United Nations | Department of Economic and Social Affairs

Disability and Development Report

Realizing the Sustainable Development Goals by, for and with persons with disabilities

2018

Department of Economic and Social Affairs

Disability and Development Report

Realizing the Sustainable Development Goals by, for and with persons with disabilities

2018

United Nations

New York, 2019

Department of Economic and Social Affairs

The Department of Economic and Social Affairs of the United Nations Secretariat is a vital interface between global policies in the economic, social and environmental spheres and national action. The Department works in three main interlinked areas: (i) it compiles, generates and analyses a wide range of economic, social and environmental data and information on which States Members of the United Nations draw to review common problems and to take stock of policy options; (ii) it facilitates the negotiations of Member States in many intergovernmental bodies on joint courses of action to address ongoing or emerging global challenges; and (iii) it advises interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into programmes at the country level and, through technical assistance, helps build national capacities.

Note

The designations employed and the presentation of the material in the present publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country or territory or of its authorities, or concerning the delimitations of its frontiers. The term “country” as used in the text of this report also refers, as appropriate, to territories or areas. The designations of country groups in the text and the tables are intended solely for statistical or analytical convenience and do not necessarily express a judgement about the stage reached by a particular country or area in the development process. Mention of the names of firms and commercial products does not imply the endorsement of the United Nations. Symbols of United Nations documents are composed of capital letters combined with figures.

Disability and Development Report
Published by the United Nations
New York, New York 10017, United States of America

ISBN: 9789211303797
eISBN: 9789210479035(PDF)
ePUB: 9789213582800

United Nations Publication Sales No. 19.IV.4

Design and layout
Department of Economic and Social Affairs, United Nations, New York

Chapter II. Realizing the Sustainable Development Goals for persons with disabilities

Disability has been included in various targets and as a cross-cutting issue in the 2030 Agenda for Sustainable Development. Efforts need to be stepped up to ensure that the goals and targets will be achieved for persons with disabilities too, in line with the CRPD. This chapter reflects on overall progress towards the SDGs from the perspective of persons with disabilities. In particular, the following SDGs are addressed in detail in the following sections of this chapter: poverty and hunger (SDGs 1 and 2), health and well-being (SDG 3), sexual and reproductive health and reproductive rights (targets 3.7 and 5.6), education (SDG 4), gender equality and empowerment of women and girls with disabilities (SDG 5), availability of water and sanitation (SDG 6), access to energy (SDG 7), employment and decent work (SDG 8), access to ICT (target 9.c), inequality (SDG 10), inclusive cities and human settlements (SDG 11), disasters, shocks and climate change (targets 1.5 and 11.5 and SDG 13) and finally violence against persons with disabilities, inclusive societies and institutions, representative decision-making, birth-registration and access to justice and to information (SDG 16). These sections provide an overview of the selected SDGs from a disability perspective, discussing relevant international normative frameworks; the current situation of persons with disabilities; and current practices with particular attention to highlighting best practices, all with the aim of informing the implementation of the 2030 Agenda for persons with disabilities.

A. Ending poverty and hunger for all persons with disabilities (Goals 1 and 2)

This section reflects on the situation of persons with disabilities with respect to poverty and hunger, in line with Goals 1 and 2. Goal 1 makes a call “to end poverty in all its forms” and Goal 2 “to achieve zero hunger”. This section presents various international normative frameworks on poverty, hunger and disability, provides an overview of the situation of persons with disabilities vis-à-vis Goals 1 and 2 and discusses national policies and best practices in these areas. The section includes recommendations for achieving these two SDGs for persons with disabilities.

The section focuses on selected Goal 1 and Goal 2 targets relevant for persons with disabilities: reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions (target 1.2); end hunger and ensure access by all people to safe, nutritious and sufficient food all year round (target 2.1); implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable (target 1.3); and ensure access to financial services, in particular to the vulnerable (target 1.4).

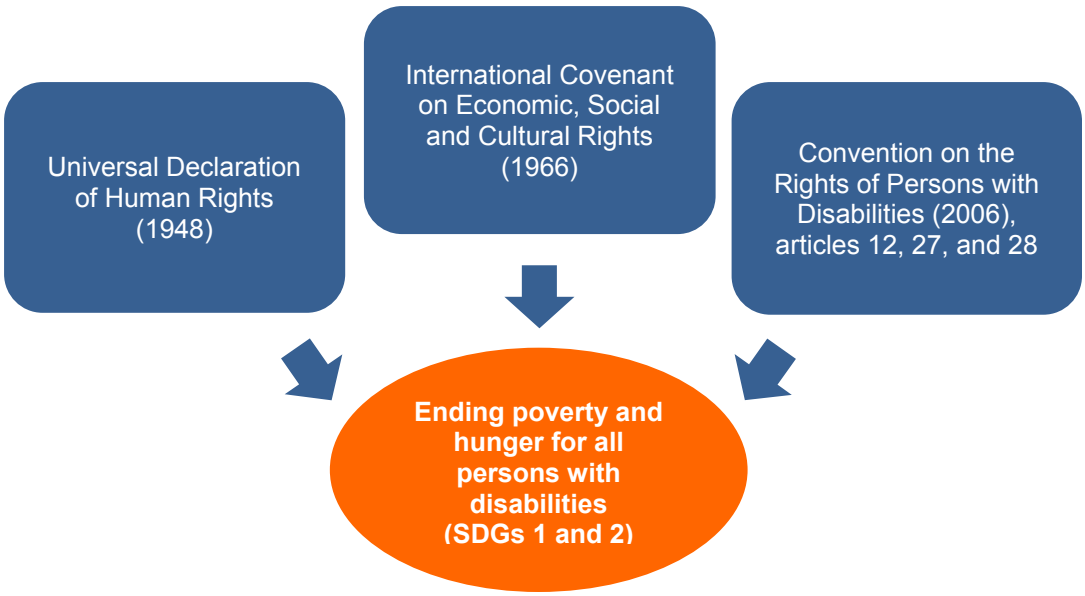
Achieving these targets for persons with disabilities remains a path full of obstacles. Persons with disabilities face physical, social, economic and/or environmental barriers to participation, which may lead to poverty and hunger. For instance, lack of accessibility in the physical environment and discrimination may prevent persons with disabilities from entering the school system, restricting their skills, knowledge and future ability to work and produce economic value. Those same barriers may prevent persons with disabilities from entering the labour market, or may limit the kind and amount of work they can do, lowering their incomes. In addition, increased expenditures related to disability may have an adverse impact on financial resources and push persons with disabilities into poverty. Though social protection schemes can help alleviate poverty, persons with disabilities encounter various barriers in accessing social protection programmes.[38] These barriers include lack of accessible information provided to persons with disabilities about social protection programmes and how to apply for them; absence of the requisite documentation; limited accessibility of grant offices to persons with disabilities; pervasive discrimination by grant offices, in particular, towards those with psychosocial disabilities; and lack of clarity in the disability evaluation process.[39]

International normative frameworks on poverty, hunger and disability

The eradication of poverty and hunger are key commitments of the SDGs, reflected in Goals 1 and 2. Goal 1 commits “to end poverty in all its forms” and Goal 2 “to achieve zero hunger”. The universality of these goals covers all, including persons with disabilities. Although there are no direct references to disability in Goals 1 and 2, indicator 1.3.1 measures the proportion of the population covered by social protection floors/systems, by sex, distinguishing persons with disabilities, among others.

The international normative framework on disability and development, consisting of the CRPD and other international instruments, also includes provisions/references concerning poverty, hunger and social protection for persons with disabilities (Figure II.1). Poverty among persons with disabilities is a key concern in the CRPD and disability-specific legislation. Article 28 of the CRPD calls on States Parties: 'to ensure access by persons with disabilities, in particular women and girls with disabilities and older persons with disabilities, to social protection programmes and poverty reduction programmes'. The CRPD emphasizes equality in social and economic dimensions, including equal remuneration for work of equal value (article 27, paragraph1(b)) and equal access to retirement benefits and programmes (article 28, paragraph 2 (e)). The CRPD also stresses autonomy – the right for persons with disabilities to control their own financial affairs and to have equal access to bank loans, mortgages and other forms of financial credit (article 12, paragraph 5), and rights to an adequate standard of living and social protection (article 28, paragraph 1 and paragraph 2 (b)(c)) and also connects with Goal 2 through provisions for adequate food, standards of living (article 28, paragraph 1), and land control (article 12, paragraph 5). Other international human rights instruments contain provisions concerning the right to social protection of persons with disabilities. For example, the Universal Declaration of Human Rights (1948)[40] and the International Covenant on Economic, Social and Cultural Rights (1966)[41] contain a general recognition of this right.

Figure II.1. International normative frameworks relevant for the achievement of SDGs 1 and 2 for persons with disabilities.



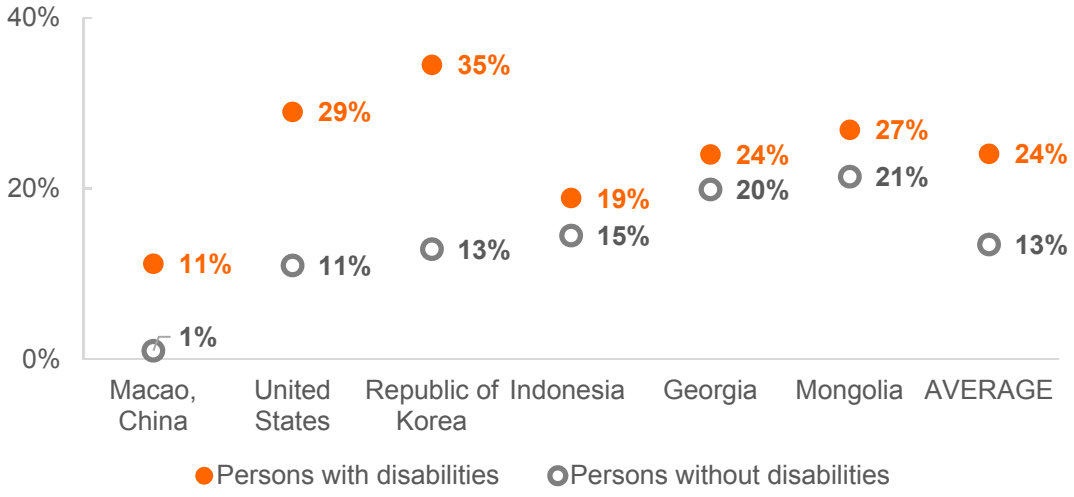
The situation of persons with disabilities regarding poverty, hunger and nutrition

Poverty

Persons with disabilities, and their households, are more likely to live in poverty. The evidence is based on hunger indicators, traditional poverty indicators (income, household expenditures, asset ownership) and multidimensional poverty, that is, the experience of multiple deprivations by the same households or individuals.

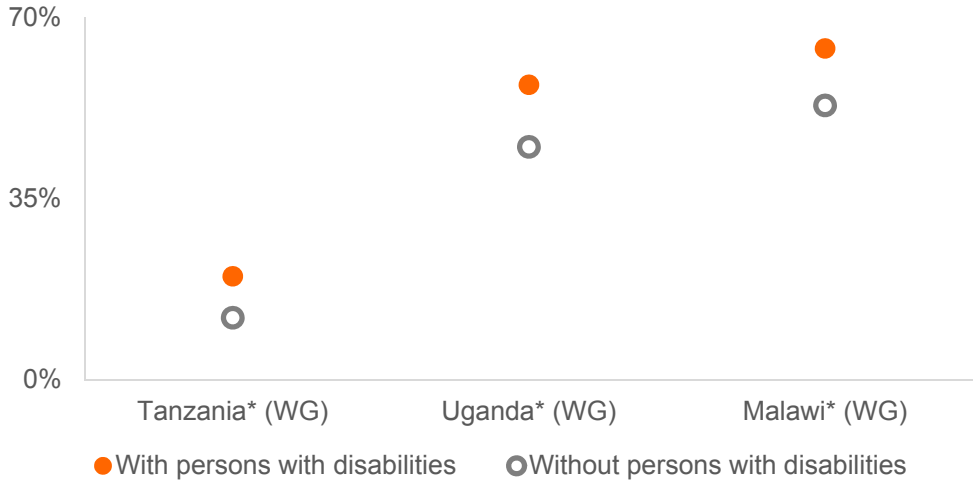
Regarding the traditional poverty indicators, data from 2011–2016 for six countries and areas, showed that a higher percentage of persons with disabilities was living under the national poverty line;[42] in some countries, the difference reached 22 percentage points (Figure II.2). Using international poverty lines, persons with disabilities were more likely to be poor in three countries in 2010–2011 (Figure II.3), with the highest gap of 12 percentage points between persons with and without disabilities in Uganda.

Figure II.2. Percentage of persons living under the national poverty line, by disability status, in 6 countries, in 2011-2016.



Source: ESCAP[8] and Brucker et al (2014).[43,44]

Figure II.3. Percentage of households with and without persons with disabilities living under the international poverty line (US$1.90 a day), in 3 countries, in 2010-2011.



Note: (WG) identifies countries with data collected using the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference is statistically significant at 10 per cent or less.

Source: Mitra (2018).[45]

For high-income countries, the evidence in figures Figure II.2 and Figure II.3 is consistent with other studies suggesting that persons with disabilities are more likely to be income poor.[46,47,48] In lower and middle-income countries, some studies point to higher poverty rates among persons with disabilities, in line with the national poverty rates in Figure II.2 and Figure II.3, but others did not find a clear association between disability and poverty. For instance, several studies show that households with disabilities have fewer assets and worse living conditions compared to other households;[49] or a higher prevalence in lower asset quintiles;[50,51,52] or that households with disabilities have lower expenditures than households without.[53,54] However, other studies found no significant association[55,56] or varied results across countries.[57] In lower and middle-income countries, due to the variability of income over time and the difficulty of measuring it for workers in the informal sector, poverty is often measured through assets/living conditions or consumption expenditures. It is, however, problematic to use household expenditures to assess the well-being of households with disabilities, as they may reflect additional expenditures associated with a disability (see Box 1).

The poverty gap between persons with and without disabilities is not necessarily uniform, even within a country. For instance, data from the 2006 Viet Nam Household Living Standards Survey (see Box 1) showed that there was a very small gap in some districts, but a very large one in other districts. Further analysis found that the gaps were the largest in districts with the poorest infrastructure and least access to

health-care services, suggesting that improvements in the environment and in-service delivery have the potential to narrow the poverty gap between persons with and without disabilities.[58]

Apart from the association with income poverty, several studies have also found that disability is associated with a higher likelihood of experiencing multiple deprivations, also referred to as multidimensional poverty.[59] Figure II.4 shows estimates of the multidimensional poverty headcounts for 22 countries. A multidimensional poverty gap between persons with and without disabilities is found in all countries and is the largest in Uganda with a headcount of 90 per cent for persons with disabilities and 57 per cent for persons without disabilities. While disability is correlated with the experience of multidimensional poverty, the nature of deprivations may vary across countries. For instance, it could be in terms of employment and healthcare access in one country, but in terms of educational attainment and living conditions in another.

Box 1. Addressing common pitfalls in income poverty indicators to assess poverty among persons with disabilities – a case study from Viet Nam

Consumption-based measures, which assume that the less one consumes the poorer one is, are typically used to assess poverty in developing countries. However, a case study from Viet Nam shows the importance of digging below the surface when using these measures to assess poverty among persons with disabilities. Data from the 2006 Viet Nam Household Living Standards Survey showed that 17 per cent of persons with disabilities were poor compared to 15 per cent of persons without disabilities, revealing a modest poverty gap. However, that assumes that the poverty line for persons with and without disabilities is the same, when in fact persons with disabilities face extra costs of living due to higher medical bills, cost

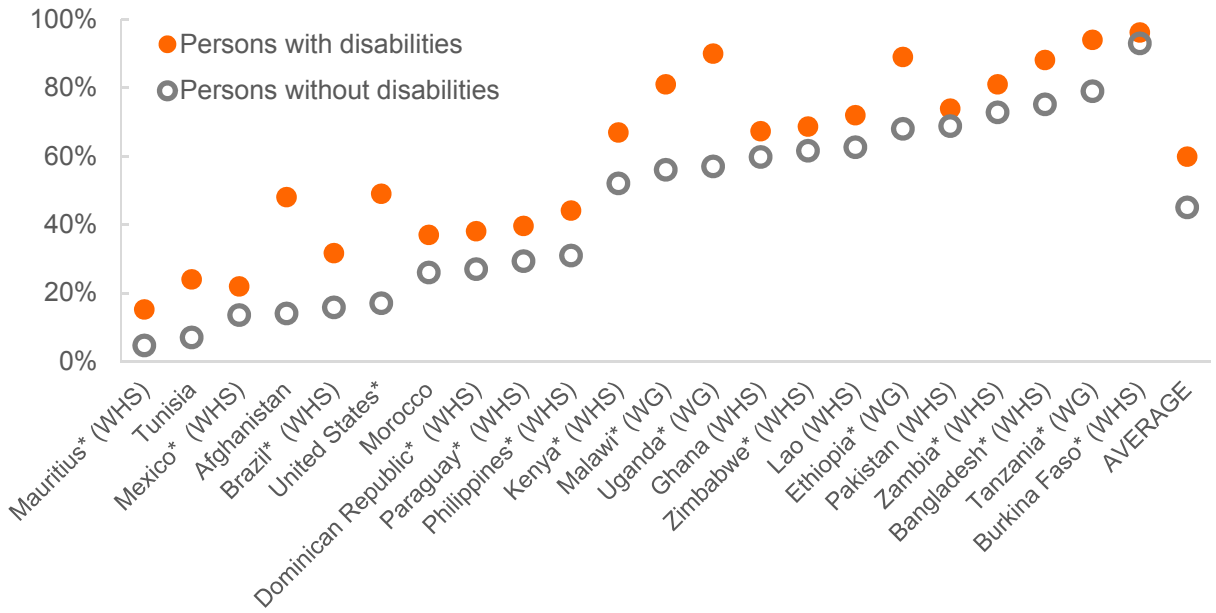
seem wealthier than they are. When the poverty line was adjusted, taking into account these costs, the poverty rate for persons with disabilities rose to 23 per cent.

However, even this adjustment did not capture the complexity of the situation. The timing of the onset of disability can also have an important impact on poverty. The effect of disability on poverty with an onset in old age, after people have received their education and spent years generating a livelihood, may not be as large as when a disability occurs earlier in life. In fact, while the poverty rate for Vietnamese persons aged 19-40 without disabilities was also 15 per cent, the rate for their peers with disabilities was 25 per cent, and this rose to 31 per cent once extra costs were accounted for.

Consumption-based poverty indicators need to account for extra costs related to disability and disaggregate by age in order to provide a more accurate assessment of poverty among persons with disabilities and to inform poverty-reduction policies adequately.

Source: Mont and Nguyen (2017).[54]

Figure II.4. Multidimensional poverty rates,[60] for persons with and without disabilities, in 22 countries, in 2002-2014.



Note: (WG) identifies countries with data collected using the Washington Group Short Set of Questions; (WHS) identifies countries with data collected using the World Health Survey. An asterisk * indicates that the difference is statistically significant at 5 per cent or less. Data from Morocco and Tunisia were carried out in selected geographical regions in each country; data from Ethiopia are representative of rural areas and small towns.

Source: Brucker et al (2014);[43] Mitra et al (2013);[61] Mitra (2018);[45] Trani et al (2015);[62] Trani et al (2016).[63,64]

Extra costs associated with disability

Persons with disabilities bear costs associated with health care, transportation, personal assistance or assistive products, and modified residences, among others.[65] The result is that two households with the same level of consumption (or income) – one with a member with a disability and one without – are not enjoying the same standard of living due to the extra costs incurred by persons with disabilities.

Table II. 1 presents the estimated costs of living with a disability in seven countries. Such additional costs are sizeable, especially for severe disabilities. Smaller sized households tend also to be more affected as the costs relative to household income tend to be higher.[66] While the estimated costs of living with a moderate disability range from 21 per cent to 40 per cent of average income, and from 39 per cent to 70 per cent for a severe disability, a rough estimate would be that having a moderate disability increases the

cost of living by about a third of average income, and having a severe disability increases the cost of living by more than 40 per cent of average income.

Table II. 1. Estimates of the extra costs associated with disability, by degree of disability, in 7 countries, in 1998-2008.

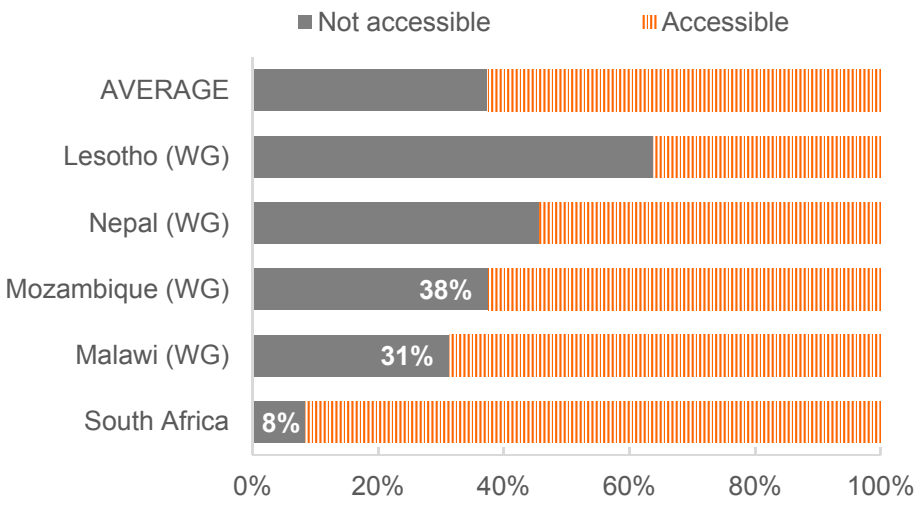
Country	Year	Extra costs associated with disability as a percentage of average income		
		Any disability	Moderate disability	Severe disability
Australia[67]	1998–1999	29%	30%	40%
Bosnia and Herzegovina[68]	2001–2004	14%	-	-
China[69]	2006	8% to 43% (adults); 18% to 31% (children)	-	-
Ireland[70]	2001	40% (adults aged 65 and over)	-	-
Spain[71]	2007	-	40%	70%
UK[72]	2007–2008	-	21%	39%
Viet Nam[73]	2006	12%	-	-

Access to financial services

Access to financial services has been recognized as key to lifting people out of poverty. Without a bank account, for instance, individuals often face higher costs for conducting financial transactions through alternative financial service providers. Such individuals find it more difficult to save and plan financially for the future, leaving them more vulnerable to medical or job emergencies that may endanger their financial stability. The lack of longer-term savings undermines their ability to improve skills, purchase a home, or pay for the education of their children.

Financial services are not always accessible for persons with disabilities. Banks may not be physically accessible and online financial services may not be virtually accessible. For instance, in five developing countries, between 8 per cent and 64 per cent of persons with disabilities consider that banks are not accessible (Figure II.5). Crowdsourced data mostly from developed countries indicated that as of 2017, 28 per cent of banks and 12 per cent of automated teller machines were not accessible by persons with wheelchairs.[74, 78,197]

Figure II.5. Percentage of persons with disabilities who consider banks are not accessible, in 5 countries, around 2011.



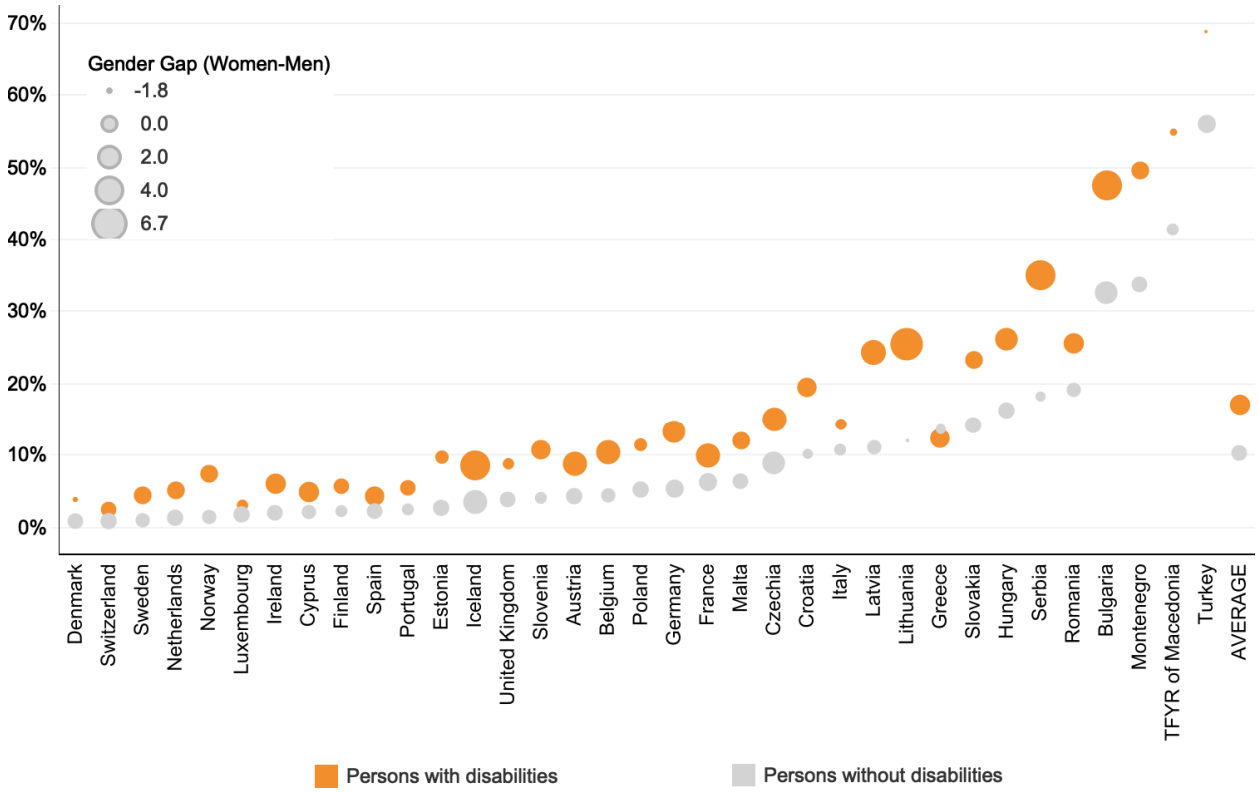
Note: (WG) indicates surveys that used the Washington Group Short Set of Questions. Data from South Africa were collected in selected regions of the country and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Hunger and nutrition

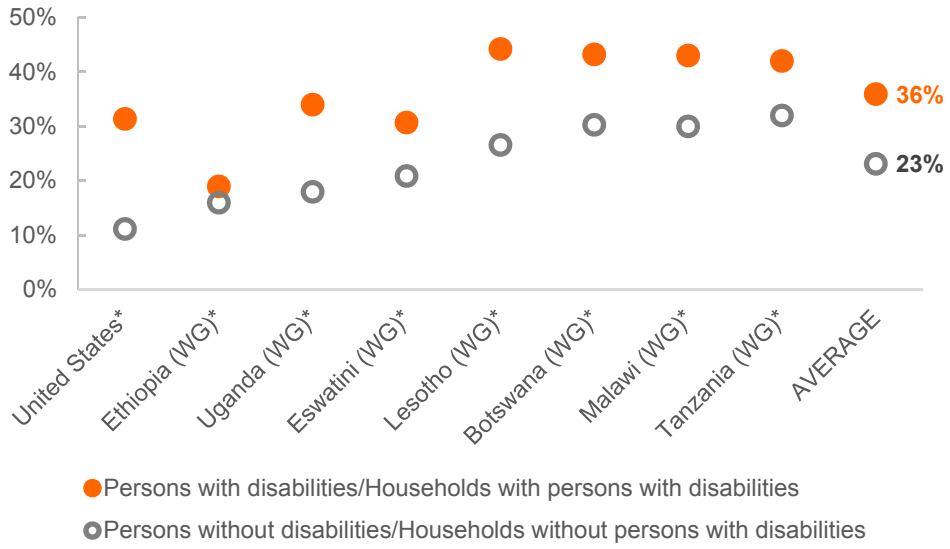
Persons with disabilities are more likely to live in food insecure households.[43,45] In 34 out of 35 countries, mostly in Europe, the inability to afford a meal with protein – that is, meat, chicken, fish or a vegetarian equivalent – every second day is higher among persons with disabilities than among persons without disabilities (Figure II.6). On average, the percentage of persons with disabilities who are unable to afford such a meal is almost double, 17 per cent as compared to 10 per cent for persons without disabilities. In 27 countries, more women than men with disabilities have this challenge. The gender gap between women and men is wider among persons with disabilities (up to 7 percentage points) than among persons without disabilities (up to 3 percentage points). Other evidence, from eight countries, around 2012, shows that persons with disabilities and their households are more likely to not always have food to eat, than persons without disabilities and their households (Figure II.7). Children and youth with disabilities are also less likely to benefit from school-based malnutrition reduction efforts because they are less likely to attend school than their peers without disabilities.[75]

Figure II.6. Inability to afford a meal with meat, chicken, fish or vegetarian equivalent every second day for persons aged 16 and over with and without disabilities,[76] in 35 countries, in 2016.[77]



Source: Eurostat.[9]

Figure II.7. Percentage of persons or households who did not always have food to eat, by disability status, in 8 countries, around 2012.



Note: (WG) indicates surveys that used the Washington Group Short Set of Questions. Data from the United States refer to percentage of persons; all other data refer to percentage of households. Data from Botswana, Eswatini and Lesotho refer to the experience of the household in the past two weeks; all other data refer to the past 12 months.

Source: Brucker et al (2014),[43] Mitra (2018)[45] and UNDESA[78] (on the basis of data from SINTEF[11]).

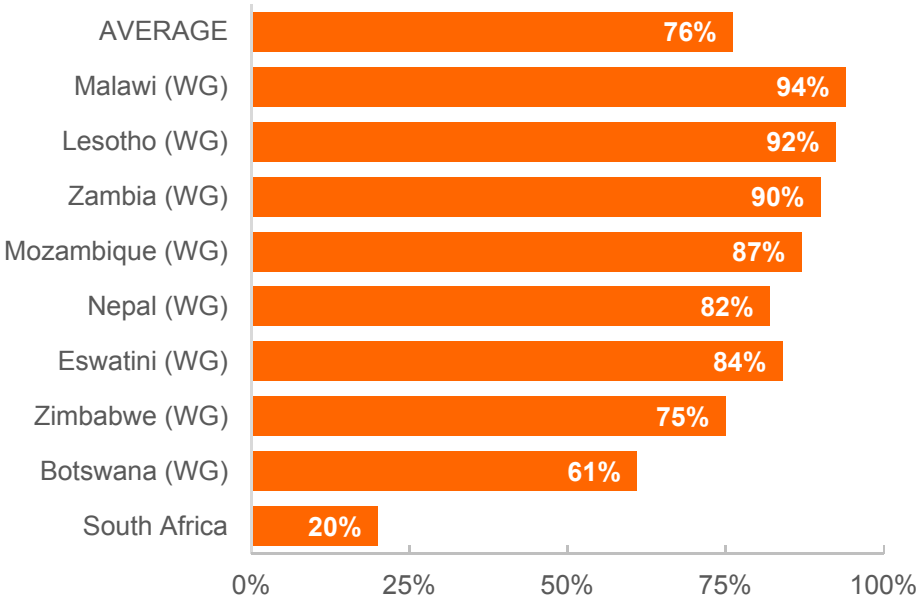
Access to social protection

Although the need for social protection programmes tends to be higher among persons with disabilities compared to the general population, this is not always matched by higher enrolment.[79] A recent global estimate suggested that, as of 2016, only 27 per cent of persons with severe disabilities collected disability social protection benefits.[80] Evidence from nine developing countries indicated that, on average, among persons with disabilities who needed welfare services, 76 per cent were not able to receive these services (Figure II.8). In the Asia and Pacific region, the coverage of government-funded disability-specific benefits varies widely, with some countries having almost universal coverage for persons with disabilities and other countries having no coverage at all.[8,81]

Access to social protection programmes, even disability-targeted ones, has been shown to be restricted by a variety of barriers.[82] Persons with disabilities are not always informed of social protection programmes in their area and benefit packages offered may not be adapted to their needs.[79] For those aware of such programmes, other barriers may prevent them from enrolling. A study conducted in the poorest areas of Johannesburg showed that only 41 per cent of the sample of persons with disabilities were receiving the

disability grant, although 71 per cent were aware of it.[39] Reasons provided for not receiving the grant varied from not knowing how to apply, absence of documentation, lack of accessibility of grant offices, lack of clarity in the disability evaluation process and prejudice of staff at the grant offices towards certain types of disabilities, particularly mental illness. The disability grant was used in 50 per cent of the cases to cover essential needs (food, health care, water and electricity). In some countries, unclear disability eligibility criteria have also been shown to be a barrier to programme participation.[82]

Figure II.8. Percentage of persons with disabilities who needed but did not receive welfare services, in 9 countries, around 2012.



Note: (WG) indicates surveys that used the Washington Group Short Set of Questions. Data from Lesotho are based on 25 to 49 observations and should be interpreted with caution. Data from South Africa were collected in selected regions and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Current practices in addressing poverty and hunger among persons with disabilities

Many countries attempt to reduce poverty and eliminate hunger among persons with disabilities through direct policies and programmes, in particular, social protection schemes, or indirect measures that empower individuals with disabilities with the skills to move out of poverty. This includes promoting inclusive education and access to the labour market through, for example, policies on non-discrimination and reasonable accommodation in the workplace. Indeed, policies and programmes promoting the inclusion of persons with

disabilities are likely to have a positive impact on the well-being and standard of living of persons with disabilities, and are discussed in other chapters in this report, for other SDGs. This section will focus only on two direct measures: social protection schemes and community-based rehabilitation.

Social protection schemes help manage and alleviate situations that adversely affect a person's well-being. Disability-targeted benefits have demonstrated effectiveness in helping households meet basic needs.[83] For instance, a study in Johannesburg, South Africa, showed that the disability grant was used in 50 per cent of cases to cover essential needs (food, health care, water and electricity).[39]

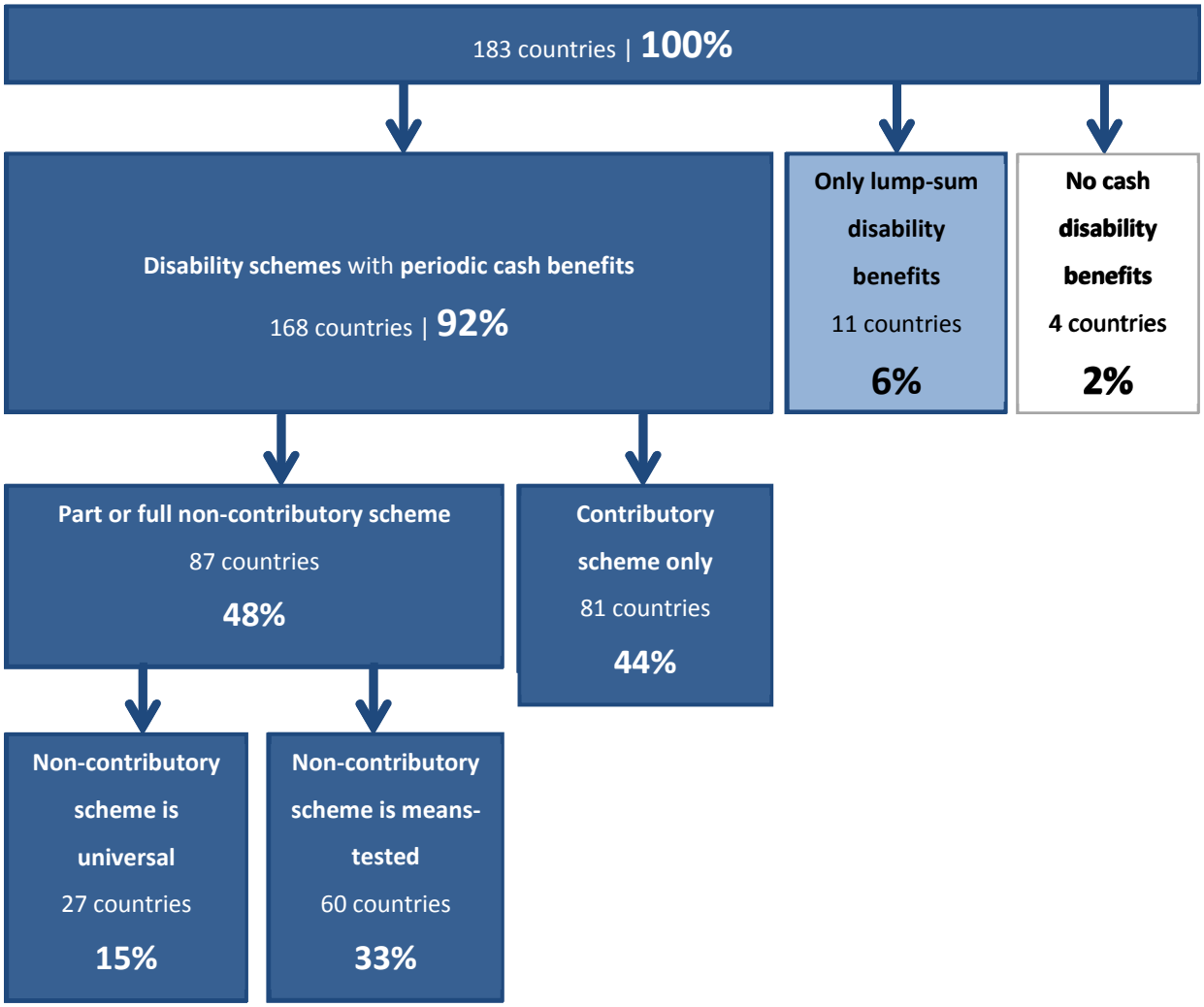
Since the 1960s, more and more countries have adopted social protection programmes for persons with disabilities, reaching 179 out of 183 countries in 2012–2013 (Figure II.9). In 168 countries, disability schemes provide periodic cash benefits to persons with disabilities, while in another 11 countries there are only lump-sum benefits. In 81 countries, benefits mainly cover workers and their families in the formal economy and thus leave out children with disabilities and persons with disabilities who did not have the opportunity to contribute to social insurance long enough to be eligible for benefits. However, 87 countries use schemes that are fully or partially financed by taxes and thus have improved coverage. In 27 countries, schemes cover all persons with assessed disabilities without regard to their income status; in 60 countries, they protect only persons or households whose economic means fall below a certain threshold.[84] Disability benefits tend to be lower than the average wage of a full-time employee, as well as lower than old-age pensions and unemployment benefits. In countries for which data are available, disability benefits vary from 2 per cent to 51 per cent of GDP per capita.[85]

There are schemes financed by social security programmes that support the participation of persons with disabilities in the labour force by financing vocational rehabilitation and training if the person needs to learn a new job or has to acquire new skills to do their previous job, thus contributing to progress towards Goal 1 and Goal 8. Malaysia, for example, has such a scheme.[86] The problem with these schemes is that they do not cover persons who already have a disability or are not covered by social security.

Community-based rehabilitation (CBR) programmes aim to enhance social inclusion for persons with disabilities and their families while reversing the vicious cycle of poverty and disability.[87] More recently, in India and Afghanistan, two studies have explored the impact of various components of CBR programmes on the well-being of adults and children with different types of disabilities. They have shown some positive impact of the CBR programmes on various outcomes. A study showed that persons with disabilities experienced an improvement in their lives through CBR programmes – although of different intensity – in multiple dimensions of quality of life (health, income or employment, inclusion in family and community life) after four years and seven years of the programme.[88] The effects after four and seven years on each dimension are similar, which indicates that the CBR programme has major results in a first period that are maintained through time. Indicators of inclusion keep increasing in the long run and have a spillover effect on those persons with disabilities who choose not to participate in the CBR programme but live in its

catchment area, illustrating the complex pattern of sensitization and awareness processes in a given community.

Figure II.9. Overview of cash disability benefit programmes anchored in national legislation, by type of programme and benefit, in 183 countries, in 2012-2013.



Source: ILO (2014).[89]

Conclusions and the way forward

Affirming the current assumption, a growing body of research has demonstrated that persons with disabilities and their families are more likely to be subjected to hunger and poverty. Persons with disabilities, particularly those with severe disabilities that require a higher level of care and support, are more likely to be economically vulnerable. In addition, persons with disabilities are more likely to live in food insecure households, especially women with disabilities. Social protection programmes could help overcome these situations, but the coverage of persons with disabilities is limited due to the lack of awareness about social protection, and lack of accessibility to and discrimination by grant offices, among others. Many countries have social protection schemes through contributory disability benefit programmes that are restricted to those who worked in the formal economy; non-contributory programmes open to all persons with disabilities remain limited. To eradicate poverty and end hunger for persons with disabilities, a number of actions should be considered:

1) **Design social protection policies and programmes that include persons with disabilities.** Implement social protection schemes, including floors, to cover persons with disabilities and ensure adequate income security. Implement disability-specific schemes that effectively address disability-related additional costs (for example, assistive products, personal care and rehabilitation). These schemes should be accessible to persons with disabilities and promote greater participation, autonomy and choice by persons with disabilities themselves. Moreover, these programmes should advance the participation of persons with disabilities in the labour force by supporting and financing training and rehabilitation services needed for persons with disabilities to work. This support should be available for all persons with disabilities, regardless of whether they have worked before or not.

2) **Remove barriers and obstacles that persons with disabilities face in accessing and fully benefiting from social protection on an equal basis with others.** Public facilities, transportation, banks, and information on social protection programmes, including application processes and procedures, should be made available and accessible to persons with disabilities.

3) **Sensitize grant office personnel to the barriers experienced by persons with disabilities to access social protection (discrimination, lack of accessibility of grant offices, etc.), and approaches to overcome these barriers.** Improve service delivery for persons with disabilities through training programmes for such sensitization. Integrate the rights of persons with disabilities and their well-being and perspectives into the training materials and curriculum for grant office personnel, including the possibility of engaging persons with disabilities. Develop strategies for improving disability-inclusive service delivery to ensure that persons with disabilities can access and maximize their social benefits.

4) **Improve access to banking and other financial services, including mobile banking, and ensure accessibility for persons with disabilities in overall financial services.** Physical barriers, travel

barriers or time restrictions can represent serious obstacles for the financial inclusion of persons with disabilities. Digital technology has the potential to be a great equalizer. Mobile financial services are a convenient “anytime, anyplace” option. But if that technology is not accessible, it only further excludes persons with disabilities from engaging. To remove barriers, financial service institutions can build websites and mobile apps that follow the Web Content Accessibility Guidelines (WCAG) 2.0.[90]

5) Disaggregate data on poverty and hunger by disability status to better inform national policies concerning poverty and hunger, including social protection schemes. The Multidimensional Poverty Index (MPI) and SDG indicators on poverty and hunger should be disaggregated based on disability status.

6) Establish national monitoring and evaluation systems that periodically assess all social protection programmes regarding inclusion and positive impact on the situation of persons with disabilities. The development of social protection programmes for persons with disabilities should be guided by solid evidence and information on the situations of persons with disabilities, their standard of life and well-being, as well as information on the barriers to accessing such programmes and their impact on the ability of persons with disabilities to participate in society.

B. Ensuring healthy lives and promoting well-being for all persons with disabilities (Goal 3)

This section discusses the implementation of Goal 3 through the lens of disability. Goal 3 calls for ensuring healthy lives and promoting well-being for all. To establish an evidence base to guide the achievement of this goal, this chapter provides an overview of the situation of persons with disabilities, as well as a review of national and international efforts to promote the implementation of Goal 3 in line with the CRPD.

The highest attainable standard of health and well-being is a precondition for a full and productive life for persons with disabilities because one's health and well-being affects one's ability to participate fully in work, in education and in the community. This section focuses on health in line with Goal 3 target 3.4, which places particular emphasis on mental health and well-being. Assessing well-being remains elusive (see Box 2), and even more so for persons with disabilities for which data are scarcer.

To achieve a standard of health, access to good quality, effective and affordable health-care services is essential. Access is still a challenge due to numerous barriers including availability, accessibility and affordability of the full range of quality health-care services, limitations on health insurance as well as attitudinal barriers and stigma arising from health-care personnel not properly trained to provide services to persons with disabilities. For instance, persons with sensory or mobility impairments may encounter physical obstacles to health care, including inaccessible diagnostic equipment and facilities. Health-care professionals may not consider the impact of impairments when they provide health care. Persons with disabilities may be prevented from accessing health care because of discriminatory practices and policies, lack of access to information, and private or public insurance schemes may limit the availability of coverage for pre-existing conditions.

International normative frameworks on disability and health

The 2030 Agenda for Sustainable Development in its Goal 3 calls for healthy lives and well-being for all, implicitly establishing the goal for persons with disabilities. This aligns with other international normative frameworks responding to the need to secure access by persons with disabilities to health-care services, from the first Declaration on the Rights of Disabled Persons in 1975 calling for assuring welfare and rehabilitation[91] and the World Programme of Action Concerning Disabled Persons in 1982 focusing on enhancing rehabilitation and equalization of opportunities in health services,[92] to the Standard Rules on the Equalization of Opportunities for Persons with Disabilities, in 1993, emphasizing the need to ensuring the provision of health services for persons with disabilities.[93] The CRPD, adopted in 2006, is a legally binding international treaty with respect to disability and must be read as a whole to fully understand the impact of its rights and development approach to persons with disabilities in the domain of health. In addition to article 25 which reaffirms the right for persons with disabilities to enjoy the highest standard of health, there are

other articles that address enhanced participation in the labour market and in economic, community and political life – in short, full social participation and inclusion – which have an impact on a person's state of health. In addition, article 26 on rehabilitation and habilitation should be considered with article 25 on health, since rehabilitation is part of universal health coverage (UHC)[94] and refers to mainstreamed services provided along with health promotion, treatment and palliative services[95] to anyone who needs them. CRPD article 25 calls for access to free or affordable health services for persons with disabilities, on an equal basis with others, and further requires that health professionals provide care on the basis of free and informed consent. Article 25 also requires the removal of discriminatory barriers that prevent full access to health-care services, including prohibition of discriminatory practices in health insurance and preventing denial of health care on the basis of disability. In addition, article 9 asks States Parties to take appropriate measures to ensure access for persons with disabilities, on an equal basis with others, to medical facilities and further clarifies that these measures shall include the identification and elimination of obstacles and barriers to accessibility in these facilities.

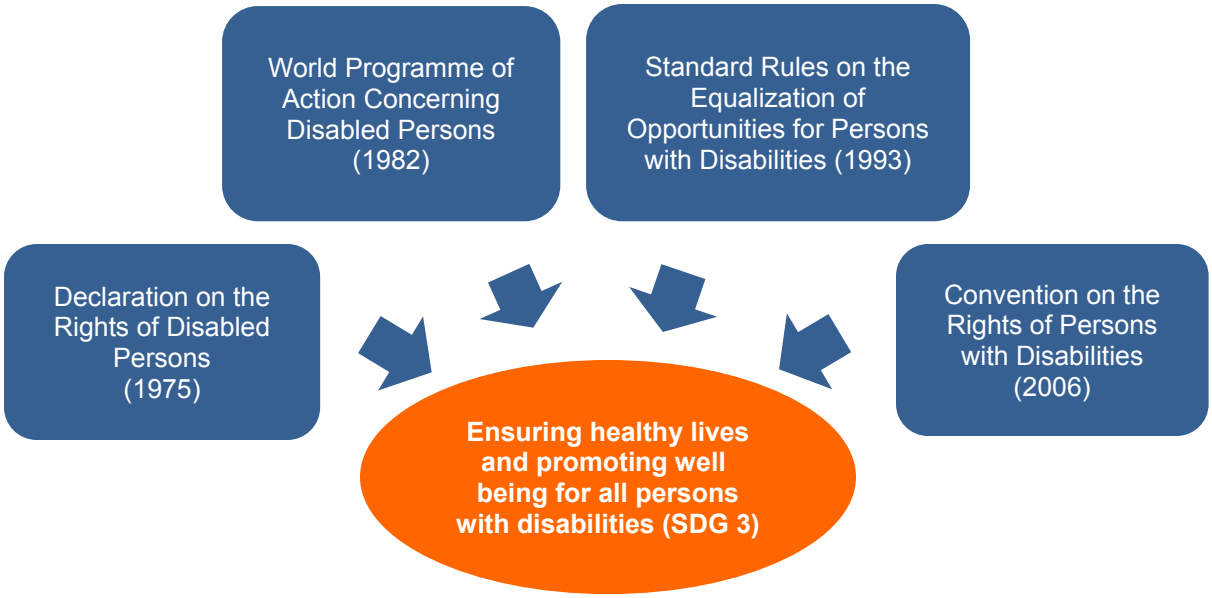
Box 2. What is health and well-being?

The WHO defined health, in its 1948 Constitution, as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". The definition made the point that health has social as well as physical and psychological dimensions and suggested that the ultimate goal is not just better health but also increased well-being. Health does not equate with well-being, but health is both an intrinsic component of well-being and a determinant of well-being.

The current consensus on the conceptualization of well-being, or 'subjective well-being' as it is also called, relies on two perspectives: (i) one perspective emphasizes the direct experience of pleasure or positive emotions; and (ii) the other is often expressed in terms of the extent to which an individual has realized one's talents and potentialities or discovered a purpose in life. As both of these perspectives are subjective, information about subjective well-being can only be self-reported by individuals. A considerable body of literature now exists operationalizing the measurement of this construct and the use of this information in informing policy.

Additionally, well-being can also be inferred by measuring things that make a life go well, such as income, family life, education and health. Strictly speaking these objectively good things in life are determinants of subjective well-being. The fact, however, that these objective conditions are easier to collect data about, and measure, has made them popular in well-being research.

Figure II.10. International normative frameworks relevant for the achievement of SDG 3 for persons with disabilities.



Goal 3 needs to be interpreted in alignment with other SDGs because of their impact on health. This is because the determinants of health are an integral part of many other goals. A person's state of health is determined by features of the social environment – poverty (Goal 1), hunger (Goal 2), education (Goal 4), work (Goal 8), gender (Goal 5), economic inequality (Goal 10) and peace (Goal 16) – and the physical environment – clean water and sanitation (Goal 6), energy (Goal 7) and climate (Goal 13). The health of persons with disabilities, like everyone's health, is affected by these determinants. Moreover, all of the specified targets of Goal 3 are relevant to persons with and without disabilities. Target 3.8 concerning UHC is of notable importance, because it is the primary mechanism for achieving other Goal 3 targets and because persons with disabilities tend to have less access to health care.

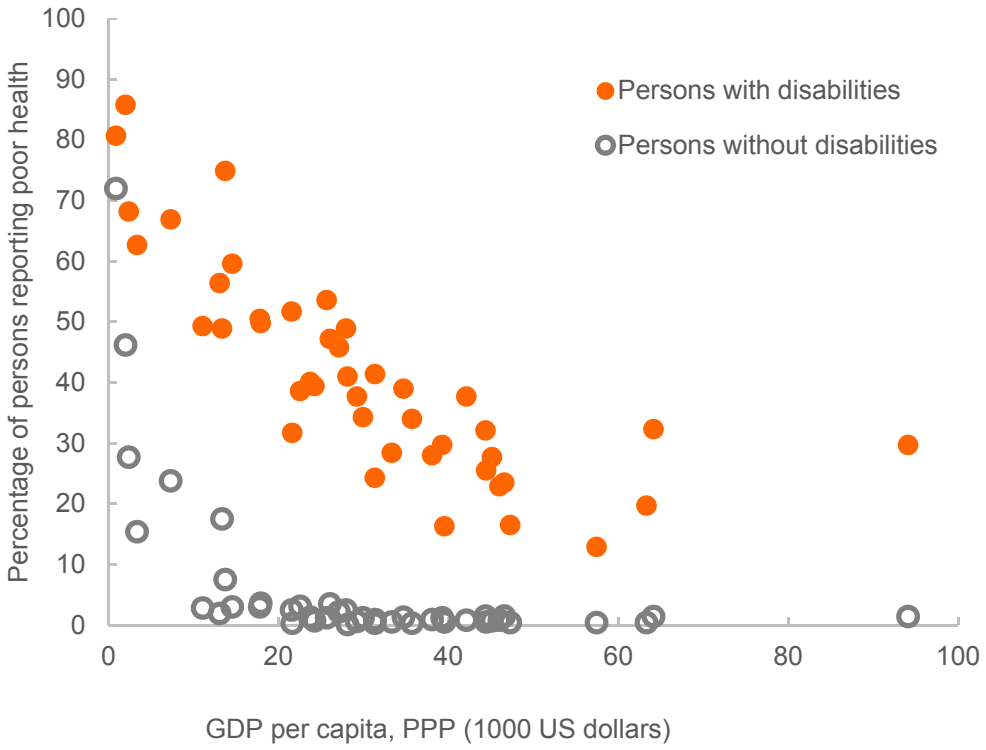
The situation of persons with disabilities regarding health status and access to health services

Persons with disabilities are more likely to have poor health and poor mental health and well-being

Persons with disabilities have shorter life expectancy and are at greater risk of developing secondary, co-morbid and age-related health conditions, such as depression, pain and osteoporosis.[96,97, 98] In Uganda, for example, the age-adjusted odds of dying within two years for women with severe disabilities are 26 times

those of women without.[99] Persons with mental or psychosocial disorders have an increased risk of all-cause mortality compared with the general population.[97]

Figure II.11. Percentage of persons who report poor health versus GDP per capita, by disability status, in 43 countries, around 2013.



Source: Eurostat,[9] UNDESA[78] (on the basis of data from SINTEF[11]), WHO[100] and the World Bank.[101]

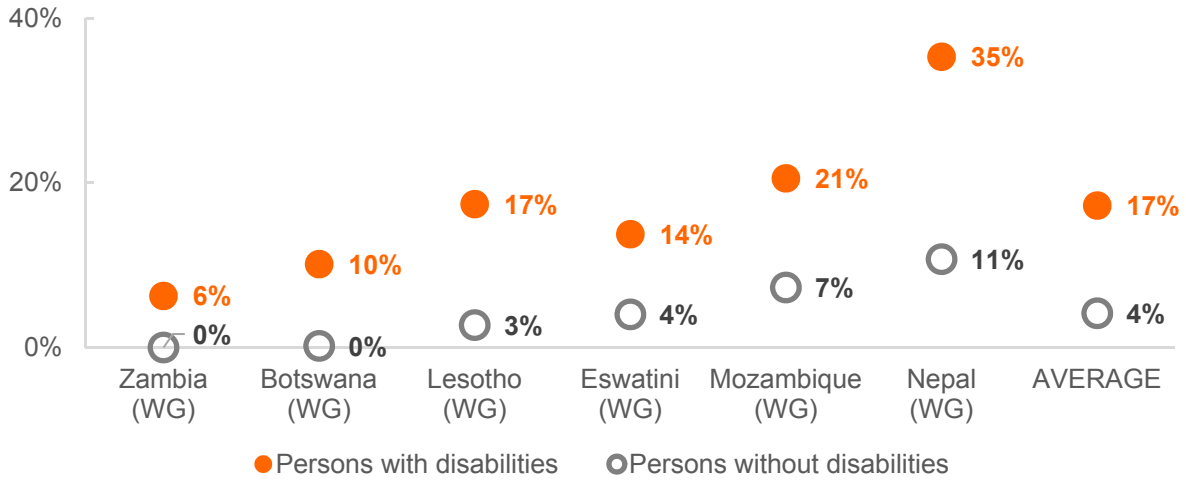
In 43 countries, around 2013, health was self-perceived as very good or good by an average of 21 per cent of persons with disabilities as compared to 80 per cent of persons without disabilities.[9,11,100] Relatedly, 42 per cent of persons with disabilities perceived their health as poor or very poor as compared to 6 per cent of persons without disabilities. Persons with disabilities report poorer health than persons without disabilities in all 43 countries. Women with disabilities are more likely to report poorer health than men with disabilities. Persons with disabilities tend to report poorer health in countries with lower GDP per capita (Figure II.11). In countries with lower levels of GDP per capita, as many as 80 per cent of persons with disabilities report poor health. In countries with the highest levels of GDP per capita, in which more resources are available, only about 20 per cent of persons with disabilities report poor health.

The association observed in Figure II.11 between having a disability and reporting poor health may be

linked to underlying health conditions or environmental barriers such as lack of social support or access to health services. The lower the GDP per capita of a country, the higher the proportion of persons with disabilities who report poor health, suggesting that an increased availability of financial resources at the national level may provide the accessible health, basic and community services persons with disabilities need to achieve better health.

Regarding mental health, Figure II.12 shows that in six developing countries the percentage of persons self-assessing their mental health as poor is higher for persons with disabilities than for persons without disabilities. Looking at objective measures of well-being (Box 2), evidence in other sections of this report on poverty, hunger, lack of access to education and social exclusion suggests that persons with disabilities face barriers which are detrimental to their well-being.

Figure II.12. Percentage of persons who self-assess their mental health as poor, by disability status, in 6 countries, around 2012.



Note: (WG) identifies countries with data collected using the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Persons with disabilities have more health-care needs but they are less likely to be able to meet these needs

Persons with disabilities generally have more health-care needs than others – both standard needs such as immunization, cancer screening and treatment of infections and needs linked to underlying health conditions and impairments. They are not only more susceptible to worsening health,[96,102] but they are more frequently in need of health-care services. Because of this, persons with disabilities are more vulnerable to the impact of low quality or inaccessible health-care services than others.[102] At the same time, since they

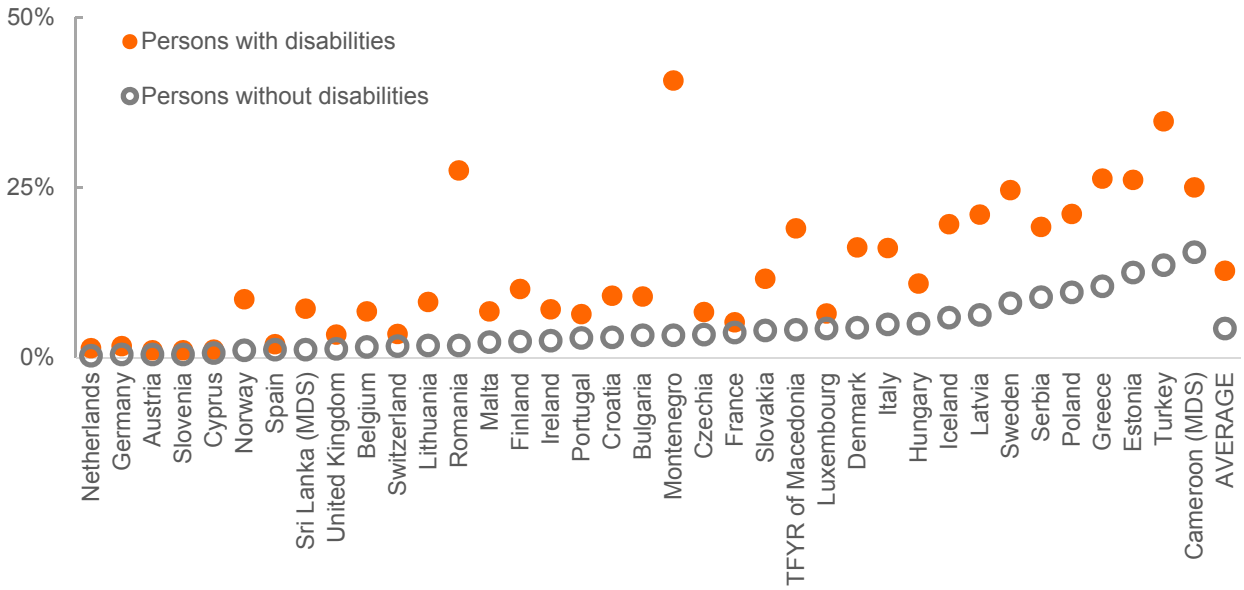
face greater barriers to accessing services, persons with disabilities consistently have a poorer uptake of both general and specialized health-care services when they are needed.[102]

In 37 countries, most of which are developed countries, persons with disabilities are on average more than three times as likely as persons without disabilities to be unable to get health care when they need it (Figure II.13): 13 per cent of persons with disabilities versus 4 per cent of persons without disabilities indicated that they needed but could not get health care. In nine of these countries, more than 20 per cent of persons with disabilities are not able to get health care when they need it. In another five developing countries, between 10 per cent and 40 per cent of persons with disabilities did not receive the health services they knew, or were told they required.[103,104,105,106,107] In Guatemala, only 43 per cent and 70 per cent of those needing medical rehabilitation and specialist health services, respectively, actually got these services.[108] Furthermore, persons with more severe disabilities have more difficulties accessing health care. For example, in 2015–2016, in Sri Lanka and Cameroon, the percentage of those underserved in outpatient care[109] settings increased with the severity of the disability (Figure II.14). In Cameroon, persons with severe disabilities are twice as likely as persons without disabilities to have unmet needs for outpatient care; in Sri Lanka they are 12 times as likely. The lack of health care can impact also mothers, newborns and children with disabilities. In selected areas in Cameroon, in 2013, all women without disabilities aged 15–49 had received antenatal care but 8 per cent of women with disabilities had not; 12 per cent of children and youth aged 5 to 17 with disabilities had not been vaccinated as opposed to only 7 per cent of children and youth without disabilities.[110]

Rehabilitation services, like physiotherapy, occupational therapy, speech therapy and hearing therapy, are also not always available for persons with disabilities who need them. Data available for nine countries, around 2011, indicate that on average 64 per cent of persons with disabilities who needed rehabilitation services could not get them, from 28 per cent in South Africa to 82 per cent in Nepal (Figure II.15).

Health service gaps are due to the physical, financial, attitudinal, informational and communication barriers that are faced by persons with disabilities when they try to access health-care services.[111] Physical barriers such as inaccessible buildings and diagnostic and treatment equipment are often cited as problems; but also, in the broader environment, issues of inaccessible public transport, poorly paved roads and the lack of rural health facilities create obvious obstacles for persons with sensory, mobility and cognitive impairments.[102,112] When sign language communication is not available, communication barriers between patients with hearing impairments and physicians has also been shown to negatively impact the quality of health care, including less use of preventive services.[113,114,115]

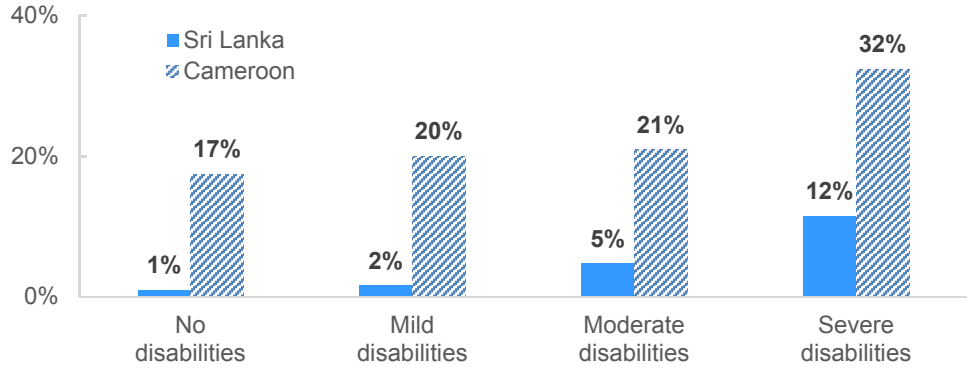
Figure II.13. Percentage of persons who needed but could not get health care, by disability status, in 37 countries, around 2016.



Note: (MDS) identifies countries with data collected using the Model Disability Survey. Data from Cameroon were collected in selected regions of the country and are not nationally representative.

Source: Eurostat[9] and WHO.[100]

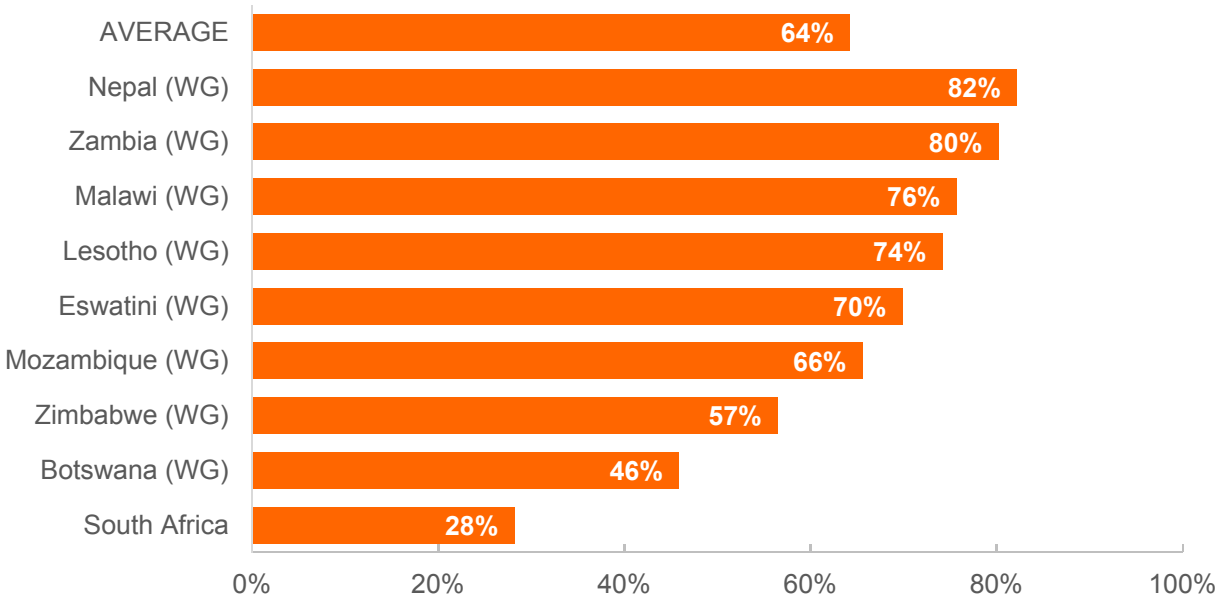
Figure II.14. Percentage of persons with unmet health needs for outpatient care,[109] by severity of disability, in Cameroon (MDS) and Sri Lanka (MDS), in 2015-2016.



Note: (MDS) identifies countries with data collected using the Model Disability Survey. Data from Cameroon were collected in selected regions of the country and are not nationally representative.

Source: WHO.[100]

Figure II.15. Percentage of persons with disabilities who needed but could not receive rehabilitation services, in 9 countries, around 2011.



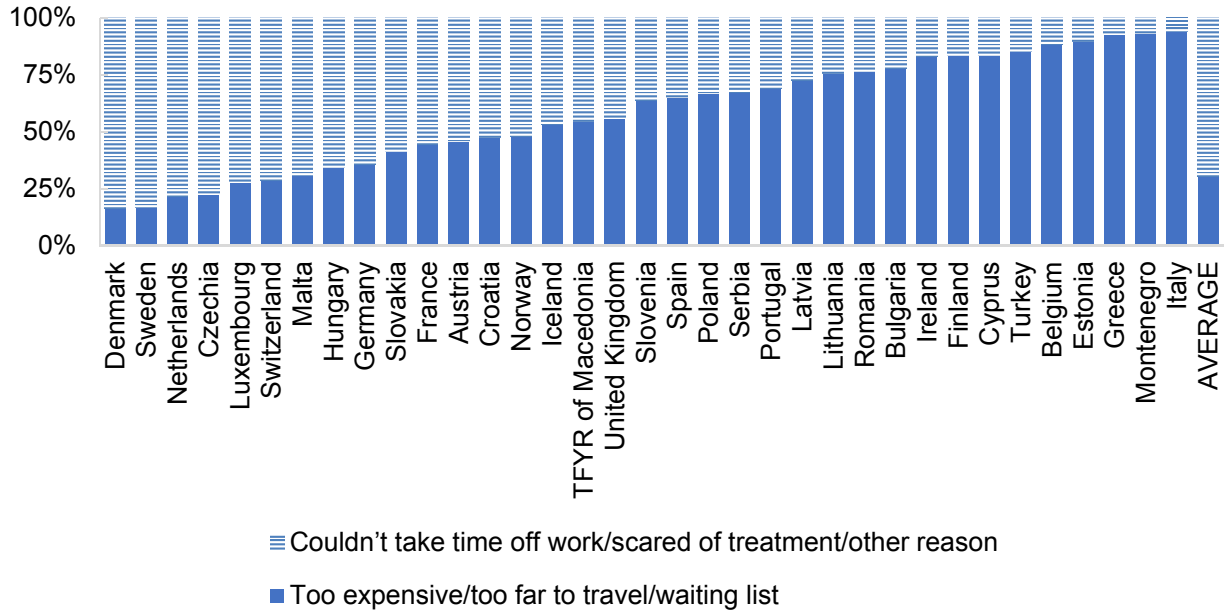
Note: (WG) identifies countries with data collected using the Washington Group Short Set of Questions. Data from South Africa were collected in selected regions of the country and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Cost of health care and lack of health insurance are major barriers for persons with disabilities

The reasons for higher unmet health needs for persons with disabilities vary depending on the country context, but in many countries health-care cost is the major challenge. In 2016, in 35 countries in Europe and Western Asia, among persons with disabilities who needed but could not get health care, on average 30 per cent of them indicated the reason they could not get care was that it was too expensive, too far or had waiting lists; while 70 per cent indicated they could not take time off work, feared treatment or had other reasons (Figure II.16). However, these averages mask wide variations: in Denmark, the affordability, distance to and waiting lists in health-care services are the least of the problems: only 16 per cent of persons with disabilities who needed but could not get health care indicated this as the reason. However, other reasons, including inability to take time off work or being scared of treatment, seem to play a bigger role. At the other extreme, in Italy, 94 per cent of persons with disabilities who needed but could not get health care indicated that their reasons were that health-care services were too expensive, too distant or had long waiting lists.

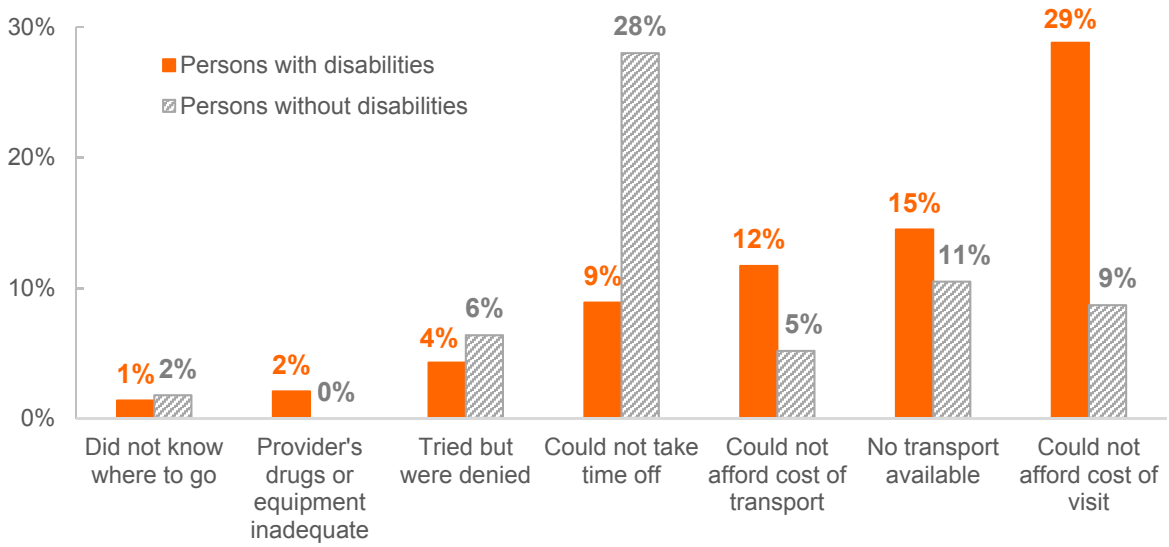
Figure II.16. Percentage of persons with disabilities with unmet health needs, by reason for not getting health care, in 35 countries, around 2016.



Source: Eurostat.[9]

In developing countries, the inability to pay for health care or the inability to get transport to the health-care facility tends to be a major issue for persons with disabilities. In Turkey, 85 per cent of persons with disabilities who needed but could not get health care, indicated affordability, distance and long wait lists as the barriers (Figure II.16). In Sri Lanka, in 2016, 29 per cent indicated they could not afford the health-care service, 12 per cent could not afford the cost of transport to the health facilities and 15 per cent had no transport available to get to the facilities (Figure II.17). The inability to afford the cost of health services is more often a barrier for persons with disabilities. In Sri Lanka, in 2016, 29 per cent of persons with disabilities versus 9 per cent of persons without disabilities were not able to afford the cost of a health-care visit. In the same country, 2 per cent of persons with disabilities – as compared to no one without disabilities – indicated that the provider's drugs or equipment were inadequate, illustrating one of the difficulties persons with disabilities may face when they seek treatment. Cost of health care is especially a challenge for persons with more severe disabilities. For instance, in 2015–2016, in Sri Lanka and in selected regions in Cameroon, the most common reason persons with severe disabilities gave for not getting health care when needed was that they could not afford the cost of the service.[100]

Figure II.17. Percentage of persons with unmet health needs, by reason for not getting health care, by disability status, in Sri Lanka (MDS), in 2016.

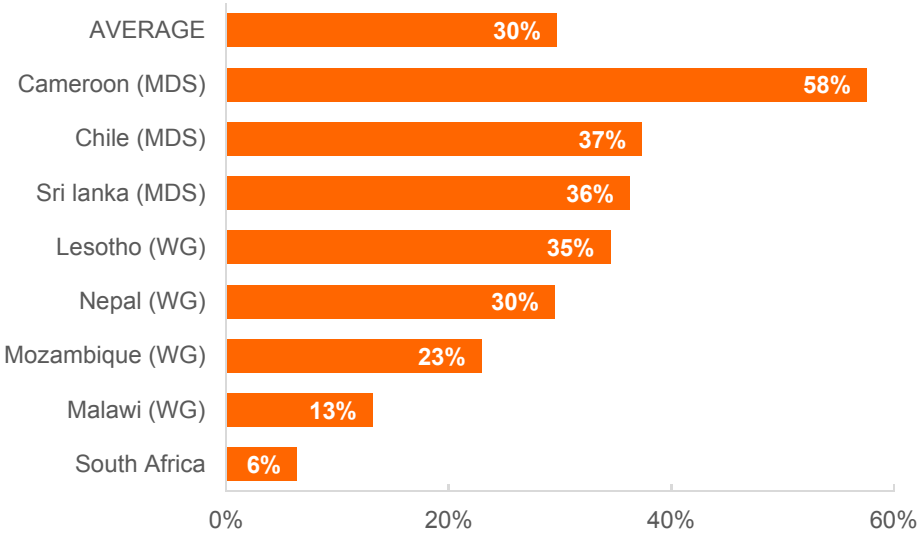


Note: (MDS) identifies countries with data collected using the Model Disability Survey.

Source: WHO.[100]

The cost of health services compounded with the unavailability of health insurance prevents persons with disabilities from accessing the health services they need or continuing a course of treatment once they have begun. Globally, households with persons with disabilities tend to have higher out-of-pocket medical expenditures compared to other households.[116,117,118,119,120,121,122,123] However, these extra expenses are not always covered by available private or public financial supports. In 2002–2004, worldwide, persons with disabilities were 50 per cent more likely to have catastrophic health expenditures[124] compared to others.[96]

Figure II.18. Percentage of persons with disabilities who report that health-care facilities are hindering or not accessible, in 8 countries, around 2013.



Note: (WG) identifies countries with data collected using the Washington Group Short Set of Questions; (MDS) identifies countries with data collected using the Model Disability Survey. All data refer to not accessible primary health-care clinics, except MDS data which refer to hindering health facilities. Data from Cameroon and South Africa were collected in selected regions and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]) and WHO.[100]

Many health facilities are not accessible and do not have trained staff to work effectively with persons with disabilities

In some countries, more than 25 per cent of persons with disabilities report that health-care facilities are hindering or not accessible (Figure II.18). Among eight developing countries, around 2013, on average, 30 per cent of persons with disabilities reported this. In selected regions in Cameroon, 58 per cent of persons with disabilities encountered health facilities which were hindering. Crowdsourced data mostly from developed countries found that, as of 2017, 20 per cent of hospitals and 32 per cent of pharmacies were not wheelchair accessible.[78,125,197] Attitudinal barriers have also compromised access to health services for persons with disabilities as health professionals often have little experience interacting with or providing services to persons with severe and/or complex disabilities, or have negative, stigmatizing attitudes towards these patients. This has not only limited access to services but has also lowered the quality of care people have received: persons with disabilities are more likely to report that their doctor did not listen to them, did not treat them with respect, did not take enough time, did not involve them in treatment decisions or did not

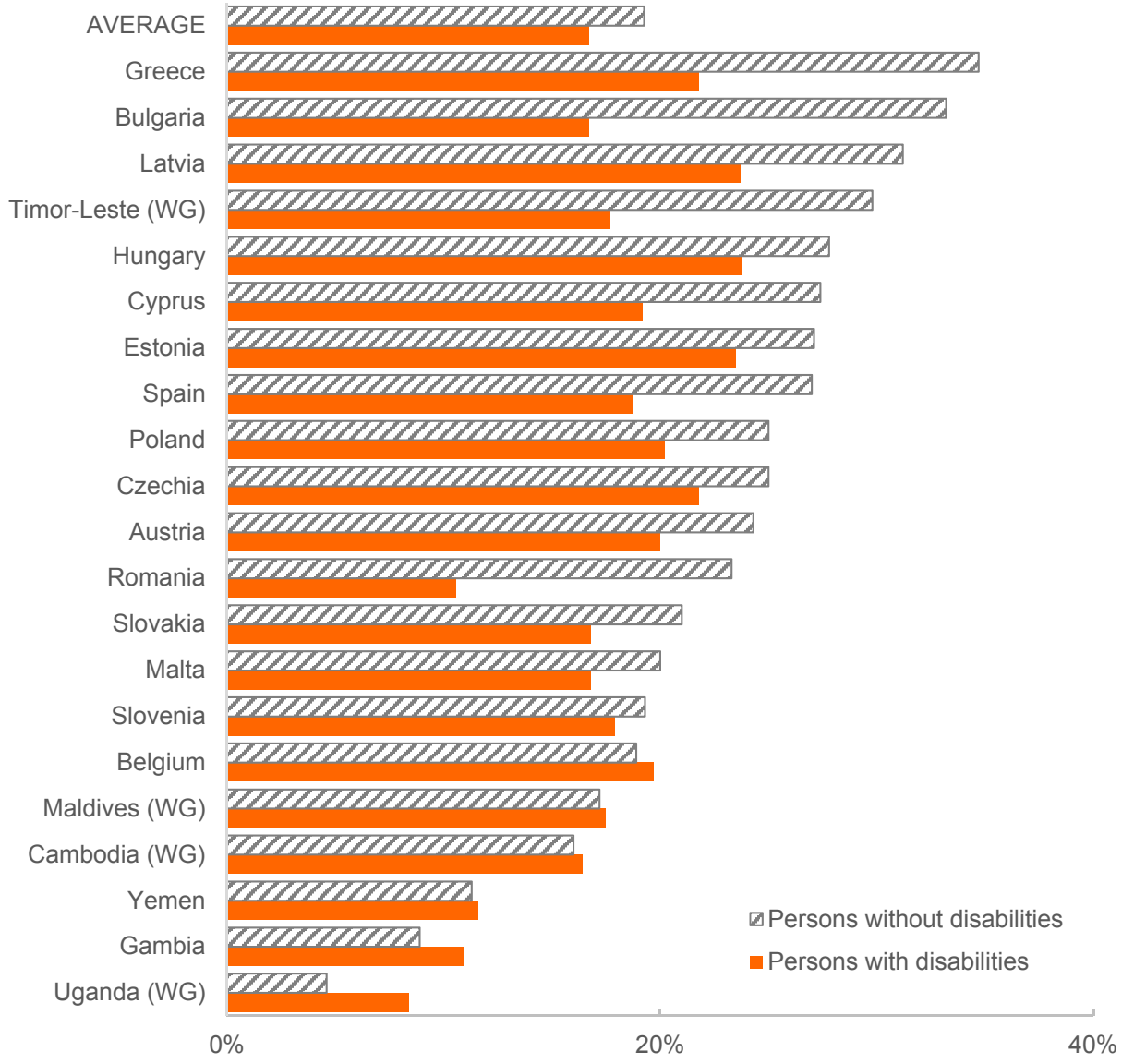
explain treatments properly.[126,127] Persons with mental/psychosocial and intellectual disabilities tend to receive worse service from health professionals, which can contribute to poorer outcomes.[128] At the same time, the lack of information patients with disabilities themselves have about the care that is available to them is also a barrier. For instance, in India and Cameroon, awareness of health services among persons with disabilities is extremely low. In India, only 49 per cent have even heard of any general health services, whereas in Cameroon only 73 per cent have.[110]

Persons with disabilities tend to smoke less than persons without disabilities

One of the SDG targets and indicators focuses on control of tobacco use (target 3.a and indicator 3.a.1). Among 21 countries, around 2010, on average 17 per cent of persons with disabilities and 19 per cent of persons without disabilities smoked (Figure II.19). In all countries except Belgium, Gambia and Uganda, a higher proportion of persons without disabilities smoke than persons with disabilities. The percentage of persons with disabilities that smoke daily varies from 8 per cent in Uganda to 24 per cent in Estonia, Hungary and Latvia. These data suggest that in several countries strategies for tobacco control should be inclusive of and accessible for persons with disabilities.

In all countries, women have lower rates of daily cigarette smoking than men, for persons with as well as without disabilities; and the average gender gap of daily smokers of cigarettes is similar for persons with and without disabilities (17 and 16 percentage points, respectively). Among persons with disabilities, an average of 11 per cent of women are smokers compared to 29 per cent of men.

Figure II.19. Percentage of smokers of cigarettes, among persons aged 15 years and over,[129] by disability status, in 21 countries, around 2010.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions.
Source: Eurostat[9] and UNDESA[78] (on the basis of data from DHS[6]).

Current practices in promoting health and access to health services for persons with disabilities

Few countries have made systematic legal and policy reforms that have specifically targeted the provisions found in CRPD article 25, or addressed access to health-care services directly. Six basic approaches have been taken by countries to legally ensure access to health-care services: A) constitutional or rights act provisions applicable to persons with disabilities; B) anti-discrimination laws and regulations applicable to all; C) anti-discrimination laws and regulations with reference to the health sector; D) other laws targeting provision and access to health care; E) national disability laws or policy plans; and F) laws concerning specific health conditions (e.g. spinal cord injury) or specific populations (e.g. veterans) guaranteeing access to health care. [130,131]

As of 2014, the right to health was guaranteed to persons with disabilities in the national constitutions of 10 per cent of United Nations Member States.[132] Although this approach and approach A) are common, they are general and do not explicitly target any disability-specific barriers. The same is true of anti-discrimination laws (approaches B) and C)), whether they explicitly mention access to health care or not. At best they give a person with disabilities the option of launching legal action against the State. Only six countries[133] use approach D) and have an explicit law that guarantees access to health care for persons with disabilities. Approaches E) and F) are common but take a wide variety of forms.

Regarding policies and programmes, some countries have adopted these to strengthen health systems and increasingly making health and rehabilitation services available, accessible and affordable to persons with disabilities. Among 24 countries in the Western Pacific region (Table II. 2), many countries have taken steps to improve accessibility in the infrastructure used for providing health-care services: 79 per cent of them through developing accessibility standards and 42 per cent through ensuring alternative communication formats such as radio services, closed captioning, easy-to-read format, sign languages and braille/audio formats. Furthermore, 88 per cent of these countries involve persons with disabilities or their organizations in the planning of health-care services. Almost half of the countries, 42 per cent, now prohibit health insurers from discriminating against pre-existing impairments and health conditions, and a majority of the countries in the region are working to improve health-care affordability through social protection and health financing mechanisms: 88 per cent of them have established exemptions, waivers or reductions for health-care services and 67 per cent have adopted mechanisms to reduce transport costs to health services.

