creation

### **3.1.2 Disability Status**

Given the data sources used, it was unfortunately not possible to generate strictly comparable measures of disability status. This problem is likely to diminish in the future generation of DHS. But for the purpose of this study, a person was defined to experience disability if they were reported as having an impairment/difficulty in any of the categories included in each survey. In the case of Uganda, where a severity scale was included, only people who responded that they lived with a severe difficulty/limitation or were not able to do an activity were classified as people with disabilities, as this is what we would



recommend for future studies. In countries whose questions did not include a severity scale, a person who reported having a difficulty in any of the activities listed was classified as disabled.

In addition to having differently formulated questions, the other source of incomparability across surveys, as mentioned above, pertained to age. We therefore explored age in two stages. In the initial stage, a household was considered to have a member with disability if any of its members to live with at least one difficulty/limitation. To explore the robustness of the estimations, in a second stage the levels of multidimensional poverty of households with at least one member with disability aged 20 to 69 were calculated. This controls by the influence of the demographic structure and allows us to conduct an analysis of the levels of multidimensional poverty of households with at least one working age member with disability. Note that in either stages, an outlier was Egypt, which only collected disability information for children aged 0 to 9 years old. In both stages in Egypt, a household was considered to have a member with disabilities if at least one child aged 0 to 9 years was living with difficulties/limitations in any activity. In this country, the levels of multidimensional poverty of households with children with disabilities were compared only to the levels of multidimensional poverty of households with children aged 0 to 9 years without disabilities.

The resulting data are clearly not strictly comparable, and the lack of severity scale in many surveys may bias the results (Altman, 2014; Molden & Tossebro, 2010). We therefore strongly endorse the call to include severity scales and follow the suggestion made by the WG. However, given the scarce number of sources including questions on disability, we decided to use the available information for the analysis of the levels of multidimensional poverty of people living in households with and without members with disabilities<sup>6</sup>. The aim of this study therefore is not to have the ‘last word’ on disability and multidimensional poverty, but rather to be an ‘early study’ that paves the way for more extensive and more comparable studies of a similar nature as soon as the data permit. Please note also that due to data limitations it is only possible to disaggregate national statistics by disability status; we cannot disaggregate subnational regions by disability status.

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<sup>6</sup> It is important to recognise that even if the WG questions were asked uniformly, comparisons across countries might be influenced in part by the demographic structure (an aging population) and in part by differences in which degrees of disability are self-reported.

## 4. General Results

This section presents key results in the analysis of the levels of multidimensional poverty of people living in households with a member with disabilities (PHWD). First, the incidence, intensity and levels of multidimensional poverty are presented, followed by a description of the censored deprivation levels in each of the indicators (these show the percentage of the population who are multidimensionally poor and deprived in each indicator) and the weighted contribution of each indicator and dimension to the Global MPI. Subsequently, the percentage of PHWD who are severely multidimensionally poor and vulnerable to multidimensional poverty are compared with the incidence of MPI among people living in multidimensionally poor households without members with disabilities. Finally, the levels of destitution of people living in households with and without members with disabilities are compared.

### 4.1 Multidimensional poverty: national level

Across the ten countries that asked questions related to disability for adult members, more than 15% of the population in each country lived in a household with at least one person with disabilities. Cameroon had the largest percentage of people living in a household with members with disabilities (26.2%)<sup>7</sup> and Dominican Republic had the lowest percentage (15.6%). Mexico was the country with the highest prevalence of disability across the society, and, the percentage of people with disabilities was 8.6% (Table 3).

**Table 3 Percentage PwDs and households with members with disabilities per country (all individuals)**

Country	Percentage of people with disabilities	Percentage of households with disabled members
Cambodia	4.95%	17.74%
Cameroon	--**	26.22%
Chad	--**	19.7%
Colombia	5.70%	19.19%
Dominican Republic	4.92%	15.57%
Ecuador	5.75%	16.63%
Egypt*	0.54%	1.14%
Gambia	2.74%	16.06%

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<sup>7</sup> It is important to acknowledge that in Cameroon it was not possible to identify who was then person with disabilities or the number of members with disabilities inside the household.

Mexico	8.62%	25.54%
Uganda	4.36%	15.70%
Yemen	3.12%	18.98%

\*Children between 0 and 9 years old \*\*Questions on disability did not identify the number of household members with disability, just the presence of at least one member with disability in the household

Source: Author's creation

In eight countries, where questions on disability were asked to individuals (excluding Cameroon, Chad and Egypt), people with disabilities share similar characteristics. They are significantly older, are more likely to be illiterate or have a lower level of education compared to the national average; they tend not to participate in the labour market, to live in rural areas and in large households. No significant differences were found between gender, and physical impairment was the most prevalent impairment in most countries (see Table A2).

