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Education and Disability: Analysis of Data from 49 Countries

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Executive summary

Sustainable Development Goal (SDG) 4 calls for "inclusive and quality education for all". Persons with a disability are among the population groups most likely to suffer from exclusion from education but data that permit an analysis of the links between disability and education remain scarce.

This paper examines educational disparities linked to disability based on data from 49 countries and territories for five education indicators:

- Proportion of 15- to 29-year-olds who ever attended school
- Out-of-school rate (primary school age, lower secondary school age)
- Completion rate (primary education, lower secondary education)
- Mean years of schooling of the population 25 years and older
- Adult literacy rate (population 15 years and older)

The education indicators were calculated with data from three sources, collected between 2005 and 2015: Demographic and Health Surveys (DHS) sponsored by USAID, School-to-Work Transition Surveys (SWTS) by ILO, and population census data compiled by IPUMS-International.

Comparability of the data across countries is limited because only some of the surveys and censuses used questions developed by the Washington Group on Disability Statistics to identify persons with a disability. The accuracy of the indicator estimates is also affected by sampling and non-sampling errors in the data, the small sample size of many of the surveys that were analysed, and the relatively small proportion of persons with disabilities in each country's population. Moreover, because of the scarcity of national data, it is currently not possible to generate statistics on the status of persons with disabilities with regard to education that are regionally or globally representative.

Despite the limitations regarding quality and comparability of the data, the paper provides a good overview of inequalities linked to disability and of the gaps that must be overcome to achieve equity in education as defined in the SDGs.

The results of the analysis confirm that persons with disabilities are nearly always worse off than persons without disabilities: on average, the former are less likely to ever attend school, they are more likely to be out of school, they are less likely to complete primary or secondary education, they have fewer years of schooling, and they are less likely to possess basic literacy skills.

15- to 29-year-olds with disabilities are less likely to have attended school than those without disabilities in almost all of the 37 countries for which data were available. On average, 87% of persons without disabilities attended school, compared to 77% of persons with disabilities. In absolute terms,

the largest gaps between persons with and without disabilities are observed in Viet Nam 2009 (44% vs. 97%), Egypt 2006 (43% vs. 89%) and Indonesia 2010 (53% vs. 98%).

For the calculation of the out-of-school rate, data on current school attendance are required. This and the need for data on disability limited the analysis for this indicator to six countries that participated in DHS surveys. In these countries, primary-school-age children with disabilities are more likely to be out of school than their peers without disabilities. The largest gap between children with and without disabilities was observed in Cambodia, with a 50-percentage-point difference between the out-of-school rate of disabled and non-disabled children (57% vs. 7%). In other words, 1 in 2 disabled children is not in school in the country, whereas this is only the case for 1 in 14 non-disabled children.

Similarly, adolescents of lower secondary school age with disabilities are more likely to be out of school than adolescents without disabilities. The average out-of-school rate across the six countries with DHS data is 18% for adolescents without disabilities and 26% for adolescents with disabilities.

Disabled children are not only more likely to be out of school, they are also less likely to complete primary education than non-disabled children in the six countries with DHS data. As a direct consequence of lower primary completion rates, children with disabilities are also less likely to complete lower secondary education and to continue their education at higher levels of education.

Mean years of schooling is the number of completed years of formal education at the primary level or higher, not counting years spent repeating individual grades. This indicator was calculated for the population 25 years and older in 22 countries. In these countries, disabled persons spend a lower average number of years in formal education than their counterparts without a disability. On average across the 22 countries and territories with data, persons 25 years and older without disabilities have 7.0 years of schooling and persons with disabilities 4.8 years. The largest gaps were observed in the following three countries: in Mexico and Panama, the difference in the years of schooling between non-disabled and disabled persons is 4.1 and 4.0 years, respectively, and in Ecuador, it is 3.4 years.

The adult literacy rate by disability status was calculated for 25 countries. In all countries, persons with a disability have lower literacy rates than persons without a disability. The gap ranges from 5 percentage points in Mali to 41% in Indonesia, where a large majority of non-disabled adults (93%) have basic literacy skills, compared to only half (52%) of disabled adults.

The data also reveal that disabled women are often less likely to reap the benefits of a formal education than disabled men, thus suffering doubly by virtue of being female and a person with a disability. The observed disadvantage of disabled persons is likely to intensify in combination with other factors of exclusion linked to location, poverty, and other personal and household characteristics, but this was beyond the scope of the analysis in this paper.

The paper concludes with some **key recommendations** to improve the evidence base for future analytical work and for policy guidance in support of efforts to achieve SDG 4.

- A comprehensive inventory of currently available data should be undertaken to establish national baselines for SDG 4 monitoring with regard to disability.

- Data collection on disability must be increased to fill gaps in current data coverage.

- To ensure that data on disability are comparable across countries and between years, all surveys and censuses should use the sets of question developed by the Washington Group on Disability Statistics and UNICEF.

- If possible, the sample sizes of household surveys should be increased so that the collected data can be more representative of small sub-groups of the population, including persons with disabilities.

- Censuses, which are not subject to sampling error and can provide detailed information about small population groups, should always include questions on disability.

- Administrative data on disability should be improved.

- To allow periodic monitoring of progress towards SDG 4 as well as other national and international goals, data collection must be undertaken on a regular basis.

- National statistical capacity for disability measurement must be strengthened, in particular in developing countries.

- The availability of internationally-comparable data on disability, education and other areas must be improved (for example in the database of the UNESCO Institute for Statistics), through the compilation and standardization of data collected in past and future surveys, following internationally-agreed standards.

- Analysis of the indicators must take into account the limitations of available data and all findings should be carefully documented to avoid misinterpretation.

- Coordination of activities by national and international agencies in the area of disability statistics should be improved.

- Funding by international donors and foundations for collection and analysis of data on disability must be increased.

The recommendations above cannot be realised without additional funding from international donors and foundations. With greater support, the stakeholders can work together to better identify and reach disadvantaged populations through more targeted policies and efficient allocation of resources in order to provide equalised educational opportunities for all.

The results of the joint efforts by national governments, international organizations, advocacy organizations, and donors will be better identification of disadvantaged populations, more targeted and efficient allocation of resources to those most in need, and eventually equalised educational opportunities for all.

1. Introduction

Sustainable Development Goal (SDG) 4 calls for "inclusive and quality education for all". Persons with a disability are among the population groups most likely to suffer from exclusion from education. They are therefore the focus of efforts by the United Nations and other organizations involved in the monitoring of progress for the 2030 Agenda for Sustainable Development that include the development of methodological standards, the compilation and dissemination of disability statistics, and the strengthening of national statistical capacity *(see **Box 1**).*

In spite of improvements in the availability of data on disability over recent years, internationally comparable data that permit an analysis of the links between disability and education remain scarce. This paper examines educational disparities linked to disability based on data from 49 countries and territories for five education indicators:

- Proportion of 15- to 29-year-olds who ever attended school
- Out-of-school rate (primary school age, lower secondary school age)
- Completion rate (primary education, lower secondary education)
- Mean years of schooling of population 25 years and older
- Adult literacy rate (population 15 years and older)

The sources of the data analysed in this paper are described in Section 2. Section 3 presents data for the selected education indicators disaggregated by disability status. Section 4 summarises the findings of the analysis and concludes with recommendations for future work. A detailed list of the data sources is provided in the annex.

2. Data on disability

2.1 Definition of disability

Identification of persons with disabilities in household surveys has long been a challenge because of the lack of a uniform definition of "disability" (UIS, 2017). To address the need for globally-comparable measures of disability, the Washington Group on Disability Statistics was established in 2001. The Washington Group developed a short set and an extended set of questions for use in household surveys and censuses to identify persons with a disability. The short set asks about the presence of difficulties in six core functional domains: seeing, hearing, walking, cognition, self-care, and communication (Washington Group, 2016).

Box 1. Activities by international organizations in the area of disability statistics

At its 49th session in March 2018, the United Nations Statistical Commission reviewed a report on activities in the area of disability statistics by the United Nations and the Washington Group on Disability Statistics (United Nations, 2017).

The UN Statistics Division is organizing a series of regional meetings on disability measurement and statistics related to the SDGs to review national experiences, discuss strategies for compilation of data on disability, and facilitate interregional cooperation related to disability measurement. In the field of methodology, the Statistics Division is updating its *Guidelines and Principles for the Development of Disability Statistics* (United Nations, 2001).

The Economic Commission for Latin America and the Caribbean (ECLAC) serves as the technical secretariat for the Disability Measurement Working Group of the Statistical Conference of the Americas and provides assistance to improve the technical capacity of countries in the region. Similarly, the Economic and Social Commission for Asia and the Pacific (ESCAP) and the Economic and Social Commission for Western Asia (ESCWA) support efforts to improve the production and utilisation of data on disability in their respective regions

The World Health Organization (WHO) maintains the International Classification of Functioning, Disability and Health, adopted in 2001. Based on this classification, WHO and the World Bank developed the Model Disability Survey (MDS) in 2012 to collect data on all dimensions of disability, including barriers and unmet needs (WHO, 2017). The MDS has been implemented in several countries, with technical support by WHO.

The Washington Group on Disability Statistics has developed a short set and an extended set of questions for use in surveys and censuses *(see Section 2.1).* The Washington Group and UNICEF developed a module on child functioning that was launched in 2016. Currently, the Washington Group collaborates with ILO on the development of a module on disability and employment and with UNICEF on the development of a module on inclusive education. The Washington Group also supports capacity building through implementation workshops and other activities.

The UNESCO Institute for Statistics (UIS), the official source of cross-nationally comparable data on education for monitoring of SDG 4, has begun to disseminate education indicators disaggregated by disability status. The UIS is also publishing analysis on the links between education and disability and is contributing to a forthcoming flagship report on disability and development that will be published by the UN in 2018.

During data collection, respondents to a survey answer on a four-category scale: no difficulty, some difficulty, a lot of difficulty, cannot do at all. According to the Washington Group standard, a person is considered to have a disability if the answer is "a lot of difficulty" or "cannot do at all" for at least one of the six functional areas. This method of data collection was found to be easy to implement for interviewers without medical expertise, can be translated easily in many languages, and ensures comparability of collected data across different surveys. For these reasons, the short set on functioning by the Washington Group has been endorsed by the United Nations for the collection of

data on disability characteristics in the 2015 round of population censuses (UN, 2015). However, many surveys and censuses have collected data with questions that do not follow the Washington Group approach to identify persons with disabilities and the results may therefore be less reliable, as discussed further in Section 2.3 on data quality.

In 2016, the Washington Group and UNICEF finalised a new Module on Child Functioning, which saw its first widespread use in the sixth round of Multiple Indicator Cluster Surveys (MICS) that began in 2017. The new module is the recommended tool for collection of information on disability among children between 2 and 17 years of age, especially in surveys that also collect data on education (Loeb et al., 2017). The module covers more functional domains than the short set of questions developed by the Washington Group, including learning and relationships. The Washington Group short set is likely to underestimate the proportion of children with functional difficulties but data collected with the new module were not available for the analysis in this report.

2.2 Data sources

For the present study, education indicators were calculated with data from three sources.