Table II. 2. Percentage of countries in the Western Pacific region that had initiatives in place to improve health care for persons with disabilities, in 24 countries, in 2015.

Initiatives	% countries
Anti-discrimination measures and inclusion of persons with disabilities in planning	
Participation of persons with disabilities or organizations of persons with disabilities in planning of health-care services most of the time	88%
Prohibit health insurers from discriminating against pre-existing disability	42%
Accessible health-care services	
Adoption of accessibility standards for health-care services	79%
Use of alternative communication formats in health-care services such as radio services, closed captioning, easy-to-read format, sign languages and braille/audio formats	42%
Affordable health-care services	
Government exemptions/waivers or reductions for health-care services	88%
Mechanisms to reduce transport cost to regular health-care services	67%

Source: WHO (2017).[134]

Other successful initiatives at the country level, initiated by governments, international agencies or civil society organizations in the country, focused on various areas: developing education and training for medical professionals to enhance their abilities to provide care for persons with disabilities;[135,136] investing in making health-care facilities accessible;[137] investing in early intervention by screening students and giving them access to health-care services;[138] and establishing rehabilitation services and home-based care.[139] Some of these initiatives focus on health needs which may affect more frequently certain types of disabilities, like heart disease among persons with intellectual disabilities. Others have focused on basic health-care needs, like eye care.

In many countries, social welfare services at times fail to provide coverage for assistive products and rehabilitation services; or the coverage is only provided if the person is employed or if the family pays the premium. In some countries, national[140] and local governments[141] have stepped in to fill this gap through health insurance schemes offering coverage for assistive products and rehabilitation services. Sometimes the services are only available to persons who have been legally recognized as having a 'disability', defeating the principle of the universal availability of assistive products for all who need them.

Conclusions and the way forward

Despite the increasing number of States ratifying the CRPD and the steps these countries have taken to implement article 25, persons with disabilities continue to experience unmet health needs and barriers to accessing health services in comparison to the general population. Moreover, persons with disabilities report poorer health and poorer mental health and continue to face barriers to economic, social and political inclusion. This exclusion has negative impacts on their well-being. All these constitute a genuine obstacle to the implementation of Goal 3. To improve this situation, it is essential that changes must be fully collaborative among all stakeholders, including persons with disabilities, to promote health and well-being, with a focus on systematic actions across national health-care systems.

The Goal 3 targets focusing on health status and services can only be realized for persons with disabilities if their implementation is in line with article 25 of the CRPD. In order to achieve the highest attainable standard of health for persons with disabilities, the following actions should be taken into account:

1) Strengthen national legislation and policies on health care in line with the CRPD. The process of assessing existing laws and policies should involve all stakeholders, including organizations of persons with disabilities, and should be based on information about health inequalities as well as evidence-based assessments of the gaps in health-care service delivery and of the policy and legal barriers to accessing health-care services. To legally ensure access to health-care services, and because of the wide range of accessibility issues that need to be addressed, national strategies should ensure wider, general protections to the right to the highest standard of health, either through constitutional, anti-discrimination or other national disability legislation, and then pursue the detailed accessibility issues by means of regulations and guidelines at the community level.

2) Identify and eliminate obstacles and barriers to accessibility in health-care facilities. Develop national accessibility guidelines for health-care facilities in consultation with persons with disabilities. Conduct accessibility assessments in medical facilities and make use of crowdsourced information and user feedback to have bottom-up information on accessibility. Ensure that persons with disabilities have accessible transportation to health-care facilities.

3) Improve health-care coverage and affordability for persons with disabilities as part of universal approaches to health care. Implement UHC by identifying national actions, in consultation with persons with disabilities, to progressively close the gap in health-care service utilization, improve the quality and range of health-care services, and reduce health-care costs for persons with disabilities.

4) Train health-care personnel and improve service delivery for persons with disabilities. Integrate disability-inclusive education into the curriculum and training for health professionals. Involve persons with disabilities in the design and provision of training, to the extent possible. Develop strategies

for holistic, people-centred care so as to improve the quality and continuity of care for persons with disabilities.

5) Empower persons with disabilities to take control over their own health-care decisions, on the basis of free and informed content. Ensure access to and accessibility of health-related information, including through alternate means of communication accessible to persons with disabilities. Disseminate health information through training of persons with disabilities and peer support, so that persons with disabilities are better prepared to make decisions about their own health and become aware of the health-care services they can benefit from.

6) Prohibit discriminatory practices in health insurance and promote health insurance schemes offering coverage for assistive products and rehabilitation services. Private and public insurance schemes should not limit the availability of coverage for pre-existing conditions. These discriminatory practices disproportionately affect persons with disabilities. In addition, discriminatory practices on the basis of disability should be prohibited. Countries should promote health insurance schemes addressing the needs of persons with disabilities, particularly for assistive products and rehabilitation services.

7) Improve research and data to monitor, evaluate and strengthen health systems to include and deliver for persons with disabilities. Conduct further research on the need for high quality health-care services; public health promotion; disease prevention programmes; and the barriers that persons with disabilities encounter to access these services. Establish health system monitoring and evaluation mechanisms that can track the outcomes of health system reforms that address barriers to accessing health services for persons with disabilities. In addition, more studies are needed to understand the reasons for poorer self-reported health for persons with disabilities and for their increased morbidity and mortality. Studies are also needed to assess whether these poor health outcomes are linked to underlying health conditions or environmental barriers such as lack of social support or access to health services. For health care and social service planning, it is important to investigate this causation more closely, in particular, more longitudinal research is needed.

C. Accessing sexual and reproductive health-care services and reproductive rights for all persons with disabilities (targets 3.7 and 5.6)

Target 3.7 calls for universal access to sexual and reproductive health-care services and target 5.6 further calls for ensuring access to sexual and reproductive health and reproductive rights. Sexual and reproductive health services include family planning, maternal health care, preventing and managing gender-based violence, and preventing and treating sexually transmitted infections.[142] Reproductive rights rest on the "recognition of the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health. It also includes their right to make decisions concerning reproduction free of discrimination, coercion and violence".[143]

The objective of this section is to review, in the context of the SDGs and the CRPD, progress toward the realization of sexual and reproductive health and reproductive rights for persons with disabilities. First, an overview of current international normative frameworks on sexual and reproductive health and services, and reproductive rights is presented. This is followed by an overview of the situation of persons with disabilities regarding access to sexual and reproductive health services and a summary of the main obstacles faced by persons with disabilities in accessing these services. The section then presents current practices to promote access to sexual and reproductive health and reproductive rights for persons with disabilities, before concluding with recommendations for the way forward.

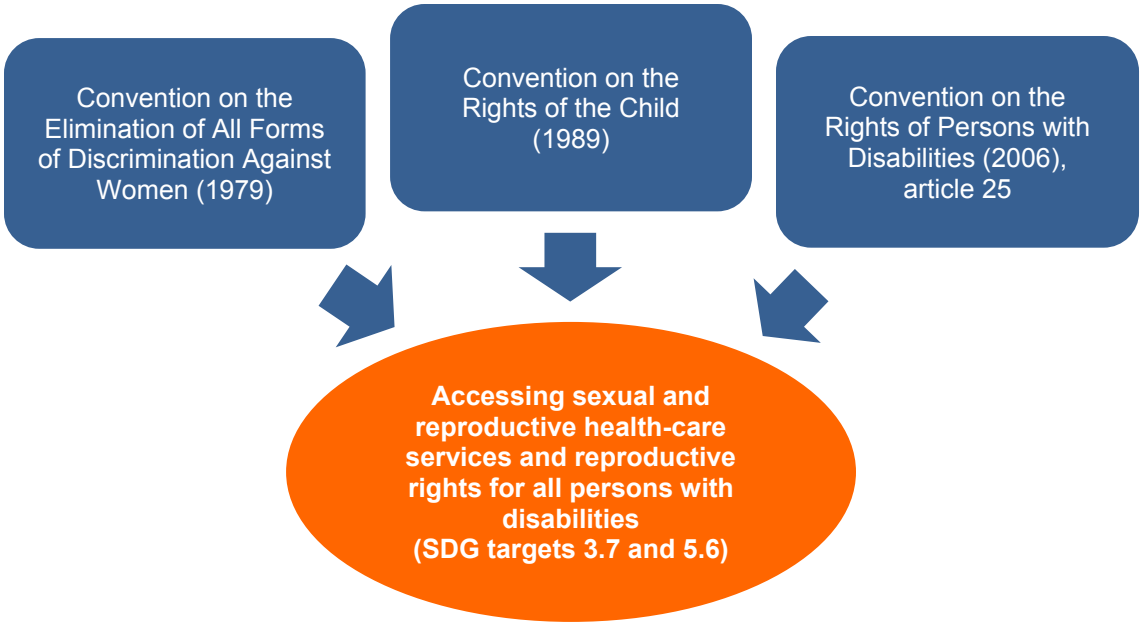
International normative frameworks on disability and sexual and reproductive health and reproductive rights

In the context of promoting healthy lives and well-being for all at all ages, Goal 3 through its target 3.7, calls for universal access to sexual and reproductive health-care services including for family planning, information and education. Target 5.6, which is placed under the goal calling for gender equality and empowerment of all women and girls, calls for ensuring universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences. The CPRD is the first Convention to explicitly recognize the need for sexual and reproductive health for persons with disabilities. Article 25 underscores the need to provide persons with disabilities with the same range, quality and standard of free or affordable sexual and reproductive health care and programmes as provided to other persons.

Other major international frameworks also emphasize the rights of women and girls with disabilities to sexual and reproductive health as part of broader provisions for all women, as well as all children and adolescents. These include the Convention on the Elimination of All Forms of Discrimination Against

Women (CEDAW), adopted in 1979, which requires States to ensure that women and girls with disabilities have access to reproductive health care, and are protected from coercive pressures.[144,145] The Convention on the Rights of the Child (CRC) adopted in 1989, further protects the rights of children and adolescents with disabilities to ensure that they have effective access to health-care services (article 23).[146]

Figure II.20. International normative frameworks relevant for the achievement of SDG targets 3.7 and 5.6 for persons with disabilities.



The situation of persons with disabilities regarding sexual and reproductive health and health-care services, as well as reproductive rights

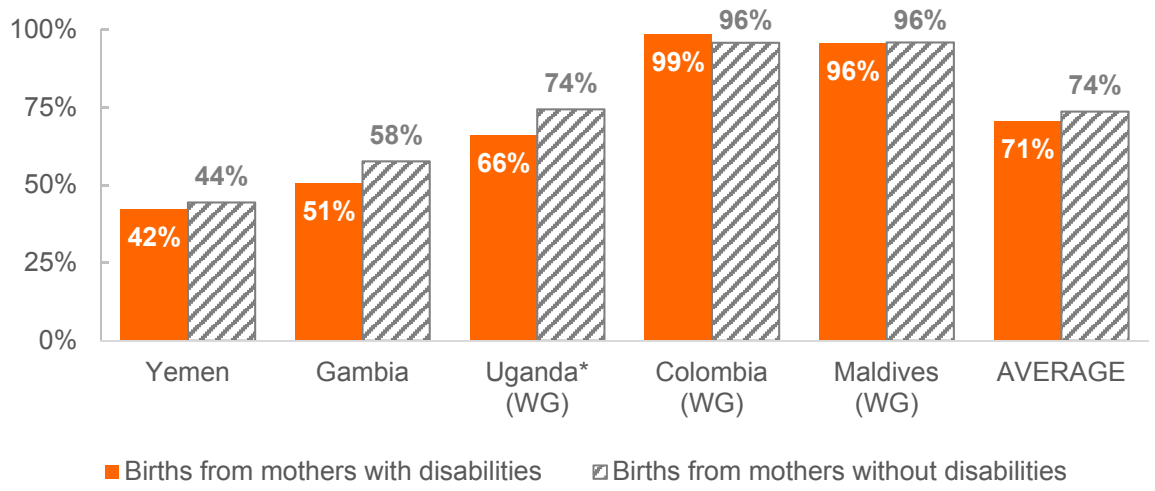
Access to sexual and reproductive health services

Improved access to skilled health personnel for childbirth is crucial to improve maternal health and an important component of sexual and reproductive health care. A skilled birth attendant is an accredited health professional – such as a midwife, doctor or nurse – who has been educated and trained to proficiency in the skills needed to manage normal (uncomplicated) pregnancies, childbirth and the immediate postnatal period, and in the identification, management and referral of women and newborns with complications.[147]

Evidence from five countries around 2014 (Figure II.21), indicates that, on average, births from mothers with disabilities are slightly less likely to be attended by a skilled health worker than births from mothers without disabilities (71 per cent versus 74 per cent). The widest gap was found in Uganda – 8 percentage points – where 66 per cent of births from mothers with disabilities versus 74 per cent from mothers without

disabilities were attended by a skilled health worker. In Colombia and the Maldives, almost all births from mothers with disabilities, 99 per cent and 96 per cent, respectively, were attended by a skilled health worker. The gap between births from mothers with and without disabilities could be due to income disparities and the subsequent greater inability of mothers with disabilities to afford this service. It could also be due to negative attitudes by skilled health workers to and lack of awareness of mothers with disabilities, for which information on such services may not be available in accessible formats.

Figure II.21. Percentage of live births attended by skilled health personnel, by disability status of the mother, in 5 countries, around 2014.

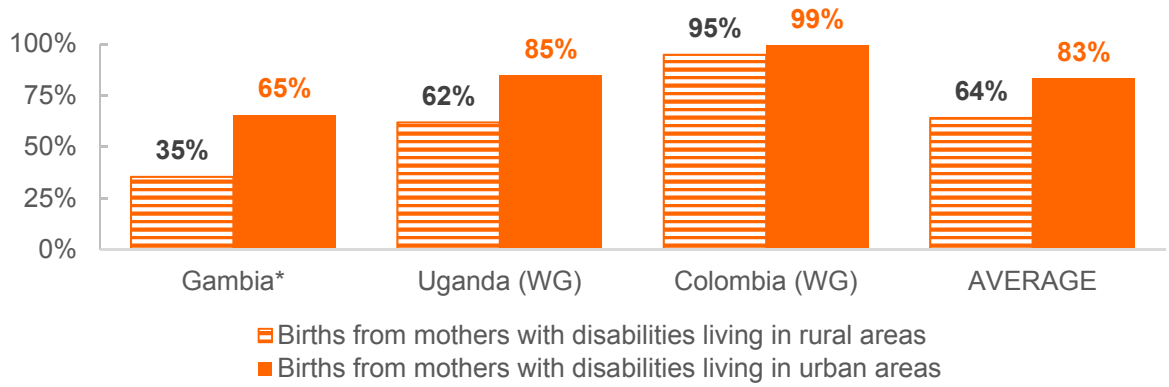


Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference between births from women with and without disabilities is statistically significant at the level of 5%.

Source: UNDESA[78] (on the basis of data from DHS[6]).

These country averages mask differences between urban and rural areas (Figure II.22). In Colombia, Gambia and Uganda, around 2014, access to a skilled health professional during childbirth was higher in urban areas. On average, skilled birth professionals attended to 64 per cent of births from mothers with disabilities living in rural areas versus 83 per cent living in urban areas. The gap was particularly wide for Gambia (30 percentage points), where only 35 per cent of births from mothers with disabilities in rural areas were assisted by a skilled health professional during childbirth.

Figure II.22. Percentage of live births attended by skilled health personnel, by location of residence of the mother with disabilities, in 3 countries, around 2014.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference between births from women with disabilities in rural and urban areas is statistically significant at the level of 5%.

Source: UNDESA[78] (on the basis of data from DHS[6]).

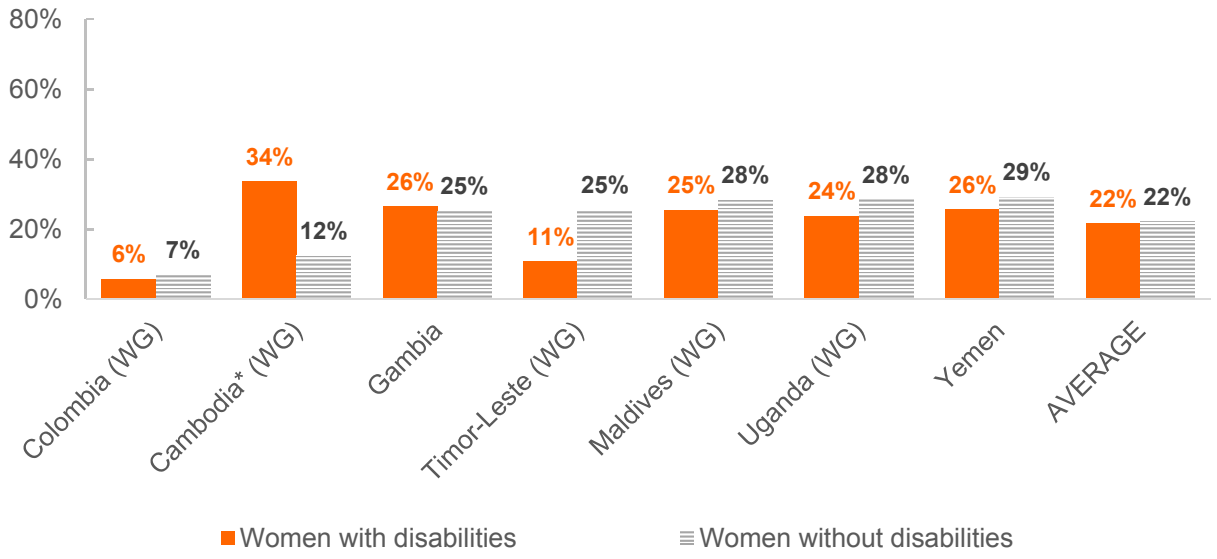
Support for family planning is another important component of sexual and reproductive health services. For women with disabilities with family planning needs – that is, women with disabilities who want to stop or delay childbearing – but who are not using any method of contraception, these needs are often unmet.

Figure II.23 shows the percentage of married women having an unmet need for family planning, by disability status, in seven countries, around 2014. According to these data, the family planning needs of, on average, 22 per cent of women with disabilities aged 15 to 49 were unmet. In six out of the seven countries, women with disabilities were less or similarly likely to have unmet needs as women without disabilities. But in Cambodia women with disabilities were more likely to have unmet needs for family planning (34 per cent) than women without disabilities (12 per cent). Unmet need for family planning varies depending on the location of residence of the woman with disabilities (Figure II.24). On average, among four developing countries, women in rural areas (25 per cent) were more likely to have unmet needs than women with disabilities in urban areas (18 per cent).

Little is known about access to sexual and reproductive health-care services for men in general, and even less is known for men with disabilities. Given the barriers to access (see section below), it is expected that men with disabilities will also show lower levels of access to sexual and reproductive health-care services than their peers without disabilities. A study in Ethiopia of young persons with disabilities of both sexes indicated that 88 per cent had poor knowledge about ways to prevent HIV transmission.[148,149] The study also found that young persons with intellectual disabilities were the least informed about sexual and

reproductive health.

Figure II.23. Percentage of married women aged 15 to 49 having an unmet need for family planning, by disability status, in 7 countries, around 2014.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference between women with and without disabilities is statistically significant at the level of 5%. Data from Cambodia and Timor-Leste are based on 25 to 49 observations and should be interpreted with caution.

Source: UNDESA[78] (on the basis of data from DHS[6]).

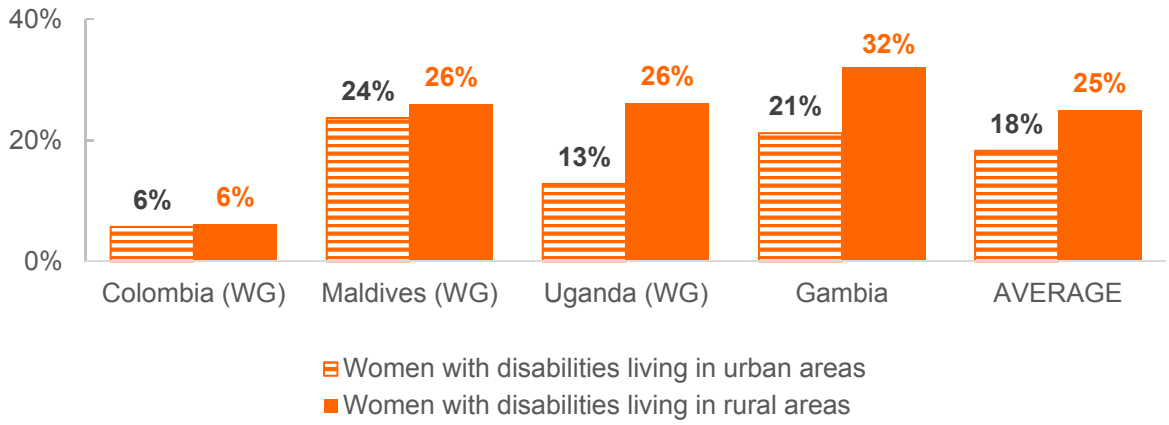
Barriers to access sexual and reproductive health services

Persons with disabilities face many environmental barriers to accessing sexual and reproductive health care. Sexual and reproductive health facilities in developing countries are often physically inaccessible, lacking adjustments such as ramps or moveable equipment[150,151] and frequently have long waiting times.[152] A study in Ethiopia in 2012 indicated that 62 per cent of young persons with disabilities interviewed[149] pointed to inaccessibility of service providers as the main barrier to accessing sexual and reproductive health services.[148] Even when sexual and reproductive health services are physically accessible, information is often not available in accessible formats. For example, only rarely do sexual and reproductive health clinics and AIDS clinics have access to sign language interpreters for the deaf.[153]

Distance to health-care facilities is also a barrier for many persons with disabilities. Public transport is often inaccessible and unreliable, while private transportation can be prohibitively expensive. [151,152] The need for some persons with disabilities to have someone accompany them on the health visit not only increases

transportation costs, but also raises issues of confidentiality for many.

Figure II.24. Percentage of married women aged 15 to 49 with disabilities having an unmet need for family planning, by location of residence, in 4 countries, around 2014.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. For all countries, the difference between women with disabilities in urban and rural areas is not statistically significant at the level of 5%.

Source: UNDESA[78] (on the basis of data from DHS[6]).

A growing body of data confirms the fact that persons with disabilities are as sexually active as their peers[154,155,156,157] and have similar needs for family planning and childbirth.[158] However, there is a widespread false belief within the general population that persons with disabilities are asexual, are not desirable as sexual partners, have few or no sexual rights, and do not derive the same benefit from sexual and reproductive health care as persons without disabilities.[159] This stigmatization of persons with disabilities and their sexual lives begins early and is shaped by negative and dismissive attitudes displayed by family members and communities.[160,161] Combined with environmental and other barriers, such attitudes ultimately deter many persons with disabilities from seeking sexual and reproductive health care.[151]

Moreover, persons with disabilities, particularly women and girls with disabilities, may also fear seeking sexual and reproductive health services. In Ethiopia, in 2012, 23 per cent of young persons with disabilities indicated fear of approaching these services as one of the reasons for not seeking sexual and reproductive health services.[148,149] These fears are anchored in practices that result in the violation of reproductive rights and abuse of persons with disabilities. Many persons with disabilities, particularly those with intellectual disabilities and women, have been subjected to involuntary sterilization in various countries.[162,163] For instance, a small study among women with intellectual disabilities in Mexico in 2015 indicated that half of them had been recommended for sterilization by a member of their family, and close to half had been

sterilized. Moreover, 6 per cent of them had not been informed that the surgery they had undertaken was sterilization at the time it was conducted.[164] In the same study, it was found that 43 per cent of the women had been sexually abused at the gynaecologist's office.

Health-care professionals often share the negative attitudes about disability and sexuality that are entrenched within society,[165,166] which can lead to distressing experiences for persons with disabilities. Adolescents and adults with disabilities are often denied sexual and reproductive health information and resources, discouraged from becoming sexually active by health professionals and in extreme cases, expectant parents with disabilities report receiving unsolicited advice to abort their child, because it is assumed that the child is unwanted or that the child will inherit the same disability as their parent.[164] Such barriers to sexual and reproductive health services and support for persons with disabilities arise from the fact that those working in public health and clinical services often have very little knowledge or training on disability[167,168] and do not consider persons with disabilities when planning interventions, long-term services or public information campaigns.

Compounding the aforementioned barriers to sexual and reproductive health, adults and children with disabilities are frequently excluded in other domains of life, such as in education, employment and socialization (see sections on Goals 4, 8 and 10). This means that persons with disabilities often lack the education, income and social support systems that would allow them to make informed decisions about their sexual and reproductive health options. Furthermore, many persons with disabilities continue to live in institutions for persons with disabilities (see section on Goal 10), where they are often not allowed to decide on their sexual and reproductive health care or access such services.

These barriers to sexual and reproductive health resources are exacerbated for persons with disabilities during humanitarian emergencies. During such emergencies, the needs of the rest of the population are prioritized and services for persons with disabilities – including sexual and reproductive health services – are left for future programmes or receive insufficient resources. For example, a multi-country study of refugee communities found that persons with disabilities could not access sexual and reproductive health-care services, because there were no sign language interpreters available.[166]

Increased risks

Compared to persons without disabilities, both young people and adults with disabilities are at equal or increased risk of unwanted pregnancies, sexually transmitted infections[169,170,171] and sexual violence (see section on Goal 16). Such vulnerability is not inherently a part of disability, but instead reflects the various barriers that persons with disabilities face regarding sexual and reproductive health. For example, exclusion from sexual and reproductive health services frequently means that adolescents with disabilities engage in risky sexual behaviours, increasing the likelihood they will contract a sexually transmitted disease. This highlights the importance of access by persons with disabilities to sexual and reproductive health services.

Current practices toward improving the sexual and reproductive health of persons with disabilities

Initiatives to improve the sexual and reproductive health of persons with disabilities include: the adoption of national policies on the sexual and reproductive health of persons with disabilities;[172] ensuring access by persons with disabilities to relevant information and services; engaging them in the planning, implementation, monitoring and evaluation of sexual and reproductive health and rights programmes;[173] creating effective community support networks; and formulating evidence-based revisions of legislation, policies, strategies and guidelines concerning the sexual and reproductive health and rights of adolescents with disabilities.[174] Participatory action research[175] in the domain of sexual and reproductive health has also been undertaken with the participation of persons with disabilities, which has led to several positive outcomes such as enhanced knowledge and access of persons with disabilities to sexual and reproductive health care and their increased participation within local communities.[176]

Another area of positive developments has been the establishment of global and national guidelines. At the global level, guidelines have been produced to advise on the provision of sexual and reproductive health services for persons with disabilities,[177] and examples of national standards for sexuality education and sexual and reproductive health training also exist.[178] The application of these standards was facilitated by capacity-building activities for health professionals.[179]

Conclusions and the way forward

Sexual and reproductive health is of no less importance to persons with disabilities than for all members of society. Persons with disabilities are as sexually active as others and have similar needs for family planning. Without access to sexual and reproductive health services, they are at higher risk of unwanted pregnancies and sexually transmitted infections. Persons with disabilities are also more likely to experience sexual violence. Sexual and reproductive health services are especially important to make them less vulnerable to these risks. Yet, persons with disabilities are regularly excluded from the provision of sexual and reproductive health services due to environmental and attitudinal barriers, such as lack of physical accessibility in health-care facilities and public transport, low level of awareness and misperceptions of the sexual and reproductive health needs of persons with disabilities. The false but widespread assumption that persons with disabilities are not sexually active has meant that little attention and few resources have been devoted to ensuring that persons with disabilities have equal access to sexual and reproductive health care.

Various countries have taken actions to address these challenges including through the development of national policies and programmes on sexual and reproductive health that are inclusive of persons with disabilities, in-depth studies on their situation regarding access to sexual and reproductive health-care

services, and capacity development programmes to enhance accessibility to such services. However, there remains insufficient collection and analysis of viable data and information on the situation of persons with disabilities regarding access to sexual and reproductive health services, and the barriers they face. The lack of data causes challenges in programmatic planning and in monitoring and evaluating the success of sexual and reproductive health services in reaching and providing adequate services for persons with disabilities.

A number of actions should be considered to ensure that persons with disabilities have access to sexual and reproductive health and reproductive rights:

1) **Develop national policies and laws that guarantee access to sexual and reproductive health and reproductive rights for persons with disabilities**. Eliminate discriminatory laws that prevent persons with disabilities from exercising their reproductive rights and prevent discriminatory actions, including unconsented sterilization. Ensure the participation of persons with disabilities, as part of national programme planning and decision-making processes.

2) **Remove environmental barriers by making sexual and reproductive health-care facilities and information accessible**. Health-care facilities must be physically accessible, and the information on sexual and reproductive health must be provided in an accessible format for persons with disabilities.

3) **Train sexual and reproductive health-care workers, combat negative attitudinal barriers and improve service delivery for persons with disabilities.** Prohibit discriminatory practices against persons with disabilities. Incorporate disability in training modules to enhance understanding on the needs of persons with disabilities and engage persons with disabilities in training sessions where appropriate.

4) **Educate persons with disabilities, including adolescents with disabilities, on sexual and reproductive health and reproductive rights**. Develop guidelines for educators in order to deliver high quality, age-appropriate education on sexual and reproductive health and reproductive rights for all, including those with disabilities. The training materials should be provided in accessible format.

5) **Establish a monitoring and evaluation mechanism to track the implementation of policies and programmes on access to sexual and reproductive health for persons with disabilities.** Ensure that all stakeholders, including persons with disabilities, participate in the evaluation process.

6) **Improve research and data to monitor, evaluate and strengthen sexual and reproductive health and services for persons with disabilities.** Conduct empirical research on the sexual and reproductive health of persons with disabilities as well as on their access to sexual and reproductive health services and the barriers they face. Collect data disaggregated by disability, sex and age in this context. Engage persons with disabilities in the studies.

D. Ensuring inclusive and equitable quality education for all persons with disabilities (Goal 4)

This section focuses on the realization of Goal 4 for persons with disabilities. Goal 4 calls for ensuring inclusive and equitable quality education and promoting life-long learning opportunities for all. While all targets of Goal 4 are crucial in achieving equal education for persons with disabilities, only two targets explicitly mention disability, namely target 4.5 which aims inter alia at ensuring equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities; and target 4.a that calls for building and upgrading education facilities that are disability sensitive and providing inclusive learning environments for all. This section presents the international normative framework on disability and education and addresses the challenges persons with disabilities face in accessing education on the basis of available evidence. It also discusses current practices in countries regarding access to education of persons with disabilities and presents examples of national policies and best practices as well as recommendations to advance inclusive education.

Education is a fundamental human right and an essential condition for individual development and full and effective participation in society. However, too many persons with disabilities continue to be denied this fundamental right due to numerous barriers and obstacles to accessible education, including prejudice and discrimination against those with disabilities, the lack of qualified teachers to accommodate the needs of persons with disabilities as well as inaccessible schools and educational materials. Lack of disaggregated data and research also impede the development of effective policies and programmes to promote inclusive education. Available evidence shows that persons with disabilities are less likely to attend school, less likely to complete primary or secondary education, and less likely to be literate. Education is fundamental for social inclusion and participation in the labour market and plays a critical role in the acquisition of skills and knowledge.

International normative frameworks on disability and education

The right of persons with disabilities to education has been declared in a number of international instruments, including the World Declaration on Education for All, stemming from the World Conference on Education for All (1990), which stressed the importance of equity and equal access to basic education for all, with attention to persons with disabilities.[180] The Standard Rules on Equalization of Opportunities for Persons with Disabilities (1993) represented the strong political commitment to equalization of educational opportunities for persons with disabilities. In 2000, the global community reaffirmed its commitment to the Education for All movement by adopting the Dakar Framework for Action, Education for All: Meeting our Collective Commitments at the World Education Forum. The Dakar Framework for Action reinforced the previous efforts and commitments of the international community to progress toward inclusive education for all, including persons with disabilities.[181] Article 24 of the CRPD (2006) stipulated that States Parties

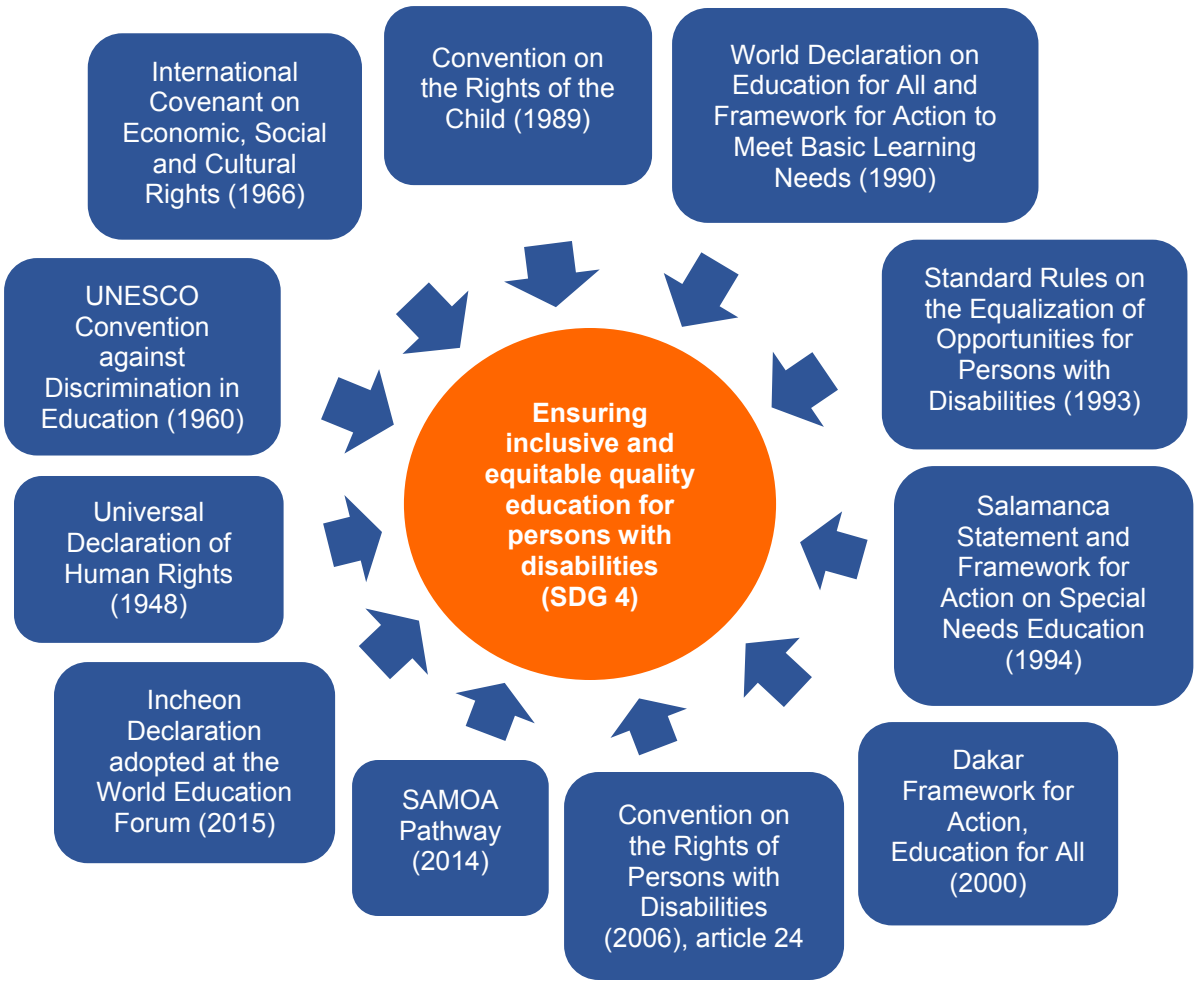
should ensure access to inclusive, quality and free primary and secondary education on an equal basis with others.[182] In order to realize this right, the CRPD included a provision on the employment of teachers qualified in sign language and/or braille and on disability awareness training for professionals and staff who work at all levels of education. Article 24 also called for reasonable accommodation and for making learning environments accessible including through accessible educational materials.

More recently, in 2015, the 2030 Agenda for Sustainable Development recognized that persons with disabilities should have access to life-long learning opportunities that help them acquire the knowledge and skills needed to exploit opportunities and to participate fully in society.[183] Persons with disabilities are also covered in Goal 4. In addition, the Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway (2014) addressed the importance of providing high-quality education and training and called for enhancing international cooperation and investment in education, including support for transitions from basic to secondary education and from school to work for persons with disabilities.[184]

Two frameworks focused on education for children with disabilities. The United Nations Convention on the Rights of the Child (1989) enshrined the right to education (articles 28 and 29) and specifically addressed the education of children with disabilities (article 23).[185] Moreover, article 23, paragraph 3 asked States Parties to encourage extended assistance that should be designed to ensure that children with disabilities have effective access to and receive education and training.[185] The Salamanca Statement and Framework for Action on Special Needs Education, which was adopted at the World Conference on Special Needs Education in 1994, outlined challenges faced by children with disabilities and called for equality of opportunity for children, youth and adults with disabilities in integrated settings.[186] The framework also encouraged countries to adopt complementary legislative measures in other related fields such as health, social welfare and employment and urged better coordination at the national level for coherence and maximum results.

Several international instruments established education as an integral part of universal human rights. The Universal Declaration of Human Rights (1948) stated in article 26 that “everyone has the right to education”.[187] Furthermore, the right to education has been detailed in the UNESCO Convention against Discrimination in Education (1960),[188] the first international Convention, specifying the core elements of the right to education. It is worth noting that the Convention obligated States Parties not only to prohibit all forms of discrimination in education but also to provide equal educational opportunities. Among the United Nations human rights treaties, article 13 of the International Covenant on Economic, Social and Cultural Rights (1966) covers the right to education in a comprehensive manner.[189]

Figure II.25. International normative frameworks relevant for the achievement of SDG 4 for persons with disabilities.



The situation of persons with disabilities in education

Many youths with disabilities remain excluded from education

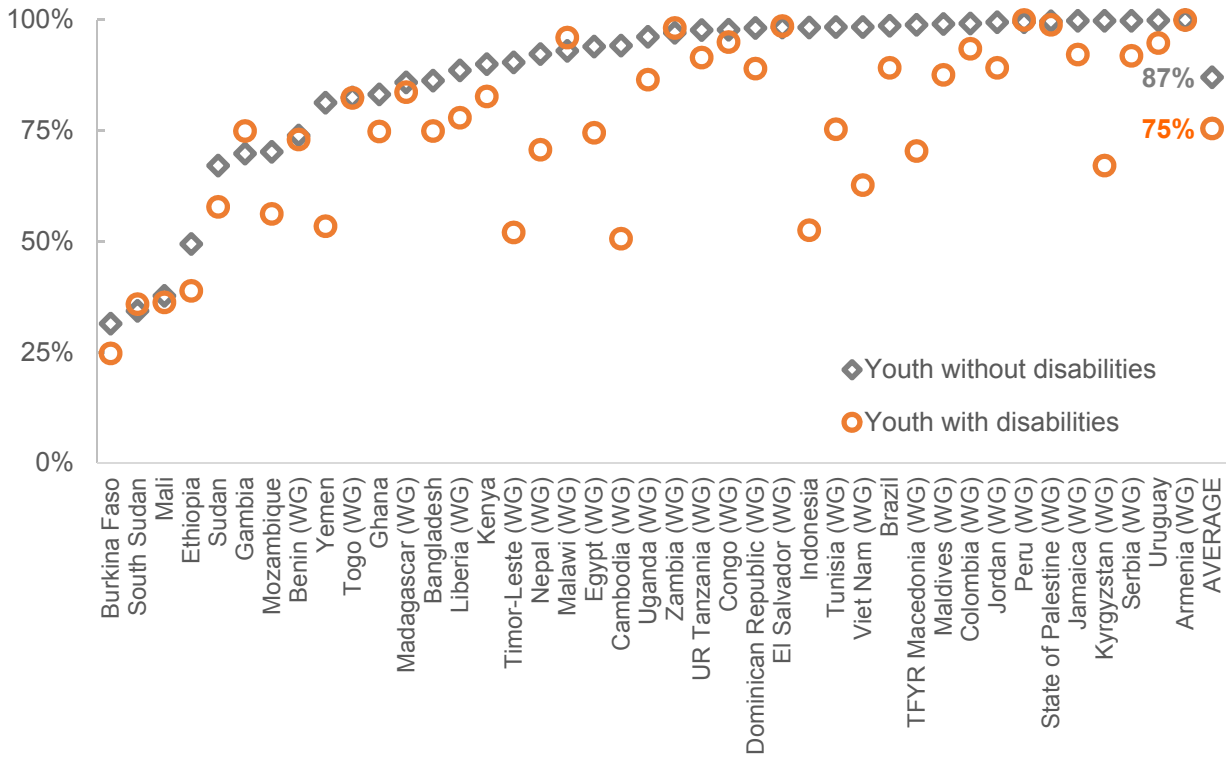
The proportion of the population aged 15 to 29 years who ever attended school indicates the percentage of this age cohort with any formal education, regardless of duration. Figure II.26 shows that on average among 41 developing countries 87 per cent of persons without disabilities versus 75 per cent of persons with disabilities aged 15 to 29 have ever attended school. In ten of these countries, the gap between youth with and without disabilities is higher than 15 percentage points; but in 13 countries the gaps are below 5 percentage points. The largest gaps between persons with and without disabilities are observed in Cambodia (51 per cent versus 94 per cent), Indonesia (53 per cent versus 98 per cent), Timor-Leste (52 per cent versus 90 per cent) and Viet Nam (63 per cent versus 98 per cent). The lowest percentage of youth with disabilities who ever attended school is observed in Burkina Faso (25 per cent). However, in 12 of these developing countries, the percentage of youth with disabilities who ever attended school is higher than 90 per cent.

Many children with disabilities are out of school

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.[190] Data from six developing countries indicate that, on average, children with disabilities of primary school age (about 6 to 11 years in most countries) are more likely to be out of school than their peers without disabilities (Figure II.27).[191] 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 children with and without disabilities (57 per cent versus 7 per cent), which means that children with disabilities are eight times as likely to be out of school as their peers without disabilities. 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 children with disabilities are two to three times as high as those of children without disabilities in Colombia, the Maldives, Uganda and Yemen. On average, in these countries, children with disabilities are more than twice as likely to be out of school as children without disabilities.

Figure II.28 shows the out-of-school rate of adolescents of lower secondary school age (about 12 to 14 years in most countries). 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 per cent for adolescents without disabilities and 26 per cent for adolescents with disabilities. In Uganda, Yemen and Gambia more than 30 per cent of children without disabilities of lower secondary school age are out of school. In Maldives and Colombia, 13 per cent and 16 per cent of children without disabilities of lower secondary school age are out of school, respectively.

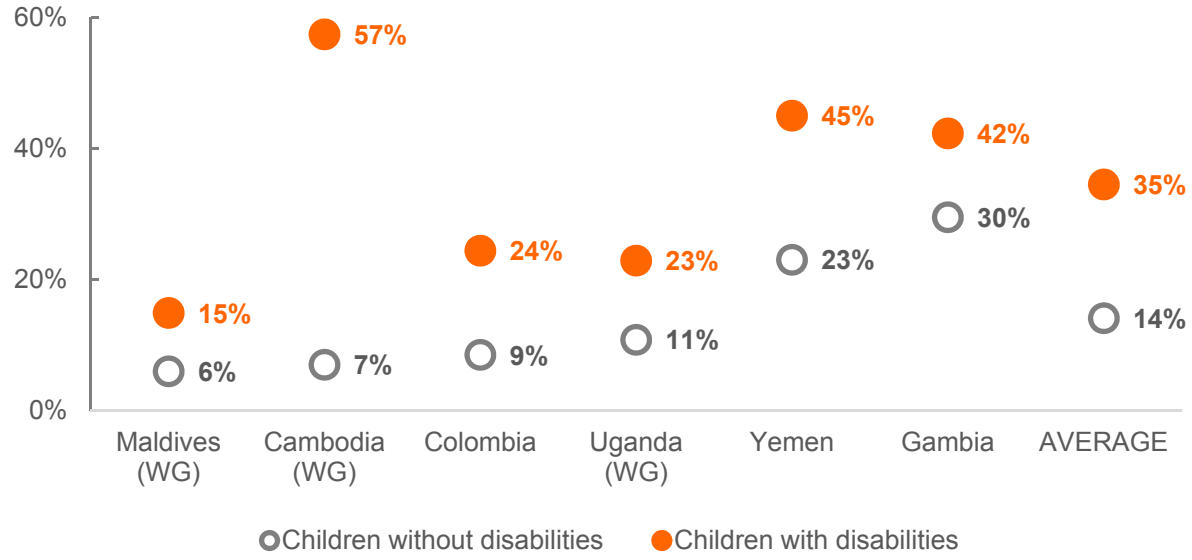
Figure II.26. Percentage of youth aged 15 to 29 years old who ever attended school, by disability status, in 41 developing countries, around 2012.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. Data on youth with disabilities from El Salvador, Jamaica, Kyrgyzstan, Liberia, Malawi, Nepal, Peru, Serbia, TFYR Macedonia, and Viet Nam are based on 25 to 49 observations and should be interpreted with caution.

Source: UNDESA[78] (on the basis of data from DHS[6]) and UNESCO Institute for Statistics (on the basis of data from IPUMS[10] and School to Work Transition Surveys[192]).

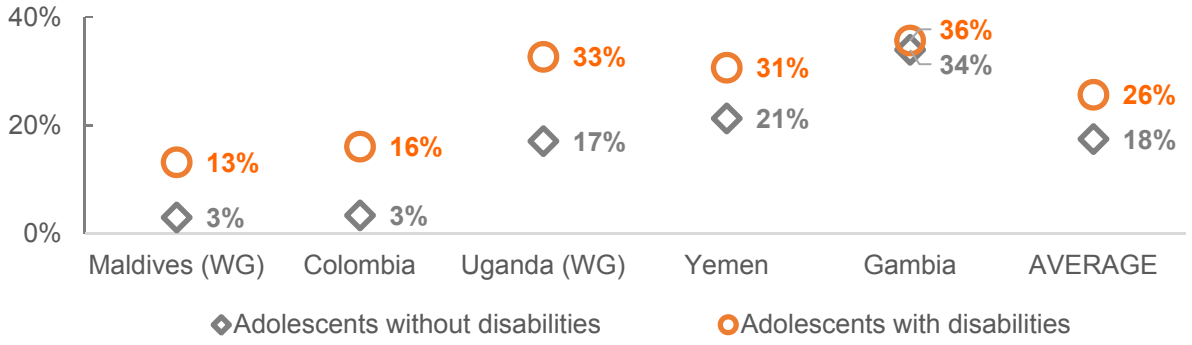
Figure II.27. Percentage of children of primary school age who are out of school, by disability status, in 6 countries, around 2012.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions.

Source: UNESCO Institute for Statistics (on the basis of data from DHS[6]).

Figure II.28. Percentage of adolescents of lower secondary school age who are out of school, by disability status, in 5 countries, around 2010.



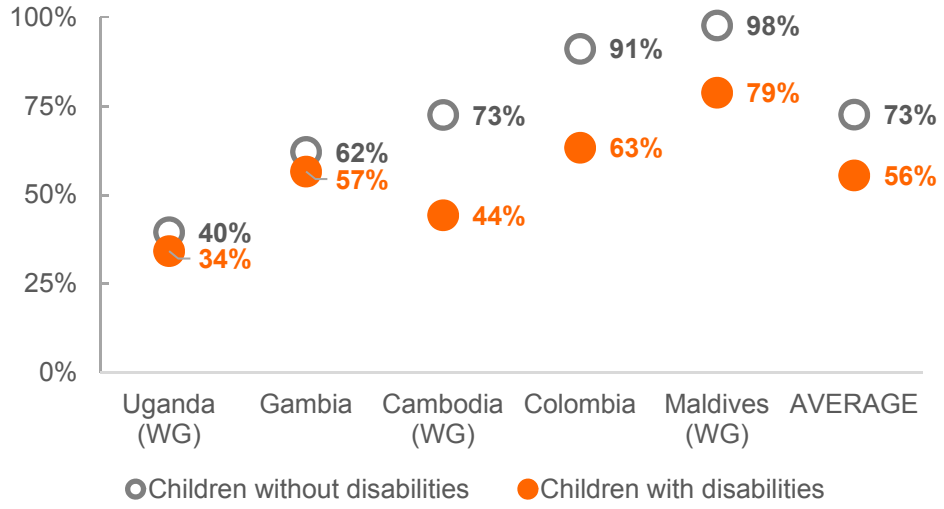
Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. Data on adolescents with disabilities from Gambia are based on 25 to 49 observations and should be interpreted with caution.

Source: UNESCO Institute for Statistics (on the basis of data from DHS[6]).

Persons with disabilities are less likely to complete primary, secondary and tertiary education than persons without disabilities

Children with disabilities are less likely to complete primary education than children without disabilities. Data from five developing countries show that, on average, the primary completion rate is 73 per cent for children without disabilities and 56 per cent for children with disabilities (Figure II.29). For this small group of countries, the disability parity index is 0.76,[193] meaning that children with disabilities are less likely to complete primary education than children without disabilities. The widest gaps between the two groups exist in Cambodia and Colombia: 73 per cent of 14- to 16-year-old Cambodians without disabilities have completed their primary education, compared to only 44 per cent of their peers with disabilities; in Colombia, the completion rate is 91 per cent for those without disabilities and 63 per cent for those with disabilities. In the Maldives, almost all 15- to 17-year-olds without disabilities completed primary education (98 per cent), whereas only four out of five adolescents in the same cohort with disabilities (79 per cent) completed primary education. Countries that have achieved higher completion rates for primary education for children without disabilities show wider gaps vis-à-vis children without disabilities, suggesting that efforts to improve completion rates need to be more inclusive.

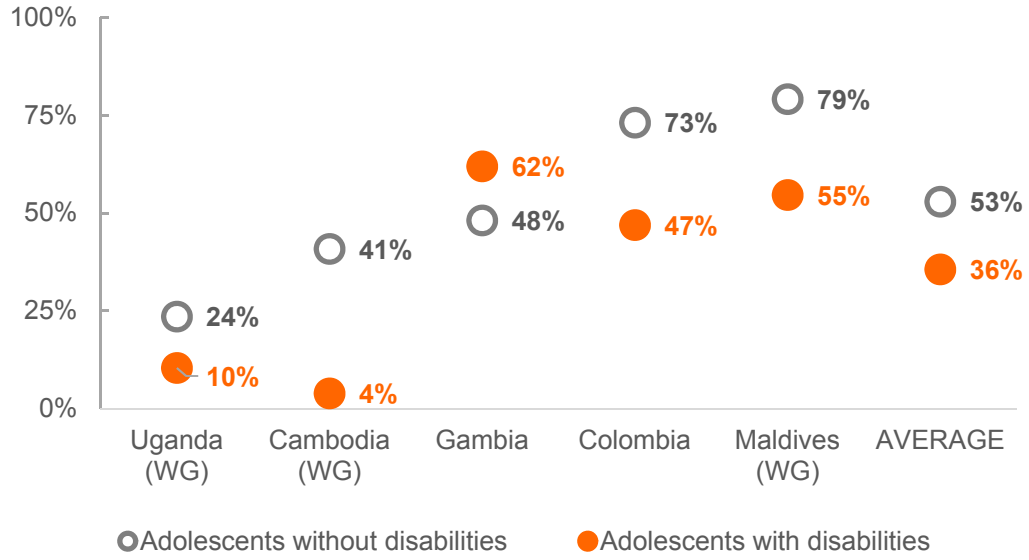
Figure II.29. Completion rate[194] for primary education, by disability status, in 5 countries, around 2011.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. Data on children with disabilities from Cambodia and Gambia are based on 25 to 49 observations and should be interpreted with caution.

Source: UNESCO Institute for Statistics (on the basis of data from DHS[6]).

Figure II.30. Completion rates for lower secondary education, by disability status, in 5 countries, around 2011.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. Data on children with disabilities from Cambodia and Gambia are based on 25 to 49 observations and should be interpreted with caution.

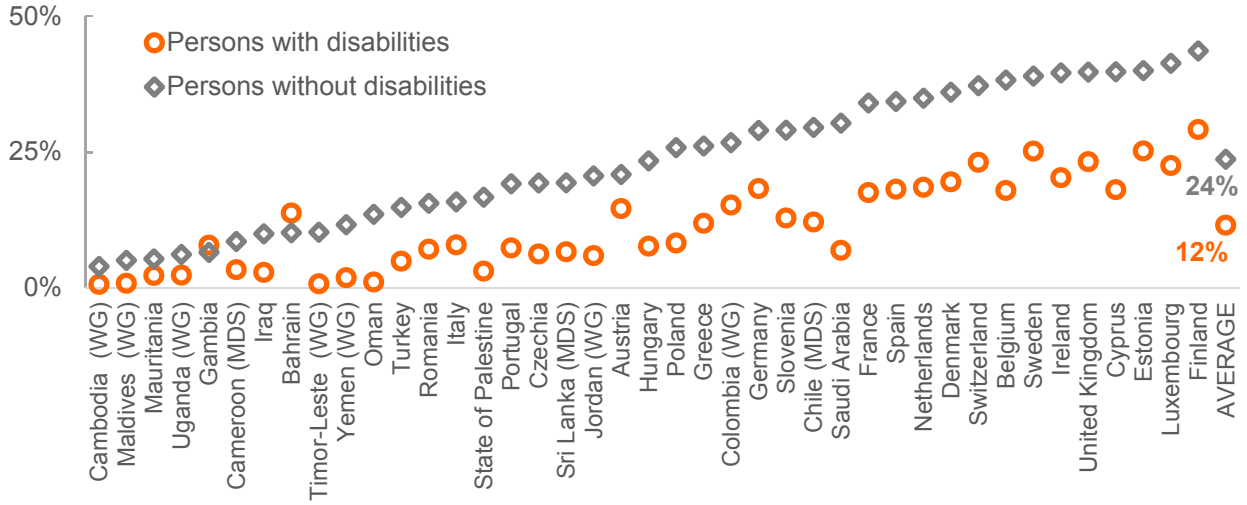
Source: UNESCO Institute for Statistics (on the basis of data from DHS[6]).

As a direct consequence of lower primary completion rates, children with disabilities are also less likely to pursue higher levels of education. Figure II.30 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 per cent for adolescents without disabilities and 36 per cent for adolescents with disabilities. In Cambodia, only 4 per cent of adolescents with disabilities have completed lower secondary education, compared to 41 per cent of their peers without disabilities – a larger gap than in any other country with data. Gambia is the only country with an opposite pattern: completion rates are higher for adolescents with disabilities than for those without disabilities.

Persons with disabilities are also less likely to complete tertiary education (Figure II.31). Among 41 countries, around 2012, 24 per cent of persons 25 years of age or older without disabilities versus 12 per cent with disabilities completed tertiary education. The highest gap between persons with and without disabilities is observed in Saudi Arabia, where 30 per cent of adults without disabilities versus 7 per cent of adults with disabilities completed tertiary education. In two other countries, Belgium and Cyprus, the gaps are also wider than 20 percentage points. In another 11 of these countries, the gap is higher than 15

percentage points. The percentage of persons with disabilities who completed tertiary education ranges from 1 per cent in Cambodia, Maldives, Oman and Timor-Leste to 29 per cent in Finland.

Figure II.31. Percentage of persons 25 years and older[195] who completed tertiary education, by disability status, in 41 countries, around 2012.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions; (MDS) identifies countries with data produced using the Model Disability Survey. Data from Cameroon were collected in selected regions of the country and are not nationally representative.

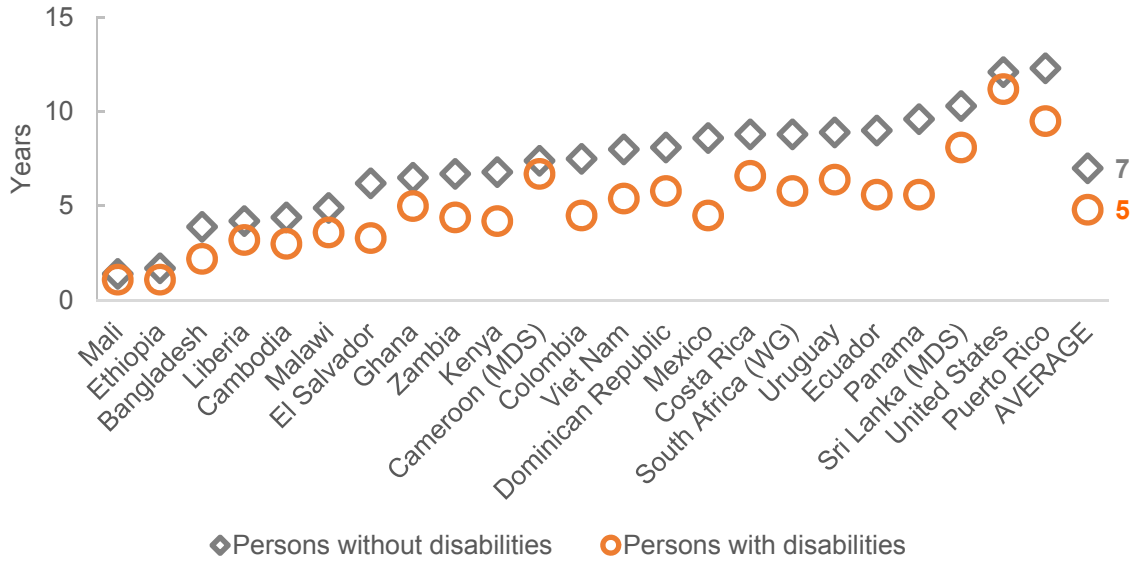
Source: ESCWA,[7] Eurostat,[9] UNDESA[78] (on the basis of data from DHS[6]) and WHO.[100]

Persons with disabilities spend fewer years in school than persons without disabilities

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. Figure II.32 shows this indicator for the population 25 years and older, in 23 countries or territories. In all countries, persons with disabilities spend a lower average number of years in school than their counterparts without disabilities. On average, persons without disabilities have seven years of schooling and persons with disabilities have five years, in other words, persons 25 years and older without disabilities have 40 per cent more years of schooling than persons with disabilities. In Ecuador, Mexico and Panama, the largest gaps can be identified. In Mexico and Panama, the difference in the years of schooling between persons with and without disabilities is 4.1 and 4.0 years, respectively, and in Ecuador, it is 3.4 years. In all other countries, the difference in the number of years of schooling between individuals with and without disabilities 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. In El Salvador and Mexico, persons without disabilities have nearly twice as many years of schooling as persons with disabilities, while in the United States persons with disabilities have almost as many years of schooling as their peers without disabilities.

Figure II.32. Mean years of schooling, for the population 25 years and older, by disability status, in 23 countries or territories, around 2010.



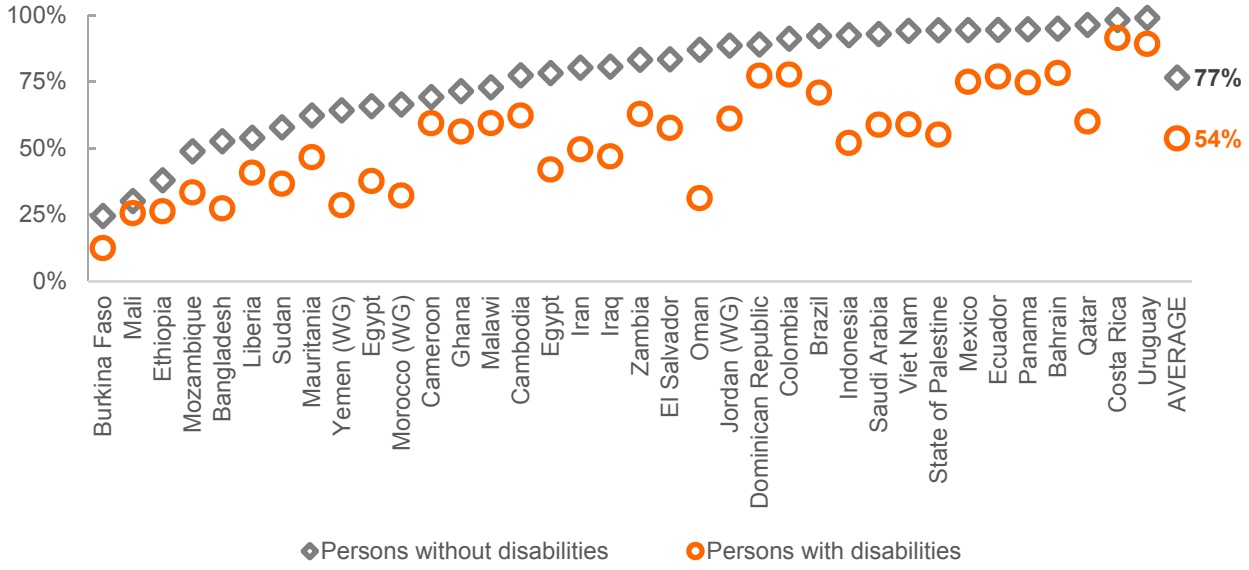
Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions; (MDS) identifies countries with data produced using the Model Disability Survey. Data from Cameroon were collected in selected regions of the country and are not nationally representative.

Source: UNESCO Institute for Statistics (on the basis of data from IPUMS[10]) and WHO.[100]

In all countries, persons with disabilities have lower literacy rates than persons without disabilities

Literacy is typically defined as the ability to read and write, with understanding, a short, simple statement about everyday life.[196] The adult literacy rate for the population 15 years and older is shown in Figure II.33 for 36 countries. In all countries, persons with disabilities have lower literacy rates than persons without disabilities. The gaps range from 5 percentage points in Mali (2009 census) to 56 percentage points

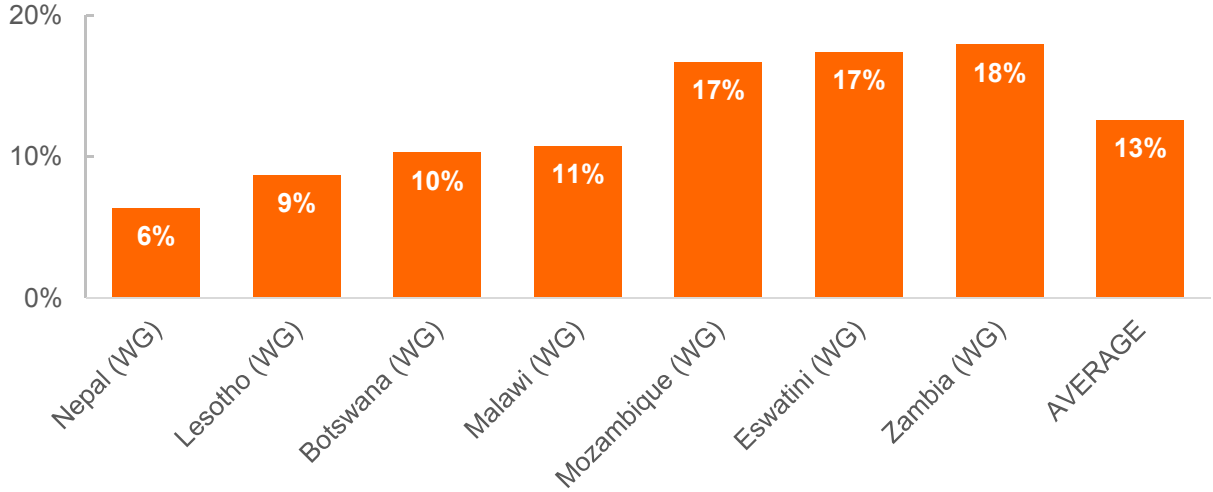
Figure II.33. Adult literacy rate for the population 15 years and older, by disability status, in 36 countries, around 2010.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions.

Source: ESCWA[7] and UNESCO Institute for Statistics (on the basis of data from IPUMS[10]).

Figure II.34. Percentage of persons with disabilities who have ever been refused entry into a school or preschool because of their disability, in 7 countries, around 2011.

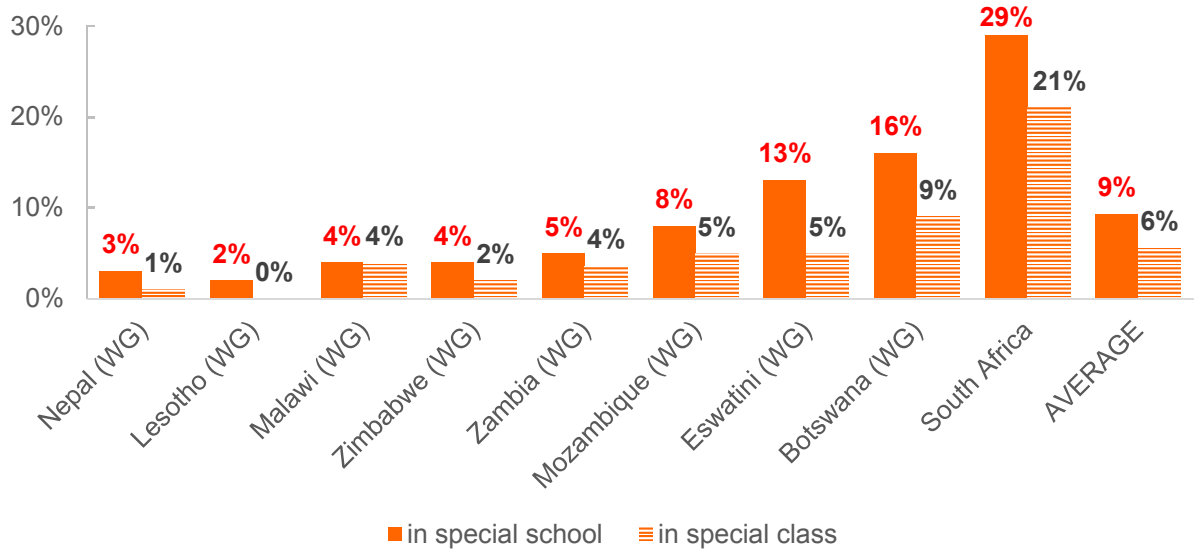


Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

in Oman, where a large majority of adults (87 per cent) without disabilities have basic literacy skills, compared to only a third (31 per cent) of adults with disabilities. Large gaps in adult literacy rates between persons with and without disabilities are also present in Egypt, Indonesia, Iran, Iraq, Morocco, Qatar, Saudi Arabia, State of Palestine, Viet Nam and Yemen. In Viet Nam, the high adult literacy rate of 94 per cent for persons without disabilities is in stark contrast with the 59 per cent literacy rate among persons with disabilities. In Iran, there is a difference of 30 percentage points between the literacy rate of persons with disabilities (50 per cent) and adults without disabilities (80 per cent). The parity index, calculated by dividing the literacy rate of adults with disabilities by the literacy rate of adults without disabilities, is 0.69 on average and ranges from 0.36 in Oman – where the literacy rate is almost three times as high among adults without disabilities as among adults with disabilities – to 0.93 in Costa Rica.

Figure II.35. Percentage of persons with disabilities who mainly attended pre-school, primary, secondary or tertiary school in a special school or a special class, in 9 countries, around 2012.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions. Data from Lesotho are based on 25 to 49 observations and should be interpreted with caution.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

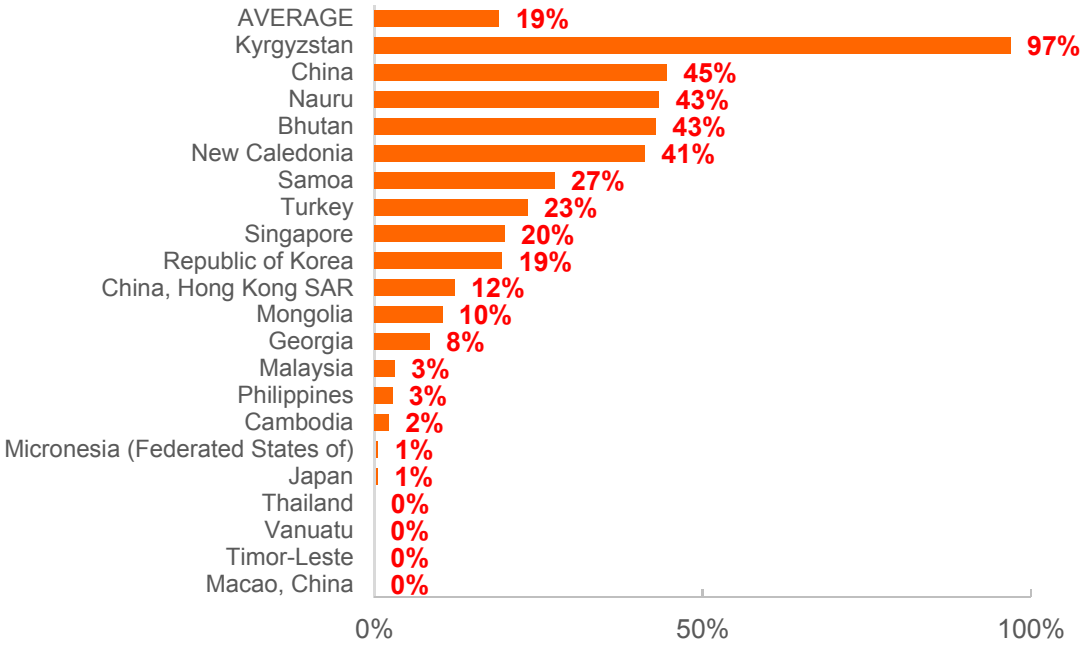
Persons with disabilities still face many barriers to education

Persons with disabilities are sometimes refused entry into schools because of their disability. Data from seven countries around 2011, show that between 6 per cent of persons with disabilities in Nepal and 18 per cent in Zambia have been refused entry into a school or a preschool because of their disability (Figure II.34). In Mozambique and Eswatini, percentages are almost as high as in Zambia at 17 per cent. On

average among these seven countries, 13 per cent of persons with disabilities have been refused entry into a school or preschool at least once because of their disability.

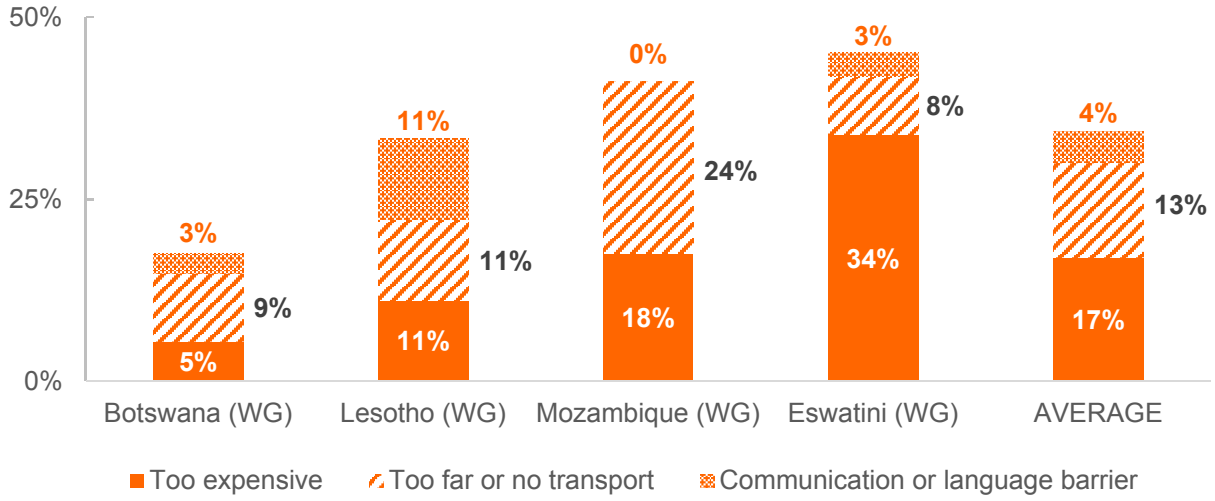
Those who enter school still face other challenges. In nine countries around 2012, on average 9 per cent of students with disabilities mainly attended special schools and 6 per cent attended special classes in primary, secondary or tertiary school (Figure II.35). In Eswatini and Botswana more than 10 per cent of students with disabilities attend special schools. Evidence from 21 countries and territories in the Asia and Pacific region suggests that there are still many children with disabilities learning in special primary schools: on average 19 per cent (Figure II.36). Kyrgyzstan shows the highest percentage, at 97 per cent, and four countries and territories – China, Nauru, Bhutan, and New Caledonia – show percentages above 40 per cent. Students with disabilities are sometimes obliged to stop attending school because of financial and/or environmental barriers. In four countries, around 2010, on average, 17 per cent of students with disabilities stopped attending school because it was too expensive, 13 per cent because school was too far or no transport was available to take them to school, and 4 per cent because of communication and language barriers (Figure II.37).

Figure II.36. Percentage of children with disabilities attending primary school in a special school, in 21 countries, around 2015.



Source: ESCAP.[8]

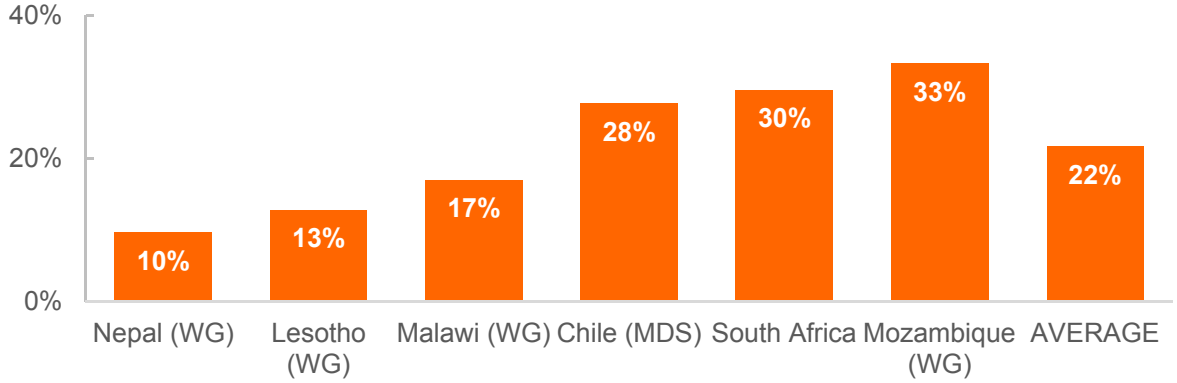
Figure II.37. Percentage of students with disabilities who stopped attending school because it was too expensive, it was too far or there was no transport, or there was a communication or language barrier, in 4 countries, around 2010.



Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Figure II.38. Percentage of students with disabilities who found that schools were not accessible or hindering, in 6 countries, around 2012.



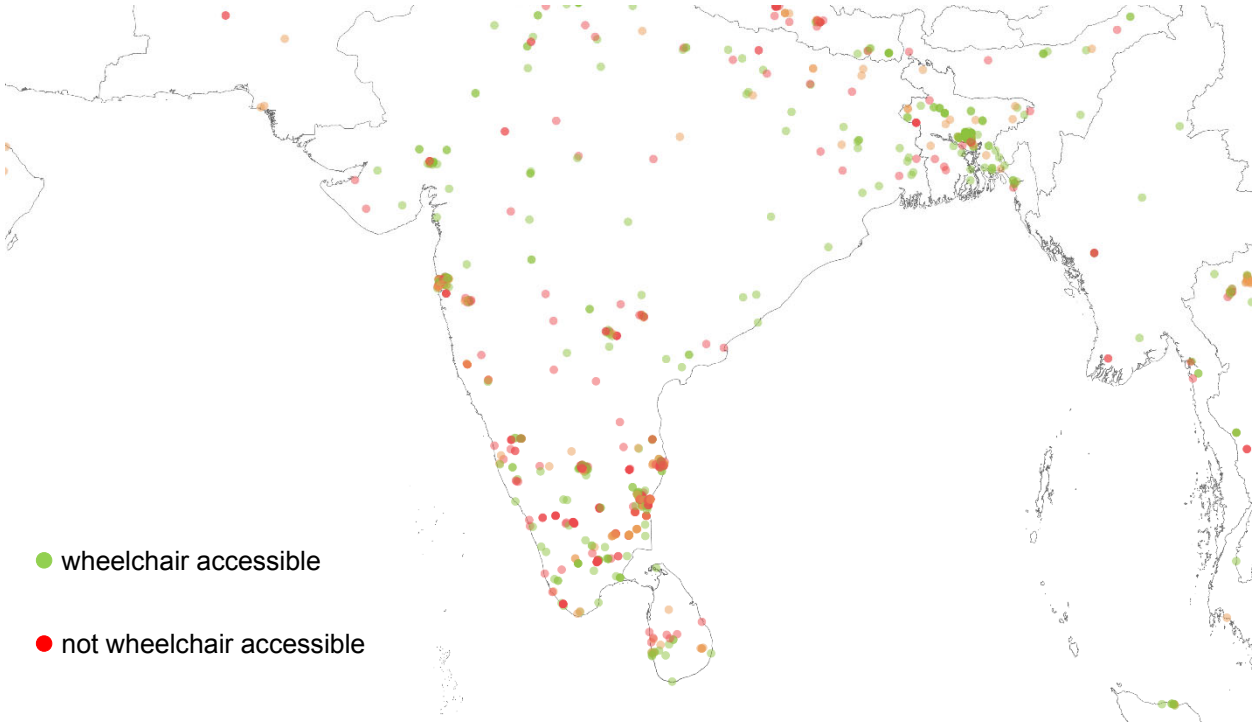
Note: (WG) identifies countries with data produced using the Washington Group Short Set of Questions; (MDS) identifies countries with data produced using the Model Disability Survey. MDS data refer to "hindering schools"; all other data refer to "not accessible schools". Data from South Africa were collected in selected regions of the country and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]) and WHO.[100]

Moreover, physical and virtual barriers at schools make it difficult for students with disabilities to participate. In six countries, around 2012, on average 22 per cent of persons with disabilities reported that schools were not accessible or hindering (Figure II.38). Percentages vary between 10 per cent in Nepal and 33 per cent in Mozambique.

According to crowdsourced accessibility data analysed in various (mostly developed) countries, only 47 per cent of more than 30,000 education facilities were considered accessible for persons using wheelchairs.[78,197] Zooming in on selected regions in Southern Asia and Europe (Figure II.39 and Figure II.40) shows that in both regions there is a mix of accessible and non-accessible schools for wheelchair users.

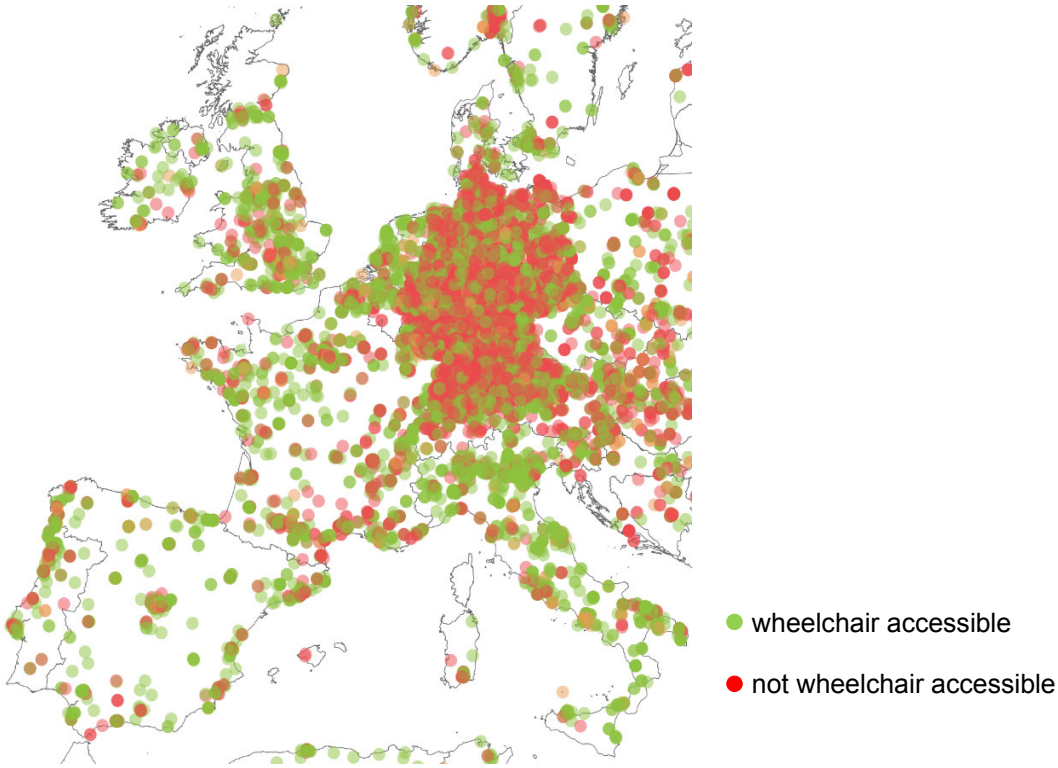
Figure II.39. Accessibility of schools for wheelchair users, in a selected region in southern Asia, in 2017 (crowdsourced data).



Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

Source: UNDESA[78] (on the basis of data from Sozialhelden[197]).

Figure II.40. Accessibility of schools for wheelchair users, in a selected region in Europe, in 2017 (crowdsourced data).

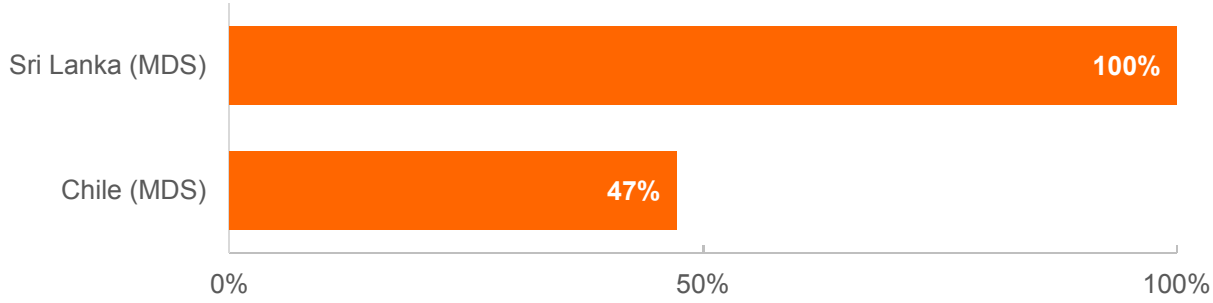


Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

Source: UNDESA[78] (on the basis of data from Sozialhelden[197]).

Unavailability and unaffordability of adequate assistive technologies are common barriers for persons with disabilities. In 2015, in Chile and Sri Lanka, 47 per cent and 100 per cent, respectively, of persons with disabilities used but needed more assistive products to participate in education (Figure II.41). Lack of electricity in many schools worldwide also compromises the use of assistive technology for education (see section on Goal 7).

Figure II.41. Percentage of persons with disabilities who use but need more assistive products for education, in 2 countries, in 2015.