#### ***4.1.1 Incidence, Intensity and Multidimensional Poverty***

Significant differences were found between the incidence and levels of multidimensional poverty of people living in households with and without members with disabilities. In Cameroon, Colombia, Ecuador, Egypt and Uganda the incidence of multidimensional poverty for PHWD was significantly higher than for people living in other households. No significant differences were found in the intensity of multidimensional poverty in most countries, except Egypt. In Cameroon, Colombia, Ecuador and Egypt PHWD have significantly higher levels of MPI compared to people living in other households. In the case of Cameroon, the MPI was equal to 0.37 for PHWD compared with 0.31 for individuals living in households without members with disabilities. In Egypt, where only information from households with children 0 to 9 years old was analysed, it was found that the incidence and intensity of multidimensional poverty for people living in households with at least one child with disabilities was significantly higher than those for people living in households without disabilities. In this country, 21% of people living in households with at least one child with disabilities were multidimensionally poor, and they faced, on average, 43% of deprivations.

**Table 4. Incidence, intensity and MPI for people living in households with and without disabled members**

	% households with disabled members	Total Number of PHWD	Household <u>with</u> disabled members			Household without disabled members		
			MPI	Incidence H	Intensity A	MPI	Incidence H	Intensity A
<b>Cambodia</b>	17.74%	2,631,242	0.138 0.01	31.3% 0.23	43.9% 0.007	0.148 0.005	33.4% 0.01	44.40% 0.004
<b>Cameroon</b>	26.22%	5,566,261	0.367** 0.012	62.2%** 0.017	59.0% 0.009	0.31 0.008	54.30% 0.011	57.1% 0.006
<b>Chad</b>	19.70%	2,504,947	0.565 0.009	89.1% 0.011	63.4% 0.004	0.549 0.005	86.6% 0.054	63.40% 0.006
<b>Colombia</b>	19.19%	9,001,155	0.026* 0.002	6.5%** 0.004	40.4% 0.09	0.21 0.001	5.1% 0.002	41.00% 0.11
<b>Dominican Republic</b>	15.57%	1,581,139	0.022 0.009	5.20% 0.22	42.3% 0.09	0.021 0.002	5.50% 0.06	38.8% 0.097
<b>Ecuador</b>	16.63%	2,564,262	0.019** 0.002	5.16%** 0.004	38.73% 0.005	0.012 0.001	3.14% 0.002	38.50% 0.003
<b>Egypt</b>	1.14%	976,534	0.091** 0.03	21.0%** 0.057	43.0%** 0.007	0.018 0.001	4.80% 0.003	37.90% 0.001
<b>Gambia</b>	16.06%	290,221	0.342 0.024	62.9% 0.38	55.1% 0.002	0.32 0.012	59.8% 0.19	54.30% 0.001
<b>Mexico</b>	25.54%	31,176,924	0.011 0.0007	2.83% 0.002	38.1% 0.07	0.011 0.0006	2.78% 0.0016	39.2% 0.07
<b>Uganda</b>	15.70%	5,557,897	0.397 0.02	76.5%* 0.03	52.0% 1.1	0.361 0.01	68.7% 0.017	52.6% 0.005
<b>Yemen</b>	18.98%	4,722,753	0.252 0.009	49.3% 0.016	51.1% 0.006	0.232 0.007	45.1% 0.11	51.40% 0.006

\*Differences between groups are significant at 10% \*\* significant at 5%

Source: Author's computations

The percentage of PHWD that were vulnerable to multidimensional poverty (meaning they were deprived in 20% to 33.32% of deprivations) was 23% of the population in Cambodia and 19.4% Yemen. Nevertheless, only in Colombia differences in the levels of vulnerability were significant between people living in households with and without disabled members.

We now turn to the people who are MPI poor and experience deprivation in at least 50% of the dimensions, so experience 'severe' multidimensional poverty. Only in Egypt, significant differences on the level of severe multidimensional poverty between people living in households with and without disabilities were found. Nevertheless, it is important to highlight that the case of Cameroon and Uganda more than 40% of the PHWD were facing severe levels of multidimensional poverty and in Chad more than 70% of PHWD were severely poor ( $k=50%$ ) (Table 5). In addition, in the case of Cameroon, Chad, Gambia and Uganda the percentage of PHWD that were classified as severely multidimensionally poor was more than half of the total percentage of multidimensionally poor people living in households with members with disabilities.