Demographic and Health Surveys (DHS): These surveys are a long-running programme supported by the US Agency for International Development. DHS collect information on current and past school attendance that can be used to calculate a variety of indicators. A small subset of these surveys have collected data on disability, using the Washington Group questions or other methods. Data are typically available for household members aged 5 years and older.[1]

School-to-Work Transition Surveys (SWTS): These surveys were carried out by the International Labour Organization in more than 30 countries between 2012 and 2016. They offer data for 15- to 29-year-olds and nearly all surveys used the Washington Group questions to identify persons with disabilities; they are therefore of particular interest for the present study. However, the SWTS contain few education variables and the sample size is usually small.[2]

Population census data compiled by IPUMS-International: IPUMS (Integrated Public Use Microdata Series) is a project by the Minnesota Population Center at the University of Minnesota. IPUMS-International compiles information from many national population censuses. The census

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[1] More information on DHS surveys, including datasets and reports, can be found at http://dhsprogram.com
[2] For more information on the SWTS, refer to the ILO website at http://www.ilo.org/employment/areas/youth-employment/work-for-youth/WCMS_191853/

extracts have a considerably larger number of observations than the DHS or SWTS samples but the definition of disability varies between countries, limiting comparability.[3]

Combined, these sources provided data for 49 countries and territories from the following SDG regions:[4]

- **Sub-Saharan Africa:** Benin, Burkina Faso, Cameroon, Congo, Ethiopia, Gambia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia

- **Northern Africa and Western Asia:** Armenia, Egypt, Jordan, Palestine, Sudan, Tunisia, Yemen

- **Central and Southern Asia:** Bangladesh, Islamic Republic of Iran, Kyrgyzstan, Maldives, Nepal

- **Eastern and South-Eastern Asia:** Cambodia, Indonesia, Viet Nam

- **Latin America and the Caribbean:** Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Jamaica, Mexico, Panama, Peru, Puerto Rico, Uruguay

- **Europe and Northern America:** Serbia, The former Yugoslav Republic of Macedonia, United States

Because of the scarcity of national data, it is currently not possible to generate statistics on the status of persons with disabilities with regard to education that are regionally or globally representative.

2.3 Data quality

It is necessary to emphasise that the indicator estimates presented in Section 3 must be interpreted with caution because of the diversity of questions used to identify persons with disabilities, the small sample size of many of the surveys that were analysed, and the relatively small proportion of persons with disabilities in each country's population.

Wide range of definitions of disability. The questions developed and recommended by the Washington Group have not yet been implemented in all surveys and censuses to identify persons with a disability. National surveys have used varying definitions of disability, which limits the international comparability of currently available data (Mont, 2007). For instance, the 2010 census in Ecuador sought to identify persons with a "permanent difficulty doing an activity considered normal". Such an ambiguous way of defining disability can confuse respondents and result in an inaccurate number of individuals identified as disabled.

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[3] Information on IPUMS-International is available at https://international.ipums.org/international/

[4] The regional groupings used for SDG reporting are listed at https://unstats.un.org/sdgs/indicators/regional-groups/

Disability questions may change between survey rounds in the same country, which affects the comparability of data collected in different years. Take the case of the 2010 Dominican Republic census: disability rates in 2010 were much higher than in earlier years and most of the change can be explained by a modification in the wording of the question for vision disability. It changed from being blind in one or both eyes to having "permanent difficulty" seeing with glasses. More information about the definitions and survey questions used by each country can be found in the annex.

Sampling and non-sampling errors in survey data. The accuracy and precision of data on disability is also affected by sampling and non-sampling errors. ***Sampling errors*** occur when a sample is drawn from a larger population rather than conducting a census of the entire population in a country. Sample surveys are less costly and can be carried out in less time than a census but random differences between the characteristics of the selected sample and the whole population lead to sampling errors (Statistics Canada, 2010). Standards errors and confidence intervals can be used to measure how close an estimate obtained from a sample is to the value for the population represented by the sample.

Non-sampling errors include all errors caused by factors other than sampling. Examples include problems with the measurement instrument such as poorly constructed questions, bias caused by the wording of questions, or errors due to restrictive and inconsistent response options for survey questions. Non-sampling errors can also be caused by respondents giving inaccurate answers on purpose. For instance, in certain cultural contexts, being disabled is a heavy stigma to bear and holds a strong negative connotation (Ingstad and Whyte, 1995). In these circumstances, some people may want to conceal or minimise their disability, affecting the reliability of data.

Prevalence rate and sample size. Survey samples have to be large enough to allow the production of estimates with acceptable levels of precision for small sub-groups of the population, which is particularly relevant for analysis of data on disability (Maag, 2006). The results in Section 3 show that the proportion of persons with disabilities in a population is generally rather small. As a consequence, indicator estimates for persons with disabilities are subject to larger standard errors and wider confidence intervals *(see **Box 2**).* The sample size can in theory be increased to obtain smaller standard errors but in practice this is often not feasible due to budget and time constraints.

Standard errors and confidence intervals can be presented alongside point estimates to indicate the precision of these estimates and the significance of differences between groups. However, to calculate these measures of accuracy, information on sample design is required, which is not always available for all surveys. Moreover, adding such measures would double (if only standard errors are reported in addition to the point estimates) or quadruple (if standard errors and confidence intervals are reported) the amount of data in tables, reducing the legibility of the report.

Box 2. Sampling errors in survey data on disability

Indicators calculated from sample surveys are subject to sampling errors because of differences between the sample and the underlying population. The potential deviation of indicator estimates from the unknown true value for the whole population can be described with standard errors, which can also be used to construct confidence intervals. The sample mean for an indicator plus or minus 1.96 times the standard error yields the 95% confidence interval, which indicates that the value of the indicator for the whole population lies between the lower and upper bounds of the confidence interval with 95% certainty.

For an illustration, take DHS data collected in Cambodia in 2014. The out-of-school rate for children of primary school age (6- to 11-year-olds) is the proportion of children who are not attending primary or secondary school. **Table 1** presents the out-of-school rate by disability status and sex along with the corresponding standard errors and lower and upper bounds of the 95% confidence interval.

Table 1. Out-of-school rate for children of primary school age (6-11 years) by disability status and sex, Cambodia 2014

	Number of observations	Out-of-school rate (%)	Standard error	95% confidence interval lower bound	95% confidence interval upper bound
Non-disabled girls and boys	9,841	6.97	0.49	6.01	7.93
Non-disabled girls	4,860	5.98	0.54	4.92	7.05
Non-disabled boys	4,981	7.95	0.61	6.76	9.15
Disabled girls and boys	52	57.39	8.12	41.07	73.71
Disabled girls	26	39.99	11.06	17.06	62.92
Disabled boys	26	71.84	9.86	51.50	92.18

Source: Cambodia Demographic and Health Survey, 2014.

The DHS sample contains 9,841 non-disabled children of primary school age, of which 6.97% are estimated to be out of school. The standard error and associated confidence interval for this estimate indicate that the unknown true value of the primary out-of-school rate for non-disabled children in Cambodia is between 6.01% and 7.93% with 95% probability.

By contrast, the DHS sample contains only 26 girls of primary school age with a disability. For this group, the out-of-school rate is estimated to be 39.99% but the large standard error, 11.06, indicates that the true out-of-school rate is between 17.06% and 62.92% with 95% probability.

Instead, the UNESCO Institute for Statistics (UIS) has chosen to present indicator estimates in the same manner as in final reports for national DHS and MICS, which rely on the close correlation between sample size and standard errors (the larger the sample size, the smaller the standard error).[5] In the

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[5] DHS reports are available at http://www.dhsprogram.com/publications/index.cfm. MICS reports are available at http://mics.unicef.org/surveys.

tables in this report, no indicator values are shown if they were calculated from fewer than 25 unweighted observations. This affects mostly indicators for narrow age groups calculated from household surveys (DHS and SWTS), such as the primary out-of-school rate. For instance, in the Cambodia 2014 DHS sample, the number of lower-secondary-age adolescents with disabilities is too small for reliable statistical analysis *(see Table 4).* Indicator values based on 25-49 unweighted observations are enclosed in parentheses in the data tables. For census data extracts from IPUMS-International, sample size is usually not a problem because the number of observations is considerably larger than in DHS and SWTS data.

Because of the reasons summarised in this section, all indicator estimates are subject to a margin of error and should be taken as an approximate indication of the disparities between persons with and without disabilities, rather than a precise measure of access to education among the different groups. This caveat also applies to comparisons across countries and to time series for individual countries. Despite the drawbacks regarding quality and comparability of the data, the findings in Section 3 provide a good overview of inequalities linked to disability and of the gaps that must be overcome to achieve equity in education as defined in the SDGs.

3. Links between education and disability

3.1 Indicators

In this section, data for selected indicators are presented to examine the links between education and disability. With the data from the surveys and censuses described in Section 2, the UIS generated estimates of the following five indicators:

- **Proportion of 15- to 29-year-olds who ever attended school**, by disability and sex: IPUMS and SWTS, 37 countries, 2006-2015

- **Out-of-school rate (primary school age, lower secondary school age)**, by disability and sex: DHS, 6 countries, 2009-2014

- **Completion rate (primary education, lower secondary education)**, by disability and sex: DHS, 5 countries, 2009-2014

- **Mean years of schooling of population 25 years and older**, by disability and sex: IPUMS, 22 countries, 2005-2011

- **Adult literacy rate (population 15 years and older)**, by disability and sex: IPUMS, 25 countries, 2005-2011

For some countries, data from more than one year are available. This applies mainly to the first indicator, the proportion of 15- to 29-year-olds who ever attended school. Egypt, for example, has data from a 2006 census and from two SWTS carried out in 2012 and 2014. As noted in Section 2, no firm conclusion on trends within a country can be drawn from the presented data because of limited comparability over time.

In addition to the indicator estimates, each of the data tables presented in this section includes adjusted parity indices *(see **Box 3**)* that are calculated by dividing the indicator value for persons with disabilities by the value for persons without disabilities. Parity index values less than 1 indicate exclusion of persons with disabilities for the majority of indicators, except for the out-of-school rate. For the latter indicator, a parity index value greater than 1 indicates disadvantage for persons with disabilities because it means that they are more likely to be out of school.

As for the underlying indicator estimates, readers are advised to use caution when interpreting the adjusted parity indices because of a general lack of precision. Values at or near 1 indicate that there is no significant difference between persons with and without disabilities. Values further from 1 indicate that there is likely to be a statistically significant difference between the two groups, although the exact size of the difference may deviate from the published, sample-based estimate.

For each indicator, average values across the countries included in the analysis were also calculated. If a country has data for more than one year, only the most recent data were included in the calculation. The averages are unweighted, which means that each country had the same weight in the calculation, regardless of the size of its population. In some cases, the averages were calculated from a subset of countries due to a lack of data because of insufficient sample size. These averages may not match the averages for indicators calculated from the complete set of countries. Either way, the averages should not be considered representative of a given group of countries but are intended to give an overall indication of disparities linked to disability.

3.2 Proportion of 15- to 29-year-olds who ever attended school

The proportion of the population who ever attended school was calculated for persons aged 15 to 29 years and indicates the percentage of this age cohort with any formal education, regardless of duration. This "ever-attended rate" is not among the indicators used to monitor progress towards SDG 4. The main motivation to calculate it was to make use of data from the School-to-Work Transition Surveys by the ILO, which used the disability questions recommended by the Washington Group. These surveys collected little information on education and therefore lack the data needed to calculate other indicators.

The same indicator was also calculated based on census data obtained from IPUMS-International. The census extracts have a much larger number of observations than the SWTS samples. Yet, unlike SWTS, most censuses did not use the Washington Group questions to identify persons with disabilities, which limits the comparability of the findings across countries.