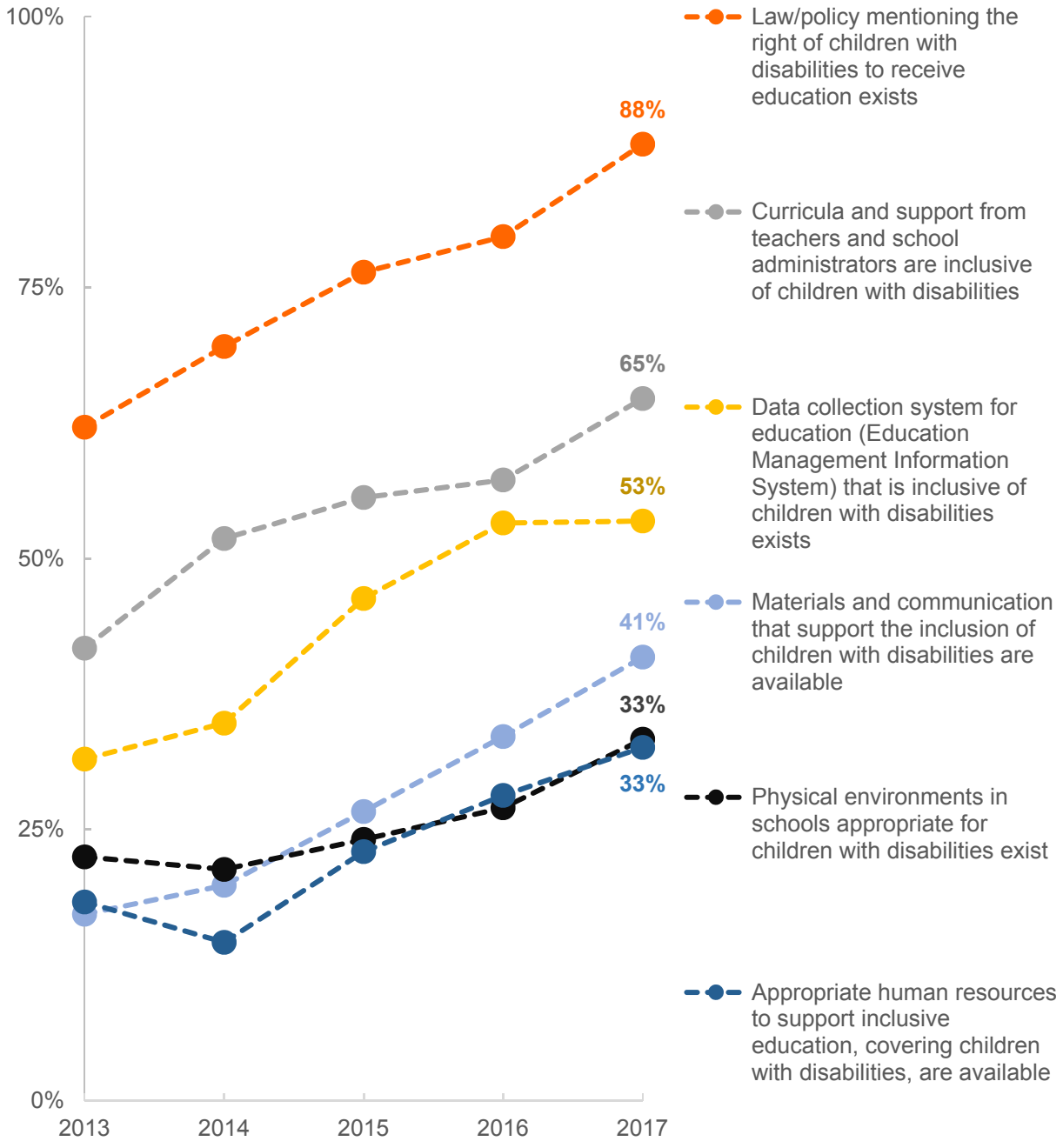
Note: (MDS) identifies countries with data produced using the Model Disability Survey.

Source: WHO.[100]

Current practices in education for persons with disabilities

More and more countries are trying to make their educational systems more inclusive for persons with disabilities, removing barriers and addressing discrimination on the grounds of disability. In particular, many countries have included protections in their constitutions, laws or policies. Out of 193 United Nations Member States, 34 guarantee the right to education for persons with disabilities or protect against discrimination on the basis of disability in education in their constitutions.[132] In 2017, 88 per cent of 102 countries surveyed had a law or policy mentioning the right of children with disabilities to receive education, up from 62 per cent in 2013 (Figure II.42). A majority of countries, 65 per cent of 88 countries, also provided curricula inclusive of children with disabilities, as compared to only 42 per cent in 2013. Many governments have also made progress in collecting disability data through the Education Management Information System (EMIS): in 2017, 53 per cent of 101 countries had such a data collection system, up from 31 per cent in 2013. The collection of data is key to allow governments to make evidence-based plans for their education systems, and/or to change attitudes towards children with disabilities.

Figure II.42. Percentage of countries which implemented selected measures to promote inclusive education, among 87 to 101 countries,[198] from 2013 to 2017.



Source: UNICEF.[199]

However, many obstacles still remain for persons with disabilities to be included in mainstream educational systems. Around 2013, only in 44 per cent of United Nations Member States could students with disabilities

be taught in the same classroom as others without disabilities. In 39 per cent of Member States, students with disabilities might attend the same schools but not necessarily the same classrooms, in 12 per cent students with disabilities could attend special schools and in 5 per cent children with disabilities received inadequate support in pursuing education.[132] Most importantly, there remain considerable gaps at the school level: in materials and communication (including assistive products for learning), human resources (including teachers) and the physical environment (including the construction of accessible school buildings). Without these vital front-line resources in place, it is practically impossible to enable children with disabilities to go to school. These gaps can clearly be seen in Figure II.42. Despite progress made since 2013, by 2017 only 41 per cent of 88 countries provided appropriate materials in their schools (up from 17 per cent in 2013), and even fewer countries, 33 per cent, provided adequate human resources (up from 18 per cent in 2013) and physical environments (up from 22 per cent in 2013) for students with disabilities.[200]

Promoting inclusive education

Several countries have enacted legislation, policies and guidelines to promote the inclusion of students with disabilities. Iraq developed the National Project of Comprehensive Educational Integration that aims at improving the quality of education provided to children with disabilities.[201] Viet Nam established the National Action Plan for Education for All (2003–2015) with a provision for inclusive educational opportunities for children with disabilities.[202] Ethiopia adopted its first strategy of Special Needs Education in 2006 to help ensure that children with disabilities have access to quality education.[203] South Sudan's Child Act stipulates the right to education for all, including persons with disabilities.[204] A law in Czechia adopted in 2004 mandates schools to provide textbooks and teaching aids adapted to the needs of students with disabilities.[205] In Canada, a guideline on inclusive education for schools was developed to encourage educational institutions to be equal and inclusive for all, including students with disabilities.[206]

There are also various initiatives to encourage the inclusion of students with disabilities into mainstream schools.[207,208] Some countries promote the enrolment of students with disabilities through direct admission to universities, accommodation in student dormitories, and scholarships.[209] Advisory school assistance, support and guidance have also been provided in five countries to assess the situation and learning outcomes of students with disabilities.[210] Germany gives annual awards to schools that provide equal opportunities for education to all students and promote diversity.[211]

Many countries offer education plans inclusive of students with disabilities through tailored curricula or programmes.[212] Some countries have provisions for alternative arrangements for exams and assessments, allowing exemptions, adaptation of the conditions or the format of the exam or revalidation activities.[213]

Efforts have also been made for teaching and learning environments to be more adaptable to the diverse needs of students. Some schools are equipped with assistive technology and devices in support of

learners,[214] including ICT tools such as speech synthesizers, spelling tools, digital books,[215] and computer technology and software.[216] Some schools provide education in sign language or in braille,[217,218] through the use of audio-visual materials, games and activities,[219] or e-books for children who are deaf or have a hearing impairment,[220] or with an accessible online library with audio books.[221] In Europe, educational materials are made available in sign languages in libraries[222] and online English language courses are offered to persons who are deaf or have a hearing impairment.[223] In Asia and the Pacific, an archive and search engine for Asian sign languages was been developed for teaching purposes.[224]

In many countries, art, such as drama, music and drawing, has been used as a pedagogical method for disability-inclusive education. For example, in South Africa, a school uses African drumming as a means of harnessing creativity in learners with disabilities,[225] and in Egypt, a project provided an opportunity for students with and without disabilities to discuss what will happen in life in the year 2050 through drawings.[226] In the United States, drama, dance and music were incorporated at schools for children with intellectual disabilities,[227,228] whereas in the United Kingdom, students in primary school design and write books on disability as a resource for new students to enhance their understanding of disability.[229]

Physical and virtual accessibility at schools

Many countries took actions to enhance physical accessibility at schools by reviewing school buildings and facilities. They identified physical obstacles that prevent persons with disabilities from enjoying their right to education, and installed or modified ramps, lifts and public facilities.[230,231] In Barbados, one school installed an elevator, acoustic floors that vibrate with music for dance classes, and large screens, braille printers and assistive audio software.[232] Measures have also been in place to equip schools with specialized information technology solutions for persons with disabilities.[233] In South Sudan, construction standards were revised to ensure that schools are accessible for students with disabilities.[234]

Offering financial support for inclusive education

Financial support is vital for students to meet the extra costs incurred due to disability. Such financial aid can be provided in the form of student grants, loans and coverage of transport costs to school. For example, Mauritius provides a scholarship scheme for students with disabilities to pursue secondary and tertiary studies and allows reimbursement of taxi fares for university students with severe disabilities who have difficulties taking public transport.[207]

Some countries provide financial support to schools to promote inclusive education. For instance, Australia and Armenia provide funding to educational institutions to strengthen the capacity of schools and teachers to meet the needs of students with disabilities.[235] Latvia requires higher education institutions to prioritize a candidate with disabilities in granting a stipend.[236]

Building the capacity of teachers

Building the capacity of teachers in inclusive education is essential to meet the needs of students with disabilities. Teacher training classes and/or the provision of training manuals for teachers have been offered in some countries.[237] For example, a train-the-trainer programme was provided to prepare educators from national and provincial universities and colleges across Viet Nam to expand inclusive education into all preschool, primary and secondary schools.[238] Ethiopia offered new teacher programmes on education of children with disabilities.[203] A school in Finland provided opportunities for teachers of students with disabilities to share knowledge on methods for inclusive education and for mainstreaming equality among students.[239] Similarly, in Cambodia, a programme was established for primary school teachers to enhance their understanding of students with disabilities and to prevent bullying in schools.[240] Initiatives in other countries included software to create public educational materials in sign language to assist teachers[241] and university courses to produce teachers who can teach in sign language. [242] In Mexico and Spain, methods for teaching students with special educational needs have been developed.[243,244]

Awareness-raising on inclusive education

Various awareness-raising activities have been undertaken. Many examples include awareness-raising activities on the rights of students with disabilities in schools or in communities.[245,246,247] For instance, Malta provided opportunities for students with and without disabilities to interact.[248] In Ireland, a puppet show that illustrates relationships between persons with and without disabilities was utilized to educate primary school students about autism and deafness.[249]

Monitoring the implementation of inclusive education

Various countries established monitoring mechanisms at local or national levels, for example, through the formulation of commissions, task force teams, or groups that provide guidance on education to ensure the needs of students with disabilities are met and to monitor progress.[250,251] Some countries have established follow-up services or mechanisms which rely on monitoring by communities. For instance, a disability helpline was developed to accommodate concerns reported by families of students with disabilities and to offer solutions in cooperation with local education authorities and school inspectorates.[252] Parents have been included in monitoring the effectiveness of the measures taken for inclusive education.[253]

Countries have also tried to collect, record and analyse data on disability in the context of education. Argentina developed an information system with data on pupils with disabilities in schools. In developing indicators that track educational performance, New Zealand disaggregates data to accurately measure the progress of students with disabilities.[254]

At the regional level, the European Agency for Development in Special Needs Education developed an

assessment resource guide on inclusive education.[255] At the international level, the International Observatory and Inclusion in Education was established to produce methodological guidelines, foster research and disseminate internationally comparable data for Goal 4.[256]

Conclusions and the way forward

The findings confirm that, among the countries with data, persons with disabilities encounter multiple barriers to education and they are nearly always worse off than persons without disabilities: the former are less likely to 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. Several countries have made efforts to strengthen national legal frameworks and devise policies and actions to address these gaps, by enacting anti-discrimination laws, making schools physically accessible, adapting teaching methods, providing financial support, enhancing capacities for teachers and staff, and raising awareness on inclusive education. An increased number of countries has also invested in education data collection systems inclusive of children with disabilities. Despite this progress, persons with disabilities continue to face barriers as many of these actions remain concentrated in a few countries or communities.

There is an urgent need to improve access to education for persons with disabilities because educational disadvantage could lead to higher rates of social exclusion and poverty and therefore have long-term implications for their capacity to participate in the labour force. The disability education gap could undermine the achievement of Goal 4 as well as other SDGs. To achieve Goal 4 for persons with disabilities, in line with the CRPD, more political commitment and efforts are needed, particularly in implementing and scaling up the following actions:

1) **Strengthen national policies and the legal system to ensure access to quality education for all persons with disabilities.** Ensure that national legal and policy frameworks reflect the rights of persons with disabilities to education and eliminate discriminatory policies and laws. Promote the enrolment of persons with disabilities into mainstream education. Carry out educational system reforms, with a view to promote inclusive education and to ensure equal learning opportunities. This would also help prevent risks of segregation and contribute to ensuring a truly inclusive learning environment for all.

2) **Build the capacity of policymakers as well other decision makers at both the community and national levels** to enhance their knowledge of the educational needs of persons with disabilities and to identify and implement strategies on inclusive education.

3) **Make schools and educational facilities accessible by creating an enabling environment for students with disabilities and by making physical and virtual environments accessible.** It is essential that students with disabilities can access all school buildings and other educational and recreational

facilities, including classrooms, common rooms, libraries, dining areas, toilets and playgrounds. Universal Design, a set of principles that can be applied in the construction or refurbishment of buildings, should be used as a guide for improving school accessibility as well as analysing the current situation in schools.

4) **Provide training to teachers and other education specialists to gain knowledge and experience in inclusive education for persons with disabilities.** Teachers as well as other educators are at the centre of education systems and should receive appropriate pre-service and in-service training and continued support for the adoption of inclusive pedagogy to meet the diverse needs of learners.

5) **Adopt a learner-centred pedagogy which acknowledges that everyone has unique needs that can be accommodated through a continuum of teaching approaches**. It is essential that teaching and learning materials are available, accessible, well-designed, affordable and adapted to ensure that the diverse learning needs of different learners are met. An inclusive curriculum should address all learners' cognitive, emotional, social and creative development. Accessible and assistive technologies, including digital technologies and communication aids, can play a significant role in this regard by enhancing the accessibility of teaching and learning materials. For example, some persons with disabilities require hearing aids, easy-to-read or large print texts, books and other reading materials in braille, as well as support for sign language.

6) **Engage civil society and local communities in inclusive education**. It is essential that local communities are fully engaged in improving the quality of education for persons with disabilities. Parents should be empowered to participate in the education of their children with disabilities. Prejudice and negative attitudes in communities pose a serious barrier against equal opportunities for persons with disabilities to receive education, and should be combatted.

7) **Establish monitoring mechanisms** to regularly monitor and evaluate the implementation of policies and laws on inclusive education. The monitoring and evaluation process should involve persons with disabilities, including children with disabilities and their parents and/or caregivers, where appropriate. Disability-inclusive indicators should be developed and used in line with the indicators for Goal 4.

8) **Improve national collection and disaggregation of education data by disability.** A national census can be an important source of information on disability, since the data can usually be disaggregated by sex, age, location and other dimensions. Household surveys also provide valuable education data by disability, but sample sizes should be sufficiently large to allow disaggregation by sex, location and other status including age, income and ethnicity. Special attention should be given to producing education data on children with disabilities. Moreover, information on the accessibility of school buildings and learning materials should be requested in routine administrative data collection systems.

9) **Explore crowdsourcing applications to obtain bottom-up information on the accessibility of schools for persons with disabilities to inform accessibility policies.** Assessing the accessibility of

schools is expensive and complex. Several online and smartphone applications already allow users to publicly review accessibility for wheelchair users of any facility in the world, including schools. Current information on schools mainly covers developed countries and future efforts should focus on gathering crowdsourced information in developing countries and to update these applications to capture information on accessibility for any type of disability. Crowdsourced information reflects the direct experience of the users and can be helpful to inform national accessibility policies for education.

E. Achieving gender equality and empowering all women and girls with disabilities (Goal 5)

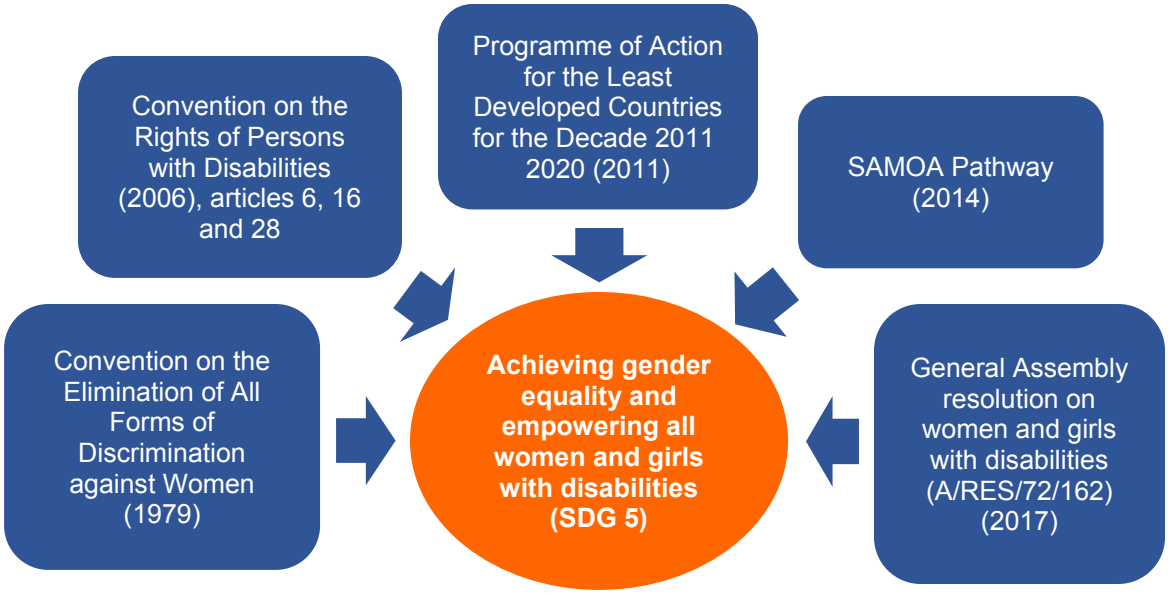
Goal 5 aims to achieve, by 2030, gender equality and the empowerment of all women and girls. This section focuses on women and girls with disabilities, analysing the international normative framework and providing an overview of their situation, as well as presenting national and international efforts to promote their inclusion and participation in society. The section concludes with suggestions on the way forward, based on current evidence.

International normative frameworks on disability and gender

Goal 5 calls for the elimination of all forms of discrimination and violence against all women and girls, including those with disabilities. It also stresses the importance of their full and effective participation and equal opportunities in political, economic and public life. The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) adopted in 1979 addresses the advancement of the status of women. While CEDAW does not make explicit reference to women and girls with disabilities, the Beijing Declaration and Platform for Action recognizes that women and girls with disabilities face multiple barriers to full equality and advancement, and the enjoyment of human rights, and identifies specific actions to ensure the empowerment of women with disabilities in various areas, including: enhancement of the self-reliance of women with disabilities (paragraph 175(d)); equal access to appropriate education and skills-training for their full participation in life (paragraph 280(c)); improvement of their work opportunities (paragraph 82(k)); creation of health programmes and services that address the specific needs of women with disabilities (paragraph 106(c)); promotion of equity and positive action programmes to address systemic discrimination against women with disabilities in the labour force (paragraph 178(f)); and improvements in the concepts and methods of data collection on the participation of women and men with disabilities, including their access to resources (paragraph 206(k)).

However, it was not until the adoption of the CRPD that the international community set out specific provisions dedicated to women and girls with disabilities. The CRPD calls for a twin track approach in this regard: gender equality is established as a general principle, to be taken into account in the implementation of each article of the Convention, and the CRPD also includes a stand-alone article on women with disabilities, article 6. This article recognizes that women and girls with disabilities are subjected to multiple forms of discrimination and establishes that States Parties should take all appropriate measures to ensure their full development, advancement and empowerment. The CRPD further stipulates that States Parties should put in place effective legislation and policies with a focus on women with disabilities to protect them from exploitation, violence and abuse (article 16, paragraph 5), and should pay special attention to women and girls with disabilities in access to social protection programmes and poverty reduction programmes (article 28, paragraph 2(b)).

Figure II.43. International normative frameworks relevant for the achievement of SDG 5 for persons with disabilities.



Relatedly, the General Assembly resolution on Implementation of the Convention on the Right of Persons with Disabilities and the Optional Protocol thereto: Situation of women and girls with disabilities (A/RES/72/162),[257] adopted in 2017, focuses on the special needs and challenges that women and girls with disabilities face. The resolution calls for eliminating multiple and intersecting forms of discrimination and all forms of violence, supporting women and girls with disabilities to exercise their legal capacity to have the freedom to make their own choices on an equal basis with others in all aspects of life, promoting their empowerment and leadership, as well as ensuring equal access to education, employment and health services, including sexual and reproductive health services. The resolution emphasizes the importance of collecting and analysing data disaggregated by income, sex, race, age, ethnicity, migratory status, disability, geographic location and other characteristics relevant to national contexts to guide policy planning. It also calls upon States to improve data collection systems for adequate monitoring and evaluation frameworks on the implementation of the CRPD and the SDGs for women and girls with disabilities.

Gender equality is also addressed in the context of Small Island Developing States (SIDS) and the Least Developed Countries (LDCs). The Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway, adopted in 2014, emphasizes the importance of reducing structural and socioeconomic inequalities and multiple intersecting forms of discrimination that affect women and girls, including those with disabilities, that hinder progress and development.[258] Commitments to women and girls with disabilities in the SAMOA Pathway include support for the provision of high-quality education and training, and

disaggregation of data by sex, age and disability. The Programme of Action for the Least Developed Countries for the Decade 2011–2020 commits to pursuing policy measures to promote gender equality for women with disabilities.[259]

The situation of women and girls with disabilities

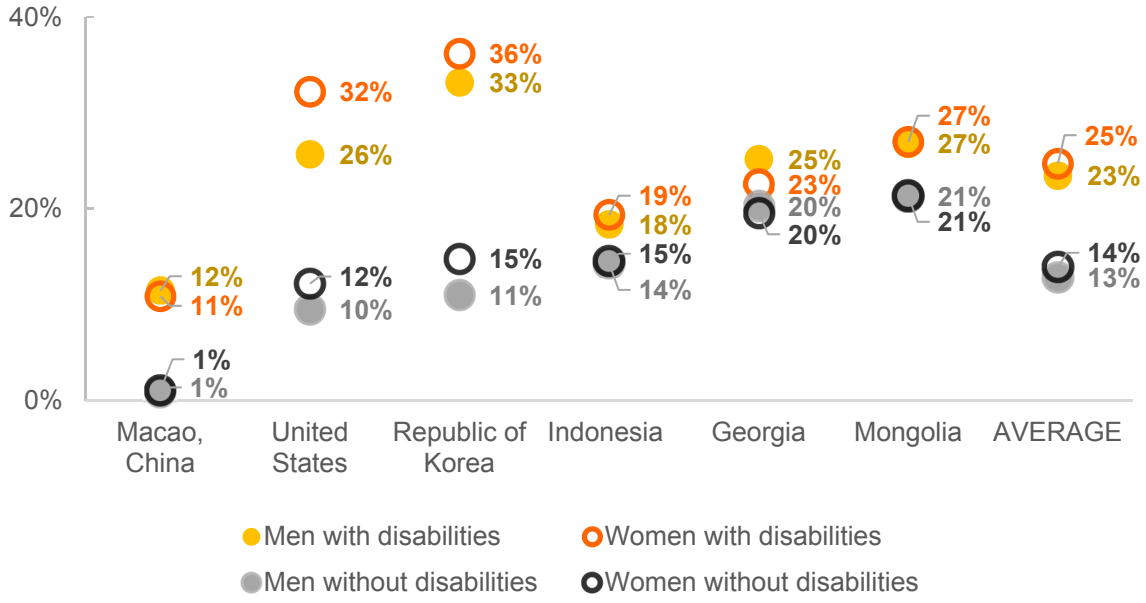
This subsection presents available evidence on the status of inclusion, on an equal basis with others, of women and girls with disabilities. It focuses on available data and information in relation to key areas of the SDGs, including poverty and hunger, access to health-care services, education and employment. The subsection also presents evidence to illustrate the situation of women and girls with disabilities regarding several Goal 5 targets. This includes available data on exposure to violence (target 5.2), child marriage (target 5.3), unpaid work (target 5.4), opportunities for leadership (target 5.5) and use of the Internet (target 5.b).

Poverty and hunger

There is limited data on poverty that has been disaggregated by disability and sex. Data on the percentage of persons living under the national poverty line from six countries around 2014, albeit limited in the number of countries, show a consistent pattern (Figure II.44). While women with disabilities experience higher poverty rates than men and women without disabilities in all countries, the poverty rates among women and men with disabilities are similar. The highest gap in poverty rates between women and men with disabilities is observed in the United States (6 percentage points) and the lowest gap in Mongolia (no gap). Poverty rates among women with disabilities vary from 11 per cent in Macao, China to 36 per cent in the Republic of Korea.

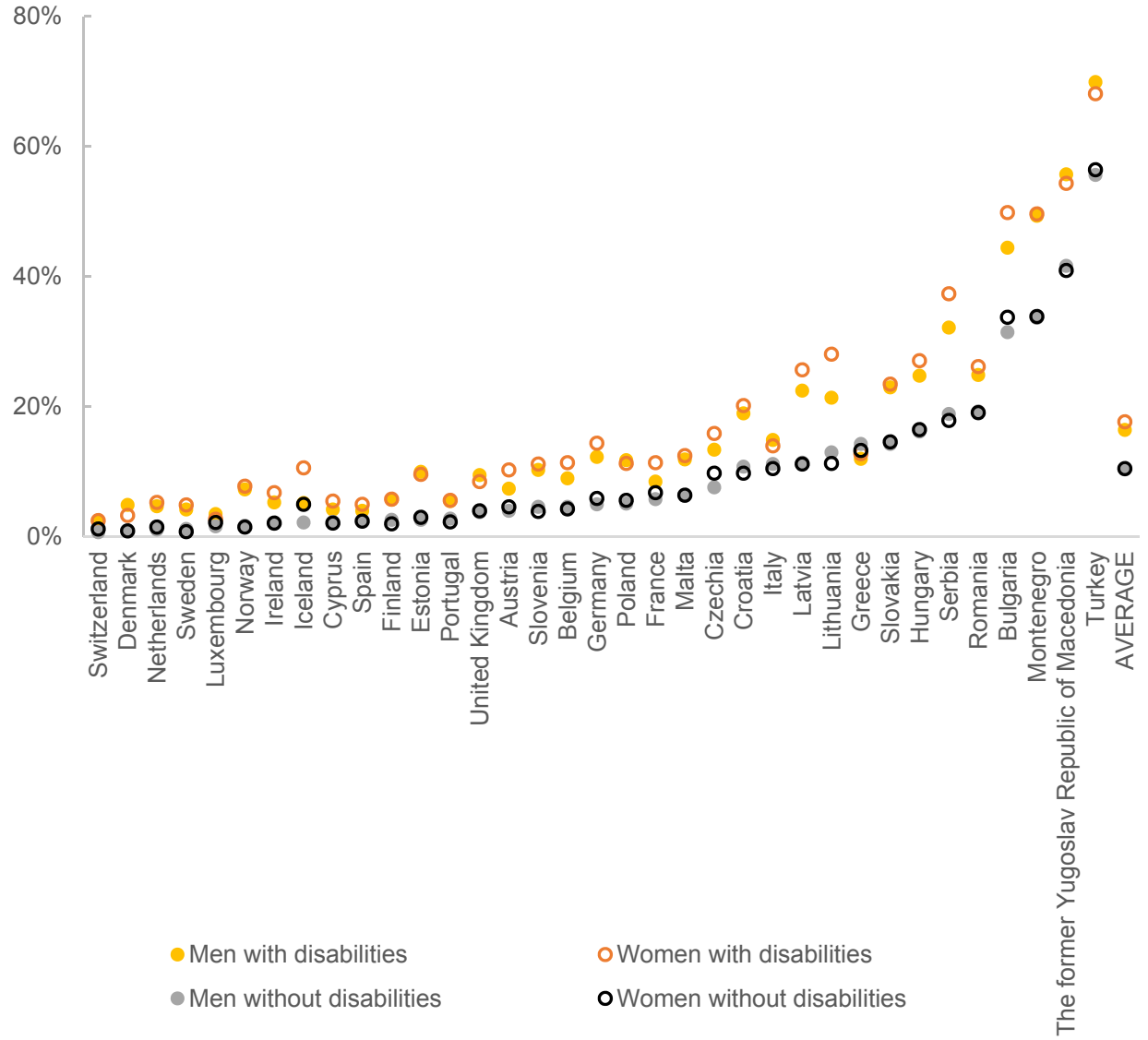
Regarding food security and nutrition, data from 35 countries, mostly in Europe, show that on average 18 per cent of women with disabilities are unable to afford a meal with a protein component every second day. This ranges from 2 per cent in Iceland to 68 per cent in Turkey (Figure II.45). Women and men with disabilities show on average similar percentages regarding inability to afford a meal with a protein component every second day. The highest gaps between women and men with disabilities – over 5 percentage points – appear in Bulgaria, Iceland, Lithuania and Serbia. The highest gaps between women with disabilities and men without disabilities – over 15 percentage points – are observed in Bulgaria, Lithuania, Montenegro and Serbia. Evidence from Botswana points to similar rates of food insecurity between women and men with disabilities (Figure II.46), but women with disabilities are almost twice as likely to not have food in the household, due to lack of resources, than men without disabilities.

Figure II.44. Percentage of persons living under the national poverty line, by disability status and sex, in 6 countries or areas, around 2014.



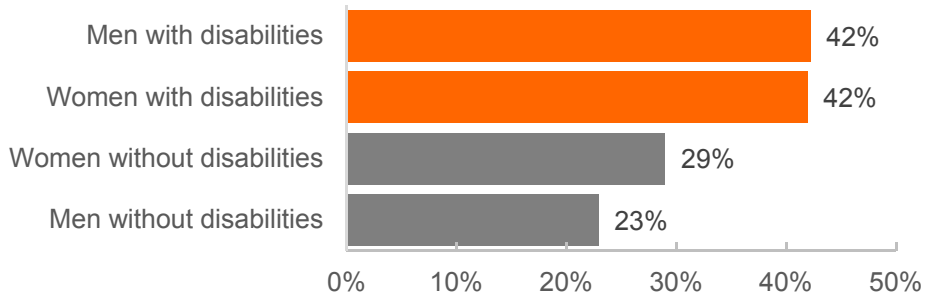
Source: ESCAP[8] and Brucker et al (2014).[260,261]

Figure II.45. Percentage of persons who are unable to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day, by disability status and sex, in 35 countries, around 2016.



Source: Eurostat.[9]

Figure II.46. Percentage of persons who in the past two weeks did not always have food to eat in the household because of lack of resources, by disability status (WG) and sex, in Botswana, in 2014.



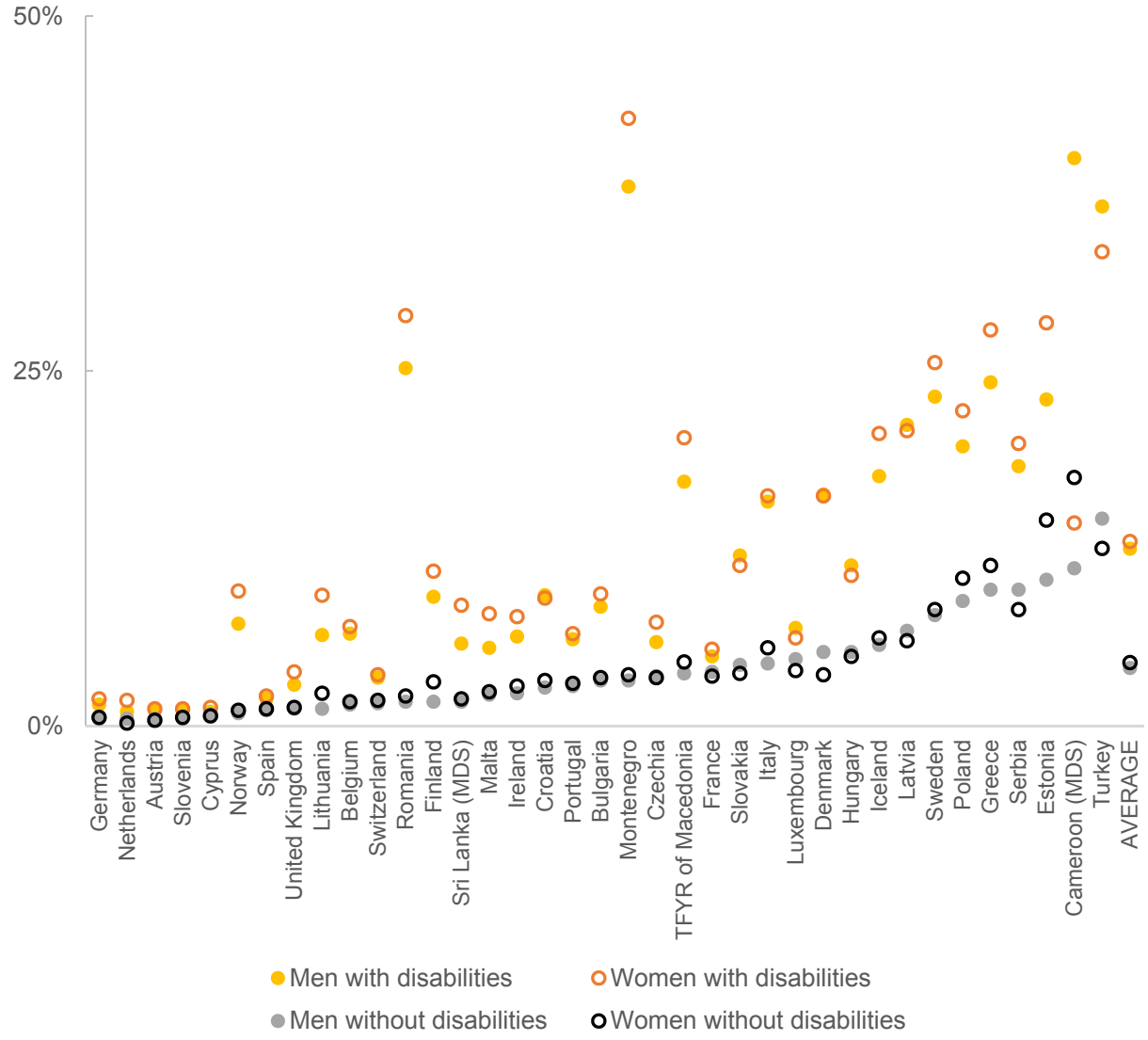
Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.
Source: UNDESA[78] (on the basis of data from SINTEF[11,262]).

Access to health care

Among 37 countries, 13 per cent of women with disabilities, on average, cannot get health care when they need it (Figure II.47). In Austria, Cyprus and Slovenia, the health-care needs of women with disabilities are largely met: only 1 per cent of women with disabilities are unable to meet their health needs – the lowest values among the 37 countries. However, in ten of these countries, more than 20 per cent of women with disabilities are not able to meet their health needs. In Montenegro, this affects 43 per cent of women with disabilities. Differences between women and men with disabilities tend to be small (up to 5 percentage points), while the differences between women with disabilities and men without disabilities are wider (up to 40 percentage points, and 9 percentage points on average).

On average, women with disabilities have similar rates of unmet health needs as men with disabilities (13 per cent and 12 per cent, respectively), but higher than both men and women without disabilities (4 per cent). This suggests that overall, barriers for persons with disabilities are a major factor impeding access to health care for women with disabilities. This is consistent with other findings showing that physical, financial and attitudinal barriers are an obstacle for persons with disabilities in accessing health care (see section on Goal 3).

Figure II.47. Percentage of persons who needed but could not get health care, by disability status and sex, in 37 countries, around 2016.



Note: (MDS) identifies countries with data collected with the Model Disability Survey. Data from Cameroon were collected in selected regions of the country and are not nationally representative.

Source: Eurostat[9] and WHO.[100]

Education

Youth aged 15 to 29 who ever attended school

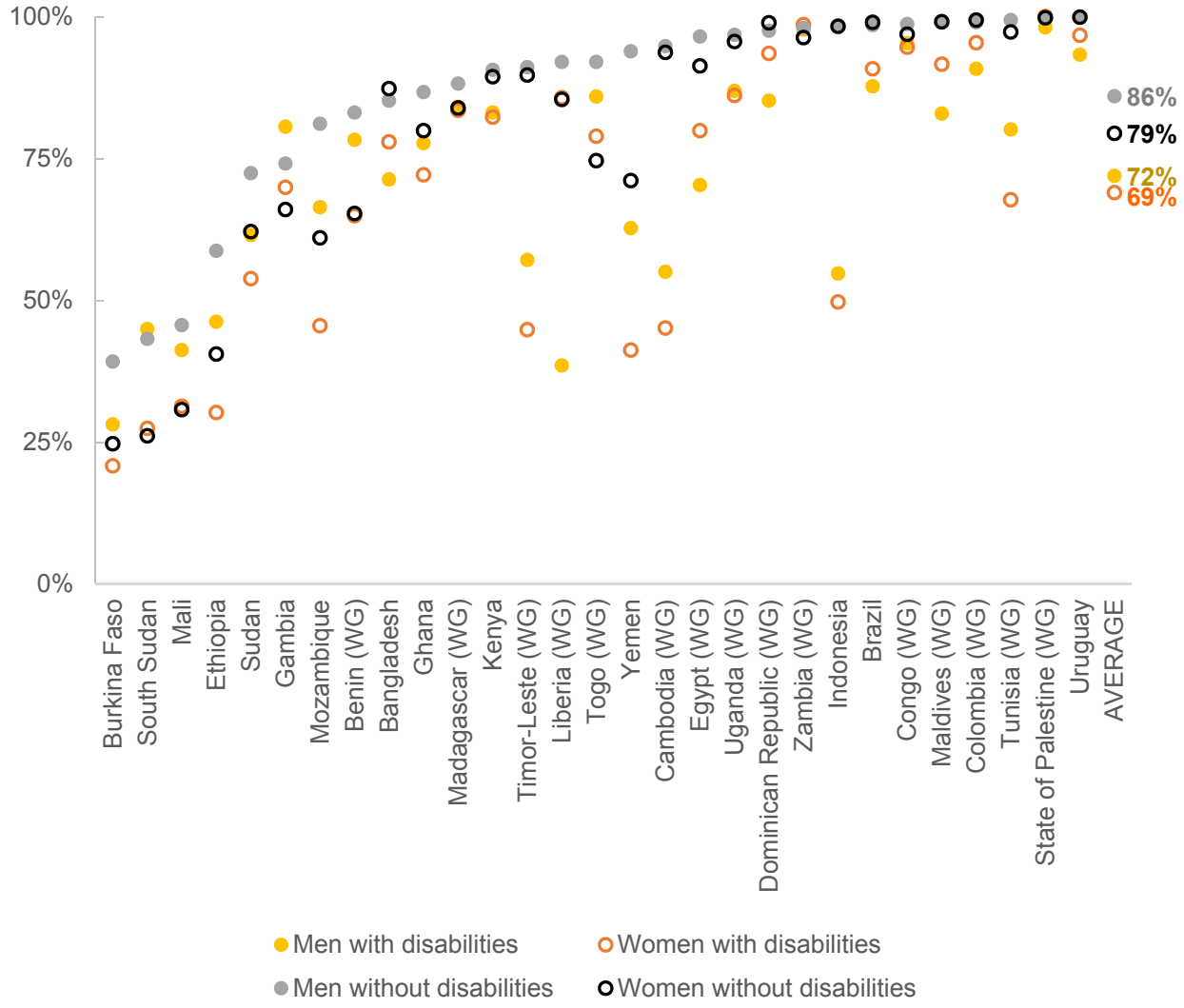
Among 29 developing countries, on average only 69 per cent of women with disabilities ever attended school, compared to 72 per cent of men with disabilities, 79 per cent of women without disabilities and 86 per cent of men without disabilities (Figure II.48). In most countries, for both persons with and without disabilities aged 15 to 29, men are more likely to have ever attended school than women. The percentage of women with disabilities who have ever attended school varies among these 29 countries, from 21 per cent in Burkina Faso to 97 per cent in Uruguay. The gaps vis-à-vis men without disabilities are small in eight countries (under 5 percentage points); but are wider than 20 percentage points in seven countries.

The evidence suggests that, depending on the country, gender discrimination or barriers for persons with disabilities (e.g. lack of accessibility and discrimination on the grounds of disability) may play a bigger role. In Benin, Mali, South Sudan and Togo, the gap is wider between women (both with and without disabilities) and men, but narrower between women with and without disabilities. The ratios of men with disabilities who have ever attended school are closer to those of men without disabilities. This suggests that gender discrimination plays a major role in schooling. In Brazil, Indonesia, Tunisia and Timor-Leste, the gap is wider between persons with disabilities (both women and men) and persons without disabilities. In these countries, the percentage of women without disabilities who have ever attended school is close to that of men without disabilities, thus suggesting that attitudinal and physical barriers against persons with disabilities are a factor explaining the low rates of school attendance of women with disabilities.

Primary education

Evidence from 17 countries, around 2010, shows that in all countries but Gambia, young women and men with disabilities aged 17 to 24 are less likely to complete primary education than their peers without disabilities (Figure II.49). Depending on the country, young women have higher or lower rates of completion than boys, regardless of their disability status. In eight of these countries, young women with disabilities have higher rates than boys with disabilities, and in five of these eight, the same is true for their peers without disabilities. Young women with disabilities show higher completion rates than young men with disabilities mostly in countries in which the overall completion rate is high or in which young women without disabilities show higher completion rates than young men without disabilities.

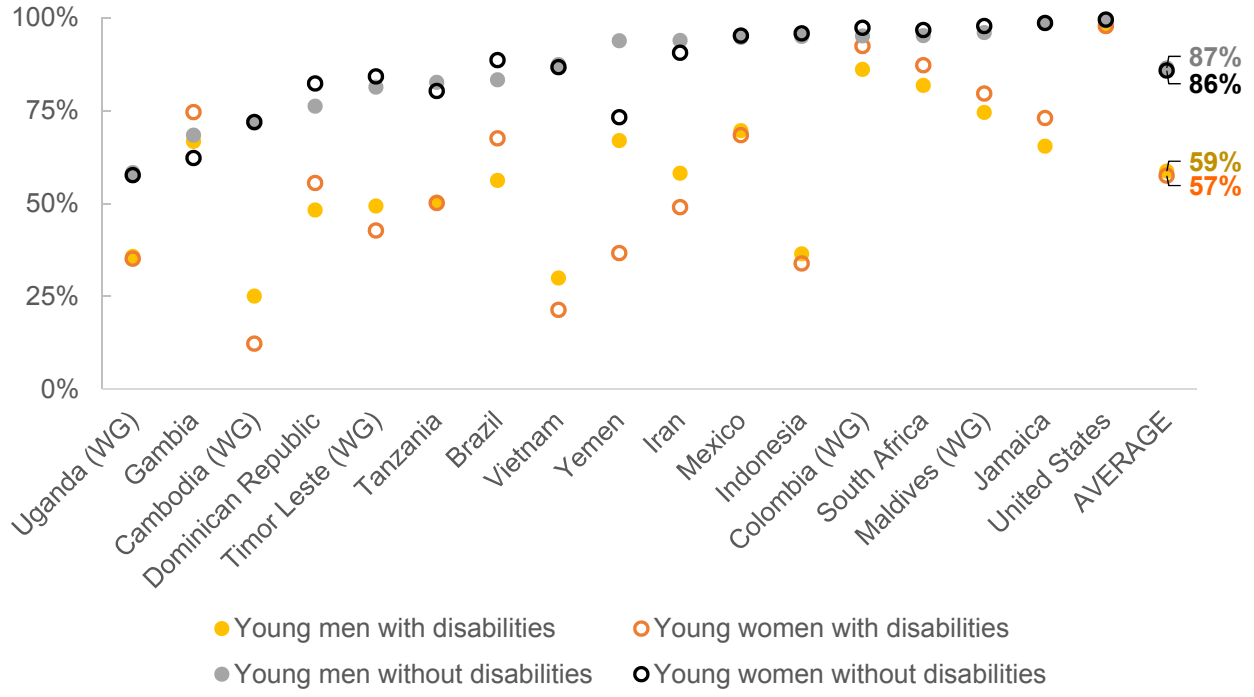
Figure II.48. Percentage of youth aged 15 to 29 years old who ever attended school, by disability status and sex, in 29 countries, around 2012.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. Data points from Liberia are based on 25 to 49 observations and should be interpreted with caution.

Source: UNDESA[78] (on the basis of data from DHS[6]) and UNESCO Institute for Statistics (on the basis of data from IPUMS[10] and School to Work Transition Surveys[263]).

Figure II.49. Percentage of persons aged 17 to 24 years having completed at least primary school, by disability status and sex, in 17 countries, around 2010.



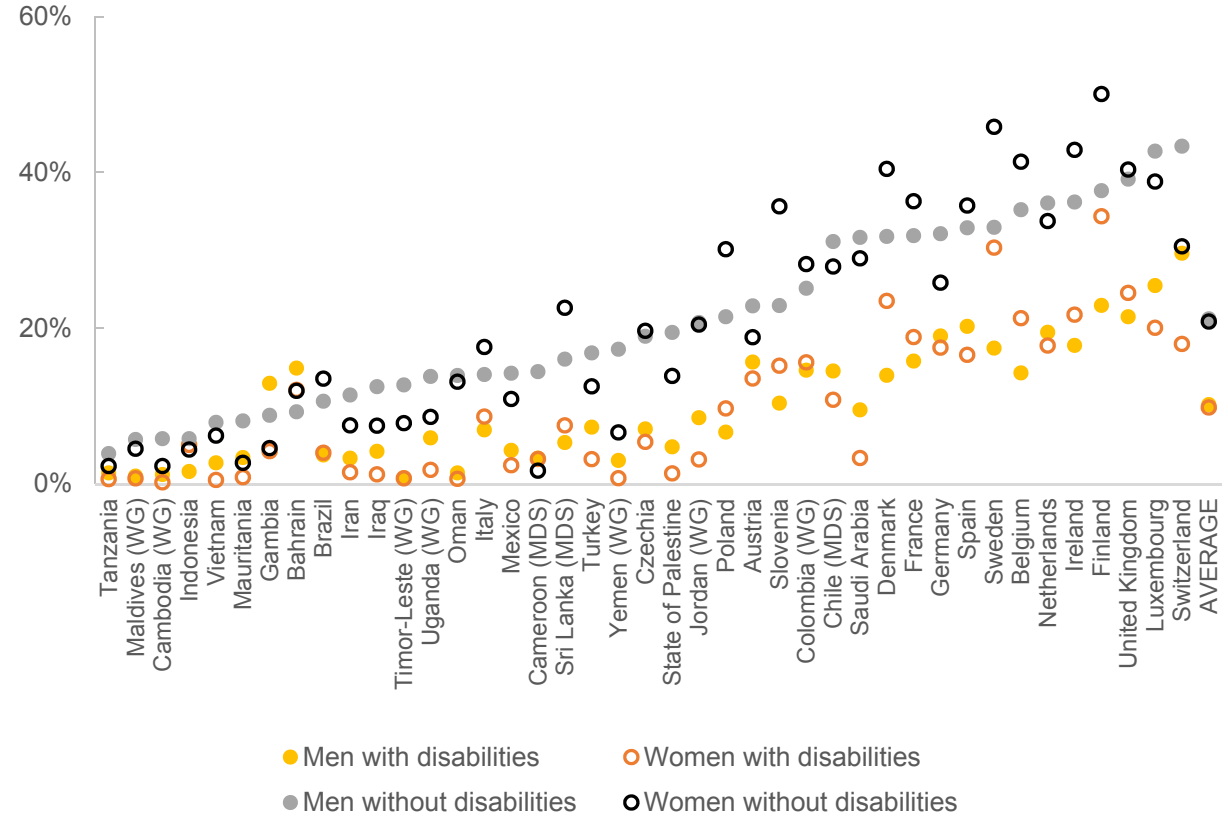
Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from DHS[6] and IPUMS[10]).

Tertiary education

Among 41 countries, around 2012, on average, 10 per cent of women with disabilities have completed tertiary education, which is similar to the rate for men with disabilities (also 10 per cent), but lower than the rates for women and men without disabilities (21 per cent), as shown in Figure II.50. There is a wide variation among countries on rates of completion of tertiary education for women with disabilities: in Cambodia only 0.2 per cent but in Finland as many as 34 per cent of women with disabilities complete tertiary education. In 27 countries, or more than half, the tertiary completion rates for women with disabilities are lower than for men with disabilities. In 40 countries, or almost all, the tertiary completion rates for women with disabilities are lower than for men without disabilities. In 38 countries, the tertiary completion rates for women with disabilities are lower than for women without disabilities.

Figure II.50. Percentage of persons 25 years and older[264] who completed tertiary education, by disability status and sex, in 41 countries, around 2012.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions; (MDS) identifies countries with data collected with the Model Disability Survey.

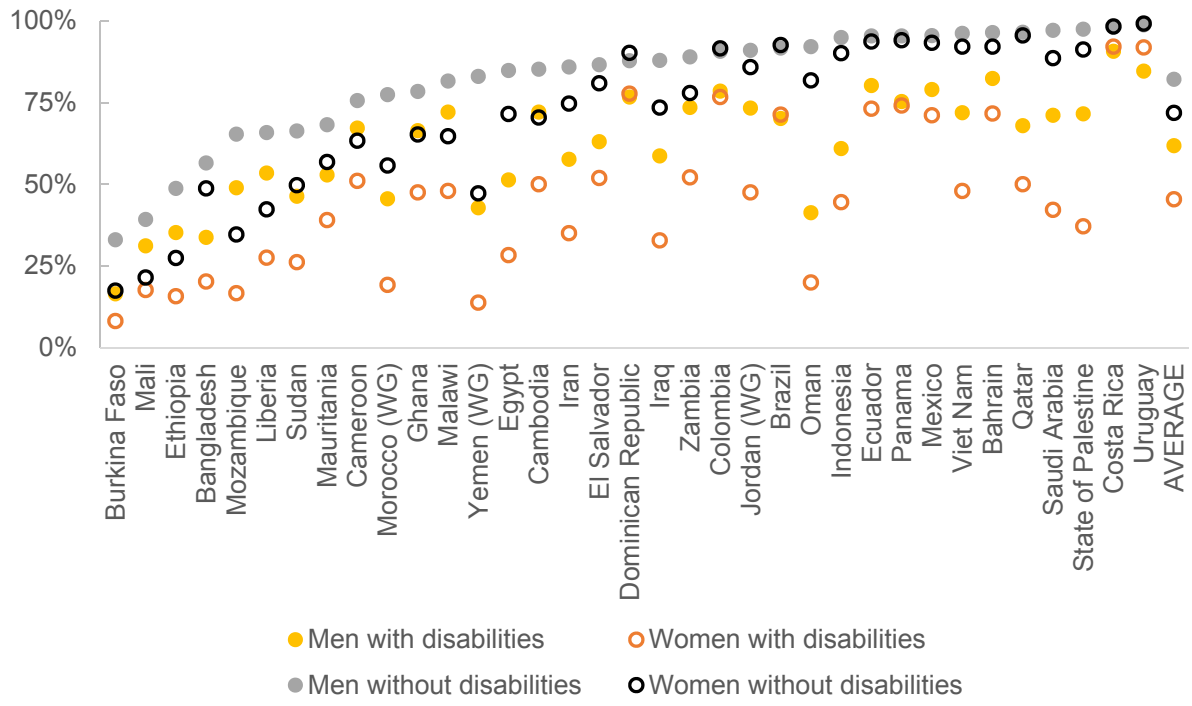
Source: ESCWA,[7] Eurostat,[9] UNDESA[78] (on the basis of data from DHS[6]) and WHO.[100]

Literacy rates

Evidence from 35 countries around 2010 shows that, in the majority of countries (32), women with disabilities have lower literacy rates than men with disabilities (Figure II.51). The widest gaps occur in Mozambique, where the difference is 32 percentage points, and the State of Palestine, where the difference is 34 percentage points. In Mozambique, almost one in two men with disabilities (49 per cent) can read and write, compared to only one in six women with disabilities (17 per cent). In the State of Palestine, three in four men with disabilities are literate but only one in four women with disabilities are literate. In four countries, women with disabilities have higher literacy rates than men with disabilities: Brazil, Costa Rica, Dominican Republic and Uruguay, with differences ranging from 1 to 7 percentage points. In all countries women with disabilities have lower literacy rates than men without disabilities, the gap between these two

ranges from 6 percentage points in Costa Rica to 72 percentage points in Oman. Among the 35 countries, on average, 45 per cent of women with disabilities are literate compared to 61 per cent of men with disabilities, 71 per cent of women without disabilities and 82 per cent of men without disabilities.

Figure II.51. Literacy rate for the population 15 years and older, by disability status and sex, in 35 countries, around 2010.

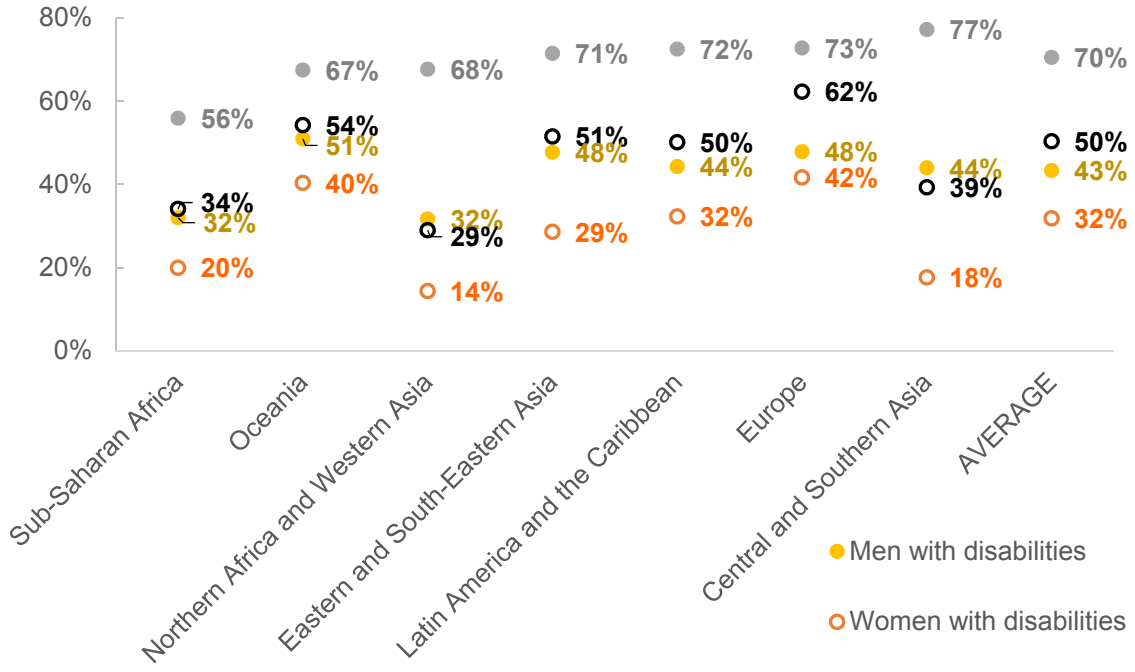


Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.
Source: ESCWA[7] and UNESCO Institute for Statistics (on the basis of data from IPUMS[10]).

Employment

A direct result of limited access to education among women with disabilities is their significant disadvantage upon entering the job market, in comparison with men with disabilities, and also with women and men without disabilities. According to evidence from six regions, women with disabilities are less likely to be employed than men with disabilities and persons without disabilities in all regions (Figure II.52). The employment-to-population ratios for women with disabilities are lowest in Northern Africa and Western Asia (14 per cent) and highest in Europe (42 per cent). In Northern Africa and Western Asia, women with disabilities are five times less likely to be employed as men without disabilities, in Europe they are two times less likely. The gap between women and men with disabilities varies between 6 percentage points in Europe and 26 percentage points in Central and Southern Asia.

Figure II.52. Average employment-to-population ratios,[265] for persons aged 15 years and over,[266] by disability status and sex, in 6 regions,[267] 2006-2016.[268]

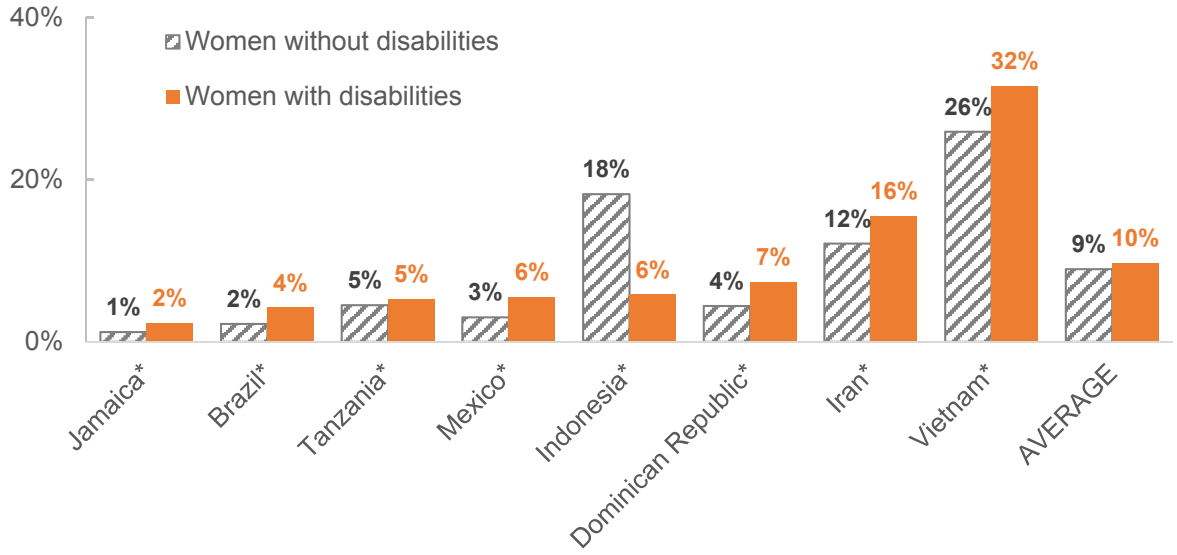


Source: ESCAP,[8] ESCWA,[7] Eurostat,[9] ILO[269] and UNDESA[78] (on the basis of data from IPUMS[10] and SINTEF[11]).

Unpaid work

There has been growing recognition of the value of women's unpaid care and domestic work, but the role of women with disabilities in this type of work is less known. Contrary to paid work in which women with disabilities participate less than women without disabilities, available evidence shows that in seven out of eight developing countries, women with disabilities are more likely to be engaged in unpaid work than women without disabilities. On average, among these eight countries, 10 per cent of women with disabilities versus 9 per cent of women without disabilities are engaged in unpaid work (Figure II.53). The percentages of women with disabilities in unpaid work vary from 2 per cent in Jamaica to 32 per cent in Viet Nam. Since women with disabilities have more difficulty finding paid employment in formal or informal sectors than those without disabilities, they may be left with unpaid work as their only option, especially within the household.

Figure II.53. Percentage of employed women aged 15 and over in unpaid work, by disability status, in 8 countries, around 2008.



Note: An asterisk (*) indicates that the difference between women with and without disabilities is statistically significant at the level of 5%.

Source: UNDESA[78] (on the basis of data from IPUMS[10]).

Opportunities for leadership at all levels of decision-making

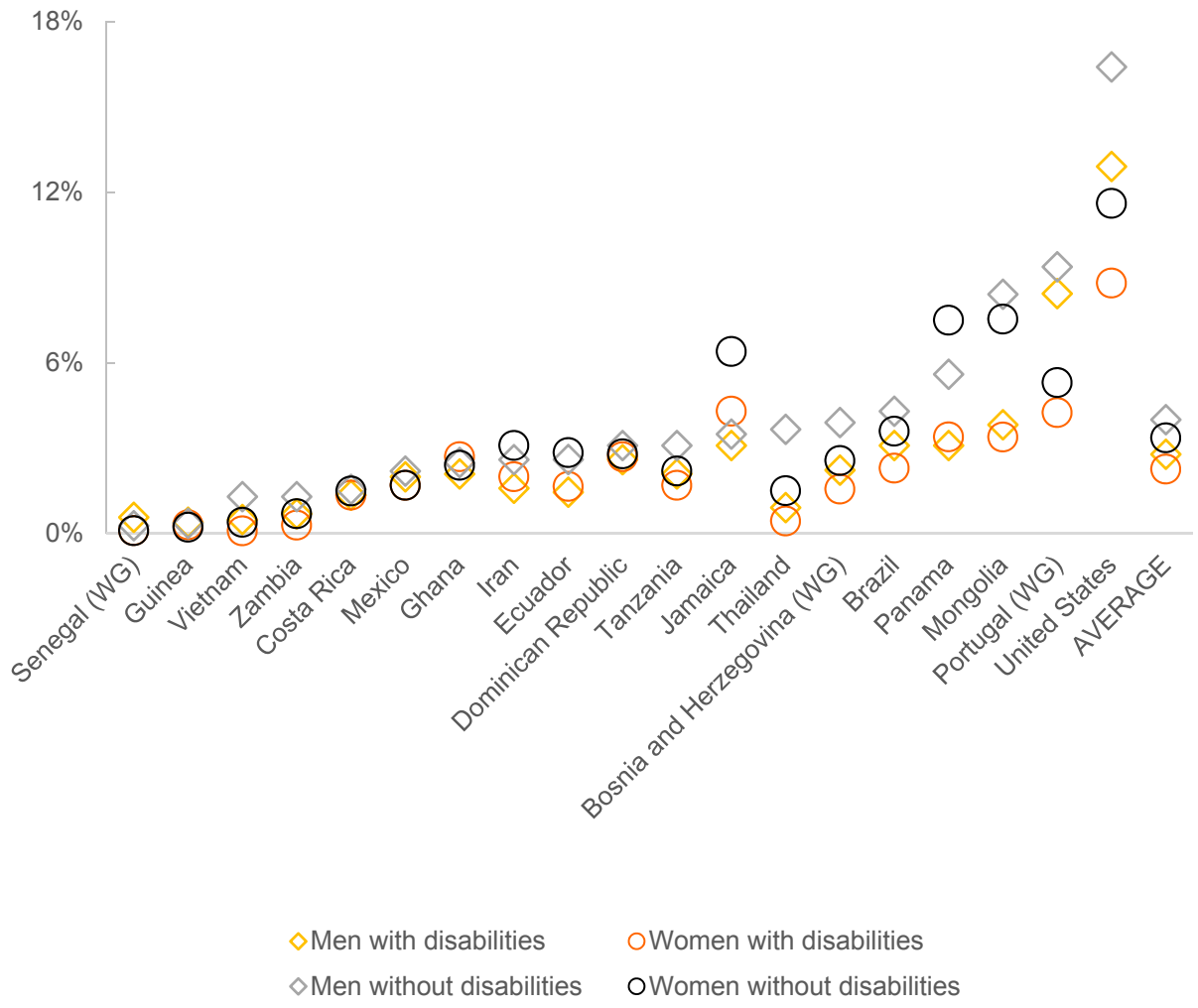
The glass ceiling is harder to break for women with disabilities. Evidence from 19 countries shows that on average women with disabilities are less likely to assume a position as a legislator, senior official or manager than their peers without disabilities and men with or without disabilities: 2.3 per cent of women with disabilities hold these positions compared to 2.8 per cent of men with disabilities, 3.4 per cent of women without disabilities and 4 per cent of men without disabilities (Figure II.54). Women with disabilities are the least likely to hold these positions in nine out of these 16 countries and are less likely than men without disabilities to assume such leadership positions in all countries except in Ghana and Jamaica.

There is limited data available on women with disabilities in political leadership roles. The data available suggest that representation remains extremely low. According to data collected in 2017, in 14 out of 18 countries in the Asia and Pacific region, there was no female parliamentarian with disabilities in the national legislative body. In the other four countries, the percentage of female parliamentarians with disabilities ranged from 0.3 per cent to 6.3 per cent.[8]

The representation of women from organizations of persons with disabilities tends also to be low in national coordination mechanisms on disability matters. For instance, among 17 countries or areas from the Asia

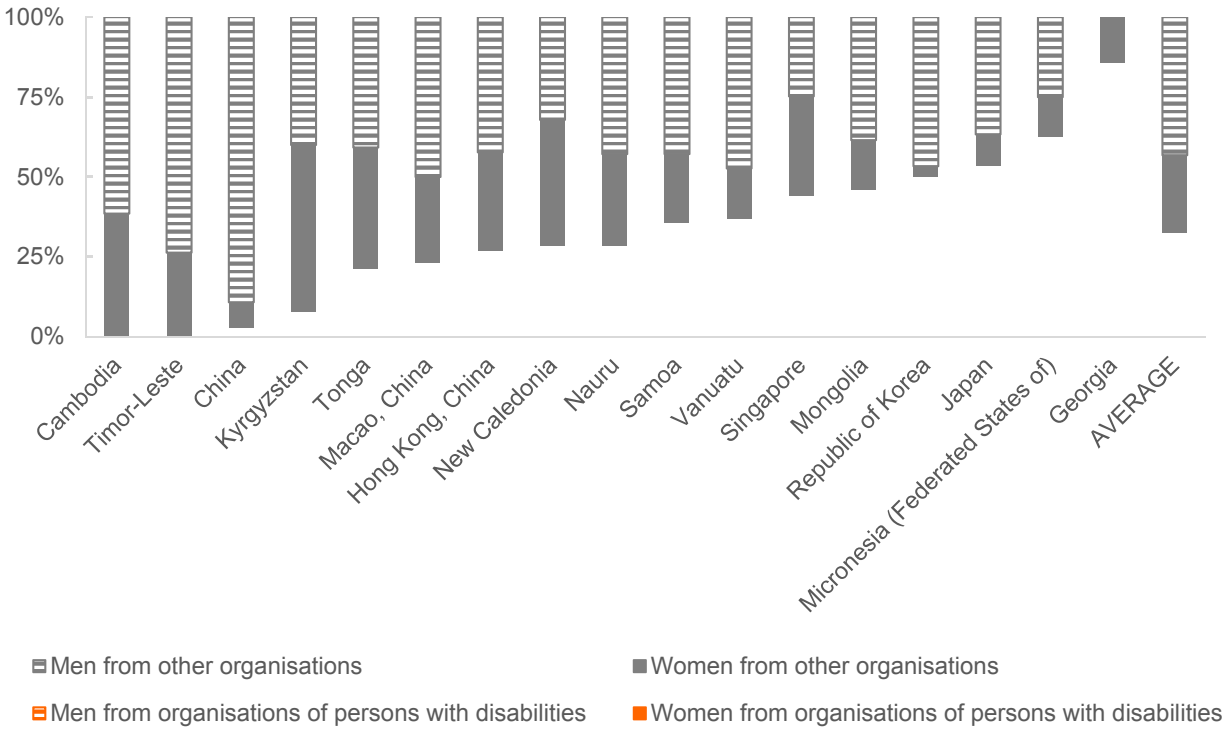
and Pacific region, the percentage of female members from organizations of persons with disabilities is on average 12 per cent, compared to 21 per cent for men from these organizations and 24 per cent of women and 43 per cent of men from other organizations (Figure II.55). In three of these countries, there are no women from organizations of persons with disabilities represented. Nauru has the highest representation of women from such organizations (29 per cent). Among representatives from organizations of persons with disabilities, the number of women is equal to or higher than men in only five countries or areas.

Figure II.54. Percentage of employed persons aged 15 and over who work as legislators, senior officials and managers, by disability and sex, in 19 countries, around 2010.



Source: UNDESA[78] (on the basis of data from IPUMS[10]) and UNSD.

Figure II.55. Percentage of members from organizations of persons with disabilities and from other organizations in national coordination mechanisms on disability matters, by sex, in 17 countries or areas, around 2017.



Source: ESCAP.[8]

The representation of women with disabilities in national machinery for gender equality is even lower. In 7 out of 12 countries in the Asia and Pacific region, none of the members are women with disabilities. In the remaining five countries, on average 9 per cent of the representatives are women with disabilities.[8]

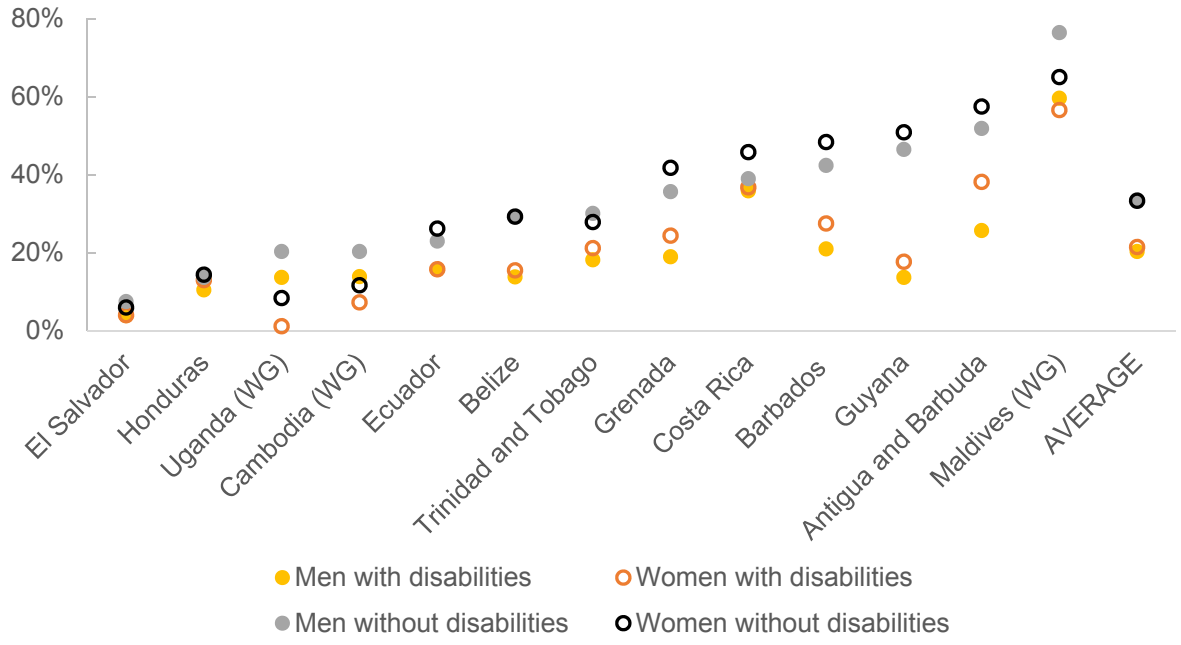
According to the available evidence, gender gaps also persist in the leadership of organizations of persons with disabilities. An analysis of social media data,[270] in 2017, indicated that 42 per cent of women versus 58 per cent of men held leadership positions in Spanish-speaking organizations working on disability issues or with persons with disabilities.[271]

Access to ICT

Evidence from 13 developing countries indicates that the percentage of women with disabilities using the Internet varies from 1 per cent in Uganda to 57 per cent in the Maldives (Figure II.56). Usage of the Internet among women with disabilities is lower than among persons without disabilities (both men and women) in all countries. But compared to men with disabilities, the percentage of women with disabilities using the

Internet is higher in 10 out of the 13 countries. On average, among these 13 countries, 21 per cent of women with disabilities use the Internet, compared to 20 per cent of men with disabilities, 33 per cent of women without disabilities and 34 per cent of men without disabilities. This suggests that more barriers exist for disability than for gender. The lowest gaps between women with disabilities and men with and without disabilities are observed in Costa Rica and Honduras, with all of these showing similar rates of Internet usage.

Figure II.56. Percentage of persons who use the Internet, by disability status and sex, in 13 countries, around 2011.



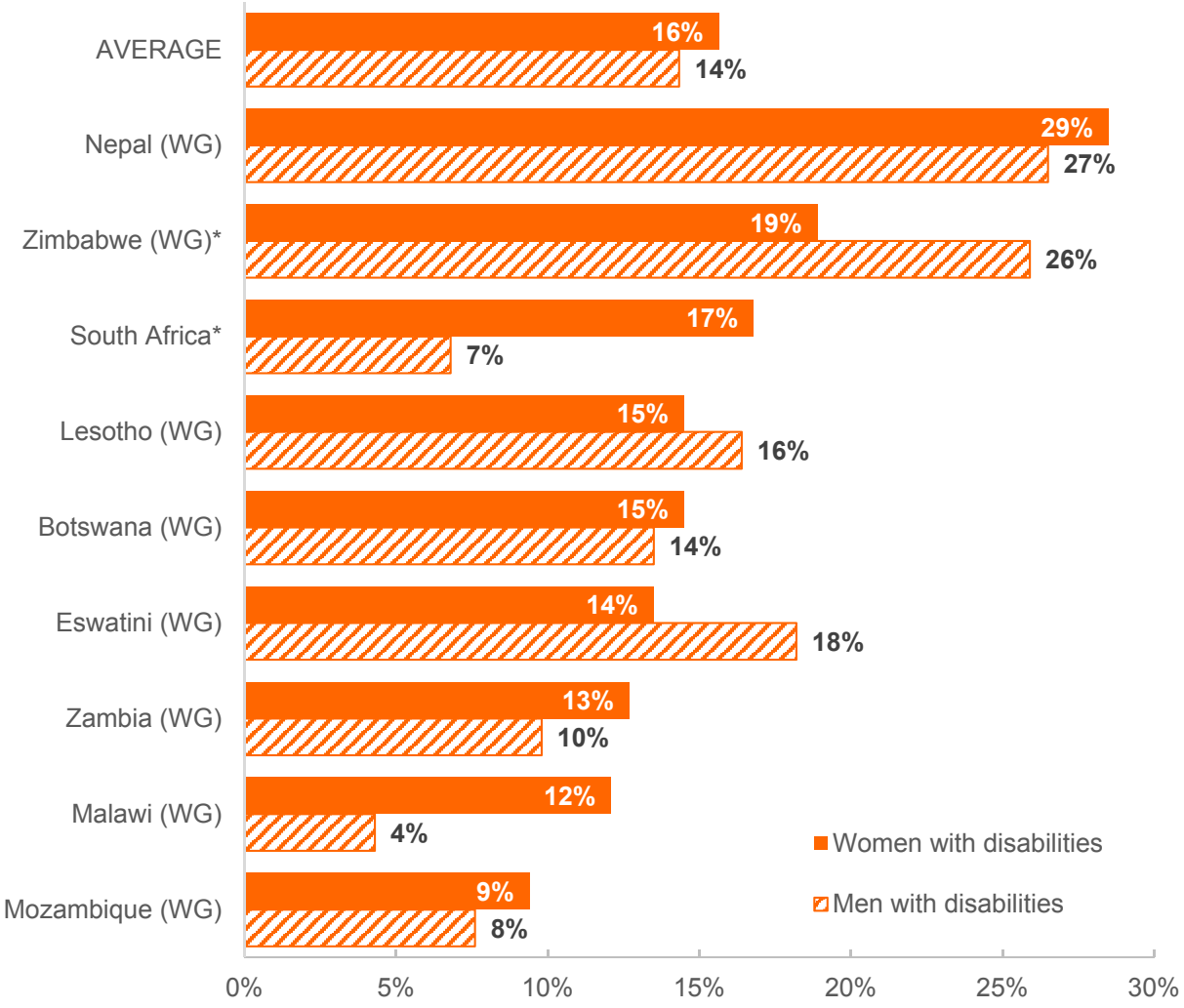
Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.

Source: ECLAC; [272] UNDESA and the World Bank (on the basis of data from DHS[6]).

Physical and sexual violence

Evidence from nine developing countries shows that 16 per cent of women with disabilities, on average, have experienced violence because of their disability, ranging from 5 per cent in Mozambique to 29 per cent in Nepal (Figure II.57). In these countries, women with disabilities experience on average slightly higher rates of violence than men with disabilities, but the gap between men and women varies widely. In five of these countries, for more than half of the women with disabilities experiencing violence, the perpetrator was a family member (Figure II.58).

Figure II.57. Percentage of women and men with disabilities who have ever experienced violence because of their disabilities, in 9 countries, around 2012.



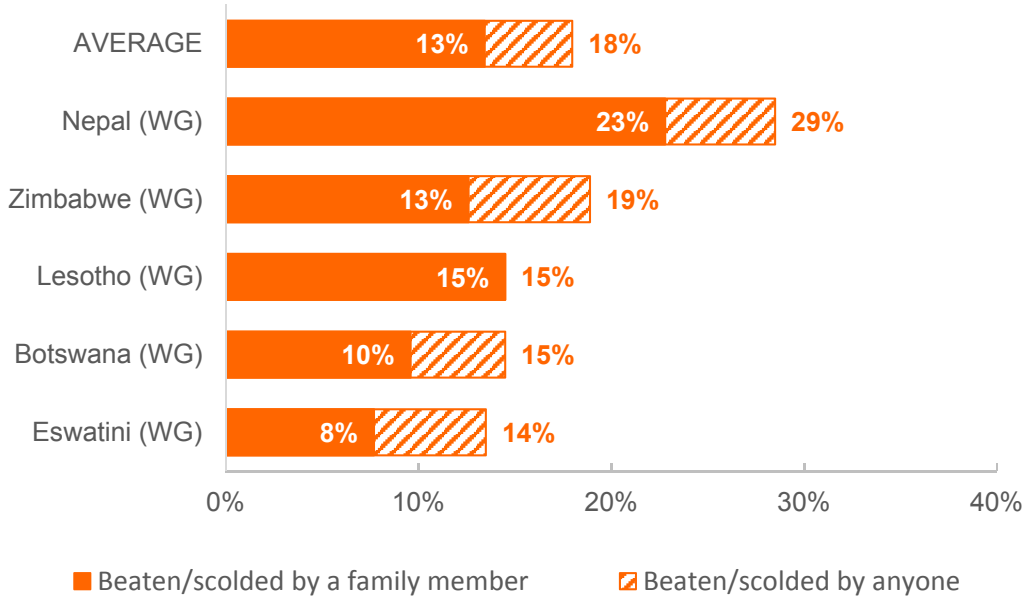
Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference between women and men with disabilities is statistically significant at the level of 5%. Data from Lesotho should be interpreted with caution because they are based on 25 to 49 observations.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

In 35 countries, mostly in Europe, in 2016,[273] 13 per cent of women with disabilities on average reported that crime, violence and vandalism were common in their accommodation or area of residence, similar to rates for men with disabilities (13 per cent) and compared to 10 per cent of persons without disabilities (see section on Goal 16).[9] There is evidence indicating that women with disabilities are more likely to suffer

sexual violence than women without disabilities and men. In Uganda, in 2016, 34 per cent of women with disabilities had experienced sexual violence; 22 per cent had experienced sexual violence in the last 12 months (see Figure II.129 in section on targets 16.1 and 16.2).[274] When referring to the past 12 months, women with disabilities were almost twice as likely to suffer sexual violence as women without disabilities, almost four times as likely as men with disabilities, and almost six times as likely as men without disabilities. Women and girls with sensory or intellectual disabilities often experience higher levels of abuse as communication challenges mean that they are perceived to be less likely to be able to report abuse (see section on Goal 16).

Figure II.58. Percentage of women with disabilities who have ever been beaten or scolded because of their disabilities, in 5 countries, in 2010.

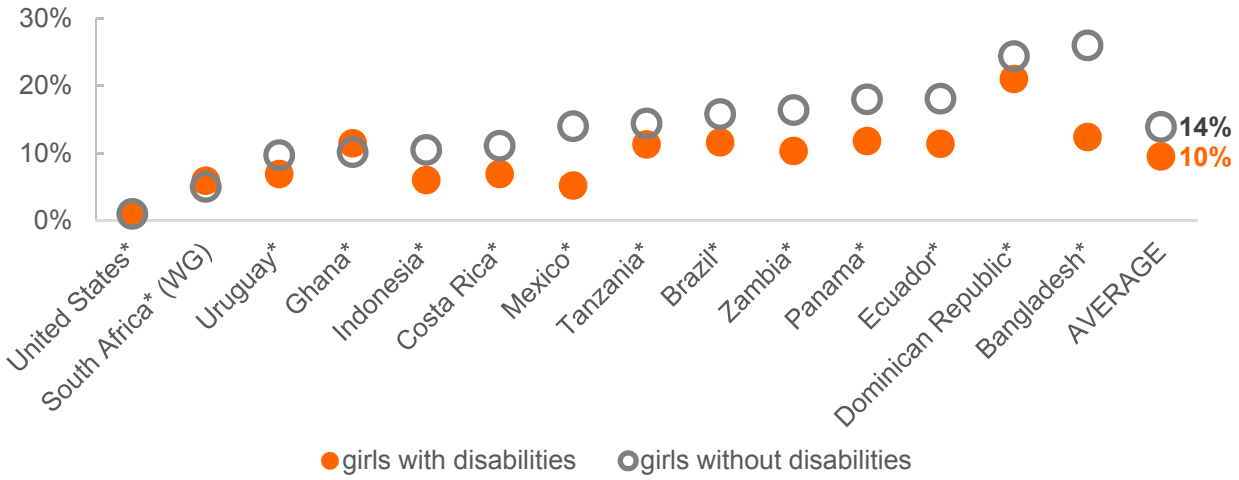


Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Child marriage

Evidence from 14 countries, around 2011, shows that on average 10 per cent of girls with disabilities aged 15 to 18 are or have been previously married or in union, ranging from under 1 per cent in the United States to 21 per cent in the Dominican Republic (Figure II.59). In three out of the 14 countries, girls with disabilities are more likely to be married or to have been married than their peers without disabilities.

Figure II.59. Percentage of girls aged 15 to 18 who are or have been previously married,[275] by disability status, in 14 countries, around 2011.



Note: An asterisk (*) indicates that the difference between girls with and without disabilities is statistically significant at the level of 5%.

Source: UNDESA[78] (on the basis of data from IPUMS[10]).

Current practices in gender and disability

Women and girls with disabilities are often invisible in national policies and programmes.[276] Many countries address gender and disability issues separately without focusing on the intersection between the two. A study in Latin America points to increasing awareness in this region of the need to address this intersection. Seventeen out of 20 countries in the region include disability in their national gender plans and 12 of these countries have gender plans with specific measures targeting women with disabilities. However, only 6 out of 19 countries address gender in their disability laws.[277]

While some countries promote the inclusion and empowerment of women and girls with disabilities through general laws, development plans and strategies, others develop national strategies specifically focusing on women and girls with disabilities.[278] Examples include national action plans for women with disabilities,[279,280] acts that focus on girls with disabilities in rural areas, reserved seats for women with disabilities in parliament and local governments, and promotion of access to health-care services for women and girls with disabilities.[281] There are also initiatives that prioritize projects that improve the status of women with disabilities when distributing government grants.[282] A number of countries have also put in place initiatives to promote the education of girls with disabilities through targeted scholarships and by promoting the employment of women with disabilities through training.[283] One of these programmes builds on the recognition of the value added of including women and girls with disabilities: blind and visually impaired

women were trained as clinical breast examiners as they are able to detect up to 50 per cent more and up to 28 per cent smaller changes in the breast than doctors.[284]

At the international level, an initiative has been taken to establish specific funding for projects focusing on women with disabilities in the United Nations Trust Fund to End Violence against Women. In 2018, these funds granted financial support to nine projects that aim to end violence against women and girls with disabilities and to strengthen the response capacity of local grassroots organizations working with women and girls who are survivors of violence.[285]

Conclusions and the way forward

The findings in this section are limited to a subset of countries, but they confirm that many women and girls with disabilities face multiple discrimination and barriers to their full and equal inclusion in society and development. Compared to men without disabilities, women with disabilities are at a severe disadvantage. The evidence presented here shows that, compared to men without disabilities, women with disabilities are: two times more likely to be poor, two times more likely to not have nutritious and sufficient food, three times more likely to have unmet needs for health care, three times more likely to be illiterate, two times less likely to be employed, and two times less likely to use the Internet. Among those employed, women with disabilities are two times less likely to work as legislators, senior officials or managers. Overall, women with disabilities are also in a worse position than women without disabilities.