**Table 5 Households with members with disability that are vulnerable to or in severe multidimensional poverty**

	Vulnerability to Multidimensional Poverty					Severe Multidimensional Poverty						
	People living in households <u>with</u> members with disability	Confidence Interval 95%		People living in households without members with disability	Confidence Interval 95%		People living in households <u>with</u> members with disability	Confidence Interval 95%		People living in households without members with disability	Confidence Interval 95%	
<b>Cambodia</b>	23.0	20.2	26.1	21.2	20.0	22.5	9.1	7.1	11.6	10.9	9.7	12.2
<b>Cameroon</b>	13.8	11.7	16.2	11.1	9.95	12.3	41.7	38.1	45.3	33.7	31.5	36.1
<b>Chad</b>	7.7	5.9	9.5	9.38	8.53	10.3	70.3	67.0	73.6	66.3	64.6	68
<b>Colombia</b>	8.3*	7.5	9.3	5.94	5.6	6.3	1.2	0.95	1.6	1.1	0.9	1.3
<b>Dominican Republic</b>	1.6	0.7	2.5	2.0	1.5	2.5	0.4	0.02	0.7	0.6	0.3	0.8
<b>Ecuador</b>	7.5	6.5	8.5	6.4	5.9	6.9	0.7	0.45	1.0	0.36	0.3	0.44
<b>Egypt</b>	5.0	2.3	10.8	6	5.3	6.7	8.7*	2.5	25.9	0.5	0.4	0.7
<b>Gambia</b>	13.0	9.4	17.6	20.17	17.2	23.5	42.2	34.2	50.6	35.9	32.3	39.6
<b>Mexico</b>	2.1	1.8	2.5	2.4	2.1	2.7	0.3	0.2	0.5	0.4	0.32	0.5
<b>Uganda</b>	15.1	11.2	20.1	19.8	17.5	22.3	43.4	36.6	50.5	37.2	34.1	40.43
<b>Yemen</b>	19.4	17.16	21.8	18.5	17.2	19.9	24.8	22.3	27.5	22.8	20.9	24.9

\*Differences are significant at 5%

Source: Author's computations

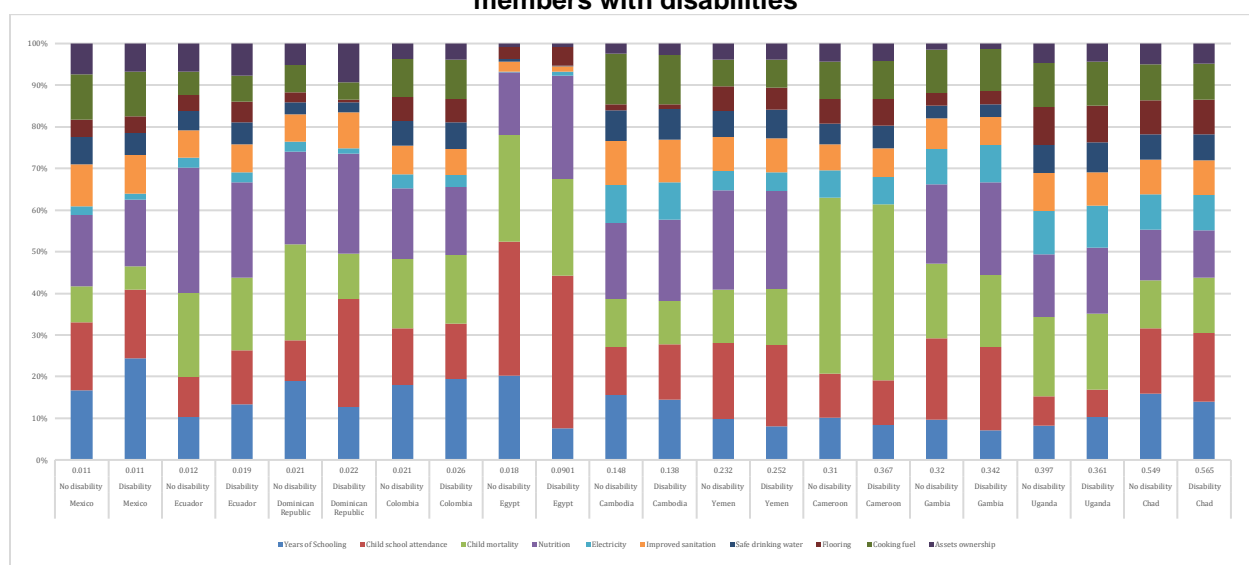
Analysis of the censored headcount ratios for households with members with disabilities showed that cooking fuel was the indicator with the highest levels of deprivation (except in Yemen), followed by improved sanitation. In Cameroon, Chad, Gambia and Uganda, more than 30% of multidimensionally poor people living in a household with members with disabilities were deprived in child mortality, and more than 20% in education indicators. In Mexico, Colombia and Ecuador, most indicators presented similar levels of deprivation, meaning that multidimensionally poor PHWD were equally likely to face deprivations as people living in households without members with disabilities. Finally, in Egypt, which only included people living

in households having children with disabilities, the indicator with the highest censored headcount ratio was child school attendance.