Box 3. Adjusted disability parity index

Parity indices (PI) are the main indicator used to monitor progress towards SDG target 4.5: "eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations". The most widely known index of this kind is the gender parity index (GPI), which is calculated by dividing the female value of an indicator by the male value.

For this report, a disability parity index (DPI) was calculated by dividing the indicator value for persons with disabilities by the value for persons without disabilities. Depending on the underlying indicator, parity indices less than 1 or greater than 1 indicate that persons with disabilities are disadvantaged. DPI values less than 1 indicate exclusion of persons with disabilities for the majority of indicators, which increase with improved access to education, such as the primary completion rate or mean years of schooling. The exception is the out-of-school rate, an indicator whose value decreases with improvements in the education system; here, a parity index greater than 1 indicates disadvantage for persons with disabilities because it means that they are more likely to be out of school. Parity is assumed to exist at DPI values between 0.97 and 1.03.

The simple, unadjusted PI has one disadvantage: it is not symmetrical around 1 and has no upper limit, with a theoretical range of 0 to infinity (UIS, 2010). For example, if the primary completion rate is 40% for persons with disabilities and 50% for persons without disabilities, the DPI has a value of 0.8. If the disabled and non-disabled values are reversed, the DPI has a value of 1.25, which gives the mistaken impression of greater disparity because 1.25 is at a greater distance from 1 than 0.8. With small indicator values, the DPI can also take on very high values, far outside the more common 0 to 2 range.

To address this disadvantage, the UIS has developed an adjusted DPI (DPIA) that is symmetrical around 1 and limited to a range between 0 and 2. The adjusted DPI is calculated as follows:

- If indicator value for persons with disabilities ≤ value for persons without disabilities: Adjusted DPI = disabled value / non-disabled value

- If indicator value for persons with disabilities > value for persons without disabilities: Adjusted DPI = 2 – 1 / (disabled value / non-disabled value)

If the indicator value for persons with disabilities is less than or equal to the indicator value for persons without disabilities, the unadjusted and adjusted DPI are identical. If the disabled value is greater than the non-disabled value, the adjusted DPI is systematically smaller than the unadjusted DPI. Taking the example above, a primary completion rate of 50% for persons with disabilities and 40% for persons without disabilities yields an adjusted DPI of 1.2, which is the same distance from 1 as the value 0.8, in contrast to the unadjusted DPI of 1.25.

Table 2 shows that the proportion of persons with disabilities between the ages of 15-29 years ranges from less than 1% in several countries to close to 10% in the Congo. The average disability rate in the group of countries with data is 2%.[6]

In almost all countries, persons with disabilities are less likely to have attended school than persons without disabilities. This is most readily apparent by examining the values of the parity index in Table 2, which are nearly all smaller than 1. On average, 87% of persons without disabilities attended school, compared to 77% of persons with disabilities, which yields an adjusted disability parity index of 0.89.

In both groups (persons with and without disabilities), men are more likely to have attended school than women, but for persons with disabilities, sex-disaggregated data are only available for a subset of countries. For some countries, male and female values had to be suppressed due to insufficient sample size. The ever-attended rate of persons with disabilities for both sexes combined (77%) does therefore not match the separate values for men and women (74% and 71%, respectively; see Table 2 and **Figure 1**).

In absolute terms, the largest gaps between persons with and without disabilities are observed in Viet Nam 2009 (44% vs. 97%), Egypt 2006 (43% vs. 89%) and Indonesia 2010 (53% vs. 98%). The adjusted disability parity index is around 0.5 for these countries and years (0.46, 0.48 and 0.53, respectively).

More recently, large gaps can be observed in countries like Viet Nam (2013), Liberia (2012), or Kyrgyzstan (2013), with differences between 31% and 36% and adjusted disability parity indices of 0.64, 0.66 and 0.67, respectively. However, these estimates are based on small samples (25-49 unweighted observations).

In some countries, the ever-attended rates for persons with and without disabilities are very close to each other and the parity index is 1 or greater than 1. However, some of these countries – among them Armenia, El Salvador, Malawi, and Zambia – have data from different years with a considerably lower parity index. In theory, values for the ever-attended indicator cannot change rapidly over a short span of years. Consequently, the differences in the data serve as a reminder that the indicator estimates should be interpreted with caution because of limited comparability and reliability.

The proportion of persons who ever attended school provides no information on the number of years that persons with and without disabilities spend in school. However, analysis of mean years of schooling in Section 3.5 shows that persons 25 years and older without disabilities have nearly 50% more years of schooling than persons with disabilities in the group of countries with data.

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[6] If a country has data for more than one year, the data from the most recent year was used in the calculation of the average value across all countries. This also applies to the average values for other indicators.

Table 2. Population 15-29 years who ever attended school

| Country	Year	Source	Proportion of persons aged 15-29 years with a disability (%)			Ever attended school, total population (%)			Ever attended school, persons without a disability (%)			Ever attended school, persons with a disability (%)			Adjusted disability parity index		
			MF	M	F	MF	M	F	MF	M	F	MF	M	F	MF	M	F
Armenia	2012	SWTS	1.8	1.9	1.7	99.7	99.5	99.8	99.9	99.9	99.9	90.8	.	.	0.91	.	.
Armenia	2014	SWTS	2.6	1.6	3.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	.	.	1.00	.	.
Bangladesh*	2013	SWTS	3.9	3.8	3.9	85.9	84.7	86.9	86.3	85.2	87.3	74.9	71.3	77.9	0.87	0.84	0.89
Benin	2012	SWTS	6.0	6.0	6.0	71.2	81.3	60.9	71.3	81.4	61.0	69.1	79.0	59.0	0.97	0.97	0.97
Benin	2014	SWTS	1.6	2.1	1.3	73.8	83.0	65.3	73.9	83.1	65.3	73.0	(78.3)	(64.9)	0.99	(0.94)	(0.99)
Brazil	2010	IPUMS	3.0	3.2	2.9	98.4	98.1	98.7	98.7	98.5	99.0	89.2	87.7	90.8	0.90	0.89	0.92
Burkina Faso	2006	IPUMS	0.8	1.0	0.7	31.4	39.1	24.7	31.4	39.2	24.7	24.7	28.1	20.8	0.79	0.72	0.84
Cambodia	2008	IPUMS	1.2	1.3	1.1	85.1	87.9	82.4	85.4	88.1	82.7	61.2	65.4	56.1	0.72	0.74	0.68
Cambodia	2014	SWTS	1.1	1.6	0.6	97.2	97.9	96.6	97.3	98.0	96.7	(84.8)	.	.	(0.87)	.	.
Colombia	2013	SWTS	2.5	2.3	2.7	99.7	99.7	99.7	99.8	99.8	99.8	97.1	94.5	99.5	0.97	0.95	1.00
Congo	2015	SWTS	9.5	9.9	9.2	97.5	98.4	96.7	97.8	98.7	96.9	95.0	95.3	94.6	0.97	0.97	0.98
Dominican Republic*	2010	IPUMS	5.5	4.9	6.2	95.5	94.3	96.6	95.9	94.9	97.0	88.8	85.3	91.6	0.93	0.90	0.94
Dominican Republic	2015	SWTS	1.8	1.9	1.7	98.0	97.3	98.8	98.2	97.5	98.9	89.0	(85.2)	(93.5)	0.91	(0.87)	(0.95)
Egypt*	2006	IPUMS	0.6	0.8	0.5	88.5	90.7	86.2	88.8	91.0	86.4	42.5	45.1	38.3	0.48	0.50	0.44
Egypt	2012	SWTS	1.5	2.0	0.9	94.2	96.1	92.2	94.4	96.3	92.5	77.5	.	.	0.82	.	.
Egypt	2014	SWTS	1.4	1.5	1.3	93.7	96.1	91.2	94.0	96.5	91.3	74.5	(70.3)	(79.9)	0.79	(0.73)	(0.88)
El Salvador	2007	IPUMS	2.0	2.5	1.5	91.6	91.6	91.6	92.6	92.7	92.5	63.5	65.5	60.6	0.69	0.71	0.66
El Salvador	2012	SWTS	1.4	1.8	1.1	98.3	98.6	98.0	98.3	98.6	98.0	(98.6)	.	.	(1.00)	.	.
Ethiopia*	2007	IPUMS	1.2	1.3	1.1	49.3	58.6	40.4	49.4	58.7	40.5	38.8	46.2	30.2	0.79	0.79	0.75
Ghana*	2010	IPUMS	2.1	2.1	2.1	83.0	86.6	79.7	83.2	86.7	79.9	74.8	77.7	72.1	0.90	0.90	0.90
Indonesia	2010	IPUMS	0.3	0.3	0.3	98.2	98.2	98.1	98.3	98.4	98.3	52.5	54.7	49.7	0.53	0.56	0.51
Jamaica	2013	SWTS	1.3	1.2	1.4	100.0	100.0	100.0	100.0	100.0	100.0	(100.0)	.	.	(1.00)	.	.
Jamaica	2015	SWTS	0.8	0.5	1.0	99.8	99.8	99.8	99.8	99.8	99.9	(92.2)	.	.	(0.92)	.	.
Jordan	2013	SWTS	1.3	1.5	0.9	99.5	99.4	99.7	99.7	99.7	99.7	86.6	83.6	(91.9)	0.87	0.84	(0.92)
Jordan	2015	SWTS	1.4	1.8	1.0	99.4	99.4	99.4	99.5	99.6	99.4	89.2	.	.	0.90	.	.
Kenya*	2009	IPUMS	2.7	2.9	2.5	89.8	90.4	89.3	90.0	90.6	89.4	82.7	83.1	82.3	0.92	0.92	0.92
Kyrgyzstan	2013	SWTS	1.3	1.7	0.9	99.4	99.2	99.5	99.8	99.8	99.7	(67.1)	.	.	(0.67)	.	.
Liberia	2008	IPUMS	2.2	2.2	2.1	66.3	74.0	58.9	66.5	74.3	59.1	57.0	63.2	51.0	0.86	0.85	0.86
Liberia	2012	SWTS	3.1	2.9	3.2	89.4	94.8	84.8	90.4	95.3	86.1	(59.8)	.	.	(0.66)	.	.
Liberia	2014	SWTS	0.9	0.3	1.5	88.5	91.8	85.4	88.6	92.0	85.4	.	.	.	.	.	.