In a couple of areas, the evidence does not seem to indicate a further disadvantage of women with disabilities relative to men with disabilities, suggesting that attitudinal and environmental barriers against disability, not gender, are the major factors driving the disadvantage experienced by women with disabilities. This is the case for poverty, access to education, use of the Internet, and physical violence. However, for access to employment and sexual violence, barriers against both gender and disability seem to play a role.

These findings vary across countries. To guide policy design, it is important for development actors and decision makers to determine whether and to what extent the disadvantage that women with disabilities experience is driven by their disability status or by their gender. Gender policies will not succeed if barriers against disability prevent women with disabilities from benefiting from them – in that case, gender policies need to address these barriers, too. Similarly, policies promoting disability inclusion will not succeed if gender discrimination prevents women with disabilities from benefiting from them – in that case, disability policies need to address these stereotypes.

It is still the case that the needs and perspectives of women with disabilities are often not reflected in national gender or disability mechanisms. These mechanisms will need to move beyond working in silos and acknowledge the intersection between gender and disability.

Despite these findings, this section shows that the gaps between women with disabilities and others vary from country to country, and some countries have managed to reduce gaps. Several countries have implemented measures promoting the inclusion of women and girls with disabilities and these best practices need to be scaled up in other countries. To fully achieve gender equality and empower all women and girls with disabilities, the following actions should be considered:

1) **Address the needs and perspectives of women and girls with disabilities in national disability strategies or action plans, as well as in national gender strategies and action plans.** Adopt a national disability strategy or a national disability action plan that is well-funded, has benchmark indicators, and pays due attention to the intersectoral dimension concerning women and girls with disabilities. Include also this dimension in national gender strategies and action plans.

2) **Develop policies and programmes focused on women and girls with disabilities aiming at their full and equal participation in society**. Moreover, engage women and girls with disabilities in the development and evaluation processes of policies and programmes. Develop programmes aimed at combating violence, especially sexual violence, against them.

3) **Support the empowerment of women and girls with disabilities to participate equally in society and to reduce gender gaps in economic, social and political participation**. Invest in education for women and girls with disabilities and support their transition from school to work through training. Education and training must be provided in accessible formats. Engage with employers to bring awareness of the value added of a diverse workforce that includes women and girls with disabilities.

4) **Raise awareness on the needs of women and girls with disabilities and eliminate stigma and discrimination against them.** Provide disability training among organizations and personnel working on gender equality and launch public campaigns to combat the negative stereotypes associated with disability and gender.

5) **Enhance the collection, dissemination and analysis of data on women and girls with disabilities and disaggregate and disseminate data by sex, age and disability** for effective policy development, implementation and monitoring of gender equality. Enhance the capacity of national statistical offices to collect and disseminate these data. Promote evidence-based analyses to identify the barriers experienced by women and girls with disabilities, specifically if these are attitudinal barriers against disability, gender or both. Use the data and the studies to inform and guide policymaking.

F. Ensuring the availability of water and sanitation for persons with disabilities (Goal 6)

This section addresses the achievement of Goal 6, that is, the availability of water and sanitation for persons with disabilities. Persons with disabilities face more difficulties in accessing adequate water, sanitation and hygiene (WASH) facilities than those without disabilities. This is due to a lack of household access, often resulting from insufficient financial resources, as well as lack of access in public environments. The barriers persons with disabilities face in relation to water and sanitation include environmental barriers, such as lack of accessibility of the facilities.[286] However, barriers faced by persons with disabilities extend beyond issues of accessibility. Persons with disabilities often face stigma and discrimination from others when using both household and public facilities, such as misconceptions that persons with disabilities could contaminate water sources or make the latrines dirty. Persons with certain types of disabilities may need to take a longer time to use the facilities – a stigmatizing experience when using communal latrines. Persons with disabilities may also experience lack of dignity if they are dependent on family members to assist them in using inaccessible water and sanitation facilities. Lack of access to water and sanitation facilities outside the home has a negative impact on other areas of development. Children with disabilities are often prevented from attending schools due to a lack of accessible toilets. Lack of accessible toilets is also a barrier to persons with disabilities seeking jobs and health services.

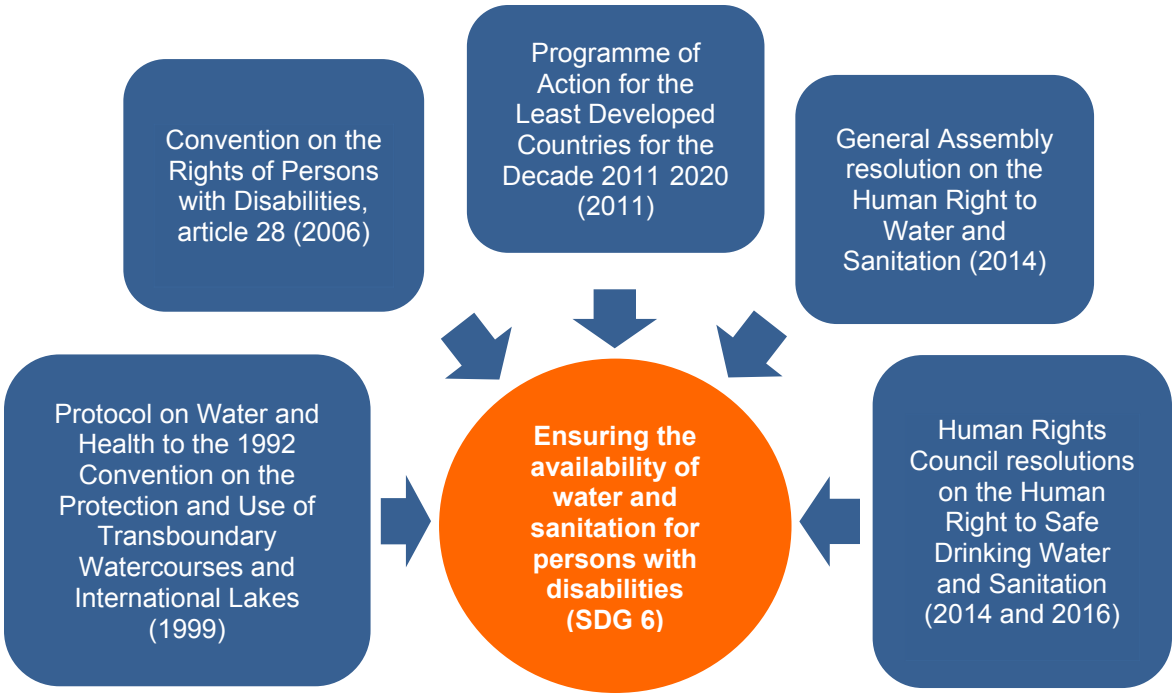
This section lists major international normative frameworks on disability, water and sanitation and presents an overview of the availability and accessibility of water and sanitation for persons with disabilities. The section also identifies best practices and offers recommendations for improving the current situation of persons with disabilities regarding access to water and sanitation.

International normative frameworks on WASH and disability

Goal 6 targets 6.1 and 6.2 indirectly include persons with disabilities in their respective calls to: “by 2030, achieve universal and equitable access to safe and affordable drinking water *for all*” and “by 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and *those in vulnerable situations*”. These are in line with article 28 of the CRPD which stipulates that States Parties need to ensure equal access to clean water services for persons with disabilities. The article further calls for affordable services with access to devices and other assistance for disability-related needs. Article 4 on general obligations focuses on aspects particularly relevant for access to water and sanitation, detailing in paragraph 1(c), the responsibility of States Parties to take appropriate measures to modify or abolish customs or practices that constitute discrimination against persons with disabilities; and in paragraph 1(f) to promote Universal Design in the development of standards and guidelines. According to article 9, States Parties have a responsibility to promulgate, monitor and implement minimum standards and guidelines for the accessibility of WASH facilities and services open

or provided to the public (paragraphs 2(a)), and to regulate the private sector to ensure that private entities offering WASH facilities and services take into account all aspects of accessibility for persons with disabilities.

Figure II.60. International normative frameworks relevant for the achievement of SDG 6 for persons with disabilities.



Other frameworks focus on providing access to water and sanitation for persons with disabilities. For example, the Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1999) stresses the need to ensure equitable access to water for people who are disadvantated and socially excluded.[287] The Human Rights Council resolution on the Human Right to Safe Drinking Water and Sanitation (2014) notes the CRPD and highlights the importance of universal access to drinking water and sanitation, with particular attention to people who are in vulnerable situations.[288] The General Assembly resolution on the Human Right to Water and Sanitation (2014) recognizes the CRPD and calls for providing safe drinking water and sanitation for all without discrimination, including persons with disabilities.[289] Equal access to water and sanitation for persons with disabilities is also emphasized in the context of Least Developed Countries. The Programme of Action for the Least Developed Countries for the Decade 2011–2020 makes specific references to access to water and sanitation services and the equal rights of persons with disabilities.[290] Furthermore, a 2016 United Nations Human Rights Council resolution stressed the need to reduce inequalities, in a comprehensive

manner, on the grounds of disability, among others, in access to water and sanitation through enhancing collaboration among the water, sanitation and hygiene sectors and other sectors including education, employment and health.[291]

Although the major international frameworks recognize equal access to water and sanitation for persons with disabilities, the critical role of assistive technology on water and sanitation, including, for example, accessible handles for water pumps or toilets to make water and sanitation more accessible for persons with disabilities, has not been fully addressed.

The situation of persons with disabilities regarding access to water and sanitation

Persons with disabilities are less likely to live in households with access to adequate water and sanitation

Access to both adequate water and adequate sanitation remains a challenge for many persons with disabilities. Data from 34 countries show that persons with disabilities are more likely than persons without disabilities to live in households without access to adequate water and sanitation (Figure II.61). In some countries, the gaps reach more than 10 percentage points. Moreover, in countries where the gap is wider for access to an improved water source,[292] it also tends to be wider for access to an improved sanitation facility.[293] Household poverty, which is more prevalent among households with persons with disabilities, is likely to play a role in this gap.

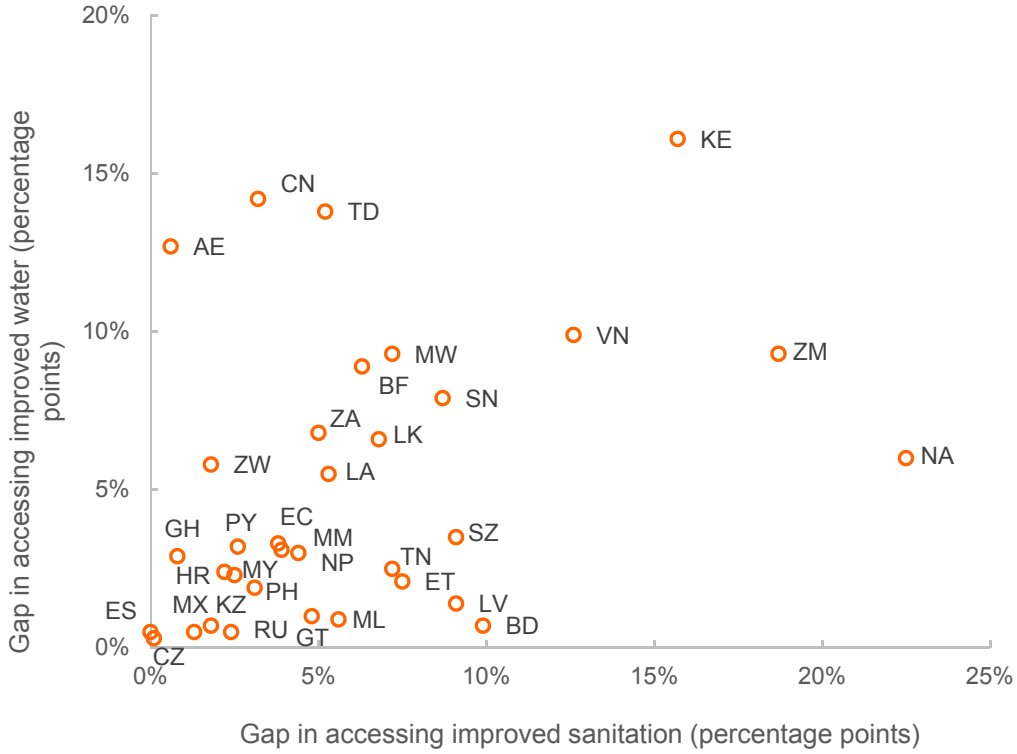
Persons with disabilities are less likely to live in households with hygiene and sanitation facilities on the premises

In 33 out of 44 countries, the percentage of persons residing in homes without an indoor toilet is higher for persons with disabilities than for person without disabilities (Figure II.62). In 10 of these countries, the gap among the two groups exceeds 5 percentage points. A distant, shared bathroom can create additional difficulties for persons with disabilities, who may experience difficulties, for example, in mobility, locating the bathroom, and/or waiting in line. Persons with disabilities in developing countries are more often confronted with this challenge, with some countries reporting more than 25 per cent of persons with disabilities not having an indoor toilet in their dwelling.

Similarly, it is more common for persons with disabilities to not have a bath or shower in their home. Data from 34 European countries and Turkey indicate that the average percentage of persons with disabilities without a bath or shower in their dwelling was higher (4.5 per cent) in comparison to persons without disabilities (2.8 per cent). In five of these countries more than 10 per cent of persons with disabilities live in a dwelling with no bath and shower; in two countries this figure is above 20 per cent (Figure II.63). For both toilets and bath/shower, the gap between persons with and without disabilities is wider in countries where the overall lack of these facilities in dwellings is higher. This disadvantage is expected to be more extreme

in other geographic regions, such as sub-Saharan Africa or Southeast Asia.

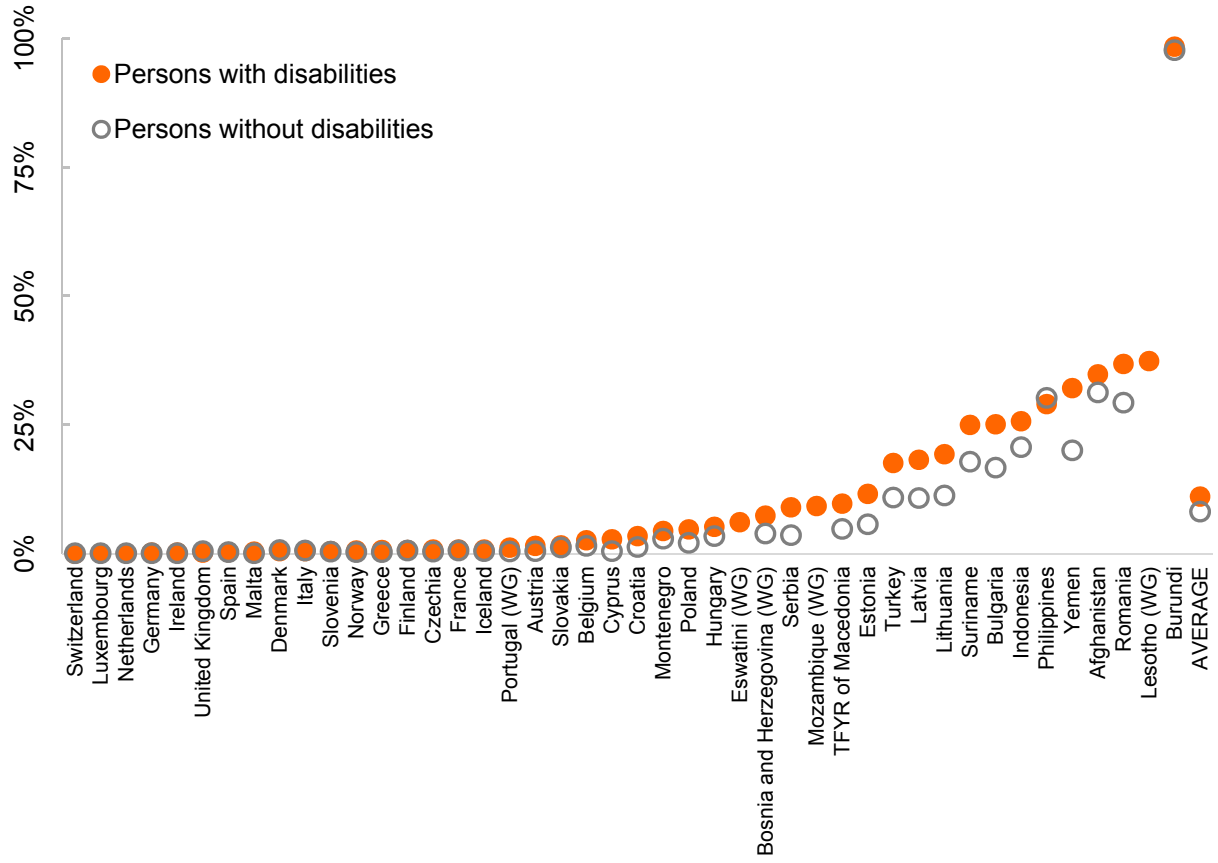
Figure II.61. Difference between the percentage of persons without and with disabilities[294,295] in access to improved sanitation versus improved water, in 34 countries, in 2002-2004.



Note: The list of country codes is AE: United Arab Emirates; BD: Bangladesh; BF: Burkina Faso; CN: China; CZ: Czechia; EC: Ecuador; ES: Spain; ET: Ethiopia; GH: Ghana; GT: Guatemala; HR: Croatia; KE: Kenya; KZ: Kazakhstan; LA: Lao; LK: Sri Lanka; LV: Latvia; ML: Mali; MM: Myanmar; MW: Malawi; MX: Mexico; MY: Malaysia; NA: Namibia; NP: Nepal; PH: Philippines; PY: Paraguay; RU: Russia; SN: Senegal; SZ: Eswatini; TD: Chad; TN: Tunisia; VN: Viet Nam; ZA: South Africa; ZM: Zambia; ZW: Zimbabwe.

Source: World Health Surveys, 2002–2004.[296]

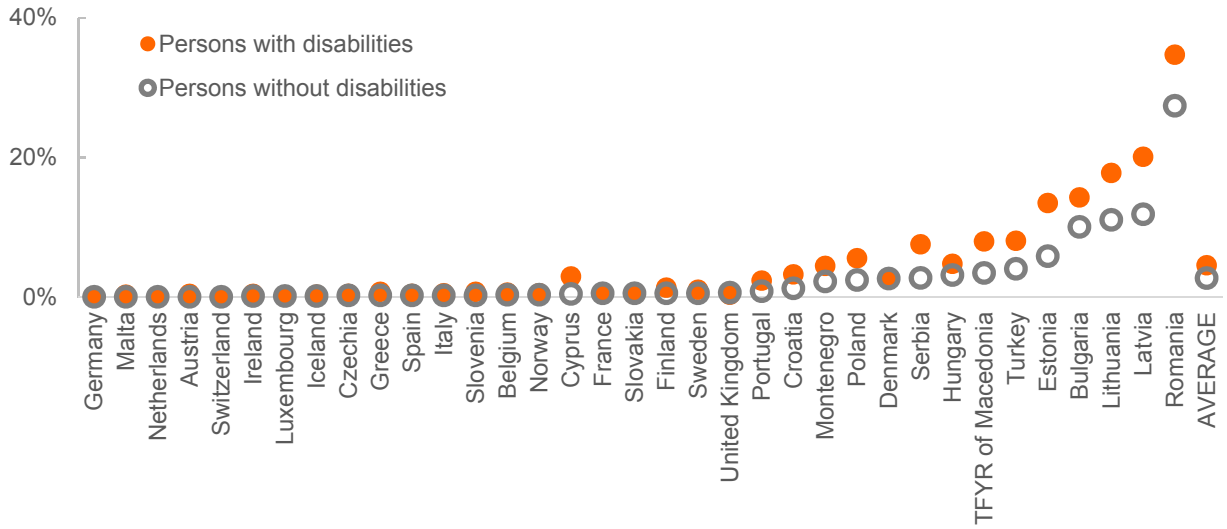
Figure II.62. Percentage of persons without a toilet in their dwelling, by disability status, in 44 countries, around 2014.



Note: Data not available for persons without disabilities for Lesotho, Mozambique and Eswatini. (WG) identifies countries with data collected with the Washington Group Short Set of Questions.

Source: Eurostat,[9] UNDESA[78] (on the basis of data from SINTEF[11]) and UNSD.

Figure II.63. Persons aged 16 and over with no bath or shower in their dwelling, by disability status,[76] in 35 countries, around 2016.[297]



Source: Eurostat.[9]

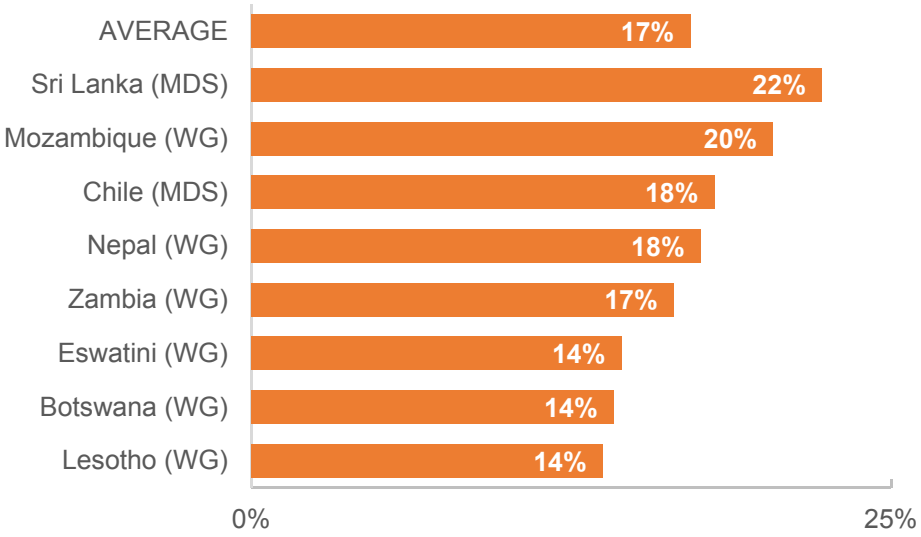
One in five persons with disabilities reports that the toilet at home is hindering or not accessible

In many countries, use of inclusive design and implementation of accessibility measures are increasingly common. However, for persons with disabilities, particularly those living in developing countries, barriers to accessing water, sanitation and hygiene persist.[298] Frequently mentioned structural barriers include lack of support bars in latrines for people who have difficulties holding themselves in a sitting or squatting position, or accessible sinks and washing points.[299,300]

Among eight developing countries, 17 per cent of persons with disabilities reported that their toilet at home was hindering or not accessible (Figure II.64). For example, in Chile and Sri Lanka, approximately one out of five persons with a severe disability considered the toilet in their dwelling hindering or very hindering. In another six developing countries, 14 per cent to 20 per cent of persons with disabilities reported that their toilet at home was not accessible. Crowdsourced data on more than 45,000 public toilets worldwide, mostly in developed countries, found that 69 per cent were accessible for wheelchair users, but the degree of accessibility varies across countries.[78,197] In Australia, for instance, a large number of public toilets have been assessed as accessible for wheelchair users (Figure II.65). Crowdsourced data in developing countries is scarce, but the available data suggest that the majority of public toilets are not accessible for wheelchair users, as illustrated in Figure II.66 in the south region of Malawi. Lack of accessible public toilets in outdoor settings can prevent persons with disabilities from participating in society. This remains a key

problem in schools, which often do not have accessible toilets (Box 3).

Figure II.64. Percentage of persons with disabilities who report that their toilet[301] at home is hindering or not accessible, in 8 countries, around 2013.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. (MDS) identifies countries with data collected with the Model Disability Survey.

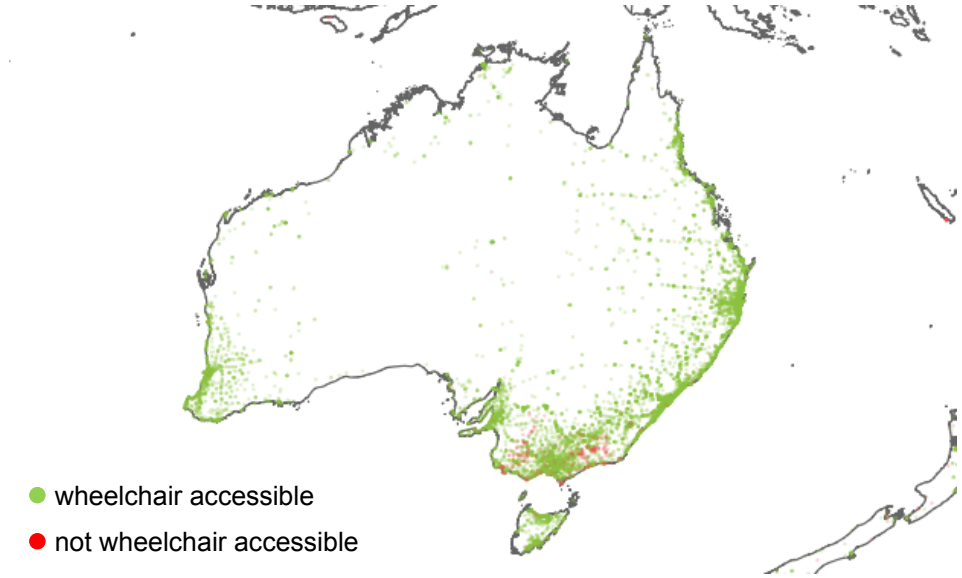
Source: UNDESA[78] (on the basis of data from SINTEF[11]) and WHO.[100]

Because of the lack of accessibility, distant facilities and negative attitudes, persons with disabilities may face serious challenges in toileting and in being able to independently collect water for themselves. For example, the water sources may be too distant, or the well walls and water taps too high. There may be nowhere to rest the water container while filling it, or there may be nothing to hold on to for balance to avoid falling into a well or pond. Toilets with steps or raised above ground are often inaccessible to persons with physical impairments, washroom doors can be difficult to manipulate, and latrines are often too small to enable persons with a wheelchair or crutches to enter and close the door behind them. Floors can be too slippery for persons with walking or balancing impairments. If latrines are not accessible, persons with disabilities may be obliged to recur to open defecation, increasing the danger of accidents, rape and other adverse safety and health issues.

Data from three developing countries indicate that persons with severe disabilities most frequently report issues or extreme problems with toileting (Figure II.68). The percentage of persons reporting significant problems is varied, ranging from 9 per cent in Chile, 16 per cent in Sri Lanka and 28 per cent in two districts

in Cameroon. In these countries, the higher the GDP per capita, the lower the percentage of persons with disabilities reporting problems with toileting, suggesting that the availability of financial resources may play a role in enhancing adequate access to water and sanitation for persons with disabilities.

Figure II.65. Accessibility of public toilets for wheelchair users, in Australia, in 2017 (crowdsourced data).



Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

Source: UNDESA[78] (on the basis of data from Sozialhelden[197]).

Figure II.66. Accessibility of public toilets for wheelchair users, in the south region of Malawi, in 2017 (crowdsourced data).

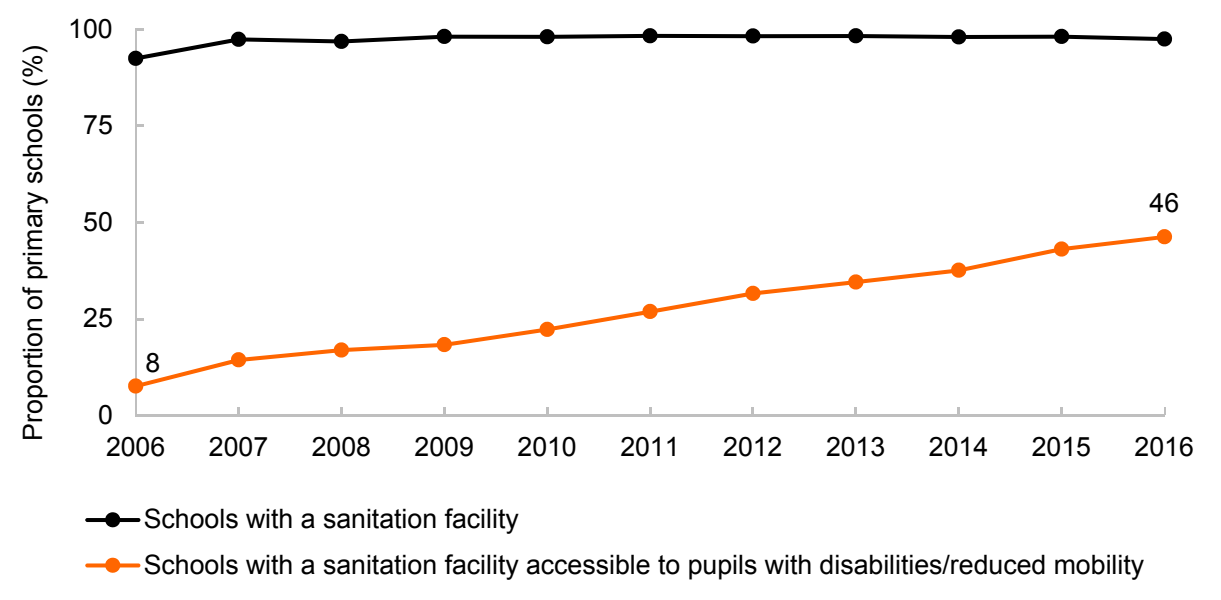
Note: The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.

Source: UNDESA[78] (on the basis of data from Sozialhelden[197]).

Box 3. Accessible toilets at schools

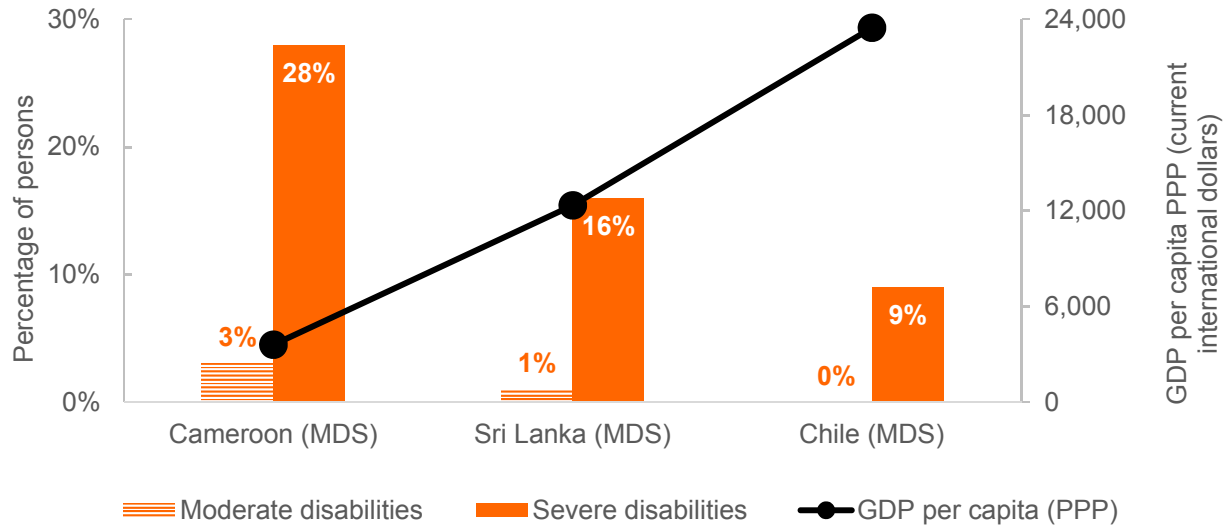
The availability of adequate, accessible toilets in settings outside the home is key to ensuring that persons with disabilities can fully participate in education. Several countries have already collected detailed information about facilities at schools, including whether sanitation facilities are on the school premises and whether these are accessible to pupils with disabilities. A good example is Brazil, where yearly data on accessible toilets have been collected through the Censo da Educação Básica since 2006 (Figure II.67). Data from the latest round show that most primary schools have a toilet within the building (97 per cent) but, despite considerable progress since 2006, less than half (46 per cent) had a sanitation facility that was accessible to pupils with disabilities or reduced mobility. This is however a considerable improvement since 2006 when only 8 per cent of primary schools had an accessible sanitation facility.

Figure II.67: Proportion of primary schools with any sanitation facility and a sanitation facility accessible for persons with reduced mobility, in Brazil, from 2006 to 2016.



Source: WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP).[302]

Figure II.68. Percentage of persons aged 17 and over reporting a lot of or extreme problems with toileting, by disability status, versus GDP per capita, in 2015-2016.



Note: (MDS) identifies countries with data collected using the Model Disability Survey. Data from Cameroon were collected in selected regions of the country and are not nationally representative.

Source: WHO[100] and World Bank.[303]

Current practices in WASH and disability

Efforts have been made by various actors, including governments and international organizations, to mainstream disability in WASH programmes, including by 1) addressing discrimination and stigma when providing WASH services; 2) raising awareness and building capacity about the rights and specific needs of persons with disabilities when planning, implementing, monitoring and evaluating WASH programmes; 3) mandating minimum accessibility standards and considering disability in the design of WASH interventions; and, 4) designing and building WASH facilities according to Universal Design principles.

Twin-track approaches to disability inclusion in WASH with both disability-inclusive interventions (including providing WASH facilities according to Universal Design principles and ensuring WASH indicators explicitly address disability), and disability-targeted interventions (such as provision of assistive products for persons with disabilities, and development and promotion of innovative access solutions for persons with disabilities) are increasingly being adopted.[304,305] There are a growing number of programmes implemented in developing countries aimed at increasing access to improved water and sanitation facilities and improved hygiene behaviours among low-income rural and peri-urban populations, including persons with disabilities.[306,307] In Indonesia, for example, the disability-inclusive approach has been included in the

national rural water supply and sanitation project operations, since 2016, providing disability-inclusive development training for government officials and WASH facilitators, and adopting design specifications for accessible school toilets and other accessible WASH facilities.[308] In Zimbabwe, a pilot community grant initiative has been implemented to support informal community groups to ensure that WASH services are available to all, particularly persons with disabilities, leading to improved access to water supply and disability-friendly sanitation facilities and services in over 14 small towns.[309,310] In some countries, to address the stigma and concerns of persons with disabilities in accessing WASH services, initiatives have also been put in place to engage persons with disabilities, especially women and girls with disabilities, in their local communities so that their voices and concerns can be included in the design, planning, implementation and monitoring.[304,311,312]

The increased use of accessible facilities, such as accessible handles for water pumps or toilets, ramps and handrails, and wider doors that are designed for persons with disabilities is helping to make WASH accessible. For instance, in Mali, a communal well in a village was redesigned, in consultation with persons with disabilities, to include a high wall to protect persons who are blind from falling and a physical support was installed for lifting water. One section of the wall was lowered and a concrete ramp was developed for wheelchair users.[304,298] In Nepal, moveable toilet seats were provided to rural households that had latrines, which helped persons with disabilities and leg and/or back problems and reduced the need to sit or crawl on a wet latrine floor.[313]

Furthermore, community-based rehabilitation (CBR) organizations have also played an important role in promoting accessible and inclusive WASH, through their work in the capacity-building of local communities and families to address the needs of persons with disabilities. In India, for example, CBR approaches for inclusive WASH have been used, leveraging existing community networks and self-help groups to reach out to persons with disabilities as well as to raise awareness about best WASH practices in local communities.[314] Some organizations have focused on compiling and sharing best practices that benefit persons with disabilities within and beyond mainstream sanitation approaches, such as community-led total sanitation for advancing the promotion of accessible and inclusive WASH for persons with disabilities.[315,316]

Conclusions and the way forward

Available data indicate that persons with disabilities are less likely to have access to improved water and sanitation, are less likely to enjoy hygiene and sanitation facilities in their dwelling, are often confronted with non-accessible facilities which they find hindering and may face stigma and discrimination when using WASH facilities. This can have a severe impact on the health, dignity and quality of life of persons with disabilities. In countries where overall access to adequate water and sanitation is lower, the gaps between persons with and without disabilities tend to be wider. In working to ensure access in such countries, the focus should be twofold: 1) simultaneously expanding access to water and sanitation, and 2) closing the disability gap. Goal 6 has created an unprecedented opportunity to simultaneously address both factors and realize the right to safe water and sanitation for persons with disabilities.

To achieve Goal 6 for persons with disabilities, it is imperative to focus on programmes that target relevant challenges in access to WASH through various steps:

1) **Involve all stakeholders, especially persons with disabilities.** Governments have the lead role in designing and implementing plans to progressively give access to safe water and sanitation to all, including persons with disabilities. In low resource settings, civil society organizations often play a critical role in supporting government efforts in WASH. To ensure the access of persons with disabilities to WASH, it is critical that governments, civil society and other relevant stakeholders ensure the inclusion of persons with disabilities and their representative organizations in all stages of decision-making and in the carrying out of programmes and advocacy efforts.

2) **Invest in and allocate financial resources/budget to accessible WASH in households and in settings outside the home, prioritizing schools, workplaces, health facilities and communal WASH facilities**. Ensure a budget allocation for accessibility of water and sanitation facilities and develop and provide schemes/packages to support families with additional costs related to accessible water and sanitation facilities. This investment should be informed by regular monitoring of the availability and accessibility of adequate water and sanitation for persons with disabilities in households as well as in institutional settings, such as health-care facilities and schools.

3) **Adopt a twin-track approach: mainstream disability in WASH policies and programmes and develop disability-specific WASH programmes.** The voices and concerns of persons with disabilities should be reflected in the development, resourcing, implementation, monitoring and evaluation of all WASH policies and programmes.[317] Monitoring will be essential to assess the effectiveness of the policies that are in place, as well as the extent to which they have been implemented, and to help identify any policy modifications that may be necessary to guarantee access to WASH for persons with disabilities.

4) **Share information and build capacity about low-cost inclusive interventions to scale up best practices**. There is a wealth of knowledge regarding how to make WASH accessible for persons with

disabilities. However, existing expertise and best practices are not being sufficiently utilized or replicated.[318,319,320] There are low-cost inclusive adaptations and Universal Design solutions to facilities including toilets, water points, water carriers, bathing places and handwashing facilities, which can be implemented by households as well as by governments. Mechanisms to share information on inclusive practices, in accessible ways, either online or through in-person training of WASH professionals, can help in promoting and scaling up such approaches.

5) **Raise awareness and end discrimination and stigma.** Governments should invest in measures to raise awareness and combat discrimination and stigma. Organizations and personnel working on WASH should receive and provide training on disability and accessibility. Negative stereotypes associated with disability and WASH may be further combatted through public information campaigns. The capacity of countries to design, implement and monitor these campaigns must also be strengthened.

6) **Monitor progress through the collection of individual data**. As detailed in the present chapter, access to water and sanitation at the household level does not always translate into access for household members with disabilities. To assess access to WASH within a household, those carrying out surveys should receive appropriate training on effective approaches to collecting information regarding disability within households.[321]

7) **Disaggregate data on WASH access by type of disability, as well as by age and gender**. To effectively and most appropriately address barriers to WASH access by persons with disabilities, data should be disaggregated by type of disability, as well as by age and gender to reflect the multiple challenges faced by persons with disabilities to accessing water and sanitation services and using them safely and with dignity.

8) **Collect, analyse and disseminate census and survey data on WASH access for persons with disabilities to inform inclusive policies.** Household surveys are a main source of data but, additionally, in several countries, the national census also collects information about persons with disabilities, including their access to water and sanitation services.

9) **Explore crowdsourcing applications to obtain bottom-up information on the accessibility of water and sanitation facilities for persons with disabilities to inform accessibility policies.** Several applications already allow users to publicly review the accessibility of facilities anywhere in the world. Current data mainly cover developed countries and efforts should therefore be made to expand the use of such applications in developing countries so that their benefits may be enjoyed more broadly. Information gathered by crowdsourcing applications further reflects users' experiences and can be helpful to inform national accessibility policies.

10) **Mainstream disability in international fora and global mechanisms working on WASH.** Disability is still often left out of international meetings, global mechanisms, international development

programmes and major international publications working on WASH. Disability should be consistently addressed in order to trigger global action to close the WASH gap for persons with disabilities.

G. Ensuring access to energy for persons with disabilities (Goal 7)

The energy-disability nexus must be addressed to achieve Goal 7: ensure access to affordable, reliable, sustainable and modern energy for all, particularly target 7.1 which calls for universal access to energy. Yet, the unique needs of persons with disabilities in accessing sustainable energy are still overlooked in the global discourse on energy and development. This section addresses this gap. First, it presents an overview of current international normative frameworks on access to energy. Second, it presents evidence on the situation of persons with disabilities regarding access to energy and identifies best practices to close current gaps in access. The section concludes with recommendations for achieving Goal 7 for persons with disabilities.

Access to energy means provision of modern energy services to everyone around the world. These services are defined as household access to electricity and clean cooking facilities.[322] Energy is needed for the provision of clean water, sanitation, adequate shelter, health care and for economic development and social progress – all of which can improve the lives of persons with disabilities. But access to energy is even more vital for persons with disabilities, many of whom require electricity to operate assistive technology for independent living. Moreover, clean and modern forms of energy can also bring benefits to many persons with disabilities worldwide, given that they may spend extended periods at home due to mobility challenges, may need more time for self-care at home, or because they are kept hidden due to stigma or shame, and may thus suffer higher exposure to indoor pollution caused by the use of solid fuels for cooking or lighting. Longer periods at home may also lead to higher electricity consumption, which results in higher energy bills. Access to reliable, affordable and clean energy is therefore crucial for persons with disabilities.

Four critical issues need to be considered when implementing Goal 7 for persons with disabilities: (i) access to energy for development; (ii) access to electricity to charge or operate assistive technology; (iii) access to modern forms of energy which are less polluting for the households where persons with disabilities stay for longer periods of time; and (iv) access to affordable energy as many persons with disabilities live in low-income households.

International normative frameworks on disability and access to energy

Access to energy has long been discussed in the context of sustainable development and the well-being of individuals, but particular disadvantaged groups such as persons with disabilities have been invisible in the discourse. This was the case, for example, in the first report issued by the World Commission on Environment and Development, titled “Our Common Future”, also known as the Brundtland Report (1987), which recognized energy as a necessary means for daily survival.[323] Similarly, the outcome document of the 2002 World Summit on Sustainable Development, the Johannesburg Declaration on Sustainable Development, called for a speedy increase in access to energy.[324] In addition, the Plan of Implementation

of the World Summit on Sustainable Development[325,326] outlined the actions to improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services.[327] None of these documents made reference to persons with disabilities. The call for energy access *for all*, which implicitly includes persons with disabilities, came 10 years later in 2012, when the outcome document of the United Nations Conference on Sustainable Development or Rio+20, "The Future We Want", recognized the critical role that energy plays in the development process.[328] In the same year, the United Nations General Assembly adopted a resolution on the promotion of new and renewable sources of energy and declared 2014–2024 the United Nations Decade of Sustainable Energy for All.[329]

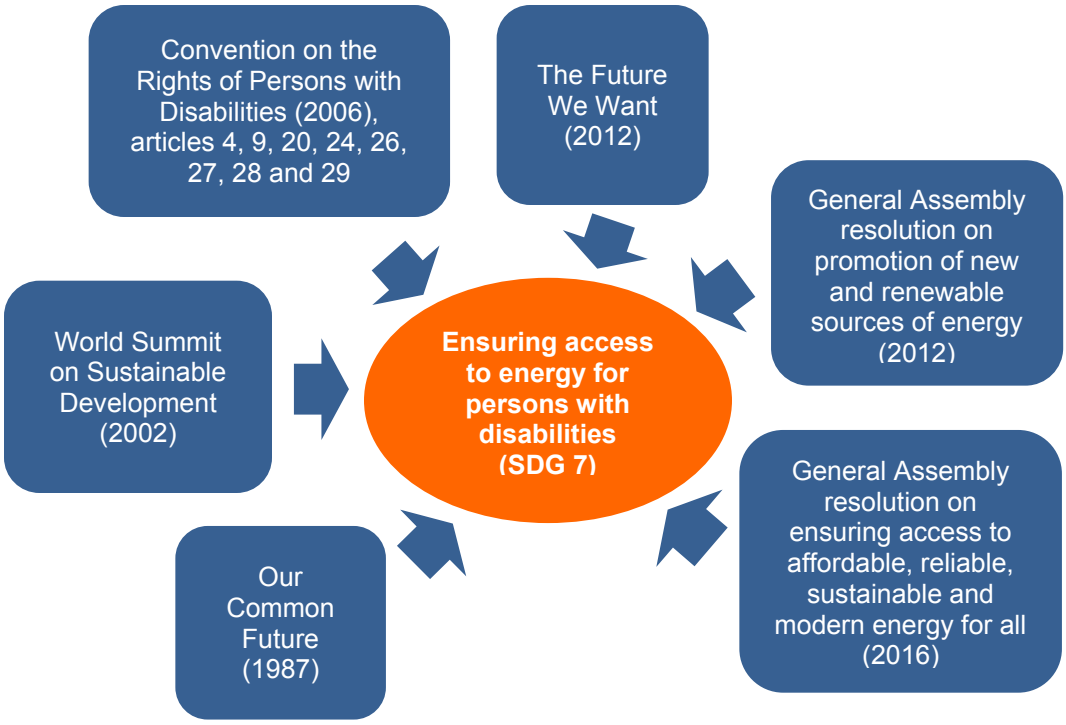
The critical link between energy and the well-being of persons with disabilities, has also been invisible in the major international frameworks on disability even though energy may be essential to their implementation. For instance, the Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993)[330] and the World Programme of Action Concerning Disabled Persons (1982)[331] address the need of persons with disabilities to access technologies that would require electricity. Similarly, the CRPD, adopted in 2006, provides a powerful base for the promotion of access to sustainable energy because the implementation of many of its articles will require providing access to energy for persons with disabilities. For example, the CRPD calls on States Parties to promote the availability, knowledge and use of assistive products, many of which require electricity to operate (article 26) and recognizes the importance of access to ICTs (articles 4 and 9). Moreover, electricity-run assistive technologies can facilitate personal mobility (article 20(b)); effective participation in education (article 24) and employment (article 27); habilitation and rehabilitation services (article 26); voting (article 29(a)(ii)); and access to clean water services (article 28), among others.

The 2030 Agenda for Sustainable Development, the guiding global development framework, calls in Goal 7 for "access to affordable, reliable, sustainable and modern energy for all". The aspect of affordability is critical for persons with disabilities who tend to have lower incomes than their peers without disabilities. The 2030 Agenda, with its core commitment to "leave no one behind", brings attention to the importance of monitoring and follow-up on progress for persons with disabilities to ensure that they also fully benefit from this framework. More recently, the General Assembly adopted a resolution to ensure access to affordable, reliable, sustainable and modern energy for all because such services are an integral part of social inclusion, thus underscoring the importance of energy in achieving development that is inclusive of various social and often vulnerable groups, including persons with disabilities.[332]

The negative impact on persons with disabilities of exposure to harmful pollution from traditional sources of energy can be addressed through progress towards target 7.1, "By 2030, ensure universal access to affordable, reliable and modern energy services". Other Goal 7 targets call for promoting investment in clean energy technology (target 7.a) and for expanding infrastructure and upgrading technology to supply modern and sustainable energy services for all in developing countries (target 7.b). These targets can

accelerate access by persons with disabilities to cleaner forms of energy and to avoid the harmful exposure to pollution that comes from traditional forms of energy.

Figure II.69. International normative frameworks relevant to achieving SDG 7 for persons with disabilities.



The situation of persons with disabilities regarding access to energy

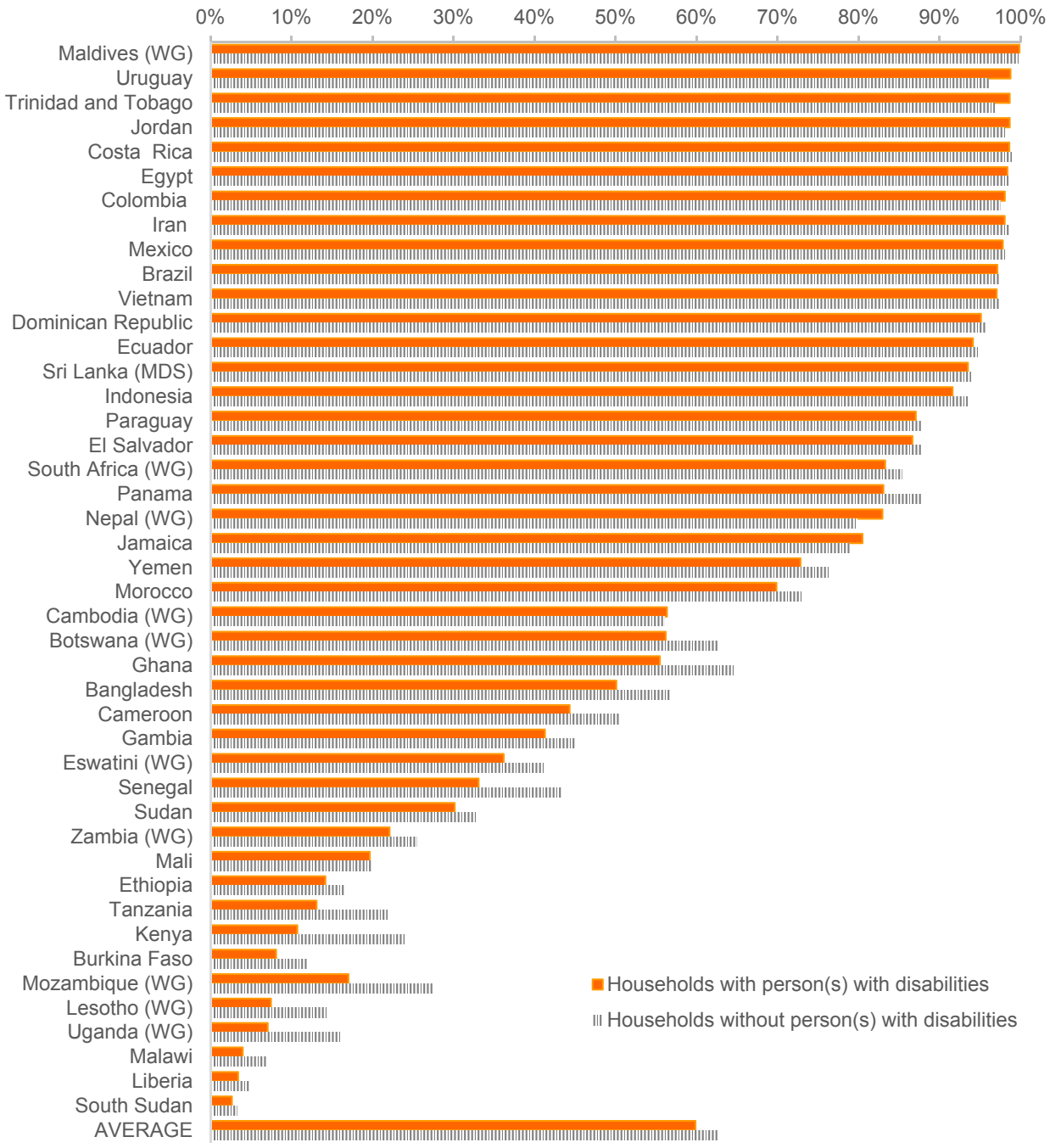
Energy poverty,[333] or lack of access to electricity and reliance on the traditional use of biomass for cooking, poses challenges to persons with disabilities who may require electricity-run assistive technology to live independently and to participate equally in society and may spend longer periods at home. This is especially challenging in low income countries worldwide, where access to electricity is low, with only 28 per cent of the population having access.[334] In Sub-Saharan Africa, in 2014, only 37 per cent of the general population had access to electricity, with this figure coming down to 17 per cent for those living in rural areas. Reduced access for those living in rural areas was also seen in the Pacific region, where 83 per cent of the population had access to electricity, and just 44 per cent of rural populations.[334] Low electricity access is also a major challenge for displaced persons in camps, including those with disabilities. In 2014, 7 million displaced people in camps had access to electricity for less than four hours a day.[335]

Persons with disabilities and their households tend to have lower access to electricity and heating

In many countries, households with persons with disabilities are less likely to have access to electricity than those without persons with disabilities. Figure II.70 shows that, between 2001 and 2015, in 37 out of 44 countries, households with persons with disabilities had lower access to electricity than households without persons with disabilities. This may be due, in part, to lower incomes in households with persons with disabilities as a consequence of limited employment opportunities for persons with disabilities and/or additional costs due to disability. In 17 of these countries, fewer than 50 per cent of households with persons with disabilities had access to electricity.

In European countries, persons with disabilities are less likely to be able to keep their home adequately warm than persons without disabilities (Figure II.71). On average, 16 per cent of persons with disabilities are unable to keep homes adequately warm compared to 11 per cent of persons without disabilities. While there is not much difference between the percentages of women and men without disabilities who are unable to keep their homes adequately warm (the average gender gap is less than half a percentage point), the gender gap is wider among persons with disabilities, reaching up to 6.5 percentage points difference in some countries (the average gender gap is 1.6 percentage points). Among persons with disabilities, in 30 out of 35 countries, more women than men are unable to keep their homes warm.

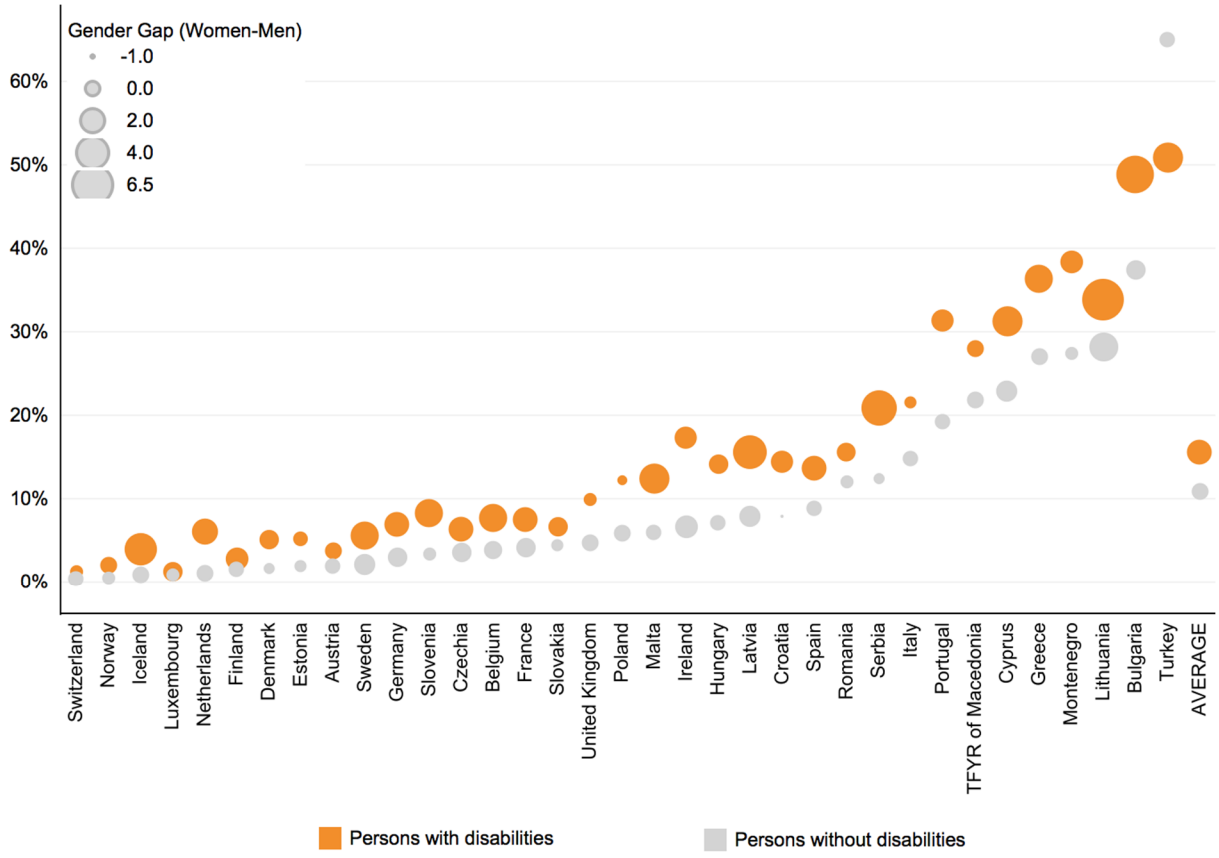
Figure II.70. Percentage of households, with and without persons with disabilities, with access to electricity,[336] in 44 countries, in 2001-2015.[337]



Note: (MDS) identifies countries with data collected with the Model Disability Survey. (WG) identifies countries with data collected with the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from DHS,[6] IPUMS[10] and SINTEF[11]) and WHO.[100]

Figure II.71. Gender gap (women minus men) and percentage of persons aged 16 and over unable to keep their home adequately warm, by disability status, in 35 countries, in 2016.[338]



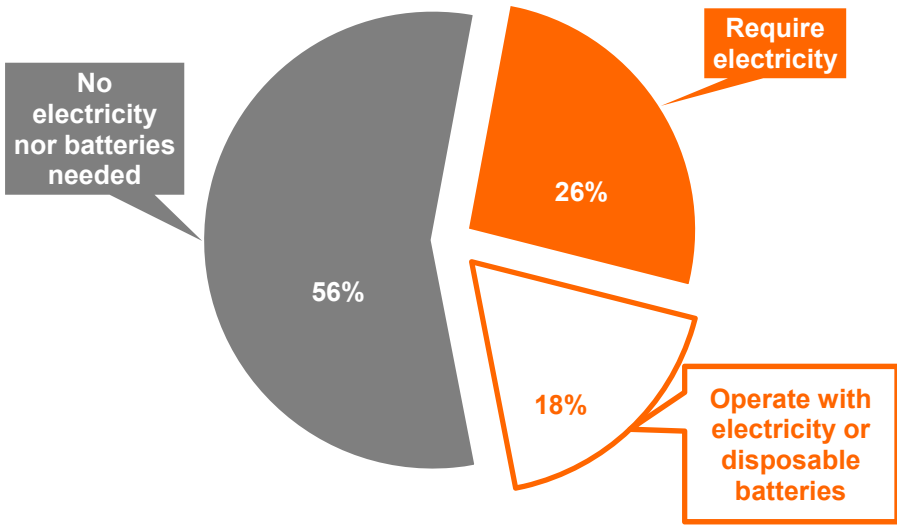
Source: Eurostat.[9]

Persons with disabilities have more difficulties in paying for energy bills because of higher energy needs and reduced income

Persons with disabilities are likely to have higher energy needs.[339, 340] Many spend longer periods of time in their households due to barriers in external environments, such as lack of accessible transportation and public spaces, and discrimination, among others. Longer periods at home may lead to higher household electricity expenses. [341] Persons with disabilities may also require electricity-dependent assistive technology,[342] such as electric wheelchairs, braille displays, hearing aids, and fall detectors, which result in increased energy consumption.[343] Studies in the United Kingdom showed that the annual energy bills of families with persons with disabilities are about 50 per cent higher than those without persons with disabilities.[344] Compared to households without persons with disabilities, the study found that electricity bills are 39 per cent higher in a household with an older person with arthritis; 50 per cent higher for a single

parent with two children with disabilities; and 55 per cent higher in a household with a person with disabilities.[344]

Figure II. 72. Energy requirements of WHO Priority Assistive Products List.



Source: Authors' elaboration based on the Priority Assistive Products List (WHO, 2016).[342]

The increased need for electricity to operate assistive products is confirmed in the Priority Assistive Products List (see section on Assistive Technology),[342] released by the WHO in 2016, which includes 50 priority assistive products selected on the basis of widespread need and impact on a person's life (Figure II. 72). More than a quarter of these products need electricity to operate, for example, electrically powered wheelchairs, gesture-to-voice technology, personal digital assistants, screen readers and others; and 18 per cent of them require either electricity or disposable batteries, including hearing aids, deafblind communicators and digital handheld magnifiers, among others. Without access to affordable electricity and disposable batteries, persons with disabilities would not be able to operate 22 of the priority assistive products.

The burden of higher energy needs is made heavier by the reduced capacity of persons with disabilities to pay for energy bills. Persons with disabilities typically face additional costs due to their disabilities, are more likely to be living in lower income households, and are less likely to be employed (see the section on Goals 1 and 2 and the section on Goal 8), leaving fewer financial resources to pay for energy bills. In 2011 in the United Kingdom, 22 per cent of households with persons with disabilities spent more than 10 per cent of their income on heating compared to 14 per cent of households without persons with disabilities; 14 per

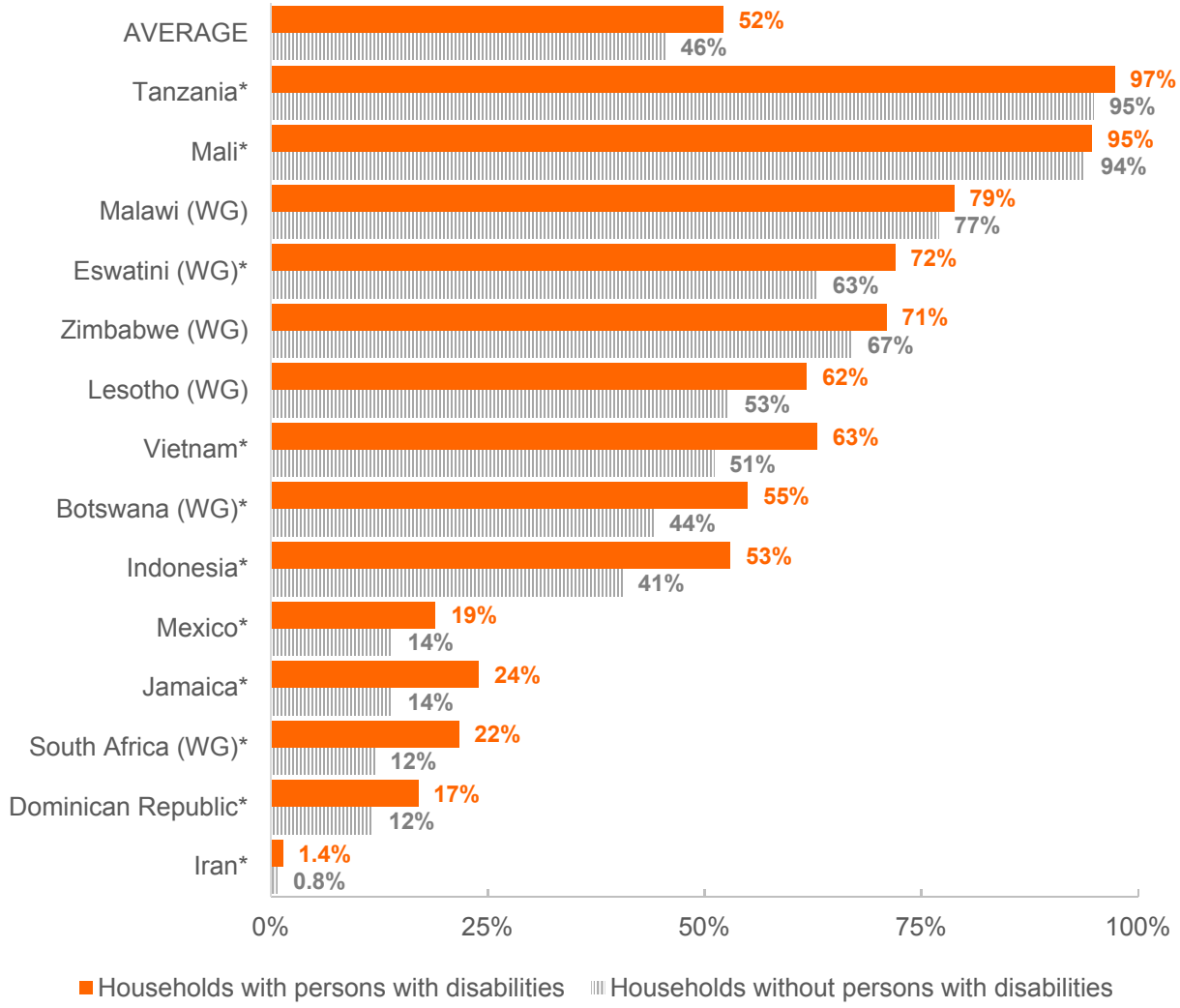
cent of households with persons with disabilities would fall under the official poverty line after paying heating bills as compared to 10 per cent of households without persons with disabilities.[345] This percentage varied based on the type of disability from 12 per cent to 18 per cent, with households with persons with psychosocial disabilities being the most highly affected.[346] Inability to afford adequate heating has also been linked to detrimental impacts in the physical and mental health of persons with disabilities due to cold room temperature and the concern of higher bills. Some existing health conditions could be exacerbated by a lack of heating.[339]

Persons with disabilities are more exposed to detrimental air pollution resulting from the use of traditional forms of energy

In developing countries, traditional fuels such as biomass and coal are often used for cooking and heating. Indoor pollution causes health problems, particularly respiratory issues.[347] Household air pollution is responsible for an estimated 4.3 million premature deaths per year worldwide, with high prevalence in countries with a high reliance on biomass and coal for cooking.[348] Inefficient cooking fuels and technologies like charcoal, coal, crop waste, dung and wood are used in open fires and leaky stoves and produce household air pollution with a range of health-damaging pollutants, including small soot particles that penetrate deep into the lungs. In poorly ventilated dwellings, indoor smoke can be 100 times higher than acceptable levels for fine particles.[349] Exposure can be particularly high among persons with disabilities who, due to stigma or lack of mobility, are likely to spend more time indoors than persons without disabilities.

Household air pollution may especially be a problem in sub-Saharan Africa and Southeast Asia, where in 2013 more than half of the population still used solid fuels for cooking and heating. Even in the Americas and Europe, the regions where use of solid fuels is the lowest, the population using solid fuels is still significant at 25 per cent in the Americas and 23 per cent in Europe.[350] Furthermore, available data from 14 developing countries, around 2010, show that in all countries a higher proportion of households with persons with disabilities than without persons with disabilities cooks with wood or coal (Figure II.73). On average, 53 per cent of households with persons with disabilities versus 46 per cent of households without persons with disabilities use these traditional forms of energy for cooking. The percentages of households with persons with disabilities that cook with wood and/or coal vary from 1.4 per cent in Iran to 97 per cent in Tanzania. Households with persons with disabilities in rural areas are particularly affected, as the wood and coal are used for cooking in 66 per cent of these households compared to only 32 per cent of households with persons with disabilities in urban areas, on average (Figure II.74). In all these countries, the proportion of households with persons with disabilities cooking with coal and/or wood is higher in rural areas than in urban areas. Displaced persons with disabilities living in camps are also affected, as almost all energy used for cooking in these camps comes from charcoal and firewood.[335]

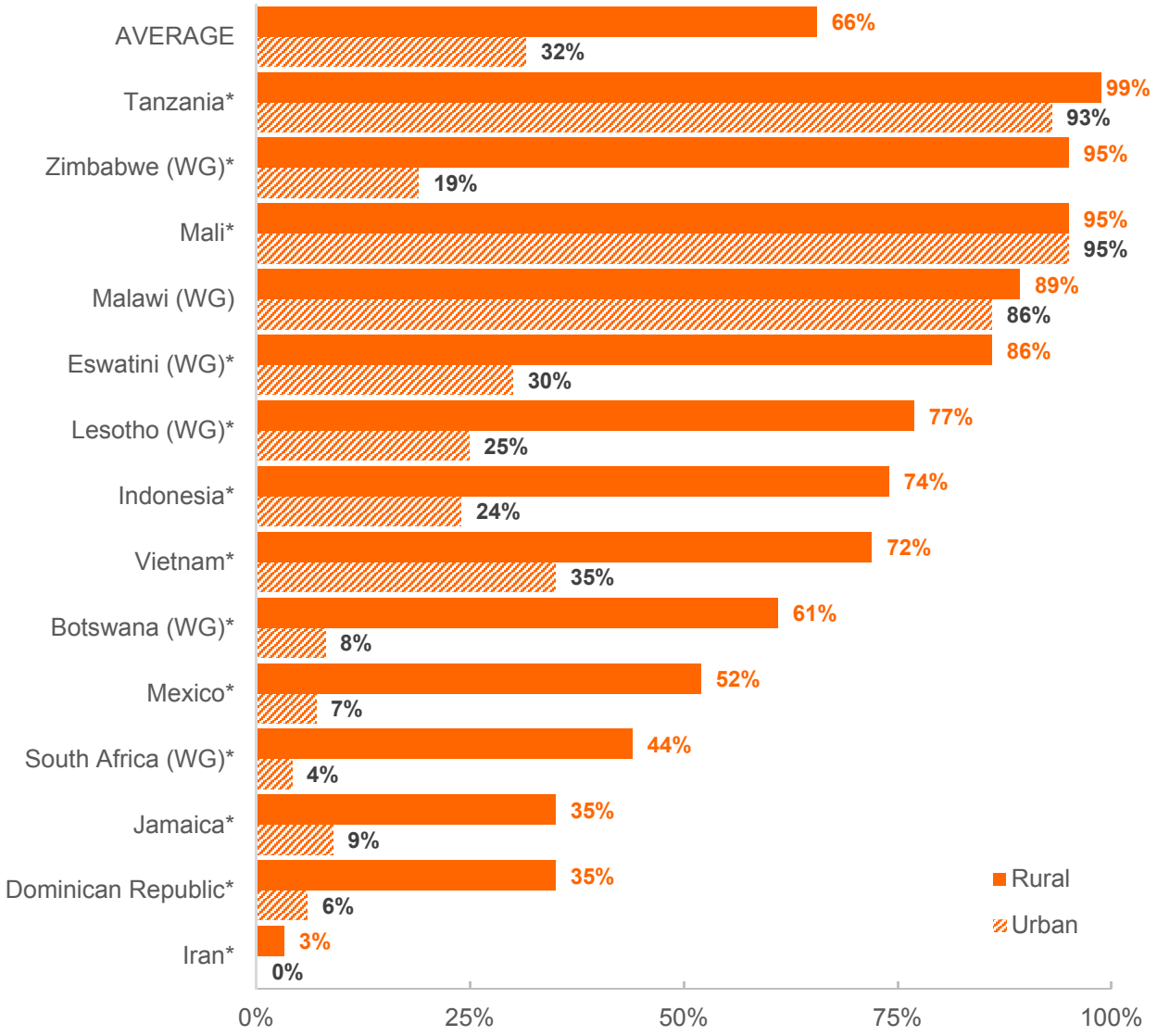
Figure II.73. Percentage of households with and without persons with disabilities cooking with wood or coal, in 14 countries, around 2010.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference between households with and without persons with disabilities is statistically significant at the 5% level.

Source: UNDESA[78] (on the basis of data from IPUMS[10]).

Figure II.74. Percentage of households with persons with disabilities cooking with wood or coal, by location of household, in 14 countries, around 2010.



Note: An asterisk (*) indicates that the difference between households in rural and urban areas is statistically significant at the 5% level.

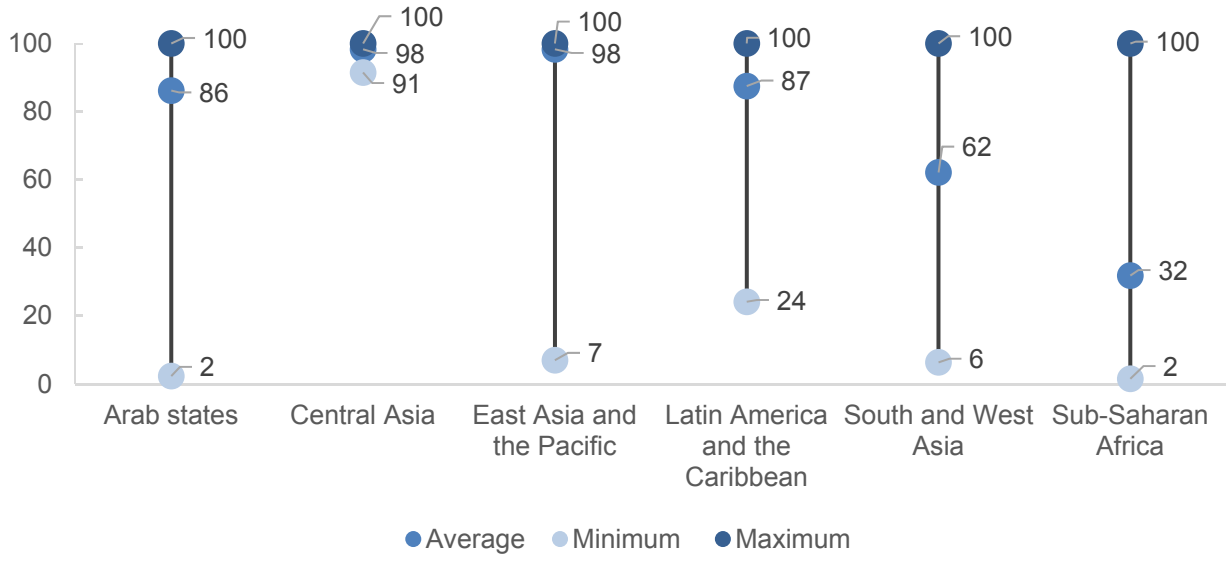
Source: UNDESA[78] (on the basis of data from IPUMS[10]).

Lack of electricity in schools prevents students with disabilities from accessing technology that would enhance inclusive education

ICTs have been designated as one of the most effective ways to advance inclusive education for persons with disabilities.[351] ICTs can be helpful in enhancing access by persons with disabilities to educational tools,

in improving communication with teachers and schoolmates and in providing teachers with the knowledge and tools to teach students with disabilities. Assistive ICTs also give students with disabilities the capacity to construct their own learning experiences. Due to their versatility and ability to be tailored to user needs, ICTs play a vital role in enhancing inclusive education and in enabling differentiated instruction and personalized learning. ICTs that can be used in schools to enhance the participation and inclusion of persons with disabilities include accessible online education materials, digital to braille technologies, DAISY books, dyslexia formatting, text magnifiers, videos with captioning, audio formats, videos in sign language, websites which can be made accessible by allowing for changes in font type and size; and digital documents which can be read with screen readers. Operating ICTs and assistive technology, however, requires access to electricity,[352] which many schools, particularly in developing countries, still lack. In 2012, on average, only 66 per cent of primary schools in developing countries had access to electricity. In 35 out of 102 developing countries, less than 50 per cent of primary schools had electricity (Figure II.75). Primary schools in sub-Saharan Africa had the lowest level of access with an average of 32 per cent. In other regions, average percentages are higher, but in South and West Asia, in Latin America and the Caribbean and in Arab countries, there are countries where less than 10 per cent of the schools have access to electricity. On the other hand, primary schools in 28 countries had 100 per cent access to electricity. The Central Asia region has the highest level of access to electricity in primary schools, with an average of 98 per cent.[353]

Figure II.75. Minimum, average and maximum values of national percentages of primary schools with electricity, by region, in 2012.



Note: Estimates based on 102 countries.

Source: UNESCO Institute of Statistics (2016).[354]

Lack of access to electricity in health-care facilities prevents the use of technology needed to assist persons with disabilities

Access to health-care services is essential for persons with disabilities who report seeking more medical attention than persons without disabilities.[355] Energy plays a vital role in the quality of health-care services, which may depend on electricity-run medical equipment.[356] In addition, lack of electricity may prevent medical services form using assistive products and technology essential for communication and the independent participation of persons with disabilities. This, in turn, may contribute to the observed higher unmet need for medical care of persons with disabilities (see section on Goal 3). This is particularly a challenge in regions where electricity is not widely available in health facilities. Available data show that in sub-Saharan African countries on average 26 per cent of health facilities have no access to electricity and only 28 per cent of health facilities have reliable electricity.[357]

Current practices in energy and disability

Social welfare programmes have been established in many countries to provide financial support for persons with disabilities (see section on Goals 1 and 2). While the benefits provided in each country vary, financial assistance can contribute to improved energy access for persons with disabilities. Depending on whether the benefits consider the additional energy costs faced by persons with disabilities, they may or not be enough to help with energy bills.[358] Social welfare programmes specifically directed at supporting the energy bills of persons with disabilities have been established in a few countries. In some countries, persons with disabilities with low incomes can also access low income social protection programmes to receive support for their energy needs (see Box 4).

Other positive national initiatives include legislation ensuring the inclusion of persons with disabilities in national energy bodies dealing with energy distribution and disputes. Kenya's Energy Bill (2015) stipulates that equal opportunities for persons with disabilities should be ensured in selecting, nominating, approving or appointing the members of the Energy and Petroleum Tribunal, a body composed of experts to determine energy disputes and appeals.[359] In Germany, the payment services helpline of the E.ON, a utility company in Essen, assists consumers that have difficulty paying their utility bills to enhance their understanding on utility services and also provides easy-to-understand and accessible documents. Their services benefitted persons with intellectual disabilities in particular, contributing to a 93 per cent reduction in cases of energy shut down due to lack of payment.[360] Other initiatives include targeting persons with disabilities in programmes to enhance access to clean energy. For instance, in the Dadaab refugee camp in Kenya, a settlement of more than 350,000 refugees, energy-efficient stoves were disseminated, with the beneficiaries being selected by focusing on persons with disabilities and other vulnerable groups.[361]

Box 4. Energy assistance programmes that are available for persons with disabilities

The Cold Weather Payment[362] and the Warm Home Discount Scheme for households with low incomes[363] are both available to persons with disabilities in the United Kingdom to support payments for electricity to adjust room temperature in winter. The Cold Weather Payment allows beneficiaries, including low-income households and those with persons and children with disabilities, to receive additional financial assistance when temperatures are at or below zero degrees Celsius for seven consecutive days in the fall and winter months.[364] The Warm Home Discount Scheme provides a one-time per winter discount on the electricity bills of eligible low-income households.[365] Relatedly, the United Kingdom's Winter Fuel Payment enables older persons to get a certain amount of money to help pay heating bills.[366] In the United States, the Low Income Home Energy Assistance Program (LIHEAP), a federal programme distributed to and managed by each state, assists low-income households, including those with persons with disabilities, to pay electricity bills for cooling and heating in residential dwellings, and to accommodate home energy needs in emergency situations such as extreme weather conditions. It further provides assistance with low-cost energy-related home repairs.[367]

One difficulty in developing effective policies to address the energy needs of persons with disabilities is that, at the national level, those government bodies with mandates relating to disability, assistive technology and energy are almost always different. Disability tends to be under the responsibility of a ministry or a department of health or social welfare, while assistive technology tends to be under the mandate of the ministry of health, and energy issues fall under the mandate of a ministry or a department of energy. For example, in the United Kingdom, programmes related to disability fall under two departments. The Minister of State for Disabled People sits under the Department for Work and Pensions, which provides disability living allowances and social protection schemes that support the energy needs of citizens including persons with disabilities (see Box 4).[368] The Department of Health and Social Care also provides services to persons with disabilities in the areas of education and health including assistive technology.[369, 370] For the area of energy, the Department for Business, Energy & Industrial Strategy is in charge of securing energy supplies.[371]

United Nations entities have a number of activities underway that are designed to scale up efforts to advance universal access to affordable, reliable and sustainable energy,[372] but they typically do not include measures targeting persons with disabilities. An exception is the United Nations Refugee Agency (UNHCR) Global Strategy for Safe Access to Fuel and Energy (SAFE) 2014–2018 which considers special measures to include and provide access to persons with disabilities in the integration of energy needs into emergency planning.[373]

Conclusions and the way forward

Many persons with disabilities live without access to electricity, thus compromising the possibility of operating the assistive technology they need for independent living and ultimately hindering their participation in society. Moreover, fuel and energy poverty are experienced particularly by persons with disabilities, who tend to have less access to adequate heating and less reliable access to modern forms of energy. Despite the interlinkage between energy and disability, this nexus has been absent from international normative frameworks on disability and on energy and is rarely addressed in national policy. This gap in policy and programmes must be addressed to achieve the goal of energy for all.

The 2030 Agenda for Sustainable Development through its Goal 7 and the principle of leaving no one behind has provided a powerful platform for Governments, United Nations agencies, civil society organizations and the private sector to galvanize momentum to promote sustainable energy for persons with disabilities in the coming years. As an immediate action, it is crucial to conduct more studies on disability and energy. Few studies exist on fuel poverty and disability and on the energy needs of persons with disabilities. More research will be needed to cover those gaps. National data collection activities can provide relevant information. Comparable studies and evidence on energy consumption and access to energy for persons with disabilities and persons without disabilities may also help fill-in the gaps. Suggested immediate actions are outlined below:

a. Produce a global mapping of the energy-disability situation, on existing policies, programmes and data.

b. Undertake capacity-building seminars/workshops to look into country-specific needs and to share best practices and lessons learned at national, regional and global levels.

c. Develop a database of available information and disaggregated data on disability and energy.

d. Undertake cost-benefit analyses to understand and to present the co-benefits of providing access to modern energy to persons with disabilities.

e. Present a set of concrete recommendations on how to fill-in the gap in energy access between persons with and without disabilities at, inter alia, high-level and international conferences on energy including the preparatory meetings of the High-level Political Forum on Sustainable Development.

f. Form a multi-disciplinary, multi-stakeholder task force, including policymakers and experts on energy and on disability as well as persons with disabilities and their representative organizations, to undertake the above activities.

Based on the evidence gathered from the actions above, the following eight steps could contribute to address the unique energy needs and implement Goal 7 for persons with disabilities by 2030:

1) **Take into consideration the extra energy costs which persons with disabilities are faced with and the co-benefits of providing access to energy for persons with disabilities in determining social protection measures.** Persons with disabilities tend to have higher energy consumption and higher energy bills. Electricity-run assistive technology, which many persons with disabilities need to live independently, may increase energy consumption. Social welfare programmes can play a crucial role in providing financial support for persons with disabilities to access the energy they need.[374]

2) **Include special measures for persons with disabilities in energy programmes.** Initiatives and programmes launched by countries, international organizations, civil society and the private sector aiming at expanding access to energy should include targeted actions for persons with disabilities to ensure they also benefit from these initiatives and are not left behind. These special measures should also pay attention to the energy needs of persons with disabilities to secure their access to affordable and reliable energy.

3) **Close the gap in energy access between persons with and without disabilities**. This will require a focus on countries with low electricity access, because in these countries the gap between households with and without persons with disabilities tends to be wider. Rural areas also tend to have lower access to electricity and may require special measures.

4) **Prioritize electricity access for persons with disabilities who require electricity-dependent assistive technology for independent living and for participation in society.** Electricity services should reach out to persons with disabilities who require electricity-run assistive technology. In the absence of household electricity, charging at public facilities or off-grid systems,[375] like solar power off-grid systems, could be considered. These alternatives should be particularly considered for persons with disabilities living in rural and remote areas where power lines are not always available.

5) **Reduce use of solid fuels and promote modern forms of energy in the households of persons with disabilities.** Initiatives and programmes to reduce the use of solid fuels should reach households with persons with disabilities as a priority. Energy efficient stoves using modern forms of energy in particular would save persons with disabilities who spend longer periods at home from indoor pollution due to traditional cooking and from exposure to violence particularly for women and girls with disabilities who may collect firewood.

6) **Promote electricity in schools to enhance opportunities for students with disabilities to participate equally in educational systems.** Access to electricity in schools is a prerequisite for effective participation for many persons with disabilities, particularly those who rely on assistive technology. For many persons with disabilities, this technology can enhance their access to educational tools, and can improve their communication with teachers and schoolmates.

7) **Include persons with disabilities in national governing bodies working on energy access.** Inclusion of persons with disabilities in these bodies, including, for example, national energy committees, energy advisory boards and energy dispute tribunals, could play a vital role in addressing the energy needs of persons with disabilities in the implementation of energy policies.[376] Persons with disabilities must be engaged in decision-making processes to ensure that their needs are adequately addressed in policies.

8) **Raise awareness within ministries and promote interministerial coordination to address fuel and energy poverty among persons with disabilities.** At the national level, those bodies with mandates relating to disability, assistive technology and energy are usually different. But, these three areas are interlinked and more interministerial coordination will be needed to address this nexus. Discussions on energy and the fuel poverty of persons with disabilities will need to be linked to discourses around assistive technology, and vice-versa, because being energy poor impacts the use of assistive technology, which in turn impacts the independent living of persons with disabilities and their enjoyment of human rights.