## 4.2 Percentage contribution of indicators to the MPI

In exploring differences in the configuration of the contribution of each indicator to the MPI for PHWD and other households, we found that the situation of PHWD mirrors that of people living in households without disabled members in eight of the eleven countries analysed (Figure 1). For example, in countries with the highest levels of MPI for PHWD (Cameroon, Chad, Gambia and Uganda) the contribution of each indicator to the MPI for PHWD compared to people living in other households was similar. But in Ecuador, Mexico and Dominican Republic, the contribution of health and education to the MPI was higher for PHWD compared to people in households without disabled members.

**Figure 1 Percentage contribution of each indicator to the MPI for households with members with disabilities**



## 4.3 Disability and Destitution

Comparing the levels of destitution for people living in households with and without disabled members, we find that in eight of eleven countries (except Cambodia, Dominican Republic and Mexico) PHWD had a higher incidence of destitution compared to people living in households without disabled members. Those differences were only significant in Cameroon and Ecuador (Table 6).

**Table 6 Incidence of destitution of people living in households with and without disabled members**

Country	Incidence Destitution							
	All households	Number of people living in households with disabled members destitute	People living in households without disabled members	Confidence Interval 95%		People living in households with disabled members	Confidence Interval 95%	
Cambodia	9.8	729	9.9	8.7	11.1	9.3	6.7	11.9
Cameroon	29.3	2,874	27.6	25.5	29.8	34.1*	30.6	37.6
Chad	62.3	8,001	61.5	59.4	63.5	65.7	62	69.4
Colombia	1.1	368	0.76	0.63	0.9	0.78	0.54	0.1
Dominican Republic	0.6	6	0.6	0.3	1	0.1	na	na
Ecuador	0.7	424	0.6	0.5	0.8	1.15*	0.8	1.4
Egypt	0.9	26	0.9	0.6	1.1	2.4	0.1	4.7
Gambia	24.5	1,277	23.9	20.5	27.2	27.8	19.7	35.8
Mexico	0.6	420	0.6	0.4	0.7	0.6	0.4	0.7
Uganda	29.8	594	29.3	26.3	32.2	32.2	25.4	39.1
Yemen	18.7	5,006	18.0	16.2	19.8	21.1	19.4	24.3

\*Differences between groups are significant at 5%

Source: Author's creation

#### 4.4 Destitution and/or living in severe multidimensional poverty

Severity of multidimensional poverty can be measured using an intensity or a depth approach (Alkire et al., 2014; Alkire, Roche, Seth, & Sumner, 2015). In the case of disability, it is important to analyse if PHWD face a larger number of deprivations (intensity approach) or face severe levels of deprivations (depth approach). The results of the analysis revealed that PHWD can be both severely multidimensional poor and destitute or destitute without being severely multidimensional poor or vice versa. Table 7 presents the percentage of PHWD that corresponds to each group. It is evident that in countries with a high incidence of severe multidimensional poverty or destitution (e.g. Cameroon, Chad and Gambia), the percentage of people who were both (severe and destitute) was larger than in other countries.

When these results were compared to those of people living in households without disabled members, it was found that the relative percentage of PHWD destitute and severe multidimensional poor was significantly higher only in Yemen; small sample sizes prevent us discussing other cases, but it appeared to be higher in six of the eleven countries.

**Table 7 Percentage of people living in households with members with disabilities destitute and in severe multidimensional poverty**

	People living in households <u>without</u> disabled members			People living in households <u>with</u> disabled members		
	Severe not destitute	Destitute not severe	Both	Severe not destitute	Destitute not severe	Both
Cambodia	4.8	5.8	5.1	5.1	5.3	4.03
Cameroon	12.0	5.9	21.7	14.3	6.7	27.4
Chad	12.0	7.2	54.3	11.8	7.17	58.5
Colombia	0.4	0.7	0.4	0.4	0.9	0.3
Dominican Republic	0.5	0.4	0.18	0.1	0.4	0
Ecuador	0.2	0.5	0.1	0.4	0.9*	0.3
Egypt	0.3	0.63	0.2	8.1	1.8	0.6
Gambia	16.5	4.5	19.4	3.3	17.7	24.5
Mexico	0.2	0.4	0.2	0.2	0.5	0.1
Uganda	16.1	8.2	21.1	18.9	7.8	24.4
Yemen	9.3	4.4	14.1	6.6*	5.9	14.7