Country	Year	Source	Proportion of persons aged 15-29 years with a disability (%)			Ever attended school, total population (%)			Ever attended school, persons without a disability (%)			Ever attended school, persons with a disability (%)			Adjusted disability parity index		
			MF	M	F	MF	M	F	MF	M	F	MF	M	F	MF	M	F
Madagascar	2013	SWTS	3.3	3.0	3.5	85.2	87.0	83.6	85.3	87.4	83.5	81.6	(76.3)	85.9	0.96	(0.87)	1.03
Madagascar	2015	SWTS	3.3	3.0	3.5	85.9	88.1	83.9	85.9	88.2	83.9	83.7	84.1	83.5	0.97	0.95	1.00
Malawi*	2008	IPUMS	2.8	3.0	2.7	85.2	88.6	82.1	85.3	88.8	82.2	78.5	81.1	75.8	0.92	0.91	0.92
Malawi	2012	SWTS	1.6	1.8	1.4	95.6	97.1	94.1	95.6	97.2	94.2	90.0	(93.7)	(85.6)	0.94	(0.96)	(0.91)
Malawi	2014	SWTS	1.2	1.3	1.0	93.0	94.1	92.1	93.0	94.1	92.0	(96.0)	.	.	(1.03)	.	.
Mali*	2009	IPUMS	0.6	0.6	0.5	37.7	45.6	30.8	37.7	45.6	30.7	36.2	41.2	31.3	0.96	0.90	1.02
Mozambique	2007	IPUMS	1.9	2.1	1.7	70.0	80.8	60.7	70.2	81.1	61.0	56.2	66.4	45.5	0.80	0.82	0.75
Nepal	2013	SWTS	1.3	1.3	1.2	92.1	90.9	93.1	92.3	91.3	93.2	(70.7)	.	.	(0.77)	.	.
Palestine	2013	SWTS	1.6	2.1	1.1	99.8	99.7	99.8	99.8	99.8	99.9	95.8	.	.	0.96	.	.
Palestine	2015	SWTS	1.9	2.1	1.6	99.7	99.6	99.8	99.7	99.7	99.8	98.9	98.1	(100.0)	0.99	0.98	(1.00)
Peru	2013	SWTS	1.7	1.9	1.5	99.5	99.8	99.2	99.5	99.8	99.2	(100.0)	.	.	(1.01)	.	.
Serbia	2015	SWTS	1.1	1.2	1.1	99.7	99.6	99.8	99.8	99.7	99.9	(91.9)	.	.	(0.92)	.	.
South Sudan	2008	IPUMS	3.6	3.6	3.6	34.3	43.3	26.2	34.3	43.2	26.1	35.8	44.9	27.4	1.04	1.04	1.05
Sudan	2008	IPUMS	3.2	3.5	3.0	66.8	72.0	61.8	67.1	72.4	62.1	57.8	61.5	53.8	0.86	0.85	0.87
TFYR Macedonia	2014	SWTS	1.3	1.3	1.2	98.5	97.5	99.5	98.9	98.2	99.6	(70.4)	.	.	(0.71)	.	.
Togo	2012	SWTS	6.6	7.0	6.2	84.1	91.8	77.6	84.4	92.2	77.9	79.7	86.3	73.5	0.94	0.94	0.94
Togo	2014	SWTS	3.8	4.2	3.5	82.5	91.8	74.8	82.5	92.0	74.6	82.4	(85.9)	(78.9)	1.00	(0.93)	(1.05)
Tunisia	2013	SWTS	2.3	2.8	1.8	97.8	98.9	96.8	98.4	99.4	97.3	75.3	(80.1)	(67.7)	0.77	(0.81)	(0.70)
Uganda	2013	SWTS	4.5	5.2	3.8	95.8	96.8	94.8	96.1	97.1	95.2	89.4	(92.8)	(85.3)	0.93	(0.96)	(0.90)
Uganda	2015	SWTS	2.3	2.3	2.3	93.9	95.8	92.3	94.1	96.0	92.5	84.5	(83.8)	(85.1)	0.90	(0.87)	(0.92)
UR Tanzania	2013	SWTS	3.2	1.8	4.6	97.5	96.8	98.2	97.7	97.1	98.3	91.5	.	.	0.94	.	.
Uruguay*	2006	IPUMS	4.2	4.6	3.8	99.6	99.6	99.7	99.9	99.9	99.9	92.7	91.8	93.7	0.93	0.92	0.94
Uruguay*	2011	IPUMS	1.8	2.0	1.6	99.8	99.7	99.9	99.9	99.9	99.9	94.8	93.3	96.7	0.95	0.93	0.97
Viet Nam	2009	IPUMS	0.6	0.7	0.5	97.0	97.5	96.4	97.3	97.8	96.8	44.4	48.2	39.4	0.46	0.49	0.41
Viet Nam	2013	SWTS	1.5	2.0	1.0	97.8	97.5	98.1	98.4	98.3	98.4	(62.7)	.	.	(0.64)	.	.
Zambia*	2010	IPUMS	1.5	1.7	1.3	88.6	91.1	86.4	88.9	91.4	86.7	72.4	75.4	68.9	0.81	0.82	0.79
Zambia	2012	SWTS	2.1	2.0	2.1	97.2	98.0	96.3	97.1	98.0	96.3	98.2	(97.7)	(98.6)	1.01	(1.00)	(1.02)
Average			2.1	2.2	2.0	87.2	89.4	85.2	87.3	89.6	85.3	*77.1*	*74.3*	*70.6*	0.89	*0.83*	*0.83*

Source: IPUMS-International and SWTS, 2006-2015.

Notes: (1) An asterisk (*) identifies surveys that did not use the Washington Group questions. (2) A period (.) indicates that values were not reported because they were based on a subsample with fewer than 25 unweighted observations. (3) Numbers in parentheses are based on 25-49 unweighted observations. (4) Averages are unweighted and were calculated from the most recent data for each country. (5) Numbers in italic font indicate average values that were calculated from a subset of countries due to insufficient sample size for some surveys.

Figure 1. Population 15-29 years who ever attended school (%)
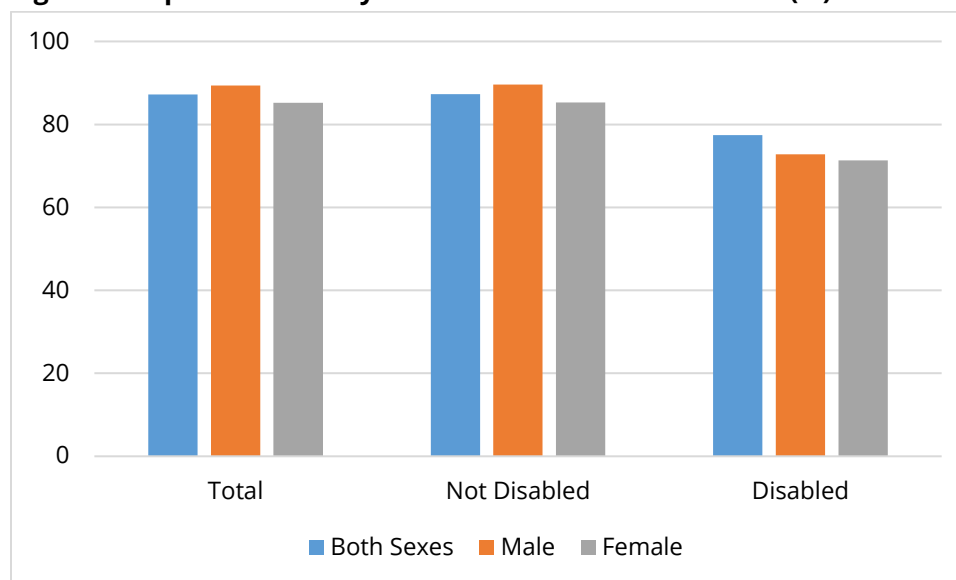
Source: IPUMS and SWTS, 2006-2015.
Notes: (1) Averages are unweighted and were calculated from the most recent data for each country. (2) For persons with disabilities, the value for both sexes was calculated from a larger number of countries than the values for males and females and the indicator values do therefore not match.

3.3 Out-of-school rate

The out-of-school rate of children of primary and lower secondary school age is the proportion of children in a given age group who are not attending primary or secondary school. Some of these children may have attended school in the past and dropped out, some may enter school in the future, and some may never go to school (UIS and GEMR, 2017).

For the calculation of the out-of-school rate, data on current school attendance are required. This and the requirement for data on disability limited the analysis for this indicator to the six countries listed in **Tables 3** and **4** with DHS data.

On average in the six countries, 2% of children of primary school age (about 6 to 11 years in most countries) were identified as being disabled, ranging from less than 1% in Cambodia and the Gambia to 5% in the Maldives *(see Table 3).* The surveys for three countries – Cambodia, Maldives and Uganda – used the Washington Group set of questions. For the other three countries – Colombia, the Gambia and Yemen – different questions were used. The questions on disability for all surveys are documented in the Annex.

Table 3. Out-of-school rate of children of primary school age

Country	Year	Proportion of primary-age children with a disability (%)			Out-of-school rate, all children (%)			Out-of-school rate, children without a disability (%)			Out-of-school rate, children with a disability (%)			Adjusted disability parity index		
		MF	M	F	MF	M	F	MF	M	F	MF	M	F	MF	M	F
Cambodia	2014	0.5	0.5	0.4	7.2	8.3	6.1	7.0	8.0	6.0	57.4	(71.8)	(40.0)	1.88	(1.89)	(1.85)
Colombia*	2009-10	2.1	2.6	1.7	8.9	9.7	8.0	8.5	9.2	7.8	24.4	28.0	18.7	1.65	1.67	1.58
Gambia*	2013	0.9	0.7	1.0	29.8	30.5	29.1	29.5	30.2	28.7	42.3	(43.3)	(41.5)	1.30	(1.30)	(1.31)
Maldives	2009	5.1	5.7	4.4	6.4	7.2	5.7	6.0	6.8	5.1	14.9	13.0	17.4	1.60	1.48	1.71
Uganda	2011	2.9	3.0	2.9	11.2	11.2	11.2	10.8	11.0	10.7	22.9	17.7	28.6	1.53	1.38	1.63
Yemen*	2013	2.1	2.5	1.8	23.5	19.6	27.5	23.0	19.0	27.1	45.0	41.6	49.9	1.49	1.54	1.46
Average		2.3	2.5	2.0	14.5	14.4	14.6	14.1	14.0	14.2	34.5	35.9	32.7	1.59	1.61	1.57

Source: DHS, 2009-2014.
Notes: (1) An asterisk (*) identifies surveys that did not use the Washington Group set of questions. (2) Numbers in parentheses are based on 25-49 unweighted observations. (3) Averages are unweighted.

For all countries, primary-school-age children with disabilities are more likely to be out of school than their peers without disabilities. This is true regardless of the questions used to determine whether respondents are disabled. At the same time, readers should keep in mind that the values reported in Table 3 are subject to some error and should therefore be interpreted with caution.

The largest gap between children with and without disabilities was reported for Cambodia, with a 50-percentage-point difference between the out-of-school rate of disabled and non-disabled children (57% vs. 7%). This is also reflected in the adjusted disability parity index of 1.88, which means that children with disabilities are two times as likely to be out of school as their non-disabled peers in Cambodia. In other words, 1 in 2 disabled children is not in school in the country, whereas this is only the case for 1 in 14 non-disabled children.

In other countries, the gap is not as wide as in Cambodia but still proves the stark inequality between children with and without disabilities. The out-of-school rates of disabled children are two to three times as high as those of non-disabled children in Colombia, the Maldives, Uganda and Yemen. The average adjusted disability parity index for the six countries is 1.59, meaning that children with disabilities are on average more than twice as likely to be out of school as children without disabilities.

The evidence on gender disparities can be seen in the values of the out-of-school rate by sex. On average for the six countries, disabled girls are slightly more at a disadvantage than disabled boys. Among their non-disabled counterparts, girls and boys have more or less the same probability of being out of school. Across the six countries, the pattern of exclusion by sex is similar among children with and without disabilities. The exceptions are the Maldives and Uganda. In both countries, non-disabled boys are more likely to be out of school than non-disabled girls, but the opposite (higher female out-of-school rates) is true for children with disabilities.