H. Promoting full and productive employment and decent work for persons with disabilities (Goal 8)

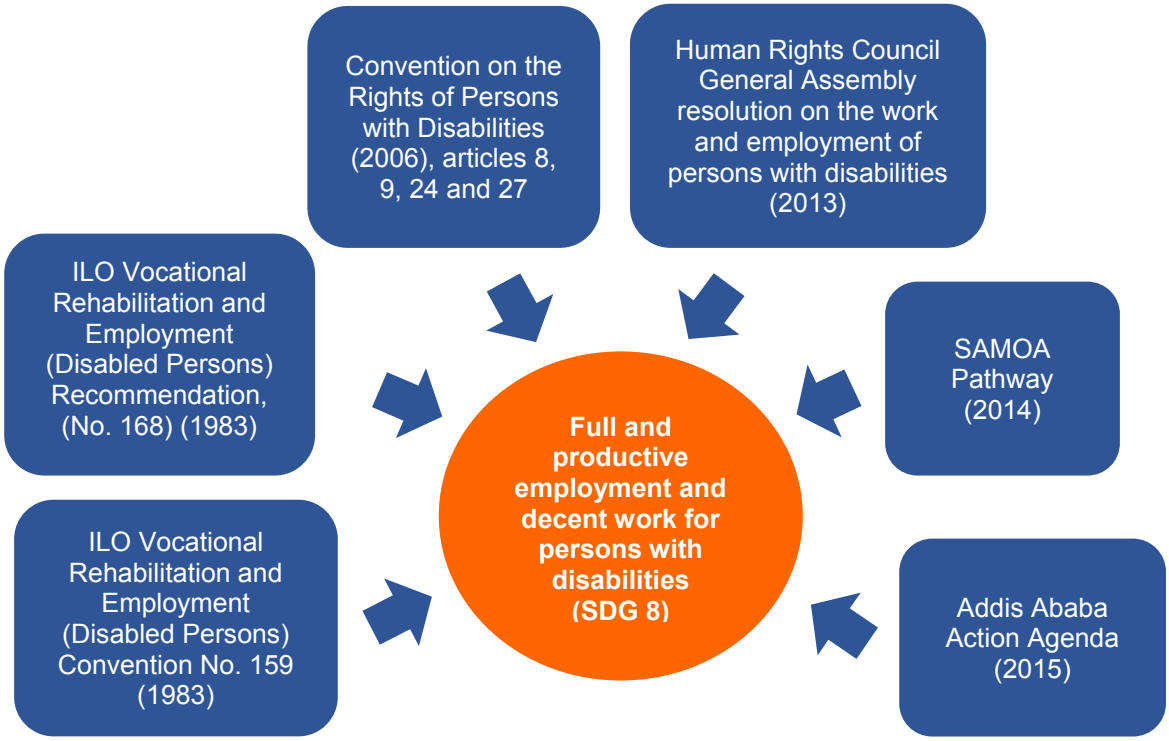
This section reflects on the achievement of Goal 8 for persons with disabilities. Goal 8 calls for promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. The section presents international normative frameworks covering employment issues for persons with disabilities, provides an overview of the status of participation of persons with disabilities in the workforce, lists measures taken by countries to increase job opportunities for persons with disabilities and ends with a conclusion and recommendations.

Decent work and employment are essential for the well-being and dignity of all, including persons with disabilities. Being able to work has a positive impact on social inclusion and quality of life. Quality employment is also essential for the economic empowerment and thus for the independent living of persons with disabilities. Employment and decent work are the most effective means to break the vicious cycle of poverty and marginalization in which persons with disabilities may fall. The professional potential of persons with disabilities often remains untapped due to misconceptions about their working capacity, negative societal attitudes and non-accessible workplaces, vocational skills centres and job services.

International normative frameworks on disability and employment

Several recently adopted instruments directly address persons with disabilities' right to work (Figure II.76). This right is explicitly enshrined in article 27 of the CRPD, which focuses on work and employment. Goal 8, "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" explicitly refers to persons with disabilities in its target 8.5 which aims to, by 2030, achieve full and productive employment and decent work for all women and men, including for persons with disabilities, and equal pay for work of equal value. In 2013, the Human Rights Council's General Assembly adopted a resolution focused on employment and persons with disabilities, Work and Employment of Persons with Disabilities, which calls on States Parties to ensure that persons with disabilities can fully enjoy the right to work on an equal basis with others, and requests that measures are taken to prohibit discrimination, increase employment, promote entrepreneurship, eliminate barriers that hinder job seekers from accessing the workplace, and ensure reasonable accommodation, among others.[377] Equality of opportunity and equality between men and women with disabilities are principles that are also present in ILO Convention No. 159. This convention, accompanied by the ILO Vocational Rehabilitation and Employment (Disabled persons) Recommendation, 1983 (No. 168), requires that Member States formulate, implement and periodically review a national policy on vocational rehabilitation and employment of persons with disabilities.

Figure II.76. International normative frameworks relevant for the achievement of SDG 8 for persons with disabilities.



The Addis Ababa Action Agenda and the SIDS international framework address equal employment opportunities for persons with disabilities. The Addis Ababa Action Agenda encourages the full and equal participation of women and men, including persons with disabilities, in the formal labour market.[378] The SAMOA Pathway highlights the high rates of unemployment among persons with disabilities[379] and calls for the development of entrepreneurial and vocational skills for persons with disabilities as well as for industrial development with the participation of persons with disabilities.[380] Given that the tourism sector represents a major economic pillar for many SIDS, the SAMOA Pathway stresses the enhancement of employment opportunities for persons with disabilities in the sustainable tourism sector.[381]

Both the CRPD and the SDGs recognize the importance of education for work and employment opportunities, including vocational and continuing training. Article 27 of the CRPD calls for taking steps to "enable persons with disabilities to have effective access to general technical and vocational guidance programmes, placement services and vocational and continuing training" and the need to create inclusive educational systems (article 24). This in line with Goal 4 on education which calls for ensuring "inclusive and equitable quality education and promote lifelong learning opportunities for all" and particularly with

target 4.5 which emphasizes the importance of equal access to all levels of education and vocation training for persons with disabilities. Furthermore, the CRPD contains other provisions relevant for employment, such as raising awareness on the capabilities of persons with disabilities (article 8) and increased accessibility of the physical environment, transport, information and communication (article 9), all of which will optimize opportunities for persons with disabilities to participate in the labour market.

The situation of persons with disabilities in employment

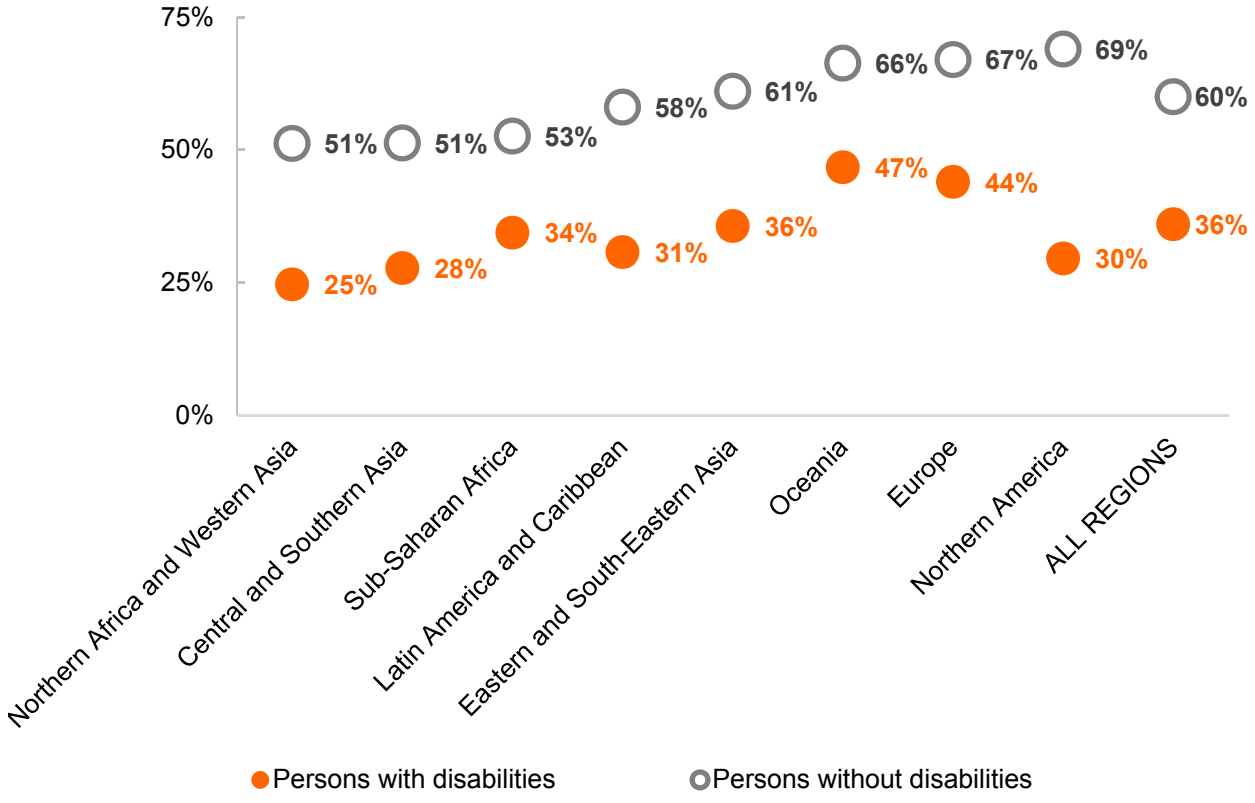
Persons with disabilities, particularly women with disabilities, are less likely to be employed than persons without disabilities

Lower rates of employment have been persistently observed for persons with disabilities. Across eight geographical regions, the employment to population ratio (EPR) for persons with disabilities aged 15 years and older is 36 per cent on average, whereas the EPR for persons without disabilities is 60 per cent (Figure II.77).

EPR among persons with disabilities varies from 25 per cent in Northern Africa and Western Asia to 47 per cent in Oceania. These regional averages are based on data from 91 countries and territories, and at the national level EPRs vary more widely from 7 per cent to 69 per cent.[7,8,9,10,269,382] The employment gap is observed in all regions of the world and varies from 18 percentage points in sub-Saharan Africa to 39 percentage points in Northern America. Gender gaps in access to employment are discussed in the section on Goal 5, showing that, in all regions, women with disabilities are less likely to be employed than men with disabilities and than persons without disabilities.

Since disability prevalence tends to increase with age and EPRs tend to be lower for older age groups, all factors being equal, one would expect EPRs to be lower for persons with disabilities aged 15 and over. However, the gap between persons with and without disabilities in employment is not only due to differences in demographic characteristics. Although the lower education levels often achieved by persons with disabilities impact access to employment, other factors also appear to play a significant role in limiting job opportunities. These include discrimination, stigma, negative attitudes, lack of accessible transportation to get to work, and inaccessible workplaces with limited availability of accommodations for persons with disabilities.[383] For example, in eight developing countries, an average of 32 per cent of persons with disabilities reported that their workplace is hindering or not accessible (Figure II.78). In many countries, laws regulating labour still lack protections against discrimination on the grounds of disability (see section on Goal 10). Due to these obstacles, many persons with disabilities who are capable of working are not able to secure a job and remain an underutilized segment in the labour force.[384]

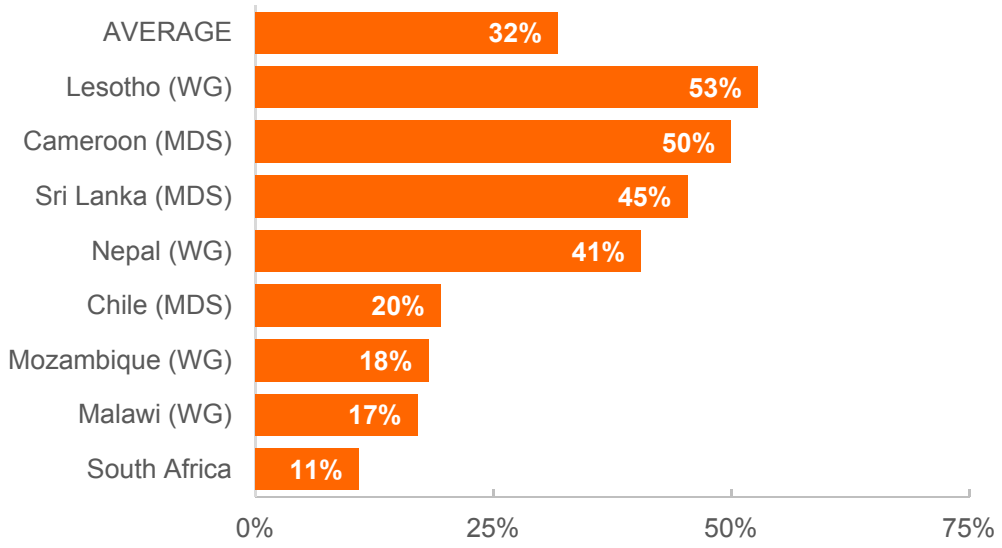
Figure II.77. Employment to population ratios for persons aged 15 years and over, by disability status, in 8 regions, in 2006-2016.



Note: Based on data from 91 countries and territories. For some countries, data are for the age group 15 to 64.

Source: ESCAP,[8] ESCWA,[7] Eurostat,[9] ILO,[269] UNDESA[78] (on the basis of data from IPUMS[10] and SINTEF[11]).

Figure II.78. Percentage of persons with disabilities who report that their workplace is hindering or not accessible, in 8 countries, around 2013.



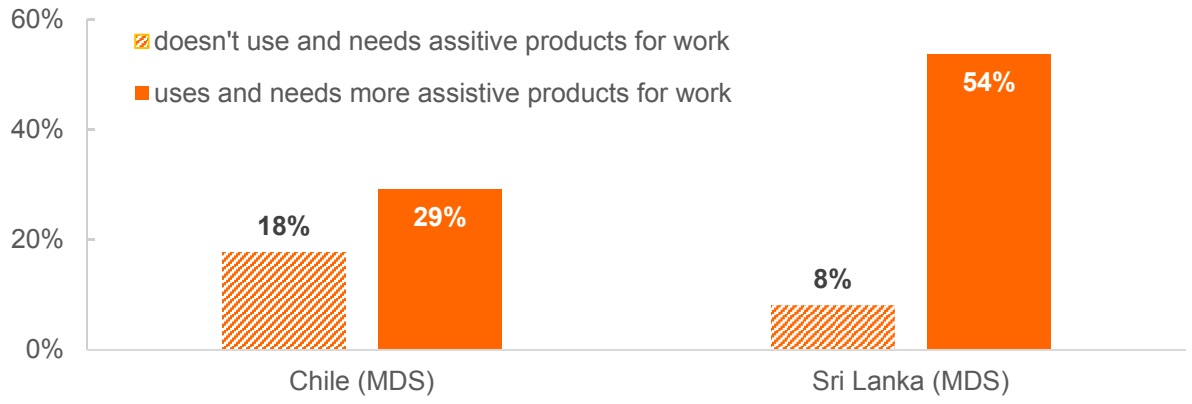
Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions; (MDS) identifies countries with data collected with the Model Disability Survey. Data from Cameroon and South Africa were collected in selected regions and are not nationally representative.

Source: UNDESA (based on data from SINTEF[11]) and WHO.[100]

Reasonable accommodation, including assistive technology, is often missing at the workplace

Reasonable accommodations are necessary and appropriate modifications and adjustments, not imposing a disproportionate or undue burden, to ensure that persons with disabilities can enjoy or exercise, on an equal basis with others, all human rights and fundamental freedoms. [385] Reasonable accommodations used at workplaces vary from no-tech solutions which cost little or no money (like additional preparation time for an individual, or implementing a color-coded filing system), to accommodations that are technologically simple or unsophisticated (e.g. replacing a door knob with an accessible door handle or providing a magnifier) to accommodations that use advanced or sophisticated assistive technology (such as the use of screen reading software with synthesized speech). Advanced assistive technology is often costly and less available. In Chile and Sri Lanka, 18 per cent to 8 per cent of adults with disabilities do not use but would need assistive products for work, and 29 per cent to 54 per cent already use but would need more assistive products for work (Figure II.79). In some countries, employers can seek financial support for reasonable accommodation from a state fund or a charity fund.[386]

Figure II.79. Percentage of persons with disabilities who need assistive products at work, in Chile and Sri Lanka, in 2015.



Note: (MDS) identifies countries with data collected using the Model Disability Survey.

Source: WHO.[100]

Persons with multiple, very severe or psychosocial disabilities are less likely to be employed

Employment to population ratios for persons with multiple disabilities tend to be lower than those for persons with single disabilities. Data collected in 12 countries between 2002 and 2004 found that in all but one country the employment to population ratio of persons with multiple disabilities was lower than that for persons with a single disability (Figure II.80). Among these countries, on average, 37 per cent of persons with multiple disabilities and 47 per cent of persons with a single disability are employed.

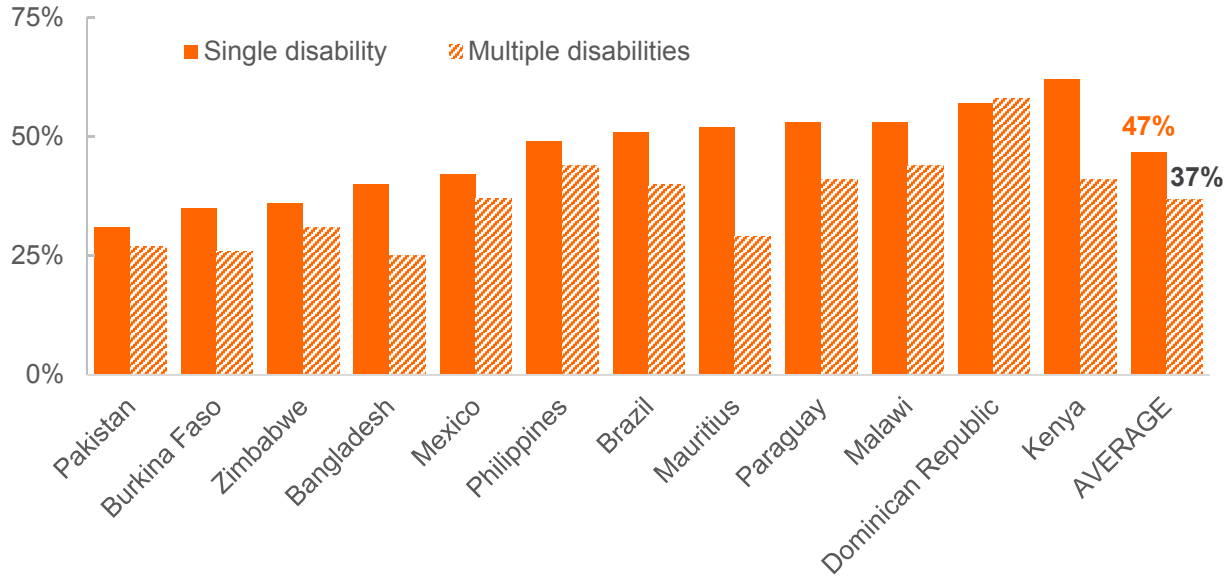
Persons with distinct types and degrees of severity of disabilities may be impacted differently by inaccessibility and other obstacles in employment. For instance, in Brazil, persons with more severe motor disabilities are less likely to be employed than persons with less severe motor disabilities.[387] Available data show that persons with psychosocial disabilities are half as likely to be employed as persons with other types of disabilities (Figure II.112).

Persons with disabilities are more likely to be in vulnerable employment [388]

Even where persons with disabilities are employed, they may disproportionately face precarious situations in comparison to the general population. In most countries, for example, persons with disabilities are more likely to be employed in the informal sector and to be self-employed. For example, in Mongolia, persons with disabilities are four times more likely than persons without disabilities to be engaged in the informal

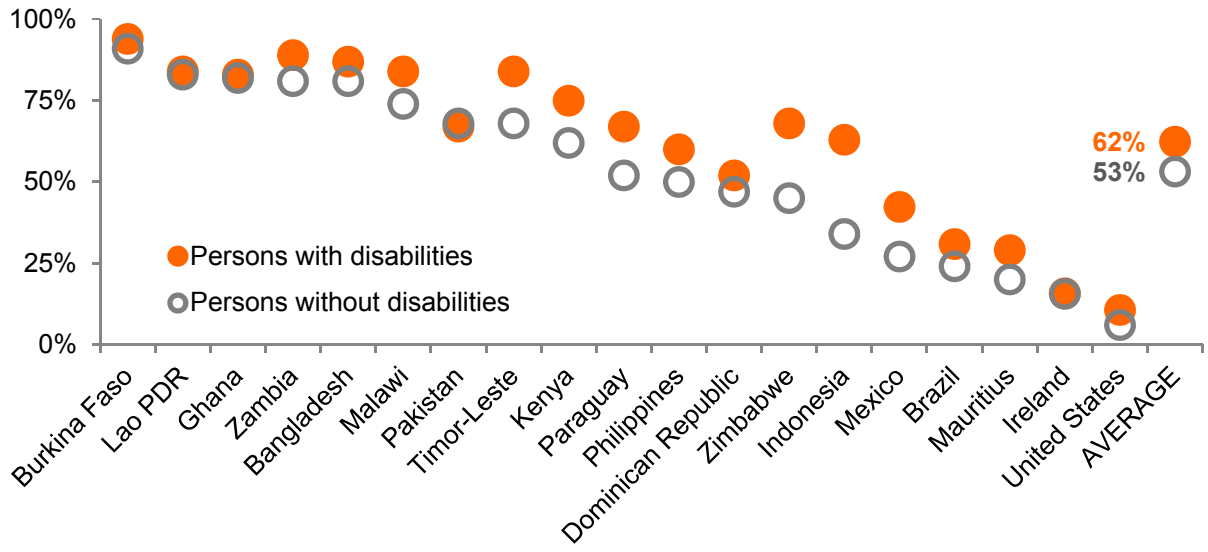
sector.[389] Regarding self-employment, persons with disabilities are also more likely to be self-employed. Among 19 countries, on average 62 per cent of persons with disabilities versus 53 per cent of persons without disabilities are self-employed (Figure II.81). Within this sample of countries, the gap between persons with and without disabilities tends to be wider for developing countries than for developed countries. In 13 of these countries, self-employment rates for persons with disabilities are 5 percentage points higher than for persons without disabilities. The gaps are higher in Indonesia, in 2010, where over 63 per cent of persons with mild disabilities who are working are self-employed, compared to 34 per cent of persons without disabilities. Many persons with disabilities who are self-employed work for their families. In Timor-Leste, 21 per cent of employed persons with disabilities are family workers.[389] In developed countries, evidence from Ireland and the United States suggests that the gaps are narrower. In Ireland, the self-employment rate for persons with and without disabilities is the same, while in the United States the self-employment rate is 5 percentage points higher for persons with disabilities.

Figure II.80. Employment-to-population ratios for persons aged 18 to 60 with single and multiple disabilities, in 12 countries, in 2002-2004.



Source: Mizunoya and Mitra (2013)[390] using data from the World Health Surveys 2002-2004.

Figure II.81. Percentage of employed persons who are self-employed, by disability status, in 19 countries, in 2002-2017.[391]

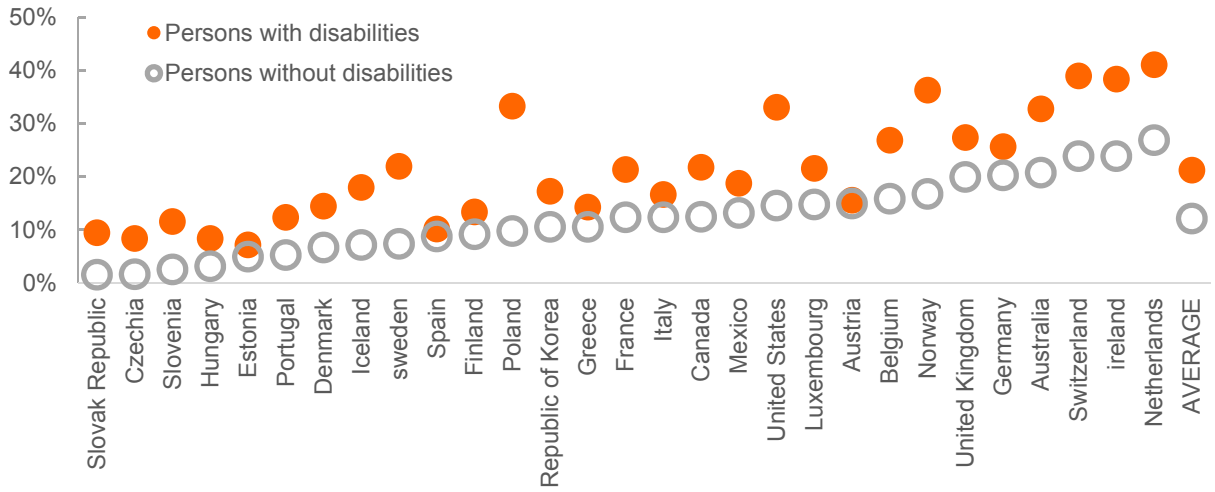


Source: UNDESA[78] (on the basis of data from IPUMS[10]), U.S. Bureau of Labor Statistics, Mizonoya and Mitra (2013),[392] ESCAP (2015).[389]

Also, persons with disabilities are probably less likely to be covered by collective bargaining agreements and thus have fewer protections at work because they are more likely to be self-employed or in the informal sector.

Persons with disabilities are more likely to be in part-time jobs. A 2010 study in 29 countries showed that in all of them the percentage of part-time employees among employed persons with disabilities was higher than for persons without disabilities in all countries (Figure II.82). A study in Nepal showed however that, for persons with disabilities, higher levels of job satisfaction are associated with full-time work.[393] Often persons with disabilities are limited to part-time employment because the full-time employment does not give them the proper time to prepare for work, to travel to and from work due to lack of accessible transportation (see section on Goal 11), and to deal with disability-related services that they may need.[96] When given the necessary accommodations, persons with disabilities are able to engage in full-time work.

Figure II.82. Share of part-time employment in total employment, by disability status, in 29 countries, in 2003-2008.



Source: OECD (2010).[394]

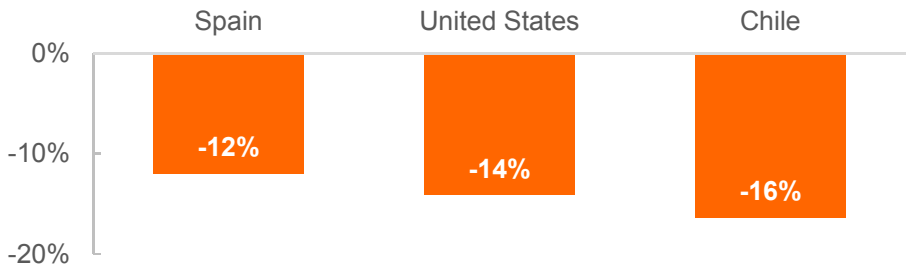
Persons with disabilities tend to earn lower wages

Employed persons with disabilities tend to earn lower wages than persons without disabilities.[395] This may be in part because persons with disabilities are disproportionately self-employed, and the self-employed earn less, and because persons with disabilities more often have irregular employment.[396]

Wage gaps wider than 10 per cent have been reported (Figure II.83). In Spain, a person with disabilities earns on average 12 per cent less per hour than a person without disabilities. A similar analysis in the United States reveals that the median earnings of working-age persons with disabilities who worked full-time and a full year in 2012 were 14 per cent lower than those of persons without disabilities. In Chile, in 2013, the average income from the main job of a person with disabilities 15 years of age or older was 16 per cent lower than the average employment income of a person without disabilities. Persons with some types of disabilities experience even wider gaps. In the United States, persons with cognitive disabilities earned 29 per cent less than persons without disabilities;[398] in Spain, persons with intellectual disabilities earned 49 per cent less than persons without disabilities.[397]

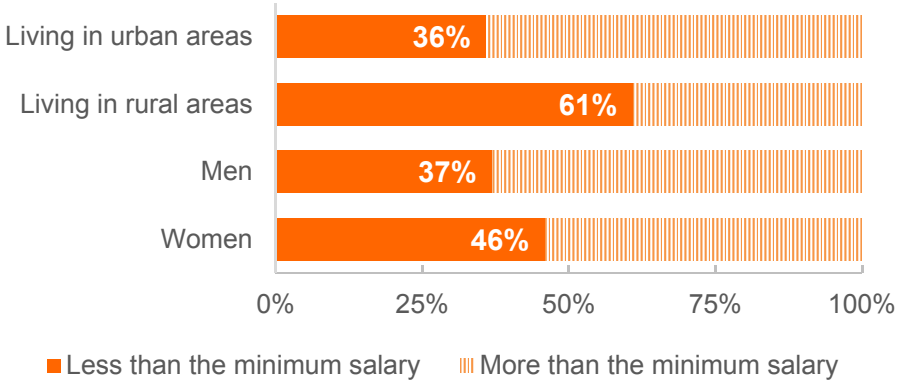
Among persons with disabilities, those living in rural areas and women tend to receive the lowest salaries. In Peru, in 2012, 61 per cent of persons with disabilities living in rural areas versus 36 per cent in urban areas received less than the minimum salary; and 46 per cent of women versus 37 per cent of men with disabilities received less than the minimum salary (Figure II.84). In Spain, women with disabilities earned 16 per cent less than men with disabilities.[397]

Figure II.83. Wage gap between persons with and without disabilities (persons with disabilities minus persons without disabilities), in 3 countries, in 2012-2013.



Source: National Statistical Institute of Spain,[397] Erickson et al (2014)[398] and Ministry of Social Development of Chile.[399]

Figure II.84. Percentage of employed persons with disabilities (employees, employers and own-account workers) receiving less and more than the minimum salary, by sex and area of residence, in Peru, in 2012.



Source: National Statistical Institute of Peru.[400]

Current practices in employment and disability

In all regions, countries are making efforts to harmonize national legislative and policy frameworks with the CRPD, including by seeking to domesticate provisions regarding the right of persons with disabilities to work and employment. Many relevant national initiatives focus on promoting inclusive employment, including through anti-discriminatory legislation, inclusive job services in both the public and private sectors, promotion of inclusive education and training, and adoption of social protection schemes which encourage work. Although countries often focus both on targeted programmes and disability mainstreaming, there has been a move towards the latter, and therefore towards the inclusion of persons with disabilities in mainstream programmes and services.

National practices on promoting inclusive employment

Many countries have been implementing or strengthening their disability-specific anti-discrimination legislation and policies in the areas of employment. For example, 22 United Nations Member States have provisions in their constitutions explicitly guaranteeing the right to work to persons with disabilities or prohibiting employment discrimination against persons with disabilities.[132] Figure II.104 shows that more than 60 per cent of countries have included disability-specific provisions prohibiting discriminatory practices and guaranteeing equal pay in the laws regulating labour. Some countries have developed national employment policies (NEP)[401] that include provisions to ensure the right of persons with disabilities to equal employment opportunities. Examples can be found in the NEPs of Ethiopia, Liberia, Seychelles and Sri Lanka.[402]

Despite such positive examples, legislation seeking to ensure equal access to employment is not always sufficiently comprehensive to address all obstacles. For example, relevant legislation often does not include provisions for reasonable accommodation, although a number of countries – like the United Kingdom[403] and the United States[404] – have already considered such provisions. Even in countries where denial of reasonable accommodations is legally considered an act of discrimination, insufficient guidance is often given by States to employers, workers with disabilities and other relevant stakeholders on how reasonable accommodation should be provided in the workplace. In some instances, anti-discrimination legislation may lack adequate enforcement mechanisms, which can undermine the effectiveness of the legislation.

Many countries have also mainstreamed disability into their public employment services (PES), which can include job search and placement support, provision of relevant labour-market information, and career guidance and training. Mainstreaming disability in these services can include facilitating job matching between companies and job seekers with disabilities. This, in turn, requires reducing disability-based bias in the recruitment practices of employers, and provision of financial and technical assistance for making adjustments to the workplace. Countries that have started to explicitly take disability into account in their public employment services include India, Ivory Coast, Mexico, Peru, Philippines and Viet Nam.[405]

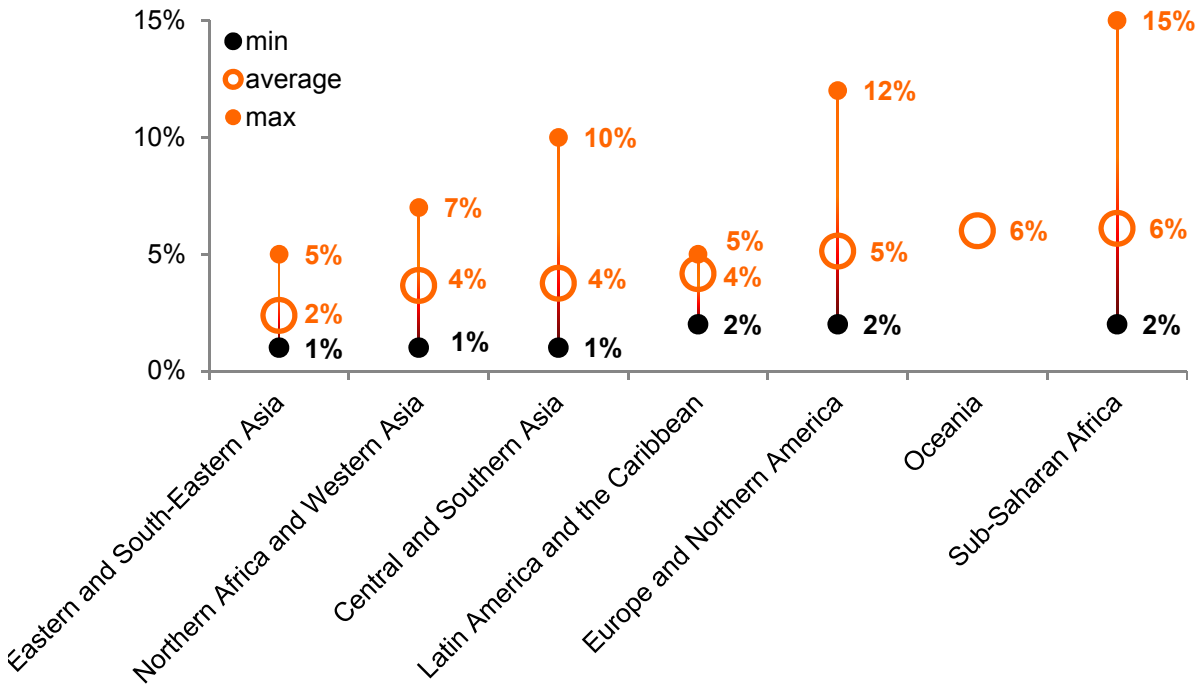
Public employment programmes have been used as an additional policy instrument with which to tackle the challenge of unemployment and underemployment of persons with disabilities. Such programmes can become more inclusive of persons with disabilities by including provisions to increase the accessibility of the built environment, transport, information and communication; to provide reasonable accommodation, if needed; and to build the disability awareness of programme staff, managers and co-workers.

One example of a public employment programme with measures to effectively include persons with disabilities is provided by India.[406] Through this programme, which guarantees 100 days of wage employment in a financial year to every household, state governments in India have to provide work that takes into account the disability-related needs of persons with disabilities. For instance, efforts are made to

ensure that persons with disabilities are provided work opportunities close to their place of residence, so that they do not need to travel long distances to the workplace. Moreover, it is ensured that persons with disabilities are paid wages equal to persons without disabilities. This public employment programme also seeks to ensure a stigma-free environment at the workplace, so that workers with disabilities are not looked down upon or face any form of discrimination. In 2015–2016, about half of the 130,420 persons with disabilities registered under this programme engaged in work under the scheme.[407]

In addition to designing and implementing laws, policies, services and programmes to promote the employment of persons with disabilities, the public sector has also played a role as an employer of persons with disabilities. For instance, New Zealand has implemented a range of initiatives to promote the employment of persons with disabilities in the public sector, including providing guidance on disability inclusion for leaders, managers and human resources professionals in the public sector.

Figure II.85. Minimum, average and maximum employment quotas for persons with disabilities, by region.



Note: Based on information from 99 countries. Value for Oceania based on one country.

Source: ILO and UNDESA.

One of the frequent affirmative action measures used by countries to promote the employment of persons with disabilities are quota systems, which establish an obligation for employers to fill a certain percentage

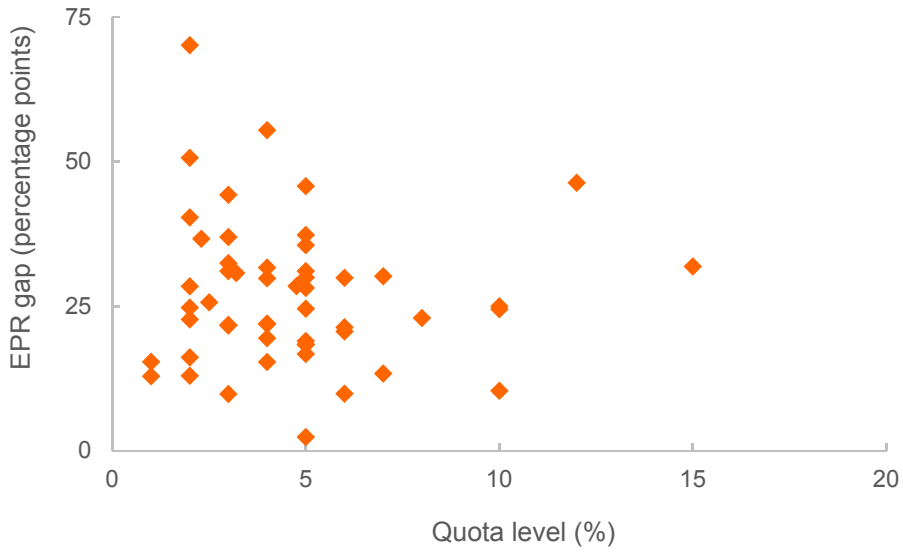
of their total jobs with employees with disabilities. National quota systems currently in place apply to employers in either the public or private sector or to both. In some countries, quotas are only applied to employers of a certain size, and different quota levels typically range from 1 per cent to 15 per cent (Figure II.85). Eastern and South-Eastern Asia have the lowest regional quota levels; sub-Saharan Africa has the highest quota levels.

As there have been no thorough evaluations of quotas, it is difficult to assess their role in including persons with disabilities in the labour market.[408] Countries with quotas between 1 per cent and 4 per cent show a wide range of EPR gaps between persons with and without disabilities; countries with quotas between 5 per cent and 9 per cent have the lowest EPR gaps and the few countries with quota levels that are higher than 10 per cent currently have wide gaps (Figure II.86). This wide variability is likely due to variation across countries in the degree of enforcement of quota levels as well as to the existence, or absence, of additional instruments to complement the shortcomings of quota systems. The most effective quota systems include the payment of a levy by the non-complying company for every designated position not held by a person with disabilities. Such levies typically contribute to a special fund which is used to finance measures promoting the employment of persons with disabilities. Quota systems are of little relevance in low income countries, where the vast majority of people work in the informal economy. Also, often employers prefer to pay the sanction or include persons with disabilities in their payroll but do not expect them to come to work.[409]

The public sector has also encouraged the creation of decent work for persons with disabilities by including disability-related provisions in public procurement policies. For instance, under the Preferential Procurement Policy Framework of South Africa, enterprises are awarded contracts based on a preferential points system which features disability inclusion as one of the areas that positively impact the company's overall rating vis-à-vis the public sector. The United States has a similar system requiring all federal contractors to pursue the goal of a workforce in which at least 7 per cent of workers have disabilities.[410] In the Philippines, public institutions and local governments are required to procure at least 10 per cent of goods and services from cooperatives and organizations of persons with disabilities, where possible and applicable.

There are also promising initiatives to support entrepreneurship among persons with disabilities, particularly by removing discriminatory practices and improving access to financial services. A persistent barrier in this area has been the false assumption that persons with disabilities represent a higher-risk group. In fact, persons with disabilities have similar payback rates on their loans as persons without disabilities.[411] In Uganda, the Association of Microfinance Institutions has taken measures to create equal opportunities for persons with disabilities to access their financial services, with a particular focus on sensitizing its staff on disability rights.[412] A major banking group in Austria offers customer services in sign language through online video calls.[413]

Figure II.86. Employment quotas for persons with disabilities versus employment-to-population ratio (EPR) gap (persons without disabilities minus persons with disabilities), in 52 countries, around 2010.



Source: For sources of data, see Figure II.77 and Figure II.85.

Many persons acquire their impairment while they are employed. However, in some countries, there are no policies or programmes in place to support job retention or return to work, in such instances, particularly if the employee has had to leave work for some time.[414] Evidence shows that the longer the absence from work, the more difficult it is to bring a person back into the labour market. But national initiatives have been taken to counter this trend and support the retention or return to work of persons who acquired their impairment while they were employed. The Return to Work programme of the Malaysian Social Security organization is an example of a good practice in this area. The efforts in Malaysia focus initially on getting the person with disabilities back to the company where she/he was working before (same job or, if the same job is no longer an option, a similar job). If this is not possible, efforts are made to employ the returning worker at another company and, only if this has not worked out, the focus is on providing self-employment opportunities. Ensuring job retention and return to work for persons with mental health conditions and persons with psychosocial disabilities is particularly challenging, as issues of stigma related to mental health still persist.[415] Public policies to address this issue include individual placement and support, which has some common elements with supported employment and is used particularly for persons with psychosocial disabilities.

Persons with disabilities sometimes require additional support to be able to find, secure and retain a job. Supported employment[416] has proved to be an effective methodology. Supported employment may consist

of on-the-job training provided by an externally funded job coach who accompanies the employee with a disability during the initial period of the employee's new job. The support is gradually phased out, but the organization providing this support remains available to intervene, if needed. Supported employment is particularly effective for persons with intellectual and psychosocial disabilities; however, it is not limited to these groups.[408]

Another approach involves making an initial, substantial investment in helping an individual to become established in a competitive job, without an expectation of continued support thereafter. The focus is on providing the individual with introductory work opportunities – visiting employers, job-shadowing, subsidized internships, temporary or part-time jobs, etc. – with technical assistance provided by a counsellor. The approach helps the individual understand what work requires, exposes them to jobs that may be of interest to them, and helps employers understand how they can use the individual's work capacity. Project SEARCH is a prominent example of this approach in the United States.[417]

Sheltered employment has historically played a relevant role, usually for persons with disabilities who face particular challenges entering the mainstream labour market. Sheltered employment, mostly found in developed countries, varies significantly among and within countries. It includes workshops or companies in which workers with disabilities have standard labour contracts and wages according to the sector in which they operate. Sheltered employment can also include workshops in which persons with disabilities do not have labour contracts, but receive disability benefits from the State and minimal pocket money from the workshop, based on their production. The transition into the "open" labour market – the goal that most sheltered workshops are supposed to promote – has generally not been achieved.

One of the main challenges for persons with disabilities in finding jobs, particularly in developing countries, has been the lack of private sector involvement. A successful initiative to address this challenge is the ILO Global Business and Disability Network, which provides a platform for global and local companies to exchange practices on the inclusion of employees with disabilities. This initiative draws on the business advantages of employing persons with disabilities, by highlighting the talents and skills workers with disabilities bring to the company, thereby contributing to a diverse workforce that is better prepared to respond to the diverse needs of the globalized economy. The private sector's small but increasing interest in the employment of persons with disabilities exists in developing countries, demonstrated by the establishment of national employer-led initiatives on disability inclusion in countries such as Bangladesh, Indonesia, Peru and Zambia, among others. These initiatives are particularly important as they challenge the widely held view that the only opportunity for persons with disabilities in developing countries to obtain a livelihood is through self-employment in the informal economy.

National practices on ensuring full inclusion in technical vocational education and training

Many countries have been working to adopt or strengthen existing disability-specific anti-discrimination

legislation that includes provisions relating to vocational education and training. Many have also established initiatives to promote inclusive Technical Vocational Education and Training (TVET). Some countries, including Australia, Bangladesh,[418] Canada, Ethiopia,[419] India and Malaysia, have introduced general or disability-specific laws, policies or strategies that promote the inclusion of persons with disabilities in mainstream TVET systems and programmes. In addition, countries including Brazil, Egypt, Ethiopia, Indonesia and South Africa have taken steps to create more disability-inclusive apprenticeship schemes, such as workplace programmes and hands-on learning that are also open to persons with disabilities at companies that combine on-the-job-training with complementary school-based training for a full occupation, craft or trade.[420] In Mozambique, support has been provided for young persons with disabilities to access technical and vocational training by removing physical barriers in accommodations and training centres, for example, by developing accessible lavatories and installing lower door locks and light switches.[421] National initiatives that include youth with disabilities in programmes offering comprehensive education, job training and job placement services to economically disadvantaged youth have been found to be especially effective in improving work outcomes for youth with disabilities.[422]

National practices on social protection to encourage work among persons with disabilities

In countries that provide disability benefits, eligibility is often tied to the inability to work, providing a potential disincentive to look for employment. Awarding benefits based on inability to work reduces the employment of persons with disabilities and undermines support for work from service providers, other public programmes, employers, family and friends. The result is that persons with disabilities are less productive than they otherwise might be and more frequently are excluded not only from employment but also from other aspects of society. This approach has been cited as a major impediment to the success of other efforts to improve employment outcomes,[423] including the establishment of the right to work and investments in education, training and employment services. Yet this approach to determining eligibility remains common in developed countries, at least in part because of fears that other approaches will result in the rapid growth of programme costs, as those working despite their disabilities would become eligible for benefits. A few countries, such as the United Kingdom, have disability allowance schemes, designed to pay for the extra costs associated with having a disability, without considering employment or earnings, but these are small relative to programmes awarding benefits on the basis of inability to work. In recent years, a few Organisation for Economic Co-operation and Development (OECD) countries have addressed this issue by placing greater emphasis on improving support for workforce retention before workers become dependent on social protection. This promotes greater inclusion of persons with disabilities and helping workers stay in the labour force appears to be less costly than providing benefits on the basis of inability to work.

Conclusions and the way forward

Many persons with disabilities, particularly women with disabilities and those with very severe disabilities, face difficulties in participating in the labour market. Gaps remain in the employment of persons with disabilities in the mainstream labour market and those who are employed are more likely be in vulnerable employment and to earn lower wages compared to persons without disabilities. Many countries have taken initiatives to address these issues, through anti-discrimination legislation and quota systems, as well as by developing disability-inclusive national employment policies, technical vocational education and training, public employment services and programmes, public procurement, entrepreneurship support services, and social protection schemes for persons with disabilities, which are compatible with work.

To address the current employment gaps and realize Goal 8 for persons with disabilities, the following steps could contribute to address current challenges:

1) **States should ensure that national legislation protects persons with disabilities from discrimination on the basis of disability in all matters of employment and that it includes the denial of reasonable accommodation as a form of discrimination.** Reasonable accommodation in most cases does not incur costs or incurs just a minimal cost.[386] It is important that States improve and standardize the support available for providing reasonable accommodation in the workplace.[424]

2) **The public sector should lead by example by hiring persons with disabilities** and take affirmative actions to promote their initial employment and career development. This will expand the opportunities for persons with disabilities to work, create a model for other employers and increase the legitimacy and credibility of the public sector in terms of representing the whole population it is supposed to serve.

3) **Public procurement policies and systems should include provisions that encourage the employment of persons with disabilities,** including by setting a clear goal on the proportion of procurement of services and products provided by persons with disabilities.

4) **States should ensure that public employment services (PES) are inclusive of persons with disabilities**, including through managing disability-disaggregated data, reducing disability-based bias in the recruitment practices of employers and providing financial and technical assistance in making adjustments to the workplace. PES staff who interact with clients with disabilities need to be sensitized about disability issues and disability-specific needs and should be enabled to read, interpret and develop labour market data in an efficient and effective manner and communicate it in a comprehensible way to job seekers with disabilities. Where disability-specific placement services exist, these should be well coordinated with the PES.

5) **Where employment quota legislation exists in the public and/or private sectors, the State should ensure its implementation with an effective evaluation system throughout the career development of employees with disabilities.** Quota systems should complement anti-discrimination

legislation that ensures equal working conditions for persons with disabilities after being hired. On one hand, quota systems are more effective in getting persons with disabilities into the labour market, but do not require employers to ensure equal opportunities for the career development of employees with disabilities. On the other hand, anti-discrimination legislation is less effective to facilitate entry into the labour market, but it can be very effective in guaranteeing equal working conditions for workers with disabilities.

6) **Mainstream entrepreneurship development training and microfinance systems should include persons with disabilities** by, inter alia, combatting stereotypes about persons with disabilities' entrepreneurial and financial abilities and facilitating access of current and potential entrepreneurs with disabilities to credit and financial services. To mainstream entrepreneurship development training, a first step could be ensuring that the trainings provide reasonable accommodation and when the courses are announced they refer to entrepreneurs with disabilities as welcomed participants.

7) **States should have policies in place that facilitate job retention and return to work for persons who acquire a disability, including for persons with mental health conditions**, with the provision of disability benefits that are compatible with full- or part-time work. Programmes designed to support entry or re-entry into the labour market should ensure full inclusion. The International Social Security Association guidelines on job retention and return to work provide useful guidance on the different measures that need to be in place for this to happen.[414]

8) **States should support persons with disabilities in sheltered employment to benefit and enter the mainstream labour market.** While sheltered workshops have played a vital role in the employment of persons with disabilities, there is a need to move towards a more inclusive model and improve the number of employees with disabilities that participate in the mainstream labour market. In addition, the reference to "all forms of employment" in paragraph 1(a) of article 27 of the CRPD ensures that persons with disabilities working in sheltered companies or workshops should also be protected from discrimination in all matters covered by the article.

9) **States should pay particular attention to encouraging the employment of persons with disabilities in the private sector,** both working on the demand side, supporting initiatives that will increase disability confidence among employers, as well as on the supply side, ensuring better access of persons with disabilities to education and vocational training, and by facilitating job placement services. Private sector involvement will need to be supported by Governments through improvements in legislation, policies and services, particularly those related to skills development and adequate placement services.

10) **TVET systems and programmes and other skills development systems should have provisions to include persons with disabilities**, for example, through building the capacities of TVET staff in

training persons with disabilities, increasing the physical accessibility of TVET centres with a provision for reasonable accommodation, and conducting adaptations of entry criteria, teaching methods and materials as well as evaluation methods that consider disability. Women with disabilities should receive particular attention. In-house and online training can also increase the participation of persons with disabilities. Mainstream workplace learning, particularly apprenticeships, should be made inclusive of persons with disabilities. For instance, all federal and state employment and training services should be accessible to those with disabilities.

11) When designing and implementing social protection systems, **States should consider a flexible combination of income security and disability-related support** in a complementary way to promote the economic empowerment of persons with disabilities. Social protection systems can play a critical role in laying the foundation for many persons with disabilities to enter and/or stay in employment. By ensuring that persons with disabilities have income security, that their disability-related needs and extra costs are met and that they have effective access to health-care services, these systems can significantly promote the participation of persons with disabilities in the open labour market and in society at large.

12) **Build robust evaluation plans for the implementation of programmes to improve the employment of persons with disabilities.** The development, implementation and evaluation of national employment policies should include a rights-based disability perspective, including measures that effectively promote the employment of persons with disabilities as well as a meaningful involvement of organizations of persons with disabilities at all stages. Disability-disaggregated indicators need to be included in the action plans for the implementation of policies to ensure that monitoring and evaluation effectively takes disability issues into account.

13) **States should ensure that a database of available information and disaggregated data on disability and employment is developed and available in an accessible format.** When reporting on the disability employment gap, it is important to go beyond the percentage of persons with disabilities in employment to also include breakdowns by status in employment, hours worked, and earnings to provide a fuller picture of the differences in employment between persons with and without disabilities. Comparisons of employment profiles of persons with and without disabilities should also include disaggregation by other significant demographic, social and economic characteristics (such as gender, age, ethnicity, economic activity, occupation and level of education, among others), because of the interactive aspects of these characteristics with the impact of disability. Disaggregation should take due regard for the need for confidentiality and statistical significance.

I. Increasing access to ICT for persons with disabilities (target 9.c)

This section will address access to ICTs as it relates to persons with disabilities, beginning by presenting the international normative frameworks in this area. An overview of global ICT access and usage among persons with disabilities is presented. The section also illuminates national initiatives and ends with recommendations to improve access to ICT among persons with disabilities.

The reach and power of ICT[425] has grown tremendously in recent decades. In today's digital age, ICT plays a central role in nearly all aspects of life. ICTs affect how people work, play, vote and interact. For persons with disabilities, ICTs can also represent a powerful opportunity to improve quality of life, enhance inclusion and social engagement and make independent living possible: "For most people, technology makes things easier. For persons with disabilities, technology makes things possible".[426] ICTs can offer persons with disabilities opportunities for education, work, leisure, social interaction and political participation as well as provide access to public services and information. Online access to public services, e-learning materials which can be adapted to the needs of students with disabilities, and text-to-voice devices, among others, are indeed giving persons with disabilities the ability to further engage in society.

As information and communication move increasingly online, digital technologies present an unprecedented opportunity for the inclusion of persons with disabilities. At the same time, they also present a major risk of leaving persons with disabilities further behind, in cases where these technologies, products, content and services are not created with accessibility in mind. Increasingly, digital inclusion – i.e. the ability of all persons, including persons with disabilities, to access and use ICTs – and ICT accessibility must be seen as a critical element for ensuring inclusion and the achievement of other SDGs for persons with disabilities.

International normative frameworks on disability and ICT

SDG target 9.c commits to significantly increase access to ICT and to provide *universal* and affordable access to the Internet in least developed countries by 2020. This represents a crucial target in the development of digital inclusion, in particular for persons with disabilities. Current international normative frameworks, which include provisions on ICT and persons with disabilities, focus mainly on affordable and equitable access, on removing barriers in access to ICT for persons with disabilities and on promoting ICTs that respond to the needs of persons with disabilities (Figure II.87).

A key framework in this regard is the CRPD, which recognizes the critical role that information and communication plays in ensuring that persons with disabilities fully enjoy human rights and fundamental freedoms (preamble (v)). The CRPD calls also for promoting research and development and enhancing the availability and use of new technologies, including ICTs (article 4(g)). In addition, article 9 is dedicated to accessibility and stipulates that States Parties should take appropriate measures to ensure persons with

disabilities have access, on an equal basis with others, to information and communications, including information and communications technologies and systems. To ensure this access to ICT, article 9 further calls for removing barriers to information, communication and other services including electronic services and emergency services and to promote the design, development, production and distribution of accessible ICT at an early stage. Article 21 urges private entities and the mass media, which provide services and information through the Internet, to make these accessible to persons with disabilities. ICT also plays a key role in meaningful habilitation and rehabilitation, and article 26 calls on States Parties to promote the availability, knowledge and use of assistive technologies used in this regard.

Figure II.87. International normative frameworks relevant for the achievement of SDG target 9.c for persons with disabilities.

The International Telecommunication Regulations (2012), one of the major international frameworks focusing on information and communications, specifically calls on Member States to promote access for persons with disabilities to international telecommunication services.[427] In addition, an outcome document of the World Summit on the Information Society (WSIS), the Geneva Plan of Action (2003), calls for full inclusion of persons with disabilities in the information society and encourages the design and production of ICT equipment and services that meet the needs of persons with disabilities and promote the development of technologies in line with the Universal Design Principle.[428] It also addresses the need to nurture local capacity for the creation and distribution of software in the local context for the population, including persons with disabilities.[429] Another WSIS outcome document, the Tunis Commitment (2005), also stressed that the needs of persons with disabilities should be taken into account in providing equitable

and affordable access to ICTs.[430] Furthermore, the World Summit on the Information Society (WSIS)+10 Review and Strategic Directions for Building Inclusive Knowledge Societies for Persons with Disabilities (2013) states that for ICT to be accessible, persons with disabilities need to be able to "perceive output information, understand it and act upon it".[431]

Other international frameworks that stress the importance of ensuring access to ICTs for persons with disabilities include the New Urban Agenda (2016), which calls for facilitating access for persons with disabilities, on an equal basis with others, to ICTs and systems.[432] It also commits to promote the development of national ICT policies and e-government strategies to make ICT accessible to the public, including persons with disabilities.[433]

In addition, several international normative frameworks have recognized the importance of international cooperation in expanding access to ICTs. This is particularly relevant for persons with disabilities for whom state-of-the-art ICTs can make a crucial difference with regards to their independent living. CRPD article 32 highlights the importance of international cooperation in the facilitation of access to and sharing of accessible and assistive technologies, some of which are ICTs. In the same vein, SDG target 17.8 commits to fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for the least developed countries and enhance the use of enabling technology, particularly ICT.

Box 5. Regional normative frameworks on ICT and disability

Normative frameworks on ICT established at the regional levels have also reflected the needs and perspectives of persons with disabilities. The European Union Digital Agenda (2010) emphasizes the importance of accessibility of websites and online services, and calls for addressing the challenges of accessibility and usability of persons with disabilities by helping them participate in digital society, including by training them. In this Digital Agenda, the European Commission commits to systematically evaluate accessibility in revisions of legislation, following the CRPD.[434] Relatedly, the European Accessibility Act (2015) seeks to improve the functioning of the internal market for accessible products and services by eliminating obstacles caused by divergent legislation in order to facilitate accessibility for persons with disabilities.[435] The European Union directive on "the accessibility of the websites and mobile applications of public sector bodies" (2016) aims to improve the accessibility of public sector websites and mobile applications, particularly for persons with disabilities.[436]

In the Americas, the Inter-American Convention on the Elimination of All Forms of Discrimination against Persons with Disabilities (CIADDIS) was adopted in 1999 to advance the rights and fundamental freedoms of persons with disabilities. While this instrument does not specifically mention access to ICTs, there are directives that encourage States Parties to eliminate discrimination against persons with disabilities including by providing accessible communications.[437] Within the framework of the Organization of American States, the Program of Action for the Decade of the Americas for Persons with Disabilities (2006–2016) called for the elimination of communication and information barriers in all communications media and public services to improve access for persons with disabilities (measure 5.f) and for designing and executing education programmes using new ICTs to meet the educational needs of students with disabilities (measure 3.f).[438]

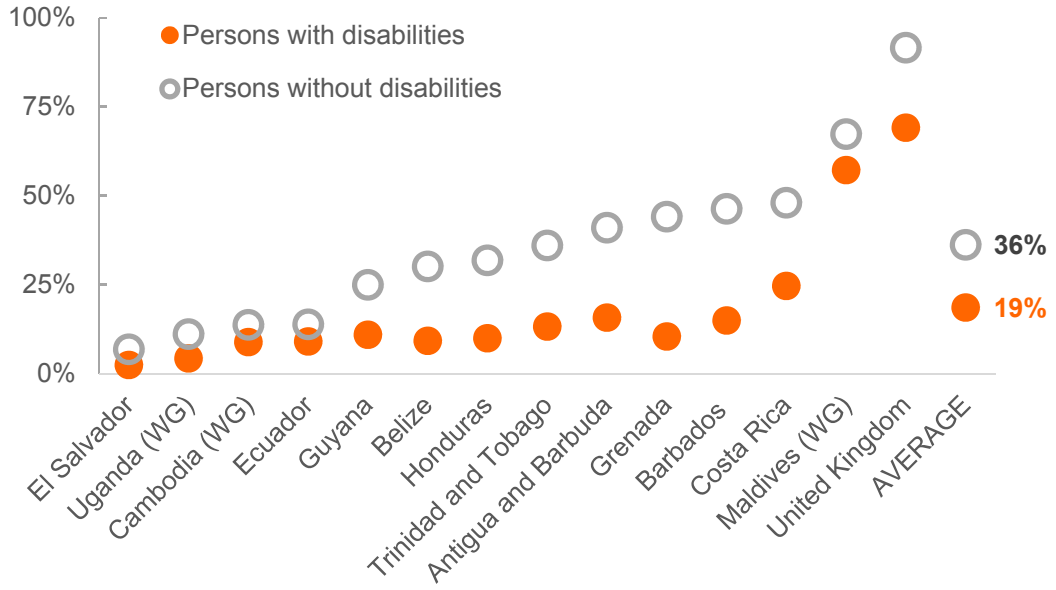
The Action Plan for the Information Society in Latin America and the Caribbean (eLAC2015) adopted in 2013 recognizes that ICTs are tools for economic development and social inclusion. Its Goal 6 commits to promote ICT access and use by persons with disabilities with emphasis on the development of applications that consider standards and criteria on inclusion and accessibility.[439] The Digital Agenda for Latin America and the Caribbean (eLAC2018) adopted in 2015, complements the eLAC2015, with an emphasis on achieving universal access to digital services and content production including vulnerable groups, which implicitly includes persons with disabilities (Objective 1). The eLAC2018 also ensures ICT access for vulnerable groups to improve their social, educational, cultural and economic integration (Objective 18).[440]

The situation of persons with disabilities regarding access to ICT

Access to and use of the Internet

Internet websites have been ranked as one of the most important ICTs for persons with disabilities for health care, education, employment, access to government services and participation in political and public life.[441,442] However, significant gaps are observed between persons with and without disabilities in the use of the Internet, with persons with disabilities reporting lower usage. Among 14 countries, around 2011, the average gap was 18 percentage points, with some countries reaching gaps as high as 30 percentage points (Figure II.88). On average, in these countries, 19 per cent of persons with disabilities use the Internet versus 36 per cent of persons without disabilities. In all 14 countries, compared to persons without disabilities, the percentage of persons with disabilities using the Internet is lower. Countries with overall higher Internet usage tend to have higher gaps between persons with and without disabilities in Internet use.

Figure II.88. Percentage of persons who use the Internet, by disability status, in 14 countries, around 2011.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.

Source: ECLAC,[272] UK Office for National Statistics,[443] World Bank and UNDESA (on the basis of data from DHS[6]).

Households with persons with disabilities tend also to have lower Internet access (Figure II.89). Among 26 countries, 9 per cent of households with persons with disabilities versus 13 per cent of households without

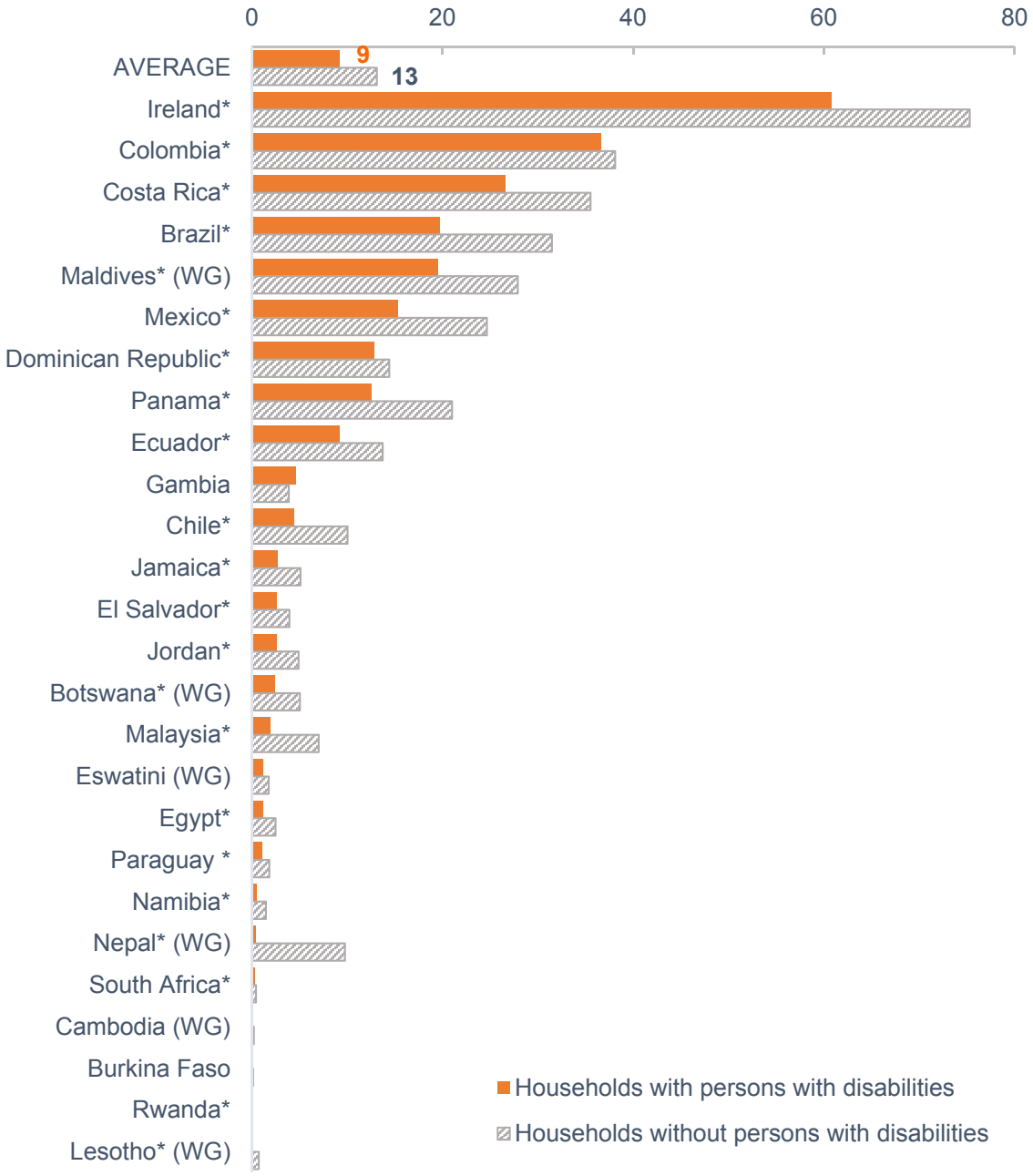
disabilities have access to the Internet. In nine of these countries, the gap is above five percentage points.

The gap between access to the Internet at home and use of the Internet varies with age. For instance, in 11 Latin American and Caribbean countries, a higher percentage of younger persons with disabilities, especially those under the age of 40, use the Internet than have Internet access in the home, whereas for adults aged 40 and above with disabilities it is more common to have access in the home than report Internet use (Figure II.90). These patterns suggest that for the younger generation of persons with disabilities use of the Internet is not constrained by not having connectivity at home, which may reflect the rising popularity of smart phones and other portable devices that have Internet connectivity, or the use of the Internet in public places by younger generations.[444] For older adults with disabilities, having Internet access does not equate with Internet use. The age differences are much more pronounced for use than access. This can be due to the fact that access may be related to household income level, whereas use of the Internet and ICT more generally are marked by a digital age divide.

Several reasons may explain the lower use of the Internet among persons with disabilities, with unaffordability of the Internet, unaffordability and inaccessibility of the devices on which to access the Internet (e.g. computers or smartphones) and lower ICT skills among persons with disabilities, all possibly playing a significant role. Indeed, persons with disabilities have lower employment rates and lower incomes (see section on Goal 8), and may have extra costs related to disability, making it more likely that the costs of Internet subscriptions and electronic devices will be prohibitive for them. For instance, data available for three countries in sub-Saharan Africa indicate that 15 per cent of households without persons with disabilities but only 8 per cent of households with persons with disabilities are able to afford Internet costs (Figure II.91). Households with persons with disabilities are also less likely to have a computer (11 per cent of households with versus 16 per cent of households without persons with disabilities).[6,10,11,445]

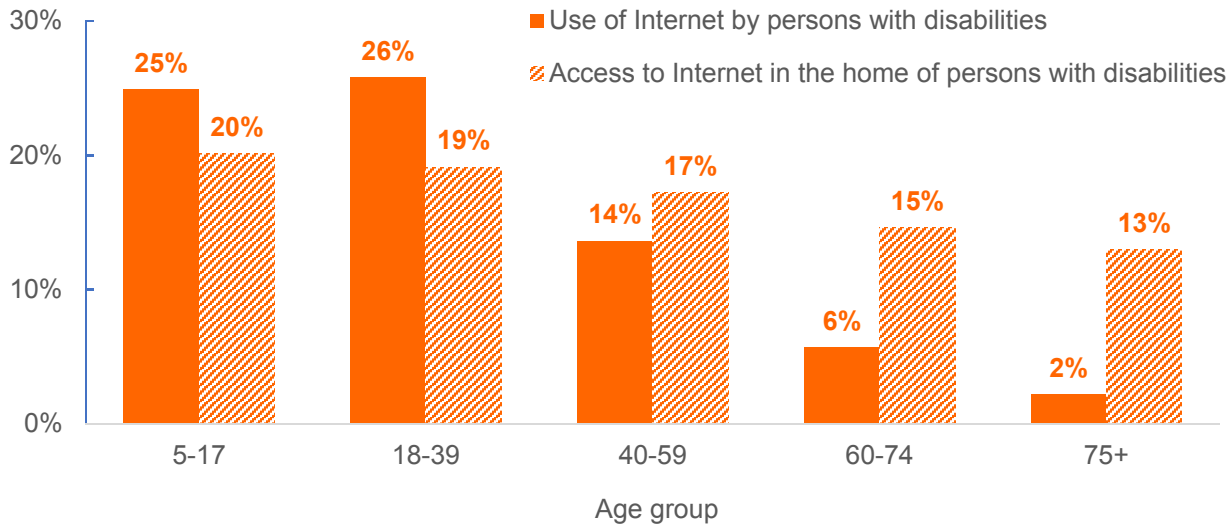
In addition, persons with disabilities are less likely to receive an education (see section on Goal 4) and are thus more likely to have lower levels of digital literacy. And, even with similar levels of education, they may face additional barriers to using the Internet. For example, around 2010, in 11 countries in Latin America and the Caribbean, persons with disabilities were less likely to use the Internet than persons without disabilities with identical education levels (Figure II.92). Although Internet usage increased with the level of education for both persons with and without disabilities, the gaps between the two ranged from 6 percentage points in primary education to 14 percentage points in tertiary education.

Figure II.89. Percentage of households, with and without persons with disabilities, that have Internet access, in 26 countries, in 2000-2016.



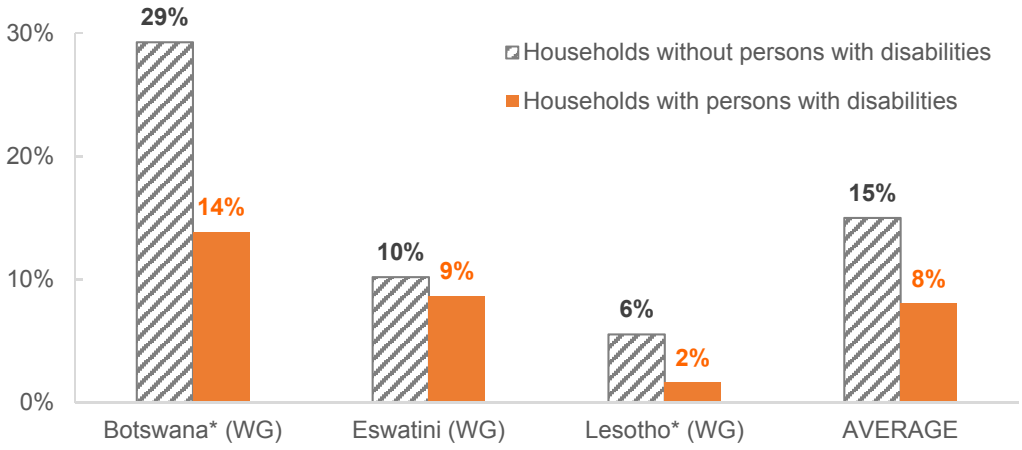
Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference between households with and without persons with disabilities is statistically significant at the 5% level. Data from South Africa were collected in selected regions of the country and are not nationally representative. Source: UNDESA and the World Bank (on the basis of data from DHS,[6] IPUMS[10] and SINTEF[11]).

Figure II.90. Average percentage of persons with disabilities using and having access at home to the Internet, by age, in 11 countries in Latin America and the Caribbean, around 2010.



Source: United Nations Economic Commission for Latin America and the Caribbean.[446]

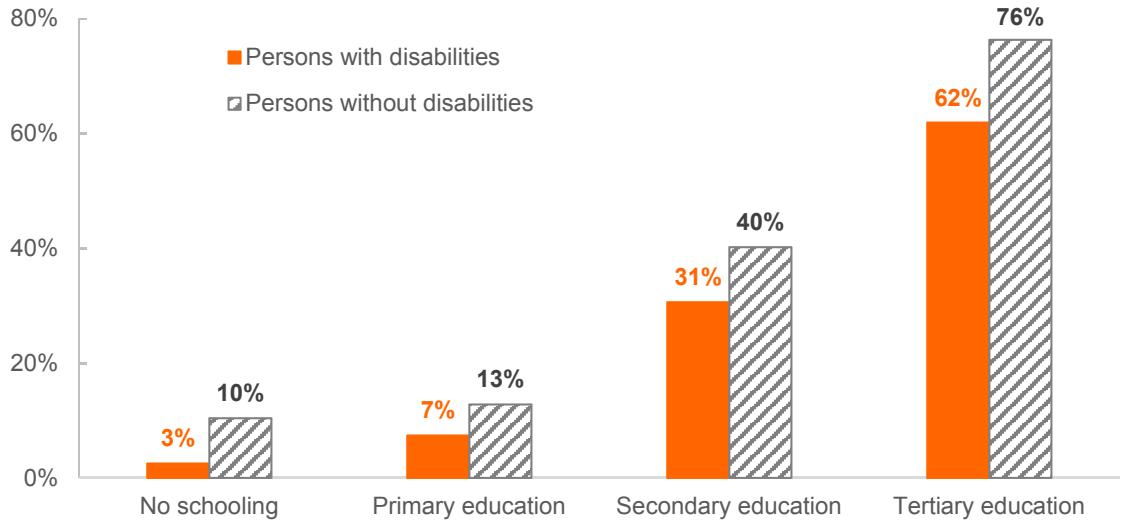
Figure II.91. Percentage of households with and without persons with disabilities which can afford Internet costs, in 3 countries, around 2013.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. An asterisk indicates the difference between households with and without disabilities is statistically significant at the 5% level.

Source: UNDESA and the World Bank (on the basis of data from SINTEF).[11]

Figure II.92. Average percentage of persons using the Internet, by education level, in 11 countries in Latin America and the Caribbean, around 2010.



Source: United Nations Economic Commission for Latin America and the Caribbean.[446]

Even where digital education, ICTs and Internet connections are all available, electronic devices often remain inaccessible unless special assistive technologies are also provided. For example, persons with physical disabilities may not be able to operate the standard devices used for navigating the Internet (mouse, keyboard, screen), and may need alternate devices suited to their needs. Persons with visual, reading, cognitive, or other disabilities may encounter barriers with inaccessible digital content (e.g. webpages and documents), and may require more accessible formatting or assistive software. In addition, shops selling electronics are not always accessible for persons with disabilities. Crowdsourced reports on 6,015 electronic shops worldwide, mostly from developed countries, indicated that 43 per cent were not accessible for persons using wheelchairs.[78,197]

Access to and usage of mobile phones

Mobiles phones can have a strong impact on the independent living of persons with disabilities.[447] However, similar to Internet ownership, households with persons with disabilities are less likely to own a mobile phone (Figure II.93). Among 36 countries, 53 per cent of households with persons with disabilities, compared to 60 per cent of households without persons with disabilities, own a mobile phone. In 11 countries, the gap is larger than 10 percentage points. Gaps tend to be wider in countries with lower coverage.

Even if a mobile phone exists at home, persons with disabilities may not be able to use it. Individual ownership of mobile phones is likely to be lower for persons with disabilities. For instance, in Uganda, in

2016, persons with disabilities were less likely to own a mobile phone (Figure II.94). Women with disabilities were the least likely to own one, only 42 per cent as compared to 46 per cent of women without disabilities, 52 per cent of men with disabilities and 66 per cent of men without disabilities. Likewise, the percentage of women with disabilities who used a mobile phone for financial transactions was only 26 per cent, whereas 34 per cent of women without disabilities and 48 per cent of men without disabilities did so.

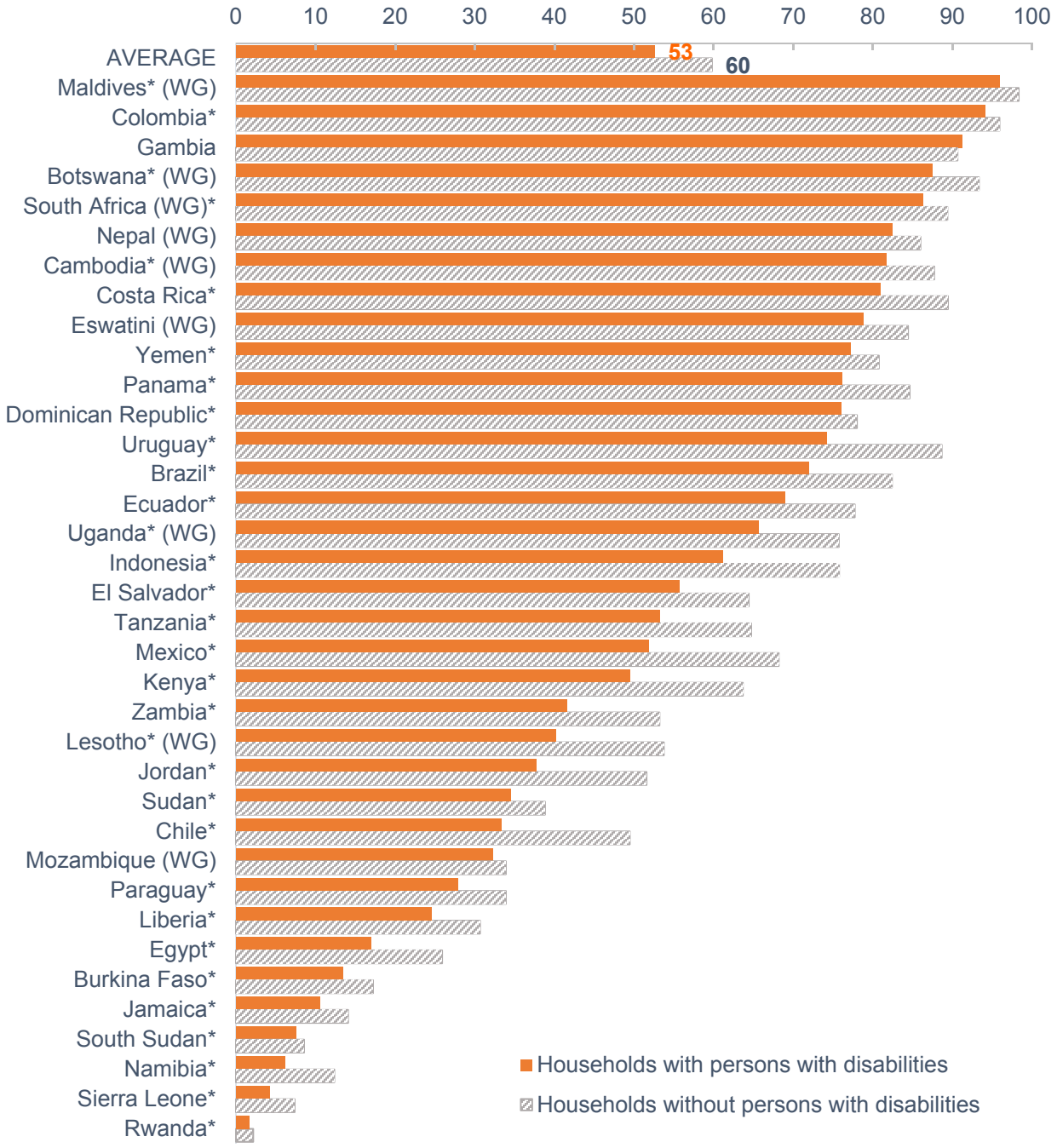
Use of TV and radio

In four developing countries, the use of radio and TV tends to be lower among persons with disabilities (Figure II.95), but the gaps between persons with and without disabilities are narrower than those observed for the Internet. On average, 74 per cent of persons with disabilities and 78 per cent of persons without disabilities listened to the radio; 65 per cent of persons with disabilities and 72 per cent of persons without disabilities watched TV.

Affordability of ICT

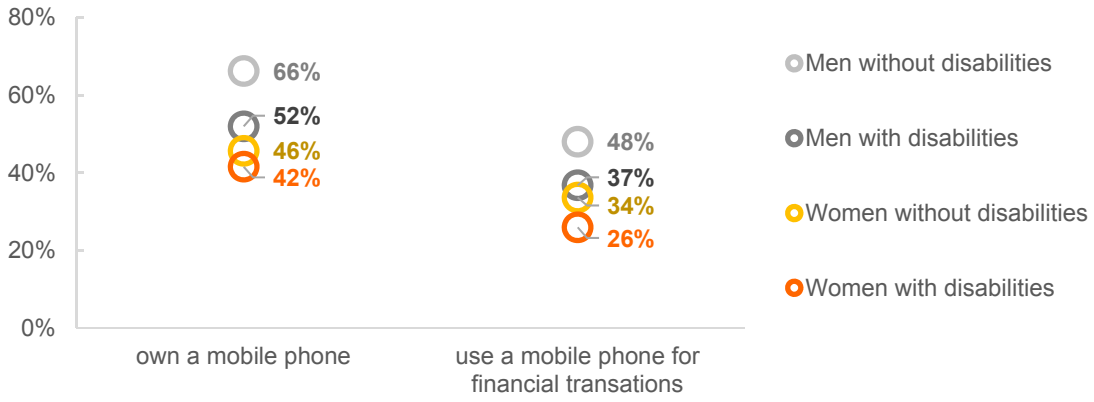
Persons with disabilities and their households have more difficulties affording ICTs (Figure II.91, Figure II.96 and Figure II.97). For instance, in three countries in sub-Saharan Africa, around 2012, on average only 37 per cent of households with persons with disabilities could afford a TV, 61 per cent could afford a radio and 67 per cent a mobile phone (Figure II.96). In all three countries and for all ICTs, the ability of households with persons with disabilities to afford ICTs was lower as compared to households without persons with disabilities. In Turkey, in 2007, only 53 per cent of persons with disabilities could afford a computer, and 82 per cent could afford a telephone. In 34 countries in Europe (Figure II.97), the percentage of persons who can afford a computer is slightly higher among persons without disabilities (95 per cent) than among persons with disabilities (91 per cent). In these countries, the percentage of persons who can afford a telephone and a TV is about the same among persons with and without disabilities (99 per cent).

Figure II.93. Percentage of households, with and without persons with disabilities, that own a mobile phone, in 36 countries, in 2001-2016.



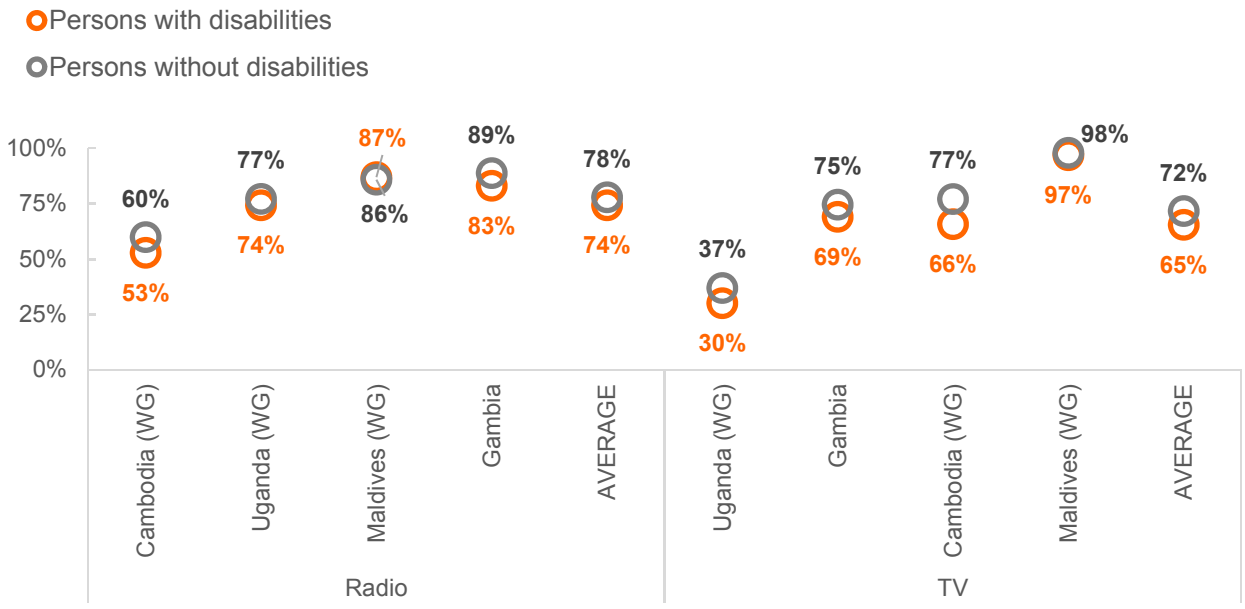
Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference is statistically significant at the 5% level. Source: UNDESA and the World Bank (on the basis of data from DHS[6], IPUMS[10] and SINTEF[11]).