\*Differences between groups are significant at 5%

Source: Author's creation

#### 4.5 Robustness Analysis

Aiming to corroborate the robustness of the estimators, we calculate and analyse the levels of multidimensional poverty of PHWD aged 20 to 69. Table A3 presents the results of this analysis. We found that in most cases (except Yemen, Mexico and Dominican Republic), the results followed the same direction than in the main results. For Yemen and Mexico, the second analysis revealed that PHWD aged 20 to 69 have lower levels of multidimensional poverty compared to the levels of people living in households without disabled members. For Yemen, this result is associated with the fact that questions on disability for this country were asked to all household members, in fact 19% of the population with disability in Yemen were older than 69 and 28% younger than 20. In the case of Mexico, a similar phenomenon happens, in this country more than 25% of people with disabilities is older than 69 and 10% younger than 20. Finally, this last analysis revealed that in Dominican Republic, the incidence of multidimensional poverty of PHWD aged 20 to 69 were higher than for people living in other households, contrary to the main analysis were the incidence was lower for the first group, but the intensity was similar in magnitude. The main explanation to this result might be related to the small sample that we are using for the second analysis. The number of



PHWD and multidimensional poor is 49 individuals. Finally, as expected the significance level were affected by the sample size, for the robustness analysis, the results were only significant in the case of Cameroon and Egypt.

## **5. Discussion**

This article analysed the levels of multidimensional poverty and destitution of people living in households with disabled members in eleven low and middle income countries (LMIC), from four regions of the world (Cambodia, Cameroon, Chad, Colombia, Dominican Republic, Ecuador, Egypt, Gambia, Mexico, Uganda and Yemen). Only the study conducted by Mitra, Posarac, et al. (2013) previously analysed the levels of multidimensional poverty of people with disabilities in LMIC. However, this is the first article analysing this topic using an internationally accepted comparable measure of multidimensional poverty (Global MPI) using the household as level of identification.

Contrary to what was expected, not in all countries people with disabilities and their families are significantly poorer than people living in households without members with disabilities, but this may be in part due to the lack of severity scales. In countries with more than 80% of its population living in multidimensional poverty (e.g. Chad), no significant differences were found between groups. Meaning that people with disabilities and their families face similar levels of poverty and deprivation as other groups, or in other words, in those countries poverty affects all individuals in general. By contrast, in Colombia and Ecuador where the levels of multidimensional poverty are low, differences between groups are significant, suggesting that people with disabilities and their families are more likely to be deprived in basic indicators or are being left behind. In the specific case of Cambodia, contrary to all expectations, the results revealed that PHWD face lower levels of multidimensional poverty compared to other household although these were not statistically significant. A more detailed analysis reveal that PHWD had lower levels of deprivation in all the indicators, except in assets. Also, as they covered any disability, they may reflect the greater willingness of more educated populations to report minor disabilities. According to the information provided by DHS surveys, visual impairment was the most prevalent, which follows the same pattern as the official national statistics on disability (Handicap International France, 2009). In Cambodia, PHWD who are multidimensionally poor are more likely to live in urban areas compared to people living in households without members with disabilities and have on average lower levels of education compared with households without members with disabilities. Given that there is no study analysing the levels of multidimensional poverty or living standards of people with disabilities and their families in Cambodia, nor has the

Washington Group questionnaire yet been applied, it is important to conduct further analysis to corroborate our results.

The results presented in this study are affected by three different issues. First, the percentage of people, who report themselves as having a disability or living with an impairment depends on the questions used and these are not comparable across countries. Second, in some countries, questions on disability were only asked to a subsample of households, aspect that reduces the power of the sample and limits the results and finally, although the Global MPI is an internationally accepted measure of multidimensional poverty, it may not include deprivations that people with disabilities and their families face in a higher proportion such as mobility challenges.

Disability is a complex concept whose measurement depends on a theoretical understanding of the concept and its relevant aspects. Although the CRPD defines disability as an interaction between a health condition and different social factors (United Nations (UN), 2008), and since 2001 the WG has been working on the definition of a set of question to collect data on disability (Washington City Group (WG), 2013), there still exists a lack of understanding about what disability means, how it should be measured and who is or not a person with disabilities. This has affected the type of questions that national household surveys include, with negative consequences for the analysis of the social and economic characteristics of people with disabilities and their families. In the case of the eleven countries analysed in this article, factors related to the omission of questions on disability for all age groups, the omission of severity scales and the inclusion of words such as *disabled, difficulty or limitation* are some of the issues related to how disability is measured in national surveys.