Table 4 shows the out-of-school rate of adolescents of lower secondary school age (about 12 to 14 years in most countries). The proportions of adolescents with disabilities are similar to the proportions for primary-age children, with an average disability rate of 2%. In all countries with data, adolescents with disabilities are more likely to be out of school than adolescents without disabilities. The average out-of-school rate across the countries with data is 18% for adolescents without disabilities and 26% for adolescents with disabilities. The average adjusted disability parity index is 1.32.

Table 4. Out-of-school rate of adolescents of lower secondary school age

Country	Year	Proportion of lower secondary-age adolescents with a disability (%)			Out-of-school rate, all adolescents (%)			Out-of-school rate, adolescents without a disability (%)			Out-of-school rate, adolescents with a disability (%)			Adjusted disability parity index		
		MF	M	F	MF	M	F	MF	M	F	MF	M	F	MF	M	F
Cambodia	2014	0.4	0.3	0.6	26.2	25.9	26.4	26.0	25.8	26.2	.	.	.	.	.	.
Colombia*	2009-10	2.1	1.8	2.3	3.7	4.7	2.6	3.4	4.4	2.4	16.1	19.9	13.0	1.79	1.78	1.82
Gambia*	2013	1.1	1.1	1.1	34.3	31.9	36.3	34.0	31.5	36.3	(35.7)	.	.	(1.05)	.	.
Maldives	2009	5.7	6.3	5.1	3.6	4.8	2.3	3.0	4.0	2.0	13.2	17.0	8.6	1.77	1.76	1.77
Uganda	2011	2.3	2.5	2.2	17.6	15.6	19.6	17.1	15.0	19.3	32.7	34.5	(30.7)	1.48	1.57	(1.37)
Yemen*	2013	2.4	2.5	2.2	21.5	12.0	31.5	21.3	11.7	31.3	30.7	24.2	38.4	1.31	1.52	1.18
Average		2.3	2.4	2.3	17.8	15.8	19.8	17.5	15.4	19.6	*25.7*	*23.9*	*22.7*	*1.32*	*1.36*	*1.14*

Source: DHS, 2009-2014.

Notes: (1) An asterisk (*) identifies surveys that did not use the Washington Group set of questions. (2) A period (.) indicates that values were not reported because they were based on a subsample with fewer than 25 unweighted observations. (3) Numbers in parentheses are based on 25-49 unweighted observations. (4) Averages are unweighted. (5) Numbers in italic font indicate average values that were calculated from a subset of countries due to insufficient sample size for some surveys.

In the Cambodia DHS sample, the number of lower-secondary-age adolescents with disabilities is too small for reliable statistical analysis. In the DHS sample for the Gambia, there were too few observations to calculate sex-disaggregated out-of-school rates for adolescents with disabilities. The average male and female out-of-school rates for adolescents with disabilities and the male and female parity indices can therefore not be compared with the respective indicator values for both sexes combined.

3.4 Completion rate

The completion rate is a new indicator developed to monitor progress towards SDG 4. It is the percentage of a cohort of children or young people aged 3-5 years above the intended age for the last grade of each level of education who have completed that grade.[7] The completion rates for primary

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[7] The intended age for the last grade of each level of education is the age at which pupils would enter the grade if they had started school at the official primary entrance age, had studied full-time and had progressed without repeating or skipping a grade. For example, if the official age of entry into primary education is 6 years, and if primary education has 6 grades, the intended age for the last grade of primary education is 11 years. In this case, 14-16 years (11 + 3 = 14 and 11 + 5 = 16) would be the reference age group for calculation of the primary completion rate.

and lower secondary education were calculated for five of the six countries with DHS data on out-of-school children in Section 3.3. No completion rates were calculated for Yemen because the sample size from the 2013 DHS was too small for this indicator.

The proportion of persons with disabilities among the reference age groups for the primary and lower secondary completion rate is identical at 2%, with similar values for males and females *(see **Tables 5** and **6**)*.

Disabled children are less likely to complete primary education than non-disabled children. On average for the five countries with data, the primary completion rate was 73% for children without disabilities and 56% for children with disabilities *(see Table 5).* The average parity index of 0.76 means that for this small group of countries, children with disabilities are 24% less likely to complete primary education than children without disabilities.

Table 5. Completion rate for primary education

Country	Year	Proportion of cohort with a disability (%)			Completion rate, all children (%)			Completion rate, children without a disability (%)			Completion rate, children with a disability (%)			Adjusted disability parity index		
		MF	M	F	MF	M	F	MF	M	F	MF	M	F	MF	M	F
Cambodia	2014	0.8	0.9	0.6	72.3	67.7	77.2	72.5	67.8	77.6	(44.3)	.	.	(0.61)	.	.
Colombia*	2009-10	2.0	1.8	2.2	90.6	88.0	93.3	91.1	88.6	93.9	63.3	58.8	67.1	0.69	0.66	0.71
Gambia*	2013	1.3	1.0	1.6	62.0	64.0	60.2	62.1	64.6	59.9	(56.6)	.	.	(0.91)	.	.
Maldives	2009	5.4	5.4	5.3	96.8	95.3	98.3	97.7	96.6	98.8	78.8	69.1	87.9	0.81	0.72	0.89
Uganda	2011	2.5	2.7	2.2	39.4	35.7	43.2	39.5	36.0	43.1	34.2	(23.2)	(47.7)	0.87	(0.64)	(1.10)
Average		2.4	2.4	2.4	72.2	70.1	74.4	72.6	70.7	74.7	55.5	*50.4*	*67.6*	0.76	*0.71*	*0.90*

Source: DHS, 2009-2014.
Notes: (1) An asterisk (*) identifies surveys that did not use the Washington Group set of questions. (2) A period (.) indicates that values were not reported because they were based on a subsample with fewer than 25 unweighted observations. (3) Numbers in parentheses are based on 25-49 unweighted observations. (4) Averages are unweighted and were calculated from the most recent data for each country. (5) Numbers in italic font indicate average values that were calculated from a subset of countries due to insufficient sample size for some surveys.

The widest gaps between the two groups exist in Cambodia and Colombia. 73% of Cambodian 14- to 16-year-olds without a disability have completed primary education, compared to only 44% of their peers with a disability. In Colombia, the completion rate is 91% for those without a disability and 63% for those with a disability.

In the Maldives, almost all non-disabled 15- to 17-year-olds completed primary education (98%), whereas only four out of five adolescents in the same cohort with a disability (79%) completed primary education.

In all countries with data, girls are more likely to complete primary education than boys, regardless of their disability status. The widest gap exists in Uganda, where almost 1 out of 2 disabled girls complete primary education compared to only 1 in 4 disabled boys. However, as with other data in this section, readers should be aware of potential doubts about the reliability of indicator estimates calculated from small samples.

As a direct consequence of lower primary completion rates, children with disabilities are also less likely to continue their education at higher levels of education. **Table 6** shows the completion rate for lower secondary education. In four of the five countries with data, adolescents with disabilities are less likely to complete lower secondary education than adolescents without disabilities. The average completion rate is 53% for non-disabled adolescents and 36% for disabled adolescents.

Table 6. Completion rate for lower secondary education

Country	Year	Proportion of cohort with a disability (%)			Completion rate, all adolescents (%)			Completion rate, adolescents without a disability (%)			Completion rate, adolescents with a disability (%)			Adjusted disability parity index		
		MF	M	F	MF	M	F	MF	M	F	MF	M	F	MF	M	F
Cambodia	2014	0.9	0.9	0.9	40.5	41.4	39.6	40.8	41.8	39.9	(3.9)	.	.	(0.10)	.	.
Colombia*	2009-10	2.0	2.4	1.6	72.6	67.5	77.4	73.1	68.0	77.8	46.9	45.4	49.1	0.64	0.67	0.63
Gambia	2013	1.2	1.5	0.9	48.3	49.5	47.3	48.1	49.2	47.2	(61.9)	.	.	(1.22)	.	.
Maldives	2009	5.2	6.4	4.2	77.9	71.9	82.8	79.1	73.4	83.7	54.6	48.5	62.2	0.69	0.66	0.74
Uganda	2011	2.7	3.5	2.1	23.1	25.0	21.7	23.5	25.7	21.8	(10.4)	.	.	(0.44)	.	.
Average		2.4	2.9	1.9	52.5	51.1	53.8	52.9	51.6	54.1	35.6	*46.9*	*55.6*	0.67	*0.91*	*1.03*

Source: DHS, 2009-2014.
Notes: (1) An asterisk (*) identifies surveys that did not use the Washington Group set of questions. (2) A period (.) indicates that values were not reported because they were based on a subsample with fewer than 25 unweighted observations. (3) Numbers in parentheses are based on 25-49 unweighted observations. (4) Averages are unweighted and were calculated from the most recent data for each country. (5) Numbers in italic font indicate average values that were calculated from a subset of countries due to insufficient sample size for some surveys.

In Cambodia, only 4% of disabled adolescents have completed lower secondary education, compared to 41% of their non-disabled peers – a larger gap than in any other country with data. The Gambia is the only country with an opposite pattern; here, according to the DHS sample available for analysis, completion rates are higher for adolescents with disabilities than for those without disabilities. It should be noted that in both Cambodia and the Gambia, the values for adolescents with disabilities were calculated from small samples with 25-49 unweighted observations.

3.5 Mean years of schooling

Mean years of schooling is the number of completed years of formal education at the primary level or higher, not counting years spent repeating individual grades. This indicator was calculated for the

population 25 years and older, using census data compiled by IPUMS-International. In contrast to the out-of-school and completion rates, the sample size is sufficiently large for all countries. On the other hand, comparability across countries and over time is limited because the questions used to identify persons with disabilities are not standardised *(see the Annex).*

The variability in the disability questions can partly explain the large differences in the reported prevalence of disability *(see **Table 7***). On average for the 22 countries and territories with data, 8% of the population 25 years and older were found to be disabled, ranging from 1% in Mali to 25% in Puerto Rico. Costa Rica, the Dominican Republic, the United States and Uruguay also have high disability rates ranging from 12% to 20%.

IPUMS data were also used for the analysis of the ever-attended rates in Section 3.1, but disability rates for the population aged 15 to 29 years in Table 2 were significantly lower than the rates for the population 25 years and older in Table 7, which shows that older persons are more likely to be disabled. The following definitions of disability, also listed in the annex, may help explain the higher disability rates observed in the countries mentioned above.

- Costa Rica: Difficulty seeing even with use of glasses, difficulty hearing, difficulty speaking, difficulty walking or climbing stairs, difficulty using arms or hands, intellectual difficulty and mental difficulty (bipolar, schizophrenic, other).

- Puerto Rico: Significant hearing or sight loss, physical limitation including reaching and lifting, and difficulty learning, remembering or concentrating.

- United States: Significant hearing or sight loss, serious difficulty walking or climbing stairs, and difficulty learning, remembering or concentrating.

- Uruguay: Any limitation of activity and restriction in participation coming from a deficiency that permanently affects a person and his or her ability to become involved in daily life within his or her physical and social environment. For the IPUMS sample, "much difficulty" was used to identify persons with a disability.

The 2010 census for the Dominican Republic yielded much higher disability rates than censuses from earlier years. Most of the difference can be explained by a change in the wording of the question for vision disability, which was changed from being blind in one or both eyes in 2002 to having "permanent difficulty" seeing with glasses in 2010.

In all countries, disabled persons spent a lower average number of years in school than their counterparts without a disability *(see Table 7 and **Figure 2***). On average across the 22 countries and territories with data, persons without disabilities have 7.0 years of schooling and persons with disabilities 4.8 years.