Figure II.94. Percentage of persons who own a mobile phone and who use a mobile phone for financial transactions, by disability status and sex, in Uganda (WG), in 2016.



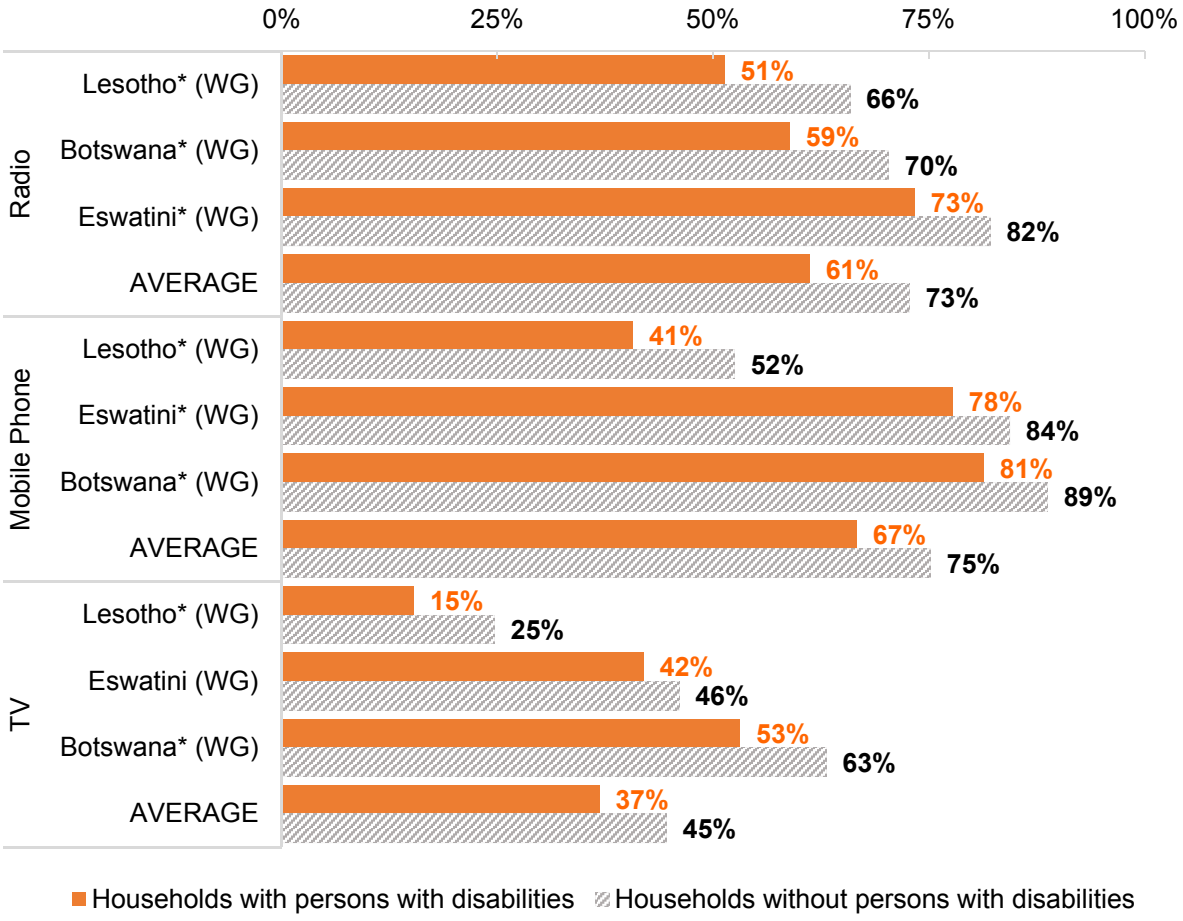
Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.
Source: Uganda DHS 2016 Report.[6]

Figure II.95. Percentage of persons who use radio and TV, by disability status, in 4 countries, in 2008-2016.



Source: UNDESA and the World Bank (on the basis of data from DHS[6]).

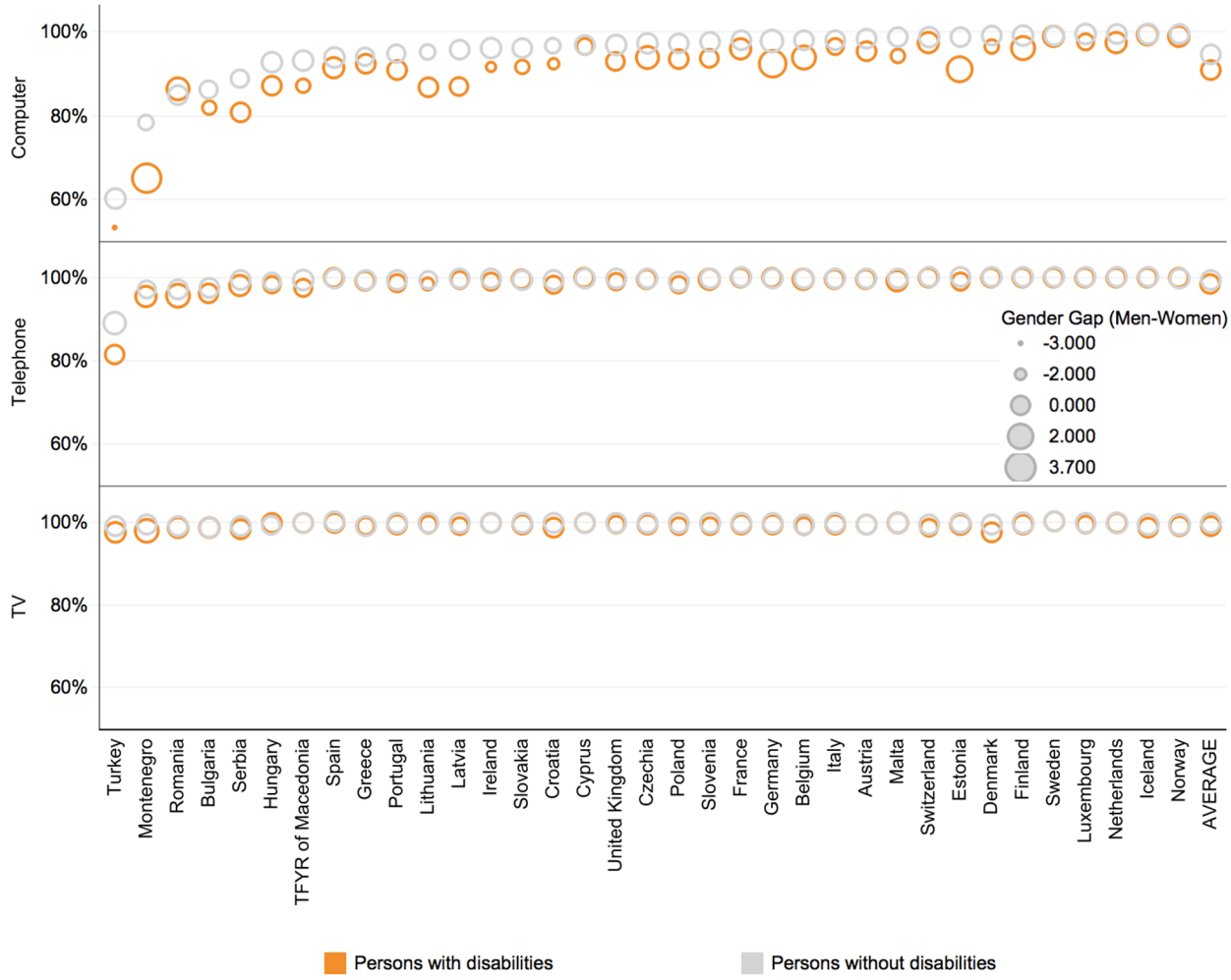
Figure II.96. Percentage of households with and without persons with disabilities which cannot afford a radio, mobile phone or TV, in 3 countries, around 2012.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference between households with and without persons with disabilities is statistically significant at the 5% level.

Source: UNDESA and the World Bank (on the basis of data from SINTEF[11]).

Figure II.97. Percentage of persons aged 16 and over who can afford a computer, telephone and TV, and gender gap, by disability status, in 35 countries, in 2016.



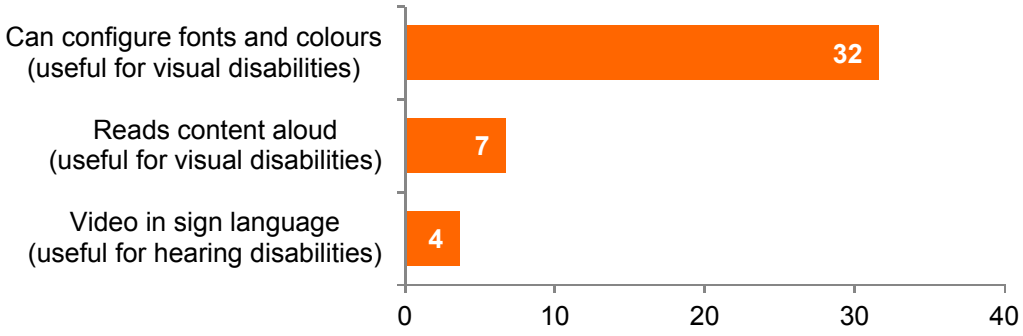
Source: Eurostat.[9]

Accessibility of ICTs

A growing number of mainstream, everyday ICT such as mobile devices and desktop computers increasingly offer functionalities that facilitate communication and information access for persons with disabilities. Features such as text-to-speech and voice recognition, ability to change contrast and colour schemes, touch and gesture input, and screen magnification, which in the past required specialized standalone software and hardware, are embedded within off-the-shelf ICT devices. These features enable persons with disabilities to receive information and content in the format that they can perceive and prefer. For example, a person with visual impairments can use text-to-speech functionality or software to read a website, a person with hearing impairments can use SMS or instant text messaging to communicate, and

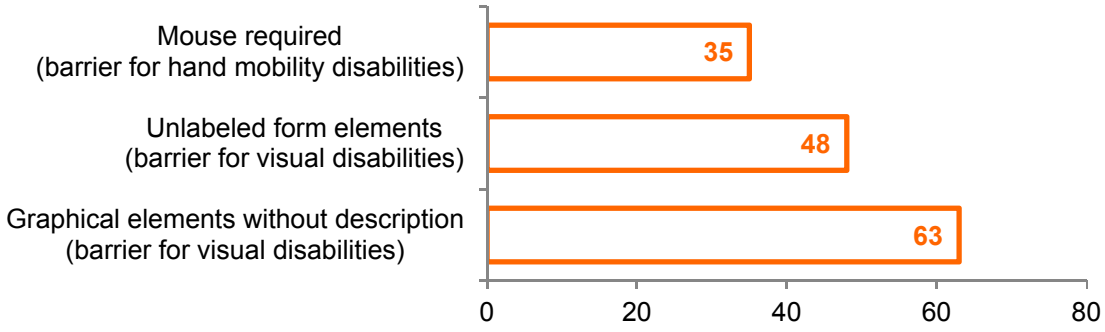
a person with mobility impairments can use voice recognition to operate and navigate their digital device.

Figure II.98. Percentage of countries with online national portals offering features which promote accessibility, in 193 countries, in 2012.



Source: 2012 UN E-Government Survey.[448]

Figure II.99. Percentage of countries with accessibility barriers in their online national portals, in 193 countries, in 2012.



Source: 2012 UN E-Government Survey.[448]

Another key trend in recent years is the inclusion of accessibility features in web pages, which reduce the need for costlier specialized assistive technologies. For instance, some web pages use bigger fonts or particular colour combinations, which are easier for the visually impaired. Similarly, captions in audio or video content on web pages are useful for the hearing impaired. Some websites also include features so that persons with motor impairments can navigate the sites without a pointing device.

However, the large majority of websites lack features which promote accessibility and include features that

are inaccessible for persons with disabilities. This includes governmental websites (Figure II.98 and Figure II.99). Among governmental portals of the 193 United Nations Member States, the fonts and colours in the portals can be reconfigured in only 32 per cent of countries (a feature helpful for those with visual disabilities); and website content can be read aloud (a feature helpful for those with severe visual difficulties) in the portals of a mere 7 per cent of countries. Only 4 per cent of governmental websites include video in sign language, which makes information and websites accessible for persons with hearing difficulties. Moreover, persons with disabilities will encounter additional barriers in many national portals: in 35 per cent of countries, national portals included features that can only be used with a mouse, which poses difficulties for persons with hand mobility disabilities; in 48 per cent of countries form elements[449] were not labelled; and in as many as 63 per cent of countries graphical elements were lacking descriptive text, which create difficulties for persons with visual disabilities. Although more recent data on all these features are not available, it is known that there has been progress on the number of governmental websites that allow for changes in font type and size, a feature which is useful for persons with visual disabilities. In 2012, 31 per cent of countries allowed for flexible font size and type; this has since increased to 40 per cent in 2014.[450]

Enhanced accessibility of mobile phones and services has remained a relatively underdeveloped segment of the ICT market, yet the technology supporting accessibility is becoming more developed with a growing number of accessibility applications for smartphones (Table II.3). Some applications, like screen readers, do make the tool accessible; others, like GPS, can increase the accessibility of physical environments for persons with disabilities. Although many features and applications are available free of charge, affordability remains a major issue, especially for smartphones.[451] Screen readers and text-to-speech applications cost several hundred US dollars on some mobile platforms.[452] Another issue limiting usage of accessibility features and applications is language, as they tend not to be available in local languages. For instance, in India, there are 22 official languages yet most applications only exist in Hindi. Other countries where many languages are used, such as several African countries, encounter similar barriers.

Table II.3. Mobile phone and platform features which enhance accessibility

Mobile phone and platform features	Enhances accessibility for persons with:
Screen readers (into speech or braille), tactile markers,[453] audible feedback on pressed buttons, adjustable font sizes, audible cues, adjustable brightness/contrast, screen magnifiers, digital access to "talking" books, GPS	Visual disabilities
Visual and vibrating alerts, relay services,[454] hearing aid compatible device, volume adjustment, SMS text messaging, SMS-based emergency service, mono audio,[455] captioning of videos	Hearing disabilities
Voice recognition, auto text,[456] head movement recognition[457]	Arms/hands/fingers mobility disabilities
Predictive texting, speech recognition, text-to-speech, built-in calculator, schedule reminders, large and simple display screens	Cognitive disabilities

Source: Author's elaboration on the basis of information from International Telecommunication Union and G3ict (2012)[458] and Sesame.[457]

Current practices in ICT and disability

At the country level, laws, policies and programmes have been progressively introduced to enhance access to ICT for persons with disabilities.[459] Most of these initiatives have focused on providing access on an equal basis with others and improving ICT accessibility. Some countries have focused on improving ICT skills through the training of persons with disabilities, sometimes focusing on youth.[460,461,462, 463]

On legislation promoting ICT accessibility, for instance, in Latin America and the Caribbean, ICT and persons with disabilities are mentioned under the general disability law in 13 countries and territories,[464] and are a provision of the general telecommunication law in 6 countries. [463,465]

Standards and guidelines have been created for accessible websites, documents, and other digital media. One of the most universally recognized and widely used is the Web Content Accessibility Guidelines (WCAG) 2.0.[90] These guidelines aim to provide a single shared standard for web content accessibility that meets the needs of a wide range of users including those with disabilities (Box 6). Many national governments have adopted the WCAG into their basic web accessibility standards, and in some cases, the WCAG has even been written into the law.[466,467,468,469,470] Capacity-building on web accessibility for web designers and programmers is crucial in encouraging the development of accessible websites and was provided in some countries. [471,472] Disseminating information on accessibility guidelines for ICTs has been

another way to raise awareness and promote accessibility.[473]

Box 6. Web Content Accessibility Guidelines (WCAG) 2.0

The WCAG 2.0 guidelines,[90] also known as the ISO/IEC 40500:2012 standards, provide guidance on making web content more accessible to persons with disabilities. Its four principles offer the means to make the web more accessible:

1) Perceivable – information is presented in such a way that users can perceive it
2) Operable – interface and navigation function in a way that makes it possible for all users to access the content
3) Understandable – operation of user interface is understandable
4) Robust – content is interpreted reliably by a variety of users, and a range of assistive technologies

Other guidelines and standards exist for a variety of technologies. The Guidelines for Accessible Information cover many forms of digital media, including video, audio, text and images.[474] The International Organisation for Standardization (ISO) published accessibility standards for a variety of ICTs, including standards for hardware devices like keyboards and screens,[475] standards for software,[476] and standards for accessible PDF documents.[477] The EPUB3 accessibility guidelines were also developed for eBooks.[478] Many countries have standards for closed captioning in television and digital video broadcasting, such as China,[479] European countries,[480] Japan[481] and the United States.[482] In addition, the Telecommunications Accessibility Guidelines for Older Persons and Persons with Disabilities and the recommendation on Audio-based Network Navigation System for Persons with Vision Impairment have been developed by the International Telecommunication Union's Telecommunication Standardization Sector (ITU-T).[483,484]

Countries are also adopting accessibility requirements in public procurement thus influencing accessibility in government services and promoting overall ICT accessibility through ripple effects in the broader consumer market.[485,486,487] Policies have also been established requiring telecommunications service providers, public sector organizations (including government-owned banks), public accommodation, commercial facilities, producers and distributors of digital media to provide accessible services.[488]

Increasingly, online content has become more accessible to persons with disabilities through online videos with captioning;[472,489,490] and national news agencies have developed news services in easy language that is accessible to persons with intellectual disabilities.[491,492] TV broadcasters have been offering television programmes with described video and closed captioning, as well as audio services for some

programmes;[493] and sign language interpretation videos have been made of national radio programming.[494] Countries have also established funds that support the accessibility of broadcasting content.[494]

National and international funding mechanisms have been playing a significant role in promoting the development of ICTs for persons with disabilities. For instance, funds have been established to promote open-source accessible digital e-readers (textbooks) for children of primary schools in Kenya and a mobile application to help children with speech impairments to communicate in India.[495] Funds have also been set up to disseminate examples of best practices for accessibility, to raise awareness through mainstreaming of ICT accessibility standards[496,497] and to support the distribution of specialized equipment to low-income persons with disabilities in order for them to be able to access ICT.[490]

Conclusions and the way forward

Digital technologies have been spreading, but not all persons with disabilities have been able to partake of the benefits of using ICTs. Digital gaps remain between persons with and without disabilities. In some countries, the gap between persons with and without disabilities reaches 30 percentage points for Internet use, 10 percentage points in access to the Internet in the household, and 5 percentage points in radio and TV use. This digital gap persists because many technologies are not accessible or affordable for persons with disabilities. More than 60 per cent of national online portals are not accessible for persons with disabilities. Regarding affordability, limited data suggest that in developing countries households with persons with disabilities are half as likely to afford Internet costs, and less likely to be able to afford radio, TV and a mobile phone.

Yet, access to ICTs is recognized as crucial for the independent living and inclusion of persons with disabilities and is thus imperative for achieving all SDGs. The evidence above suggests that access to education is crucial to increase access to ICTs among persons with disabilities. Moreover, there are a number of initiatives, projects and organizations worldwide carrying out innovative practices to enhance access to ICTs for persons with disabilities, the majority of which are based in developed countries. Many developing countries lack basic ICT infrastructure for persons with disabilities. Considering the vast potential of Internet technology to improve the lives of persons with disabilities and to contribute to the realization of various SDGs for persons with disabilities, wider Internet access should be considered a priority.

Looking forward, the following recommendations offer guidance on how to strengthen the ICT ecosystem to ensure inclusion and accessibility for persons with disabilities:

1) Raise awareness and enhance knowledge of ICT accessibility. Improving awareness of the barriers and solutions presented by ICTs for persons with disabilities will be crucial to successfully increase ICT access and use among persons with disabilities. In particular, key stakeholders such as governments and

decision makers, educators, statisticians, non-governmental organizations particularly organizations of persons with disabilities, and ICT industries in the public and private sectors must be alerted to the vast potential of, and urgent need for, accessible ICTs to improve quality of life and inclusion among persons with disabilities. Methods to achieve this could include the development of academic programmes and training programmes highlighting ICT accessibility and Universal Design.

2) Involve persons with disabilities directly. In order to properly understand the variety of needs and abilities that ICTs can address, as well as necessary accessibility requirements, persons with disabilities must be involved at every stage of ICT development. One of the most effective ways to do this is to work together with organizations of persons with disabilities, particularly those which have expertise in the field of ICT accessibility and connect them with ICT businesses for their input and insights.

3) Promote the principles of Universal Design in the mainstream ICT industry and the public sector. Implementing Universal Design principles is more inclusive, affordable and often simpler than developing specialized software or hardware for persons with disabilities. Good ICT examples of Universal Design that have already been developed can be scaled up. The benefits of exercising Universal Design extend not only to persons with disabilities, but also to companies by opening new market opportunities for vendors.

4) Adopt national accessibility policies and regulations. ICT accessibility policies and regulations build a foundation for implementing ICT accessibility in different areas and can promote the accessibility of virtual environments. Setting national standards and regulations facilitates the implementation of ICT accessibility because the actors involved in the production of ICTs will know what is expected.

5) Create dedicated focal points in relevant ministries/departments dealing with ICT accessibility to coordinate and encourage ICT accessibility in line with CRPD provisions, including through relevant policies and incentives to regulate all actors in the ICT industry and market and in public procurement. A dedicated focal point can also oversee the development of policies and directives and, in collaboration with other national bodies, be responsible for monitoring national progress towards ICT accessibility, organizing public campaigns, and coordinating data collection activities.

6) Provide affordable Internet access for persons with disabilities. Introduce programmes, policies or regulations that facilitate free or reduced-rate Internet access for persons with disabilities, particularly those in lower income brackets. This could be in the form of either a monetary social benefit for persons with disabilities, or non-monetary benefits such as free or subsidized mobile devices and Internet subscriptions. Mobile Internet access, in particular, should be prioritized, given that mobile network coverage is globally higher than broadband penetration, and is expected to increase further, especially in developing countries. Alternatively, community resource centres could be established, where persons with disabilities can have facilitated access to the Internet. Affordable Internet access is a crucial element of digital inclusion, as it

can provide job opportunities, access to information and education materials, access to services and social participation.

7) Provide funding mechanisms to support the development of open-source software. Open-source software offers many advantages. It can be acquired free of cost, and can be adjusted according to different user needs, languages, and cultural contexts. This will be particularly important in areas where financial resources are lower and commercially available software may not be affordable for persons with disabilities. Open-source software is also an ideal way to address directly the needs of users with disabilities, because it gives programmers with disabilities a chance to directly fix inaccessible software themselves.

8) Involve all relevant stakeholders and increase funding to support Universal Design and low-cost ICTs for persons with disabilities. Many of the recommendations presented here involve multiple stakeholders. Governments, the private sector, and non-governmental organizations all have potential roles to play. Overall, both involvement and funding in the area of ICT accessibility should be increased. The social responsibility departments of large corporations could also be an important part of this change by dedicating more resources to the issue of digital inclusion for persons with disabilities. Funding should be provided to support Universal Design, open-source software, and low-cost assistive ICTs worldwide, as many developing countries lack the financial resources to use specialized commercial solutions. International cooperation and capacity-building in ICT accessibility should be promoted.

9) Develop and publish comparable data on access to and use of ICTs disaggregated by disability as well as on accessibility of ICTs. With the current lack of comparable statistics on access and use of ICT by disability status, as well as on accessibility of ICTs, it will be impossible to know to what extent target 9.c is being met. There is an urgent need for reliable and comparable data and analysis in order to ensure accountability among Member States and other relevant actors. A systematic collection of data, a clear methodology for comparison, regular data evaluation, and a publicly available platform to showcase to interested parties are strongly recommended for a successful analysis of the state of the 2030 Agenda in terms of ICT access, use and accessibility.

J. Reducing inequality for persons with disabilities (Goal 10)

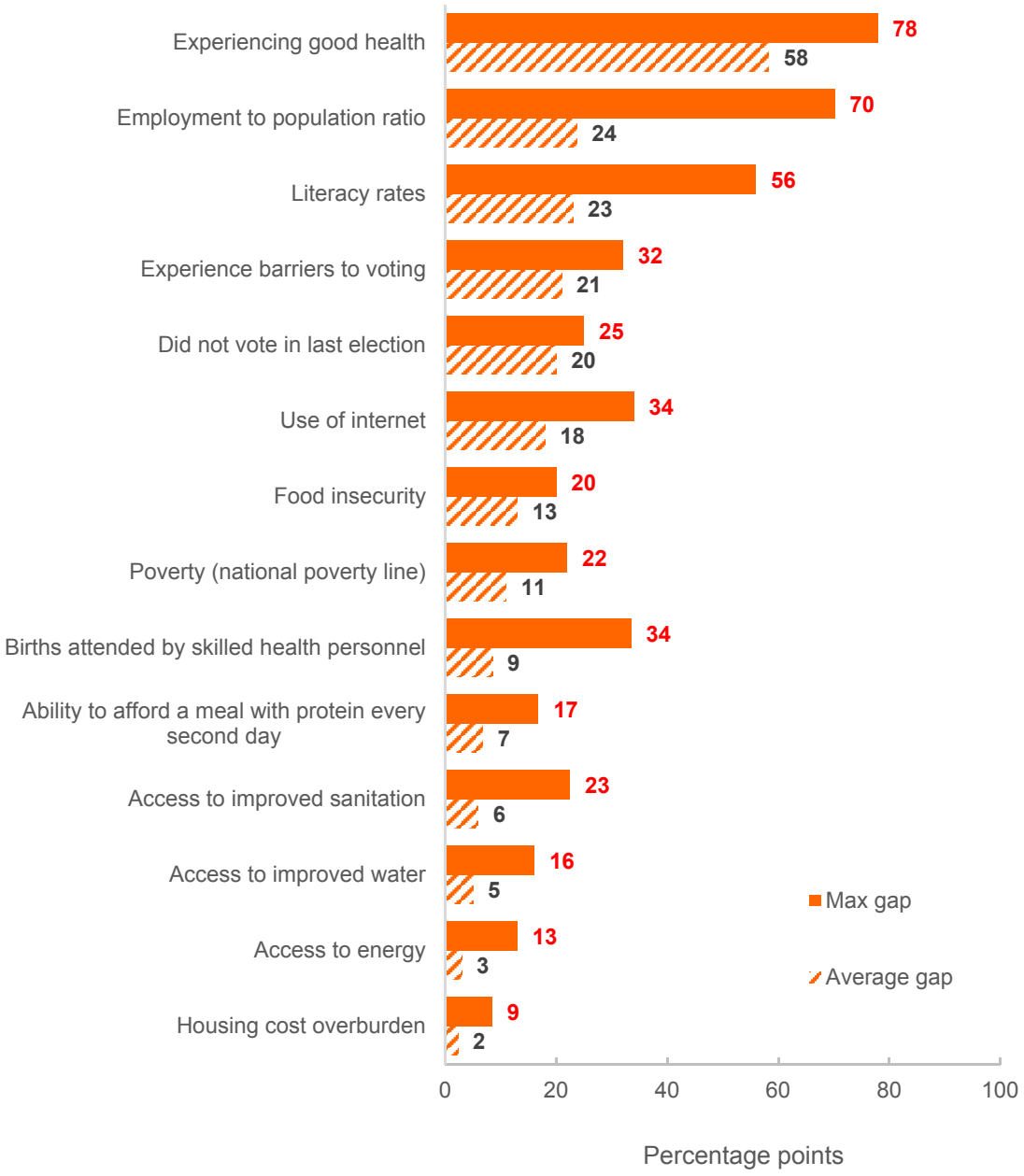
This section will discuss Goal 10, which calls for reducing inequalities within and among countries, from a disability perspective. It will focus particularly on target 10.2, which calls for the empowerment and promotion of the social, economic and political inclusion of all, irrespective of disability and target 10.3 which aims at the elimination of discriminatory laws, policies and practices concerning persons with disabilities. The section will first provide an overview of the gaps between persons with and without disabilities, in various areas of development covered by the SDGs. This overview is based on the evidence presented throughout this report. It will then discuss three factors that are crucial for promoting the social, economic and political inclusion of persons with disabilities and reducing the disability gap. These are: (i) combating discrimination; (ii) ensuring access to assistive technology; and (iii) deinstitutionalization. Accessibility of the physical and virtual environments is also a key factor and is discussed under the sections on Goal 11 (physical environment) and target 9.c (virtual environment).

When discussing inequalities, it is important to recognize that some groups of persons with disabilities are at an even higher disadvantage than others due to multiple discrimination. In particular, higher inequalities of outcomes are typically observed for women with disabilities (see section on Goal 5), indigenous persons with disabilities and persons with intellectual and psychosocial disabilities. The section will illustrate in detail the situation of persons with psychosocial disabilities.

Overview of the gaps between persons with and without disabilities

Disability gaps vary among countries and are wider in relation to certain areas (Figure II.100). On average, the wider gaps are observed in health status, employment, literacy, voting, use of the Internet, food insecurity and poverty. In these areas, the average gap is above 10 percentage points. Much larger gaps are observed in some countries: the gaps can reach more than 20 percentage points for income poverty, more than 30 percentage points for multidimensional poverty, more than 15 percentage points in ability to afford a meal with protein every second day, more than 70 percentage points in experiencing good health, more than 50 percentage points in literacy rates and 70 percentage points in employment to population ratios. Persons with disabilities are also at a disadvantage in accessing and affording basic and essential services. In countries where gaps are wider, the gaps reach more than 15 percentage points for access to improved water, more than 20 percentage points for access to improved sanitation, 9 percentage points for access to energy in the household,[498] more than 30 percentage points with regard to the use of the Internet and more than 10 percentage points in housing cost overburden.[499] In addition, persons with disabilities are more likely to be underrepresented in decision-making processes (see section on Goal 16) and in political participation. The gap between persons with and without disabilities who face barriers to voting or engaging in politics reaches more than 30 percentage points in some countries.[500]

Figure II.100. Average and maximum gap between persons with and without disabilities (or households with and without persons with disabilities) for 14 selected indicators.[501]



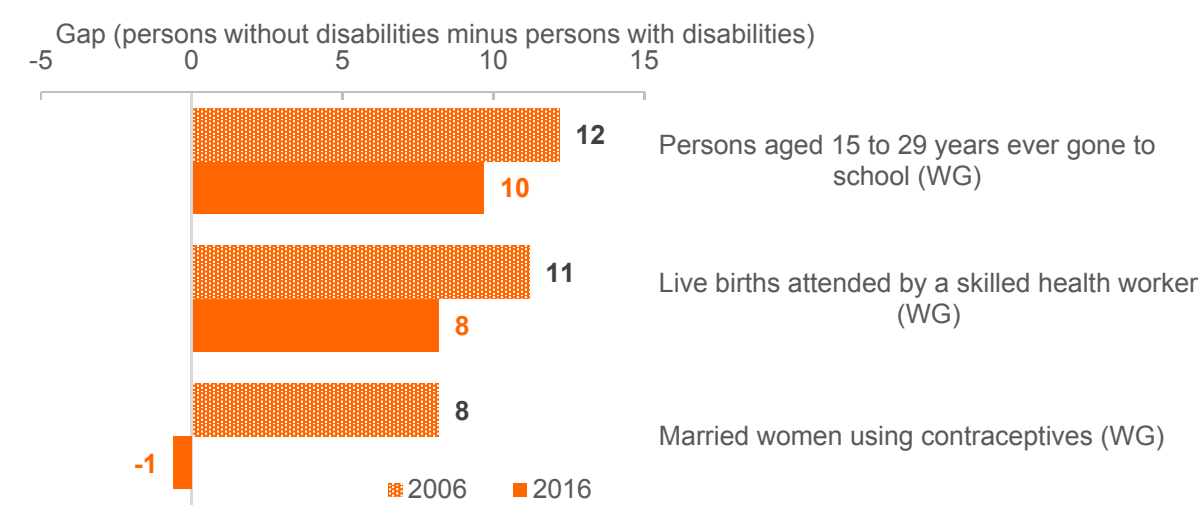
Source: DHS,[6] ESCWA,[7] ESCAP,[8] Eurostat,[9] ILO, IPUMS,[10] SINTEF,[11] UNDESA, UNESCO, WHO[100] and the World Bank.

Box 7. In Uganda, gaps between persons with and without disabilities have been decreasing

Article 21 of the Constitution of Uganda bans discrimination based on disability, and the country was among the first to ratify the CRPD in 2008. Uganda adopted national disability legislation and policies, including the National Council for Disability Act in 2003, the Persons with Disabilities Act and the National Policy on Disability in 2006. The country has also produced disability data to inform policy.[502] For instance, it was one of the first countries to include the Washington Group Short Set of Questions in Demographic and Health Surveys.[6]

Data from these surveys show that the gaps between persons with and without disabilities have decreased in several areas (Figure II.101). Between 2006 and 2016, these gaps fell from 12 to 10 percentage points for the percentage of persons aged 15 to 29 that have ever gone to school and from 11 to 8 percentage points for the percentage of live births attended by a skilled health worker. An even larger reduction has been seen in the gap between percentage of married women with and without using contraceptives, from an 8-percentage point difference to similar rates of usage (1 percentage point difference). The reductions have occurred while progress was being made in all these areas for both persons with and without disabilities. Specifically, the percentage of live births attended by a skilled health worker doubled from 2006 to 2016 for births from mothers with disabilities, and the percentage of married women with disabilities using contraceptives doubled also. The percentage of young persons with disabilities aged 15 to 29 who have ever attended school increased from 80 per cent to 87 per cent in the same period.

Figure II.101. Gaps between persons with and without disabilities, for 4 selected indicators, in Uganda, in 2006 and 2016.



Source: UNDESA[78] (on the basis of data from DHS[6]).

There are not enough data to assess trends in inequalities for persons with disabilities worldwide, but data available from Uganda show progress from 2006 to 2016 in reducing these inequalities in areas related to education, health care and reproductive health after a number of positive legal changes in the country (Box 7).

This section will now continue by discussing three key factors to reduce inequalities for persons with disabilities.

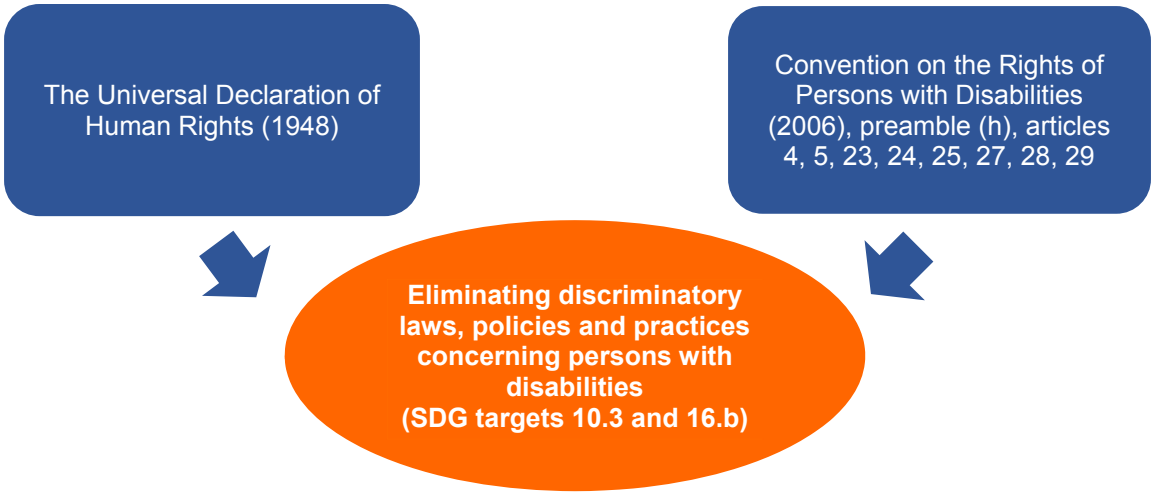
Eliminating discriminatory laws, policies and practices concerning persons with disabilities (targets 10.3 and 16.b)

This section focuses on discrimination against persons with disabilities, which remains a major barrier to the social, economic and political inclusion of persons with disabilities, and to the reduction of inequalities between persons with and without disabilities and therefore to the achievement of Goal 10. This section relates, in particular, to SDG targets 10.3 and 16.b which call for the elimination of discriminatory laws, policies and practices, and discusses these targets from a disability perspective. It does so by elaborating on the international normative frameworks that call for non-discrimination of persons with disabilities and by providing an overview of persistent discriminatory practices against persons with disabilities as well as initiatives to eliminate discriminatory clauses from national legislation. The section concludes with recommendations on the way forward based on current evidence.

International normative frameworks on non-discrimination

SDG target 10.3 commits to ensuring equal opportunity and reducing inequality by, among others, eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard. This is closely linked to target 16.b that calls for promoting and enforcing non-discriminatory laws and policies for sustainable development. The international effort to eliminate discrimination is rooted in the Universal Declaration of Human Rights (1948), which highlights that all are equal before the law, entitled to equal protection of the law, and have the right to equal pay for equal work without any discrimination (articles 7 and 23).[503] The CRPD (2006) reaffirms this commitment and recognizes that discrimination against any person on the basis of disability[504] is a violation of the inherent dignity and worth of the human person (preamble (h)). The CRPD stipulates that States Parties are to ensure the full realization of all human rights and fundamental freedoms for persons with disabilities without discrimination including by modifying or abolishing existing laws, regulations, customs and practices that constitute discrimination against persons with disabilities (article 4, paragraph1(b)), by prohibiting all discrimination on the basis of disability and by guaranteeing equal and effective legal protection against discrimination on all grounds (article 5, paragraph 2). These provisions are closely linked to target 10.3. In addition, the CRPD calls for the elimination of discrimination against persons with disabilities in the areas of family (article 23), education (article 24), health (article 25), work and employment (article 27), living standards (article 28), and political participation (article 29).

Figure II.102. International normative frameworks relevant for the achievement of SDG targets 10.3 and 16.b for persons with disabilities.



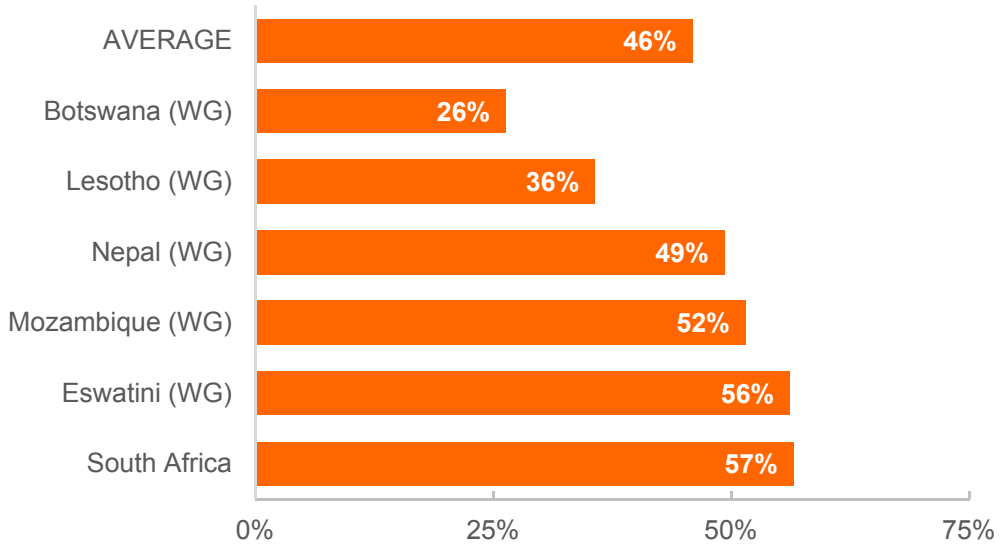
Discrimination against persons with disabilities

Persons with disabilities face discrimination in many facets of life. There is research indicating that one of the main causes of discrimination is a lack of awareness about disabilities, disabling conditions, and the needs and abilities of persons with disabilities.[505] Evidence from six countries from around 2011 indicates that on average 46 per cent of persons with disabilities experienced some form of discrimination (Figure II.103). Many persons with disabilities also face discrimination in public services (Figure II.132).

Overcoming discriminatory laws and policies for persons with disabilities

Progress has been made during the past decade since the adoption of the CRPD. For instance, national constitutions enacted after 2006, the year the CRPD was adopted, are more likely to explicitly guarantee the rights of persons with disabilities and omit any discriminatory clauses: 62 per cent of constitutions included this guarantee as opposed to only 16 per cent of constitutions adopted before 2006. However, among the 193 United Nations Member States, 2 per cent still include discriminatory provisions: they guarantee equal rights but allow for exceptions if disability prevents a person from exercising his/her rights. In relation to health, 16 per cent of United Nations Member States explicitly guarantee health rights to persons with disabilities or free medical services broadly in their constitutions, and another 10 per cent prohibit discrimination broadly. In the areas of education and employment, 27 per cent clearly guarantee education rights and 19 per cent guarantee work rights in their constitutions. However, several constitutions still include discriminatory provisions such as limiting the right to work to able-bodied persons.[506]

Figure II.103. Percentage of persons with disabilities who have experienced discrimination, in 6 countries, around 2011.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. Data from South Africa were collected in selected regions of the country and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

A number of countries still have laws discriminating against persons with disabilities, particularly in relation to the rights to marry, to legal capacity, to vote and to be elected for office. Only 36 per cent of countries have no legal restrictions for persons with disabilities to marry, only 13 per cent have no restrictions to vote, and only 9 per cent have no restrictions to be elected for office and to enter into contract (see section on persons with psychosocial disabilities and section on Goal 16). However, many countries have also advanced anti-discrimination protections for persons with disabilities. For instance, as of 2016, many United Nations Member States had included protections in their labour legislation that prohibit discrimination on the basis of disabilities: 69 per cent in terminations, 66 per cent in promotions or demotions and 65 per cent in access to employer-provided training (Figure II.104). Furthermore, 68 per cent of United Nations Member States guarantee equal pay for persons with disabilities, 62 per cent prohibit discriminatory harassment and 32 per cent prohibit indirect discrimination on the basis of disability.

Figure II.104. Percentage of United Nations Member States that do or do not prohibit discrimination against persons with disabilities in the laws regulating labour, among 193 United Nations Member States, around 2016.

Note: Indirect discrimination indicates imposing unreasonable standards, criteria or other requirements that may apply to all but disproportionately impact persons with disabilities in a negative way.

Source: World Policy Analysis Center.[132]

Conclusions and the way forward

Discrimination is a major cause of exclusion of persons with disabilities and impedes persons with disabilities from pursuing equal participation in society. Some groups of persons with disabilities such as women with disabilities, indigenous persons with disabilities and persons with intellectual and psychosocial disabilities face multiple discrimination and are even more disadvantaged. Discriminatory laws still exist, especially in the areas regulating marriage, legal capacity, work and political participation, despite the progress made by many countries in adopting non-discriminatory laws and policies. To overcome discrimination against persons with disabilities, and eliminate discriminatory laws and policies, it will be crucial to:

1) **Review national laws and policies to identify and eliminate discriminatory provisions against persons with disabilities** and ensure their equal opportunities to participate politically, economically and socially without discrimination. Guarantee the participation of persons with disabilities in the revision process to ensure that their needs and perspectives are considered.

2) **Raise awareness about persons with disabilities through public campaigns to combat negative stereotypes against them.** Engage persons with disabilities and organizations of persons with disabilities in such outreach activities. These campaigns should focus on raising awareness among the population on the needs and abilities of persons with disabilities.

3) **Develop mechanisms for reporting on discrimination.** Approaches to developing such mechanisms include the creation of a public service, where persons with disabilities can file or report incidences of discrimination, or the carrying out of periodic surveys and collection of feedback from persons with disabilities regarding how anti-discriminatory laws are being implemented in practical terms.

Reducing inequalities through enhanced access to assistive technology for persons with disabilities

This section focuses on access to assistive technology[507] for persons with disabilities, a precondition for reducing inequalities between persons with and without disabilities and therefore for achieving Goal 10. Assistive products include devices, equipment, instruments and software whose primary purpose is to maintain or improve an individual's functioning and independence, and thereby promote their well-being.[508] They can enhance an individual's performance,[509] and enable people to live healthy, productive, independent and dignified lives.[508] The absence of effective assistive products can undermine the ability of persons with disabilities to fully participate in society.[510] Enhancing access at an affordable cost is therefore fundamental if no one is to be left behind.[511]

The section presents the international normative framework on assistive technology and continues with an overview of unmet needs for assistive technology. This section also discusses current practices in countries as well as recommendations to enhance access to assistive technology.

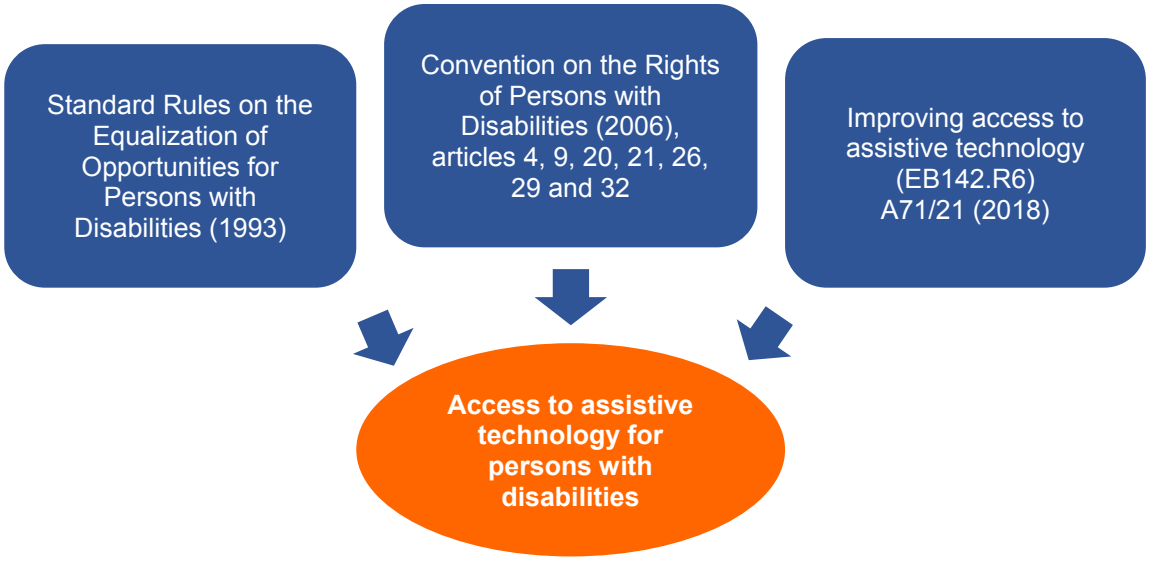
International normative frameworks on assistive technology

Both the Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993) and the CRPD acknowledge the instrumental role of assistive technology in enabling persons with disabilities to enjoy and exercise their rights and freedoms on an equal footing with those without disabilities. Through Rule 4 of the Standard Rules on the Equalization of Opportunities for Persons with Disabilities, assistive technology was introduced in international policies and States were encouraged to ensure the development and supply of assistive products to help persons with disabilities increase their level of independence and exercise their rights.[512] With the adoption of the CRPD, assistive technology was further incorporated into the international policy framework, applying a more rights-specific approach in the provision of assistive technology as a measure that States should take to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms.

Specific or general assistive technology measures are suggested in seven articles of the CRPD, namely, article 4 on general obligations, article 9 on accessibility, article 20 on personal mobility, article 21 on freedom of expression and opinion and access to information, article 26 on habilitation and rehabilitation, article 29 on participation in political and public life, and article 32 on international cooperation. However, explicit assistive technology measures in the CRPD are not included in all relevant articles, such as health (article 25) and work (article 27), despite the significant benefits that persons with disabilities gain from using assistive technology.[513] Moreover, assistive technology is not explicitly mentioned as a means to empower women and girls with disabilities (article 6) and to live independently (article 19), both of which are critical to achieving target 10.2 on social, economic and political inclusion for all.

More recently, a resolution on improving access to assistive technology was adopted at the seventy-first World Health Assembly. The resolution urged Member States to improve access to assistive technology through, among others, the development of policies and programmes within universal health and/or social services coverage, training of human resources on assistive products, research and development on product designs, international and regional collaboration, and collection of population-based data on health and long-term care needs.[514,515]

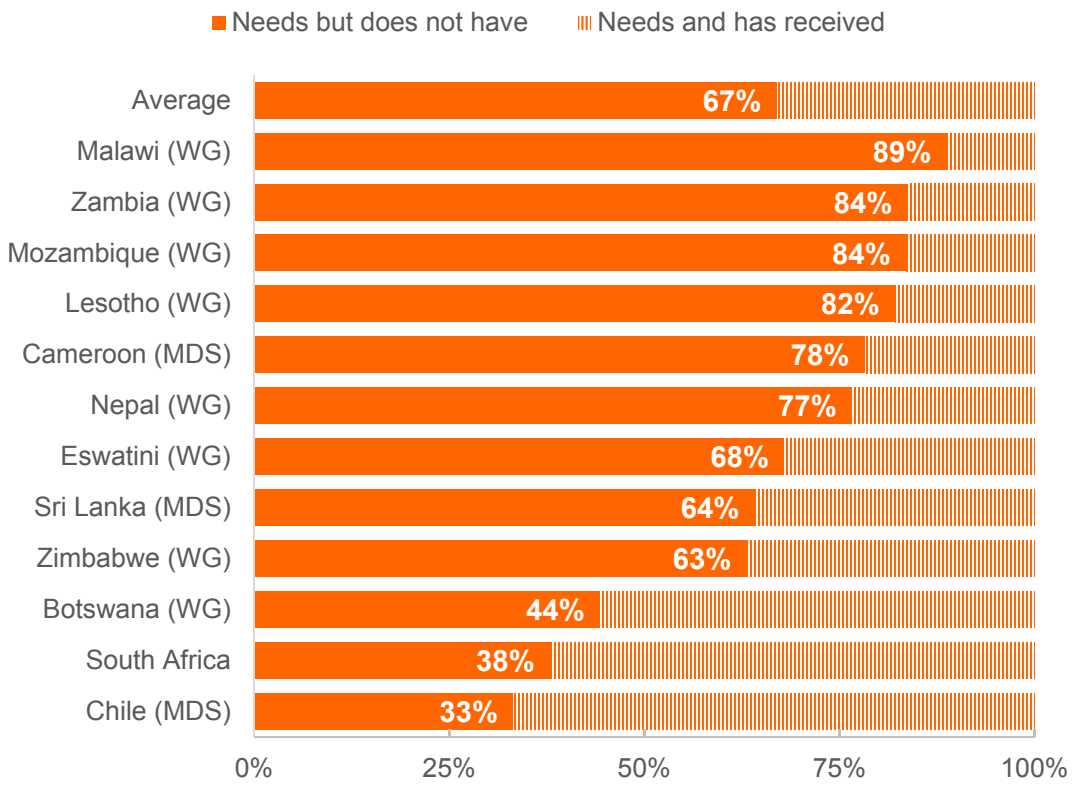
Figure II.105. International normative frameworks relevant to enhance access to assistive technology for persons with disabilities.



The situation of persons with disabilities regarding access to assistive technology

Assistive technology has positive functional, health and economic benefits. Assistive products can benefit persons with functional limitations in mobility, hearing, seeing, communication and cognition.[516,517,518] Moreover, they can benefit children with disabilities in their development and participation,[519] as well as older people in their participation and independence.[520, 521] Assistive products can have positive socioeconomic effects by improving users' access to education and increasing their educational achievement, and can support participation in work and maintenance of health.[522,523,524,525,526] Moreover, empirical evidence clearly shows that the provision of assistive products can be cost-effective as it can reduce the needs and costs for other services, enable users to earn an income, or facilitate or reduce the need for support provided by family members,[517,519,521] who may then be able to use their time for work or other activities.

Figure II.106. Percentage of persons with disabilities who need but do not have assistive products (e.g. sign language interpreter, wheelchair, hearing/visual aids, braille), in 12 countries, around 2013.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions; (MDS) identifies countries with data collected with the Model Disability Survey. Data from Cameroon are from one selected district in the country and should be interpreted with caution because they are based on 25 to 49 observations.

Source: UNDESA[78] (based on data from SINTEF[11]) and WHO.[100]

Needs for assistive products

Responsible planning of systems for the provision of assistive technology ought to be based on quantitative data on the needs for assistive products. However, reliable data on these needs are simply not available in many countries. Global estimates indicate that about 0.5 per cent of the population needs prosthetic or orthotic devices, about 1 per cent needs a wheelchair and about 3 per cent needs a hearing aid.[527,528,529] In years following the adoption of the CRPD, it was estimated that only 5–15 per cent of the population in

need have access to assistive products,[530] and that only 3 per cent of those that would benefit from using a hearing aid have one.[531]

Due to factors such as age distribution and prevalence of various impairments, these needs may vary between countries as well as between regions within a country. In Sweden, the proportion of users of assistive products increased from 20 per cent at age 70 to 90 per cent at age 90.[532] In Chile and China, about 7–9 per cent of school-aged children would benefit from using properly prescribed eyeglasses.[533,534]

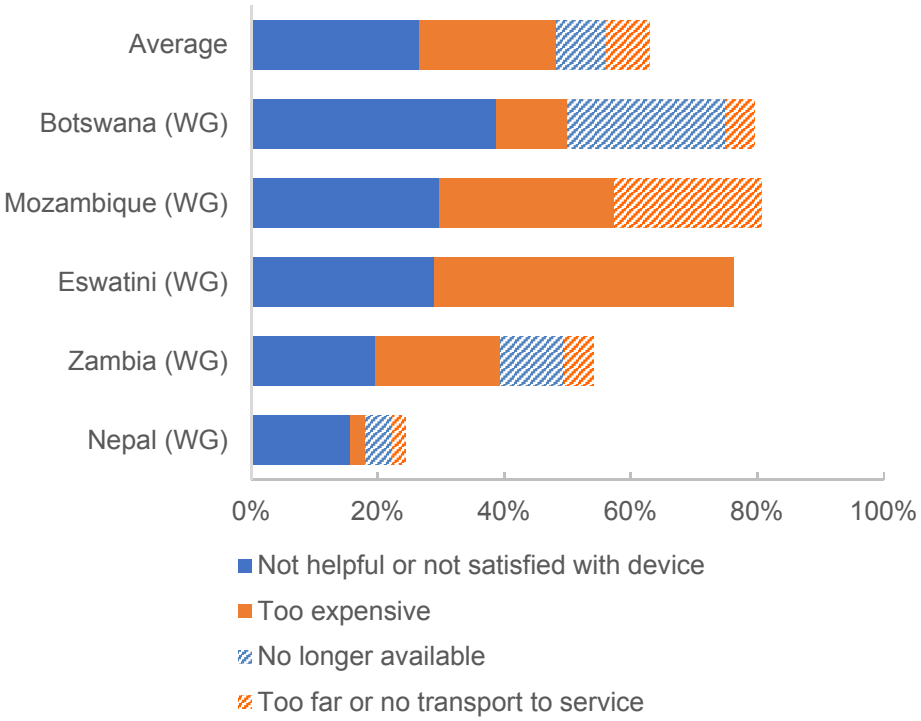
Available evidence from developing countries suggests there is a large unmet need for assistive products. Among 12 countries, around 2013, the percentage of persons with disabilities who needed but did not have assistive products was on average 67 per cent, and ranged from 33 per cent in Chile to 89 per cent in Malawi (Figure II.106).

Barriers to accessing assistive technology

Major barriers in achieving universal assistive technology coverage include lack of awareness, governance, services, products, accessibility, human resources, affordability and economic resources.[519] In many countries, persons with disabilities, their families and health-related personnel have limited knowledge about assistive products or where to get them. Moreover, policy and decision makers are often not aware of assistive technology and the possibilities they bring. In many countries, services are in short supply, often located far away from the people that need them. Similarly, the availability of safe and effective assistive products is limited in terms of quantity, as well as in terms of the range of types, models and sizes of the products. Lack of physical and cognitive accessibility of the transport system and the facilities where services are provided raise additional barriers. Another common barrier to assistive technology provisioning is the lack of properly trained personnel, skilled in manufacturing or adapting products, or delivering services. Finally, high costs for assistive products and services and traveling costs constitute major barriers. Taxes and duties on assistive products, or materials and components for their production, add to the costs.

Data available from five countries on persons with disabilities who stopped using assistive products (Figure II.107) indicate that most often they stopped because the device was too expensive (22 per cent on average) or not helpful for them (26 per cent on average). The device no longer being available (8 per cent on average) or the service to get it being too far (7 per cent on average) were also identified as reasons in these countries.

Figure II.107. Percentage of persons with disabilities who stopped using an assistive product, by reason for stopping, in 5 countries, around 2012.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Current practices in promoting access to assistive technology

In 2004–2005, among 114 countries, a large majority of the governments were involved in the provision of assistive products (91 per cent), but about one third (36 per cent) indicated that they did not pay or allocate financial resources for the provision of assistive products. Regarding laws and policies, 59 of the responding countries (52 per cent) had assistive-technology-related policies in place, and 57 (50 per cent) had passed related national legislation.[535]

More recently, national policies and laws have increasingly promoted access to assistive technology for persons with disabilities through a provision of grants for assistive technology, [536] free training on using and maintaining assistive products,[537] and enhancing access to ICT for persons with disabilities including through the removal of barriers, obligating the public and private sectors to make their information and services accessible, and requiring an assistive technology centre to establish a fund to improve access to assistive products. [538] Relatedly, a national plan on science, technology and innovation called for incentivizing the development of new technology and devices to enhance the quality of life and inclusion

for persons with disabilities.[539] In addition, assistive products were disseminated to help persons with disabilities in the post-disaster processes in some areas.[540,541]

National systems for the provision of assistive technology vary among countries, from centralized or standardized systems[542] to systems that are more decentralized or administered by local authorities.[543] Some countries largely engage non-governmental organizations, rehabilitation and/or medical institutions in the provision of assistive products.[544]

Various initiatives have been taken to support countries in their efforts to improve access to assistive products. For instance, a classification of a wide range of assistive products known as ISO 9999 was developed,[545] and the Global Cooperation on Assistive Technology (GATE) initiative was launched in 2014 through partnerships among United Nations agencies, organizations of and for persons with disabilities, donor agencies, professional organizations, academia and industry. The GATE initiative led to the development of the first Priority Assistive Products List that included 50 priority assistive products.[530,546, 547]

Assistive products have been found to be instrumental and effective in facilitating the achievement of all SDGs.[548] For instance, in relation to Goal 1 which calls for ending poverty, in Bangladesh, persons with hearing and mobility impairments using hearing aids and wheelchairs, respectively, were found to be less likely to be poor than those who could not access the assistive products.[549]

Conclusions and the way forward

Assistive technology enables persons with disabilities to live independently and to enhance productivity and plays a critical role in achieving the equalization of opportunities for persons with disabilities. The use of assistive products has a positive socioeconomic impact for persons with disabilities. A number of countries have strived to enhance access to assistive technology for persons with disabilities by integrating the provision of assistive products into national plans and policies. As technology improves, new assistive technologies can better support persons with disabilities. However, major barriers to access assistive products include high costs, lack of transport to services, lack of awareness of their potential, lack of trained personnel in adapting products or delivering services, and limited policies to promote access to affordable assistive technology.

Universal access to assistive products is essential to ensuring the social, economic and political participation of persons with disabilities. Underutilization of assistive technology can undermine equality for persons with disabilities. To promote access to affordable assistive technology for persons with disabilities, various actions need to be considered:

1) **Formulate policies and laws to support the development, production, distribution and servicing of assistive products**. Provision of assistive technology should be incorporated into existing or

new legislation, strategies and policies, including in the areas of education, employment and health. It is also important to include assistive technology in disability strategies and plans of actions.

2) **Ensure that assistive products are available and affordable for persons with disabilities** including through a provision of grants. Compensation schemes should be implemented, as appropriate, to meet extra expenses for assistive products. Barrier-free environments should be ensured for the effective use of assistive products. Emergency and fragile settings can incorporate provisions of assistive technology into emergency preparedness and response plans and include assistive products as part of humanitarian supplies. In countries with established systems for the provision of assistive technology, the focus should be on improving efficiency and effectiveness, by expanding coverage and improving relevance, quality and affordability, while other countries may focus on introducing and gradually expanding such systems, prioritizing cost-effective approaches.

3) **Incentivize research and development of assistive technology.** Provide financial incentives for research and development of assistive technology. Design assistive products and programmes in close collaboration with persons with disabilities and their organizations. Estimate needs for assistive technology and map available human and financial resources, as this evidence is a prerequisite for planning equitable services. Consider the needs of persons with all types of disabilities, including those with physical, cognitive and sensory disabilities.

4) **Enhance the capacities of persons with disabilities and their families, governmental officials, and service providers on assistive technology.** Ensure that persons with disabilities and their families obtain knowledge on available assistive products and schemes from which they can benefit. Train governmental officials and service providers on the need and availability of assistive technology to deliver high quality services for persons with disabilities.

5) **Invest in the environment to optimize the benefits of assistive technology.** Although assistive products have the potential to improve quality of life and participation in society, success cannot be guaranteed. Accessibility of the environment is a precondition for using certain assistive products, for example, ramps and wide doorways can enable the effective use of a wheelchair.[550,551] Measures should be taken to ensure that assistive products can be used effectively, such as hearing loops for hearing aid users.[552] In addition to accessibility, assistive products need to meet the preferences and expectations of a user to be effective.[553]

6) **Monitor unmet needs for assistive technology to identify and fill the gaps.** Little research has been conducted on population-level needs for assistive products, policies, service provision models, implementation and cost-effectiveness. There is a need to monitor progress in meeting these needs for assistive products and reducing the barriers to access.

Promoting inclusion of persons with disabilities through deinstitutionalization

Social, economic and political inclusion of persons with disabilities is hampered by placing persons with disabilities in institutions or special homes for persons with disabilities, where they remain excluded from society and deprived of their liberty. Often, persons with disabilities living in institutions are not able to obtain an education, cannot exercise their right to vote and are not empowered to make their own decisions.

International normative frameworks

A number of international normative frameworks advise against the institutionalization of persons with disabilities. The Universal Declaration of Human Rights (1948)[554] and International Covenant on Civil and Political Rights (1966)[555] among other core international human rights treaties, have established the norm that everyone has the right to liberty. The CRPD, in article 14, specifies that States Parties should ensure that persons with disabilities, on an equal basis with others, enjoy the right to liberty, and that the existence of a disability shall in no case justify a deprivation of liberty. Article 19 further states that States Parties shall take effective and appropriate measures to facilitate full enjoyment by persons with disabilities of the rights to living independently and being included in the community. A number of CRPD general principles are also particularly relevant to deinstitutionalization, such as respect for inherent dignity and individual autonomy, including the freedom to make one's own choices, and independence of the person (article 3, paragraph(a)); full and effective participation and inclusion in society (article 3, paragraph(c)); and respect for difference and acceptance of persons with disabilities as part of human diversity and humanity (article 3, paragraph(d)). Goal 10, which calls for reducing inequality within and among countries, includes target 10.2 highlighting the empowerment and promotion of social, economic and political inclusion of all, irrespective of disability.

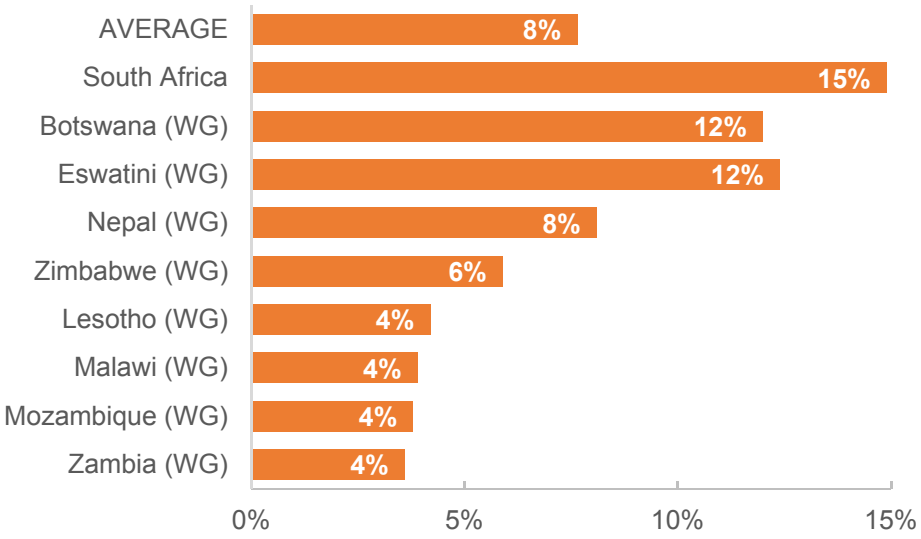
Figure II.108. International normative frameworks relevant to promoting inclusion of persons with disabilities through deinstitutionalization.

The Convention on the Rights of the Child (1989) also specifies the obligations of States Parties in its article 23 in relation to children with disabilities, including to ensure dignity, promote self-reliance and facilitate the child's active participation in the community.[556] The Human Rights Council resolution on mental health and human rights (2017), expressed concern that persons with mental health conditions or psychosocial disabilities may be subject to social exclusion, segregation, and/or unlawful or arbitrary institutionalization; and urged Member States to develop community-based, people-centred services and supports.[557]

Persons with disabilities living in institutions: status and current practices

The institutionalization of persons with disabilities exists in many countries. Data from nine developing countries indicated that 4 to 15 per cent of persons with disabilities live in institutions or special homes for persons with disabilities (Figure II.109). Rates of institutionalization of children with disabilities also remain high in many countries, including increasingly in many low and middle-income countries. These children are often removed from their families at birth or immediately following a medical diagnosis, at times against the expressed wishes of their parents.[558] In an assessment of alternative care in 21 countries, it was found that in 13 countries, disability was listed as the 'root cause' of a child being placed in alternative care.[559] In 2007, one third of children in alternative care in Eastern Europe were children with disabilities.[560] Children with disabilities in institutions tend to face a chronic deficit of physical and emotional attention and affection[561] and are 1.8 times more likely to be neglected and 2.8 times more likely to be emotionally neglected.[562] Many youth with disabilities are institutionalized during their adolescence as their families find it too difficult to manage with limited resources or are too old to care for a grown individual.[563] In most countries, care for persons with mental and intellectual disabilities is still predominantly provided in institutions, but community-based mental health services have been shown to be effective, less costly and better at lessening social exclusion.[564,565] Some countries have made remarkable efforts to reduce the number of children in institutions. For example, in Serbia, the number of children in institutions declined by 63 per cent between 2000 and 2011, while the number of children with disabilities declined by 37 per cent.[566]

Figure II.109. Percentage of persons with disabilities who have ever lived in an institution or special home for persons with disabilities, in 9 countries, around 2012.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. Data from South Africa were collected in selected regions of the country and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Conclusions and the way forward

Persons with disabilities, particularly children and youth with disabilities and persons with psychosocial and intellectual disabilities, remain deprived of liberty and excluded from their communities and from society due to institutionalization. They often do not have access to education, cannot vote and cannot participate socially, economically and politically in society. Persons with disabilities living in institutions should not be left behind. Achievement of Goal 10 will require deinstitutionalization, and abolishment of coercive practices. To achieve this, the following efforts should be made:

1) **Review and eliminate policies and laws that allow forced institutionalization of persons with disabilities**, and those that deprive their liberty.

2) **Replace institutions with community-based services and support systems for families of persons with disabilities** to allow persons with disabilities to live where they like.

3) **Raise awareness at various levels**, including service providers at institutions, families, parent groups and policymakers. Public awareness and advocacy campaigns need to be targeted at changing mindsets and social norms directed at persons with disabilities, especially children with disabilities and persons with intellectual disabilities, to promote community-based solutions.

Reducing inequalities for persons with mental impairments or psychosocial disabilities

In the context of Goal 10, this part highlights the specific inequalities and discriminatory laws that must be addressed in relation to persons with mental impairments or psychosocial disabilities. They are subject to stigma and discrimination and to exclusion from participating in civil, cultural, economic, political and social life due to the perpetuation of laws that allow segregation, marginalization, discrimination and coercion of persons with mental impairments or psychosocial disabilities.

Various terms have been in use to refer to persons with psychosocial disabilities. The term *persons with psychosocial disabilities* has been used by the Committee on the Rights of Persons with Disabilities,[567] but the term is used indistinguishably as *persons with mental impairments*, for example in the CRPD,[568] or as *persons with mental health conditions or psychosocial disabilities*, as for instance in the Human Rights Council's resolution 32/18.[569] Mental health conditions include schizophrenia, bipolar disorder, depression, epilepsy, and alcohol and drug use disorders, among others.[570] Throughout this section, the term *persons with psychosocial disabilities* will be used.

The section begins by describing relevant international normative frameworks, followed by an analysis of the situation of persons with psychosocial disabilities and a review of national laws and policies and best practices. Concluding remarks and recommendations are provided at the end of the section.

International normative frameworks on persons with psychosocial disabilities

All international normative frameworks which apply to persons with disabilities described throughout this report apply also to persons with psychosocial disabilities. The CRPD in particular clarifies that persons with disabilities include persons with mental impairments and all articles of the CRPD are relevant for persons with psychosocial disabilities. One of the provisions that is most disproportionally violated for persons with psychosocial disabilities is the right to equal recognition before the law, reflected in article 12 of the CRPD. This provision of the treaty ensures the right to make legally valid decisions to all persons with disabilities, including persons with psychosocial disabilities, at any given time.[571]

The United Nations Human Rights Council resolution adopted in 2016 focusing on mental health and human rights expressed concern that (i) "persons with mental health conditions or psychosocial disabilities, in particular persons using mental health services, may be subject to, inter alia, widespread discrimination, stigma, prejudice, violence, social exclusion and segregation, unlawful or arbitrary institutionalization, overmedicalization and treatment practices that fail to respect their autonomy, will and preferences"; and that (ii) "such practices may constitute or lead to violations and abuses of their human rights and fundamental freedoms, sometimes amounting to torture or other cruel, inhuman, or degrading treatment or punishment, and conscious that greater commitment is needed to address all the remaining challenges in this regard".[572] The resolution also reaffirms the obligation of States to ensure that policies and services

relating to mental health comply with international human rights norms; and recognizes the need for States to take active steps to fully integrate a human rights perspective into mental health and community services, particularly with a view to eliminating all forms of violence and discrimination within that context, and to promote the right of everyone to full inclusion and effective participation in society.

In 2013, a Comprehensive Mental Health Action Plan 2013–2020 was adopted by the World Health Assembly. This Plan includes actions for the empowerment of persons with psychosocial disabilities to engage in mental health activities such as advocacy and policy development.[573] The Sendai Framework for Disaster Risk Reduction (2015) specifically calls for the enhancement of recovery schemes that provide psychosocial support and mental health services. These services are fundamental for persons with psychosocial disabilities who need them.

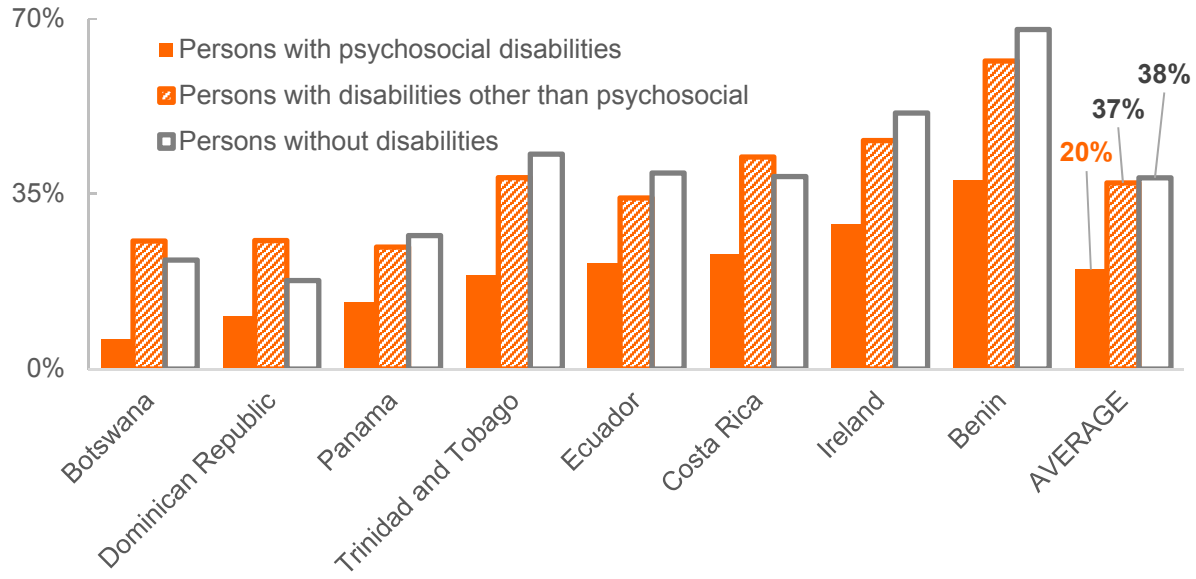
The situation of persons with psychosocial disabilities

Across the world, persons with psychosocial disabilities experience major violations of their rights, participation, legal capacity, dignity and inclusion, including institutionalization, abuses occurring in psychiatric hospitals, harmful and coercive treatment practices, as well as poor living conditions.[574,575,576] The denial of the right to exercise legal capacity, enforced through guardianship, conservatorship, mental health and other legislation in countries, strips persons with psychosocial disabilities of the ability to make decisions and have control over their lives.

Violence, coercion and abuse against persons with psychosocial disabilities occur in both mental health services and in the wider community.[577] One in four persons with psychosocial disabilities experiences physical or sexual violence in a given year, a much higher rate than experienced by the rest of the population.[578] In the mental health care context, persons with psychosocial disabilities are often denied the right to make decisions concerning their treatment and care, resulting in forced institutionalization and treatment and other abusive practices such as the use of seclusion and restraint, inappropriate and overuse of medications and electroconvulsive therapy without consent.[579,580]

The denial of legal capacity also impacts on other aspects of people's lives, stripping them of critical civil and political rights such as the right to marry, to have children, to have legal representation, to defend their rights in court, and to vote or stand for public office.[581,570] For instance, Figure II.110 shows the percentage of married persons with psychosocial disabilities, in eight countries, around 2011. On average, only 20 per cent of persons with psychosocial disabilities are married versus 37 per cent of persons with other disabilities and 38 per cent of persons without disabilities. In all these countries, persons with psychosocial disabilities are less likely to be married than others.

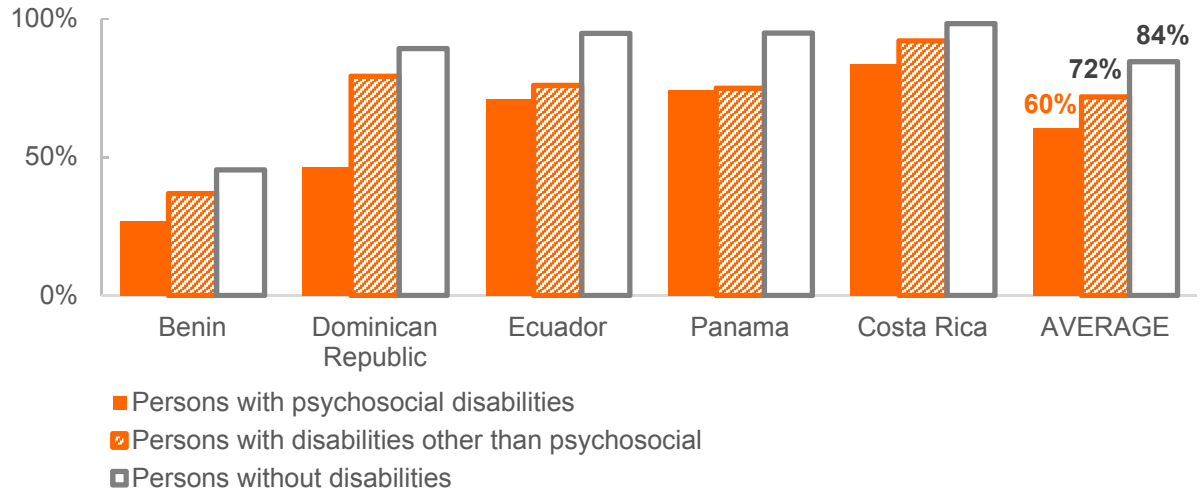
Figure II.110. Percentage of persons aged 18 and over who are married, by psychosocial disability and disability statuses, in 8 countries, around 2011.



Source: UNDESA[78] (on the basis of data from IPUMS[10]).

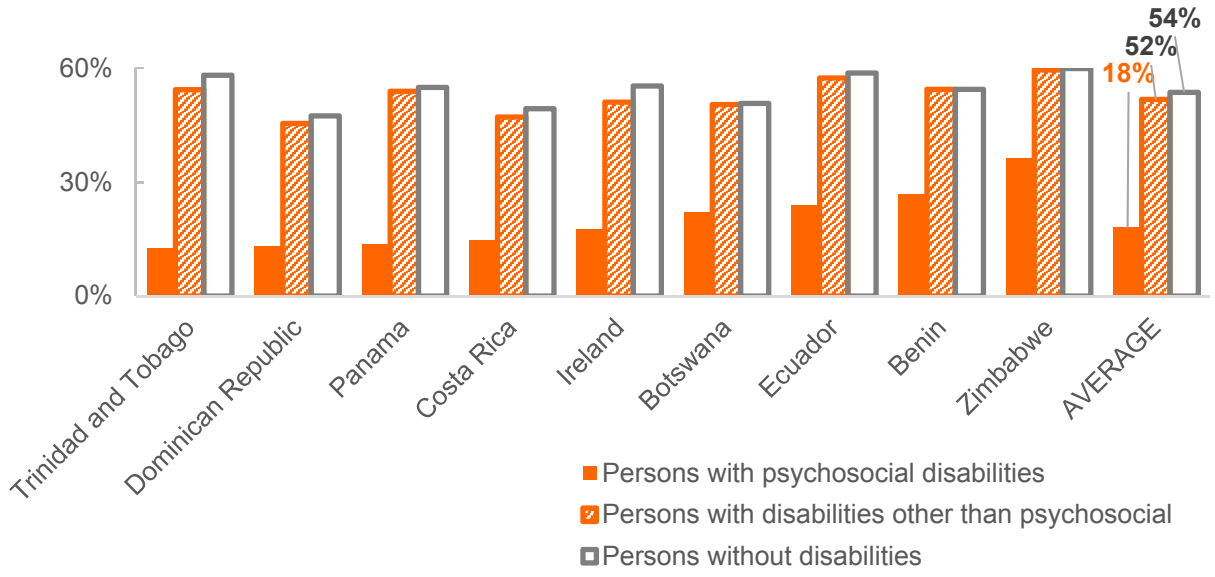
Access to education, employment and other income-generating opportunities are also denied to many persons with psychosocial disabilities.[582,570] Rates of discrimination among individuals with a diagnosis of schizophrenia, for example, are high and consistent across countries of varying income levels.[583,584,585,586] Available data indicate that persons with psychosocial disabilities tend to have lower literacy rates than the rest of the population (Figure II.111). Among five countries, on average, only 60 per cent of persons with psychosocial disabilities are literate compared to 72 per cent of persons with other types of disabilities and 84 per cent of persons without disabilities. Furthermore, even more marked gaps are observed in access to the labour market (Figure II.112). Among nine countries, on average, only 18 per cent of persons with psychosocial disabilities are employed compared to 52 per cent of persons with other types of disabilities and 54 per cent of persons without disabilities. For persons with psychosocial disabilities, these percentages, also called employment to population ratios, vary from 13 per cent in the Dominican Republic and Trinidad and Tobago to 36 per cent in Zimbabwe. In all countries, the gaps in employment to population ratios between persons with psychosocial disabilities and persons with other types of disabilities are over 20 percentage points, reaching 40 percentage points and higher in two countries.

Figure II.111. Percentage of persons aged 15 and over who are literate, by psychosocial disability and disability statuses, in 5 countries, around 2011.



Source: UNDESA[78] (on the basis of data from IPUMS[10]).

Figure II.112. Percentage of persons aged 15 and over who are employed, by psychosocial disability and disability statuses, in 9 countries, around 2011.



Source: UNDESA[78] (on the basis of data from IPUMS[10]).

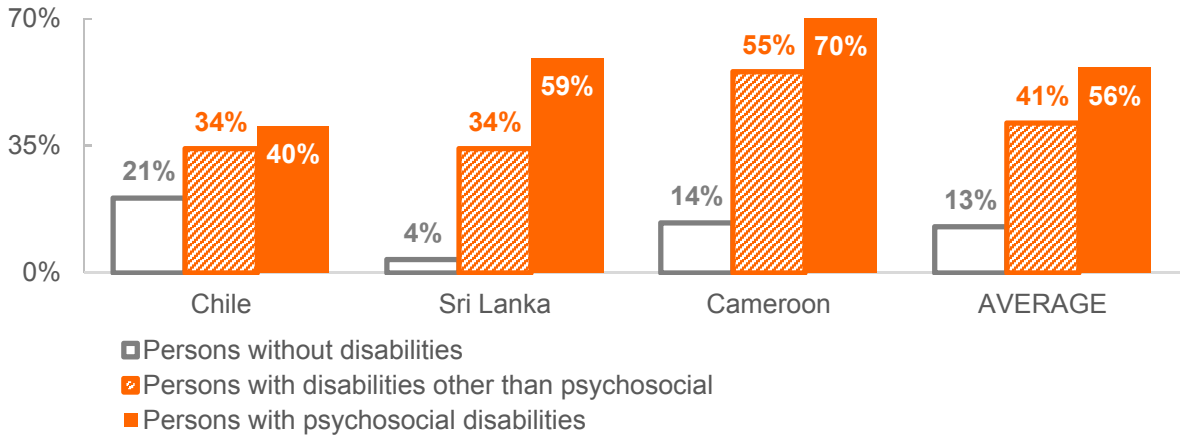
Persons with psychosocial disabilities also lack access to housing and other social services and supports, as well as to appropriate health care. Evidence from three countries, around 2015, indicates that persons with psychosocial disabilities are more likely to find health facilities hindering or very hindering (Figure II.113): on average, 56 per cent of them whereas 41 per cent of persons with other types of disabilities and 13 per cent of persons without disabilities find these facilities hindering. These disparities hold in the three countries, with Chile having the lowest percentage of persons with psychosocial disabilities facing this challenge (40 per cent).

Similarly, evidence from the same countries finds that persons with psychosocial disabilities are more likely to consider their overall health bad (Figure II.114): an average of 60 per cent of persons with psychosocial disabilities, 47 per cent of persons with disabilities other than psychosocial disabilities and 7 per cent of persons without disabilities consider their overall health bad or very bad. Among these three countries, the lower the proportion of persons with psychosocial disabilities who find health facilities hindering, the lower the proportion who considers their overall health bad, suggesting that accommodating health facilities play a role in providing adequate health care. Persons with psychosocial disabilities die at younger ages than the rest of the population.