Aiming to analyse the levels of multidimensional poverty and deprivation of this group, it is necessary to recognise the importance of collecting information on education, access to health care services and labour market participation for all individuals. In this context, questions on disability should be included in the household questionnaire aiming to identify who is living with disability in the family and his/her situation. In addition, this is a requirement in the Sustainable Development Goals, which recognised the need to disaggregate indicators by subgroups, including people with disabilities.

In addition to the issue of difficulties capturing information on disability, we need to acknowledge that people with disabilities and their families face specific types of deprivations. Previous studies analysing the levels of multidimensional poverty of people with disabilities in LMICs found that people with disabilities faced higher levels of deprivation and multidimensional poverty, a situation that was worse for people with

multiple disabilities (Mitra, Posarac, et al., 2013; Trani et al., 2015). The global MPI only captures basic acute deprivations at the household level, which in middle-income countries are not a major problem and in low-income countries can affect the general population in a similar magnitude.

The results of this study reveal that people living in households with disabled members faced a similar configuration of their levels of multidimensional poverty to those faced by people living in other households. We expected that PHWDs would face higher or more severe levels of deprivations, but the results did not show significant differences between levels of deprivations or in the configuration of the percent contribution to the MPI. These findings suggest that disability might have a direct effect on other members of the household, but this possible effect would be observed in other type of indications (e.g. labour market participation or extra health care costs) that are not captured by any of the dimensions of the Global MPI.

Finally, to analyse if people with disabilities face higher levels of deprivation, it is necessary to analyse intra-household distribution of opportunities. In this context, it is necessary to calculate an MPI using the individual as the unit of identification and include indicators related to access to health care, education, labour market and other social opportunities for this group. Evidence presented in previous studies mainly used information at the individual level (Mitra, Posarac, et al., 2013; Trani et al., 2015; Trani et al., 2013; Trani & Cannings, 2013). Only one previous study using census data from five Latin American countries (Brazil, Colombia, Chile, Costa Rica and Mexico) and a similar version of the global MPI (similar indicators with higher deprivation cut-offs) used the household as a unit of analysis (Pinilla-Roncancio, 2015b).

#### Conclusions

Analysis of the situation of poverty of people with disabilities and their families in developing countries is scarce. This article aims to underscore the possibility and importance of disaggregating poverty by disability status. The levels of multidimensional poverty of people living in households with members with disabilities were analysed, as was the percentage of households living in severe multidimensional poverty and destitution. This study, which used existing data despite limited comparability in disability definitions, found that people living in households with members with disabilities have significantly higher levels of multidimensional poverty in six of the eleven countries analysed. In six countries, people with disabilities and their families who were severely multidimensionally poor were more likely to be destitute, revealing the severity of the levels of multidimensional poverty of people with disabilities and their families in developing countries. As standardized data on disability become more readily available, it will be possible to conduct

more widespread, detailed and comparable analyses of the level of multidimensional poverty of people with disabilities and their families.

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## Appendixes

**Table A1 Questions and response codes on disability included in each survey**

Country	Question
<b>Cambodia DHS, 2010</b>	Is there any person who usually lives in your households who has any type of physical impairment? Yes/ No Is there any person who usually lives in your household who has any type of intellectual disability or mental impairment? Yes/No
<b>Cameroon DHS, 2011</b>	Is there anyone in your household who is missing part of the body, for example, a hand, an arm, a foot or a leg? Yes / No Is there anyone in your household who suffers from a deformity of the upper or lower limbs and who cannot or has difficulty walking and / or using his arms or hands? Yes/No Is there anyone in your household who hardly sees or is blind? Yes/No Is there in your household, someone who hardly hears or is deaf? Yes/No Is there anyone in your household who has difficulty speaking or is mute? Yes/No Is there anyone in your household who misses certain extremities of the body, such as fingertips, toes, nose or ear? Yes/No Is there anyone in your household who has behavioral problems? Yes/No
<b>Chad DHS 2014-15</b>	Is there anyone in your household who is missing part of the body, for example, a hand, an arm, a foot or a leg? Is there anyone in your household who is suffering from Deformity of the upper or lower limbs and which cannot or has difficulty walking and / or using His arms or his hands? Is there anyone in your household who hardly sees or is blind? Is there in your household, someone who hardly hears or is deaf? Is there anyone in your household who has difficulty speaking or is mute? Is there anyone in your household who misses certain extremities of the body, such as fingertips, toes, nose or ear? Is there anyone in your household who has behavioural problems?
<b>Colombia DHS 2010</b>	In the last 30 days, which has been the level of difficulty to : a. Being concentrated doing something for 10 minutes or more b. Learning something new c. Stand on your feet for more than 30 minutes d. Walking long distances, equivalent to 1 kilometre or more e. Bathing f. Dressing g. Relate to others h. Keep a friendship i. Doing household activities j. Working, studying or doing your daily activity k. Participate in community activities, parties, meetings, religious activities or others as the rest of people No - no difficulty Moderate difficulty Severe difficulty Extreme difficulty or cannot do it at all
<b>Dominican Republic DHS 2013</b>	Do you have any of the following impairments or disabilities? Total blindness Partial blindness Total deafness Partial Deafness Cannot talk or produce any sound (muteness) Speaks with difficulties Cannot walk or you walk with a lot of difficulty (with walking aids) Cannot grab objects or you do it with a lot of difficulty Other impairment/disability
<b>Ecuador ECV 2014</b>	Any member of this household has a permanent disability, such as physical, mental or sensorial? The disability of... is: Intellectual (mental retardation) Physical (paralysis or amputation) Visual (blindness) Hearing (deafness) Mental (psychiatric disease) Yes/ No
<b>Egypt DHS 2014 Only for children 0 to 9 years old</b>	Does (NAME) have any physical, mental or other condition(s) or disability(ies) that make(s) it difficult for (him/her) to carry out daily activities in the same manner as other children in his/her age?