Table 7. Mean years of schooling, population 25 years and older

| Country	Year	Proportion of population with a disability (%)			Mean years of schooling, total population			Mean years of schooling, persons without a disability			Mean years of schooling, persons with a disability			Adjusted disability parity index		
		MF	M	F	MF	M	F	MF	M	F	MF	M	F	MF	M	F
Bangladesh	2011	2.0	2.0	1.9	3.9	4.5	3.2	3.9	4.6	3.2	2.2	2.9	1.4	0.56	0.63	0.44
Cambodia	2008	2.1	2.5	1.7	4.3	5.4	3.4	4.4	5.4	3.5	3.0	4.0	1.9	0.70	0.74	0.54
Cameroon	2005	2.4	2.5	2.2	5.6	6.5	4.7	5.7	6.6	4.8	4.4	5.4	3.5	0.78	0.82	0.73
Colombia	2005	9.3	9.6	9.1	7.2	7.1	7.3	7.5	7.4	7.6	4.5	4.6	4.4	0.60	0.62	0.58
Costa Rica	2011	15.5	15.2	15.8	8.5	8.4	8.6	8.8	8.7	8.9	6.6	6.6	6.6	0.74	0.76	0.74
Dominican Republic	2010	20.0	17.1	23.0	7.6	7.3	7.9	8.1	7.6	8.6	5.8	5.8	5.9	0.72	0.76	0.69
Ecuador	2010	9.1	9.9	8.3	8.6	8.7	8.6	9.0	9.0	8.9	5.6	5.9	5.3	0.63	0.66	0.60
El Salvador	2007	7.0	8.0	6.1	5.9	6.4	5.6	6.2	6.7	5.8	3.3	3.7	2.8	0.53	0.55	0.48
Ethiopia	2007	2.3	2.5	2.1	1.7	2.3	1.0	1.7	2.3	1.0	1.1	1.7	0.5	0.68	0.74	0.50
Ghana	2010	4.9	4.8	5.0	6.4	7.7	5.3	6.5	7.8	5.4	5.0	6.5	3.8	0.77	0.83	0.70
Kenya	2009	5.6	5.2	6.0	6.6	7.3	6.0	6.8	7.5	6.1	4.2	5.2	3.3	0.62	0.69	0.54
Liberia	2008	5.9	6.1	5.8	4.1	5.6	2.6	4.2	5.7	2.6	3.2	4.5	1.8	0.76	0.79	0.69
Malawi	2008	6.4	6.1	6.7	4.8	5.9	3.7	4.9	6.0	3.8	3.6	4.7	2.5	0.73	0.78	0.66
Mali	2009	1.2	1.5	1.0	1.4	1.9	0.9	1.4	1.9	0.9	1.1	1.4	0.7	0.76	0.74	0.78
Mexico	2010	8.3	8.3	8.3	8.2	8.5	8.0	8.6	8.8	8.3	4.5	4.9	4.2	0.53	0.56	0.51
Panama	2010	4.2	4.3	4.1	9.4	9.2	9.7	9.6	9.3	9.8	5.6	5.7	5.6	0.59	0.61	0.57
Puerto Rico	2010	25.2	24.7	25.5	11.6	11.4	11.8	12.3	12.0	12.6	9.5	9.5	9.5	0.77	0.79	0.75
South Africa	2007	6.5	7.2	5.9	8.1	8.3	7.9	8.2	8.5	8.0	5.5	5.7	5.4	0.67	0.67	0.68
South Africa	2011	5.3	4.4	6.1	8.7	8.9	8.5	8.8	9.0	8.6	5.8	6.2	5.5	0.66	0.69	0.64
United States	2010	15.9	15.3	16.4	11.9	11.9	12.0	12.1	12.0	12.1	11.2	11.2	11.2	0.93	0.93	0.93
Uruguay	2006	12.4	11.4	13.1	8.6	8.4	8.7	8.9	8.7	9.0	6.4	6.5	6.4	0.73	0.75	0.71
Viet Nam	2009	2.4	2.3	2.6	8.0	8.4	7.6	8.0	8.4	7.7	5.4	6.5	4.3	0.68	0.77	0.56
Zambia	2010	3.7	3.7	3.7	6.6	7.7	5.6	6.7	7.7	5.7	4.4	5.5	3.3	0.66	0.71	0.58
Average		7.8	7.6	7.9	6.8	7.3	6.4	7.0	7.4	6.6	4.8	5.4	4.3	0.69	0.73	0.65

Source: IPUMS-International, 2005-2011.
Notes: (1) The censuses in the table did not use the Washington Group set of questions to identify persons with disabilities. (2) Averages are unweighted and were calculated from the most recent data for each country.

The largest gaps are found in Mexico and Panama, where the difference in the years of schooling between non-disabled and disabled persons is 4.1 and 4.0 years, respectively, as well as in Ecuador at 3.4 years. In all other countries, the difference in the number of years of schooling between disabled and non-disabled individuals is at least one year. The exception is Mali, where the difference is only 0.3 years, but the mean years of schooling for the population 25 years and older is very low at 1.1 years for persons with disabilities and 1.4 years for persons without disabilities.

Figure 2. Mean years of schooling, population 25 years and older
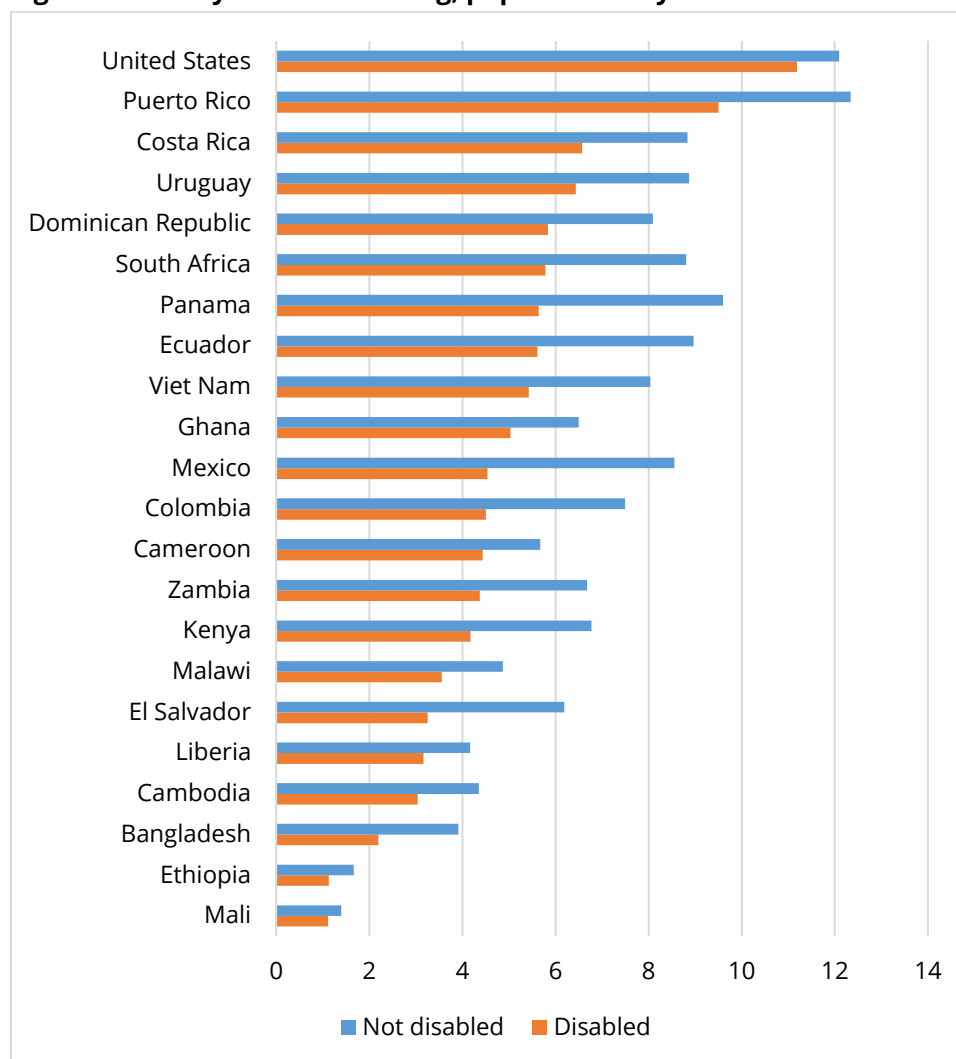
Notes: (1) The censuses in the graph did not use the Washington Group set of questions to identify persons with disabilities. (2) Countries are presented in the order of mean years of schooling of persons with disabilities.

The adjusted disability parity index, calculated by dividing the mean years of schooling of disabled persons by the mean years of schooling of non-disabled persons, is 0.69 on average. The values of the parity index range from 0.53 in El Salvador and Mexico (where persons without disabilities have nearly twice as many years of schooling as persons with disabilities) to 0.93 in the United States.

In almost all countries, disabled women have fewer years of schooling than disabled men. The largest gender gaps exist in Ghana and Liberia, with a difference of 2.7 years between disabled women and men. In Ghana, men living with a disability have on average 6.5 years of schooling, compared to 3.8

years for disabled women. In Liberia, disabled men attended school on average for 4.5 years, more than double the 1.8 years for disabled women. The exception is the Dominican Republic, where disabled women have 0.1 more years of schooling than disabled men, a difference that is unlikely to be statistically significant.

3.6 Adult literacy rate

The following analysis is based on data from population censuses, which typically define literacy as the ability to read and write, with understanding, a short, simple statement about everyday life (United Nations, 2015). The adult literacy rate, shown in **Table 8** and **Figure 3**, was calculated for the population 15 years and older, using census data compiled by IPUMS-International. The caveats concerning comparability of the data due to non-standard disability questions mentioned in the section on mean years of schooling also apply to the literacy data.

The prevalence of disability among the population 15 years and older is lower than among the population 25 years and older and ranges from less than 1% in Egypt and Indonesia to 16% in the Dominican Republic. The average disability rate for the 25 countries with data is 5%.

In all countries, persons with a disability have lower literacy rates than persons without a disability. This is especially obvious in Figure 3, which shows the latest available data for each country from Table 8. The gaps range from 5 percentage points in Mali to 41% in Indonesia, where a large majority of non-disabled adults (93%) have basic literacy skills, compared to only half (52%) of disabled adults.

Large gaps in adult literacy rates linked to disability are also present in Iran and Viet Nam. In Viet Nam, the high adult literacy rate of 94% for persons who are not disabled is in stark contrast with the 59% literacy rate among disabled persons. In Iran, there is a difference of 31 percentage points between the literacy rate of disabled (49%) and non-disabled adults (80%).

The adjusted disability parity index, calculated by dividing the literacy rate of disabled adults by the literacy rate of adults who are not disabled, is 0.75 on average and ranges from 0.51 in Burkina Faso – where the literacy rate is twice as high among non-disabled adults (25%) as among disabled adults (12%) – to 0.93 in Costa Rica.