Regarding family and community activities, available evidence suggests that persons with psychosocial disabilities face more barriers in participating in them. For instance, in Sri Lanka, in 2015, a higher proportion of persons with psychosocial disabilities, compared to the rest of the population, reported challenges participating in selected family and community activities: 27 per cent of them could not participate in family decisions, 39 per cent of them found joining community activities problematic or very problematic, 59 per cent found the places for socializing hindering or very hindering and 62 per cent found shops, banks and the post office hindering or very hindering (Figure II.115). In comparison, less than 3 per cent of persons without disabilities reported any of these challenges. Persons with psychosocial disabilities are also more likely to encounter these difficulties than persons with other types of disabilities: five times as likely to not be included in family decisions and almost two times as likely to find joining activities problematic and to find places for socializing, shops, banks and the post office hindering.

Without educational and work opportunities, basic services and social support, many persons with psychosocial disabilities end up living on the streets, in psychiatric hospitals or in abject poverty.[587] A study in the United Kingdom showed that persons with severe mental health problems were twice as likely to die early as the general population.[588]

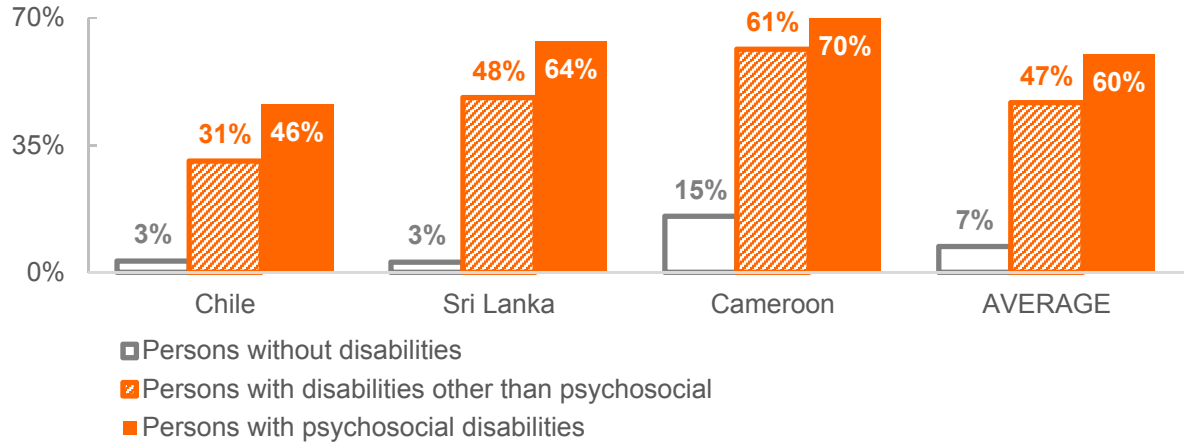
Figure II.113. Percentage of persons who find health facilities hindering or very hindering, by psychosocial disability and disability status, in 3 countries (MDS), around 2015.



Note: (MDS) identifies countries with data collected using the Model Disability Survey. Data from Cameroon were collected in selected regions and are not nationally representative.

Source: WHO.[100]

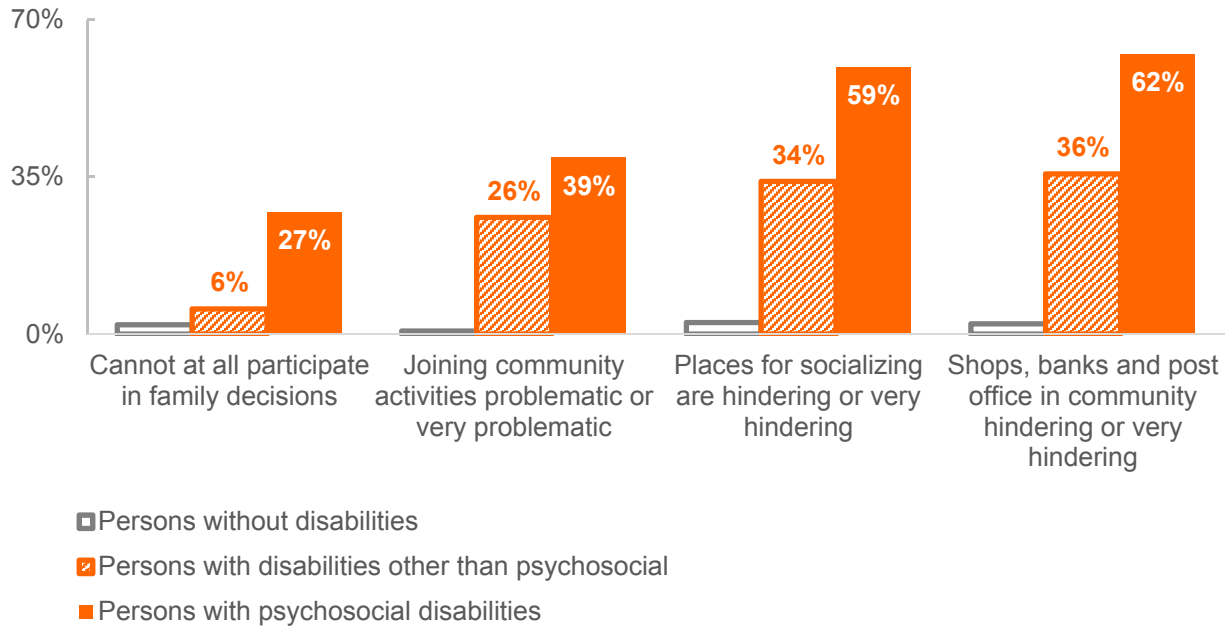
Figure II.114. Percentage of persons who consider their overall health bad or very bad, by psychosocial disability and disability status, in 3 countries (MDS), around 2015.



Note: (MDS) identifies countries with data collected using the Model Disability Survey. Data from Cameroon were collected in selected regions and are not nationally representative.

Source: WHO.[100]

Figure II.115. Percentage of persons who report challenges participating in selected family and community activities, by psychosocial disability and disability status, in Sri Lanka (MDS), in 2015.



Source: WHO.[100]

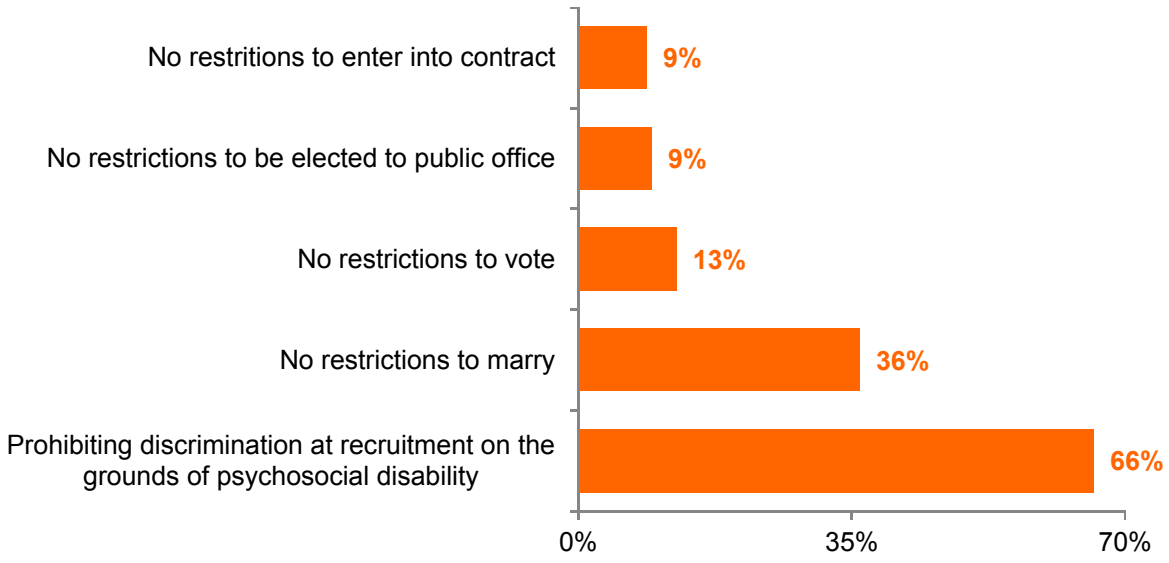
Current practices

National policies and laws specifically related to mental health and psychosocial disabilities have direct and significant impacts on the degree of inclusion and participation of persons with psychosocial disabilities in society. Although, historically, policies and laws related to disability have often neglected psychosocial disabilities, an increasing number of policies and legislation include them. As of 2014, among 168 countries, 21 countries had integrated plans for mental health in their general health or disability plans. Another 131 countries had developed mental health plans. Most of the policies related to mental health, either stand alone or part of other general policies on health or disability, included a number of checklist items to reflect the needs of persons with psychosocial disabilities: 92 per cent indicated their policies or plans promote transition towards community-based mental health services and 85 per cent suggested their policies or plans pay explicit attention to respect for the human rights of persons with psychosocial disabilities.[589] However, only 15 per cent of the countries indicated that their mental policies or plans are implemented.[590]

Legislation in a number of countries promotes the social, economic and political inclusion of persons with psychosocial disabilities on an equal basis with others (Figure II.116). But, many laws on employment, marriage, voting and property-related rights still fail to address obligations for persons with psychosocial disabilities under the CRPD.[591,592,593] Among 186 countries, 53 per cent permit dismissal, suspension or

termination from work if a person has a psychosocial disability. However, this has been prohibited in 37 per cent of these countries and discrimination on the grounds of psychosocial disability at the time of recruitment is prohibited in 66 per cent of the countries.[594] Laws do not impose any restrictions on the eligibility of persons with psychosocial disabilities to enter into marriage only in 36 per cent of 161 countries. The right to marry for persons with psychosocial disabilities is denied in the laws of 44 per cent of the countries, while in 7 per cent of them persons with psychosocial disabilities have to seek the opinion or permission of others to get married. In the remaining 13 per cent, psychosocial disability is a permissible reason for voiding a marriage or divorce.[595] Restrictions on the parental rights of persons with psychosocial disabilities are even more widespread.[596] Among 167 countries, only 13 per cent have no legal restrictions on the right to vote by persons with psychosocial disabilities, while legal restrictions exist in the remaining 87 per cent.[597] Regarding the right to be elected to public office, even more countries have restrictions: among 161 countries, persons with psychosocial disabilities face legal restrictions in exercising this right in 91 per cent of the countries. In more than half of these countries, the restriction targets specifically persons with psychosocial disabilities.[598] Only 16 out of 182 countries, that is, 9 per cent, impose no legal restrictions for persons with psychosocial disabilities to enter into contract.[599]

Figure II.116. Percentage of countries with legislation allowing persons with psychosocial disabilities to marry, to be recruited for work, to vote, to be elected to public office and to enter into contract, on an equal basis with others, around 2017.



Source: Nardodkat et al (2016),[600] Bhugra et al (2016),[601] Bhugra et al (2016a),[593] Bhugra et al (2016b)[602] and UNDESA.[598]

Similarly, legislation in several countries still bars persons with psychosocial disabilities from fully making decisions regarding their own health care. For instance, in Commonwealth Member States, the laws of 71 per cent of these countries obstruct the right to equal recognition before the law and to exercise legal capacity for persons with psychosocial disabilities, by allowing for decisions – including medical decisions – to be made by others on their behalf. Furthermore, mental health legislation in all Commonwealth Member States directly authorize involuntary admission and involuntary treatment. Moreover, mental health laws in 76 per cent of these States do not recognize the right to live in the community and to receive services in the community, which is an obstacle to the deinstitutionalization of persons with psychosocial/mental disabilities.[603]

Some countries have made progress by eliminating all forms of guardianship and curatorship for persons with disabilities, providing effective legal capacity for persons with psychosocial disabilities.[604] At the global level, a tool focused on persons with psychosocial disabilities, the QualityRights Tool Kit, has been developed to build countries' capacity to assess and improve the quality of care and human rights conditions in mental health and social care services.[605]

Conclusions and the way forward

Persons with psychosocial disabilities in all countries continue to experience discrimination in laws and policies, health-care settings and society in general, deepening their exclusion and marginalization. Promoting the principles of the CRPD for persons with psychosocial disabilities requires a significant overhaul of mental health policies and laws in most countries. Laws and policies need to ensure that services are available, accessible, acceptable and of decent quality, and that they promote and uphold the rights of persons with psychosocial disabilities on an equal basis with others. These laws and policies also need to be enforced and implemented. In implementing Goal 10 of the SDGs, to reduce inequalities, development actors must specifically act to empower persons with psychosocial disabilities and take action to ensure their social, cultural, economic, civil and political inclusion. Achieving this will require constructive and coordinated multi-stakeholder efforts and collaboration at various levels, with the following objectives:

1) **Review national policies and legislation to eliminate or amend those that discriminate and deny the rights of persons with psychosocial disabilities** from participating in social, economic and political spheres. Engage persons with psychosocial disabilities and their organizations in the process of revision where possible.

2) **End coercive practices, including institutionalization and harmful and forced treatment, and establish a full range of services and support to enable persons with psychosocial disabilities to access quality mental health-care services.** Harmful practices should be eliminated, including forced electroconvulsive treatment, solitary confinement, forced and over-medication, medication provided under

misrepresented information, as well as physical and chemical restraints. These practices can be considered ill-treatment and amount to torture.[606,607,608,609,610,611] Persons with psychosocial disabilities should not be forced to undergo treatment on the grounds of "medical necessity" or "best interest", without the free and informed consent of the person concerned.[612,613]

3) **Establish policies and programmes targeted for persons with psychosocial disabilities to support their equal participation in society.** Persons with psychosocial disabilities should be engaged in any activities about them, such as awareness-raising campaigns and policy development.

4) **Empower persons with psychosocial disabilities**. Support their participation in decision-making processes, to live independently and be included in the community and to exercise their right to liberty and legal capacity on an equal basis with others. In particular, promote informed consent to health-care admission and treatment as well as participation.

K. Making cities and human settlements inclusive and sustainable for persons with disabilities (Goal 11)

Goal 11 focuses on the inclusivity, safety, resilience and sustainability of cities and human settlements. This section addresses the challenges and needs of persons with disabilities by providing the international normative frameworks pertaining to inclusive cities and human settlements and examines available national policies and best practices.

Apart from discussing the inclusiveness of cities and human settlements for persons with disabilities – in line with Goal 11, the section focuses in particular on four Goal 11 targets: (i) target 11.1, which calls for access for all to adequate, safe and affordable housing and basic services; (ii) target 11.2 which calls for providing by 2030 access to safe, affordable, accessible and sustainable transport systems for all, with special attention to the needs of inter alia persons with disabilities; (iii) target 11.3 which calls for inclusive urbanization; and (iv) target 11.7 which commits to providing by 2030 universal access to safe, inclusive and accessible, green and public spaces, in particular for persons with disabilities. The experience of persons with disabilities in urban and rural settings is also analysed in order to identify targeted actions to achieve Goal 11 in both settings.

Although the safety of cities and human settlements is briefly discussed in this section, a more comprehensive discussion is provided in the section on violence against persons with disabilities (targets 16.1 and 16.2). The resilience aspect is discussed in the section on hazards, shocks and disasters (targets 1.5 and 11.5 and Goal 13).

International normative frameworks on inclusive cities and human settlements

Goal 11 'Make cities and human settlements inclusive, safe, resilient and sustainable' has its origins in several key international treaties, including the freedom to choose one's residence as recognized in the International Covenant on Civil and Political Rights (ICCPR),[614] and the right to an adequate standard of living, including the right to adequate housing in the International Covenant on Economic, Social and Cultural Rights (ICESCR).[615] The need for freedom of movement, and freedom to choose one's residence is further supported through the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)[616] and assistance to children with disabilities to promote their participation in the community is addressed in the Convention on the Rights of the Child.[617]

The CRPD includes various provisions related to the issues covered by Goal 11, particularly on making cities and human settlements inclusive for persons with disabilities, by focusing on the needs and perspectives of persons with disabilities. Specifically, the Convention includes the right to live independently and in the community (article 19), and the right to an adequate standard of living and social protection (article 28). Elements of these rights include the right to choose their place of residence and with whom

they live (article 19(a)).

Moreover, the New Urban Agenda (2016) addresses the right to adequate housing and standard of living; access to basic physical and social infrastructure including affordable serviced land, housing, and ICTs; accessible public spaces and transport; and empowerment and participation for persons with disabilities.[618]

Relatedly, the Human Rights resolution on human rights in cities and other human settlements (2017) builds on previous international normative frameworks and calls for equitable, affordable, accessible and sustainable basic physical and social infrastructure for all without discrimination while meeting the needs of persons with disabilities and urges States to implement road safety policies in line with the CRPD.[619]

CRPD article 12, paragraph 5 requires States Parties to take measures to ensure that persons with disabilities have the right to own or inherit property, to control their own financial affairs and to have equal access to financial services. These are linked to target 11.3 that calls for enhanced inclusion and sustainable urbanization for sustainable human settlement planning and management in all countries.

The CRPD also specifies the need for inclusion in several sectors like education (article 24), habilitation and rehabilitation (article 26), and employment (article 27). Inclusion is also reflected in various SDGs.

Housing

Like target 11.1, which calls for adequate, safe and affordable housing, the CRPD also focuses on housing for persons with disabilities: article 28 includes the right to housing, and calls on States Parties to ensure access by persons with disabilities to public housing programmes; article 9 stipulates that measures should be taken to ensure persons with disabilities have access to housing, on an equal basis with others, and specifies that these measures shall include the identification and elimination of obstacles and barriers to accessibility.

Transportation

The CRPD includes specific provisions regarding accessible transportation, namely article 9 calls on States Parties to take appropriate measures to ensure that persons with disabilities have access to transportation, on an equal basis with others, and specifies that these measures shall include the identification and elimination of obstacles and barriers to accessibility.

Relatedly, target 11.2 calls for providing access to safe, affordable, accessible and sustainable transport systems for all, with special attention to the needs of persons with disabilities. The New Urban Agenda also commits to improve road safety and sustainable mobility and transport infrastructure for persons with disabilities.[620]

Accessibility of public spaces and services

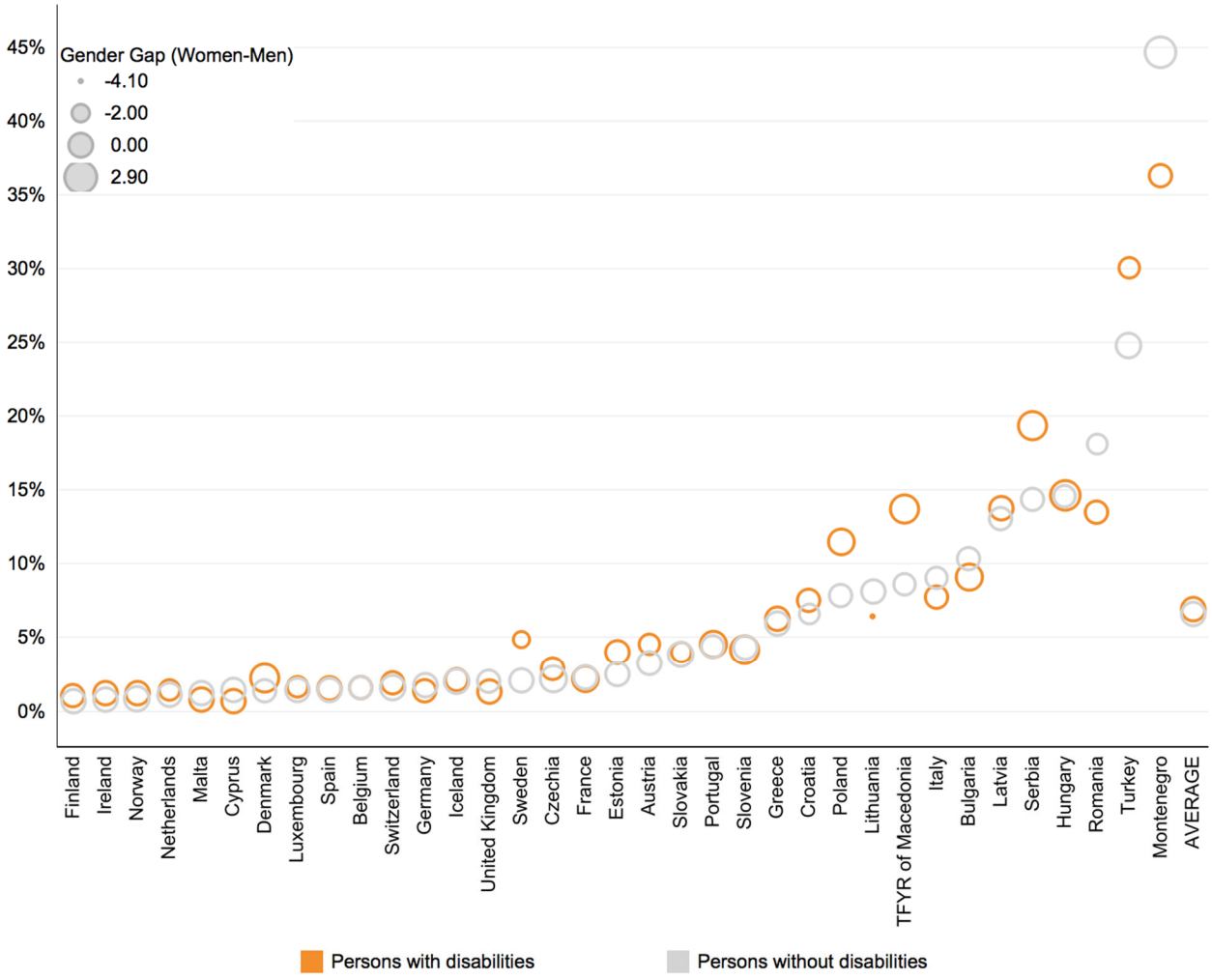
Accessibility is covered in various instruments. The World Program of Action concerning Disabled Persons (WPA), adopted in 1982, considers accessibility a key target area to advance full participation and equality for this population group.[621] The Standard Rules on the Equalization of Opportunity for Persons with Disabilities (1994) also identifies accessibility (Rule 5) of the physical environment and of information and communication as target areas to foster equal opportunities.[622] The CRPD requires States Parties to ensure that programmes and services are fully accessible by persons with disabilities through Universal Designs, reasonable accommodation, and elimination of discrimination. Public sector entities are also obliged to undertake accessibility audits, and develop and implement plans to realize the right to accessibility, which is called for by the CRPD "to ensure that private entities that offer facilities and services which are open or provided to the public take into account all aspects of accessibility for persons with disabilities" (article 9, paragraph 2(b)). States Parties must take all appropriate measures to urge private entities to make information and services available in accessible formats for persons with disabilities (article 21, paragraph (c)). The CRPD also includes a provision for access to a range of in-home, residential and in community support services (article 19, paragraph (b)), and the equal availability of services and facilities for general populations on an equal basis to persons with disabilities (article 19, paragraph (c)). Article 30 further adds that States Parties shall take measures to ensure that persons with disabilities have access to sporting and recreational venues. Target 11.7 calls for universal access to safe, inclusive and accessible green and public spaces, in particular for persons with disabilities.

The situation of cities and human settlements regarding inclusion of persons with disabilities

Adequate, safe and affordable housing (target 11.1)

Among 35 countries, mostly in Europe, the average percentage of persons aged 16 and over living in severely deprived housing is similar for persons with disabilities (6.9 per cent) and persons without disabilities (6.6 per cent), as shown in Figure II.117. However, this narrow gap of less than 0.5 percentage points masks wider gaps in some countries. In three countries, the gap is about 5 percentage points: in Serbia, TYFR Macedonia and Turkey. Gender differences are small in most countries. The lack of indoor sanitation in housing is a great burden for persons with disabilities, especially those with mobility difficulties (see section on Goal 6).

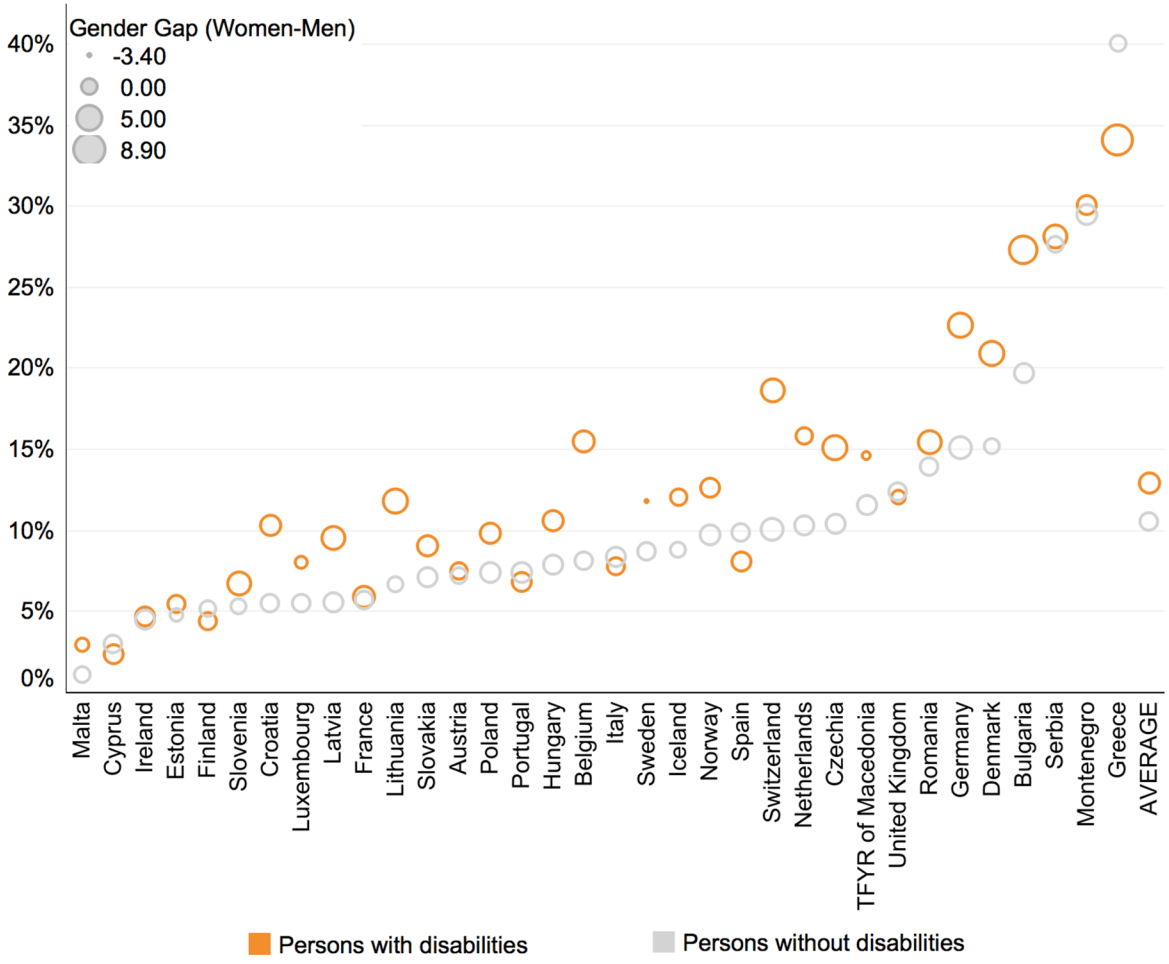
Figure II.117. Percentage of persons aged 16 and over living in severely deprived housing, by disability status, in 35 countries, in 2016.



Source: Eurostat.[9]

Lack of affordability seems to be a challenge encountered more often by persons with disabilities. In particular, they are more likely to suffer a housing cost overburden than persons without disabilities, especially women with disabilities (Figure II.118). The rate of housing cost overburden – i.e. the percentage of persons aged 16 and over living in households where the total housing costs represent more than 40 per cent of disposable income – is slightly higher among persons with disabilities (13 per cent) as compared to persons without disabilities (11 per cent). Overall the rate of housing cost overburden is highest among women with disabilities: among persons with disabilities, the rate of housing cost overburden is 12 per cent for men and 14 per cent for women. Among persons without disabilities, the rate of housing cost overburden is 10 per cent for men and 11 per cent for women.

Figure II.118. Percentage of persons aged 16 and over living in households where the total housing costs represent more than 40% of disposable income, by disability status, in 34 countries, in 2016.

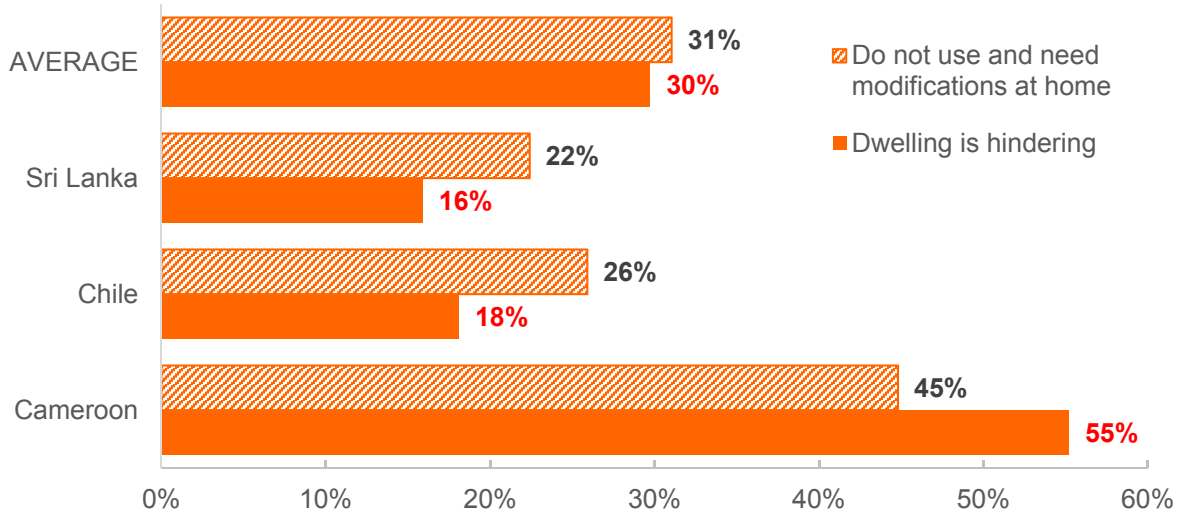


Source: Eurostat.[9]

Available evidence also suggests that there is a disproportionate number of persons with disabilities who are homeless.[623] Due to entrenched stigmatization and discrimination, persons with disabilities are more likely to encounter greater challenges accessing income, assets and services and are thus particularly vulnerable to being homeless. They have several barriers that prevent them from enjoying their right to adequate housing, such as lack of physical accessibility, discrimination and stigmatization, limited access to the labour market, and lack of social housing or community support.[624] In particular, deinstitutionalization without the necessary community service compounded by the lack of affordable housing can leave many persons with disabilities homeless.[623] Another challenge is limited security of tenure, particularly for persons

with intellectual or psychosocial disabilities whose legal capacity is often neglected: they are rarely able to obtain formal housing contracts and therefore often have to rely on less formal housing contracts.[625] This results in their increased vulnerability to forced evictions. In some countries, children with disabilities can be abandoned by families[626] and face the risk of being homeless and exploited for the purpose of begging in the streets or elsewhere.[627] In addition, gender is also important in homelessness as women with disabilities have a higher risk of violence and, when escaping violence, emergency shelters may not be accessible to them.[623] In shelters, persons with disabilities, particularly those with psychosocial disabilities, are often turned away because of lack of accommodations to respond to their needs.[628]

Figure II.119. Percentage of persons with disabilities who (i) consider their dwelling hindering and (ii) do not use but need modifications at home, in 3 countries (MDS), around 2015.



Note: (MDS) identifies countries with data collected using the Model Disability Survey. Data from Cameroon were collected in selected regions and are not nationally representative.

Source: WHO.[100]

Even if persons with disabilities succeed in having a dwelling, the dwelling may be hindering or very hindering for persons with disabilities as the dwelling may be insufficiently accommodative of their needs. In three countries around 2015, 30 per cent of persons with disabilities on average indicated that their dwelling is hindering, from 16 per cent in Sri Lanka and 18 per cent in Chile to 55 per cent in two districts in Cameroon (Figure II.119). Similar percentages of persons with disabilities indicate that they do not use but need modifications at home: 22 per cent in Sri Lanka, 26 per cent in Chile and 45 per cent in the two districts in Cameroon.

Apart from lack of adequate, affordable and accessible housing, persons with disabilities also tend to live in less safe accommodations and areas of residence where crime, violence or vandalism are common (see section on Goal 16).

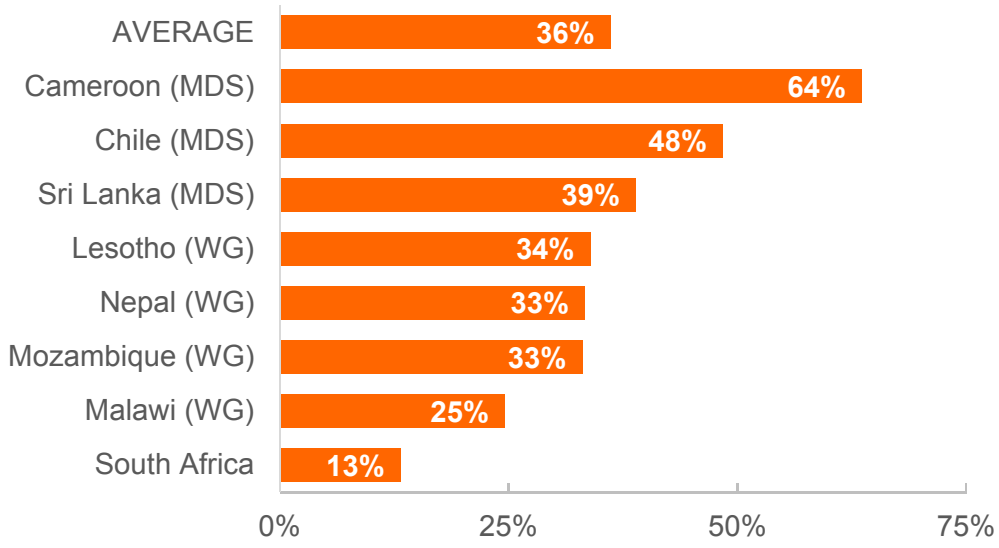
The main barriers to adequate housing for persons with disabilities include lower economic status (see sections on Goals 1, 2 and 8); discrimination in legislation and policies that limit the ability to exercise the right to adequate housing; limited access to information on housing especially for persons with sensory disabilities and those with intellectual disabilities; lack of physical accessibility; and inadequate monitoring mechanisms.[629]

Accessible transport for persons with disabilities (target 11.2)

Urban sprawl and decreases in job opportunities have turned rural areas into almost exclusively residential settlements, highly dependent on neighbouring towns. This fact directly impacts persons with disabilities that may end up facing long commutes to work, which can be a barrier for persons with disabilities to enter the job market due to the poor accessibility of public transport services.

Indeed, in many countries, the transportation system and public spaces are not always accessible for persons with disabilities. Data from eight developing countries indicate that the average proportion of persons with disabilities who consider transportation not accessible or hindering is 36 per cent, ranging from 13 per cent to 64 per cent (Figure II.120). Crowdsourced data mostly from developed countries indicate that as of 2017, 32 per cent of public transportation facilities were not wheelchair accessible.[78,197] In some countries, the only international airport available is not accessible for persons with disabilities.[630] Evidence from Australia, in 2015, identified major obstacles for persons with disabilities in using public transportation: steps to get in or out of vehicles, barriers in getting to stops or stations, lack of seating or difficulty seating or difficulty standing, pain or discomfort when sitting, fear or anxiety, inaccessible doors to get in and out of vehicles and inadequate access to toilets (see Box 8).

Figure II.120. Percentage of persons with disabilities who consider that transportation is not accessible or hindering, in 8 countries, around 2013.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions; (MDS) identifies countries with data collected with the Model Disability Survey. All data refer to not accessible transportation, except MDS data which refer to hindering transportation. Data from Cameroon and South Africa were collected in selected regions and are not nationally representative.

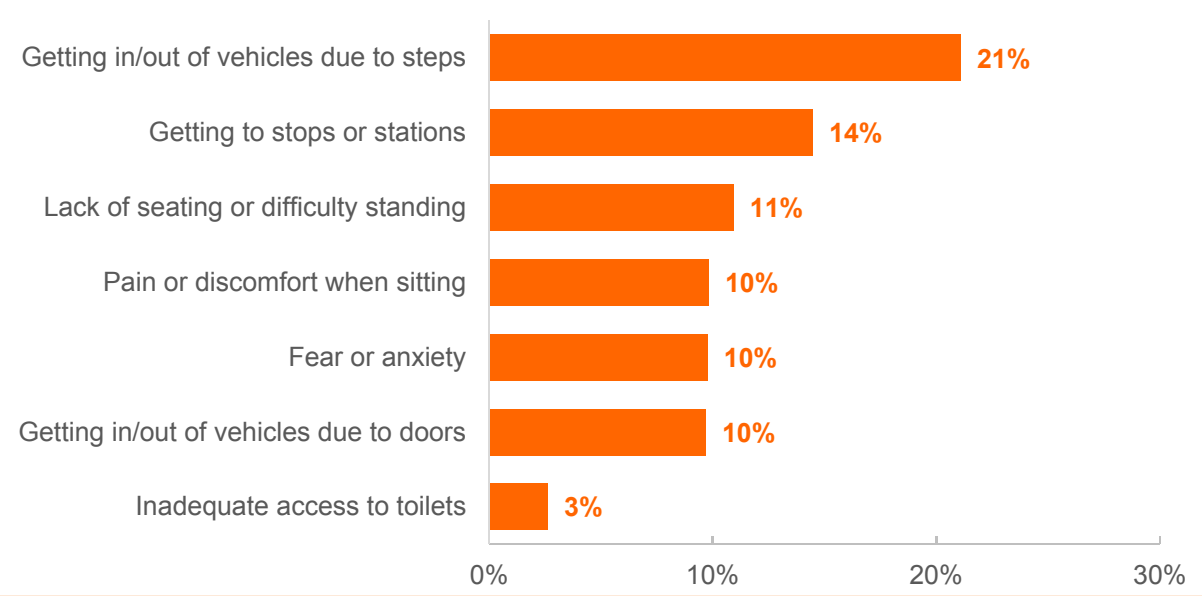
Source: UNDESA[78] (on the basis of data from SINTEF[11]) and WHO.[100]

Box 8. Inclusivity and accessibility of public transportation prioritized in Australia

In Australia, the National Disability Strategy 2010–2020[631] has as one of its main priorities the inclusivity and accessibility of public transportation. This is a priority area because access to transportation is correlated to the participation of persons with disabilities in community life. Data collected in 2015 showed that about 80 per cent of persons with disabilities had public transport available in their local area.[632] While this is a major feat, in 2015, 43 per cent of persons with disabilities reported they were unable to use public transportation, mainly due to difficulties in getting in or out of the vehicles due to steps (21 per cent), getting to the stations (14 per cent), pain (10 per cent), fear (10 per cent), inadequate access to toilets (3 per cent) and other difficulties in accessing the mode of transport provided (Figure II.121).

Toward resolving this, the Disability Standards for Accessible Public Transport have minimum requirements that must be met, including, "range of access paths, boarding devices, allocated spaces and handrails" in a 30-year implementation plan. Furthermore, in Australia the costs of using public transportation are subsidized or made more affordable through the use of concession cards for persons with disabilities. The cards offer cheaper options or discounts on certain services including public transport fares.[633]

Figure II.121. Percentage of persons with disabilities, by reasons for being unable to use public transportation, in Australia, in 2015.

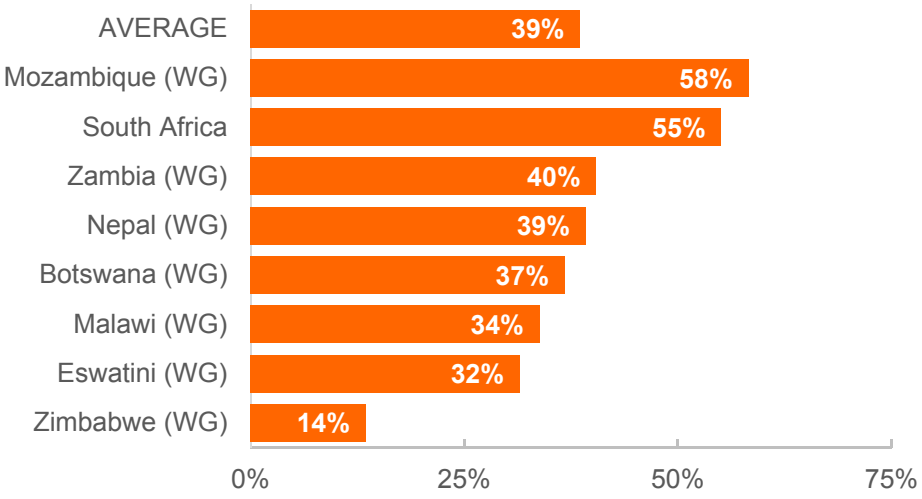


Source: ABS Survey of Disability, Ageing and Carers, 2015.[632]

Accessible public spaces (target 11.7)

Businesses and public places can also be a challenge for persons with disabilities. In some countries, more than 25 per cent of persons with disabilities consider that banks, shops and post offices are hindering or not accessible.[11,100] Data from eight developing countries show that on average 39 per cent of persons with disabilities indicated that recreational facilities are generally not accessible to them (Figure II.122), from 14 per cent in Zimbabwe to 58 per cent in Mozambique. According to crowdsourced accessibility data, of the more than 20,000 public leisure facilities analysed in various countries, mostly in developed regions, half were considered not accessible for persons using wheelchairs.[78,197]

Figure II.122. Percentage of persons with disabilities who report that recreational facilities (e.g. cinema, theatre, pubs) are generally not accessible to them, in 8 countries, around 2011.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. Data from South Africa were collected in selected regions of the country and are not nationally representative.

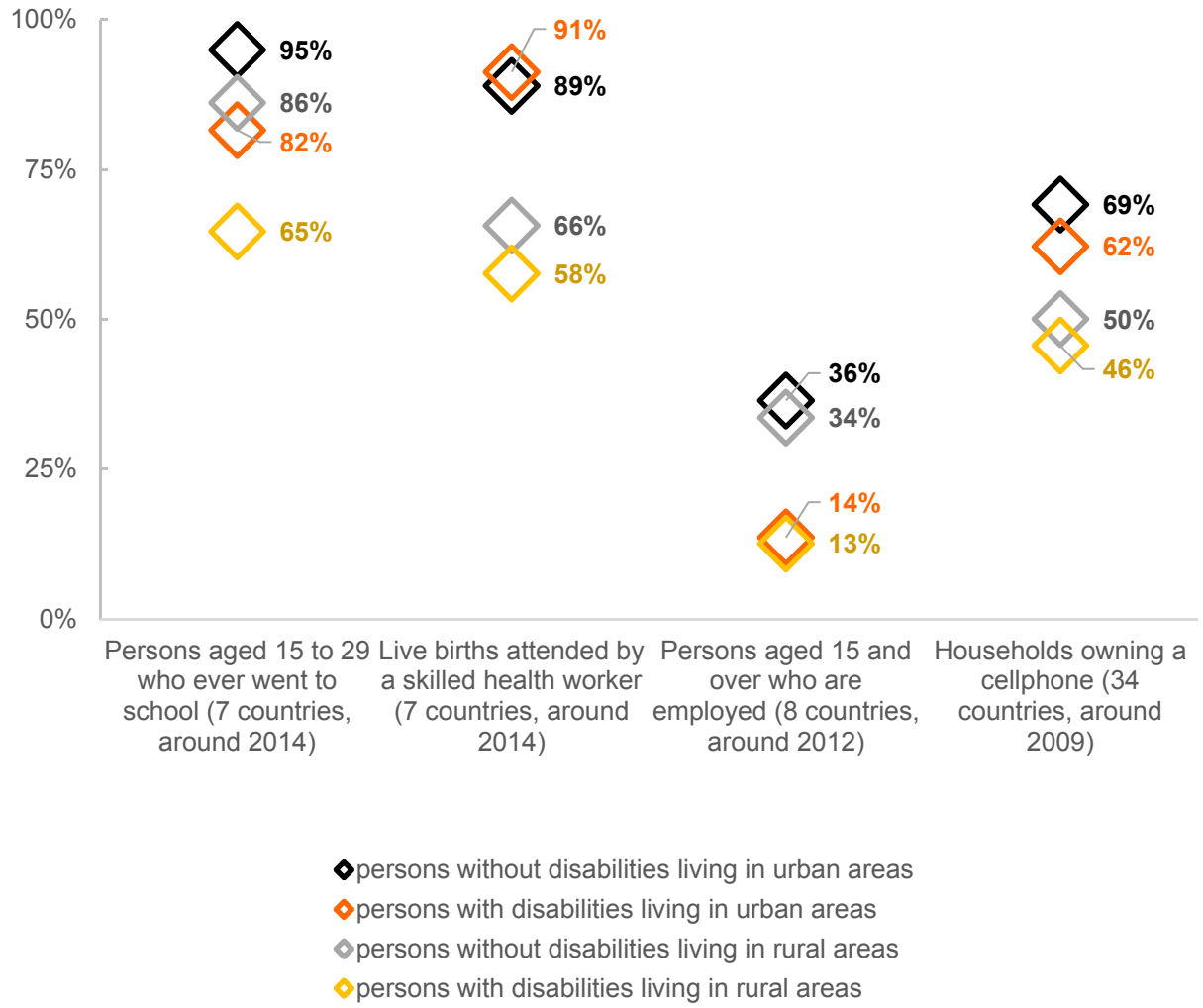
Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Challenges in urban and rural settlements

Persons with disabilities in rural areas tend to be at a disadvantage. Existing data for a limited number of countries (Figure II.123) indicate that, compared to persons with and without disabilities from urban areas and to persons without disabilities in rural areas, they are the least likely to ever have been to school (65 per cent) and the least likely to be employed (13 per cent). Births from mothers with disabilities who live in rural areas are the least likely to be attended by a skilled health worker (58 per cent). Households in rural areas with a family member with disabilities are the least likely to own a mobile phone (46 per cent).

Urbanization is believed to better respond to the needs of persons with disabilities as job opportunities and supporting facilities are more available in urban areas. However, the percentage of employed persons with disabilities is similar in urban and rural areas (14 per cent and 13 per cent), and considerably lower than the percentage of employed persons without disabilities in both urban and rural areas (36 per cent and 34 per cent), suggesting that the locale of residence may not play a major role in the employment of persons with disabilities but that possible factors like discrimination and lack of accessibility at the workplace are major obstacles in both urban and rural areas. On the contrary for education, there is a clear gap between persons with disabilities in rural versus urban areas (65 per cent versus 82 per cent), suggesting that in urban areas persons with disabilities face fewer challenges in accessing education. The location of residence also seems to play a major role in access to a skilled health worker during birth. In urban areas, 91 per cent of births from mothers with disabilities and 89 per cent of births from mothers without disabilities have access to this service; while in rural areas, the coverage is much lower. Ownership of cell phone is more likely among persons with disabilities living in urban areas than in rural areas, although ownership is less likely than for persons without disabilities: in urban areas, 62 per cent of households with persons with disabilities own a cell phone compared to 69 per cent of households without persons with disabilities; in rural areas, 46 per cent of households with persons with disabilities compared to 50 per cent of households without persons with disabilities own a cell phone.

Figure II.123. Four selected indicators on education, health, employment and access to ICT, by disability status and area of residence.



Source: ESCWA,[7] UNDESA and the World Bank (on the basis of data from DHS,[6] IPUMS[10] and SINTEF[11]).

Current practices in making cities and human settlements inclusive

There are numerous countries that have made efforts to increase access, inclusion and the participation of persons with disabilities in cities and human settlements. This is mostly done through the adoption of a national disability strategy and plan of action, adoption of accessibility standards for the built environment, creation of policies and programmes to enable access to all public systems and services, increasing public awareness on disability, and investments in programmes and services for persons with disabilities.[634]

Current practices in promoting adequate housing for persons with disabilities

Some countries have established standards for housing units to enhance accessibility for persons with disabilities. For example, the Swedish Building Code requires all units in residential buildings of three levels or more to have wheelchair access, large lifts and kitchens and bathrooms of certain dimensions. Implementation of this code allows persons with disabilities a broader choice for their own dwelling and enables them to visit others more easily. The additional cost of including these features has been estimated at less than 1 per cent of the total building costs.[635]

There are also initiatives to assist persons with disabilities to move from institutional living arrangements to choose their own housing or to live with their families. These initiatives are based on the provision of services in the community and support for independent living, including assistance in finding housing. The community services include mental health clinics, social care services, psychiatric outpatient facilities, health-care services, a day care centre, financial support, support groups, community networking, awareness raising, and sensitization campaigns.[636]

In Nepal, a programme has been developed in rural communities to offer affordable accommodations for persons with disabilities.[637] A number of countries have also put in place social programmes to help persons with disabilities financially, including for housing costs (see section on Goals 1 and 2).

Current practices in making public places accessible

Many countries have established comprehensive national strategies and/or plans that encompass the improvement of accessibility in public spaces including public buildings, facilities and schools to promote inclusive communities. Examples of such strategies and plans can be found in, inter alia, Australia, China, Ethiopia, France, Georgia, Lao People's Democratic Republic, Nepal, Norway, Rwanda, South Africa, United Arab Emirates, and the United Kingdom.[638] As an illustration, Norway has committed to be "Universally designed by 2025".[639]

Some countries have passed acts, laws, standards or policies on accessibility of the public space. For example, through the integration of accessibility in the design and construction of buildings,[640,641,642] the passage of laws concerning accessibility of public spaces for persons with disabilities, including making all public and private spaces accessible,[643,644] the establishment of a framework for developing accessibility standards for entities in the public and private sectors including the design of public spaces, employment, information/communication, and customer service,[645] as well as incorporating accessibility into federal buildings, barrier-free standards in buildings, and ICT laws.[646] For example, in Barbados,[647] accessibility is mandatory in public buildings. Evidence suggests that this practice is also gradually being adopted by the private sector. Accessibility standards have also been adopted to regulate how information to navigate in

public buildings is displayed. For example, in Japan, accessibility standards applicable to buildings require that main facilities must be indicated to persons with visual disabilities in braille. [648]

Access to the documentation and information about standards and regulations on accessibility in the public space is also improving. For example, in Chile, such standards were made accessible to persons with disabilities in easy-to-read format by offering an accessibility guide that simplifies building regulations by using pictures and pictograms to make the information more accessible to a wider range of users.[649]

Businesses and civil society organizations also took initiatives to enhance accessibility to better serve persons with disabilities. In Ireland, the central bank enhanced physical accessibility in their facilities including parking, waiting areas, reception desks, bigger doors and lifts, and handrails, among others.[650] A business in Spain provided a more accessible shopping service by ensuring physical accessibility, using sign language for persons with hearing impairments, organizing products by size and using different colours to make shopping easier for persons with cognitive disabilities.[651] Hotels also took actions to promote physical accessibility for persons with disabilities, through appointing an accessibility director to promote accessible hotel facilities, providing training courses on accessibility to staff, and ensuring suitable bed heights, lower shower heads, and hearing loops, among others.[652]

Awareness of accessibility is not only increasing in urban areas. In Sri Lanka, public buildings including schools, polling stations, and religious sites, were made physically accessible to persons with disabilities in rural areas.[653] In Nepal, a programme has been developed in rural communities to raise awareness and remove physical barriers among the communities: the programme helped reconstruct schools, health-care centres and public toilets to be more accessible.[637]

Access to recreational facilities and events can be vital to promote the participation of persons with disabilities in their communities. In Colombia, accessible cinema for persons with disabilities has been offered. Accessibility features included: audio description; sign language interpretation; and subtitles displayed in high contrast colours on the screen.[654] Museums in Austria and the United States offer accessible facilities and services to meet the needs of persons with disabilities, including through easy language and audio description of art work.[655,656] Similarly in Spain, an art exhibition was made accessible to persons with disabilities by providing information through audio, sign language, braille, and a beacon-based navigation system.[657] Accessible programmes are offered in museums in Albania, Bosnia and Herzegovina, Greece, Macedonia and Serbia, such as workshops in art pottery for persons with and without disabilities and braille guides and tactile maps.[658]

Some countries installed footpaths for persons with disabilities to enjoy the outdoors,[659] and built ramps and placed braille and audio support for persons with disabilities in tourist sites.[660] In the United States, an accessible community centre was designed with the principle of Universal Design by installing ramps, flat surface (stairs-free), hearing loops, and a wheelchair softball field, which enabled persons with disabilities

to equally participate in sports and cultural events.[661] Several countries have paid special attention to recreational spaces for children with disabilities. Accessible playgrounds including accessible equipment and restrooms can be found in Hungary, Israel and Sweden.[662,663,664]

Other initiatives include the development of a map with information on accessibility in a city, including restaurants, public toilets, transport and parking facilities,[665] and a website that provides information on the accessibility of hotels, facilities, transport and events.[666,667]

Monitoring and assessment of policies and regulations on accessibility play a critical role to ensure implementation. Such an initiative has been undertaken in Canada through a paper-based assessment form on accessibility in public spaces including pavements, crossings and buildings in urban areas, and uses 114 accessibility indicators.[668] Similarly in Europe, a model to rate the accessibility of objects and public spaces based on a 300-question checklist has been used in some countries.[669]

Current practices for making transportation accessible

Several countries have passed laws requiring all transport to be accessible,[643,644] developed national strategies and/or action plans to enhance the accessibility of public transportation,[670,671] and made sidewalks and pedestrian crossings more accessible through the removal of obstacles. Regulations at times focus on specific modes of transportation, as in Germany, where accessibility regulations were incorporated into railway construction and operation.[646]

Accessibility standards have been developed to facilitate communication when persons with disabilities use transportation systems. For instance, in Japan, the Accessibility Standards applicable to the public transportation system provide that the system must be equipped with facilities that make it possible to achieve mutual understanding through the use of written information.[648]

To facilitate the mobility of pedestrians with disabilities, countries have installed barrier-free signals such as traffic sound signals for persons with visual impairments and escort zones at pedestrian crossings for their safety,[672] as well as ramps and tactile surface markings.[673]

The mobility of persons with disabilities can be improved through accessible taxi services. Best practices include a taxi service offering wheelchair accessible vehicles with trained drivers in the United States, where users can call for a taxi through a mobile app, phone or email;[674] provision of subsidies for persons with disabilities for the use of taxis;[675] and a cash benefit for reimbursement of expenses on transport for persons with disabilities who may not use public transport.[676]

Other initiatives are focusing on building the capacities of persons with disabilities to move around in public spaces. A case in point is the training called ‘Flashsonar’, for persons who are blind or visually impaired, on the technique of human echolocation, which involves tongue-clicking and responding to reflected sound

for persons who are blind or visually impaired to navigate themselves when walking down a street or outdoors.[677]

Frequently, making urban transport accessible is seen as costly. However, some of the interventions for more accessible transport could be done with little to no cost, such as creating basic sidewalk and crossing design, minimizing steps and other hazards, hazard markings, as well as having visual contrast, colour coding and clear/intuitive signs.[678] Moreover, existing examples show that consultation with persons with disabilities for infrastructure planning and implementation is highly beneficial.[679]

Conclusions and the way forward

The population of persons with disabilities is expected to increase in urban areas as the world continues to urbanize. Yet, persons with disabilities are impeded from fully enjoying their livelihoods when physical and social barriers exist, such as inaccessible transportation, businesses and public facilities, and lack of adequate housing due to discrimination. Achieving inclusive cities and communities for persons with disabilities entails removing these barriers.

Housing is a key component of inclusive urban development. Universal Design principles should be incorporated from the outset in plans for new built environments and as much as possible in renovations to existing buildings and facilities to ensure accessibility for all. Examples of Universal Design include the use of braille on elevator control panels and a hearing induction loop system for emergencies that allows people to speak with security through a microphone.

Accessible transportation not only provides mobility for all, but drives sustainable and inclusive growth. Continuity of accessibility throughout all segments of a journey from the starting point to the final destination is important and should be supported by urban policies and plans that identify and fix accessibility gaps in public spaces or from one built environment to another. Making transportation inclusive means also ensuring the affordability of accessible transportation.

ICTs play a key role in building inclusive and accessible cities. Accessible ICTs, including mobile applications, government websites, public kiosks and automated teller machines, should be part of accessible urban development plans.

Compact cities could increase accessibility, as persons with disabilities living in these areas would have better access to concentrated resources and infrastructure. Although compact cities can offer enormous potential for persons with disabilities, this potential will not materialize unless accessibility and non-discrimination are prioritized.

This section showed that there are many other best practices. Although lack of resources cannot justify inaction, financial constraints to implement physical and structural adaptation in cities are still a hurdle to increase accessibility. But there are low-cost options which could be scaled up.

To make cities and communities inclusive and sustainable for persons with disabilities, more efforts are needed to:

1) **Ensure that national policies and laws on accessible housing, public infrastructure, transport and services are in place and implemented.** Standards, laws and effective enforcement mechanisms are necessary to ensure the accessibility of housing, public services and transport for persons with disabilities. Urban planning and development should include consultations with persons with disabilities and should include the needs of persons with disabilities, taking into account accessibility, affordability and quality of public spaces including transport, facilities, buildings and services, as well as cultural and recreational facilities and services. The ultimate aim of urban planning should be to provide an accessible environment where persons with disabilities can live independently.

2) **Develop national policies and laws that guarantee access to adequate and affordable housing for persons with disabilities.** Eliminate discriminatory laws that prevent persons with disabilities, particularly those with intellectual or psychosocial disabilities, from exercising their right to adequate housing. Ensure that information relevant to housing is available in accessible formats and that available housing is affordable for persons with disabilities.

3) **Raise awareness on disability among communities and decision makers** and create the enabling environment where persons with disabilities are included without discrimination and can participate equally in their communities.

4) **Share knowledge and best practices and build capacity.** There is lack of expertise and technical capacity to implement measures promoting accessibility and inclusion. In order to increase the involvement and commitment of government departments, capacity-building is needed particularly among the government itself and building professionals, such as architects, engineers, urban planners and managers.

5) **Improve research and data to monitor, evaluate and strengthen urban development to be more accessible and inclusive for persons with disabilities.** Conduct further research on the needs of persons with disabilities in cities and communities in the local context, including through data disaggregation by disability, sex, age, income, and status of housing, and monitor and evaluate regularly. Collect and disseminate data on the challenges faced by persons with disabilities in accessibility of housing, public spaces and transport, as well as on the affordability of adequate housing.

L. Building resilience of persons with disabilities and reducing their exposure to and impact from climate-related hazards and other shocks and disasters (targets 1.5 and 11.5 and Goal 13)

Persons with disabilities are particularly vulnerable during natural disasters, in conflict, extreme climate events and humanitarian emergencies. Barriers to their full participation in society prior to disasters and other emergencies, including inaccessibility of the physical environment, tend to be exacerbated by natural disasters and conflicts. Failure to consult with persons with disabilities and their representative organizations in the development of plans to respond to emergency situations means that these obstacles will remain during emergencies. The exacerbated risks faced by persons with disabilities are widely acknowledged, but not adequately addressed. Moreover, disasters and humanitarian crises contribute to an increase of persons with impairments,[680,681,682] a factor that needs to be considered in planning for disability-inclusive disaster responses.

This chapter presents international normative frameworks covering the protection of persons with disabilities in emergency situations such as natural disasters and conflicts, provides an overview of the status of the inclusion of persons with disabilities in disaster risk reduction and humanitarian actions, and outlines best practices and measures taken by countries in addressing the needs of persons with disabilities in such crises.

International normative frameworks on disability-inclusive disaster risk reduction

The cross-cutting nature of disaster risk reduction is mainstreamed in the SDGs, notably in the context of ending poverty through building resilience of the poor and those in vulnerable situations to climate-related extreme events (target 1.5), making human settlements sustainable and inclusive by ensuring the protection of people in vulnerable situations from disasters (target 11.5), and combating climate change by enhancing capacities for effective climate change-related planning and management, with a focus on marginalized communities (target 13.b).

The CRPD recognizes that the rights of persons with disabilities are particularly exposed in emergency situations, and it provides a framework to guide preparedness, response and recovery efforts in climate events and conflict situations. The CRPD includes a specific provision (article 11) that recognizes that situations of risk and humanitarian emergencies pose serious challenges to persons with disabilities and their rights. Article 11 of the CRPD reinforces and specifies States' obligations under international humanitarian law to ensure the protection and safety of persons with disabilities in situations of risk, including armed conflict, humanitarian emergencies and natural disasters.[683] Several other articles include provisions relevant to the protection of persons with disabilities in situations of conflict and emergencies, for example, access to justice (article 13); protection of persons with disabilities from all forms of

exploitation, violence and abuse (article 16) in such situations; the right to live independently and be included in the community, including shelters during emergency situations (article 19); organization of habilitation and rehabilitation services (article 26); the right to an adequate standard of living and social protection (article 28) including the right to access food, water, and shelter particularly in post-conflict and/or post-disaster recovery and reconstruction; collection of appropriate statistics and data (article 31) to understand the situation of persons with disabilities in humanitarian situations; raising awareness (article 8) among stakeholders of disability-inclusive disaster risk reduction and humanitarian actions; and national monitoring and implementation mechanisms (article 33), including focal points in governments, coordination mechanisms and national human rights institutions, to involve all important actors in preparation, response and recovery efforts.

Another disability-focused agreement, the outcome document of the high-level meeting of the United Nations General Assembly on 'The realization of the Millennium Development Goals and other internationally agreed development goals for persons with disabilities: the way forward, a disability-inclusive development agenda towards 2015 and beyond', which was adopted in 2013, specifically urges Member States to take actions "to continue to strengthen the inclusion of and focus on the needs of persons with disabilities in humanitarian programming and response, and include accessibility and rehabilitation as essential components in all aspects and stages of humanitarian response, inter alia, by strengthening preparedness and disaster risk reduction".[684] Relatedly, the Charter on Inclusion of Persons with Disabilities in Humanitarian Action (2016) developed for the World Humanitarian Summit held in 2016 and endorsed by many states and stakeholders commits to "strive to ensure that services and humanitarian assistance are equally available for and accessible to all persons with disabilities, and guarantee the availability, affordability and access to specialized services, including assistive technology in the short, medium and long term". [685]

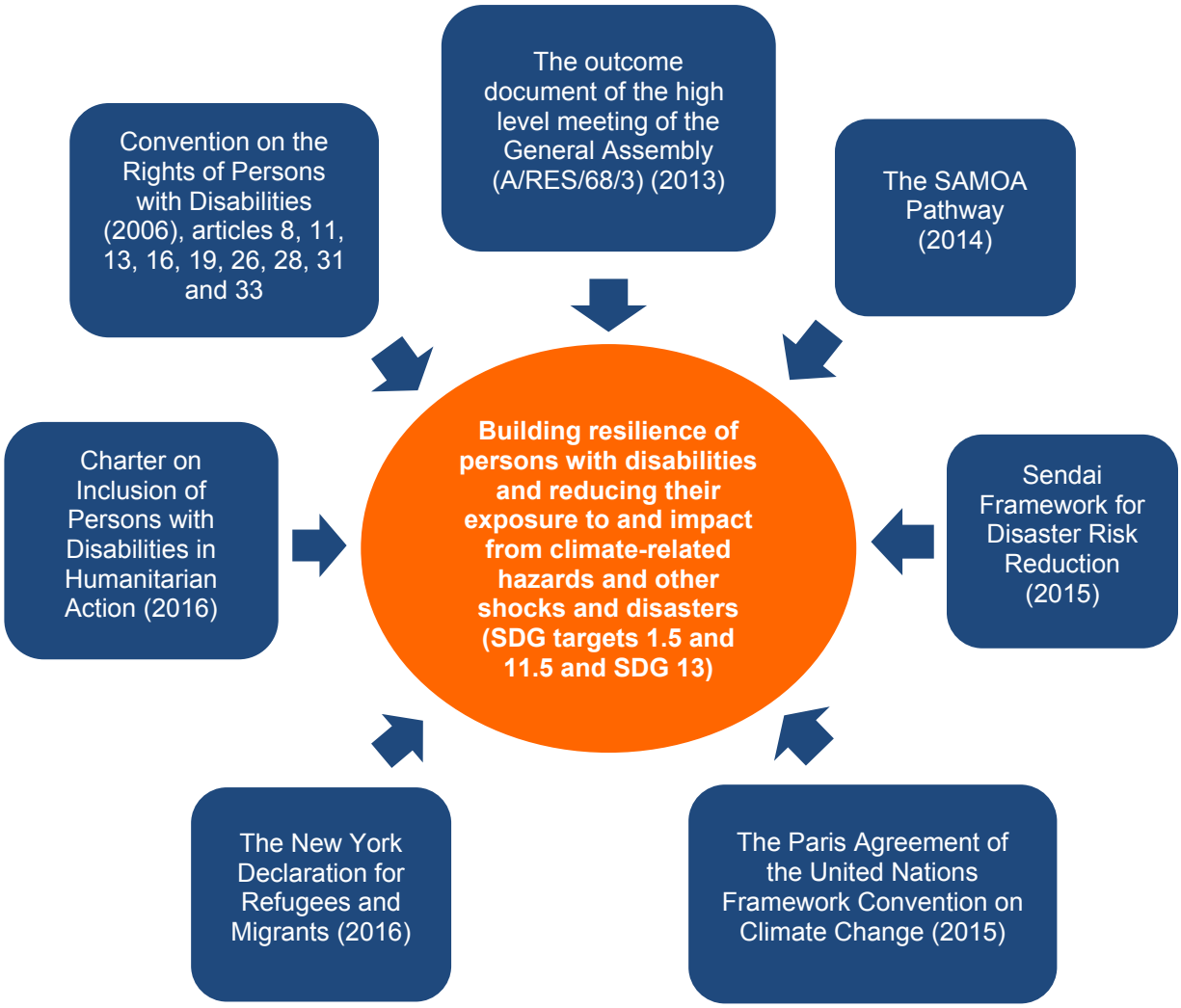
The inclusion of persons with disabilities is also emphasized in the context of combating climate change and disaster risk reduction. The Paris Agreement (2015) of the United Nations Framework Convention on Climate Change notes that parties should respect, promote and consider their respective obligations on human rights including the rights of persons with disabilities when taking actions to address climate change. [686] The Sendai Framework for Disaster Risk Reduction 2015–2030 adopts a rights-based sustainable development agenda that calls for accessibility and the inclusion of persons with disabilities in disaster risk reduction policies, all stages of disaster risk reduction planning, and data disaggregation by disability.[687] Similarly, the importance of strengthening the contingency planning and provisions for disaster preparedness and response, emergency relief and population evacuation for persons with disabilities was emphasized in the SIDS Accelerated Modalities of Action (SAMOA) Pathway, which also acknowledged the importance of engaging a broad range of stakeholders including persons with disabilities in the context of climate change. [688]

The New York Declaration for Refugees and Migrants (2016) and the recently negotiated Global Compact for Safe, Orderly and Regularly Migration (2018)[689] represent an elevated commitment by Member States to strengthen and enhance mechanisms to protect people who are forced to migrate due to conflict and/or humanitarian crisis. The Declaration commits to address the special needs of people in vulnerable situations including refugees and migrants with disabilities and calls for the identification of specific assistance needs and protection arrangements for them.[690] The final draft of the Global Compact rests on the CRPD, among other international norms, and in objective 7 calls for action to review relevant policies and practices to ensure they do not create, exacerbate or unintentionally increase the vulnerabilities of migrants, including by applying a disability-responsive approach. It also makes calls to "establish comprehensive policies and develop partnerships that provide migrants in a situation of vulnerability, with necessary support at all stages of migration, through identification and assistance, in particular in cases related to persons with disabilities.[691] The Compact, in its objective 15 requires States to enact laws and take measures to ensure that basic services delivery does not amount to discrimination against migrants on the grounds of disability and calls for establishing and strengthening holistic and easily accessible service points at the local level that are migrant-inclusive and offer relevant information on basic services in a disability responsive manner;[692] and in its objective 20, regarding transfer of remittances, it calls for opening up distribution channels to underserved populations including for persons with disabilities.[693]

Box 9. Regional initiatives on disaster risk reduction and management for persons with disabilities

At the regional level, the European Commission developed the Action Plan on the Sendai Framework for Disaster Risk Reduction 2015–2030 (2016) that outlines priority actions including developing specific strategies for risk awareness and establishing urban resilience policy and practices that address the specific needs of persons with disabilities.[694] The Incheon Strategy to "Make the Right Real" for Persons with Disabilities in Asia and the Pacific (2012), in its Goal 7, calls for the inclusion of persons with disabilities in disaster risk reduction planning and strengthening the implementation of measures in support of persons with disabilities in responding to disasters.[695] The Pacific Framework for the Rights of Persons with Disabilities 2016–2025 has a stand-alone goal on disaster risk management that aims to address the needs of persons with disabilities in all national climate change adaptation strategies and disaster risk management plans and legal frameworks as well as in post-disaster assessments.[696] Furthermore, regional ministerial conferences on disaster risk reduction in Asia and the Pacific,[697] the Americas,[698] Africa,[699] and Europe[700] included disability in their outcome documents paving the way towards disability-inclusive disaster risk reduction.

Figure II.124. International normative frameworks relevant for the achievement of SDG targets 1.5 and 11.5 and SDG 13 for persons with disabilities.



The situation of persons with disabilities in shocks, disasters and other emergencies

Among the 49 States that submitted a national report to the CRPD and reported on CRPD article 11, there were 11 States that have only generic emergency planning and no specific emergency plans for persons with disabilities.[701] In addition to the lack of national emergency plans sensitive to persons with disabilities, on a personal level, available evidence indicates that many persons with disabilities remain unprepared in the eventuality of a disaster. A global survey[702] conducted in 2013 in 137 countries showed that 72 per cent of persons with disabilities surveyed had no personal preparedness plan for disasters; 31 per cent of them always have someone to help them evacuate but 13 per cent did not have anyone to assist them. Only 21 per cent answered that they could evacuate immediately without difficulty in the event of a sudden disaster; while 73 per cent would face certain difficulty and 6 per cent would not be able to evacuate at all. If given sufficient time, the percentage of those who could evacuate with no difficulty increased from 21 per cent to 38 per cent. However, 58 per cent felt they would still have difficulty while 4 per cent would not be able to evacuate at all. In addition, only 17 per cent of respondents were aware of a disaster management plan in their community.

The same survey also indicated that persons with disabilities remained alienated from emergency and disaster response planning. As few as 14 per cent of persons with disabilities said they had been consulted on disaster management plans in their community, although half of respondents expressed a wish to participate in community disaster management.

When conflicts, disasters or other humanitarian crises hit, persons with disabilities face higher risks and are disproportionately affected compared to persons without disabilities. Persons with disabilities may not be able to escape the situation and may be left behind to fend for themselves.[703] They may experience more obstacles in evacuating, because of a lack of accessible transportation or accessible shelters, or not receive warnings in a format accessible for them.[704] In particular, persons with psychosocial disabilities or intellectual impairments may be more adversely affected. For example, during the 2011 Japan earthquake and tsunami, the death rate among persons with disabilities was twice the death rate of the rest of the population.[705,706] In the United States, studies found that in the aftermath of three hurricanes, evacuation rates were 9 per cent to 25 per cent lower among households that had a member of the family with disabilities, compared to households that did not have a family member with disabilities.[707]

Moreover, the needs of persons with disabilities are often overlooked in the aftermath of disasters, especially during evacuations or in the early phases of humanitarian emergencies, and persons with disabilities may face additional barriers to accessing services and assistance, including rehabilitation and assistive products.[708, 709] In some countries, less than half of the emergency and disaster relief sites are accessible for persons with disabilities.[8] Persons with disabilities may also encounter physical barriers in accessing basic services, like safe drinking water and sanitation, during evacuation. There is also a potential for more discrimination on the basis of disability when basic services and resources are limited. In

Haiti, in the aftermath of the 2010 earthquake, rehabilitation services were insufficient and faced increased demand due to injuries resulting from the disaster.[710] In Jordan, in spite of stated policies that refugee children should have access to education, very few refugee children were found to be attending school – much less those with disabilities.[711]

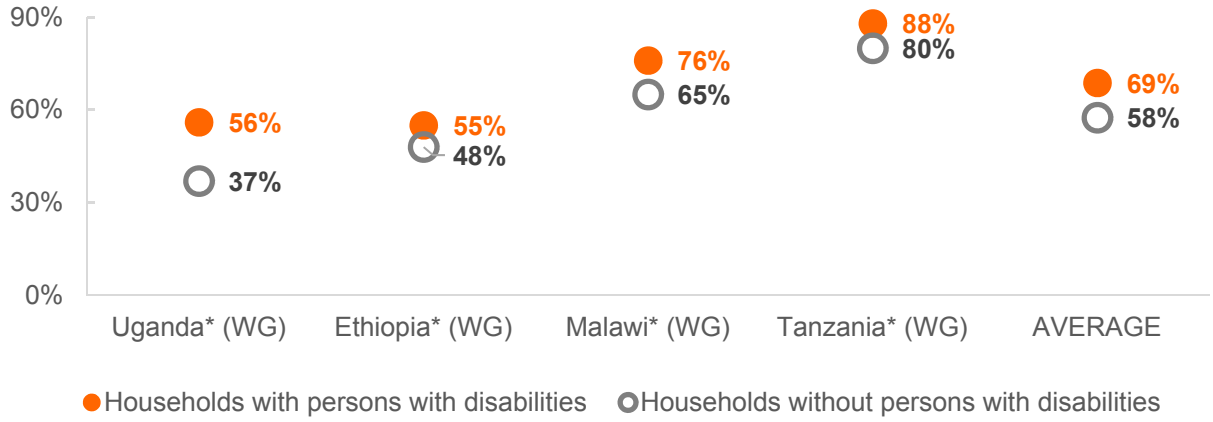
Moreover, because of poor identification and registration of persons with disabilities in humanitarian contexts, they are often underidentified, compromising the ability to identify and address barriers to accessing assistance. For example, underidentification of disabilities is common among refugees because the identification process is often based on self-identification or the perception of the officer registering the refugee. In some settings, individuals are reluctant to self-identify to avoid stigma. Officers tend to only record visible disabilities. Therefore, sensory and psychosocial disabilities are less likely to be identified than physical disabilities.[712] Additional challenges to identification include isolation of persons with disabilities in the home and lack of staff awareness and knowledge of tools for identification.[708]

Persons with disabilities, particularly women, children and older persons with disabilities, are also more vulnerable to exploitation, violence, physical, sexual and emotional abuse in the aftermath of humanitarian crises, particularly refugees with disabilities.[713,714] Persons with disabilities who are forced to leave their countries, and those who are internally displaced, have particular protection needs and experience multiple and intersecting forms of discrimination, both on the basis of disability and refugee/internally displaced status. Stigma faced by refugees and asylum seekers with disabilities is often compounded by experiences of xenophobia, racial discrimination and intolerance, further undermining dignity and equality[715] as well as increasing the risk of violence and abuse and limiting access to community support networks.[714]

The needs of persons with disabilities sometimes continue to be excluded during longer-term recovery and reconstruction efforts.[716]

Furthermore, shocks – either environmental, like a major natural disaster, or financial, like the death of the main bread winner, illness of a family member or loss of a job – can have a considerable negative impact on households with persons with disabilities. They can lead to a decrease in income and assets as well as to a reduction in food production, food stocks or food purchases. Figure II.125 shows that, in four countries in sub-Saharan Africa around 2011, on average, a higher proportion of households with persons with disabilities (69 per cent) are negatively affected by shocks than households without persons with disabilities (58 per cent). In all four countries, the majority of the households of persons with disabilities indicated being negatively affected by a recent shock, from 55 per cent in Ethiopia to 88 per cent in Tanzania. The highest gap between households with and without persons with disabilities is observed in Uganda, where 56 per cent of households with persons with disabilities compared to 37 per cent of households without persons with disabilities indicated a negative impact from a recent disaster.

Figure II.125. Percentage of households, with and without persons with disabilities, affected negatively by a shock, in 4 countries, around 2011.



Note: Shocks include death, illness or loss of a non-farm job of a household member, drought, flood, landslides, avalanches and heavy rains preventing work. (WG) identifies countries with data collected with the Washington Group Short Set of Questions. An asterisk (*) indicates that the difference is statistically significant at 10% or less.

Source: Mitra (2018).[45]

Current practices to address the needs of persons with disabilities in disasters and other emergencies

Some countries incorporated persons with disabilities in national policies, laws, and plans on humanitarian actions, for example, through considering the needs of persons with disabilities in preparedness and response in national disaster or crisis response plans;[717,718] adopting legislation requiring the government to prioritize persons with disabilities in emergency activities (medical, housing and humanitarian assistance) in response to natural disasters;[719] establishing measures and aid actions to search, rescue, evacuate and provide primary health care for persons with disabilities;[720] and ensuring protection, rehabilitation care, recovery and reintegration into social life for victims of natural disasters through a children's act that protects the rights and welfare of children including those with disabilities.[721] Other measures taken focus on engaging persons with disabilities, for example by including the representation of persons with disabilities in disaster management committees that monitor and coordinate the implementation of emergency relief operations,[722] engaging persons with disabilities in disaster risk analysis and assessment[723] as well as awareness-raising activities on disability-inclusive disaster risk reduction[724] and in the inclusion of persons with disabilities in humanitarian emergencies.[725,726] Training sessions for humanitarian actors on the needs of persons with disabilities are also becoming more common, and at times focus on women and girls with

disabilities.[727]

Other initiatives have focused on post-disaster needs, by providing cash transfers for persons with disabilities in the aftermath of a disaster or humanitarian crisis.[724] For example, in Nepal after the earthquake in 2015, a cash-transfer grant was established with disability as one of the five criteria for enrolment; and in the Syrian Arab Republic, a cash-transfer initiative specifically targeted persons with disabilities.[728] Efforts have also been made to take post-disaster reconstruction as an opportunity to improve accessibility of the physical environment. For example, in Nepal, accessibility standards were improved following the April 2015 earthquake.[729]

Measures have also been taken to support refugees with disabilities in humanitarian situations, for example, through services connecting refugee women and girls with disabilities to service providers from the humanitarian and development sectors,[730] and raising awareness of the needs and perspectives of refugees with disabilities in community events.[731]

Guidance on disability-inclusive humanitarian actions was developed, including guidance targeted to humanitarian actors engaged in assisting refugees with disabilities,[732,733] a practical guide to actions focused on including children and adolescents with disabilities in preparation for and recovering from emergency situations,[734] and a guidance note for health actors working in emergency and disaster risk management that highlights steps to be taken to support persons with disabilities in emergency situations.[735]

Conclusions and the way forward

The scarce data on persons with disabilities in disasters suggest that the majority of persons with disabilities have no personal preparedness plan for disasters; few of them would be able to evacuate immediately without difficulty in the event of a sudden disaster and even fewer are aware of a disaster management plan in their community. When a disaster or a humanitarian crisis hits, persons with disabilities are often left behind during the evacuation and are more likely to die as a result. Moreover, many persons with disabilities in situations of conflict and forced displacement are exposed to discrimination, exploitation, and violence, and excluded from humanitarian assistance.

Measures and actions have been increasingly taken in various countries to protect and include persons with disabilities in disaster preparedness, response and in humanitarian actions, through promoting their inclusion in the process of disaster preparedness and response plans as well as in the recovery process and enhancing capacity-building for humanitarian actors in addressing the needs of persons with disabilities, among others. However, gaps remain in fully addressing and including persons with disabilities in humanitarian situations. It is still commonly believed that generic emergency planning will meet the needs of all people, including persons with disabilities. States and key stakeholders in emergency planning often

do not recognize the importance of inclusion and how persons with disabilities are at a disadvantage in accessing services if their needs are not considered.

Persons with disabilities may have different needs during and after disasters, conflicts and climate-related events, and these needs should be factored into disaster risk reduction planning, in disaster responses and in humanitarian actions. This has often been compromised by an unclear allocation of responsibility for the inclusion of persons with disabilities, and lack of disability awareness, among governments and humanitarian actors. Human rights and humanitarian principles can guide the work of governments and humanitarian actors. A growing body of general and disability-specific international normative frameworks on disaster risk reduction and humanitarian action provides the basis to guide these actors in respecting, protecting and fulfilling the rights of persons with disabilities. Moreover, in disaster response and emergency situations, efforts must consider all SDGs to ensure that the basic needs of persons with disabilities are met in such situations, such as access to water and sanitation (SDG 6) and health-care services (SDG 3). There must also be greater recognition of the intersection between humanitarian, development and peacebuilding efforts, and of strategies developed to reach affected persons with disabilities displaced within or outside the borders of their country, to protect their rights and promote their inclusion, and to truly "leave no one behind".

The following steps can contribute to ensure disability-inclusive disaster risk reduction and response as well as disability-inclusive humanitarian action:

1) **Ensure that persons with disabilities, including women and children with disabilities, participate in decision-making processes and are active stakeholders at all stages of disaster response and humanitarian action from planning to implementation, evaluation and monitoring.** The best way to ensure that the needs of persons with disabilities will be addressed, to significantly reduce their vulnerability and to increase the effectiveness of Government response and recovery efforts, is to include persons with disabilities in all planning and programming phases. When governments consider disaster or humanitarian policies or legislation, or when a community is developing an evacuation plan, an early warning system, or making decisions to combat climate change, it is crucial to include persons with disabilities. This is also the case for the reconstruction phase to better rebuild after crises devastate infrastructure and community systems. This will enable plans to be inclusive and accessible not only to persons with disabilities but also for older persons, children, pregnant women, and those who were injured or have severe psychological stress, thus leaving no one behind.
2) **Ensure that national policies and programmes include operational standards and indicators for the inclusion of persons with disabilities in emergency preparedness, planning and response.** Ensure that the standard operating procedures and operational manuals of agencies involved in humanitarian action have clear guidance on inclusion in emergency preparedness, planning and response for persons with disabilities.

3) **Ensure that emergency information, commodities, infrastructures and services are inclusive and available in accessible formats.** Universal Design should be employed in all aspects of disaster risk reduction and humanitarian response. In relation to this, it should be noted that some people might require specialized services in humanitarian situations in addition to these mainstreaming efforts. It is necessary to map the needs of specialized services and commodities and prepare together with persons with disabilities before crises arise.

4) **Mobilize adequate, timely and predictable resources to operationalize commitments for inclusive emergency preparedness and response,** including through the close cooperation of States with the private sector and civil society organizations.

5) **Raise awareness among persons with disabilities on disaster management plans at the local level** and ensure that emergency information and services are inclusive and available in accessible formats in line with the principles of Universal Design. It is also necessary to strengthen the capacity of persons with disabilities in the area of disaster risk reduction and humanitarian response. It will contribute not only to self-protection and survival of persons with disabilities, but also promote persons with disabilities as key contributors in crisis situations. Persons with disabilities are expected to contribute to planning and implementing disaster risk reduction and humanitarian action by bringing in new or overlooked perspectives, and by helping others after crises hit.

6) **Enhance the capacities and knowledge of aid workers on the needs and strengths of persons with disabilities in humanitarian actions.** It is necessary to provide training on disability for all aid stakeholders at both policy and practice levels. Aid workers should understand the perspectives, needs and strengths of persons with disabilities, which will prove useful in working for and with persons with disabilities in crisis situations. The hiring of persons with disabilities by humanitarian actors should also be encouraged and not limited to projects directly addressed to support persons with disabilities in humanitarian crises.

7) **States should ensure all post crisis recovery efforts, including reconstruction and rebuilding, are inclusive of persons with disabilities,** including by applying the principles of Universal Design in all reconstruction and rebuilding programmes. Emphasis should be placed on accessibility features during the planning and reconstruction of infrastructure as well as public facilities and adopting accessible technologies and communication systems. Conflicts devastate infrastructure and community systems. Thus, consideration should be given to the inclusion of persons with disabilities in peacebuilding and reconciliation processes, also.