	<p>What type of disability (ies) does (NAME) have?  A = autism/other mental  A = burn b = visual  B = fracture c = motor  C = open wound d = auditory  D = electric shock e = speech  X = other x = other</p>
<b>Gambia DHS 2013</b>	<p>Does ... wear glasses?  Does... have difficulty seeing during the day (even if she /he is wearing glasses)?  Does ... use a hearing aid?  Does... have difficulty hearing (even if she / he is using the hearing aid)?  Does... have any difficulty using his/her legs even for simple activities such as walking or climbing up the stairs?  Does... use a cane or crutches or wheelchair?  Yes or No</p>
<b>Mexico ENSANUR 2012</b>	<p>In your daily life. Do you have difficulties doing any of the following activities:  a. Walking, moving, climbing stairs?  b. Seeing even using glasses?  c. Talking or communicating with others?  d. Hearing, even using hearing aid?  e. Bathing, dressing or eating?  f. Pay attention or learning simple things?  g. Understand what other people tell you?  h. Learning to do new thing as other people of your age?  i. So, do you have any mental of physical difficulty?  Yes or No</p>
<b>Uganda DHS 2011</b>	<p>Because of a physical, mental or, emotional health condition. ... Does (NAME) have difficulty:  a. Seeing even if he/she is wearing glasses?  b. Hearing even if he/she is using a hearing aid?  c. Walking or climbing steps?  d. Remembering or concentrating?  e. With self-care such as washing all over, dressing, feeding, toileting?  f. Communicating for example understanding others or being understood by other?  No - no difficulty  Yes - some difficulty  Yes - a lot of difficulty  Cannot do at all</p>
<b>Yemen DHS 2013</b>	<p>Has (NAME) suffered from any physical or mental conditions in the past 6 months or more that would limit from exercising or performing normal daily activities as other people of the same age?  Yes, Severely  Yes, fairly  No  Does... face limitations of any of the following:  Sight  Hearing  Comprehension and communication  Mobility  Self-care  Dealing with people</p>