Table 8. Adult literacy rate, population 15 years and older

| Country	Year	Proportion of population with a disability (%)			Literacy rate, total population (%)			Literacy rate, persons without a disability (%)			Literacy rate, persons with a disability (%)			Adjusted disability parity index		
		MF	M	F	MF	M	F	MF	M	F	MF	M	F	MF	M	F
Bangladesh	2011	1.7	1.8	1.6	52.1	56.1	48.3	52.6	56.5	48.7	27.3	33.7	20.2	0.52	0.60	0.41
Brazil	2010	8.1	7.3	8.9	90.4	90.1	90.7	92.2	91.7	92.6	70.8	70.1	71.3	0.77	0.76	0.77
Burkina Faso	2006	1.9	2.1	1.6	24.3	32.6	17.2	24.5	33.0	17.4	12.4	16.4	8.1	0.51	0.50	0.47
Cambodia	2008	1.8	2.1	1.5	77.1	84.9	70.1	77.4	85.2	70.4	62.2	72.1	50.0	0.80	0.85	0.71
Cameroon	2005	1.9	2.1	1.8	68.0	74.4	62.1	69.2	75.6	63.3	59.3	67.2	51.0	0.86	0.89	0.81
Colombia	2005	7.7	8.0	7.4	90.1	89.7	90.4	91.2	90.7	91.6	77.6	78.5	76.7	0.85	0.87	0.84
Costa Rica	2011	12.8	12.5	13.0	97.3	97.2	97.4	98.2	98.1	98.3	91.4	90.7	92.1	0.93	0.92	0.94
Dominican Republic	2010	15.9	13.6	18.2	86.9	86.1	87.7	89.0	87.8	90.2	77.2	76.7	77.7	0.87	0.87	0.86
Ecuador	2010	7.6	8.3	6.9	93.1	94.1	92.1	94.5	95.4	93.7	76.9	80.2	73.1	0.81	0.84	0.78
Egypt	2006	0.8	1.0	0.6	65.6	74.0	56.8	65.8	74.4	57.0	37.6	43.8	26.0	0.57	0.59	0.46
El Salvador	2007	5.5	6.2	4.9	81.6	84.6	79.1	83.4	86.6	80.9	57.6	63.0	51.9	0.69	0.73	0.64
Ethiopia	2007	1.9	2.0	1.7	37.7	48.4	27.1	37.9	48.7	27.4	26.2	35.2	15.7	0.69	0.72	0.57
Ghana	2010	4.0	3.8	4.0	70.8	77.9	64.4	71.4	78.4	65.2	56.2	66.4	47.5	0.79	0.85	0.73
Indonesia	2010	0.9	0.8	1.0	92.2	94.7	89.7	92.5	94.9	90.1	51.9	60.9	44.5	0.56	0.64	0.49
Iran (Islamic Republic of)	2006	1.7	2.1	1.2	79.8	85.3	74.2	80.3	85.9	74.7	49.5	57.6	35.0	0.62	0.67	0.47
Liberia	2008	4.5	4.6	4.4	53.3	65.2	41.6	53.9	65.8	42.3	40.7	53.4	27.5	0.75	0.81	0.65
Malawi	2008	5.1	5.0	5.2	72.2	81.1	63.8	72.9	81.6	64.7	59.4	72.1	47.9	0.81	0.88	0.74
Mali	2009	1.0	1.1	0.8	30.1	39.2	21.4	30.1	39.2	21.4	25.5	31.1	17.6	0.85	0.79	0.82
Mexico	2010	6.6	6.6	6.6	93.1	94.4	91.8	94.4	95.5	93.3	74.9	79.0	71.1	0.79	0.83	0.76
Mozambique	2007	3.5	3.8	3.1	48.2	64.6	34.0	48.8	65.3	34.6	33.3	48.9	16.6	0.68	0.75	0.48
Panama	2010	3.6	3.7	3.4	94.0	94.6	93.4	94.7	95.4	94.1	74.7	75.3	74.1	0.79	0.79	0.79
Sudan	2008	6.6	6.9	6.2	56.4	64.9	48.2	57.8	66.3	49.7	36.6	46.3	26.1	0.63	0.70	0.53
Uruguay	2006	10.8	10.0	11.4	97.8	97.4	98.1	98.6	98.3	98.8	90.6	89.1	91.7	0.92	0.91	0.93
Uruguay	2011	5.7	4.5	6.8	98.5	98.1	98.7	99.0	98.8	99.2	89.2	84.6	91.9	0.90	0.86	0.93
Viet Nam	2009	2.0	1.9	2.1	93.4	95.7	91.2	94.1	96.2	92.1	58.9	71.9	47.9	0.63	0.75	0.52
Zambia	2010	2.9	3.0	2.8	82.6	88.5	77.2	83.2	89.0	77.9	62.8	73.5	52.1	0.76	0.83	0.67
Average		4.6	4.6	4.6	73.1	78.3	68.3	74.0	79.0	69.2	55.6	61.9	48.5	0.75	0.78	0.75

Source: IPUMS-International, 2005-2011.
Notes: (1) The censuses in the table did not use the Washington Group set of questions to identify persons with disabilities. (2) Averages are unweighted and were calculated from the most recent data for each country.

In the majority of countries, men with disabilities have higher literacy rates than women with disabilities. The widest gap exists in Mozambique, where the difference is 32 percentage points; almost one in two disabled men (49%) can read and write, compared to only one in six disabled women (17%). Similarly, in Liberia, one in two disabled men is literate but only one in four disabled women.

In four countries, disabled women have higher literacy rates than disabled men: Brazil, Costa Rica, Dominican Republic and Uruguay, with differences ranging from 1 to 7 percentage points.

Figure 3. Adult literacy rate, population 15 years and older (%)
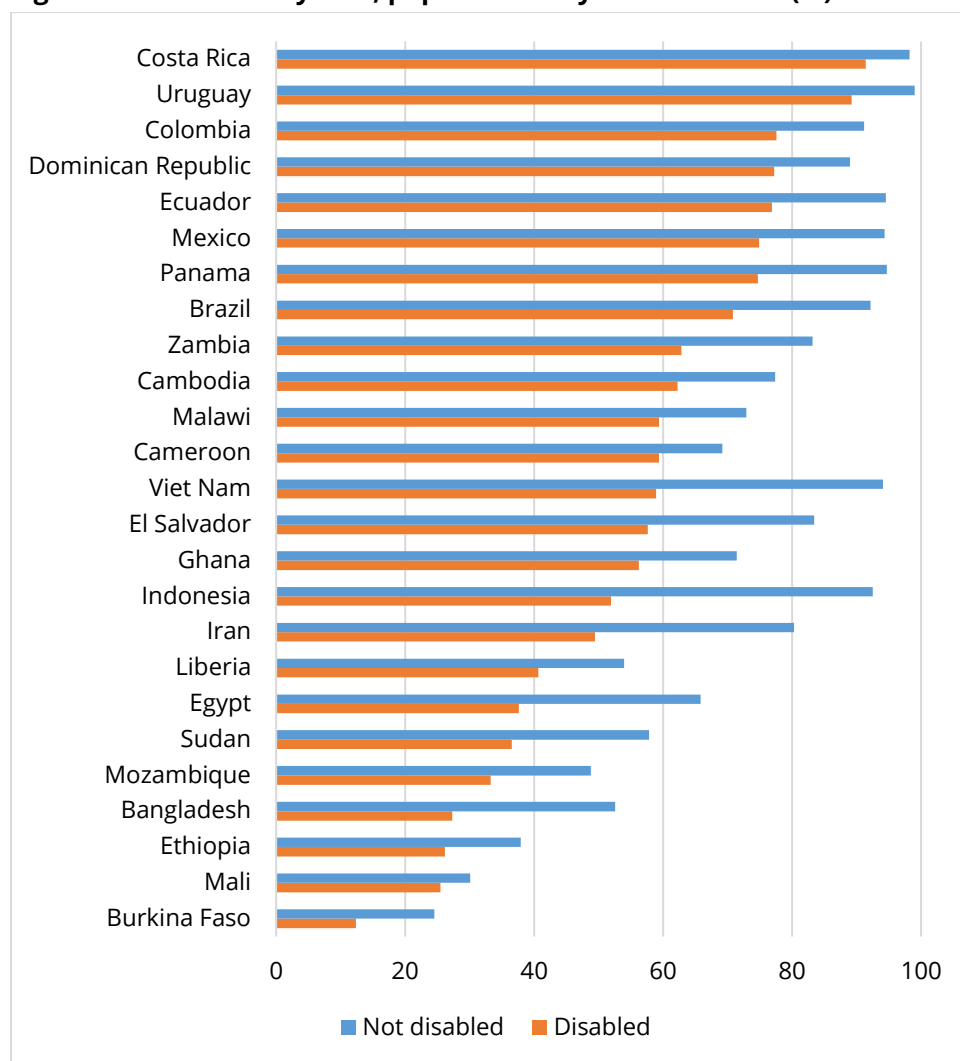
Source: IPUMS-International, 2005-2011.
Notes: (1) The censuses in the graph did not use the Washington Group set of questions to identify persons with disabilities.
(2) Countries are presented in the order of the adult literacy rate of persons with disabilities.

4. Summary and recommendations

The findings of the analysis confirm that persons with disabilities are nearly always worse off than persons without disabilities: on average, the former are less likely to ever attend school, they are more likely to be out of school, they are less likely to complete primary or secondary education, they have fewer years of schooling, and they are less likely to possess basic literacy skills.

To ensure that no one is left behind in the pursuit of SDG 4, special efforts must be targeted at persons with disabilities, who are among the most marginalised groups of the population. The data in this study also reveal that disabled women are often less likely to reap the benefits of a formal education than disabled men, thus suffering doubly by virtue of being female and a person with a disability. The observed disadvantage of disabled persons is likely to be intensified in combination with other factors of exclusion linked to location, poverty, and other personal and household characteristics, that were not examined in this paper.

The analysis also confirmed certain problems linked to data on disability. Comparability across countries is limited due to the widespread use of non-standard questions in survey and census questionnaires. Moreover, the small sample size of many surveys, in combination with the relatively low prevalence of disability, has serious implications for statistical analysis and reliability of indicator estimates.

Because of this, the numbers presented in this paper should be interpreted with caution. Nevertheless, they demonstrate that there is a distinct gap between persons with and without disabilities with regard to access to education, completion, and learning outcomes, even if the indicator estimates themselves are subject to a margin of error.

To improve the evidence base for future analytical work and for policy guidance, it is necessary to advocate for more widespread collection of data on disability. As a first step, a comprehensive inventory of currently available data should be carried out so that national baselines for monitoring of SDG 4 with regard to disability can be established. To ensure that measures of disability are comparable across countries and between years, future surveys and censuses should use the question sets developed by the Washington Group on Disability Statistics and UNICEF. At the same time, administrative data on disability should also be improved.

If possible, the sample sizes of household surveys should be increased so that the collected data can be more representative of small sub-groups of the population, including persons with disabilities, thus offering a better and more accurate picture for analysis. Censuses, which are not subject to sampling error and can provide detailed information about small population groups, should always include questions on disability. Moreover, to allow periodic monitoring of progress towards SDG 4 and other

national and international goals, data collection must be repeated on a regular basis. For this to be accomplished, developing countries in particular need support to strengthen their statistical capacity.

In parallel, it is important to improve the availability of internationally-comparable data on disability, education and related areas and to promote the use of this information among analysts, advocacy groups, policymakers and other stakeholders. This can be achieved through the compilation and standardisation of data collected in past and future surveys, following internationally-agreed standards, for example in the database of the UNESCO Institute for Statistics, for example. As long as data on disability are imperfect, analysts must remain aware of the limitations present in available data and all findings should be carefully documented to avoid misinterpretation.