8) **States should ensure protection mechanisms in emergency and post crisis contexts to recognize and respond to the heightened risk of persons with disabilities, particularly women and children with disabilities, to violence, abuse and exploitation**. Make adaptations to ensure that

gender-based violence prevention and response, as well as sexual and reproductive health services, are accessible to persons with disabilities, particularly women and girls with disabilities. Ensure that all health, legal, social and other services that respond to violence, exploitation and abuse, are accessible to children and young persons with disabilities.

9) **Undertake evidence-based research and develop a data collection system on persons with disabilities relevant to conflicts and disasters.** Systematic analyses and reviews of country preparedness, resources and experiences related to disability-inclusive disaster risk reduction and humanitarian response should be carried out regularly. In particular, data collection should assess overall numbers and the different needs of persons with disabilities in certain communities when a disaster risk reduction plan is developed. Disability registers of persons with disabilities who might require support in crisis situations should be developed so that local authorities can immediately respond to persons with disabilities in need. Once an emergency situation develops, data that describe the situation of persons with disabilities in disasters and conflict situations are needed. Rapid assessments after crises should include a disability perspective and should develop a systematic way to evaluate magnitude and types of needs among persons with disabilities after conflicts or disasters. To assess the number of injuries and deaths among persons with disabilities is not sufficient. Using reliable data in all phases – before, during and after crises – while paying attention to key but neglected aspects such as how to utilize new technologies, such as cell phones and social media, is crucial. It is also important to share the knowledge and experience of persons with disabilities during real disasters and conflicts.

10) **States should ensure accountability mechanisms at national levels for acts or omissions** leading to discrimination and/or exclusion of persons with disabilities in the context of humanitarian actions and disaster response.

M. Promoting peaceful and inclusive societies for sustainable development, providing access to justice and building effective, accountable and inclusive institutions at all levels for persons with disabilities (Goal 16)

Goal 16 sets ambitious targets to reduce all forms of violence, to ensure access to justice for all, to build effective, accountable and inclusive institutions and to ensure responsive, inclusive, accountable and representative decision-making leaving no one behind, among others. Yet, for persons with disabilities, various barriers continue to hinder access to justice, to information, to public services and to decision-making: discrimination and stigma, lack of access and of accessibility, limited representation of persons with disabilities in decision-making, insufficient legal protection and remaining discriminatory laws and policies, particularly electoral laws and laws regulating access to justice and to information. Negative attitudes from society also make persons with disabilities more vulnerable to violence.

This section will focus on issues covered by Goal 16 which are critical for the inclusion of persons with disabilities, namely reducing exposure to violence (target 16.1 and target 16.2); providing access to justice[736] (target 16.3); making public institutions accountable and transparent (target 16.6); making participation in the public decision-making process inclusive (target 16.7); securing birth registration (target 16.9); and enhancing access to information (target 16.10). Non-discriminatory laws and policies (target 16.b) are addressed in the section on Goal 10 as they are also covered under target 10.3. In relation to the six SDG 16 targets covered here, each sub-section below will present relevant international normative frameworks, present data and evidence depicting the situation of persons with disabilities, discuss current practices and conclude with recommendations in each of these areas.

Reducing all forms of violence against persons with disabilities and ending abuse, exploitation, trafficking and all forms of violence against children with disabilities (targets 16.1 and 16.2)

Interpersonal violence is responsible for the death of half a million people each year and millions more suffer from non-fatal violence and associated negative consequences.[737] Persons with disabilities are at an increased risk of interpersonal violence due to stigma and discrimination, exclusion from education and employment, communication barriers and a lack of social support.[738]

International normative frameworks on protecting persons with disabilities from violence

SDG target 16.1 calls for reducing all forms of violence and related death rates everywhere and target 16.2 calls for ending abuse, exploitation, trafficking and all forms of violence against and torture of children. For persons with disabilities, achieving these two targets is in line with article 16 of the CRPD, which specifies that States Parties should take all appropriate legislative, administrative, social, educational and other measures to protect persons with disabilities, both within and outside the home, from all forms of exploitation, violence and abuse, including their gender-based aspects.

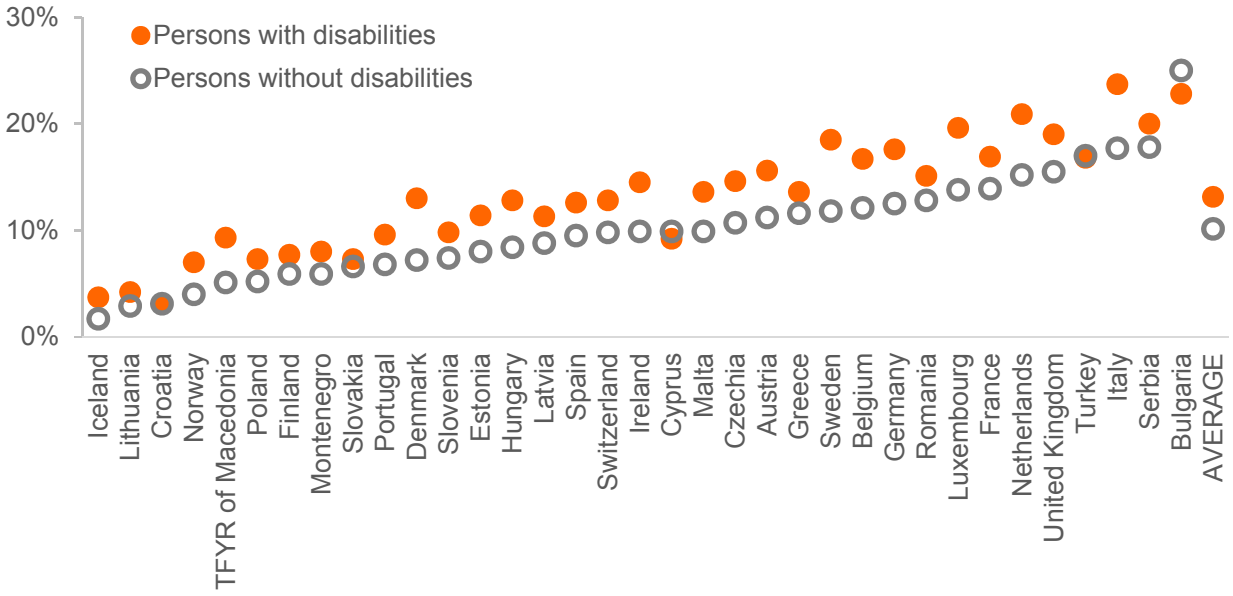
Particular protections from violence against women and children with disabilities have been established in various frameworks addressing generally women and children. The Convention on the Rights of the Child (CRC), adopted in 1989, has called for States Parties' action "to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse". [556] The Beijing Declaration and Platform for Action (1995) has highlighted the importance of the elimination of all forms of violence against women and girls.[739] The Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime (the Palermo Protocol), adopted in 2000, called for prevention and protection of women and children from trafficking.[740] The Rome Statute of the International Criminal Court,[741] adopted in 1998, in article 7, paragraph 1(g), classifies rape, sexual slavery, enforced prostitution, forced pregnancy, enforced sterilization, or any other form of sexual violence of comparable gravity" committed "as part of a widespread or systematic attack directed against any civilian population" as crimes against humanity.

The situation of persons with disabilities regarding exposure to violence

The interplay of individual, family-related, socioeconomic and structural factors has exposed persons with disabilities, especially children with disabilities, to the risks of abuse, exploitation, trafficking and violence. The societal attitude and stigma against persons with disabilities can easily influence the family and peer environment, and act as a trigger towards the acceptance of abuse, violence and exploitation.

In 35 countries, mostly in Europe, a higher percentage of persons with disabilities than persons without disabilities reports that crime, violence and vandalism are common in their accommodation or area of residence (Figure II.126). On average, 13 per cent of persons with disabilities versus 10 per cent of persons without disabilities report this. In two countries, Denmark and Iceland, the percentage of persons with disabilities experiencing this violent environment is about twice that of persons without disabilities. Data from five developing countries (Figure II.127) indicates that, on average, 19 per cent of persons with disabilities are beaten and scolded because of their disabilities, often by a family member (12 per cent). Some 14 per cent of persons with disabilities in Botswana and 27 per cent in Nepal suffer this type of violence. In Lesotho and Nepal, more than three quarters of persons with disabilities who have been beaten or scolded indicated that the perpetrator was a family member; in the other three countries, more than half of them indicated this. A survey in Uganda, in 2016, indicated that both men and women with disabilities suffered physical violence at higher rates (60 per cent) than their peers without disabilities (51 per cent).[742] In four other countries in sub-Saharan Africa, about 10 per cent of persons with disabilities reported that they had experienced violence because of their disability (Figure II.128). Evidence suggests that persons with psychosocial disabilities experience even more violence: compared to persons without disabilities, while persons with disabilities are 1.5 times more likely to be a victim of violence, those with mental health conditions are at nearly four times the risk of experiencing violence.[743]

Figure II.126. Percentage of persons who report that crime, violence and vandalism are common in their accommodation or area of residence, by disability status,[76] in 35 countries, in 2016.[744]

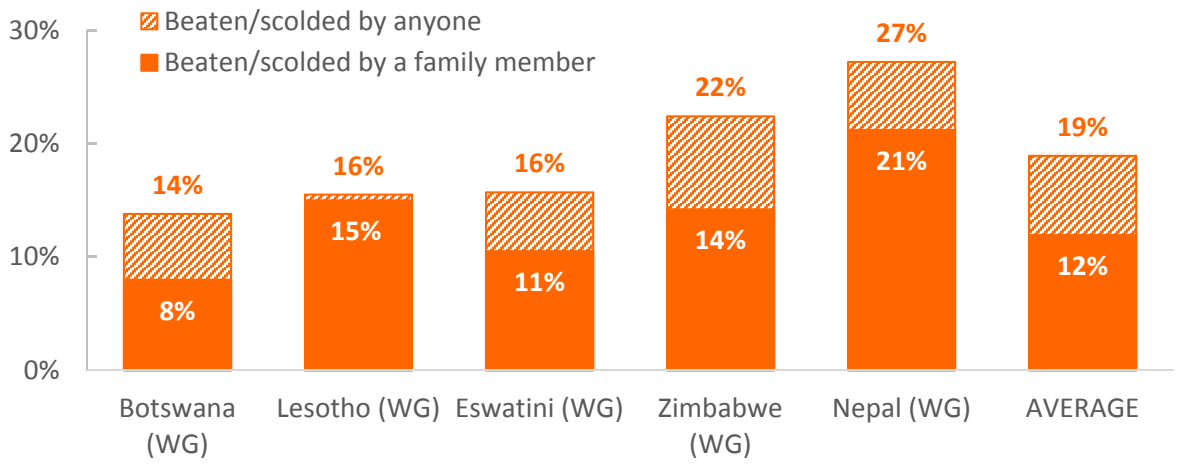


Source: Eurostat.[9]

Existing literature provides a wide range of the prevalence rates of violence against women with disabilities, yet it is widely agreed that women with disabilities are at a higher risk of suffering from sexual and physical abuse and violence.[745,746,747] Based on available data from 28 European countries, 34 per cent of women with a health problem or disability have experienced physical or sexual violence by an intimate partner.[748] Another study also indicated that women with physical disabilities experienced physical or sexual abuse for significantly longer durations than women without disabilities.[749]

In Uganda, in 2016, men with disabilities were almost three times more likely to have ever been victims of sexual violence than men without disabilities: 21 per cent of men with disabilities versus 8 per cent of men without disabilities (Figure II.129). Adult men with disabilities suffered sexual violence in the last 12 months at much lower rates (6 per cent) suggesting that sexual violence against men with disabilities may occur mostly in childhood. By contrast, the percentage of women with disabilities aged 15 to 49 who experienced sexual violence in the last 12 months is much higher, at 22 per cent, indicating that sexual violence is much more common in adulthood against women with disabilities than against men with disabilities. Women with disabilities were also the most likely to have ever experienced sexual violence (34 per cent).[742]

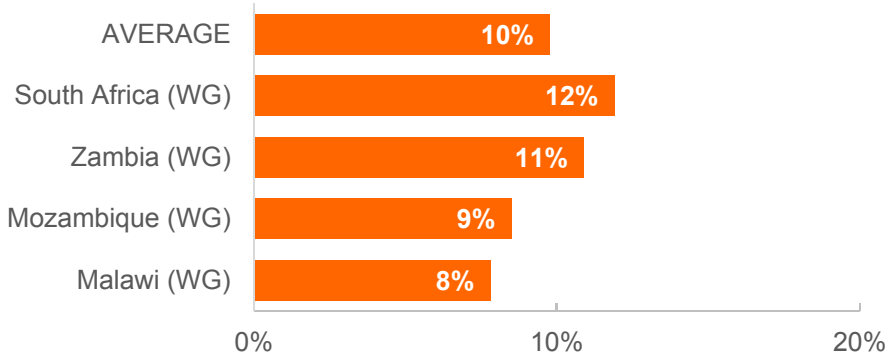
Figure II.127. Percentage of persons with disabilities who have ever been beaten or scolded because of their disability, in 5 countries, around 2012.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Figure II.128. Percentage of persons with disabilities who have ever experienced violence because of their disabilities, in 4 countries, around 2013.

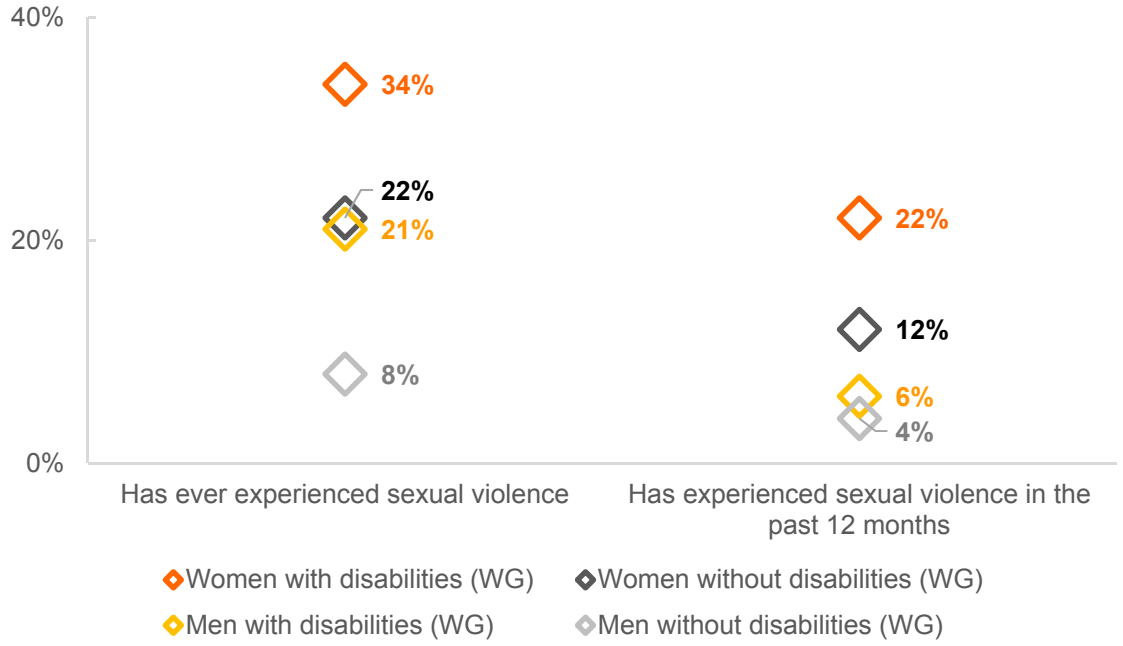


Note: (WG) identifies data collected with the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Children with disabilities are almost four times as likely as their peers to suffer from physical violence and three times as likely to suffer from sexual violence.[750] Children with psychosocial or intellectual disabilities are five times more likely to be victims of sexual abuse than their peers without disabilities.[751] Children in institutional settings are also more prone to physical, sexual and emotional abuse and this is exacerbated for children with disabilities.[752] Data from 15 countries showed that severe physical punishment was more likely to be meted out by family members on children with disabilities in seven of these countries.[753] Moreover, children with disabilities may be specifically targeted for abuse or exploitation because of disability. The cases where girls with learning or developmental disorders are involved in sexual exploitation as well as children with disabilities are exploited in child begging indicate that traffickers take advantage of these vulnerabilities to involve the child in exploitative activities beyond his/her awareness, or to exploit prejudiced societal views toward disability.[754] A study of children victims of sexual exploitation in Thailand, for instance, found that some brothels purposely trafficked girls with hearing impairments under the assumption that they could not ask for help or communicate with others.[755]

Figure II.129. Percentage of persons aged 15 to 49 who have experienced sexual violence, at least once in their life time and in the past 12 months, by disability status and sex, in Uganda, in 2016.



Note: (WG) identifies data collected with the Washington Group Short Set of Questions.

Source: Uganda Demographic and Health Survey 2016.[274]

Current practices to protect persons with disabilities from violence

A wide range of initiatives have been taken in countries to reduce abuse and violence against persons with disabilities and support victims with disabilities, from improving the personal safety of persons with disabilities and putting in place accessible forms of reporting violence to providing services to improve the skills of persons with disabilities to appear in court and provide evidence as a witness or expert.[756] Examples include offering access to personal safety training for students with intellectual disabilities;[757] providing a training programme to improve the personal safety of persons with little or no functional speech;[758] creating an "emergency call by fax" and "emergency call by email" system for persons with sensory disabilities to send an emergency message to police stations in case they are victims of a crime;[759] and offering training sessions for disability service providers, victim service organizations, and criminal justice agencies on sexual assault and domestic violence against persons with disabilities and on enhancing the quality of services to meet the needs of survivors with disabilities.[760] Initiatives have also been taken to enhance access to justice by persons with disabilities, which will benefit all victims with disabilities (see sub-section below on SDG target 16.3).

Conclusions and the way forward

Persons with disabilities, particularly children, women and those with intellectual disabilities, have higher exposure to violence due to stigma and discrimination. Measures taken to protect persons with disabilities from violence focus on violence prevention – by empowering persons with disabilities through training – and on measures facilitating the reporting and legal persecution of violence against persons with disabilities. The following recommendations offer guidance on how to end abuse, exploitation, trafficking and all forms of violence against persons with disabilities, especially children with disabilities.

1) **Raise awareness at various levels**, among families and parent groups, service providers, policymakers and legislators. Public awareness and advocacy campaigns need to be targeted at changing mindsets and social norms directed at persons with disabilities, especially children with disabilities.

2) **Offer trainings for persons with disabilities to enhance their knowledge on safety and ability to present themselves at police stations and in courts in the event of violence. The capacity of service providers of victims with disabilities should also be strengthened** to enhance the quality of services. All training and information should be provided in formats accessible to persons with disabilities.

3) **Establish mechanisms to report violence which are accessible for persons with disabilities** and provide appropriate and sufficient support to report violence. Accessible formats, sign language interpreters, services for victims with intellectual and psychosocial disabilities should be established.

Ensuring equal access to justice for all persons with disabilities (target 16.3)

Ensuring equal access to justice for persons with disabilities contributes to their legal empowerment, allowing them to be able to use the law, the legal system and legal services to protect and advance their rights and interests as citizens, contributing to a more inclusive and sustainable society. Equal access to justice for persons with disabilities is linked to their right to recognition everywhere as persons before the law and to the enjoyment of legal capacity.[761] However, access to justice remains elusive for many persons with disabilities due to environmental, financial and attitudinal barriers.

International normative frameworks on access to justice and disability

Under SDG 16, target 16.3 calls for ensuring equal access to justice for all. Article 13 of the CRPD requires States Parties to ensure effective access to justice for persons with disabilities on an equal basis with others, including through the provision of procedural and age-appropriate accommodations in all legal proceedings; and calls for the promotion of appropriate training for those working in the administration of justice. The right to recognition everywhere as persons before the law and to the enjoyment of legal capacity are covered in article 12 of the CRPD, which reaffirms that persons with disabilities have the right of recognition everywhere as persons before the law, guarantees the right to legal capacity for persons with disabilities, and requires States Parties to take appropriate measures to provide access by persons with disabilities to the support they may require in exercising their legal capacity. According to General Comment No. 1 of the Unites Nations Committee on the Rights of Persons with Disabilities, 'equal recognition before the law', included in article 12, requires governments to move away from substitute decision-making (in which a proxy makes legal decisions on behalf of the person with disabilities)[762] in favour of supported decision-making, in which persons with disabilities enjoy full recognition and equality under the law and can exercise their legal capacity to make legal decisions.[763] In the supported decision-making paradigm, the individual receives support from a trusted individual, network of individuals or entity to make legal decisions.

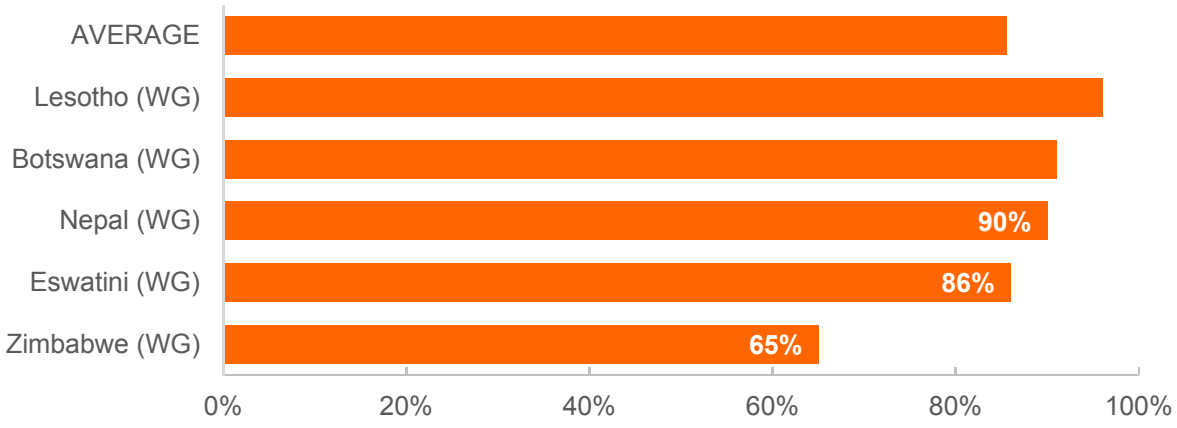
The situation of persons with disabilities regarding access to justice

For many persons with disabilities, access to justice remains a challenge. In five countries around 2012, on average, among persons with disabilities who needed legal advice, 86 per cent were not able to receive it (Figure II.130). This unmet need for legal advice among persons with disabilities is very high in all five countries, ranging from 65 per cent figure in Zimbabwe to 96 per cent in Lesotho. Many persons with disabilities face various obstacles to access education, and without education, persons with disabilities may lack the skills to seek legal advice. Lower education levels and barriers to employment also lead to less financial resources to meet the high costs of legal services. Those who are able to overcome these obstacles and seek legal advice will face further barriers. Lack of disability awareness among legal officers is an ongoing obstacle for persons with disabilities to enjoy equal access to justice. Moreover, legislation,

legal information and documents are still not always disseminated in an accessible manner. Legal services, court rooms and police stations remain in many places inaccessible and lacking reasonable accommodations. In five developing countries, on average, 31 per cent of persons with disabilities indicated that the courts and the police stations were not accessible (Figure II.131). About 15 per cent of persons with disabilities in South Africa and about 45 per cent of persons with disabilities in Lesotho experienced that lack of accessibility.

Equal access to justice for all, including persons with disabilities, cannot be achieved without their equal recognition before the law and the enjoyment of legal capacity. The Constitution is the cornerstone of a country's rule of law and the legal system for all the citizens. However, among the 193 United Nations Member States, four guarantee the rights of persons with disabilities in their Constitutions[764] but allow for exceptions if disability prevents persons from exercising their rights, thus compromising equal recognition before the law and the enjoyment of legal capacity.[132] In addition, upon ratification[765] of the CRPD, another nine countries expressed restrictions on the enjoyment of legal capacity by all persons with disabilities: six countries declared that their understanding of article 12 is to have both substituted and supported decision-making; and three countries indicated existing conditions or restrictions to legal capacity.[766]

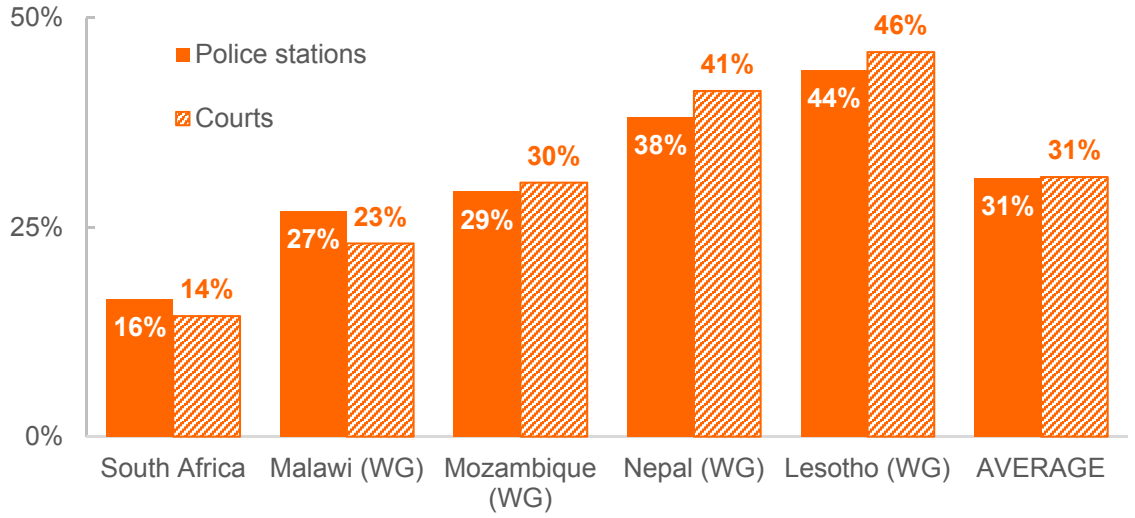
Figure II.130. Percentage of persons with disabilities who needed but were not able to receive legal advice, in 5 countries, around 2012.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Figure II.131. Percentage of persons with disabilities who reported that magistrate's office/traditional courts and police stations are not accessible, in 5 countries, around 2011.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions. Data from South Africa were collected in selected regions of the country and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Current practices

More and more countries are adopting accessibility guidelines for public buildings (see section on SDG 10), an effort which would also benefit the accessibility of courts and police stations. To further enhance the accessibility of justice, beyond accessibility of the premises, some countries took the following initiatives: employment of sign language interpreters at courts for persons with disabilities who are identified as a survivor, witness or alleged offender; establishment of standby teams of disability experts;[767] establishing services by special investigators and speech language pathologists in support of communications in investigations involving persons with disabilities, particularly those with intellectual disabilities;[768] and issuing summonses in language that is easy to understand for persons with intellectual disabilities.[769] To address financial barriers, in some countries, persons with disabilities benefit from exemptions from paying court fees.[770] There are also civil society initiatives to provide free legal advisory services and legal support for persons with disabilities.[771]

Many countries have incorporated substitute decision-making (e.g. guardianship) rather than supported decision-making in their legislation. But there are positive initiatives from some countries in favour of abolishing substitute decision-making in favour of supported decision-making for persons with disabilities. For example, Germany has ceased the application for full guardianship since 1992. In Sweden, a 'legal

mentor' acts as the individual's agent with the individual's consent from Sweden and, at any point, the individual may terminate the mentorship and therefore, the wishes of the individual are met at every stage of their decision-making.[772]

Conclusions and the way forward

Persons with disabilities face barriers to accessing justice due to the inaccessibility of courts, police stations and legal documents as well as a lack of disability awareness of legal officers, and laws that limit their legal capacity and equal recognition before the law. Yet, persons with disabilities are at a higher risk of violence and discrimination and may have a greater need for justice. Existing evidence from developing countries shows that most persons with disabilities who need to access legal services do not receive these services.

Measures to improve access to justice for persons with disabilities have been taken but other measures need to be targeted to citizens with disabilities: basic legal services provision, legal support and financial support with legal fees.

To achieve equal access to justice for persons with disabilities, the following actions must be included:

1) **Make courts, police stations, and other legal services and documents fully accessible for persons with disabilities.** Ensure that facilities are physically accessible and legal documents are available in an accessible format. Provision of basic legal services and legal support should accommodate the specific needs of citizens with disabilities. Countries can use opportunities like the construction or renovation of court buildings to improve accessibility as it is usually less costly than to undertake renovations only for accessibility. Accessibility of legal premises and documents should be addressed in a systemic way through national guidelines.

2) **Empower persons with disabilities to exercise their legal rights and access justice.** Training should be offered to persons with disabilities on legal information and their legal rights to enhance their ability to exercise their rights. All training should be provided in accessible formats.

3) **Raise awareness of disability and offer disability training among legal service providers and legal officers** on the specific needs of persons with disabilities and how to strengthen the quality of legal services for persons with disabilities. All training should be provided in accessible formats.

4) **Promote supported decision-making and promote legal support services for persons with disabilities.** There is a lack of legislative frameworks and policies in most jurisdictions as guardianship law and practice continue to dominate. These laws and policies will need revision to move towards supported legal decision-making. Financial resources and capacity-building will be needed to develop and maintain the supported decision-making model. It will be necessary to provide training and education as well as training for the service providers of legal support.

5) **Conduct studies on the factors behind the unmet need for legal services among persons with disabilities,** to identify the challenges and barriers that persons with disabilities experience when seeking justice.

6) **Use disability surveys to collect and disseminate data on the unmet need for legal services among persons with disabilities and on the accessibility of courts and police stations**. Disability surveys target the population of persons with disabilities and can be used to monitor unmet need for legal services and the percentage of persons with disabilities who report that courts and police stations are not accessible. The number of persons with disabilities surveyed should be high enough to allow for disaggregation by sex, age, ethnicity, and urban versus rural location.

Developing inclusive institutions and ensuring inclusive decision-making for persons with disabilities (targets 16.6 and 16.7)

Achieving inclusive societies for sustainable development requires public institutions at all levels to be inclusive, participatory and accountable for all, including for persons with disabilities, and societies where persons with disabilities participate equally in public decision-making at all levels.[773] Yet, many public institutions remain inaccessible for persons with disabilities and the right to equal participation in decision-making for persons with disabilities, more often than not, is not secured in the relevant laws and policies.

International normative frameworks

SDG target 16.6 calls for effective, accountable and transparent institutions at all levels. SDG target 16.7 calls for ensuring responsive, inclusive, participatory and representative decision-making at all levels. Inclusive decision-making is also one of the calls of the CRPD, whose Preamble encourages persons with disabilities to be actively involved in decision-making processes about policies and programmes, including those directly concerning them (paragraph (o)). In addition, article 4 (paragraph 3) specifically requires States Parties to closely consult with and actively involve persons with disabilities through their representative organizations in decision-making processes relating to persons with disabilities. Furthermore, article 29 (paragraph (a)) stipulates that States should ensure that persons with disabilities can effectively and fully participate in political and public life on an equal basis with others, directly or through freely chosen representatives.

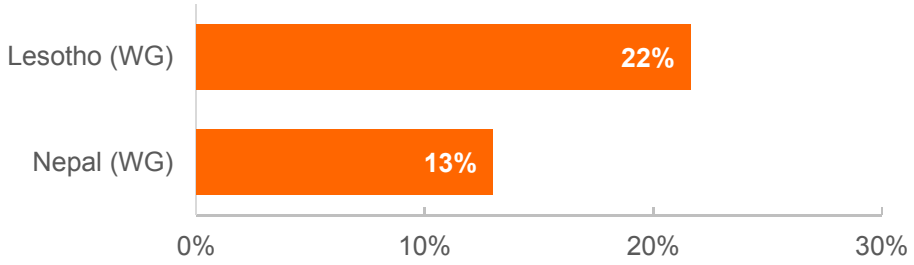
The situation of public institutions and decision-making regarding the inclusion of persons with disabilities

Inclusive institutions

To be inclusive and effective, institutions and their services need to be accessible for persons with disabilities. However, many public institutions remain inaccessible for persons with disabilities. For instance, in 15 countries in the Asia-Pacific region, the proportion of accessible government buildings in the national capital varies from 25 per cent to 100 per cent.[630] Online services provided by public institutions are also often non-accessible for persons with disabilities. For example, in 2012, among the 193 Member States of the United Nations, online national governmental portals had features which were not accessible, especially for those with hand mobility and visual disabilities, in more than 60 per cent of these countries (for more details see section on target 9.c).[774] In 2018, among 28 countries, 7 per cent of public libraries were not physically accessible, 16 per cent did not offer accessible resources, and 34 per cent did not have actual services dedicated to persons with disabilities.[775] Moreover, apart from lack of accessibility, due to stigma and negative attitudes, persons with disabilities may also experience discrimination in public services. In two developing countries, around 2013, 13 per cent to 22 per cent of persons with disabilities reported

being discriminated against in public services (Figure II.132).

Figure II.132. Persons with disabilities who report being discriminated against in public services, in 2 countries, around 2013.

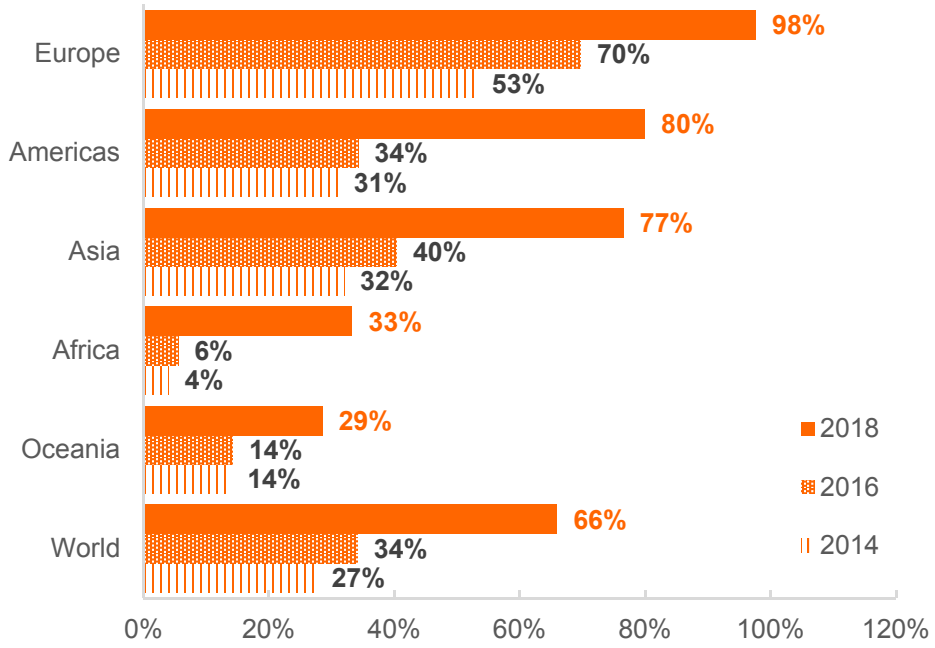


Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Countries have increasingly been investing in the provision of online governmental services for persons with disabilities (Figure II.133). In 2018, 66 per cent of countries, up from 27 per cent in 2014, had these services. As of 2018, most countries in Europe, the Americas and Asia had these services. In other regions, online services for persons with disabilities were not as common. In 2018, only 33 per cent of the countries in Africa and 29 per cent in Oceania had this service.

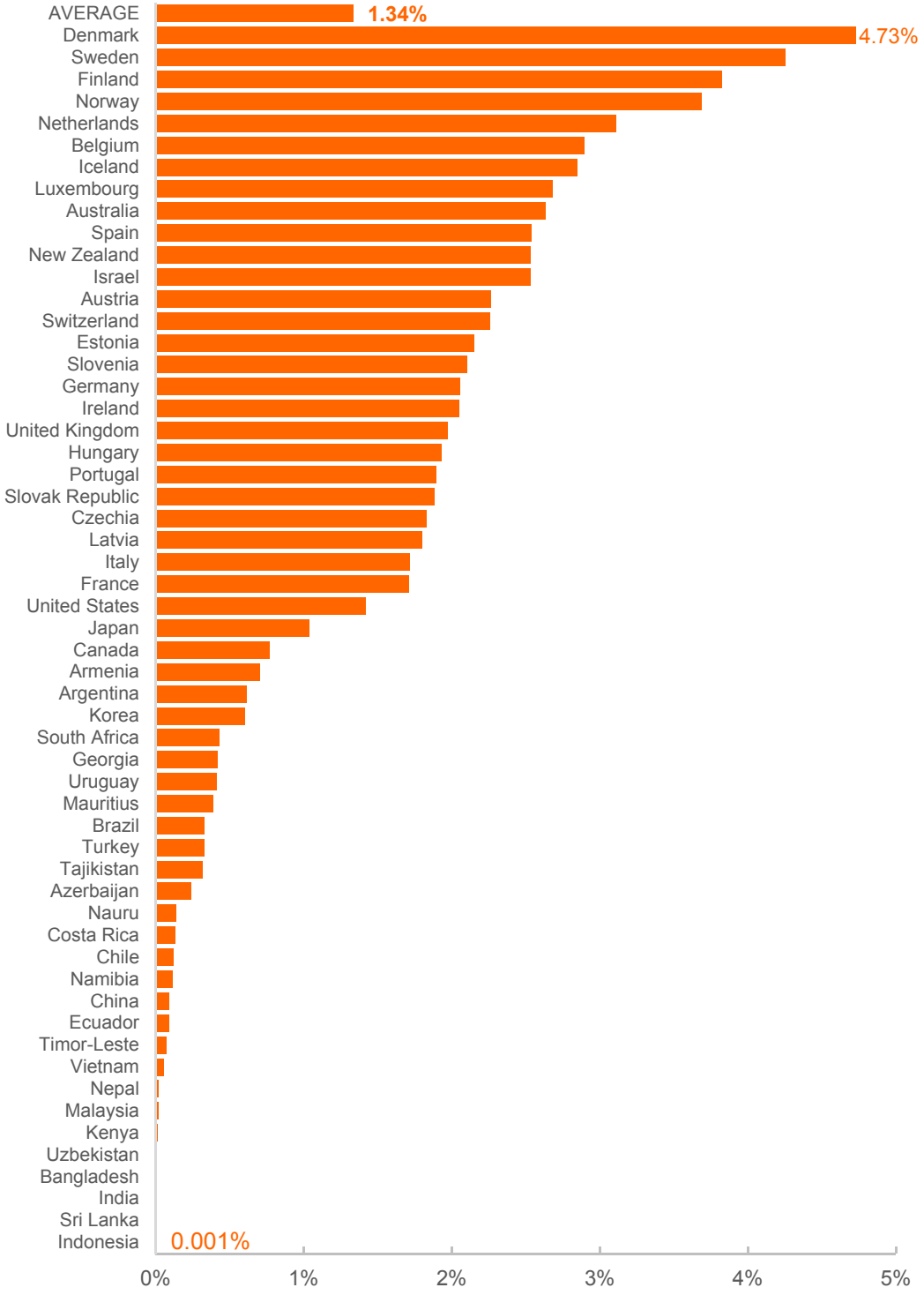
Government spending on disability reflects a political commitment to promote an inclusive society in which persons with disabilities can fully participate. Government expenditures on disability can cover various public expenditures from making public buildings and services accessible for persons with disabilities to training public officers on disability to providing disability benefits. Data on these expenditures are not being tracked on a systematic level. However, data on public expenditures on disability benefits give a snapshot, albeit partial, of the investments in disability services. Available data from 56 countries around 2014 indicate that public spending on social programmes for persons with disabilities is on average 1.34 per cent of GDP, varying from 0.001 per cent of GDP in Indonesia to 4.73 per cent in Denmark (Figure II.134).

Figure II.133. Percentage of countries with online government services for persons with disabilities, in the world and by region, among 193 United Nations Member States, in 2014, 2016 and 2018.



Source: 2014, 2016 and 2018 United Nations E-Government Surveys (UNDESA).

Figure II.134. Public spending on social programmes for persons with disabilities as a percentage of GDP, in 56 countries, around 2014.



Source: OECD[776] and Development Pathways.[777]

Inclusive decision-making

Persons with disabilities tend to be underrepresented in decision-making bodies. Globally, the representation level of persons with disabilities in national legislative bodies remains low. In 2016–2017, in 21 countries in the Asia and Pacific region, for instance, in national parliaments, half had no parliamentarians with disabilities and in the other half parliamentarians with disabilities were, on average, only 2 per cent of all parliamentarians.[8] Still in Asia and the Pacific, among 18 countries and territories, between 0 and 86 per cent of representatives in national coordination mechanisms on disability matters were persons with disabilities. Persons with disabilities constituted more than 50 per cent of these bodies in only two of these countries.

Wide participation in politics, including voting and being elected for office, is also key for inclusive decision-making. Yet, many persons with disabilities face obstacles when engaging politically. Restrictive electoral or voting laws are a concern across the world, particularly in terms of their frequent application to persons with intellectual or psychosocial disabilities, who are often deprived of the right to vote and to be elected for office. In addition, persons with disabilities are frequently denied their rights to political participation because of institutional environments which directly exclude persons with disabilities due to lack of accessibility, institutional prejudice or discrimination. Even when political rights are legally guaranteed for persons with disabilities, States limit the participation of individuals in these processes on the basis of disability, directly or indirectly. Discrimination and lack of accessibility to information and public offices, for example, can undermine the ability of persons with disabilities to exercise their political rights.

Figure II.135. Number of United Nations Member States with exclusions for persons with disabilities in their legislation on voting and on election for office, in 2018.

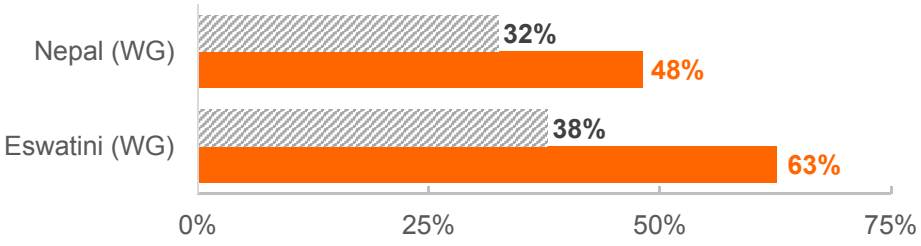
Source: UNDESA and International Foundation for Electoral Systems.[778]

In many countries, persons with disabilities have limited rights to vote and to be elected for office. Out of

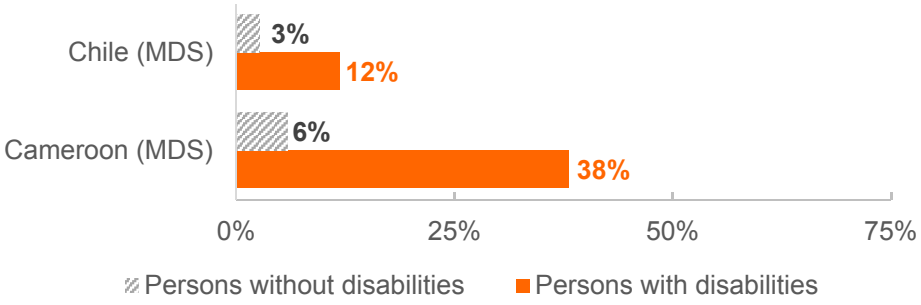
190 countries, 128 countries have exceptions in their constitutions, legislation or laws, that could restrict the right to vote of persons with disabilities, out of which 94 countries have exclusions targeting persons with psychosocial or intellectual disabilities. Only 62 countries give all citizens including persons with disabilities the right to vote with no exception. On the right of persons with disabilities to be elected for office, 161 out of 176 countries have exceptions, out of which 104 countries include exclusions targeting persons with psychosocial or intellectual disabilities. Only 15 countries give all citizens including persons with disabilities the right to be elected for office without exception (Figure II.135).

Figure II.136. Percentage of persons who, in the last election, did not vote or found voting problematic, in 4 countries, around 2014.

(a) Did not vote in the last election



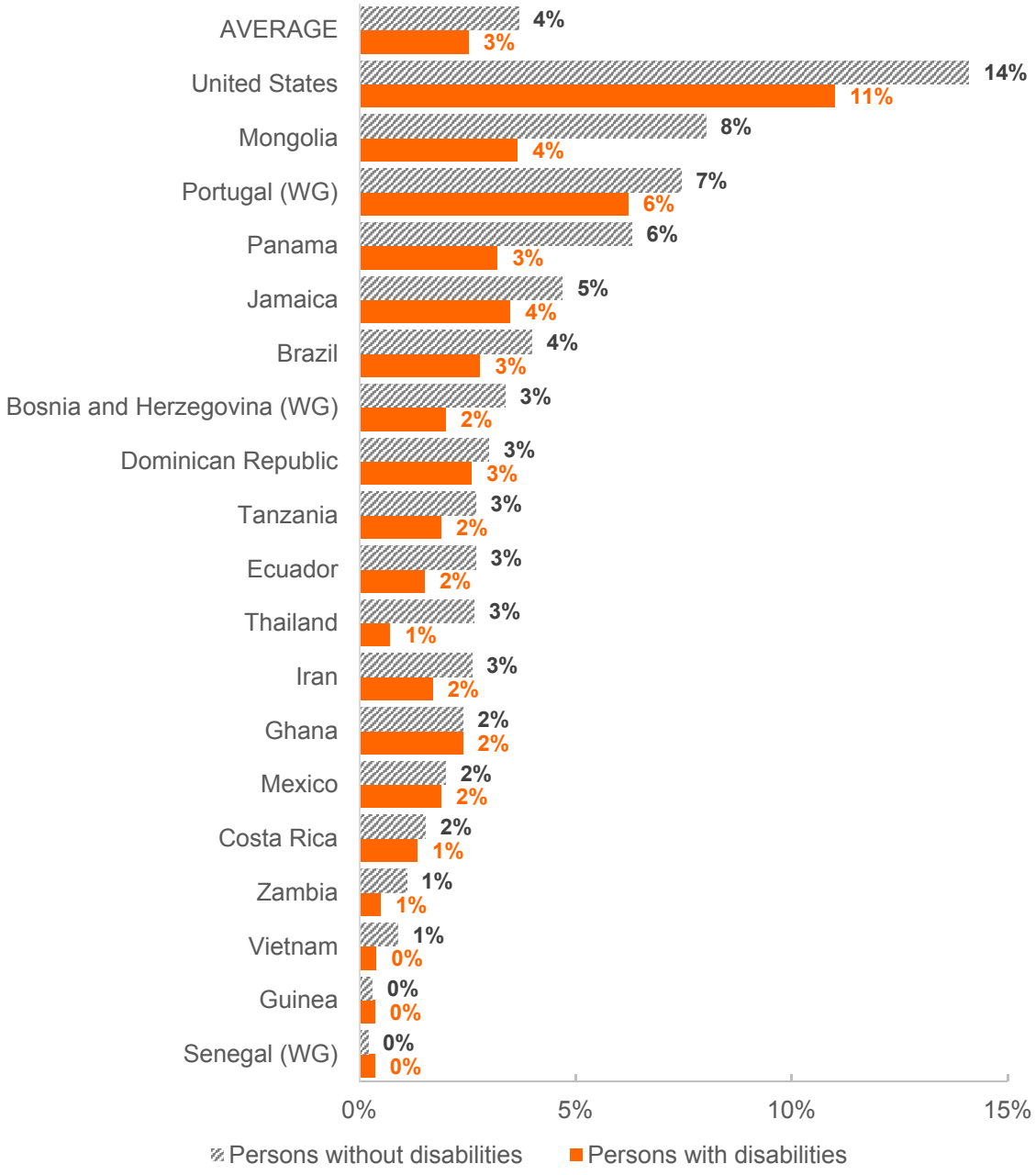
(b) Found voting in the last election problematic



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions; (MDS) identifies countries with data collected with the Model Disability Survey. Data from Cameroon were collected in selected regions and are not nationally representative.

Source: UNDESA[78] (on the basis of data from SINTEF[11]) and WHO.[100]

Figure II.137. Percentage of employed persons aged 15 and over who work as legislators, senior officials and managers, by disability status, in 19 countries, around 2010.



Source: UNDESA[78] (on the basis of data from IPUMS[10]) and United Nations Statistics Division.

Voting is one of the most direct forms of political participation for citizens to exercise their political rights. However, persons with disabilities have a lower participation rate in voting even in countries with a comprehensive disability act. The inaccessibility of polling stations has been an obstacle for persons with disabilities to exercise their right to vote. In 7 out of 13 capital cities in Asia and the Pacific, less than 50 per cent of polling stations were accessible[8] and in 2008 in the United States, only one in four polling stations was completely accessible.[779] Existing data from developing countries indicate that persons with disabilities are almost twice as likely to not have voted in the last election and more than 4 times as likely to have found voting in the last election problematic (Figure II.136). Typical obstacles reported by persons with disabilities in casting their ballots include difficulties in reading the ballot, waiting in line, finding and getting into the polling place, writing on the ballot and communicating with election officials.[780]

Many persons with disabilities face numerous obstacles in obtaining high-level decision-making roles, particularly due to negative attitudes. Among 19 countries, around 2010, persons with disabilities were less likely than persons without disabilities to hold a position as a legislator, a senior official or a manager in 16 of these countries (Figure II.137).

Current practices

Public sector employment of persons with disabilities can promote inclusive and effective institutions by creating public institutions which reflect the perspectives of persons with disabilities. There are more than 90 countries with quota requirements for employment of persons with disabilities in the public sector, mostly ranging from 1 per cent to 15 per cent.[781] In some countries, there are local accessibility policies for certain public buildings and services. For instance, among 28 countries, 43 per cent of public libraries have a local policy on accessibility.

Some countries have constitutions, legislation or laws in place to ensure that persons with disabilities with mobility difficulties and/or with visual impairment can vote as equally as others. Provisions include, for example, the ability to vote from home or by mail or changes to polling stations with advance notice, and/or permitting someone to accompany the person to a polling station or to vote orally.[782]

Other measures taken to promote voting among persons with disabilities include carrying out accessibility assessments to identify and correct inaccessible polling stations; mobile voting in which voting equipment is brought to where persons with disabilities reside; training of election officials and poll workers on disability and accessibility; distributing voting information, campaign information and election results in accessible formats; allowing voting by mail; and eliminating discriminatory voting eligibility laws. [779,8]

Positive measures have been taken in some countries to promote disability-inclusive decision-making, particularly, to ensure that the concerns and needs of persons with disabilities are effectively represented in their legislatures and government organs. In Uganda, for example, the Constitution requires that five

national members of Parliament have personal experience with disabilities. The Local Government Act of 1997 provides for the election of one woman with disabilities and one man with disabilities in every city division council, sub-country and district council; two councillors with disabilities in each municipality and town; and the inclusion of the chairperson of the organization for persons with disabilities at the parish/village level in the executive committee of each village and parish.[783] Additionally, seats are reserved in the parliament for members who represent persons with disabilities in the country.[784] In other countries, the executive may reserve a certain number of parliamentary seats and this policy has resulted in the presidential appointment of representatives with disabilities to parliament in Namibia.[785] In South Africa, persons with disabilities are represented by a commissioner in the national human rights commission.[785]

Conclusions and the way forward

Participation of persons with disabilities in decision-making processes is limited due to various barriers they face in society, including discrimination and stigma. Many institutions are still not inclusive of persons with disabilities and in many places persons with disabilities are not allowed to participate in politics on an equal basis with others. For instance, persons with disabilities, particularly those with intellectual or psychosocial disabilities, are often deprived of the legal capacity to vote or be elected to office due to unnecessarily restrictive laws.

Countries have been revising laws and policies to address these issues. One of the most widespread measures is the establishment of quota systems for the employment of persons with disabilities in the public sector. Also, more and more countries have been providing online government services for persons with disabilities, although those are not always fully accessible for all persons with disabilities. National laws have also been formulated to ensure that more persons with disabilities can participate in voting by providing alternative voting methods, like electronic voting.

As essential steps towards effective, accountable and inclusive institutions at all levels for persons with disabilities and for inclusive decision-making, the actions below are recommended:

1) **Review existing national legal and policy frameworks on the political participation of persons with disabilities**, with a view to eliminate discriminatory laws on the rights of persons with disabilities, particularly those with intellectual and psychosocial disabilities, to vote or to participate in all aspects of political and public life. The CRPD recommended “the urgent adoption of legislative measures to ensure that persons with disabilities, including persons who are currently under guardianship or trusteeship, can exercise their right to vote and participate in public life, on an equal basis with others”. Engage persons with disabilities in the process of formulating these policies.

2) **Strengthen capacities of persons with disabilities to apply for public office,** including through training on legal rights and national constitutions, and mandating a certain number of representatives for persons with disabilities in legislatures and government organs.

3) **Ensure that public information on elections and public services is accessible to persons with disabilities and reach out to households with persons with disabilities**. All public information should be provided in accessible formats, for example, braille, easy-to-read and sign languages, among others.

4) **Make polling stations and public facilities physically accessible for persons with disabilities** and ensure that alternative methods of voting are available to accommodate the various needs of voters with disabilities.

Providing legal identity to all children with disabilities, including birth registration (target 16.9)

Birth registration, the official recording of a child's birth by the government, establishes the existence of the child under the law and provides the foundation for safeguarding many of the child's civil, political, economic, social and cultural rights. Due to stigma, families with children with disabilities sometimes fail to register them. This could have serious adverse implications for them in later years while accessing rights and entitlements.

International normative frameworks on disability and birth registration

Under SDG 16, target 16.9 aims at providing legal identity to all by 2030, including birth registration. Article 7 of the Convention on the Rights of the Child specifies that every child has the right to be registered at birth without any discrimination. CRPD article 18 (paragraph 2) states that children with disabilities shall be registered immediately after birth and have the right to a name and a nationality.

The situation of the birth registration of children with disabilities

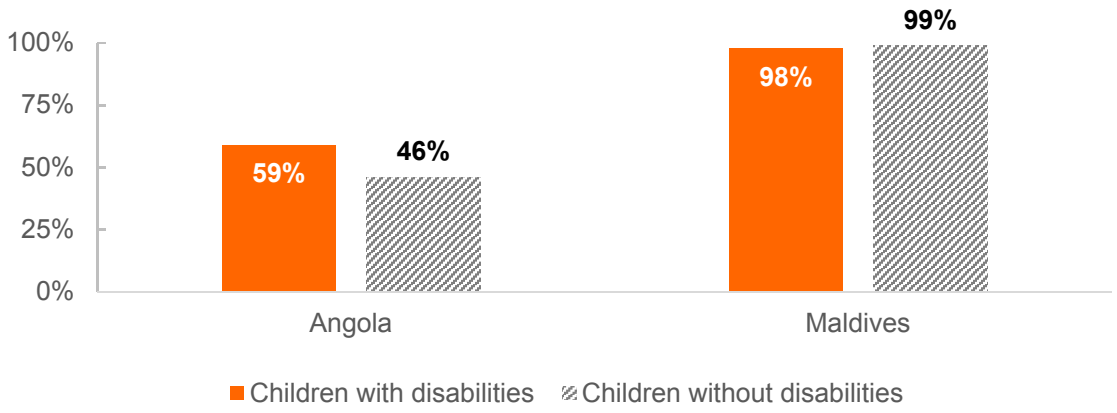
Due to stigma and negative stereotypes, families sometimes opt to hide family members with disabilities and do not register them at birth. Since these children tend to remain hidden, it is difficult to estimate the extent of the problem. There have been reports in some communities of 80 per cent to 90 per cent of children with disabilities not having birth certificates.[786] However, other available data from two countries lead to different conclusions at the national level. In the Maldives, in 2009, the birth registration coverage of children aged 2 to 4 with and without disabilities were similar,[787] and in Angola in 2016, more children and youths with disabilities under the age of 18 had been registered at birth than children and youths of the same age without disabilities (Figure II.138). A child may need to be registered to access services, which may be particularly important for the survival and overall development of children with disabilities, and this may act as an incentive for families to register children with disabilities. These findings should be interpreted with caution because if families are hiding and not registering children with disabilities, they are likely not reporting information about them when interviewed in surveys.

Current practices

Current practices in countries target birth registration of children with disabilities indirectly. Efforts have commenced in countries to increase birth registrations, but these efforts usually target the population as a whole. A number of countries have taken measures to combat stigma and discrimination (see section on SDG 10), including by raising awareness on disability and by promoting the inclusion of persons with disabilities, addressing one of the key barriers to the registration of children with disabilities. Some countries

have also facilitated the process of registering a child at birth, namely by allowing registration by SMS.[788] This could be advantageous for families to avoid stigma when interacting with registration officials.

Figure II.138. Percentage of children and youths who have been registered at birth and who have a birth certificate, by disability status, in two countries, around 2012.



Note: Data from Angola cover children and youths under 18 years of age; data from the Maldives cover children 2 to 4 years of age.

Source: UNDESA[78] (on the basis of data from DHS[6]).

Conclusions and the way forward

Birth registration is needed to make children with disabilities visible and to empower them. In many countries, a birth certificate is needed to access education, justice and health services, among others. Having a birth certificate also protects children with disabilities against early marriage (see section on SDG 5) and child labour. There is some evidence of children with disabilities not being registered at birth due to stigma in some communities, but there is also evidence that some countries have achieved similar or higher levels of birth registration among children with disabilities than among children without disabilities.

Apart from combating stigma and negative attitudes towards persons with disabilities, the following targeted initiatives can be taken to promote the registration of children with disabilities:

1) **Promote studies that identify communities that experience barriers to register children with disabilities** and target efforts towards these communities.
2) **Support families with children with disabilities** through community-based services and raise awareness among them of the importance of registering their birth.
3) **Provide disability training for officers responsible for the civil registration process,** both in civil registration offices and in health facilities, to combat negative attitudes towards disability.

4) **Promote birth registration processes which may be easier** for families of children with disabilities, like remote birth registration.

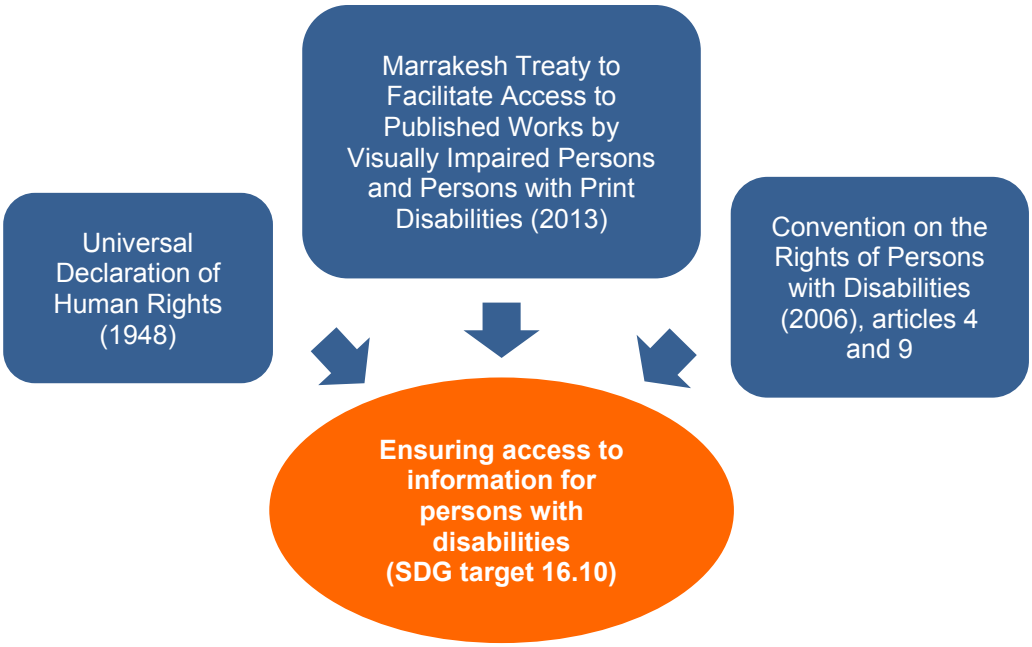
Ensuring access to information for persons with disabilities (target 16.10)

Access to information is the freedom or ability to identify, obtain and make use of data or information effectively. Information in our society is transmitted in various ways, through official and informal channels, in digital or hard formats. Access to public information is often regulated by national laws. For many persons with disabilities, accessing information is a path full of obstacles. Information is often not delivered in accessible formats or is stored in facilities which are not accessible for persons with disabilities.

International normative frameworks on access to information for persons with disabilities

The Universal Declaration of Human Rights establishes the right to seek and receive information.[789] In line with this fundamental right, article 4 of the CRPD, on general obligations, requires States Parties to provide accessible information to persons with disabilities on support services and facilities, and on other forms of assistance. Article 9 requires States Parties to take appropriate measures to ensure access to information and communications, including information and communications technologies and systems. Another important legal landmark is the Marrakesh Treaty to Facilitate Access to Published Works by Visually Impaired Persons and Persons with Print Disabilities (2013), which addresses the barriers that persons with visual impairments face in accessing published works by introducing limitations and exceptions to copyright rules in order to permit reproduction, distribution and the availability of published works in formats designed to be accessible to persons with visual impairments or print disabilities, and by permitting the exchange of these works across borders by organizations that serve these persons.[790]

Figure II.139. International normative frameworks relevant for the achievement of SDG target 16.10 for persons with disabilities.



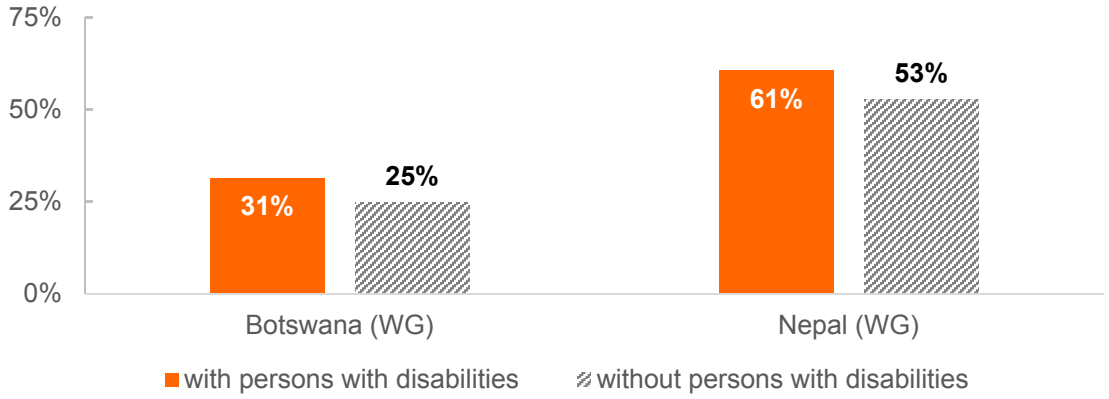
The situation of persons with disabilities regarding access to information

Access to information is compromised if the media or the facilities to access information are not accessible. In 11 countries in Asia and the Pacific, the percentage of accessible TV news programmes varies from 1 per cent to 100 per cent.[630] A survey of libraries in 28 countries, indicated that although 88 per cent are physically accessible, only 49 per cent have a local policy on accessibility and 63 per cent offer accessible resources.

Since households with persons with disabilities tend to have fewer financial resources, information may not be affordable to them, resulting in lower access. For instance, in two countries around 2015, the percentage of households without access to newspapers was higher for households with persons with disabilities (Figure II. 140). The difference between the two types of households was 6 percentage points in Botswana and 8 percentage points in Nepal.

Lack of access to ICTs can also be a barrier to access information for persons with disabilities, as much information in our societies is conveyed digitally. Many ICTs are not affordable or not accessible for persons with disabilities (see section on target 9.c).

Figure II. 140. Percentage of households without access to newspapers, by households with and without disabilities, in 2 countries, around 2015.



Note: (WG) identifies countries with data collected with the Washington Group Short Set of Questions.

Source: UNDESA[78] (on the basis of data from SINTEF[11]).

Current practices

Many countries adopt and implement constitutional, statutory and/or policy guarantees for public access to information.[791] Access to public information is often covered in 'Freedom of Information Acts' (FOIA) that secure access by the general public to data and information held by the government.[792] In principle, FOIA grant this access, without discrimination on grounds of the applicant. However, only a few countries emphasized the obligation of government officials to facilitate access to information for persons who are unable to make written requests due to disability.[793,794] Governments are moving towards digital formats, or e-Government,[795] in making public information, services, records, and forums increasingly available online or electronically.[796] The E-Government Act 2004 in Austria stipulates that measures should be taken to ensure that public websites comply with international standards for accessibility including access for persons with disabilities.[797] In Bulgaria, to monitor policies on disability, a single, centralized national database of the socioeconomic status of persons with disabilities and institutions engaged in their service was developed, along with an information system for the assessment, planning, and implementation of national policies related to persons with disabilities.[798]

Other initiatives to promote access to information include improving ICT skills for persons with disabilities (see section on target 9.c). Also, some countries have moved forward with guidelines and initiatives to make public media accessible (see also section on target 9.c).

Conclusions and the way forward

Persons with disabilities face a number of barriers in pursuing equal access to information. National laws on access to information do not always include the perspectives of persons with disabilities and lack accessibility provisions. Many countries adopt and implement Freedom of Information Acts, which secure access by the public to data and information held by the government. However, few countries have considered the needs of persons with disabilities in these acts, namely on the accessibility of information. Many providers of information are unaware of the needs of persons with disabilities and disseminate information in a non-accessible manner.

To enhance access to information for persons with disabilities, these issues need to be addressed, namely by the following:

1) **Adopt guidelines on accessibility for providers of information, including for public offices and media,** to ensure all information and informative services provided by the government and by the media are accessible for persons with disabilities.

2) **Raise awareness of accessibility for persons with disabilities among public and media employees.** Train public employees on disability and accessibility to improve the accessibility of disseminated information. Training modules should discuss accessibility standards and available tools and methods that could be utilized for enhancing the accessibility of the information that is disseminated.

3) **Monitor and evaluate accessibility of information to persons with disabilities**. Conduct periodic surveys and collect feedback from persons with disabilities to understand the obstacles they face in accessing information. This can be done through survey inquiries about accessibility and affordability of information and informative services (like newspapers and TV programmes).

N. Increasing the availability of data disaggregated by disability (target 17.18)

SDG target 17.18 calls for, by 2020, enhanced capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated, inter alia, by disability.

This section provides an overview of international normative frameworks on data and statistics related to disability and presents tools that have been developed for the measurement of disability in data collection. This is followed by an overview of recent country level data collection on disability, as well as ongoing activities by various stakeholders at the international level to strengthen national capacities for official statistics on disability. The section concludes with the identification of strategies to enhance national capacities to meet data demands for disability-inclusive development in the context of the SDGs.

International normative frameworks

The CRPD calls on States Parties to collect appropriate information, including statistical and research data, to enable them to formulate and implement policies related to the CRPD and to identify and address the barriers faced by persons with disabilities in exercising their rights. States Parties are encouraged to disseminate the statistics and ensure their accessibility to persons with disabilities and others.[799] Similarly, for follow-up and review of the 2030 Agenda for Sustainable Development, it is recognized that quality, accessible, timely and reliable disaggregated data will be needed to help with the measurement of progress and to ensure that no one is left behind as such data are key to decision-making.[800] Through the 2030 Agenda, Member States have committed to enhancing capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by disability, among others. The SAMOA Pathway also addresses the importance of improving the collection, analysis, dissemination and use of data disaggregated by disability in a systemic and coordinated manner at the national level.[801]

The conceptualization, definition and measurement of disability has achieved a milestone with the endorsement of the International Classification of Functioning, Disability and Health (ICF)[802] by all WHO Member States in the Fifty-fourth World Health Assembly in 2001.[803] The ICF represents a breakthrough for collecting data on disability, moving beyond simply understanding disability as a direct consequence of a health condition or impairment, to recognizing that disability results from the interaction between a health condition and the physical, human-built, attitudinal and socio-political environment.

In terms of methodological guidelines to collect disability data, in 2015, the United Nations Statistical Commission adopted revised guidelines for the collection of disability data in national censuses.[804,805] These guidelines present the recommendations of the Washington Group (see section below).

Current tools for the measurement of disability in data collection and status of their use in countries

This section presents currently available tools for the measurement of disability in data collection exercises, developed by WHO, by the Washington Group on Disability Statistics (WG) as well as by United Nations agencies in collaboration with the WG.

Tools developed by the World Health Organization for measuring disability

WHO currently supports member states to collect data on disability and functioning at the population level using the Model Disability Survey (MDS),[806] a general population survey developed by WHO and the World Bank in 2012, in collaboration with a range of stakeholders from other international organizations, leading researchers, persons with disabilities and their collective organizations. The MDS is the WHO strategy to support its Member States in establishing and strengthening their monitoring and evaluation systems for disability – including information on needs and unmet needs, costs, barriers and quality of life. The MDS operationalizes the ICF biopsychosocial model of disability, thereby acknowledging disability must be understood as what happens when a health condition plays out in an individual's environment and therefore cannot simply be inferred from the presence of the health condition or impairment. This gives a more complete understanding of the lived experience of disability and goes far beyond the understanding of disability as an individual attribute.

Data generated by the MDS can be used by countries to quantify both the impact of health conditions or impairments and the impact of diverse aspects of the environment on disability. This allows countries to determine which interventions at the individual and population levels, directed at the person or the environment, will likely produce the most benefit and to evaluate their impact over time. Additionally, a Brief MDS module was developed in 2016, following extensive analysis of data from pilot and national MDS datasets, consultations with international experts and engagement of persons with disabilities, to meet calls from Member States for an MDS version appropriate for integration in existing and regularly implemented household surveys, such as labour force or living standards and expenditure surveys.

Tools developed by the Washington Group on Disability Statistics for measuring disability

An outcome of the 2001 United Nations International Seminar on the Measurement of Disability[807] was the formation of the WG, a group of representatives from national statistical agencies operating under the aegis of the United Nations Statistical Commission,[808] established to address the urgent need for improved and internationally comparable disability statistics. A major objective of the WG is to provide basic necessary information on disability that is comparable throughout the world. Countries participating in the WG identified the need for a short set of questions for use in censuses and surveys as a priority. These questions are intended to provide comparable data cross-nationally for populations living in a variety of cultures with varying economic resources.

To date, the WG has developed a Short Set of Questions (WG-SS) and an Extended Set (WG-ES) that can be added to censuses or surveys and, in collaboration with UNICEF, has developed a child functioning module (CFM).[809] Also in collaboration with UNICEF, a module on inclusive education is currently being tested to identify barriers to school participation for children with disabilities as is a module on inclusive employment, developed in collaboration with the ILO. An elaboration of WG tools is provided below.

(i) Washington Group Short Set (WG-SS)

The WG-SS is a set of six questions that is intended to identify (in a census or survey format) persons with disabilities, namely those at greater risk than the general population for participation restrictions due to the presence of difficulties in six core functional domains, if appropriate accommodations are not made.[810] The questions ask whether people have difficulty performing basic activities, also known as 'domains' (walking, seeing, hearing, cognition, self-care and communication), and were originally designed for use on national censuses. Responses to each question are captured using four graded answer categories – no difficulty, some difficulty, a lot of difficulty or cannot do. The six questions and four answer categories allow for the calculation of estimates for the level of functioning within each domain or among different combinations of domains.

(ii) Washington Group Extended Set (WG-ES)

Because the WG-SS was initially designed for inclusion in censuses, it was necessarily parsimonious and therefore identifies most, but not all, persons with disabilities (in particular it was not designed to directly identify persons with psychosocial disabilities). The WG-ES includes domains that could not be included in the WG-SS, obtains more information on some domains than are provided by the WG-SS and obtains information on the use of mobility assistive products in order to assess functioning. In addition to the six domains of the WG-SS, the WG-ES also includes the following functional domains: affect (anxiety and depression), pain, fatigue and upper body functioning. As with the WG-SS, the WG-ES questions have scaled response categories so that the level of functioning in each domain can be described. The domains can also be combined to create disability status indicators capturing different levels of difficulty in functioning.

(iii) Washington Group/UNICEF Child Functioning Module (CFM)

While the WG-SS questions can identify many children with functional difficulties, the Washington Group determined that a special set devoted to measuring child functioning was needed to improve and expand upon that identification, and to address the aspects of child development not addressed in previous methods. To attend to the unique situation of children, the Washington Group therefore embarked upon the development of a separate module that would specifically address child functioning.

The CFM questions[811] follow the same principles as the WG-SS and WG-ES modules: to determine 'disability' through a series of questions on difficulty functioning that would place a child at risk of participation restrictions in a non-accommodating environment. The module is composed of two sub-

modules: one for children 2–4 years of age; and another for children 5–17 years of age. Domains of functioning include: seeing, hearing, walking, communicating, learning and remembering, self-care (feeding and dressing), upper body functioning, behaviour, emotions (anxiety and depression), coping with change, focusing attention, playing and relationships.[812]

Where appropriate CFM domains mirror those included in the WG-SS and WG-ES, but questions are formulated differently to be suitable for use on children. The child's mother or, if the mother is not alive or she is not living with the child, the primary caregiver is the recommended respondent for this module.

The CFM was launched in October 2016 and is currently available in English, French, Spanish, Arabic, Russian, Chinese, Portuguese and Vietnamese. The module on child functioning as well as the WG-SS (for the population aged 18 and above) have been incorporated into UNICEF-supported Multiple Indicator Cluster Surveys (MICS).

(iv) UNICEF/Washington Group Module on Inclusive Education

To support the promotion of the right to education for children with disabilities through cross-nationally comparable data, UNICEF and the WG are working on the development of a survey Module on Inclusive Education to assess the school environment and participation. The purpose of this set of questions is to provide information that can inform policy, provide a statistical summary of environmental influences on participation in school, and identify key areas with bottlenecks that can be followed-up on. The questions focus on education through a formal mechanism (as opposed to home school or tutoring), and are designed to capture the interaction between the participant and the environment by obtaining parental responses to questions across three participatory domains.

The first set of questions, is intended for the general adult population, with the purpose of capturing attitudes towards education for all children, and specifically for children with disabilities. The second section is meant to be administered to caregivers of children who are attending school. It includes questions that evaluate the accessibility of the physical space, the curriculum, and other aspects of the school environment such as teachers' attendance, availability of toilet facilities, and access to social activities. The final component focuses on out-of-school children and attempts to gain a deeper understanding of the barriers to school participation, including safety, transportation, accessibility of the curriculum, and affordability.

The module is currently undergoing several rounds of testing and revision before being finalized.

(v) Washington Group/ILO module on disability and employment

Although there is strong policy interest in establishing and monitoring the effectiveness and impact of national legislation, programmes or policies to promote equal employment opportunity and treatment in employment for persons with disabilities, comprehensive data on the employment situation of this population group is rarely available at the required level of detail and periodicity.

There is a need for more comprehensive information regarding the labour-force characteristics of persons with disabilities. Significant activities are needed to increase national capacity to venture into new data collection initiatives as well as to increase the frequency of data collection. Therefore, the WG and the ILO collaborated to produce a new module on disability and employment for inclusion in labour-force surveys. This module was designed to be as compact as possible while still being able to produce a useful set of indicators on disability and employment.

That module is currently undergoing cognitive testing and covers the following:

(i) Disability identification – The WG-SS questions plus two additional questions on upper body mobility that focus on lifting and using one's hands and fingers.

(ii) Date of onset – The impact of disability on acquiring job skills and experience can depend significantly on when a person acquired a disability. It can also influence a person's ability to adapt to their situation.

(iii) Barriers – The module asks the respondent to identify all barriers – those related and un-related to disability – that are limiting their work behaviour, as well as identifying the most important barrier.

(iv) Accommodations – Instead of asking if their workplace or schedules have been set up in a way to account for their difficulties, respondents are asked to identify if those accommodations are adequate (if needed).

(v) Attitudes – Questions on attitudes are included because the support of family members can be critical in gaining employment for persons with disabilities. Similarly, the attitudes of employers and co-workers are also important.

(vi) Social Protection – Questions are included to determine if a person with disabilities is receiving cash or in-kind benefits related to their disability and how that corresponds with the onset of their disability.

National experiences in data collection on disability

This section presents some information on the experiences of several countries regarding the collection of data on disability.

In the 2010 census round,[813] among the 214 countries or areas that conducted a census, at least 120 included a set of questions on disability. The number of countries or areas that are collecting data on disability has progressively and significantly increased over time from a low of approximately 19 during the 1970 census round.[814]

A review of census questions shows differences among countries in the questions that are being asked to identify the population with disabilities during national censuses.[815] Of the 120 countries that asked a question on disability in their censuses, 55 used questions that resemble those that are recommended by the WG, while 65 used other types of questions. Within each of these two broad categories, there are still marked substantial differences among the countries in the questions that have been used. These differences relate to the wording of the question(s), the terminology used, implied definition of the population to be identified, the number of items in the question(s), response categories, and the use of and wording of screener questions, the type of respondent, as well as the population covered in the collection of the data on disability (e.g. inclusion or exclusion of children). These all have implications for the quality and comparability of data among countries.

The WG-SS has also been used in surveys in many countries and included in the Demographic and Health Surveys (see Box 10). The MDS has been implemented in national surveys in three countries in 2015 and 2016. Regional MDS surveys have been carried out in two countries in 2016 and 2017.

The experiences of countries show wide variations among regions in sources for the data on disability.[816] For countries in Africa, South East Asia and the Caribbean, and the Arabic speaking countries, there is strong reliance on censuses to collect data on disability with only a few countries getting these data through sample surveys and administrative data sources. On the other hand, most of the countries in Latin America, as well as those in North and Central Asia and the Western Balkan States, are using multiple sources (censuses, administrative records, surveys) to compile data on disability. There is also extensive use of administrative registers to generate disability statistics. In all the regions, however, there is recognition that this source of data on disability should be strengthened and better used.

Ongoing capacity-building activities

One of the main calls in SDG target 17.18 is to support capacity-building in developing countries in the collection of disability statistics. A number of stakeholders at the international level have been engaged in such work. Since mid-2016, the United Nations Statistics Division (UNSD), in collaboration with the Regional Commissions of the United Nations and other sub-regional organizations, has organized regional and sub-regional meetings[817] on disability statistics and measurement in the context of the 2020 World Population and Housing Census Programme and the 2030 Agenda for Sustainable Development. The objectives of the regional meetings have been to review national experiences in disability measurement, including identifying challenges faced and lessons learned during 2010 censuses; to discuss disability-related SDG indicators for monitoring progress towards inclusion of persons with disabilities in development programmes; to share national experiences among participating countries; and to facilitate intra-regional cooperation aimed at enhancing national capacity in disability measurement and improving the quality of data for monitoring the SDGs.

Box 10. Operationalization of the WG-SS through the Demographic and Health Surveys Programme

demography, but over time, questions on health-related topics have been added. Questions on disability were first used in the 1993 Ghana DHS; since then at least 24 other surveys have used adaptations of WG or MICS questions on disability, or country-specific questions with limited comparability. In 2015, the DHS Programme piloted and finalized an optional module of questions on disability,[818] based on the WG-SS. The DHS Programme disability module is not included in surveys as a default, but can be added based on country interest. The module covers six core functional domains: seeing, hearing, communicating, remembering and concentrating, walking, and washing all over and dressing. It is included in the Household Questionnaire. The household respondent provides information on all household members and visitors who stayed in the household the night before the survey (de facto members), age 5 and above. There is a screening question for use of glasses or contact lenses, and an optional screening question on use of a hearing aid. Each person's level of difficulty in each domain is recorded as: no difficulty, some difficulty, a lot of difficulty, or cannot do at all.[819] The final reports of surveys using the disability module provide tables on difficulty in the six domains among de facto household members age 5 and above. Following the WG analysis recommendation, the prevalence of disability is presented as the percentage with a lot of difficulty or cannot do at all in at least one domain.

WHO provides Member States with guidance and technical support throughout the implementation process of the MDS, with a strong focus on capacity-building strategies for national or regional statistical offices that oversee disability data collection and analyses.

The WG has initiated regional and other workshops focused on the implementation of WG data collection tools and continues to provide assistance and advice through webinars, telephone and email, as required and requested.

In order to further promote an understanding of the key issues and priorities around the measurement of child disability, UNICEF, in collaboration with the WG, developed a set of training materials to support the delivery of technical workshops on the collection, analysis, interpretation and use of data on child disability. The workshops were tailored to a target audience comprising representatives from national statistical offices, organizations of persons with disabilities, government officials involved in disability measurement, UNICEF staff and academia.

UNSD, in collaboration with relevant stakeholders, is updating the United Nations *Guidelines and Principles for the Development of Disability Statistics*.[820] The revised guidelines are intended to assist countries to better meet demands for good quality data for measuring and monitoring progress towards inclusion of

persons with disabilities in development programmes while taking into account the context of the CRPD and the 2030 Agenda for Sustainable Development.

Conclusions and the way forward

The growing attention over recent decades of the international community and Governments to addressing the rights of persons with disabilities and to mainstreaming disability into national development agendas has included an increase in national efforts to collect data on disability. Such efforts to collect disability data are expected to further rise as countries endeavour to generate fundamental information to support the evidence-based formulation of disability-inclusive development policies and programmes, particularly in the context of the CRPD and the 2030 Agenda and to ensure that "no one is left behind". At the same time, a number of organizations have been working to develop questions for use in censuses and sample surveys that are intended to provide standardized instruments to identify persons with disabilities for use by countries to measure disability. Also, the instruments that have been developed by the different organizations are not necessarily comparable in terms of content and approach.

To better serve the interests of the countries, it is important to note that the 2030 Agenda recognizes "that there are different approaches, visions, models and tools available to each country, in accordance with its national circumstances and priorities, to achieve sustainable development". In this connection, it is important that the various stakeholders collaborate on how best to serve the interests of the countries as they endeavour to respond to the data demands for disability policy formulation and monitoring.

In many countries, there is a need to establish a formal national coordination mechanism on data collection for all stakeholders with regard to the monitoring and reporting of disability data and of the SDGs. There is also a need for capacity development to increase the number of experts on disability statistics in countries, who will have the knowledge and skill to collect, analyse, disseminate and utilize data on disability.[816] It is important that the cooperation for capacity-building envisaged by SDG target 17.18 addresses these institutional challenges.

To increase the availability of data disaggregated by disability, there is a need to:

1) **Continue building capacity in countries to collect, process, analyse and disseminate data disaggregated by disability.** This will require all relevant stakeholders at the international level working closely with their counterparts from the United Nations Regional Commissions and other regional entities to better serve the priorities of the different regions and countries therein.

2) **Regularly update international guidelines on the production of data disaggregated by disability**. The methodology for collecting disability data has been evolving. Regularly updated international guidelines assist all stakeholders involved in the collection and production of data.

3) Invest in an international repository of disability data, compiling disability data at the country level. A United Nations Disability Statistics Data Portal[821] has been recently developed to disseminate country data on disability. This repository needs to be continuously updated and expanded to provide the necessary policy-relevant information to monitor progress towards the SDGs for persons with disabilities.

Disability-inclusive development is an essential condition for a sustainable future. In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, pledging to leave no one behind in the global efforts to realize the 17 Sustainable Development Goals. Without the world's one billion persons with disabilities - 15% of the world population - being included as both agents and beneficiaries of development, these Goals will never be achieved. Yet, persons with disabilities are still invisible and often left behind.

This United Nations flagship report is the first publication to address, at the global level, the nexus between disability and the Sustainable Development Goals. It is also the first global analysis based on an unprecedented amount of data, legislation and policies from over 100 countries to understand the socio-economic circumstances of persons with disabilities and the challenges and barriers they face in their daily lives. This report examines new areas, like the role of access to energy to enable persons with disabilities to use assistive technology, for which no global research was previously available. And explores the linkages between the Sustainable Development Goals and the Convention on the Rights of Persons with Disabilities as well as other international relevant norms and standards relating to disability. Against the backdrop of all the available evidence, the report identifies good practices and recommends urgent actions to be taken for the achievement of the Sustainable Development Goals by, for and with persons with disabilities.