**Table A2 Descriptive statistics people with and without disabilities**

<b>People without disabilities</b>										
<b>Country</b>	<b>Mean age</b>	<b>s.e.</b>	<b>% Female</b>	<b>s.e.</b>	<b>Mean education years</b>	<b>s.e.</b>	<b>% Urban</b>	<b>s.e.</b>	<b>% PwithoutD Head household</b>	<b>s.e.</b>
<b>Cambodia</b>	29.37	0.07	51.5%	0.002	4.64	0.02	16.1%	0.001	23.1%	0.002
<b>Cameroon</b>	22.06	0.08	51.4%	0.002	4.06	0.02	48.8%	0.002	19.9%	0.002
<b>Chad</b>	18.77	0.07	50.2%	0.002	1.63	0.01	22.4%	0.002	17.9%	0.002
<b>Colombia</b>	28.88	0.05	52.0%	0.001	6.48	0.01	75.3%	0.001	25.4%	0.001
<b>Dominican Republic</b>	27.57	0.14	50.7%	0.004	6.59	0.04	73.6%	0.003	26.8%	0.003
<b>Ecuador</b>	31.05	0.06	50.9%	0.002	7.82	0.02	68.1%	0.002	29.4%	0.001
<b>Egypt</b>	4.19	0.02	47.8%	0.003	--	--	32.7%	0.003	--	--
<b>Gambia</b>	25.60	0.08	52.2%	0.003	3.82	0.02	52.9%	0.003	14.1%	0.002
<b>Mexico</b>	27.67	0.05	51.8%	0.001	6.85	0.01	77.6%	0.001	23.5%	0.001
<b>Uganda</b>	23.21	0.16	51.6%	0.005	4.12	0.04	15.6%	0.004	24.9%	0.004
<b>Yemen</b>	22.15	0.05	50.2%	0.001	3.68	0.01	30.8%	0.001	14.4%	0.001
<b>People with disabilities</b>										
<b>Country</b>	<b>Mean age</b>	<b>s.e.</b>	<b>% Female</b>	<b>s.e.</b>	<b>Mean education years</b>	<b>s.e.</b>	<b>% Urban</b>	<b>s.e.</b>	<b>% PwDs Head household</b>	<b>s.e.</b>
<b>Cambodia</b>	55.18	0.40	57.8%	0.009	2.95	0.07	16.0%	0.007	42.3%	0.009
<b>Cameroon</b>	24.94	0.22	52.7%	0.005	3.56	0.04	38.8%	0.005	16.8%	0.004
<b>Chad</b>	21.64	0.18	50.4%	0.004	1.63	0.03	21.3%	0.004	15.0%	0.003
<b>Colombia</b>	53.37	0.22	52.4%	0.005	4.89	0.04	71.6%	0.004	44.9%	0.005
<b>Dominican Republic</b>	53.48	0.79	51.9%	0.016	4.64	0.15	70.9%	0.014	47.3%	0.016
<b>Ecuador</b>	54.19	0.31	53.4%	0.007	5.44	0.06	65.5%	0.006	43.0%	0.006
<b>Egypt</b>	4.88	0.22	42.4%	0.040	--	--	31.5%	0.038	--	--
<b>Gambia</b>	42.44	0.50	57.3%	0.014	3.40	0.14	52.8%	0.014	38.5%	0.014
<b>Mexico</b>	53.88	0.17	53.9%	0.004	5.48	0.04	78.1%	0.003	49.6%	0.004
<b>Uganda</b>	39.38	1.34	53.8%	0.024	2.47	0.17	9.1%	0.014	42.2%	0.024
<b>Yemen</b>	40.38	0.41	43.4%	0.008	2.75	0.07	30.0%	0.007	29.1%	0.007

**Table A3 Incidence, intensity and MPI for people with disabilities and their families (all age groups)**

	<b>MPI Household <u>with</u> disabled members 20 to 69</b>	<b>Incidence H Household with disabled members 20 to 69</b>	<b>Intensity A Household with disabled members 20 to 69</b>	<b>MPI Household <u>without</u> disabled members 20 to 69</b>	<b>Incidence H Household without disabled members 20 to 69</b>	<b>Intensity A Household without disabled members 20 to 69</b>
<b>Cambodia</b>	0.139 0.012	31.8% 0.03	43.9% 0.009	0.147 0.005	33.2% 0.011	44.4% 0.004
<b>Cameroon</b>	0.367* 0.012	62.2%* 0.017	59.0% 0.009	0.309 0.008	54.3% 0.011	57.1% 0.006
<b>Chad</b>	0.565 0.009	89.1% 0.011	63.4% 0.004	0.549 0.005	86.6% 0.005	63.38% 0.006
<b>Colombia</b>	0.025 0.002	6.2% 0.05	40.5% 0.002	0.021 0.001	5.3% 0.002	40.95% 0.001
<b>Dominican Republic</b>	0.024 0.02	5.7% 0.036	42.7% 0.015	0.021 0.002	5.4% 0.006	38.90% 0.003
<b>Ecuador</b>	0.014 0.002	3.7% 0.004	38.3% 0.005	0.013 0.001	3.4% 0.002	38.6% 0.003
<b>Egypt</b>	0.091* 0.03	21.0%* 0.057	43.0%* 0.007	0.018 0.001	4.8% 0.003	37.9% 0.001
<b>Gambia</b>	0.333 0.03	62.0% 0.043	53.80% 0.003	0.32 0.012	60.1% 0.019	53.4% 0.001
<b>Mexico</b>	0.009 0.001	2.3% 0.002	38% 0.002	0.01 0.001	2.9% 0.002	39% 0.001
<b>Uganda</b>	0.391 0.02	76.1% 0.039	51.30% 0.017	0.365 0.01	69.4% 0.017	52.6% 0.005
<b>Yemen</b>	0.224 0.01	44.2% 0.019	50.60% 0.008	0.237 0.007	46.1% 0.011	51.50% 0.005