The recommendations above cannot be realised without strong political will in all UN Member States, better coordination among national and international agencies involved in the measurement of disability, and additional funding from international donors and foundations. The results of the joint efforts will be better identification of disadvantaged populations, more targeted and efficient allocation of resources to those most in need, and eventually equalised educational opportunities for all.

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Annex. Data sources and definition of disability

Country	Year	Data source	Definition of disability
Armenia	2012	SWTS	Adaptation of Washington Group short set of questions.
Armenia	2014	SWTS	Adaptation of Washington Group short set of questions.
Bangladesh	2011	IPUMS	A person is considered disabled if he or she is, by birth or other cause, physically unable, completely/partly handicapped, or mentally retarded. This includes physical and mental disabilities, as well as difficulty speaking, seeing, or listening.
Bangladesh	2013	SWTS	Adaptation of Washington Group short set of questions.
Benin	2012	SWTS	Adaptation of Washington Group short set of questions.
Benin	2014	SWTS	Adaptation of Washington Group short set of questions.
Brazil	2010	IPUMS	Disability in 2010 is constructed from a number of different questions reported individually in separate IPUMS variables. Persons are coded "disabled" if they reported significant difficulty seeing, hearing or walking or if they reported having a permanent mental or intellectual disability.
Burkina Faso	2006	IPUMS	The 2006 sample provide the type of disability for all persons. The sample does not distinguish between temporary and permanent disabilities but refers to physical and mental limitations.
Cambodia	2008	IPUMS	Disability is defined as having a permanent disability in one or more of the following: seeing, speech, hearing, movement, and/or mental. This is irrespective of whether the person was born with the disability or developed it since birth. The threshold for disability is rather low, and can include what might be termed "limitations" (for example, vision loss in one eye).
Cambodia	2014	DHS	Adaptation of Washington Group short set of questions.
Cambodia	2014	SWTS	Adaptation of Washington Group short set of questions.
Cameroon	2005	IPUMS	The 2005 sample refers to limitations and health problems which prevent a person from fulfilling, completely or partially, a task that could normally be done by a person of similar age, sex, and cultural factors. This includes limitations in sight, hearing, speaking, albinism, leprosy, physical disabilities, and mental disabilities.
Colombia	2005	IPUMS	Persons with a permanent limitation. The 2005 sample specifies the inability to feed, bath, or dress oneself as a disability, and several times as many persons report a limitation in 2005.
Colombia	2009-10	DHS	Non-Washington Group questions. Country-specific questions, degree of difficulty in various domains (more domains than Washington Group: relating to others due to mental, emotional or nervous problems, moving short distances due to heart or respiratory problems).
Colombia	2013	SWTS	Adaptation of Washington Group short set of questions.
Congo	2015	SWTS	Adaptation of Washington Group short set of questions.
Costa Rica	2011	IPUMS	In the 2011 census the included disabilities are: difficulty seeing even with use of glasses, difficulty hearing, difficulty speaking, difficulty walking or climbing stairs, difficulty using arms or hands, intellectual difficulty and mental difficulty (bipolar, schizophrenic, other).

Dominican Republic	2010	IPUMS	The data identify persons with a limitation. The instructions for each sample did not specify that the impairment must be permanent, but that may have been implied. In the 2010 sample much higher disability levels are reported than in earlier years. Most of the difference is due to a change in the wording of the question for vision disability, which was changed from being blind in one or both eyes in 2002 to having "permanent difficulty" seeing with glasses in 2010.
Dominican Republic	2015	SWTS	Adaptation of Washington Group short set of questions.
Ecuador	2010	IPUMS	The census question sought to identify a "permanent difficulty doing an activity considered normal".
Egypt	2006	IPUMS	Having a physical, sensual, or mental problem for 6 months or more that disables him/her of living his/her life independently in a normal way.
Egypt	2012	SWTS	Adaptation of Washington Group short set of questions.
Egypt	2014	SWTS	Adaptation of Washington Group short set of questions.
El Salvador	2007	IPUMS	Permanent limitations in seeing, hearing, speaking, using arms or legs, and mental disabilities, while only the latter includes difficulties for daily activities (bathing, getting dressed, or eating) and other permanent limitations not listed.
El Salvador	2012	SWTS	Adaptation of Washington Group short set of questions.
Ethiopia	2007	IPUMS	In 2007, the census has a question asking if the person has any disability.
Gambia	2013	DHS	Non-Washington Group questions. Country-specific questions, difficulty seeing, hearing or using legs.
Ghana	2010	IPUMS	The 2010 sample identifies limitations in sight, hearing or speech, physical disabilities, emotional disabilities and mental disabilities. Persons with disabilities are defined as those who are unable to or are restricted in the performance of specific tasks or activities due to loss of function of any part of the body as a result of impairment or malformation. A disability can be partial or total, sensory or physical and an individual may suffer from one or more disabilities. A person is considered disabled if, despite the use of assistive devices or a supportive environment (such as eyeglasses and hearing aids), the limitation or restriction cannot be improved.
Indonesia	2010	IPUMS	The 2010 sample refers to difficulties seeing, hearing, walking, remembering, concentrating, or communicating, and taking care of oneself. Only persons with severe difficulties are considered to be disabled in 2010.
Iran (Islamic Republic of)	2006	IPUMS	Having blindness, deafness, speech and voice disorder, hand or leg impairment or amputation, torso impairment, and/or mental disorder.
Jamaica	2013	SWTS	Adaptation of Washington Group short set of questions.
Jamaica	2015	SWTS	Adaptation of Washington Group short set of questions.
Jordan	2013	SWTS	Adaptation of Washington Group short set of questions.
Jordan	2015	SWTS	Adaptation of Washington Group short set of questions.
Kenya	2009	IPUMS	In 2009, respondents were asked for their specific type of disability, if any. They were to report up to three disabilities.
Kyrgyzstan	2013	SWTS	Adaptation of Washington Group short set of questions.
Liberia	2008	IPUMS	The 2008 sample identifies limitations in sight, hearing, speaking, physical disabilities, and mental disabilities. Although no instructions are available, permanent impairments may have been implied.

Liberia	2012	SWTS	Adaptation of Washington Group short set of questions.
Liberia	2014	SWTS	Adaptation of Washington Group short set of questions.
Madagascar	2013	SWTS	Adaptation of Washington Group short set of questions.
Madagascar	2015	SWTS	Adaptation of Washington Group short set of questions.
Malawi	2008	IPUMS	Disability is defined as "a physical or mental handicap which inhibits an individual's ability to work or participate in normal activities".
Malawi	2012	SWTS	Adaptation of Washington Group short set of questions.
Malawi	2014	SWTS	Adaptation of Washington Group short set of questions.
Maldives	2009	DHS	Adaptation of Washington Group short set of questions.
Mali	2009	IPUMS	The 2009 sample specifies that disabilities are permanent and not related to temporary illnesses. These samples define disability as conditions that contribute to ill health of the individual, slow economic activity and lower productivity, or prevent production effort altogether.
Mexico	2010	IPUMS	The 2010 sample refers to limitations moving/walking, hearing, speaking, seeing, and mental/learning disabilities. The sample considers difficulties in daily life activities as well (bathing, getting dressed, or eating). The 2000 sample indicates that the question refers to long-term or permanent disabilities (expected to last six months or more), which is not explicitly mentioned in the 2010 sample.
Mozambique	2007	IPUMS	The 2007 census has a question asking if the person has any disability.
Nepal	2013	SWTS	Adaptation of Washington Group short set of questions.
Palestine	2013	SWTS	Adaptation of Washington Group short set of questions.
Palestine	2015	SWTS	Adaptation of Washington Group short set of questions.
Panama	2010	IPUMS	All samples include mental and physical impediments, including "visual weakness" that cannot be corrected.
Peru	2013	SWTS	Adaptation of Washington Group short set of questions.
Puerto Rico	2010	IPUMS	Disability rates are very high in the Puerto Rican samples. Disability constitutes significant hearing or sight loss, physical limitation including reaching and lifting, and difficulty learning, remembering or concentrating.
Serbia	2015	SWTS	Adaptation of Washington Group short set of questions.
South Africa	2007	IPUMS	The 2007 sample describes a disability as "a serious sight, hearing, physical, communication, intellectual, emotional or mental disability that has lasted for 6 months or more". The 2007 sample includes a further question asking whether the disability seriously prevented the person from full participation in activities.
South Africa	2011	IPUMS	The 2011 sample enumerates the following disabilities: difficulty seeing, difficulty hearing, difficulty communicating, difficulty walking or climbing stairs, difficulty remembering or concentrating, and difficulty with self-care such as washing, dressing or feeding. A person is considered disabled if he/she answered "a lot of difficulty" or "cannot do at all" to any of the previous questions.
South Sudan	2008	IPUMS	The census question asks if the person has any difficulty moving, seeing, hearing, speaking, or learning. Disability is classified as having difficulty in any of the aforementioned areas.
Sudan	2008	IPUMS	The census question asks if the person has any difficulty moving, seeing, hearing, speaking, or learning. Disability is classified as having difficulty in any of the aforementioned areas.

The former Yugoslav Republic of Macedonia	2014	SWTS	Adaptation of Washington Group short set of questions.
Togo	2012	SWTS	Adaptation of Washington Group short set of questions.
Togo	2014	SWTS	Adaptation of Washington Group short set of questions.
Tunisia	2013	SWTS	Adaptation of Washington Group short set of questions.
Uganda	2011	DHS	Adaptation of Washington Group short set of questions.
Uganda	2013	SWTS	Adaptation of Washington Group short set of questions.
Uganda	2015	SWTS	Adaptation of Washington Group short set of questions.
United Republic of Tanzania	2013	SWTS	Adaptation of Washington Group short set of questions.
United States	2010	IPUMS	Disability rates are similarly high in all the U.S. samples. Disability in 2000-2005 constitutes significant hearing or sight loss, physical limitation including reaching and lifting, and difficulty learning, remembering or concentrating. In 2010, serious difficulty walking or climbing stairs replaced the former physical limitation question, but produced similar response rates.
Uruguay	2006	IPUMS	The 2006 sample refers to permanent limitations in sight, hearing, walking, using arms/hands, speaking, and mental disabilities. Data are only available for persons interviewed in the third trimester of the household survey.
Uruguay	2011	IPUMS	In 2011, a disability is defined as any limitation of activity and restriction in participation coming from a deficiency that permanently affects a person and his or her ability to become involved in daily life within his or her physical and social environment. The sample reported degrees of difficulty, with "much difficulty" used to define disability for the purposes of this variable. The source variable retains the full original information.
Viet Nam	2009	IPUMS	The census question asks for the self-reported level of difficulty in seeing even with glasses, hearing, walking, and remembering or paying attention. A person is classified as disabled if he/she responds as having significant difficulty in any of the four abilities.
Viet Nam	2013	SWTS	Adaptation of Washington Group short set of questions.
Yemen	2013	DHS	Non-Washington Group questions. Country-specific questions. Do members have conditions limiting activities, if so, which domain, cause, onset, treatment.
Zambia	2010	IPUMS	A disability is defined as a limitation in the kind or amount of activities that a person can do because of ongoing difficulties due to a long-term physical condition, mental condition or health problem. Short-term disabilities due to temporary conditions such as broken legs and illness are excluded.
Zambia	2012	SWTS	Adaptation of Washington Group short set of questions.

Notes: DHS: Demographic and Health Survey; SWTS: School-to-Work Transition Survey; IPUMS: Integrated Public Use Microdata Series.